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Sara Cornelia Kollmann, Bakk.rer.soc.oec.

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Table of contents

Table of contents	1
Table of figures and tables	1
List of abbreviations	2
1 Introduction	3
2 Financing possibilities	5
2.1 Static Trade-off Theory	5
2.2 Pecking Order Theory	6
2.3 Financial Constraints for small businesses	6
2.3.1 The role of information (a)symmetry	7
2.3.2 Adverse selection	8
2.3.3 Start-ups and information asymmetries	8
2.3.4 The Costs of Financing	10
2.4 Sources of Financing	11
2.4.1 From the start – self finance	12
2.4.2 Family, Friends and Fools	13
2.4.3 Business Angels	15
2.4.4 Venture Capitalists and Strategic Investors	16
2.4.5 Stock market	16
2.5 Financing (Investment) stages	17
2.5.1 Predominance of Equity in early stages	19
2.5.2 Equity gap in seed and early stage	19
2.5.3 Financial Growth Cycle	19
3 Crowd based ways to finance a business	21
3.1 Crowdfinancing	23
3.2 Crowdfunding	25
3.3 Types of crowdfunding	26
3.3.1 Crowdsponsoring	27
3.3.2 Crowdlending – “Peer-to-Peer-lending”	27
3.3.3 Crowddonating	27
3.3.4 Crowdinvesting	27
3.4 Complexity and Insecurity of investment decisions in crowdfunding	28
3.5 The crowdinvesting platform as intermediary	29
3.6 The evolution (story) of crowdfunding	31
4 Who uses crowdfunding and why?	35

4.1 Motivations to invest in crowdfunding.....	36
4.2 Characteristics of firms using crowdfunding.....	38
4.3 Characteristics of investors using crowdfunding.....	39
4.4 Investment decision for crowdfunding.....	40
4.5 Factors for success.....	42
5 Case Studies	45
5.1 Case Study 1: Woodero	45
5.2 Case Study 2: BrewDog plc.....	49
5.3 Case Study 3: Stromberg Movie.....	55
5.4 Case Study 4: Star Citizen	57
5.5 Case Study 5: Chapel Down Group plc.....	59
5.6 Case Study 6: Companisto and Crowdcube self-crowdfunding.....	62
5.7 Common features of successful crowdfunding campaigns	63
6 Legal Framework and Development worldwide	64
6.1 United States: The JOBS Act	65
6.2 Frontrunner United Kingdom	68
6.3 Recent development in Austria.....	69
7 Conclusion.....	72
Appendix.....	74
Literature.....	80
Abstract.....	86
Zusammenfassung	87

Table of figures and tables

Figure 1 Static Trade-off Theory	5
Figure 2 Sources of Financing	12
Figure 3 Stages of Financing	18
Figure 4 Financial Growth Cycle.....	20
Figure 5 Types of Crowdsourcing	22
Figure 6 Types of Crowdfunding.....	26
Figure 7 Complexity and Insecurity of investment decision	28
Figure 8 Crowdinvesting Portal Structure	30
Figure 9: Alternative Financing Europe 2012-2014	32
Figure 10: Development of Crowdfunding.....	33
Figure 11: Motivation for Participation in Crowdfunding.....	37
Figure 12: Market Value Peers	53
Figure 13: KPIs of BrewDog and Peers.....	53
Table 1 Formal and Informal Private Equity	14
Table 2: Reasons for use of crowdfunding	35
Table 3: Financial Plan of Woodero	47
Table 4: Company overview BrewDog	49
Table 5: Financing BrewDog.....	50
Table 6: Return on Investment for Equity Holders.....	54
Table 7: Crowdfunding campaign Stromberg movie	55
Table 8: Return to investors Stromberg movie	56
Table 9: Company overview Star Citizen.....	57
Table 10: Company overview Chapel Down.....	59
Table 11: Crowdfunding campaign Chapel Down	60
Table 12: Return to investors Chapel Down.....	61
Table 13: Crowdfunding Platforms in Austria	70

List of abbreviations

AltFG	Alternativfinanzierungsgesetz
EGC	Emerging Growth Company
EIS	Enterprise Investment Scheme
JOBS Act	Jumpstart Our Business Start-ups Act
IPO	Initial Public Offering
NPV	Net Present Value
RoSCAs	Rotating Savings and Credit Associations
SEIS	Seed Enterprise Investment Scheme
SMEs	Small and Medium Sized Enterprises
UK	United Kingdom
VC	Venture Capital

1 Introduction

Entrepreneurs and small to medium sized businesses are among the main drivers and of great value for any economy. They can increase national output and provide new jobs. New businesses take up an even more significant position as they are responsible for the majority of innovations (Schramm and Carstens, 2014). It is therefore of great interest for an economy to support start-ups. One crucial area in this regard is the financing of those new ventures.

It is one of the most important decisions for any businessman to choose the appropriate mixture of financing sources at the different time stages he finds himself and his business in. Besides the idea, the business plan, partner and all the organisational and managerial tasks, he needs funding in order to even start the enterprise. In most cases the seed money will stem from the entrepreneur himself or the group of owners who have a stake in the business. Besides equity, the second major source of funds is debt. It is almost inevitable for businesses not to raise money by borrowing at any point of time during operation.

However it is by far not only commercial loans by banks that are employed here, there are many other lenders, from institutional investors to private networks to venture capitalists. The degree to which those are contributing to the business varies with the stage it is in. In general, the share the founder contributes will decrease with the maturity of the business and when the number of investors increases. Besides those more traditional sources, recent years have brought up some alternative financing sources such as crowdfunding. Entrepreneurs are responding to more restrictive bank loan provision by finding new, alternative ways to raise funding.

The new phenomenon of crowd based funding has shown increased importance over the last years for young businesses and start-ups. Growth rates around the world are impressive. Total volume of crowdfunding worldwide shows growth rates of well above 100% from 2012-2015 (Vulkan et al, 2015; Barnett, 2015) and there are no indications for this progression to slow down.

Compared to traditional forms of financing this brings along increased risk and a high level of information asymmetry, since private investors have merely little information about both the project and the entrepreneur proposing the project. Additionally to this administrative challenges due to the size of the crowd – the potential investors – and legal implications have to be tackled, to ensure that investors are protected. With the full implementation of the JOBS Act in 2016 this will be achieved in the US. Austria also

reacted, when a new legislation concerning alternative financing instruments was set in motion in 2015 (Babinek and Trettnak, 2015; Barnett, 2015b).

The following chapters will cover the financing sources available for start-ups, what they entail and whether and how crowdfunding can fill the “equity gap” in the early stage for businesses. Emphasis is laid on financial constraints for small businesses/start-ups and information asymmetry in that context. How crowdfunding developed and what types of funding there are follows.

Motivation for both investors and companies to use these alternative ways of financing is investigated. Some examples for successful and one example for a failed story of crowdfunding are given. Finally, legal provisions from important markets are described with an outlook on future development.

2 Financing possibilities

Sources for a company to finance its operations are a combination of different types of equity, debt and internal finances. The financing mix varies from business to business and also changes depending on the investment stage it is in. Besides the sheer availability of investors, where the founder of a start-up may not have much choice to pick from due to their limited number, other determinants for the choice of financing mix have to be considered as well. For start-ups additional constraints are to be considered. There are two widely recognised theories to explain how companies choose their capital structure, the pecking order theory and the static trade-off theory.

2.1 Static Trade-off Theory

Following the static trade-off theory, there is a target level of debt for each company, which is optimal, as it maximizes the market value. Starting from the market value of an all-equity firm, leverage increases this value, due to the tax savings that come from the tax deductibility of interest paid. But this relation is not strictly increasing, because with the level of leverage the cost for financial distress increases. After a certain point the cost of financial distress exceeds the value of the tax shield. Balancing this trade-off results in an optimal firm value (Myers, 1983). To remain at this optimal point, leverage is supposed to be kept constant and if the firm deviates from it, managers are expected to work back towards it (Syham-Sunder and Myers, 1999).

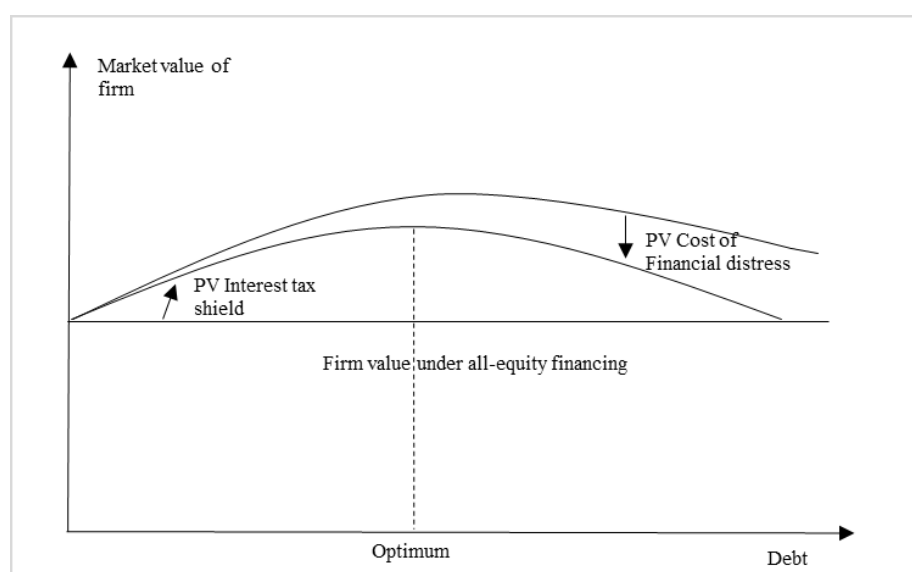


Figure 1 Static Trade-off Theory

Source: Myers, 1984

When choosing debt bankruptcy costs and agency costs need to be taken into account. Bankruptcy costs arise when the business will default on its liabilities, resulting in direct and indirect costs, such as loss of customers, reputation or loss of sales. (Cassar, 2004)

2.2 Pecking Order Theory

The main sources a firm has to finance itself are ranked in a hierarchical pecking order, according to this theory, coming from Myers (1984) and Myers and Majluf (1984). There is internal funding – retained earnings, debt and equity available to the firm. No target leverage level is set, but the capital structure is dynamic and changes according to the series of financial decisions that are deduced from the pecking order. (Shyam-Sunder and Myers, 1999) The decisive criterion for this hierarchical ordering of financing sources is the extent to which adverse selection is present. Since there is no adverse selection problem with internal funds, this is always the first preference for firms. It also signals a stable financial standing to the outside. If there is still a financial deficit once the retained earnings are exhausted, debt will be issued, as debt is subject to adverse selection but less so than equity. Only if these sources are depleted equity issues are carried out, so according to this theory equity issues should happen only rarely (Frank and Goyal, 2003).

Most research and empirical testing of those two theories has focused on large and stable corporations. Newly founded businesses differ from those in terms of financing mix, sources of financing available to them and business structure.

2.3 Financial Constraints for small businesses

In order to grow or maintain their operations, young entrepreneurs need financial resources. In their early stages it is crucial for small businesses to be able to rely on a stable provision of capital. The natural lack of reputation, collaterals or ties to banks make it difficult for them to raise external capital.

Most entrepreneurs are also heavily personally invested and aim to keep full control over their business. At the same time there is a great need for funding to stay flexible. These constraints make it more difficult for young businesses to raise capital. To overcome these barriers, many resort to other sources than the conventional loan or stock issues, like family and friends or new emerging types of financing, such as crowdfunding. In general, three categories of financial sources are available, as reflected in the pecking order theory. There are different types of equity and debt and there is the most used source -

retained earnings. Internal finance, by retaining earnings, is particularly popular among small firms (Burns, 2011).

Carpenter and Petersen presented empirical evidence that the growth of small firms is constrained by the availability of internal finance. Usually a firm would retain all of its earnings and only if necessary refer to outside financing¹, so almost all investment is financed with internal funds. The internal finance theory of growth, applying especially to small firms, is backed up by early findings of Butters and Lintner², who emphasize the difficulties of small sized firms to raise external capital and hence the importance of internal funds for them (Carpenter and Petersen, 2002).

The difficulties small firms experience in terms of financing are often referred to as “small business finance gap”. Predominant explanations for this gap are on the one hand, the higher cost of capital for small firms and on the other hand, the lack of knowledge of available course of finance, leading to less borrowing and thus more informal sources and internal financing (Holmes, Kent, 1991).

Empirical studies found evidence of the greater impact of information asymmetry and financing constraints applying to small firms (Hamilton and Fox, 1998; Gregory et al, 2005; Beck et al, 2006).

Adding to the higher informational asymmetry, founders of a new business are usually highly invested in their idea and the strong motivation to run their own firm might make them hesitant to give others a say in their operations. Debt can thus be preferred over external equity as a means to maintain control (Paul et al, 2007)

2.3.1 The role of information (a)symmetry

As the pecking order theory suggests, the decision of how to build up the capital structure is largely determined by the extent of information symmetry or asymmetry. The different information status between the owner of the firm and investor causes the adverse selection problem, which will be explained in the following.

¹ Their findings are based on a sample of more than 1,600 small firms. Firms that rely mostly on internal finance show a one-to-one dollar relationship between growth and internal financing, which means that growth is constrained by the availability of internal funds. See Carpenter, R.E. and Petersen, B.C., 2002, Is the growth of small firms constrained by internal finance?

² See Butters, J.K. and Lintner, J., 1945. Effect of federal taxes on growing enterprises, Harvard University for more details

2.3.2 Adverse selection

The founder knows the true value of his firm and has most information about future planned projects and opportunities. For investors, especially for small private investors, it is more difficult to evaluate the value of a firm or a project, prior to entering into a contract, since they don't have access to all the information the management has and have to rely on the given information. They will anticipate that the owner of an overvalued company is happy to sell equity, whereas in turn undervalued equity is not likely to be sold. Investors will therefore adjust the price they are willing to pay downwards. The cost that firms incur due to this selection can be so high that even positive Net Present Value (NPV) projects are rejected, if they could only be financed with external equity. Using internal funds avoids the information asymmetry completely, as no outside investors are participating. If risk-free, debt is on the same level. Risky debt involves different levels of information, but is still preferred over equity issuance, which has the highest adverse selection premium. Therefore risky debt is ranked between retained earnings and equity in the pecking order, as Myers (1984) showed (Eckbo, 2008).

When a firm follows the pecking order theory it will, when external capital is needed, first go for the safest option, hence debt is issued first, then other securities, like convertible bonds and then equity. The question whether equity issuance in form of stock differs from crowdfinancing or similar forms will be addressed later on.

2.3.3 Start-ups and information asymmetries

While there are only few studies on new ventures (start-ups), logic dictates that the pecking order would apply even stronger to those businesses than to mature companies. First, the information asymmetry for a start-up is as high as it can be. At the beginning there is neither a track record, customer experience nor a reputation or financial statements of past years that investors can refer to. There is little to go on for investors. Usually there are limited tangible assets and founders don't have many possibilities to signal their quality to the outside. So the main reason for the ranking of financing sources, the information asymmetry, especially affects start-ups. One can expect therefore that external financing is associated with a higher investment premium (Paul et al, 2007).

Paul, Whittam and Wyper (2007) examined whether the pecking order can be applied to start-up firms and maybe even more so than for mature businesses. They looked at 20 Scottish start-ups, which raised their required capital successfully through business

angels. What they find is that entrepreneurs would tap their own funds first, as the pecking order theory suggests, but that in later stages, equity is preferred over debt. The reason for this counter-intuitive behaviour is that equity – especially this kind of equity that they seek out – offers other benefits. Four kinds of benefits were identified, there is added value, like competitive advantages or competencies that can be offered by, for example, business angels. Also entrepreneurs are limited in their ways to secure credit, so when raising external equity they can avoid or minimize their personal debt burden. The third benefit comes from equity contributions having no negative impact on cash flows, as opposed to debt. This way a shortage of working capital is less likely. Finally, the great need for financing, often in multiple rounds, can be met easier when an experienced investor first is attracted, who then can bring in other investors. They conclude that the existing information asymmetry between founders and investors can be minimized by a close relationship between those two. The pecking order theory has to be adapted to fit the different requirements a start-up brings along and needs to also look at the qualitative benefits that equity financing brings, especially for new ventures (Paul et al, 2007)

Results from Hamilton and Fox on the other hand support the pecking order theory, with a clear preference of founders to use internal finance first, meaning personal savings and as soon as available, retained earnings. Subsequently external debt is tapped into, followed by external equity (Hamilton and Fox, 1998).

Normally small firms don't have access to the public equity market. This and the aversion of founders to dilution of their ownership and to pass on control leads to the pecking order theory applying even stronger to new businesses, according to Holmes and Kent, who found strong empirical evidence to support this view. They attribute these differences in the capital structure of small and large firms to a constrained pecking order theory applicable to small businesses (Holmes and Kent, 1991).

Another reason for small firms to rely more on internal finance is given by the classic principal agent theory. Besides moral hazard and adverse selection there is the agency problem of information provision. Monitoring costs are higher for small firms, due to a lack of disclosure requirements with systems in place to generate necessary information. These systems first have to be implemented. Further, business assets are not easily evaluable (Berger and Udell, 1998; Chittenden et al, 1996).

Chittenden et al find that the pecking order theory explains the capital structure of small unlisted firms. Those do rely heavily on internal funds. As long as they are profitable,

retained earnings are used. Less profitable firms then use, mostly short-term, debt. The picture changes when a firm goes public. Following the flotation access to debt becomes less costly and the proportion of long-term debt increases (Chittenden et al, 1996).

2.3.4 The Costs of Financing

The higher effort for entrepreneurs to raise capital is connected to the higher rate of return potential investors will expect when they contribute to a young business. This is rooted in the higher risk small firms impose, as entrepreneurs of small businesses may be more risk-seeking than managers of large companies and they are often experts in only one field, or have less experience in general. Pushing towards an economic niche, proposing innovative products also increases the risk for investors. With limited possibilities to access financial information of past years, to assess the human capital and hardly any reports it's difficult to estimate future earnings and returns. Also, agency problems seem to be more substantial for small businesses, less monitoring is possible and entrepreneurs may be more flexible in changing their course of business. The entrepreneurs can as majority proprietors be more induced to shirking to the detriment of outside investors. These factors lead to a higher cost of capital for small businesses (Scherr et al, 1993). Even financial institutions that regularly deal with new ventures demand a higher cost of capital to compensate the missing information about the small firms operations (Gregory et al, 2005).

Although there is mixed empirical data about the debt ratios of small versus large firms, studies have consistently shown that small ventures hold more short-term debt than large firms do (Holmes and Kent, 1991), due to limited access to long-term debt. This keeps their cost of capital at a lower level, but in turn carries a higher risk of illiquidity with it (Gregory et al, 2005; Chittenden et al, 1996).

Having to rely more on short-term debt is due to limited access to long-term debt or the stock market, but it is also related to the level of collateral that is available. Chittenden et al found a close relationship between access to long-term debt and the existence of collateral. If firms lack collateral and don't have the chance to switch to equity, they have to make use of costly short-term debt (Chittenden et al, 1996).

2.4 Sources of Financing

To set up a new business, founders prefer to first of all, use their own funds. Hamilton and Fox found that before 1980 76% of the initial capital was set up by the founder himself, this percentage decreased over the following years to 60% from 1992-1994, while in the same time the share that financial institutions contributed increased from 11% to 24%. The remaining financing (15-16%) came from the entrepreneur's family and friends. They conclude that financial institutions are becoming more willing to invest in new businesses, partly due to a higher willingness of founders to provide collateral and due to changes banks made to meet their customers' needs (Hamilton and Fox, 1998).

Beck et al find that the age of a business is a robust predictor for financial obstacles, with young firms in developed countries reporting significantly more financing obstacles compared to more mature firms. Size is another useful characteristic to classify financial constraints, as small firms face more obstacles than medium sized firms and both report more obstacles than large firms do, with statistical significance given (Beck et al, 2006). Age seems to be however a better indicator, as other empirical studies show mixed results concerning size as a predictor for financing constraints (see Devereux and Schiantarelli, 1990).

The figure shown below gives an overview to the sources of financing that are available for businesses. New types of financing involving the crowd are: crowdfinancing, crowdlending, crowdsponsoring and crowdraising. These will be covered in chapter 3.

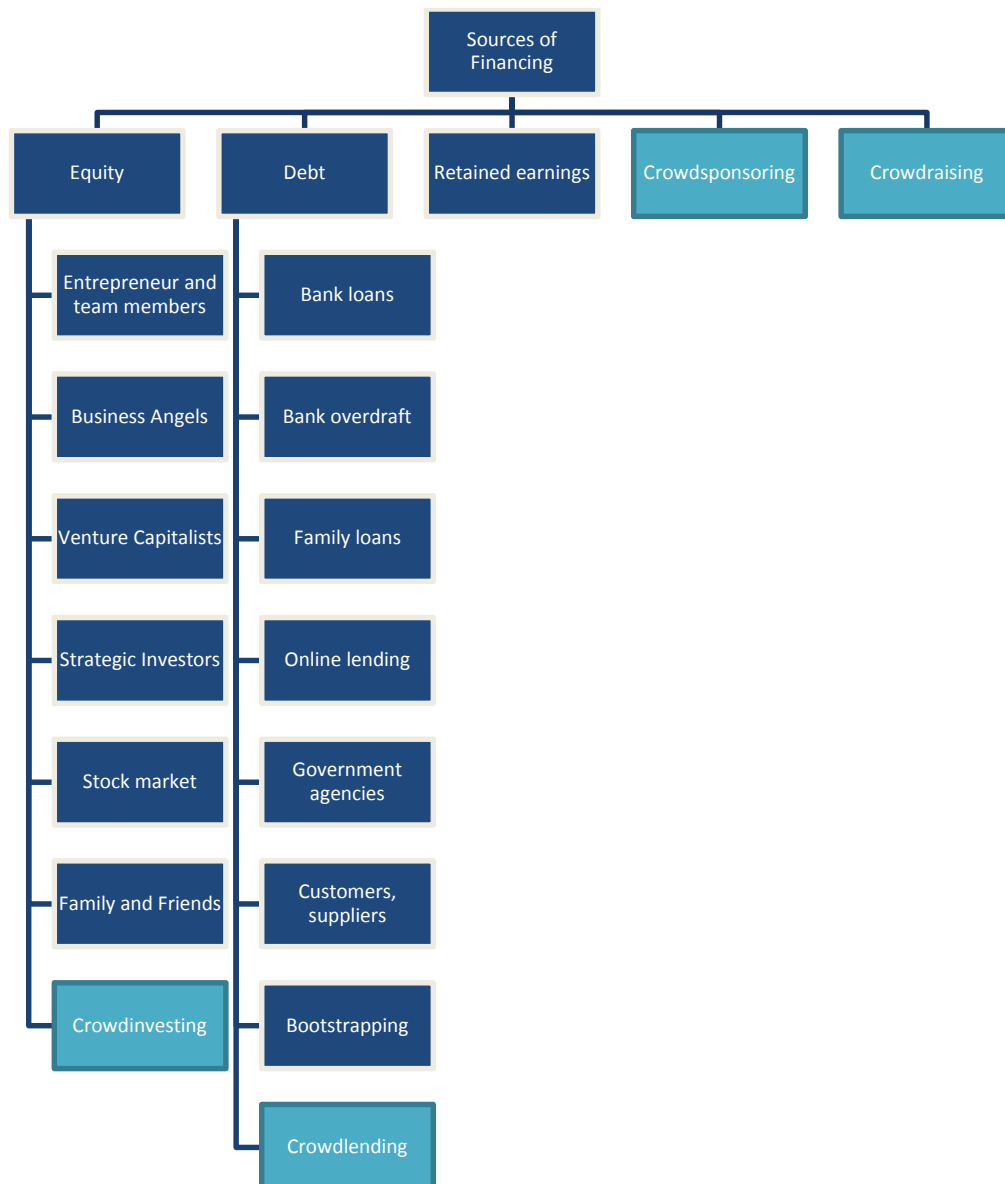


Figure 2 Sources of Financing

Source: Adapted from Burns, 2011; Schwienbacher and Larralde, 2010

2.4.1 From the start – self finance

Looking at usual cases, the founder (or the founders) of a new venture, being the one(s) that came up with the business idea and devoting much of his time and energy to this idea, is also the one funding it in the beginning. Especially in the very first stage, where there are no tangible results yet to be assessed by investors, when merely the concept and the idea exist, personal savings and assets are the primary source of funds. It can be expected that the founders of the start-up are the ones who believe in it, hence their contribution in it shows confidence. This in turn will make it easier to raise external funds, as it shows credibility and a high level of commitment. For many this is however also happening out

of necessity, as it's not easy to find investors or creditors who are willing to give money up front. Personal savings of the founder are used by a total of 66% of start-up Small and Medium sized Enterprises (SMEs).³ Informal private equity contributes the main funds in the seed stage and sometimes SMEs depend entirely on this source of financing at the beginning (OECD, Robertson and Belanger, 2007).

During this stage, an important source of funds are personal networks, where through family and friends money is raised.

2.4.2 Family, Friends and Fools

Besides personal funds, the next source entrepreneurs would rely on is within their close network – family and friends. These groups generally want to support the entrepreneur and are confident in his success. Therefore they might offer loans for little or no interest, as well as support and advice.

During the earliest phase of a start-up the nascent entrepreneur is more dependent on a strong personal network. Later on the network will become more business oriented. Following this order the personal trust, at the beginning most significant, will decrease in importance and institutional trust will be built up (Welter, 2012). As the theory of exchange assumes, individuals will, in uncertain situations prefer to count on counterparts they have dealt with before. On those they possess information about their reliability and previous exchange relationships. Personal trust comes from knowledge and previous exchange. Trust decreases information asymmetry and uncertainty (Welter and Smallbone, 2006). Those individuals would for new entrepreneurs be among others family members and friends. Studies have found that family members tend to be more generous in their financial contributions and they would waive a strict cost-benefit analysis. But this is no one-way street. Entrepreneurs in turn would compensate them with evenly distributed equity shares, tending to be generous as well, in order not to be perceived as greedy. This informal source of financing is, because of its social implications subject to social norms and striving for fairness (Kotha and George, 2012).

Family finance, as major contributor to start-ups financing, has gained more importance over the last years in the UK and the US (Basu and Parker, 2001). Basu and Parker developed a model to explain the factors motivating family members to invest into a new

³ The data was taken from Canada and New Zealand, both countries have a large proportion of SMEs.

business. They find that it is a mixture of altruism and self-serving motives that motivates members of the entrepreneur's family to provide funds (Basu and Parker, 2001).⁴

With family and friends, although they most often don't require interest payments or formal contracts, there are other concerns an entrepreneur has to take into consideration. He should consider the impact of the failing business on the relationships to those friends and family. This might also become a problem the other way around, when friendships end or a couple is going through a divorce and they would want their money back prematurely. Those that invested might expect to have a say concerning decisions or be consulted before major changes occur. Fools are described as investors with low expectations in terms of return and investing more head over heels than based on qualitative reasoning. (McKaskill, 2009).

Informal Private Equity	Formal Private Equity
Family, friends and fools	Venture capital
Business angels	Fund management companies
Entrepreneur	

Table 1 Formal and Informal Private Equity

Besides family, friends and fools another source of informal private equity are business angels. They have gained significance over the past years with the up rise of networks of angels that aim at matching seeking entrepreneurs and investors. The market of informal private equity is estimated to be much larger than the formal equity market. Formal equity is provided by professional investors, like fund management companies and venture capitalists (OECD, Durvy, 2007).

The market for private equity is growing steadily in Europe, with informal investors being very important for start-ups, though the amount they are providing is limited. Formal venture capital accounts for higher amounts in term of numbers. (OECD, Durvy, 2007).

⁴ Based on an empirical study of entrepreneurs in the UK, originally from Asia, with a sample size of 195 entrepreneurs, with whom face-to-face interviews were held.

2.4.3 Business Angels

Business angels, also referred to as angel investors or simply angels, are very selective investors that come in in the seed stage, typically just after the funds from family, friends, fools and the entrepreneur himself are exhausted. Research has found firms that received capital from angel investors to be relatively successful and often the use of angel investors is succeeded by venture capital.⁵

The importance of business angels stems from different factors. First, they often constitute a financing bridge to the early stage for a start-up, decreasing the “equity gap” by investing in the seed or early stages of a new firm. Second, angel investors seem to be generous, having lower rejection rates, a long investment horizon and despite the higher risk, don’t require significantly more return than institutional investors do. Additionally, they focus on local businesses instead of specific sectors, what venture capitalists often do (Harrison and Mason, 1992; Madill et al., 2005).

Angel investors are generally described as being primarily interested in economic success, but having non-economic motives for their investment as well. Those motives involve satisfaction from playing an active role in young enterprises and moral motives, such as giving back to society, helping create jobs, giving advice or fostering the development of useful technology (Sullivan and Miller, 1996). Angels are hence not only financially involved, but also contribute with a hands-on mentality to a start-up (Madill et al, 2005).

Angel investors often take an active role, as their own funds are involved. They require an annualized return of 30-40%. To help the firm prosper, the additional contributions made by angel investors are giving advice and bringing in their expertise. They may serve on the board of directors, provide bank guarantees and connect the founders to important contacts and networks. Furthermore, they increase the validity and credibility of the firm, which makes it more attractive for other investors. Madill et al find a significant association between firms that received funds from angel investors to be succeeded by institutional venture capital investors (Madill et al, 2005).

It can therefore be stated that angels in a way prepare the firm to be eligible for venture capital. In this regard it has to be noted that in case a firm accepts outside equity through

⁵ More information is provided by Berger and Udell, 1998

angel investors, it is unlikely to resist venture capital. Also angels generally focus on high growth enterprises, just as venture capitalists do (Madill et al, 2005).

2.4.4 Venture Capitalists and Strategic Investors

This source of finance comes in at a later stage, during the expansion, after the entrepreneur, his friends and family and business angels are already involved. Angels are looking to make a profitable exit at some point of time and can be replaced by venture capital (VC). Two prominent businesses that received both angel investment, followed by venture capital, are Google and Facebook (Berger and Udell, 1998, Hellmann and Thiele, 2015). Venture capital investment is the most formal private equity source, with institutional management, investing in promising, emerging businesses in the expansion stage. Investment happens through a fund, which provides the benefit of limited liability and experience in evaluating, picking, managing and reaping the return of the investments (McKaskill, 2009). Similar to angel investment, VC is focused on high-growth emerging businesses, during a stage of firm development which is rather risky, thus requiring a more than average rate of return. It constitutes a desirable financing source, in a stage when banks and public equity are still out of reach. However, only a small number of start-up is attractive to these investors, due to the specific characteristics the VC Funds are requiring start-ups to fulfil (McKaskill, 2009). Venture capital is connected to milestones in a firm's development and a professionalization of the firm. Examples are the introduction of Human Resource policies or stock option plans. CEOs are fairly often replaced when VC comes in, with the founders staying in the firm however most of the times (Hellmann and Puri, 2002).

2.4.5 Stock market

Whilst costly, issuing equity on the public market is a means to raise capital. The under-pricing that accompanies any Initial Public Offering (IPO) ⁶ seems to be more severe for small firms (Buckland and Davis, 1990; Chittenden et al, 1996). On top of the higher cost for issuing stock, young, small firms often lack the possibility to do so. Gaining access to the stock market is however an important factor in how the capital structure of a firm is built up. Following a flotation, the existence of collateral becomes less important and long-term debt more available (Chittenden et al, 1990).

⁶ See for example Purnanandam and Swaminathan, 2004, for evidence of under-pricing in IPOs

2.5 Financing (Investment) stages

As the characteristics and attributes of an enterprise evolve and change over time, the sources of financing vary accordingly. In general we can say the number of available sources increases. For the first stage, the seed stage, the high degree of uncertainty and risk and the low profitability combined with initial costs constitute a “valley of death” which brings more than 50% of new firms to an end. For firms that overcome this valley, the next stage, the early stage, is the beginning of better prospects and less risk (OECD, Durvy, 2007).

A start-up goes through a development, during which not only the purpose of the required finances, but also the investment sources change. In the following the typical stages are portrayed (OECD, Durvy, 2007; EVCA, 2015):

Stage 1: Seed stage

This is the initial stage, when mostly the entrepreneur or the team sets up the needed funds, accompanied by family, friends and fools. Later on business angels and possibly public subsidies come along. Financial resources are needed for researching, evaluating and creating the initial concept of the business, followed by the development of the product and first marketing activities. This stage includes the aforementioned valley of death.

Stage 2: Early-stage (Start-up stage and First-stage)

Following the seed stage, the firm is starting business operations and commercial sales. If it manages to overcome the valley of death, it will reach the break-even-point. In this stage the acquisition of further funds is crucial to further expand as initial funding by founder, friends and family is no longer sufficient. Since the firm is still emerging and constitutes a high risk investment, with a high degree of information opacity, the financing gap kicks in for many start-ups. Several rounds of financing are typically required, possible investors are angel investors or later on VC (OECD, Curvy, 2007).

Stage 3: Expansion and Growth

At the end of the early stage or in the expansion stage venture capital comes in, when the firm is already operating and has positive revenues. It is still rather new and desires to grow and expand into new markets or restructure.

Stages 4 and 5: IPO, strategic investors, public markets and banks

Venture capitalists can use the next stage as a good way to exit and achieve the maximal possible rate of return. Typically an exit happens in two ways: either an Initial Public Offering (IPO) where the company enters the public market and offers shares, or a trade sale is done. The entrepreneur now has multiple new sources of financing at hand, with the public offering, larger strategic investors and due to the stock exchange listing also bank credit becomes cheaper. As the firm grows the proportion of debt in contrast to equity increases (OECD, 2004).

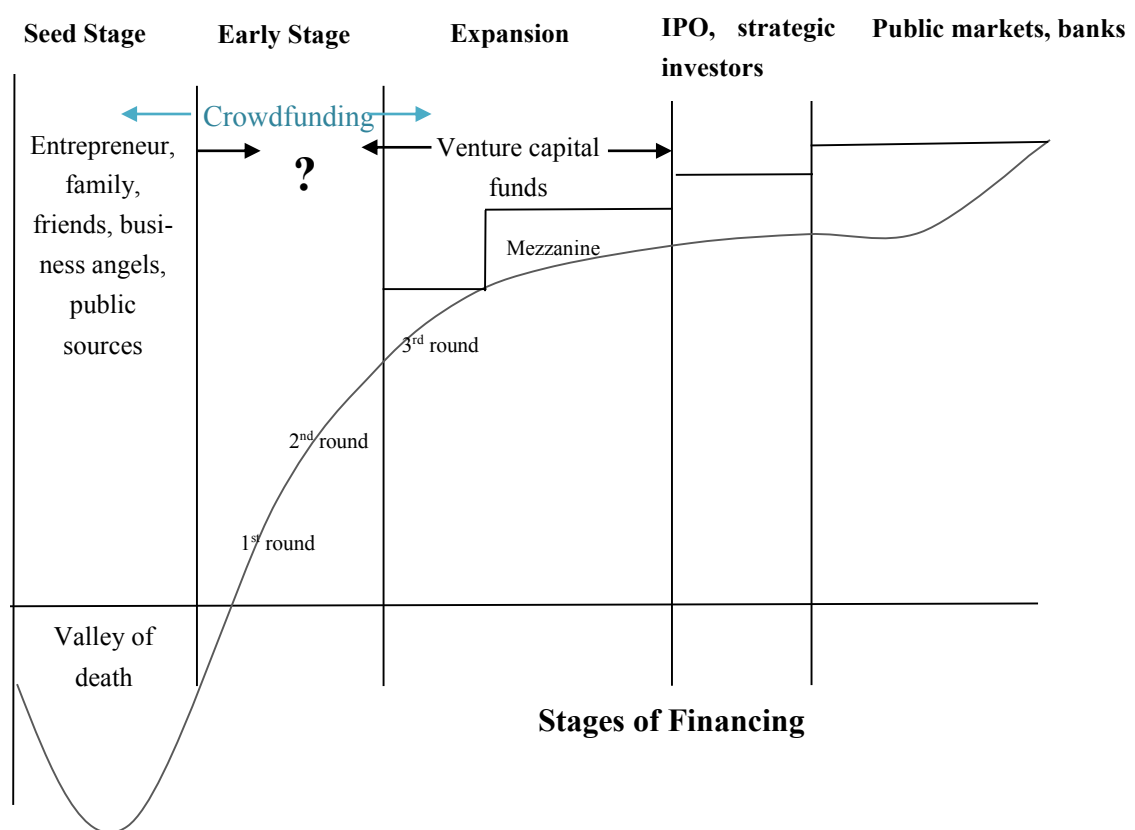


Figure 3 Stages of Financing

Source: OECD, The SME Financing Gap Vol. II⁷

⁷ Graph adapted by OECD from Cardullo: Technological entrepreneurship. European Commission – DG Enterprise and Industry – Best practices of public support for early stage equity finance – Brussels – September 2005 as well as adapted by me to include crowd based financing sources

2.5.1 Predominance of Equity in early stages

During the early stage it is still very difficult to raise debt and informal financing sources or private equity are the primary source. Three reasons exist for the predominance of equity over debt during the early stages. The first reason would be the high level of information asymmetry, as discussed before, with specific skills needed for banks to be able to evaluate the quality of a start-up. Then secondly, debt payments – interest and principal – would limit the liquidity and flexibility of a dynamic new venture. Third, banks are out of reach due to missing collateral and track records, which constitutes too much of a risk for banks (OECD, Durvy, 2007).

2.5.2 Equity gap in seed and early stage

A problem that arises for many countries and that has been present for decades is the market equity gap for risky, innovative new ventures in the early stages. Since debt is hardly ever available at this point, start-ups depend on private equity. The investment of venture capital funds has increased, as has the market for private equity in general, but predominantly buy-out investments are made during the early stage. Around 75% of investments in Europe in 2014 were aimed at a buy-out in early stages. The lack of funds for seed and early stage activities can be observed in Europe, most severely in Eastern Europe. Less than 5% of private equity investment flow into seed and start-up ventures (OECD, Durvy, 2007; EVCA, 2015). A means to overcome this financing gap is the extension from traditional financing sources to new, alternative ones. Crowdfunding, may it be via lending, donating or investing, gives small companies the chance to tap further funds which are easily available.

2.5.3 Financial Growth Cycle

The causes of this financing gap, a lack of information symmetry and collateral is also portrayed in the financial growth cycle. It represents the evolution of information availability and the firm size over time. As the firm becomes more mature, usually with the size growing accordingly, more and more information becomes available and this information is easier accessible for investors. At the same time reputation can be established and the firms are able to use some of their resources as collateral. The reason being that firms, provided they survived the seed stage, are generating profits and can therefore invest into assets. All this leads to a shift of financial sources, from informal

private equity to venture capitalists to public equity, bank loans and in general long-term financial institutions providing the funds (Berger and Udell, 1998; Gregory et al, 2005).

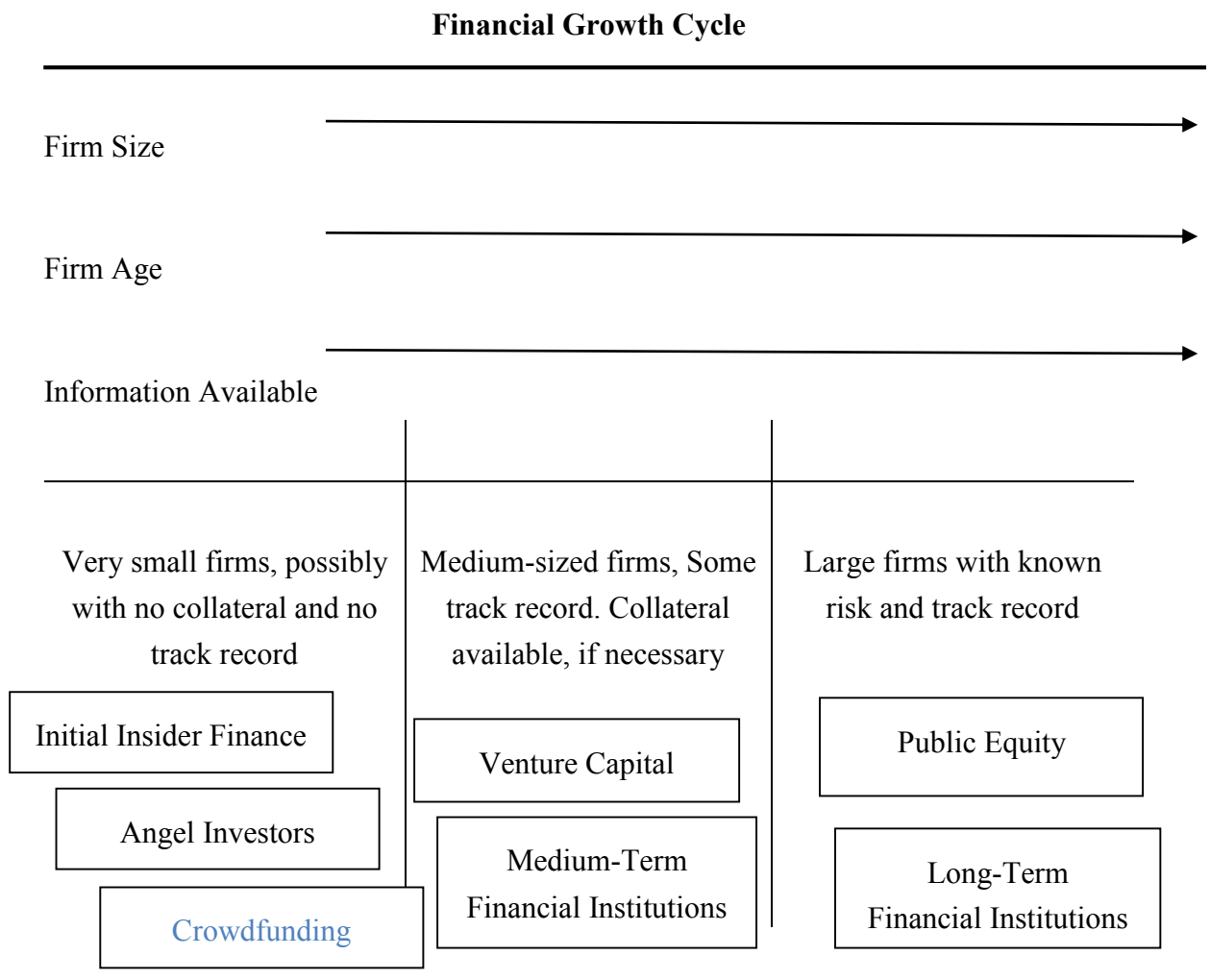


Figure 4 Financial Growth Cycle

Source: adapted from Berger and Udell, 1998; Gregory et al, 2005

Added in the figure to “traditional” sources is crowdfunding, at a stage where firms are still small and there is little information available to investors. Crowdfunding can be a means to overcome the aforementioned equity gap. The next chapter describes the various forms of crowdfunding.

3 Crowd based ways to finance a business

In a rapidly changing environment companies had and have to adapt to keep up with the competition. The rise of the internet brought major changes and opportunities for companies. Enabling businesses and people to connect in an easier way, faster and with a wired audience it paved the way to an interconnected world, with wide-spanned networks. Smart businesses were using this to their advantage and with technological improvement borders became more and more obsolete. Outsourcing labour has become common practice among large corporations. But not only labour can be outsourced, there are other tasks where the network a company has built can be used. Resorting to the “crowd”, the mass of potential customers and investors, who can be reached easily via internet, the term “crowdsourcing” was first introduced by Howe in 2006, as a modification of outsourcing, stressing the role of the mass, the crowd (Howe, 2006).

Kleemann et al refined this definition in 2008 and describe it the following way:

“Crowdsourcing takes place when a profit oriented firm outsources specific tasks essential for the making or sale of its product to the general public (the crowd) in the form of an open call over the internet, with the intention of animating individuals to make a contribution to the firm’s production process for free or for significantly less than that contribution is worth to the firm ... Tasks that lend themselves to crowdsourcing include product design, advertising, quality monitoring, and the solution of specific technical problems.”

(Kleemann et al, 2008)

The crowd can, when aggregated, serve different needs and provide a global network and “brain”. Through the internet and social media, which serve as a platform, the crowd can get connected. In the following figure the different types how the crowd can collaborate are presented (Koch, 2012). The opinion of the crowd can be an important indicator for firms, via simple voting or “likes” they can assess the acceptance and preferences of (potential) customers. Creative powers and knowledge of many individuals can be pooled. Wikibooks, part of the Wikimedia e.V. publishes books which are a collective effort of the crowd. Individuals contribute to the ideas and topics (Crowd Wisdom) as well as to the writing (Crowd Creation) (Letz, 2014).

Combined strength of the crowd can be used to further social goals and to build communities. The Civic Community was helping non-profit organisations in Haiti after

the earthquake in 2010. Citizens provided information on the damage, survivors and shelters. Valuable information can be provided by the crowd, which gets more connected this way, building a community (Carpenter, 2012).

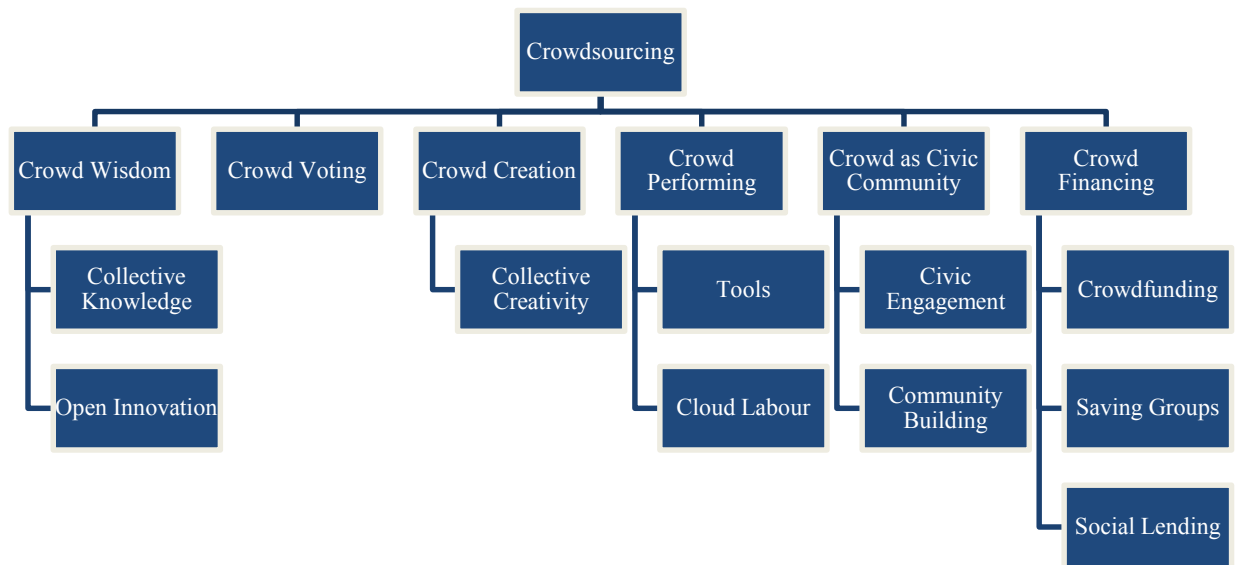


Figure 5 Types of Crowdsourcing

Source: Koch, 2012, adapted

If what the individuals contribute is financial funds, crowdfinancing happens. Crowdfunding as a type of crowdfinancing will be characterised in more detail in chapter 3.2.

3.1 Crowdfinancing

Crowdfinancing or Collaborative Finance comprises financing without the use of traditional financial institutions, most of all bank financing, while mostly non-institutional investors are involved and their number is not limited. With the wake of social media platforms, like Facebook, also financing platforms were developed, e.g. Zopa in 2005 in the UK and Prosper 2006 in the US. These financing forms are particularly flexible. For this new development legislation was (and often still is) missing, which enabled new possibilities, with platforms using areas which were not covered by existing laws and adapting their operation accordingly (Koch, 2012).

There are, according to Simone Baldessarri, multiple reasons for the increased use and acceptance of Collaborative Finance.

Since no banking license is needed, there is less regulation and legislation by governmental institutions. Therefore the requirements for reporting are minimized. Individual investors can invest only small amounts of money and on the other hand also small loans can be raised. Efficient organisational structures of platforms are available, tailor-made for the needs of participants. Additionally no collaterals is required and a high rate of repayment of around 95% can be observed. It is non-profit oriented in many cases, in particular in case of micro-credits. The social component is apparent, the whole crowd is sharing the proprietorship as opposed to only one entrepreneur or company assuming responsibility. The roles of the members of the crowd are not fixed, they might switch between borrowing and lending, which creates an attitude of give-and-take (Baldessarri, 2015).

Crowdfunding

The main type of crowdfinancing is crowdfunding, where the crowd is putting up the financing of a business, most of the time a start-up. The different forms of crowdfunding as well as a more detailed description are given in chapter 3.2.

Saving Groups and Social Lending

Linked by their social component, saving groups (Social Savings) and social lending cannot easily be distinguished. Social Savings are informal associations of groups with the purpose to collectively save money and benefit from it. The concept, already long in existence, is now predominately found in developing countries, especially in Africa. The

most common form are Rotating Savings and Credit Associations (RoSCAs) (Koch, 2012).

Individuals that form a RoSCA agree to contribute a previously fixed amount of money on a regular basis (daily, monthly, quarterly, yearly) into the common fund. One member receives this fund, benefiting from the collective saving, as he receives more than he could have saved by himself at this time. The members take turn, until every member has received the money in the collective pot once. Until then they have to contribute the pre-fixed amount of money. The turn in which members receive the collected savings is either drawn from a lottery or has a fixed pattern set at the beginning (Anderson et al, 2009; Koch, 2012). Incentive problems, among those who already received the pot at an early point of time, with the chance of default later on are present. Enforcement is mostly provided by the fear of social sanctions or exclusion in future saving groups (Anderson et al, 2009).

Social lending denotes loans given directly to individuals by other individuals. The differentiation is vague, as this constitutes also a form of crowdfunding – the crowdlending, happening between “peers”, as explained in chapter 3.3.2, the same concept applies here. When the focus is on the social background, the term social lending seems appropriate, this concerns mainly microcredits, where poor individuals, mostly women, in developing countries receive small business loans to carry out small-scale projects. One of the most known platform used for this purpose is Kiva Micro funds, a non-profit organisation that has the mission to “connect people through lending to alleviate poverty” (Koch, 2012; Kiva, 2015⁸; Leimeister, 2012).

⁸ Data accessed on 11.10.2015, kiva.org

3.2 Crowdfunding

Crowdsourcing is the starting point of all activities that involve the crowd participating in the financing of a business. Focusing on one of the most important tasks of a newly setup business, the (financial) funding, crowdfunding is based on the concept of crowdsourcing. The crowd is hereby used as funders of money, they are attracted mostly through online platforms and or social networks. Those individuals usually contribute only with a small amount, but the size of the audience makes this source of financing for businesses interesting (Belleflamme et al, 2010; Beck, 2014).

Traditionally, to be exact, it is also individuals that put up the capital that ultimately is used by businesses to finance their operations. However, there is an intermediary, the bank, which uses the savings that individuals entrust to them and then lends money to companies. Yet the role of individuals is very limited in this process and they cannot actively decide about the use of the funds (Schwienbacher and Larralde, 2010). With crowdfunding, the crowd is more actively involved and the individuals would only fund those projects they hand-pick and find worthy of support.

One definition of crowdfunding is given by Belleflamme, Lambert and Schwienbacher:

“Crowdfunding involves 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.”

(Belleflamme et al, 2010, Crowdfunding: An Industrial Organization Perspective)

Technological innovations and advances, the “Web 2.0” has created the foundation for crowdfunding (Kleemann et al, 2008). Three parties are involved in crowdfunding: the start-up or (small) company that requires funds and individuals who are willing to contribute, after assessing the quality and prospects of success. Connecting them is the third party, an online platform, acting as an intermediary.

Differentiation of crowdfunding from other financing sources

Taking a closer look at business angels, venture capital and crowdfunding reveals considerable differences between those types of financing. With crowdfunding, there is always an intermediary, in general this is an online platform. What differentiates it from venture capital and business angels is that in order to receive funding the entrepreneurs have to publicly present their business strategy and their business plan on this platform.

This poses the risk, in case of very innovative ideas, of intellectual theft (Wilson and Testoni, 2014).

For investing via an online portal the crowd does not have to be accredited, which opens up a larger market and includes also less wealthy individuals, whose contributions may be very small, starting from \$1. However, many portals set a minimum investment level themselves (Hornuf and Schwienbacher, 2014).

Crowdfunding portals use standardized contracts, since the number of investors is incalculable, while venture capitalists and business angels are more selective and in a better position to negotiate the terms under which they are willing to invest. Contracts between them and the entrepreneur include individual clauses and covenants. Business angels and venture capitalists try to protect themselves this way, they may for example agree upon priority in case of bankruptcy. In contrast, crowd investors usually are serviced subordinatedly and have no voting rights (Griffin, 2012; Hornuf and Schwienbacher, 2014).

3.3 Types of crowdfunding

The classification of forms of crowdfunding differs, but looking at it from the perspective of what kind of return it is based on, there are four types of crowdfunding. It is worth mentioning here that crowdlending is closely connected to social lending and peer-to-peer lending, which are subcategories of Crowdfinancing, as portrayed at the beginning of chapter 3. The figure below contains all four types and reflects what the crowd receives in return:

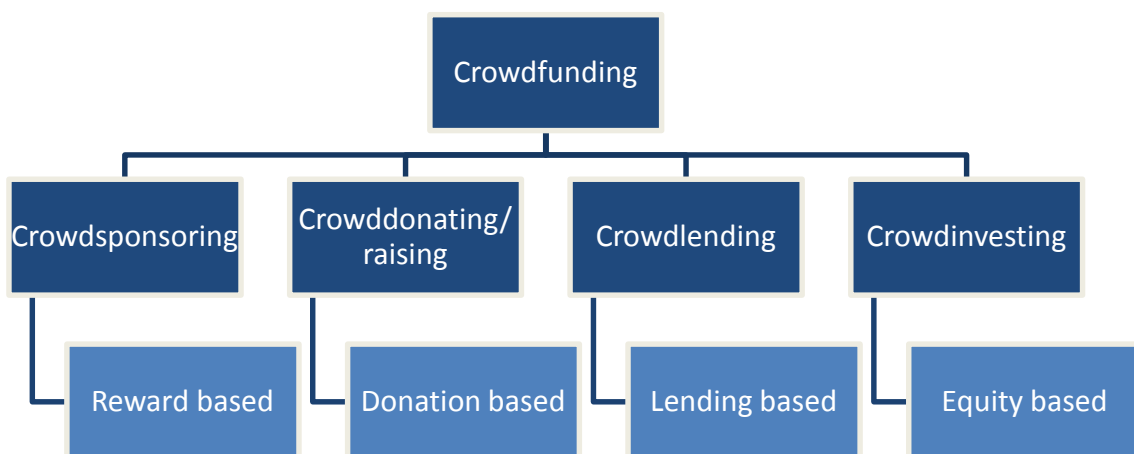


Figure 6 Types of Crowdfunding

Source: Koch, 2012; Leimeister, 2012, adapted

3.3.1 Crowdsponsoring

Crowdsponsoring is conducted to finance various specific projects ex-ante. The crowd is sponsoring the firm by financial contributions in order to enable this project. In return they get mostly non-monetary rewards, such as products, services or their names are mentioned. Well-known platforms offering this type of crowdfunding are kickstarter.com (USA) or startnext.de (Germany) (Leimeister, 2012).

3.3.2 Crowdlending – “Peer-to-Peer-lending”

This happens when individuals – the “crowd” is lending money to start-ups. The interest payment is what they get in return. But since usually those lenders have social motives, also interest-free loans are given (Leimeister, 2012).

3.3.3 Crowddonating

When the crowd is donating for a project or start-up they find worthy of support, they require nothing in return. Donors are driven by the fundraiser’s goal and the idea to contribute to a positive impact with their donation. Crowddonating campaigns are often followed by an increase in volunteers for this project (Baeck et al, 2014).

3.3.4 Crowdinvesting

As the term is indicating, crowdinvesting is describing an actual investment into a firm. The firm in need of funds would issue securities. Private investors are putting up financing for a start-up and have therefore equity interest with a more long-term perspective. How the investor is reaping his profit varies (Blöchl and Reiter, 2015; Leimeister 2012). Crowdinvesting is nearly identical to “equity crowdfunding”, a term used by many American platforms. Different separation criteria between equity and debt in different countries make it hard to classify certain financial instruments. In a strict sense equity crowdfunding covers only the typical share an investor buys in a company. Crowdinvesting is in general equity based, but it includes also hybrid financial instruments. Legal possibilities for this form of crowdfunding are profit participation rights and silent partnerships. Depending on the legal specifics of a country subordinated loans also fall into this category (Blöchl and Reiter, 2015; Beck, 2014).

3.4 Complexity and Insecurity of investment decisions in crowdfunding

The degree to which the investment decision is complex varies, as well as the level of insecurity it includes. When a person decides to donate both dimensions are hardly present, as the investor knows he won't receive any return for his donation, he merely has to decide on the project or firm he wants to support. For crowd sponsoring there is a reward, hence the investment decision becomes slightly more complex and insecurity arises.

When lending takes place, the lender has to consider various aspects, like the degree of creditworthiness and the lending terms. Most insecurity and complexity however comes into play when the crowd is participating in equity capital of a start-up. Here the investment object has to be assessed to be suitable for a long-term stake, therefore not easily retrievable and in the worst case even lost.

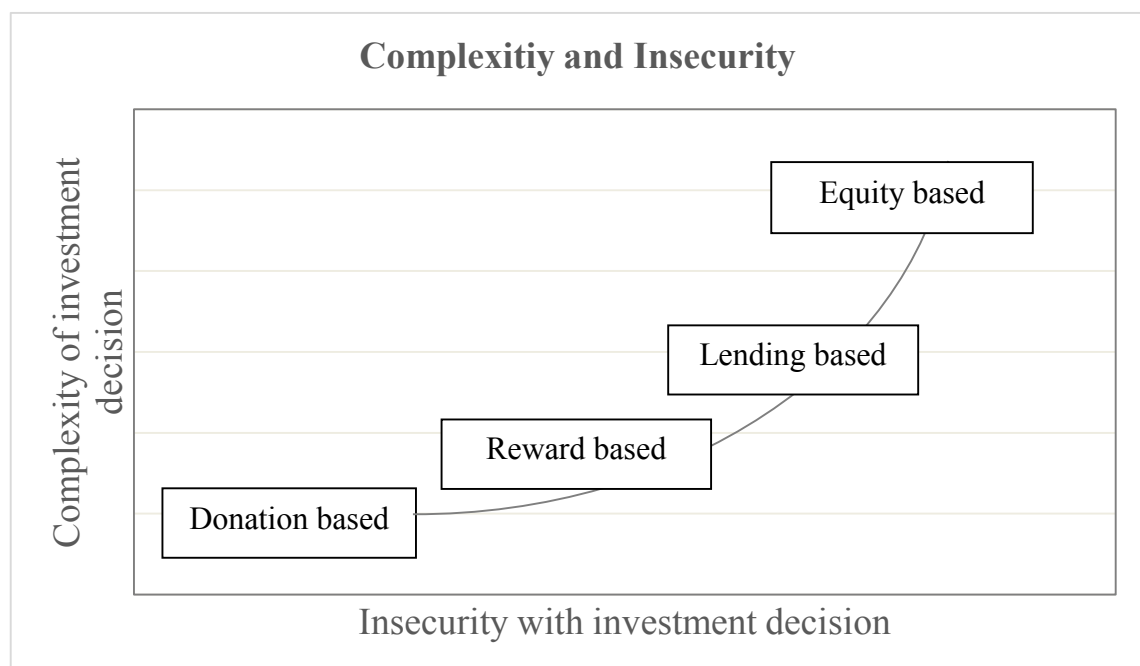


Figure 7 Complexity and Insecurity of investment decision

Source: Schramm and Carstens, 2014; Hemer 2011, adapted

Features of Equity based crowdfunding

Crowdinvesting, the most complex and extensive type of crowdfunding, is distinctive. First, it is still rather rare and challenging regarding legal foundations and regulation.

Many countries have yet to implement clear rules for this type of investment. The long-term character of an equity investment brings higher insecurity, as Figure 7 shows.

Distinctive about equity crowdfunding is further that investors don't necessarily need to be accredited. This can be seen as a movement towards empowerment of less wealthy "average" investors, who are given the right to decide about their risky investments. This goes against "traditional" rules, which were protecting unaccredited investors from themselves. Certainly, the access of the crowd to the market poses also possibilities of fraud and recklessness. Investor protection in most countries thus sets a limit for the maximum amount an individual can invest per project (Martin, 2012; Babinek and Trettnak, 2015; AltFG).

While institutional investors or banks have extensive financial and business knowledge, the crowd has the power of potential customers on its side. A start-up that raises capital via equity crowdfunding can "test the market" and estimate the attractiveness of its product to consumers. But more importantly, when those investors are holding a share of the enterprise they will not only be very likely also consumers, even more, they will promote the launched product. Ownership in the firm will give them incentive to engage in free mouth-to-mouth advertising, since they also benefit from it. On online platforms we can see evidence that investors tend to finance those things they want for themselves (Martin, 2012).

3.5 The crowdfinancing platform as intermediary

The intermediary between the start-up and potential investors is the online portal, which provides the network for issuing firms. Furthermore it offers instructions, guidance and standardized contracts for the issuance as well as advertisement. In return it receives a fixed percentage of the transaction volume as a fee. The entrepreneur fixes a funding threshold and investors provide the financing. If the predetermined amount of money is not achieved, funds are returned to the investors. Otherwise they are channelled to the start-up and the start-up enters into a financial contract with each investor, ensuring the financial return for them (Hornuf and Schwienbacher, 2014).

Crowd investors usually buy profit participating certificates, have no voting rights and are the last ones to receive anything when the firm goes into bankruptcy (Griffin, 2012; Hornuf and Schwienbacher, 2014). The reduced possibilities to amend contracts to their

benefit is alleviated by the protection individual investors are guaranteed by law. Crowd investing portals and issuers have to register with the corresponding financial authorities, fulfil disclosure requirements and usually the amount an individual can invest is limited by law (Hornuf and Schwienbacher, 2014). The legal requirements in different countries are explained in more detail in chapter 6.

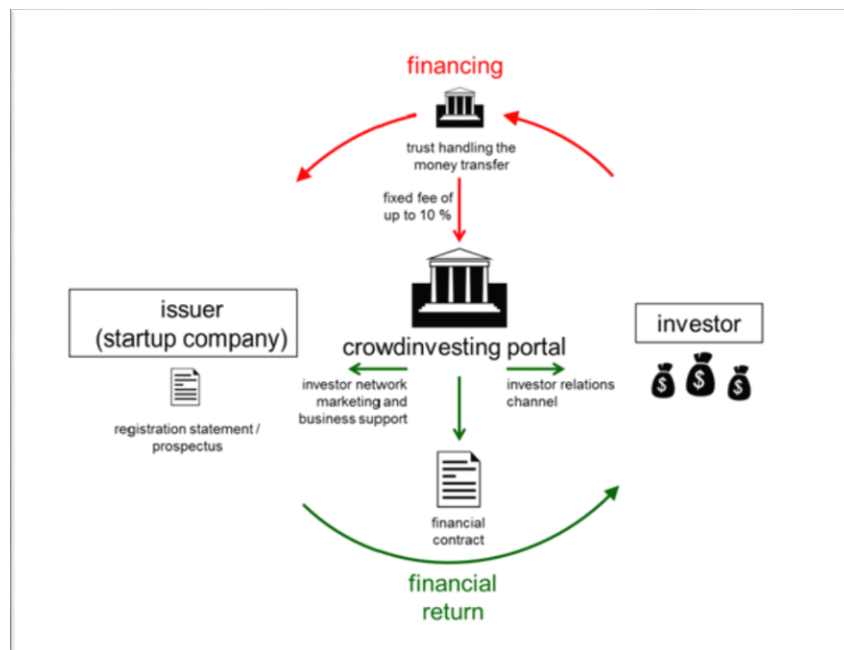


Figure 8 Crowdfunding Portal Structure

Source: Hornuf and Schwienbacher, 2014

Financing stages – when does crowdfunding come in?

Typically crowdfunding will take place in the very early stages of an enterprise or project. Campaigns on online crowdfunding platforms are often set up before there is a prototype and when the venture/project is still in the early stages and wants to finance either production, expansion or marketing activities. Due to the novelty of this financing possibility it's not yet clear how this fits into the traditional chronological order of finance options in the growth cycle of a company. It may act as a substitute for angel investors, venture capitalists or even equity from the entrepreneur himself, or rather as a complementary source of funds.

3.6 The evolution (story) of crowdfunding

Since the phenomenon of crowdsourcing became public in 2006, with the rise of online platforms and social media at the same time, the “crowd” has become much more involved in the product development process. Starting with the more classical crowdsourcing the public has become integrated in creative processes, open innovation, knowledge exchange and aggregation. But not only knowledge, information and solutions can be retrieved, also financial funds for various projects. Without using the term crowdfunding, the platform ArtistShare⁹ in the United States was a pioneer in this area and set up their first funding project in 2003. Soon the idea spread and the first successful online platform SellaBand¹⁰ in Europe launched in 2006. These platforms connected musicians and their fans, with the latter being able to get involved in the creative process of making an album and supporting bands they like. Musicians had the chance to bring out CDs even without a label through the contributions of their fans and in return handed out free copies, gave credit listing, exclusive access to events or benefits from the sales (Beck, 2014; Schwienbacher and Larralde, 2010).

Development of crowdinvesting

The first platform specifically designed for crowdinvesting launched in 2009 in the United States, a platform called ProFunder, which was shut down two years later. Europe followed in 2010, predominantly in the UK, Germany, Switzerland and the Netherlands. Two well-known crowd investing platforms in Germany are Seedmatch and Innovestment, both were founded in 2011. The German market for crowdinvesting has shown drastic increases, with a funding volume of €450,000 in the last quarter of 2011 to €3 million in Q3 of 2013 (Dorfleitner et al, 2014).

⁹ This platform is still online and has facilitated many projects that received awards, including 9 Grammy awards. What fans receive in return is access to VIP events, to the creative process and credit. Website: artistshare.com

¹⁰ This platform is still existing and has had more than 80 artists or acts that had their album funded this way, with more than \$4,000,000 invested in independent artists.

Current state of crowdfunding

Alternative financing solutions have experienced massive growth in Europe over the last few years. The United Kingdom (UK) as frontrunner accounts for most of the volume (on average 74.3% of the total market volume in Europe), with an average growth rate of 159% (from 2012 to 2014). It offers not only the most advanced online platforms but also mature alternative financial instruments and the legal preconditions that allow the use of alternative funding methods, backed up by a supportive government. Following the UK are France, Germany, Sweden and the Netherlands, their alternative finance market is however much smaller (€154 million in 2014 in Germany). The total transaction volume of the alternative finance market showed an impressive growth of on average 146% from 2012 to 2014. Whereas in 2012 the European market, including the UK, comprised €487 million, in 2013 already €1,211 million and in 2014 even €2,957 million (Wardrop et al, 2015).¹¹

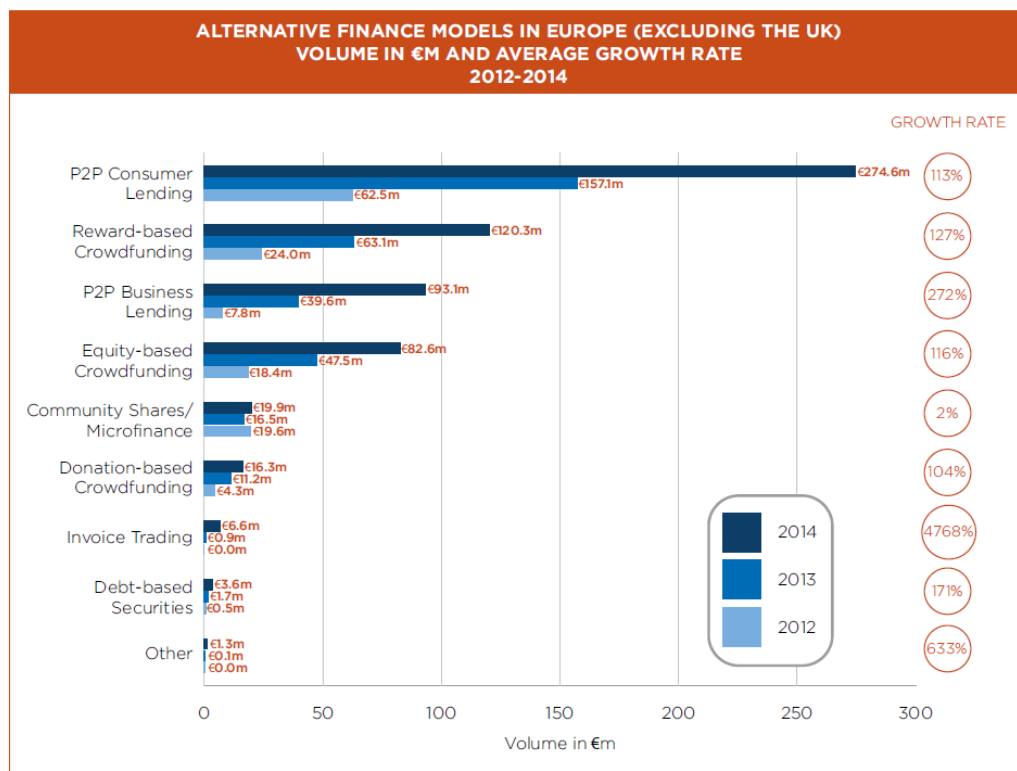


Figure 9: Alternative Financing Europe 2012-2014

Source: European Alternative Finance Benchmarking Report, University of Cambridge and EY, 2015

¹¹ Those numbers were published in The European Alternative Finance Benchmarking Report by the University of Cambridge and EY, 2015.

Dominating the alternative finance market is currently crowdlending, mostly in the form of unsecured personal loans, followed by reward based crowdsponsoring and then equity based crowdfunding. 348,214 ventures were fully funded in 2014, through the use of alternative online financing platforms (excluding the UK). The University of Cambridge and EY project in their Alternative Finance Benchmarking Report accelerated growth of the alternative finance market and the total volume to exceed €7,000 million in 2015, of which €5,700 million alone are expected to be contributed by the market of the UK (Wardrop et al, 2015). More conservative projections predict the UK market to amount to €4,400 million in 2015 (Baeck et al, 2014).

The UK is the forerunner for alternative investment for enterprises and shows worldwide the fastest growth of equity crowdfunding. This development is made possible by their supporting regulation and tax incentives. Data shows that 35.5% of all seed-stage investing and 21% of early stage investing is carried out by the use of equity crowdfunding in the United Kingdom (Vulkan et al, 2015).

Crowdfunding market worldwide

On a global level, the crowdfunding market grew from \$6.1 billion in 2013 to \$16.2 billion in 2014. It is expected to reach \$34.4 billion for 2015, which shows the increasing importance of crowdfunding as an alternative financing means for the future (Vulkan et al, 2015).

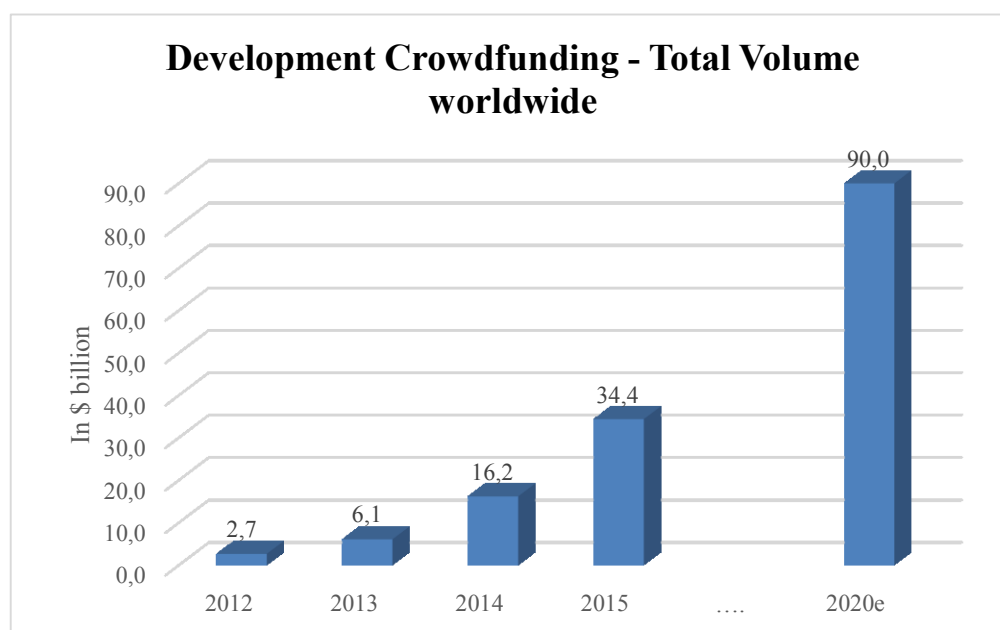


Figure 10: Development of Crowdfunding

Data from: Vulkan et al, 2015; Barnett, 2015

Of these \$34.4 billion, the largest part is made up by crowdlending, with \$25.1 billion, followed by crowddonating (\$2.85 billion) crowdsponsoring (\$2.68 billion) and equity crowdfunding (\$2.56 billion). Crowdlending is still the prevalent form of crowdfunding, but especially crowdinvesting is expected to catch up, like the development in the UK indicates. Massive growth in crowdfunding globally is expected, the World Bank predicts a volume of \$90 billion for 2020, but if the recent growth is going to continue, this number will be reached even earlier. In comparison, a total of \$45 billion was invested by venture capitalists in 2014 and another \$20 billion by angel investors (Barnett, 2015; Crowdfunding Industry Report by Massolution 2015; Vulkan et al, 2015).

Crowdfunding platform: Kickstarter

With regards to reward based crowdfunding, the most prominent online platform worldwide is Kickstarter, which was founded in 2009. As of January, 8th, 2016 Kickstarter states a total sum of \$2,156,487,710 pledged for all projects and 98,948 successful projects. Those projects were financed by \$1.88 billion. More than 10 million investors contributed to Kickstarter projects. The success rate, stated by the platform itself is 36.4% - the highest success rates with more than 50% are found for projects in Music, Theater and Dance (Kickstarter, 2016). ¹²

¹² Data from Kickstarter, accessed on January, 8th, 2016

4 Who uses crowdfunding and why?

For some emerging firms the main reason to refer to crowdsourcing or crowdfunding is the sheer necessity, due to a lack of financial resources and possibilities to find investors. For start-ups crowdfunding can be an easy and rather fast opportunity to start their own business, especially at a very early stage.

When the crowd is involved in some way of crowdsourcing, may this be as being involved in a part of the production, generating ideas or contributing funds, this offers benefits for the initiating firm. The inclusion of consumers via the internet typically presents cost saving opportunities, when the consumer is taking over a role in the work process. Voß and Rieder describe his role in this new distribution of labour as a “working consumer” (Voß and Rieder, 2005). Productivity can be increased this way, as well as the customer base, which can easily multiply via social media and networking on the internet. Making use of the knowledge and ideas of customers represents another great opportunity for firms. When customers are included in product quality and product improvement processes, they can bring in their expertise and at the same time the corporation can detect the specific needs and wants of consumers (Kleemann et al, 2008).

Reasons to use crowdfunding
Easily available source of financing, no collateral needed
Financial and creative input of the crowd
Cost saving
Multiplication effect and marketing via platform
Accelerated development of product
Chance to test acceptance of product beforehand
“New-to-market” effect

Table 2: Reasons for use of crowdfunding

Additionally, firms benefit from a shorter “time-to-market”, as the development of products is accelerated. The “cost-to-market”, the cost that accumulate from the time of the planning to the actual market entry can be reduced, as well as the “fit-to-market”, which means the acceptance of the new product or service by the market. This usually

brings along the willingness of customers to pay a higher price for that particular product. Finally, the “new-to-market” effect can also increase when the consumers perceive the product more to be an innovation and new (Kleemann et al, 2008; Reichwald and Piller, 2009).

4.1 Motivations to invest in crowdfunding

For investors who decide to use crowdfunding, three main types of motivation can be distinguished:

- Financial return
- Social return
- Material return

For an individual a mix of these motivations will trigger his decision to invest, with different emphasis on social, financial and material motives. Intrinsic and extrinsic factors contribute both, the traditional motive to strive for wealth is not the sole goal. Identification with the product and the entrepreneur are other fundamental factors. For many investors the “push for innovation” poses an important motivation, for which they are even willing to accept a lower rate of return (Nicholas, 2011; Schramm and Carstens, 2014).

Financial return

When an investor is primarily interested in financial return, he can invest in equity crowdfunding or lending based crowdfunding. Giving a loan (which will be most likely junior debt) brings him interest, with the interest being rather high to account for the riskiness of the start-up. A typical company using crowdfinancing to finance its operations will entail high risk for the investor, but this promises him also high return. This is the case in particular if the investor is reaping benefits from increases in the enterprise value or annual returns (Beck, 2014).

Material return

Most prevalent with reward based crowd funding, investors who are motivated by material return receive some kind of (material) reward for their investment. First the investor provides resources in order for the project to be undertaken, afterwards he receives either the product, some kind of service or a gift instead of a financial return.

This reward may present a higher value to the investor than the actual monetary value, for example if he receives VIP tickets for the concert of a band (De Buysere et al, 2012).

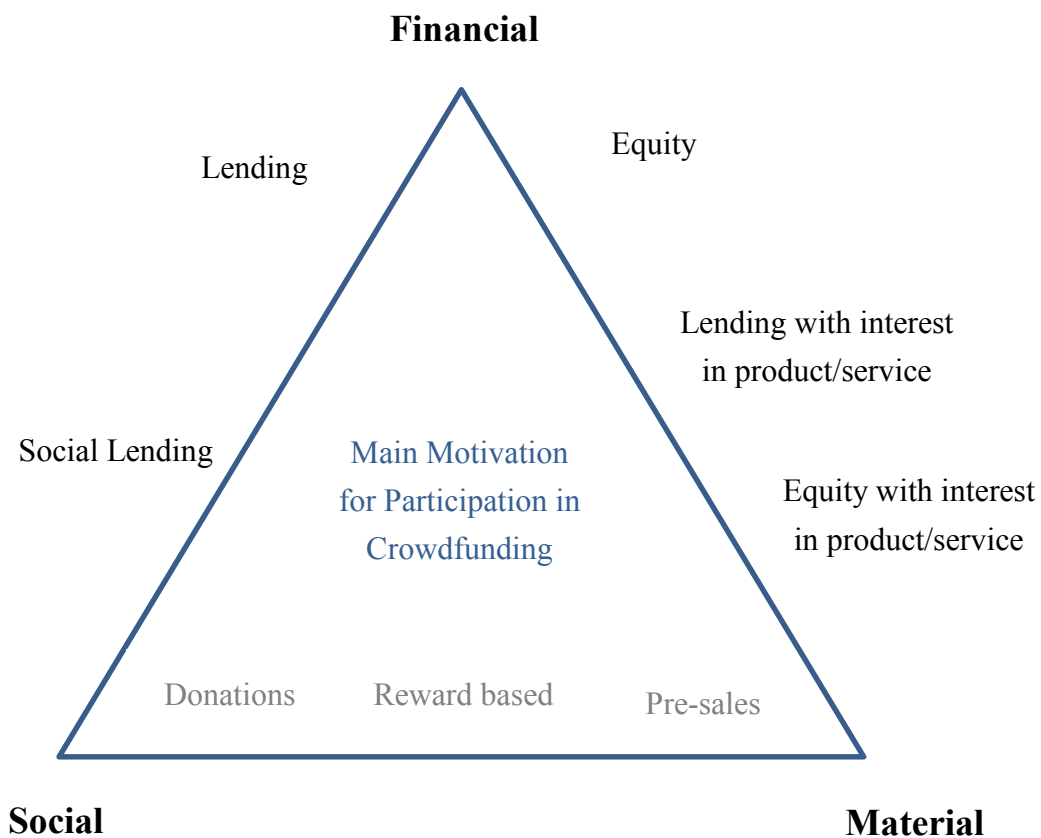


Figure 11: Motivation for Participation in Crowdfunding

Source: De Buysere et al, 2012, modified

Social return

In contrast to financial and material motivations, the motive for those funders is intrinsic. They are satisfied when they see that through the involvement of the crowd the project can be carried out. Typically they don't expect any material return or their investment and gratefulness or any form of acknowledgement is enough to them. Thus they are participating more often in donation based crowdfunding or non-profit projects (De Buysere et al, 2012).

4.2 Characteristics of firms using crowdfunding

Among the start-ups that raise funds via crowdfunding, there is a high share of artists, especially musicians, game developers and filmmakers. On the platform Kickstarter, most projects were from the categories Film and Video, Music and Publishing. Several of the films funded by the crowd on Kickstarter have received awards, six of them have been nominated for the Academy Award, and *Inocente*, a documentary film from 2012, received an Academy Reward as well as an Oscar. It was the first film financed by a crowd to win an Oscar (Kickstarter, 2016).

Besides those categories popular crowd funding campaigns involve Software, technical gadgets (smartwatches), social projects and video games. The latter have received a lot of attention and funds. The combat video game *Star Citizen*, a space simulation game featuring player interaction, is recognized as the highest crowd funded project and game in the world. Started in October 2012 by Cloud Imperium Games and Roberts Space Industries, early on in the campaign, via Kickstarter and independently, the initial targets were surpassed. As of January 2016 more than \$107 million have been raised for the continuing development of the game (Cloud Imperium Games, 2016).¹³

Online platforms are selective in which projects they are willing to support. This means that only the most promising and innovative campaigns get chosen. There are different admission criteria for start-ups to participate. On Companisto, a leading German equity crowdfunding platform, the formal requirements are only that the start-up would be innovative, with a distinguishable business model, unique selling points and already past the concept phase. These need to be described in a presentation. Other platforms are more detailed in their selection criteria. A start-up has biggest chances to get chosen if it has an innovative product or service, with the potential to inspire consumers and if the concept is addressing current trends (Technology, Health, Energy etc.). Furthermore, the business model should be sustainable and the potential market needs to be large enough. The founding team needs to be highly motivated and able to transfer this enthusiasm to the crowd. Most crowd funded start-ups are Business-to-Consumer start-ups, due to the nature of investors, which are in most cases also the consumers. In case of Business-to-Business concepts individuals are less affected and might not have enough background knowledge to evaluate a B-2-B model adequately (Schramm and Carstens, 2014; Companisto, 2016).

¹³ Data is available at robertsspaceindustries.com, accessed on January, 15th, 2016

A typical start-up using crowdfunding

The typical start-up or entrepreneur, if there is such a type, deciding to raise capital via crowdfunding can be described as highly innovative, creative and flexible. He is willing to make adjustments to the initial idea, respond and involve the crowd and often uses new technologies and unique skills. His start-up is in an early stage, but already has a concept, some kind of innovation, with a potential to surprise and engage consumers (Nicholas, 2011; Schramm and Carstens, 2014; FCA, 2013; Hornuf and Schwienbacher, 2014).

4.3 Characteristics of investors using crowdfunding

There are a lot of similarities of investors in crowdfunding to other investors in (very) early stages. They have to be willing to accept a high level of risk and hope for a high return. There are however certain characteristics found for investors in crowdfunding.

The amount an investor is willing to raise via crowdfunding is clearly smaller than the average amount a business angel or a venture capitalist would invest. On the platform Seedmatch the average investment per start-up and investor ranges from €700 to €1000. The earlier the stage the start-up is in, the smaller is the average investment the crowd is willing to contribute, which is connected to the higher risk. Compared to VC or business angels, the crowd is less involved and usually neither has voting or decision rights nor brings in its Know-How. For traditional venture capital the investment decision may extend over months of assessment and due diligence, while for crowdfunding this decision is made much faster, often within a few hours (Schramm and Carstens, 2014). Seedrs, an equity crowdfunding platform, is addressed at educated investors, managers, academics and business owners, who lack the time and resources to become angel investors (Seedrs, 2016).

The typical crowd investor is middle-aged (on Seedmatch the average age is 39 years) and holds an academic degree (2/3 of all Seedmatch investors). Their average monthly net salary amounts to €2,900. Among crowd investors we find a remarkably high proportion of self-employed individuals, mostly with a background in IT, Finance or Consulting (Schramm and Carstens, 2014; Hornuf and Schwienbacher, 2014). They are more open to entrepreneurial activities and are in funds to invest. The FCA reports that they tend to be “high-net worth individuals with investment experience” (FCA, p. 37, 2013). Predominately it is men that invest in crowdfunding projects (WKO, 2014). The dominance of male investors exists only for lending and equity based crowdfunding.

Concerning donations or reward based funding women make up 50-65% of fundraisers (Baeck et al, 2014).

4.4 Investment decision for crowdfunding

In general, individual investors, when classified as being rational agents, will initially assess the quality of the project, the founders, their skills and the likelihood of success before deciding whether to invest and which project they are willing to back. Looking at crowdfunders this way, they constitute another source of funding, comparable to traditional financing sources. When a project is of high quality, it will be successful in raising the required funding, if it's of low quality, it will fail. Additionally to herding behaviour that can be observed with crowdfunding (Belleflamme et al, 2015; Zhang and Liu, 2012) this is intensified by the Matthew effect. This effect describes a principle, which states that success is fed by preceding success. Small successes are followed by more success in a disproportional way, where small advantages lead to big success, leaving the majority unlucky (Merton, 1968). A project that signals good quality will attract more investors and it will be more appealing to other potential investors (Mollick, 2014). In this context it's important to note again the high level of information asymmetry in crowdfunding, which entails difficulties for funders to assess the quality. Also, can we work on the premise, that similar to other forms of funding efforts of entrepreneurs, investors decide primarily based on quality criteria? For traditional fundraising settings for young entrepreneurs, investors require a careful preparation, a business plan, collateral, and a promising strategy and assess the entrepreneurial skills. Banks base their decision mostly on financial considerations, whereas Venture Capitalists look firstly at the market and finances, but also look at the entrepreneur and his strategic alignment. The approach of business angels is similar, they are less consistent in their decision process and do however pose even more importance on the fit with the entrepreneur or the team. Business angels are often personally involved and offer also support and advice, so the personal gain and some interest in the project has to be there (Mason and Stark, 2004).

Signalling quality

With crowdfunding, however, it is not as clear, what leads individuals to invest their money, whether they follow objective criteria, like financial prospects or product quality. When the entrepreneur or the product quality is opaque, the investors might pick inefficient projects and decide based on more naïve decision parameters.

Mollick assessed the influence of the quality of projects promoted on Kickstarter on their success. Parameters for high quality were a high level of preparedness, regular information flow, updates and the existence of a video. He finds that all of those parameters are significantly related to project success. Misspelling words and not offering a video lowered the chance for success, same goes for failing to give regular updates. This supports the view that crowd investors act reasonably and react to signals of quality (Mollick, 2014).

Various signals for quality have been identified by Ahlers et al. The level of education correlated positively with the number of investors willing to fund the enterprise. When MBA graduates were among the team significantly more investors could be expected. Also the higher the number of board members, the higher were both total funding and number of investors. As a negative signal serves a high equity offering, which goes in line with the rationale, that if the entrepreneur expects high cash flows and is convinced of success, he will keep the highest possible share of equity. If no financial forecasts are offered, investors are more hesitant and the funding sum decreases. Thus the provision of financial information can be interpreted as a positive signal, decreasing the level of information asymmetry and hence the risk for investors (Ahlers et al, 2015).

4.5 Factors for success

The huge amount of crowdfunding campaigns and the wide spread over industries make it difficult to pinpoint the success of some campaigns to a few steps. However, there are consistent common properties that have been found for projects on crowdfunding platforms like Kickstarter or Seedrs. There are two components to success for initiators of crowdfunding campaigns. The funding happens at a very early state of the venture process, so first the funding has to be completed successfully, reaching at least the funding target. Secondly, the project has to be put into practice and in case of reward based or equity based crowdfunding investors need to receive their return.

Part I: Successfully raising funds

Projects that will fail in the end, fail by a large amount – if you fail to raise the funding goal, you fail miserably. (Mollick, 2014; Vulkan et al, 2015). The actual funding shows a highly skewed distribution. There are few projects which account for almost all of the funding and projects that reach the target are significantly overfunded. Successful campaigns at Seedrs reached 138% of their initial target. There is a pattern that can be observed for campaigns, which shows that the launch phase is crucial and predicting the future success or failure of the enterprise. When there is already a number of investors committed to the project, others are more willing to follow. This becomes a movement with increasing speed, indicating herding behaviour. The funding for successful campaigns is already done in the first days and weeks, on the platform Seedrs 17.5% of the capital is generated on the first day and more than 50% is backed up at the end of the first week. This is different for failed projects, which show a very slow contribution growth and they don't really get started at all (Vulkan et al, 2015; Lerner and Stern, 2014; Mollick, 2014; Seedrs, 2016).

For successful projects single large contribution have been identified, which make up about 30% of the total amount, whereas for not successful campaigns the largest single contribution was only 5.4%. A large contribution can work as incentive and signal for other investors about the quality. Naturally, also the number of investors contributes to the success of a campaign. In successful campaigns 158 investors on average were identified, compared to only a fifth of this number for unsuccessful projects. Those

investors also each contributed a higher amount, with £368 for successful and only £233 for unsuccessful projects (Vulkan et al, 2014).¹⁴

In an explanatory study by Mollick, using the data by one of the leading crowdfunding platforms, Kickstarter,¹⁵ similar patterns were found.

Successful projects were identified to success by a small margin, whereas unsuccessful projects failed miserably. The higher the quality of the project the higher the chances for success are, given that, as described before, investors in crowdfunding campaigns are rational individuals. A high level of preparedness signals the quality of the project and is thus related to a higher chance of success. Offering a video and making an effort to keep investors informed about what's going on is seen as good preparation and increases the chances for success. Another factor to predict success was the size of the social network of the founder(s). Other things kept equal, a larger number of Facebook friends would increase the chance of success considerably, from a 9% chance with 10 friends to 40% chance of success when having 100 friends. Having no Facebook account at all linked to the project seems to be superior over having only few friends (Mollick, 2014).

Part II: Successfully delivering

When an entrepreneur has succeeded in raising the required funds, there are still challenges to face. Whether he can deliver on time will depend on quality and reliability of the time schedule made as well as on the complexity of the product. If funding goals are exceeded, the product may get extended and become more complex. Combined with increased expectations following a very successful funding campaign, reaching results in a timely fashion becomes difficult (Mollick, 2014).

Around 80% of projects on Kickstarter delivered identifiable outcomes, with a very low rate of fraud (less than 4%). Products on Kickstarter are however prevalingly delayed, by 1.3-2.4 months. ¼ of projects delivered right on time. As expected, the complexity and scope of the products was related to the length of the delay. There was also a correlation found between the extent of overfunding and delay. These delays arise from changes in

¹⁴ These numbers are results of a comprehensive study done by Vulkan et al on the equity crowdfunding platform Seedrs in the UK. This is one of the leading equity crowdfunding platforms in Europe. A total number of 636 projects between 2012 and 2015 were analyzed.

¹⁵ The data used spans from the start of Kickstarter, 2009 to 2012. In sum more than 48,000 projects were analyzed, which came up to a volume of \$237 million. The success rate of projects during this time lies between 44 (published by Kickstarter) and 48% (calculated by Mollick).

the scope, shipping or manufacturing problems, increased complexity or unexpected certification problems. No evidence was found that founders would intentionally delay their projects. Overfunding decreases the chances of timely delivery, while project type or amount of investors did not have a significant influence on delays (Mollick, 2014).

5 Case Studies

Although crowdfunding has become well-known and the market for it has gained significant importance, it is still rather new and success rates are hard to quantify. In particular for crowdfinancing, which started a few years later than reward based crowdfunding, little data exists. In 2012 and 2013 only a handful of crowdfinancing campaigns were launched. Of those some start-ups failed, as it's to be expected, the survival rate of start-ups in general is rather low, irrespective of funding method. Depending on the industry, after 4 years 37-58% of start-ups are still operating (Statistic Brain, 2016).¹⁶ More successful funding campaigns were launched in 2014 and 2015, for those however the outcome for investors will only be apparent over the next few years.

The following chapter gives illustrative examples of companies and projects respectively which were funded with some sort of crowdfunding. They differ in industry, type of crowdfunding, length of the campaign, funding amount, success and home country. While the first case study depicts a start-up that managed to raise funds via crowdfunding, but subsequently went bankrupt, the other case studies are examples of successful projects or companies to this day.

5.1 Case Study 1: Woodero

In 2013 the start-up Woodero was founded by Andreas Brandner, Christian Gerer, Alexander Krauser and Florian Schupp in Styria, Austria. To finance their operations the Woodero GmbH used the Austrian crowdfunding platform 1000x1000. Via equity based crowdfunding they were able to successfully raise more than €100,000. It was the first company to reach such a high funding amount with crowdfunding. However it was also the first one that had to declare insolvency.

The idea

Business purpose was to produce hand-crafted fine cases for iPads. The cases were made out of nutwood and should only be produced in Austria. Emphasis was put on the production, which would follow sustainable criteria. Besides the high quality of used material, full wood, which due to its characteristics alone makes each product unique, the

¹⁶ Highest survival rates are seen in the Finance Insurance and Real estate sector, Education and Health and Agriculture. For the Information industry, retail and transportation and utilities rates are the lowest (Statistic Brain, 2016).

cases would offer multiple features. They saw no competing company offering the same high-level case for iPads at that time. What differentiated their product from others was also the stability of the case in any angle. Each case was to be an individual construction and customers could have had names engraved with lasers. Marketing material of the cases is included in the Appendix. After a successful market entry in Austria, Germany and Switzerland, the products should be introduced world-wide. To enter the US market, a campaign on Kickstarter was intended.

Investors

Individuals who would put up money via the platform 1000x1000 did receive a profit participation right in return for their financing. The earliest time to resell the participation would be after three years. Of the required amount of €350,000 that the founding team estimated they would need €200,000 should be raised by crowdfinancing. The rest should be contributed with debt and guarantees from the “Austrian Wirtschaftsservice”. Most of the funds would go into Public Relations, Marketing, social media, market entry and equipment.

Business model

The plan was to carry out most of the sales through an online shop, where customers could choose individual features, like an engraving, to personalize their product. Besides online sales the product should also be available at Apple resellers and exclusive shops. For this they already found interested retailers in advance, like IDRYAD in Switzerland, Man at Work and GF McWorld-McShark.

A high-level line with crystals by Swarovski was planned and talks with Swarovski were ongoing. Due to the increased popularity of Samsung tablets the product range should be expanded later on to cover not only Apple products, but also those of Samsung and Smartphone cases. Ultimate goal was to become the world-leader for wooden cases. The founding team was very optimistic that due to the high degree of innovation and the outstanding product quality they could control this market niche.

All four members of the team had extensive experience in either research and development, marketing or Business administration. Andreas Brander and Christian Gerer, both engineers, had extensive expertise in wood technology. They were responsible for R&D and production. Florian Schupp, responsible for Distribution and Marketing, had worked in advertising for more than 10 years. The forth one, Alexander

Krauser was a business man, who had worked as a business consultant, in a similar start-up and in retail companies in over 40 countries.

Finances

The first valuation of the start-up (pre-money) was set at €1 million. They claim on the platform 1000x1000 that the value would have been much higher had they used the calculated value using the Discounted Cash flow method. If their goal of €200,000 of new equity by crowd investors would be reached the post-money company valuation would amount to €1.2 million. In their Business plan they promised investors a company value of €6 million after three years of operation. Prior to the campaign start at 1000x1000 already 400 cases had been sold via the online shop at their website.

For €1,000 an investor would get a share of 0.083% of the start-up. Based on their optimistic Business plan this would result in a profit participation of €4,000 over the course of three years and the share in the company would then be worth €5,000. This is what they promoted on the crowdfunding platform.

The following table shows their anticipated sales for the years 2013-2017. Following the first year of operation, 2013, the sales were expected to increase drastically each year, to double from year 2014 to 2015 and again from 2015 to 2016. Already in 2014 they expected to be in the black. In the financial forecast the average growth rate for EBIT was set at around 200%, which seems hardly substantiated and far too optimistic.

In € k	Plan				
	2013	2014	2015	2016	2017
Sales	74	2,750	5,800	11,270	16,130
Growth %		3,616%	111%	94%	43%
EBIT	-105,489	179,488	630,005	1,919,142	3,313,264
Growth %		270%	251%	205%	73%
Staff	4	7	9	11	13

Table 3: Financial Plan of Woodero

Source: Woodero GmbH, Extract from their Business plan, available at 1000x1000.at

What happened?

Woodero successfully raised a total of €166,000 from 175 investors at the end of 2013. On average each investor contributed €950. Unfortunately the sales did not develop as well as anticipated and already in March 2014 the Woodero GmbH declared bankruptcy. Investors had been informed continuously, some of them would even have been willing to inject further money. Since all investors were subordinate ranked, they did not see any of their money again. Most of this money was invested in marketing activities. Woodero was shut down in mid-2014. Alpenelectronics, an electronics company from Lower Austria, bought the patent rights for the wooded cases during the insolvency proceedings.

Why did Woodero fail?

Woodero managed to establish valuable network contacts and distribution channels as well as partnerships with importers all over Europe quickly. However, most of the distribution channels provided much lower sales than anticipated. One important retail partner of Woodero slid into insolvency and on its own Woodero did not manage to increase their sales enough to avert insolvency itself. The quality of the product was very high and there were never complaints about this from customers. Also the marketing and PR was done professionally. What kept consumers however from buying the product, was the high price of €149.90 per case – when there were substitutes (not made of wood, but of plastic or leather) for a fraction of this price.

5.2 Case Study 2: BrewDog plc

In 2007 James Watt and Martin Dickie founded the brewery “BrewDog” in Ellon, Scotland. With the mission to brew fine, high quality craft beer, the two friends started out in their garage. They combined their knowledge from their studies, Martin Dickie in Brewing and Distilling and Martin Dickie in Law and Economics and started producing beer all by themselves, putting all their savings into this start-up and only backed by a few soft loans. In 2007 already 15,000 bottles per month were produced. Ever since their business has shown tremendous growth.

Company overview		
Business Type	Unlisted Public Limited Company	
Founded in	2007	Scotland
Industry	Craft Brewery	
Products	High quality craft beers (ale, stout, lager), 44 bars all around the world	
Market	Focus on UK, Scotland and Scandinavia, Exports to 55 countries worldwide	
Staff	540 employees	

Table 4: Company overview BrewDog

The idea

Inspired by their passion for beer and frustrated by the English beer culture and brewery scene James Watt and Martin Dickie decided to go for innovative and strong beers. Not only did they envision a range of more diverse and unique beers, they also wanted to create a brand that is more appealing to people. The goal was to give consumers a chance to get involved and offer them memorable experiences as well. So they created a community of “Punks”, individuals that are just as passionate as they are about beer. Besides the possibility to become investors – called “Equity Punks”- events are organised and a very progressive PR strategy is followed.

Finances

Having an aversion to venture capitalists and big conglomerates they have always tried to stay as independent as possible. Though in later years they received many offers of potential large buyers, they always refused. Instead they took an alternative, new approach to finance their business. Starting with a few bank loans in 2008 to finance the first expansion, the founders decided to set up a crowdfinancing campaign on their own in 2009. At the time crowdfunding was still in its infancy, even in the UK, and none of the now so popular crowdfunding platforms like Crowdcube or Seedrs existed. So they set it up by themselves using their website. Without being listed at any stock, which they are still not, a public share offering was set up. Labelled as “Equity for Punks I” they attracted more than 1,300 investors who bought shares at a price of £23. Revenues grew constantly, the first bar opened in 2010 and at the end of 2010 they already had 39 employees. The second crowdfinancing round “Equity for Punks II” brought more than £2.2 million and around 5,000 new shareholders in 2011.

Financing		
Capital structure	Founders hold more than 70% of shares, free float via equity crowdfunding for the rest	
Type of crowdfunding	Equity crowdfunding Crowdlending	Class B-Shares and Mini-bonds
Number of shareholders	36,900 shareholders	Investors mainly from UK, Scotland, Sweden and Finland (01/2016)
Shares	As of 12/15 5.9 million shares; post allotment of new shares 6.4 million shares (04/16)	
Enterprise value	£305 million	Implied by current share price of £47.5
Dividends	No dividends are paid, profit is reinvested	
Trading of shares	Not listed on any stock exchange, Annual Asset Match share trading platform since 2014	

Table 5: Financing BrewDog

This was topped by the third round of equity issuance in 2013, with almost 10,000 new investors who at a price of £95/share provided £4 million. During these years BrewDog was able to record growing revenues each year with 65-70% growth, a positive operating profit and to expand on a large scale. A fourth round to raise equity – “Equity for Punks IV” is currently running until April 2016. This time BrewDog decided to use the platform Crowdcube, one of the UK’s leading crowdfunding platforms, as intermediary. In order to raise up to £25 million, 0.5 million new shares are issued at £45.7 each. For the first time besides equity shares mini-bonds are available to investors. A fixed interest of 6.5% p.a. is given for bonds starting at £500. The non-convertible bonds have a maturity of four years and are only available for UK investors. Proceeds from the bonds shall be used to fund the working capital and capital expenditure requirements, while the new equity funds further expansion (see Appendix).¹⁷

Benefits for investors

BrewDog managed to create a strong community of “equity punks” and built the brand around this strong involvement of owners. Equity punks not only invest but can also contribute to the development of products and as investors benefit from multiple perks. Starting at an investment of only £95, investors benefit from a 5% discount at BrewDog bars, 10% if they own more than 9 shares. For the online shop discounts between 10% (2 shares) and 20% (6 or more shares) are offered. Each investor gets a free beer for his birthday, first access to special and limited editions and has voting rights. The annual general meetings are organized to be an investor party with live music and beer tastings. Additionally there are events for shareholders like the shareholders brew day.

A reward system for recommending to invest in the company is in place. Referral points are awarded for each investor who was referred to. Non-financial rewards like limited edition products or a signed copy of the founder’s book are given in return. This unique setup makes sure that investors are tied to the company. Both sides benefit from referrals and the investors consuming the products themselves. These returns are difficult to measure. The amount an investor can save is dependent on his drinking behavior and the other benefits are of non-material value.

¹⁷ Data from the company’s website, brewdog.com, accessed on February, 11th, 2016 and Securities Note “Equity for Punks IV” Prospectus, crowdfunding platform Crowdcube, crowdcube.com, accessed on February, 11th, 2016

Success factors: investor inclusion

BrewDog has managed to grow at an impressive speed and attract a large amount of both consumers and investors, many of them filling both roles at the same times. The success can be attributed to the following factors:

- Constant information and regular updates are provided
- Innovative and high quality products (different tastes and alternative tastes, limited editions)
- Progressive PR and marketing
- Creation of a community of “equity punks” (investors), where investors can contribute to the process and bring in their ideas
- Non-monetary benefits and discounts, tying investors to the company and increasing loyalty
- Annual meetings party-like and events organized for investors
- High potential financial return

Return to investors

Since BrewDog is not listed on a stock exchange yet, shares cannot easily be traded. Only since 2014 there is a possibility for share owners to trade at an annual trading platform. Shareholders can announce the number of shares they are willing to sell and set a minimum price. Then automatically an algorithm finds the price at which most shares will be traded and all shares which were offered at a minimum price below will be traded. This means that shares are rather illiquid, they can only be sold at this annual trade and a return is not guaranteed. Additionally, as there is no stock listing, the price of one share is not determined by the market, but by the valuation of the company itself. The current equity issuance matches up to a value of £305 million (see Appendix), a value claimed by many as being far too high. The founders claim that they can substantiate the high value and point to the steady fast growth over the last years, with growth rates of revenues of 64-70% from 2012-2015. Operating profit has grown at rates from 53-287% during this time. The following graphs show comparisons of BrewDog to two close peers, Young & Co's Brewery plc and Adnams plc, both small breweries from the UK which are listed on the stock exchange. For 2015 revenues are expected to equal £50 million for BrewDog. Based on the share price fixed in their equity issue, the market value amounts to six times the annual revenues. This value is very high compared to the other two breweries and implies high growth expectancy by the market.

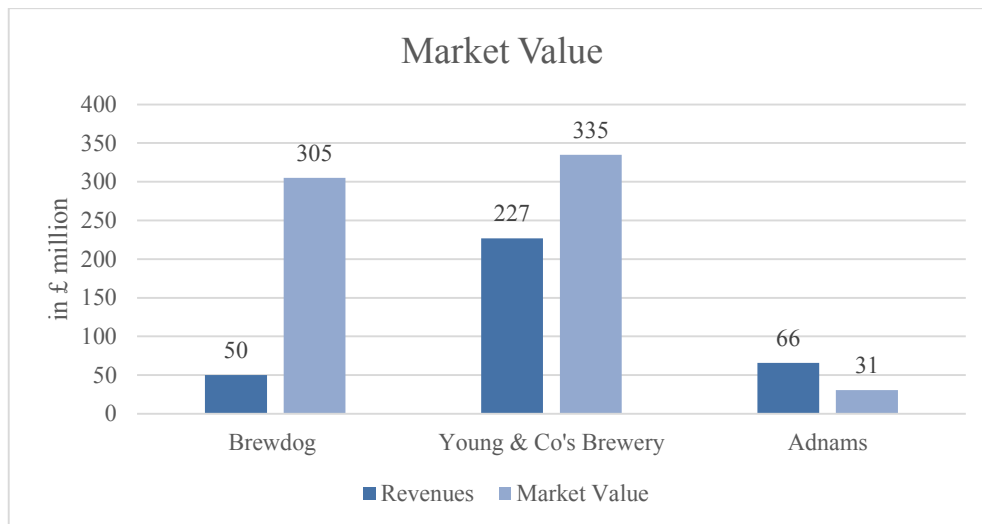


Figure 12: Market Value Peers

Looking at some key performance indicators shows a different picture. The P/E-ratio of 10.3 lies even below the ratio of their peers¹⁸ and seems to be reasonable. Looking at the EPS and share price, BrewDog lies just between their competitors. This points to a realistic valuation of the company. A listing with the Alternative Investment Market (AIM) in the future is possible, according to the founders.

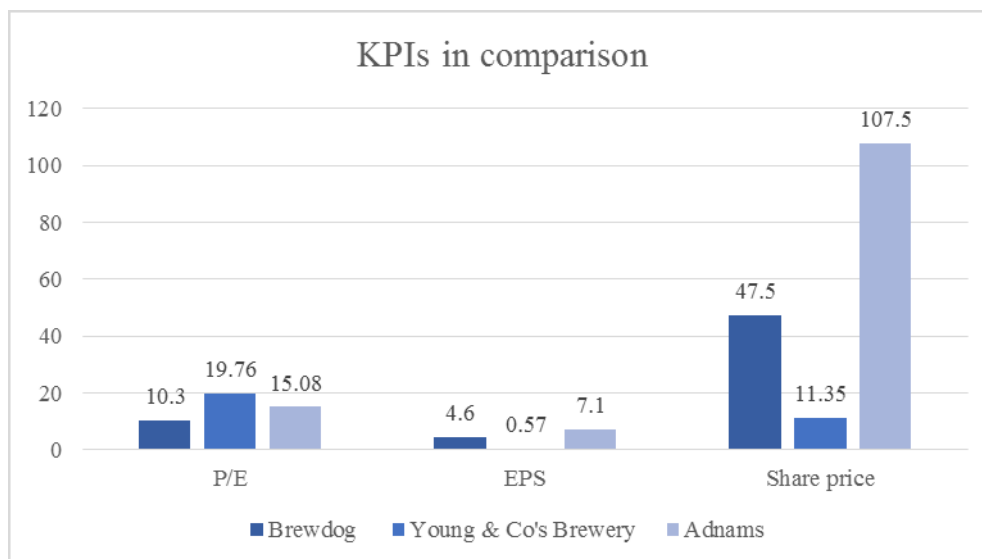


Figure 13: KPIs of BrewDog and Peers

At the moment however the only way for investors to make a profit is by selling shares at the annual trade platform. Shares were traded at a price of £125 at the auction in November 2014 (Assetmatch). For an “Equity Punk” who invested in the first round for

¹⁸ For exact calculation of the P/E-ratio see Appendix, numbers are those expected for 2015, given that all shares in the equity offer are subscribed, which gives a total number of class B (common) shares of 690,742. Data for the peers comes from Bloomberg, accessed on February 12th, 2016.

£23/share in 2009 this would constitute a return of £102 (88.7% p.a.)¹⁹. This comes to a total profit of 443%, which is also what founders market to investors as possible to achieve at the trade platform. Equity Punks who invested in the second round could achieve a return of 426%, whereas those who bought the shares at £95 in 2013 could only realize 32% return (Burn-Callander, 2015).

	Share price when bought	Max. profit possible
Equity for Punks I (2010)	£23.00	443%
Equity for Punks II (2011)	£23.75	426%
Equity for Punks III (2013)	£95.00	32%

Table 6: Return on Investment for Equity Holders

¹⁹ Not taking into account inflation, taxes and commissions.

5.3 Case Study 3: Stromberg Movie

Stromberg is a German comedy TV series that started in 2004. It portrays the daily life of colleagues and their boss, Bernd Stromberg, in the office. In his role as boss of a claim settlement company he is presented as incompetent in professional but also personal areas. The series has a stable viewer basis, which facilitated the crowdfunding campaign which was done in 2011 to fund the first movie. Prior to the production start the producer of the series, BRAINPOOL TV GmbH, launched the crowdfunding campaign via their website.

Crowdfunding campaign	
Start crowdfunding	2011
Industry	Entertainment
Product	Movie
Funding goal	€1,000,000 in 20,000 shares of €50
Platform	Myspass.de
Type of Project	Limited to one particular movie by the producer BRAIN-POOL TV GmbH
Number of investors	3,300
Type of crowdfunding	<ul style="list-style-type: none"> - Profit-participation right - Reward based crowdfunding

Table 7: Crowdfunding campaign Stromberg movie

Within only one week the funding goal of €1,000,000 was reached, which constituted almost one third of all production costs. 3,300 investors contributed. Investors were offered 20,000 “shares” à €50. Shares constituted not an equity investment in the company, but the right to participate in the profit that would be made with the sale of movie tickets. The investor community would get €1 for each ticket sold up to the threshold of 1,000,000 tickets sold and for each ticket sold beyond this €0.50. This means investors would break even only if more than 1,000,000 tickets would be sold in total.

Besides the profit participation right several rewards were given to them, an investor's certificate for all investors and depending on the amount of investment furthermore premiere tickets and mentioning in the final credits. Regular updates and background information were provided to investors. Within 12 months after the movie launch investors would receive their share of the profit. Investors had no possibility to return or sell their "shares" during this period.

Return to investors

In the end, the movie sold more than 1.34 million tickets, which constitutes a very high viewer count for a German production. This means a return for investors of 17% on their investment, or an annual return of 5.4% as Table 8 shows. In a low interest environment this is a decent return, however, the investment was risk capital and investors had no guarantee to receive any return.²⁰

Return to investors	
€1,000,000.00	Crowdfunding amount
1,340,000.00	Tickets sold total
€1,000,000.00	Profit for first 1 million tickets
€170,000.00	€0.5 for tickets beyond 1 million tickets
€1,170,000.00	Profit participation investors
17.0%	Return total
5.4%	Return p.a.
3	Years until profit was paid

Table 8: Return to investors Stromberg movie

²⁰ Data from platform myspass.de and website of the movie: stromberg-der-film.de, accessed February, 15th, 2016

5.4 Case Study 4: Star Citizen

A space game for PC called “Star Citizen” is recognized as the most successful crowdfunding project (Crawley, 2015). Starting in October 2012 with a crowdfunding campaign first on their own website, later accompanied by a campaign on Kickstarter, the producer behind the game, Cloud Imperium Games Corporation and the designer Chris Roberts have received more than \$108 million so far. All funding goes into the continuous development of the game, which is still not available in retail, but is constantly improved and further developed.

Company overview		
Product	PC Space game	
Start	October 2012	
Company	Cloud Imperium Games Corporation	Game designer Chris Roberts
Number of backers - “star citizens”	1,280,671	Mainly from the US and Germany
Financing	100% crowdfunded, now only on Website robertsspaceindustries.com, 1 Kickstarter campaign in 2012	
Funding amount	\$108,653,161 ²¹	
Type of crowdfunding	Reward based crowdfunding	
Rewards for investors	Access to the game, in-game currency, equipment (flag-ships) in the game, being part of the community	

Table 9: Company overview Star Citizen

The idea

Chris Roberts, the game designer behind Star Citizen, has already created some successful games before (Wing Commander, Privateer, Freelancer), but none of a comparable scale. He did not initially plan to focus only on crowdfunding and thus carefully prepared a technical prototype which took him one year and developed a detailed business plan. Only

²¹ As of February 16th, 2016, according to their website, robertsspaceindustries.com

after that he launched the idea on his own website and was quickly overwhelmed by the response of interested investors. In order to adequately deal with the rush the campaign was also set up on the platform Kickstarter and quickly raised \$2.1 million from 34,400 investors. Roberts' objective was to create a community of gamers, invested in the development of the game, just as he was, for this Kickstarter was not ideal, since it did not have any forums. This and the minimization of fees lead to the decision to henceforward continue solely on their own website. Ever since gamers have had the possibility to contribute funds by buying game packages (starships, flagships). The higher the pledge they make, the more and better ships they get in the game. Further they get in-game currency and better equipment for their flagships. Gamers are investors and developers at the same time, as they get access to alpha modus versions and are testing new features. In forums they can give feedback and bring input. There are detailed regular updates on the webpage, a monthly report from the studio and question and answer sessions once a week with Roberts. In an interview Roberts explains his strategy to fully focus on crowdfunding:

"Because I feel that people have given their money to this dream, helping me make the game I want to make, my dream game," ... "I think it's their dream game too. So I want to make sure they're constantly updated, seeing it, getting involved. Because that's the spirit - for me, the spirit of crowdfunding is participation. The power." (Nutt, 2013).

Corresponding to the unexpected amount of contributions the scope of the game has been extended frequently. An alpha version has been released at the end of 2015 (Cloud Imperium Games, 2016; Nutt; 2013).

Return to investors

The pool of investors consists of space sim fans, as intended by the developers, and the only way they receive anything in return is through the game. Their reward is received in the form of "fun" by playing the game. Since the target group is passionate gamers, it is insinuated that they benefit from additional game features, further development of the game, in-game currency and better equipment. And the concept works. Investors also are part of a community, they are "star citizens", involved in the development and kept informed rigorously. With a referral system backers can "earn" additional rewards in the game if other gamers are canvassed (Cloud Imperium Games, 2016; Nutt, 2013).

5.5 Case Study 5: Chapel Down Group plc

As an already established company, the winery Chapel Down plc was the first publicly listed company worldwide to start a crowdfinancing campaign. In September 2014 they made shares available to the crowd, when private as well as institutional investors could buy them.

Company overview		
Company	Chapel Down Group plc, public limited company	
Product	Sparkling and still wines	
Founded in	2001, Incorporated in 2002	
Location	Tenterden, United Kingdom	
Stock exchange	Listed on Intercapital (ICAP) Securities and Derivatives Exchange, CDGP:ISD	
Capital Structure		
Shares	101 million	Free float: 51.7 million
Share price	£0.326 ²²	as of February, 24 th , 2016
Market value	£32.8 million	
EPS	0.04 (2014)	

Table 10: Company overview Chapel Down

This case is unconventional in two ways. First, the winery, already established on the English market, was at the time of the crowdfunding campaign already in an expansion stage. To further their growth companies with this maturity usually reach out to institutional investors or banks to acquire further financing. The CEO, Thompson Frazer, however opted to instead raise equity in an extraordinary way – by the use of crowdfinancing. Using the platform Seedrs they offered 6.5% equity (equals £1.7 million) to investors. Within three weeks the campaign was overfunded and finally closed at £4.2 million. This decision was driven by a strategy to focus on a long-term brand management. The goal was to raise capital in a timely manner, but cost-effectively and at

²² Data from The Financial Times LTD 2016, accessed on February, 25th, 2016

the same time building a stable customer base, which should be rewarded. Going with an online platform, in this case Seedrs, meant fee savings and a quick handling. It also had the advantage of being able to offer additional benefits to investors, which would hardly be possible on a regular stock exchange. Careful preparation before the campaign was done as customers and neighbors were invited and print and media coverage was ensured. The proceeds of the fundraising were used to finance a new winery, enlarge storage facilities, to build a brewery, improving equipment and systems and increase in production of still and sparkling wines (Seedrs, 2016; Chapel down, 2016).

Crowdfunding campaign	
Type of crowdfunding	Equity crowdfunding
Crowdfunding platform	Seedrs
Funding goal	Initial goal was £1.7 million, in the end £4.2 million were raised, 14 million shares
Price per share for crowd investors	£0.28
Valuation (pre-money)	£24.07 million
Investors	1,463
Average investment	2,870
Benefits for investors	<ul style="list-style-type: none"> - eligible for Enterprise Investment Scheme (EIS) tax incentives of up to 30% - shareholder welcome package - each year: free tour and tasting in winery, discount vouchers for wines and restaurant

Table 11: Crowdfunding campaign Chapel Down

Return to investors

Different than most equity crowd-investments shares in Chapel Down plc are liquid, due to the stock listing. Investors can sell their shares at any time. The company is mature, shows stable revenue increases of on average 18% (2009-2015) and making profit since 2010. With the stock price showing low volatility over the last few years (see Appendix) investors are exposed to unusually low risk for participating in equity crowdfunding. Regarding both risk and liquidity an investment in Chapel down seems favourable. Return solely depends on the stock price, which has shown rather stable increases since the crowdfunding campaign. Though they would be entitled to dividend payments, Chapel down group plc has never distributed dividends up to now. If investors, who participated in the crowdfunding campaign in September 2014, were to sell their shares in February 2016 at the market price of £0.326 (February, 25th, 2016, The Financial Times LTD) their annualized return before taxes would come to 10.67% (Chapel Down annual reports 2013/2014; Interim results first half of 2015; Issue prospectus, 2014) .

Hypothetical return if shares were sold at current price (02/16)	
Purchase price 09/14	£0.280
Current share price 02/16	£0.326
Annual return	10.67%
Years shares are held	1.5

Table 12: Return to investors Chapel Down

5.6 Case Study 6: Companisto and Crowdcube self-crowdfunding

Two of Europe's most prominent crowdfunding platforms, Companisto (Germany) and Crowdcube (United Kingdom), have taken the lead and performed crowdfunding campaigns themselves.

Companisto GmbH

Companisto is the leading platform in German speaking countries and was launched in 2012. It lists an average value increase of investment over all investment possibilities of 15.3% from 2012-2015. As an (full service) intermediary Companisto offers to invest in a start-up in the form of a silent partnership and offers investors to also participate in increases of the enterprise value. Start-ups benefit from having only one partner, the platform, and thus less administrative work. The platform handles all the contracts with investors, which in succession enter into contracts of atypical silent partnerships. Revenues are generated by commissions start-ups have to pay.

In June 2012 they offered 5.5% of equity to the crowd on their own platform. The funding goal of €100,000 was reached within days when 445 investors participated. "Companists" are entitled to share in profits, a potential exit profit and to shares in value increases. Shares have a maturity of 8 years (31.12.2020). In 2014 a single large investor came forward and signalled interest in buying all of those shares. A formal offer was presented to investors and they had a vote to decide whether they would sell their shares at an offered price of €200,000. For a holding period of 2.5 years this would have meant an annualized return of 44%. 68.1% of shareholders voted against selling their shares and the threshold of 75% needed for a sale was clearly missed, so the offer was not closed. This means that the 445 investors are still holding their share in the constantly growing platform (Alois, 2015; Alois, 2014; Companisto, 2016)

Crowdcube Limited

Already launched in 2011, the UK based platform Crowdcube describes itself as the first and leading equity crowdfunding platform worldwide. In several rounds of crowdfunding campaigns Crowdcube managed to raise more than £3 million from a total of 570 private investors. Investments are entitled to EIS tax reliefs in the UK and an investment higher than £100,000 grants voting rights. In one investment round £1.5 million were offered for a stake of 21% of equity (Crowdcube, 2016).

5.7 Common features of successful crowdfunding campaigns

Some key factors for success to raise capital via crowdfunding are transparency, access of investors to information and continuous updates. Investors want to feel included and to be able to assess the facts of their (possible) investment. When information opacity, which comes with the nature of a young start-up, as the financial growth cycle depicts, is specifically fought the chance to successfully raise capital in crowdfunding campaigns rises. Information provision and good preparation signals high quality, to which the investors react positively. Some very successful projects managed even to integrate backers into business decisions and to build a community with them. A strong sense of loyalty and incentives to mouth-to-mouth recommendation are fruits of this strategy.

Success was however also caused by an already existing fan base that multiplied later on. It seems to be very important to either build on an established customer base or to quickly be able to recruit supporters. Supporters are clearly not only driven by financial motives, but also benefit from a sense of community, rewards such as discounts and gifts and being able to contribute to something they believe in. Not least the pleasure and fun can be enough to incentivize an investor, as the case of Star Citizen illustrates.

6 Legal Framework and Development worldwide

Alternative financing, which includes all types of crowdfunding, is gaining importance worldwide and as analysts predict, this trend will most likely continue (Wardrop et al, 2015; Vulkan et al, 2015).

Supporting this is the implementation of regulation with the JOBS Act in the United States and for example the Alternative Investment Act in Austria. Financial and fiscal incentives for those forms of investment are becoming more common, like the SEIS (Seed Enterprise Investment Scheme) and EIS (Enterprise Investment Scheme) in the UK. When looking at the UK, which has been the forerunner worldwide for crowdfunding, we can expect a growth in particular in the area of equity crowdfunding for the next years. This development can complement business angels and venture capitalists, but it might also replace those (Vulkan et al, 2015).

Most influenced by legislation is the market for equity crowdfunding. The protection of investors is a concern and since the investors buy a security, regulatory commandments have to be followed, with many countries still not having implemented differentiation between alternative financial instruments, such as equity crowdfunding, and common securities (Ahlers et al, 2015).

6.1 United States: The JOBS Act

A drastic decline in the number of IPOs starting in 2008 was recorded in the United States following a stable period with around 200 IPOs per year in the early 2000's to only 35 in 2008. Since then the number has recovered, but was still at only 60% of earlier years until 2012. Concerns about excessive regulation, which pose barriers for firms to the market and keep IPOs on a low level, as well as a general slow economic recovery were followed by the JOBS (Jumpstart Our Business Start-ups) Act. The Act was signed into law by President Obama in April 2012. Since then the process of raising capital for firms has become easier and crowdfunding has started to become a legal and feasible foundation. Equity crowdfunding was up until this Act hardly possible under the US securities law (Stemler, 2013; Dambra et al, 2015; Ernst & Young, 2015). Following the signing of the law it still had to be implemented by the Securities & Exchange Commission (SEC) (Stemler, 2013). Up to this day, still not all of the Titles are effective, but the last big part, Title III, will become effective as of Mid-2016 (Barnett, 2015b).

Content of the JOBS Act

In Title I of the Act a new class of companies was introduced, the emerging growth companies (EGC). A company is classified as such an EGC if it has total gross revenues of less than \$1 billion in a fiscal year and during the last three years not issued more than \$1 billion in debt securities (nonconvertible). Further it cannot become a large accelerated filer under SEC (Securities and Exchange Commission), otherwise it will lose this status (Ernst and Young, 2015; Dambra et al, 2015). EGC issuers enjoy a list of reliefs, which are thought to make a public offering for them more attractive. Two categories of regulation relief are available for EGC, those concerning de-risking and others that are de-burdening them. Issuers are now allowed to “test the waters”, meaning that they can engage in communication with interested buyers before the public disclosure statement of the public offering. Confidential filing is another de-risking provisions for EGC. It allows them to first submit their IPO registration papers confidentially to the SEC and later then making them public, at least 21 days before the road show. De-burdening provisions concern a relief of requirements in accounting, governance and reporting. EGCs have lower reporting requirements, they neither have to provide a Compensation Discussion and Analysis nor an attestation of auditing of internal controls. Other provisions except EGCs from Dodd-Frank Wall Street Reform rules and new accounting standards (Dambra et al, 2015).

As of September 23rd, 2013, start-ups were allowed to engage in public advertising, may this be via Facebook, Twitter or crowdfunding platforms. Solicitation of investors, but only to accredited investors, is made possible by this Title II of the JOBS Act (Ernst & Young, 2015).

Title III, the “Capital Raising Online While Deterring Fraud and Unethical Non-Disclosure Act of 2012” is often called the “Crowdfund Act”. Crowdfunding issuers can under the JOBS Act raise up to \$1,000,000 in 12 months. They have to register with the SEC and disclose information depending on the target amount of the offering. The category “funding portal” is introduced, referring to online platforms where crowdfunding takes place. In order to protect investors, portals are not allowed to advise investors, to actively market securities which are favourable to them and their employees cannot work on commission. Further protection for investors is intended to be achieved by the limitation of investment. An individual may invest up to \$2,000, if his income lies below \$100,000 or 5% of his annual income. If his income is above this threshold the investment cannot exceed the least of \$100,000 or 10% of his income or net worth (Martin, 2012).

An innovation is the expansion of rights for unaccredited investors. With Title III of the JOBS Act non-accredited investors are free to participate in crowdfunding. This Title was finally implemented in October, 2015 (Barnett, 2015a; Barnett, 2015b).

In Title IV the limit for offerings is raised from \$5,000,000 to ten times the amount, \$50,000,000. Up to this amount securities can be offered publicly and be resold at any time. Requisite is the publication of financial statements and being in accordance to SEC rules. The level above which a firm needs to report based on the 1934 Act is elevated from \$1,000,000 to \$10,000,000 in Title V (Martin, 2012).

Effectiveness and Outlook

The introduction did in fact lead to a considerable increase in the number of IPOs of around 25% and this increase is mainly driven by small firms, which benefit from the reliefs offered by the JOBS Act. The industry that accounts for most of this IPO increase is the Biotech and Pharma industry with a contribution of about 85%. De-risking provisions have benefited firms the most for which disclosure causes high costs due to proprietary rights. These research-intensive companies, many of them in biotech and pharma, use the chance to “test the waters” most often. Firms that benefited most from the Act are EGC and those with high disclosure costs. A typical IPO issuer after the JOBS

Act is less profitable, has lower revenues and is in general smaller in size (Dambra et al, 2015). Due to the limited period that has passed since the Acts introduction and the fact that parts of it are in the process of being implemented the long-term economic development of these firms is still open to be seen. Most recently, on October, 30th, 2015 Title III, which is also known as the “Crowdfunding Act” was approved and will become effective as of May, 16th, 2016 (Barnett, 2015b).

With this last step, the US Financing market is going to change drastically. Everyone can now invest in start-ups, accredited or non-accredited. Acquiring financing for start-ups and small companies has become much easier. Expected is on the one side a sharp increase in crowdfunding activities, with the potential to exceed investment volume of venture capital and business angels. Crowdfunding platforms have been existing for some years, but they were limited, as they either didn’t sell securities, but only offered rewards (like Kickstarter) or could only sell to accredited investors. Now they will have the chance to sell securities, also to non-accredited investors, if they register with the SEC. This will most likely accelerate the equity crowdfunding market (Gaprindashvili, 2015).

6.2 Frontrunner United Kingdom

In Europe the UK is the leader in alternative investments. It accounts for almost 75% of the European Alternative Financing Market and shows growth rates of on average 159% (2012-2014). The most part of alternative financing is done via Peer-to-Peer lending, but equity based crowdfunding is tremendously growing. The UK has the highest growth rate for this type of crowdfunding with 420% (2012-2014) (Wardrop et al, 2015). High acceptance and use of alternative ways of funding firms are to be found there. This can be attributed to the liberal (favouring) legislation. By the use of tax reliefs raising funds for start-ups and small companies is facilitated. The two dominating tax relief tax breaks are the Enterprise Investment Scheme (EIS) and the Seed Enterprise Investment Scheme (SEIS). The EIS has been in place for almost 20 years. It grants tax reliefs of 30% on shares in small, high-risk enterprises. Shares need to be held for at least 3 years and the company cannot exceed certain size criteria. Up to £1 million can be invested by an individual per year. Even more generous is the SEIS, introduced in 2012, which offers an income tax relief of 50% for newly subscribed shares. Shares also need to be held for 3 years and no more than £150,000 can be raised with SEIS capital in total in a 3-year period (Wardrop et al, 2015; Angel Capital, 2014).

For 2015 the Alternative Finance Market is estimated to reach £4.4 billion. Looking at the less than £300 million the Market showed in 2012, this makes a more than tenfold increase. The FCA (Financial Conduct Authority) that took over regulatory matters for crowdfunding and the consumer credit market, tax relief schemes and a supporting government are boosting alternative financing in the UK. Combined with elaborated online platforms the trend towards (equity) crowdfunding is expected to grow even more over the next years (Baeck et al, 2014; Wardrop et al, 2015; FCA, 2013).

6.3 Recent development in Austria

Crowdfunding is also in Austria an emerging field. Starting in 2010, the first crowdfunding platform was launched, www.respekt.net. Two years later the platform 1000x1000 was the first to offer crowdfinancing. As of 2015, there are several Austrian crowdfunding platforms, listed in Table 13, which offer either crowdfinancing, crowdsponsoring or crowddonating. Legally loans provided by a crowd are prohibited in Austria, as lending is reserved to banks, because it requires a bank charter and is thus not offered by any of the platforms. Dominating the alternative investment market is crowdfinancing. The platforms are based on three different legal instruments: profit participation rights, subordinated loans – which are explicitly allowed by the FMA (Financial Market Authority) and not considered to be traditional loans - and silent equity holdings (Blöschl and Reiter, 2015; WKO, 2015).

The following table shows a list of all Austrian crowdfunding platforms as of January 2016, which projects they are promoting and the legal financial investment opportunities available for individuals.

Platform	Main focus	Type of Financing
Conda https://www.conda.at	Regional, innovative enterprises	Crowdfinancing, Profit share rights, Participating loans, unsecured loans
Fundraizer https://www.fundraizer.at	Creative projects (videos, investments, music), social projects)	Reward based crowdfunding
Green Rocket https://www.greenrocket.com	Projects in sustainability, Energy, Environment, Mobility and Health sector	Participation rights, subordinated loan
Respekt www.respekt.net	Social motivation, socio-political projects, declaration of human rights	Crowdsponsoring, sponsoring in the form of money or time

Crowd Capital https://www.crowdcapital.at	Projects with high growth potential, support over all business stages	Crowdinvesting, silent participation agreements
Es geht! https://www.crowdfunding.at	Supported by an initiative of the Bawag PSK, projects to help people with special needs	Crowdsponsoring, no consideration (reward) necessary
Neurovation https://www.neurovation.net/de	Crowdsourcing network, Idea platform for Open Innovations, Idea competitions	
1000x1000 https://1000x1000.at/	Part of the innovation service network (ISN)	Subordinated loans, reward based crowdfunding, Crowdinvesting (Participation rights)
Regional Funding www.regionalfunding.at	Geographical focus on Lower Austria (Waldviertel)	Participation rights
Finnest https://www.finnest.at	Only medium sized, over the last few years successful firms qualify	Subordinated loans
I believe in you http://www.ibelieveinyou.at	Specialized on Sports projects, professional Sport	Reward based crowdfunding
Ertragreich http://www.dasertragreich.at/	Supporting regional entrepreneurs, that produce tangible assets	Subordinated loans
Home Rocket https://www.homerocket.com	Professional real estate projects in Austria and Germany	Subordinated loans

Table 13: Crowdfunding Platforms in Austria

In the year 2014 around €2.5 million were collected via platforms in Austria. This put Austria near the weakest performing country in the EU. Recent legal changes however are putting Austria on the fast track, with now the most liberal legal framework besides the United Kingdom. Between September 2015 and January 2016 alone €4.86 million were raised with all signs indicating a lasting boom (Hahn, 2016).

Act on Alternative Financing strengthens crowdfunding trend

The new Act on Alternative Financing (Alternativfinanzierungsgesetz, AltFG) was agreed upon in July 2015 and implemented in September 2015. Its introduction led to changes in the Capital Market Act (Kapitalmarktgesetz). It presents a legal framework for operators of crowdfunding platforms for the first time. The scope of the new Act includes small and medium sized firms, with less than 250 employees, annual revenues below €50 million or a balance sheet total of less than €43 million. Standards for required information duties are dependent on the issue volume. Below €100,000 there are no information obligations. Financing between €100,000 and €1.5 million (€250,000 previously) can now be raised with limited prospectus requirements. An issue volume above €1.5 million leads to the application of the Capital Market Act (KMG). Private investors are for their own protection restricted in their single investments, which cannot exceed €5,000 per project and year, unless they prove to have a substantially high income or financial assets. A relief for platforms represents the fact that a business license is now sufficient to operate a platform (Babinek and Trettnak, 2015; AltFG, KMG).

7 Conclusion

In their early stages start-ups face serious obstacles in securing finances. Following the financial crisis banks are more cautious in giving loans. Money raised from informal private sources like family and friends may lay the foundation, but usually doesn't suffice. Business angels and venture capital are another option, but they usually step in later in the lifecycle of the company and are very selective. Overcoming financing barriers is of importance for any economy, as start-ups are vital to boost economic growth and constitute the main source for innovations and new products and important in creating new jobs (Schramm and Carstens, 2014).

Crowdfunding is a viable option to fill this equity gap for start-ups. This is a new phenomenon, tapping the crowd, when multiple private persons fund ideas and start-ups they like. It partly replaces the more traditional sources of financing like business angels, fills the existing gap and can also be a preparation for even getting access to those sources with an early exit or follow-up financing. While traditional investors have certain benefits such as business knowledge, networks and contacts, the crowd has other perks.

A crowdfunding campaign on an online platform is a rather cheap and fast way to "test the waters" and assess whether there is demand for a product. Often the community is involved in the process and helps shape the creation process. For reward and donation based crowdfunding this and the intrinsic motivation to support a cause that an individual deems valuable are the main drivers for investors. With lending or actually investing in equity financial motives are more prevalent, but still not the only motivation. Two issues in connection with crowdfunding have to be tackled with, in particular for the latter two types of crowdfunding, the information asymmetry and investor protection. Private investors are faced with the task to evaluate the quality of a project or start-up, without professional background in doing so, confronted at the same time with only little information, which just doesn't exist at that stage. The heightened risk for investors is compensated with potential high returns. There is however also a chance of total loss of the investment and equity crowdfunding has long maturity, which means that investments are usually illiquid. Investors perceive a proper supply with information as a signal of quality (Mollick, 2014; Ahlers et al, 2015) and for successful crowdfunding campaigns a constant information flow is required. A common feature of successful start-ups using this means of financing is building a community with investors, referring to already existing fans and tying investors to them. This can happen through rewards and benefits

for investors but also by setting up possibilities for them to contribute and giving input. This leads over to a limitation of crowdfunding – it is not suitable for all investments, as investors need to be able to identify with the product or the entrepreneur (team). This is the case mostly for industries with a high level of creativity, like games, art, technology or music. Predominantly it is used for start-ups, but as the case of Chapel Down shows, also more established companies can benefit from it. This brings the positive effect of forcing back the power of banks and credit institutes, which in case of default burden the tax payer.

Sharp increases in the market for crowdfunding have demonstrated the importance and interest of investors in this area with further increases over the next years to be expected. It can be a powerful tool to overcome equity shortage, most successfully so if information opacity is kept minimal. However, the limitations, like illiquidity, a high default risk, especially when it's done for start-ups and the restricted suitability for certain investments have to be considered.

The limited time period over which crowdfunding has been done and low level of experiences with start-ups funded by crowdfunding make it an interesting topic for future research. Worthy of research are areas such as investor protection, the influence of legislation on crowdfunding activity and properties of projects that manage to not only successfully raise funds, but also manage to deliver promised returns to investors over several years. This goes in particular for crowdfunder campaigns, which have started mostly only one or two years ago. The success of these will only be fully visible over the next five years.

Appendix

Marketing material by Woodero GmbH:



WOODERO
best wooden tablet cases







//WOODLOCK

Dank des geschützten Systems haftet der Deckel des Cases ohne weiteren Verschluss. Kein Hineindrücken, Pressen, Schnappen oder ähnliches mehr. Einfach auflegen und fertig.

//WOODWORK

Das iPad leicht anheben und schon kannst Du relaxed an Deine Arbeit gehen. Egal ob Du schnell mal eine Mail schreibst, das neue iPad bestellst, oder Deinen Facebook-Account checkst. Immer und überall und das mit Stil.







// HOLZVERBUNDEN

Jedes Case wird handgefertigt und alles was nach Holz aussieht, ist auch 100% Holz aus einheimischen, nachhaltig bewirtschafteten Waldgebieten.

//WOODSURF

Mit dem Deckel Deines Case kannst Du Dein iPad im perfekten Winkel für alle Aktivitäten, die Deine volle Aufmerksamkeit verlangen, fixieren. Ideal für Profigamer und die die es noch werden wollen.

Woodero CURVE Holzcase

für iPad 2, 3, 4 und dem iPad mit Retina Display

//WOODVIEW

Die perfekte Funktion, um Videos zu sehen und Deine Fotos zu präsentieren. Dein iPad wird perfekt in Szene gesetzt.



//WOODTOP


Du liebst Dein iPad, möchtest aber auf Deine Apple Tastatur nicht verzichten? Dann wird Dich der neue Woodtop begeistern.



//LEICHT & EDEL


Gerade einmal ca. 360g bringt das Woodero CURVE auf die Waage und ist somit nur halb so schwer wie Dein iPad selbst.

Abmessungen: 26,9 x 21,3 x 1,6 cm



//SAVETY FIRST

Auf vier speziellen Protect-Gel-Pads liegt Dein iPad noch satter und weicher im edlen Holzcase. Savety first - ja aber mit Style!



WWW.WOODERO.COM

Source: Platform 1000x1000

BrewDog plc Financials²³

Share class	No. of shares	Nominal value
A Ordinary Shares	5,074,845	1p
B Ordinary Shares	1,348,446	1p

Planned use of proceeds of 4th equity issuance

Head of Cost	Estimated Funding Requirement
New brewery New brewery build, second brewhouse, new tank farm, 300HL brewhouse, fuel cell technology, adjoining building, green technology, additional FVs & new jobs	£3,000,000
Develop canned beer range	£500,000
New UK bars	£7,000,000
Invest in Environmental Technologies	£2,000,000
Develop our Abstrakt beer range	£1,500,000
New International bars	£2,000,000
Granite City distillery	£1,000,000
Sour beer facility	£1,500,000
Import and Distribution arm	£1,000,000
Launch Hop Shot: a new ice-distilled beer	£1,000,000
Hotel (The Kennel)	£1,500,000
USA brewing	£3,000,000
TOTAL	£25,000,000

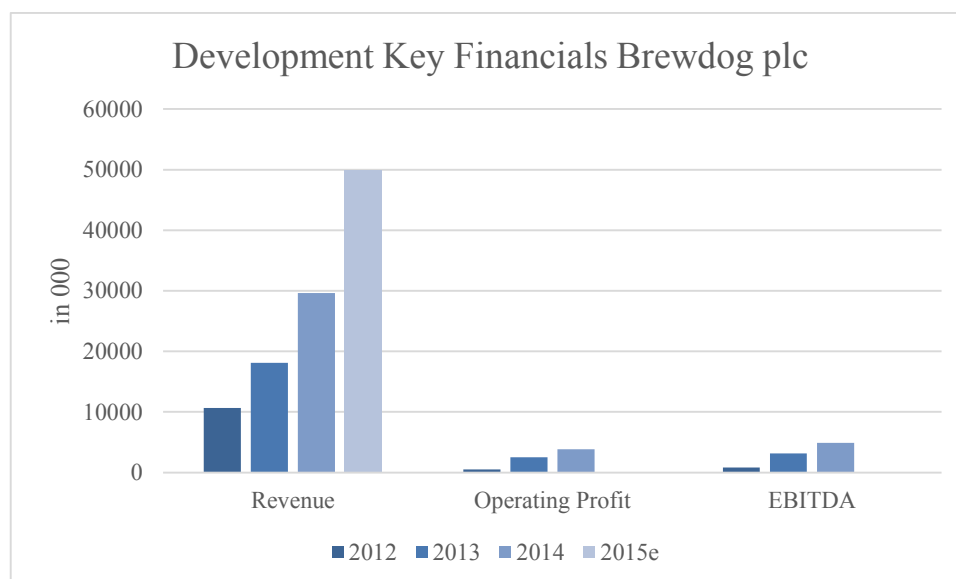
²³ Data from company website brewdog.com, accessed on February, 11th, 2016; Prospectus: Offer for Subscription “Equity for Punks IV” Securities Note, dated 21 April, 2015

Consolidated Balance Sheet

	Audited year ended 31 December 2014	Audited year ended 31 December 2013
FIXED ASSETS	£	£
Intangible assets	1,962	2,942
Tangible assets	20,359,978	13,250,122
Investments	667,241	648,343
	21,029,181	13,901,407
CURRENT ASSETS		
Stocks	2565,821	1,599,032
Debtors	5,083,309	2,710,965
Cash at bank	2,233,209	3,242,012
	9,882,339	7,552,009
CREDITORS		
Amounts falling due within 1 year	(7,861,251)	(4,138,382)
NET CURRENT ASSETS	2,021,088	3,413,627
TOTAL ASSETS LESS CURRENT LIABILITIES	23,050,269	17,315,034
CREDITORS		
Amounts falling due after more than 1 year	(5,976,435)	(3,774,794)
PROVISIONS FOR LIABILITIES	(702,314)	(207,968)
ACCRUALS AND DEFERRED INCOME	(1,083,778)	(936,878)
NET ASSETS	15,287,742	12,395,394
CAPITAL AND RESERVES		
Called up share capital	58,969	58,825
Share premium	7,301,206	7,059,069
Revaluation reserves	824,679	824,679
Profit and loss account	7,102,888	4,452,821
SHAREHOLDERS' FUNDS	15,287,742	12,395,394

Valuation

Shares	Share price ²⁴	Implied Market value
6,423,291	£47.5	£305,106,322.50



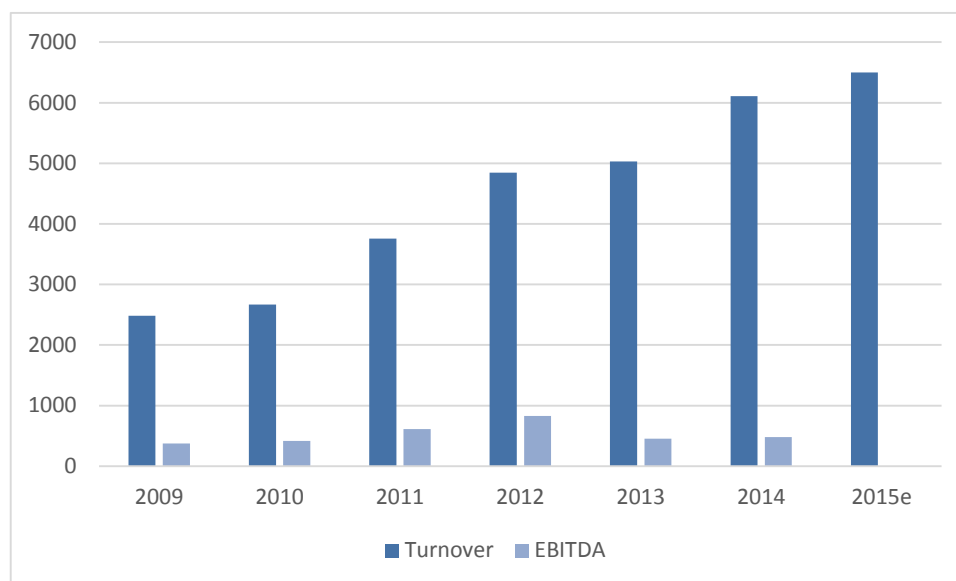
Development Income, EPS and P/E-Ratio

	2012	2013	2014	2015e
Revenues	10,655,000	18,087,000	29,615,000	50,000,000
growth %		70%	64%	69%
Net Income	437,113	2,218,294	2,650,067	3,180,080
growth %		407%	19%	20%
# Shares	135,365	164,426	164,426	690,742
EPS	3.23	13.49	16.12	4.60
P/E-Ratio	7.35	7.04	5.89	10.32
Share Price	23.75	95.00	95.00	47.50

²⁴ For a share price of £47.5 and given that the equity offer will be fully subscribed. Data from company website brewdog.com, accessed on February, 11th, 2016; Prospectus: Offer for Subscription "Equity for Punks IV" Securities Note, dated 21 April, 2015

Chapel Down plc Financials

Development EBITDA and Turnover



Share price development 2013-2016



Source: The Financial Times LTD, 2016

Key Financial Information 2009-2015²⁵

	2009	2010	2011	2012	2013	2014	2015e	Average
Turnover (k)	2,486	2,668	3,759	4,845	5,033	6,110	6,500	4,486
growth %		7%	41%	29%	4%	21%	6%	18%
EBITDA (k)	374	418	614	830	454	479		528
growth %		12%	47%	35%	-45%	6%		11%
No shares (mil)	42.42	42.32	44.81	44.81	85.98	100.97	100.97	66.04
Net assets per share	0.11	0.11	0.12	0.12	0.13	0.15	0.15	0.13
EPS (Pence)	(0.02)	0.08	0.37	0.54	0.05	0.04		0.18

²⁵ Data from company website chapeldown.com, accessed on February, 29th, 2016; Annual Reports 2013, 2014, first half of 2015

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Online platforms:

- Companisto, available at: <https://www.companisto.com>
- Crowdcube, available at: <https://www.crowdcube.com>
- Kickstarter, available at: <https://www.kickstarter.com>
- Seedrs, available at: <https://www.seedrs.com/>
- Sellaband, available at: <https://www.sellaband.com>

Abstract

As a relatively new phenomenon crowd based funding is becoming more and more important for young businesses and start-ups to fund their projects and raise capital. It comprises types of financing where a crowd of people provides capital to entrepreneurs. Compared to traditional forms of financing this brings along increased risk and a high level of information asymmetry, since private investors have merely little information about both the project and the entrepreneur proposing the project. However it's a chance especially for start-ups, which are of great importance for economic development and a significant source of innovation, to finance themselves in early stages. For some, this is the only chance to raise capital in a more and more restrictive bank environment, as banks are hesitant to give loans.

This novel area of entrepreneurial activity is currently understudied, in particular the more recent equity crowdfunding, which happens when the crowd gets a share in the business in return for funding the start-up. Three other types of crowdfinancing exist, crowdsponsoring, crowdlending and crowddonating. In return for their funding investors receive loan interest or some kind of reward. In this context the information asymmetry that inevitably exists between private investors and founders, how it can be overcome and how it influences the success of projects are investigated. Enterprises using crowdfunding can minimize information asymmetry by providing adequate information and signalling quality attracts loyal investors. How firms can do this, which companies are most suited for crowdfunding and characteristics of investors are portrayed. Exemplary cases illustrate successful crowdfunding campaigns.

Crowdfinancing has shown significant rates of growth in Europe and in the US, especially after the Jumpstart Our Business Start-ups Act was published, which for the first time laid a legal basis for this type of financing. Legislation and policies are being adapted to also regulate these alternative financing forms. It is to be expected that this area will continue to gain importance among young entrepreneurs and investors.

Zusammenfassung

Ein relativ neues Phänomen, das so genannte Crowdfunding, hat in den vergangenen Jahren weltweit immer mehr Aufmerksamkeit erhalten. Für die Finanzierung vor allem von Start-ups und jungen Unternehmen wird darunter die Finanzierung über die Masse („crowd“) verstanden. Über eine Plattform wird einer Menge von Privatpersonen die Möglichkeit gegeben sich an einem Unternehmen oder einem Projekt zu beteiligen. Dies bedeutet ein hohes Risiko für die Investoren und aufgrund der wenigen Informationen, die für Investoren zugänglich sind besteht eine hohe Informationsasymmetrie.

Vorteilhaft ist diese Art von Finanzierung dennoch für Start-ups, da Banken nur noch sehr zögerlich Kredite an Jungunternehmen vergeben. In den letzten fünf Jahren ist das Crowdfunding in den Vereinigten Staaten und in Europa stark gewachsen. Rechtliche Grundlagen für diese neuen Formen von Finanzierung mussten und müssen in vielen Ländern erst geschaffen werden. Bedeutende Schritte in diese Richtung wurden mit dem JOBS Act in den Vereinigten Staaten und dem Alternativfinanzierungsgesetz in Österreich gesetzt.

Vier Arten von Crowdfunding werden unterschieden: das auf Spenden basierte Crowddonating sowie Crowdsponsoring, bei dem Privatpersonen gegen materielle oder nichtmaterielle Belohnungen Geld zur Verfügung stellen. Komplexere Formen sind das Crowdlending, wo Privatpersonen Unternehmen Geld gegen Zinszahlungen leihen und das Crowdinvesting, was eine direkte Beteiligung der Investoren am Unternehmen oder an Erlösen bedeutet. Auf letzteren Bereich wird in dieser Arbeit besonders eingegangen, da er das aus finanzwirtschaftlicher Sicht interessanteste und am wenigsten erforschte Gebiet darstellt. Start-ups können, wenn sie durch ausreichende Bereitstellung von Informationen die Informationsasymmetrie, die bei dieser Art von Finanzierung andernfalls besonders hoch ist, minimieren und so loyale Investoren gewinnen.

Welche Faktoren günstig für Unternehmen sind um die Asymmetrie gering zu halten und für welche Unternehmen das Crowdfunding geeignet wird, wird in dieser Arbeit untersucht. Anhand von Beispielfällen werden erfolgreiche Unternehmen und Projekte porträtiert und analysiert.

Das starke Wachstum des Marktes für Crowdfunding in den letzten Jahren sowie die Wichtigkeit von Start-ups für die wirtschaftliche Entwicklung einer Volkswirtschaft und deren Innovationskraft weisen auf die Wichtigkeit dieses Themas, besonders auch in Zukunft, hin.