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Investment criteria of Finnish venture capitalists

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ABSTRACT

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The purpose of this thesis is to explore the investment criteria of Finnish venture capitalists when evaluating and selecting investment targets. The aim is to examine the differences and similarities between the criteria found in previous literature and the criteria of Finnish venture capitalists. The study focuses on the evaluation stage of the investment process of venture capitalists, in which venture capitalists decide whether or not to invest in a particular deal.

In the literature review of the thesis, an understanding of the most important investment criteria of venture capitalists is formed. The empirical part of the thesis extends the existing literature by providing insights from the Finnish venture capital industry. In the empirical part, six Finnish venture capitalists are interviewed. The interviews are executed as semi-structured interviews.

The results of this thesis show that Finnish venture capitalists emphasize characteristics of the management team, product and market as well as financial aspects of the venture in their investment decision-making. The most important criterion for Finnish venture capitalists is management team, followed by market-related issues and financial aspects. Product is a less important criterion than the other three criteria. The findings also suggest that intuition is a meaningful factor in the investment decision-making process of Finnish venture capitalists. Compared to previous studies, Finnish venture capitalists do not fundamentally differ from their international colleagues in terms of investment criteria.

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Tämän tutkielman tavoitteena on selvittää, mitä investointikriteereitä suomalaiset pääomasijoittajat käyttävät arvioidessaan ja valitessaan investointikohteita. Tarkoituksena on tutkia eroja ja yhtäläisyyksiä aikaisemmassa kirjallisuudessa esille nousseiden kriteerien ja suomalaisten pääomasijoittajien kriteerien välillä. Tutkielma kohdentuu pääomasijoittajien investointiprosessin arviointivaiheeseen, jossa pääomasijoittajat tekevät sijoituspäätöksensä.

Tutkielman kirjallisuuskatsaus luo käsityksen pääomasijoittajien tärkeimmistä sijoituskriteereistä. Työn empiirinen osa laajentaa nykyistä kirjallisuutta uusilla havainnoilla suomalaisilta pääomasijoittajilta. Empiirisessä osassa haastatellaan kuutta suomalaista pääomasijoittajaa. Haastattelut toteutetaan puolistrukturoituina haastatteluina.

Tutkimuksen tulokset osoittavat, että suomalaiset pääomasijoittajat korostavat investointikriteereissään yrityksen johtoryhmän, tuotteen ja kohdemarkkinoiden ominaisuuksia sekä yrityksen taloudellisia piirteitä. Tärkein yksittäinen tekijä, joka vaikuttaa suomalaisten pääomasijoittajien sijoituspäätöksiin on yrityksen johtoryhmä. Yrityksen kohdemarkkinoiden piirteillä ja taloudellisilla ominaisuuksilla on myös suuri merkitys investointipäätöksenteossa. Tuotteen ominaisuuksien merkitys on pienempi kuin kolmen muun kriteerin. Tulokset osoittavat myös, että intuitio on merkityksellinen tekijä suomalaisten pääomasijoittajien sijoituspäätöksissä. Aiempiin tutkimuksiin verrattuna suomalaiset pääomasijoittajat eivät olennaisesti eroa kansainvälisistä kollegoistaan sijoituskriteerien osalta.

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In Imatra, 18.7.2018

Olli Eloranta

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1 INTRODUCTION

Young companies need capital to develop, grow and establish their businesses. These companies often, however, face difficulties attracting financing as they are undermined by high levels of uncertainty (Gompers & Lerner 2001). When access to traditional sources of finance is limited, high-risk startups with high growth potential can raise funds through venture capital (Berger & Udell 1998). Venture capital is a form of risk capital that enables and supports the growth of the most innovative and promising companies (National Venture Capital Association 2017).

Venture capital has been an important source of funding for innovative companies during the last 30 years (Gompers, Gornall, Kaplan & Strebulaev 2016). Even though it has been estimated that in the US less than 1 % of new businesses receive venture capital, more than 60 % of initial public offerings (IPO) in the US are backed by venture capitalists (Kaplan & Lerner 2010). In Finland, the statistics are almost identical as 62 % of IPOs were driven by venture capitalists in 2017 (Finnish Venture Capital Association 2018a). In the light of these numbers, it is not surprising why venture capitalists are considered experts in recognizing high-potential ventures (Zacharakis & Meyer 2000).

If venture capitalists are specialists in identifying the most promising investment opportunities, then the question is what criteria they use to separate the wheat from the chaff. Thus, the investment criteria used by venture capitalists to make investment decisions has attracted much attention from scholars (e.g. Tyebjee & Bruno 1984; MacMillan, Siegel, & Narasimha 1985; Fried & Hisrich 1994; Muzyka, Birley & Leleux 1996; Zacharakis & Meyer 1998; Shepherd 1999; Mason & Stark 2004; Petty & Gruber 2011; Nunes, Félix & Pires 2014). There are three reasons that explain the great amount of interest. First, the investment criteria used by venture capitalists can be used

to predict which companies are most likely to succeed (Shepherd & Zacharakis 2002). Second, entrepreneurs that seek venture capital can avoid unnecessary pitfalls if they know the criteria that venture capitalists emphasize, thus helping entrepreneurs in their efforts to raise funds from venture capitalists (Franke, Gruber, Harhoff & Henkel 2008). Third, a better understanding of the decision-making process of venture capitalists may improve the survival rates of startups (Zacharakis & Meyer 1998).

Past studies can be divided into two categories based on their methods for collecting data. The first group has relied on post hoc methods, such as surveys and interviews, to collect data *ex post* the decision to examine the investment criteria used by venture capitalists (Shepherd & Zacharakis 1999). Post hoc methods have been criticized for various reasons, one being that they assume that VCs can accurately recall their own decision-making process (Zacharakis & Meyer 1998). The second group of studies has used real-time methods to collect data about the “in use” decision policy as the decision is being made (Shepherd & Zacharakis 1999). For example, some real-time studies utilized verbal protocols, where venture capitalists have been asked to “think aloud” while assessing the quality of investment proposals (Silva 2004).

The specific point of interest in past studies has been identifying the most important investment criteria instead of compiling a comprehensive list of criteria. The due diligence checklist of a venture capital firm can include up to 400 different criteria. Hence, the overabundance of criteria has forced researchers to focus just on the most relevant criteria. (Kollman & Kuckertz 2009) The main findings of earlier studies are somewhat intuitive. That is, leading criteria for venture capitalists are management team, product, market and financial characteristics of the venture. Still, it must be noted that there is no consensus in existing literature on the ranking of the four most important criteria. Where most of the post hoc studies have highlighted the importance of a competent management team over other criteria, real-time studies have been more hesitant to draw such conclusions.

All things considered, the venture capitalists' decision of where to invest is far from easy. Venture capital investments are illiquid once they are made and depend highly on the activities of a small group of entrepreneurs (Fried & Hisrich 1994). Furthermore, venture capitalists face severe adverse selection and moral hazard risk in their investments. Risk of market failure due to information asymmetry is higher in venture capital than in a traditional investment environment because venture capital investments are commonly made to companies that have very little tangible assets to provide as collateral and have no track record that would promote their reputation. Nevertheless, it has been argued that the existence of venture capital is explained by the venture capitalists' ability to reduce the costs stemming from informational asymmetries. (Amit, Brander & Zott 1998)

Evidently, venture capitalists face considerable obstacles in their investment decisions, which on the other hand highlight the importance of an optimal investment decision-making process. Practitioners seem to be aware of this. In a recent study, US based venture capitalists stated that academic research on investment decisions is the second most relevant field in venture capital research after only exit strategies (Cannice, Allen & Tarrazo 2016). Perhaps venture capitalists agree that they are yet to achieve best practices: it has been argued that three out of four venture-backed startups fail to return investors' capital (Wall Street Journal 2012). Undoubtedly, venture capitalists have some room for improvement in their investment process. This calls for further research on the investment decision-making process of venture capitalists, an area in which investment criteria are also a part of.

The purpose of this Master's thesis is to discover the investment criteria used by Finnish venture capitalists when evaluating and selecting investment targets. In Finland, the topic of investment criteria used by venture capitalists is relatively overlooked. Only a handful of dissertations have been conducted on the subject, and therefore the purpose of this thesis is to fill that gap. Furthermore, majority of the studies have been conducted

in the US. Interestingly, some studies have shown that venture capitalists in smaller economies tend to consider different aspects more important than venture capitalists in larger economies (Vinig & De Haan 2002; Nunes et al. 2014). This serves as a motivation for the thesis, as this study will provide new and detailed insights from venture capitalists from another small economy.

1.1 Background and focus

Academic research on venture capital process can be divided into four areas. These areas are fundraising, investment process, management of portfolio firms and exit strategies. (Cannice et al. 2016) The empirical part of this thesis falls under the category of investment process. Nevertheless, the other three areas are briefly covered in the theoretical part of the thesis.

Venture capitalists have a fairly consistent investment process. In the first stage, venture capitalists face a large amount of investment proposals which are then reduced to a more manageable number in the second stage using screening criteria that reflect the investment policies of the respective venture capital firm. After the screening stage, the most attractive investment opportunities are evaluated on a number of different criteria in the evaluation stage. If an investment proposal is promising enough, a deal is negotiated in the structuring stage. If a contract is signed, the role of venture capitalists resembles a collaborator rather than an investor as venture capitalists provide mentoring and support to the company in the post-investment stage before making an exit. (Tyebjee & Bruno 1984)

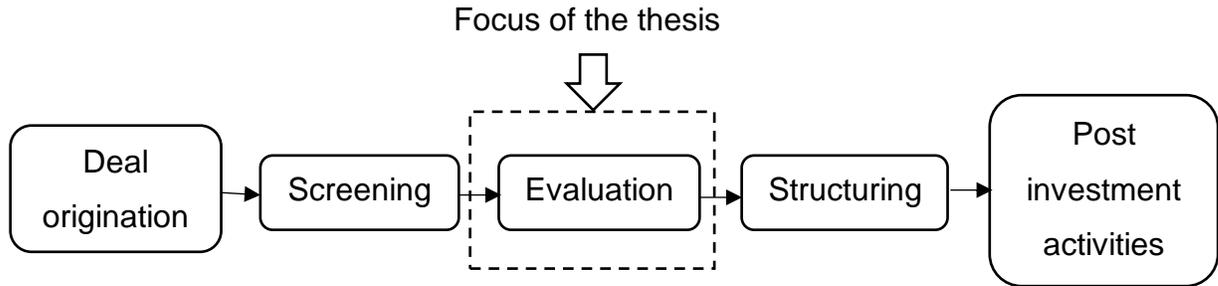


Figure 1. Venture capital process model and focus of the thesis (modified from Tyebjee and Bruno 1984)

Figure 1. presents a model of the venture capital investment process by Tyebjee and Bruno (1984) and the focus of this thesis. As presented in the figure, this study concentrates on the evaluation stage of the investment process. In other words, the focus is on the point within the investment structure in which venture capitalists assess the attractiveness of investment opportunities using different investment criteria in order to decide whether or not to invest in a particular company. More specifically, the focus inside the evaluation stage is on the investment criteria. That is, instead of focusing on the process of how venture capitalists evaluate investment opportunities, the focus is both on the criteria they use in the evaluation phase and on the relative importance of different criteria. To set things straight, the criteria that venture capitalists use in the screening stage to abandon investment proposals that do not go hand in hand with their investment policies fall outside the scope of this thesis. Finally, it should be noted that investment decision-making of corporate venture capitalists and business angels are not in the focus of this thesis.

1.2 Research objectives and questions

The objective of this thesis is twofold. First, the objective is to explore the most important investment criteria used by venture capitalists found in previous literature.

The aim is to analyze previous studies to form an understanding of the relevant criteria that venture capitalists use to evaluate and select investment targets. Second, the objective is to provide empirical evidence of the most important investment criteria used by Finnish venture capitalists. The aim is to extend the existing literature by providing detailed information of the relevant criteria used by venture capitalists in Finland to select investment targets. By fulfilling both of the objectives, the aim is also to pay particular attention to the similarities and differences between the previous literature and the empirical findings of this study.

Based on the first objective of this study, the first research question to which this study focuses on providing answers is formed as follows:

What are the most important investment criteria of venture capitalists found in previous literature?

To meet the second objective of this study, the second research question is formed as follows:

What are the most important investment criteria of Finnish venture capitalists and what are the differences and similarities between the criteria found in previous literature and the criteria described by Finnish venture capitalists?

1.3 Research method

This thesis is a qualitative study. The first part of the research consists of a traditional literature review of previous academic publications on investment criteria used by

venture capitalists to evaluate investment proposals. The existing literature is vast, and therefore the aim is to explore studies conducted in several decades and in various geographic locations. Furthermore, as mentioned earlier, the existing literature can be divided into two broad categories, post hoc and real-time studies. The findings of these studies are both reviewed separately and compared against each other to form an understanding of the current state of the literature.

In the empirical part of the research, six interviews of Finnish venture capitalists are conducted to provide new insights to the topic. The interviews are executed as semi-structured interviews. In general, interviews enable the researcher to gain thorough and comprehensive information of the research topic (Saaranen-Kauppinen & Puusniekka 2006), which is the target of this research. All of the interviews last approximately 30 minutes, and the interviews are recorded and transcribed for the purpose of further analysis. The premise of the interviews is based on the findings of past studies, that is, the interviews will complement the existing literature by providing new findings from the perspective of Finnish venture capital industry.

All of the six interviewees are Finnish venture capitalists. Job titles of the interviewees vary from chief executive officer (CEO) to manager, but all of the interviewees are in a relevant position with respect to the evaluation of investment proposals. Furthermore, four of the six interviewees have experience of over ten years from venture capital or private equity, whereas the remaining two have experiences of eight and three years respectively.

In the interviews of the six venture capitalists, the foremost focus is on the most important investment criteria. Furthermore, as previous literature has suggested, there are four main categories of investment criteria that venture capitalists usually scrutinize in the evaluation stage: management team, product, market and financial

characteristics. Therefore, the focus of the interviews is to capture the important features of these criteria. In other words, a point of interest in the interviews is to discover what aspects venture capitalists consider important in management team, product, market and financial characteristics when evaluating investment proposals.

Compared to existing literature, some of the previous studies have been conducted using both interviews and questionnaires. In these studies, a number of criteria has first been recognized through interviews. After compiling a set of criteria, a questionnaire has been sent to another group of respondents in which they have had to rank the criteria, for example, on a scale of one to four in accordance with the importance of the criteria in decision-making. In this thesis, the focus is solely on the semi-structured interviews. The aim is to provide in-depth knowledge of the investment criteria used by venture capitalists. In other words, instead of trying to compile a list of the criteria and their relative importance in a similar manner as many of the previous studies, this thesis concentrates on providing a thorough understanding of the investment criteria and their importance of Finnish venture capitalists.

1.4 Structure of the study

The structure of this study is divided into five chapters as presented in Figure 2. Following the introduction, a review of venture capital activities is formed in chapter two. Chapter two will consist of a general overview of venture capital industry, its processes and the investment stages of startups. Following the background of venture capital, literature review is conducted in chapter three. In the literature review, a number of previous studies focusing on the investment criteria used by venture capitalists are scrutinized. These past studies are examined in two subchapters based on their methodologies for data collection as mentioned earlier. Furthermore, a summary of the criteria and their relative importance takes place at the end of the literature review.

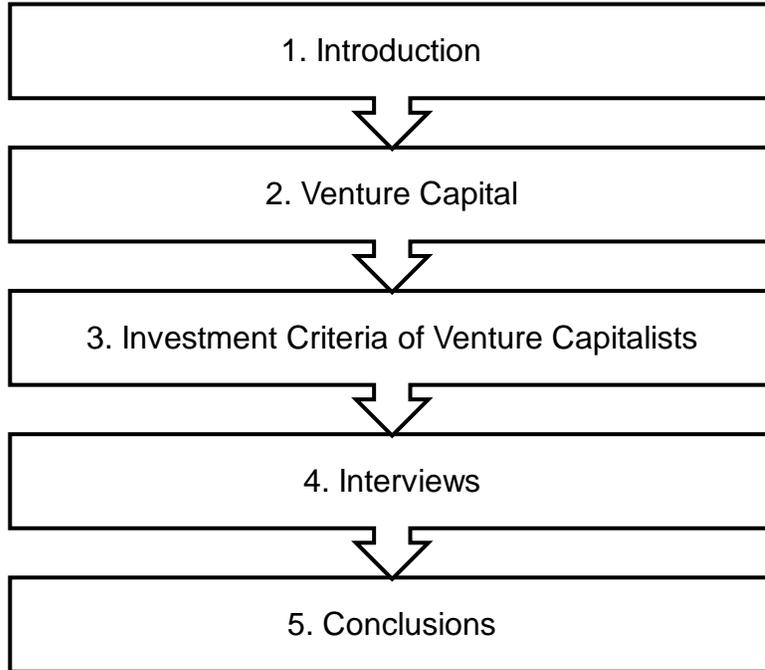


Figure 2. Structure of the study

The empirical part of this study takes place in chapter four. In the fourth chapter, the research approach is first explained, followed by a description of the conducted interviews. The results of the interviews are then presented and discussed. Finally, conclusions and a summary of the key findings are presented in chapter five together with a discussion of the reliability and validity of this research as well as a discussion of possibilities for future research.

2 VENTURE CAPITAL

The aim of this this chapter is to provide an overview of the venture capital (henceforth referred to as “VC”) industry. It is necessary to understand why VC exists in the first place and how VC firms and the whole industry functions before the discussion of investment criteria of VCs. The chapter is divided into three subchapters. First, an overview of the VC industry and activities of VCs are presented. Second, investment stages of startups are presented to describe the development phases of companies in which VCs are commonly involved. Finally, investment process of VCs is characterized in the last subchapter.

2.1 Definition and background

The history of VC dates back to the 1940s when the first VC firm, American Research and Development Corporation (ARDC), was formed in 1946. Following the formation of the ARDC, a handful of other venture funds were established, but the annual flow of money into new venture funds was quite small in the first three decades of the industry. In the late 1970s and early 1980s, VC activity picked up as the funds raised by VCs grew significantly. Eventually, the peak of the industry took place in the turn of the century just before the dot-com bubble burst. (Gompers & Lerner 2001) Nowadays, the VC industry in the US is an important player in providing financing to startups. In 2017, the VC funds in the US held 359 billion dollars of assets under management and raised 32,8 billion dollars of new capital during that year (NVCA 2018).

What exactly is VC then? The National Venture Capital Association define VC as “a segment of the private equity industry which focuses on investing in new companies with high growth potential and accompanying high risk” (NVCA 2017). Wright and

Robbie (1998) describe VC as long-term equity investment by professional investors in unquoted new firms where the primary reward is an eventual capital gain complemented by dividend yield. Gompers & Lerner (2001) define VC as “independent, professionally managed, dedicated pools of capital that focus on equity or equity-linked investments in privately held, high growth companies”. Nevertheless, VC is an important part of the financial system, as it helps companies that have difficulties raising capital from traditional sources to get funding to support their growth (Berger & Udell 1998; Gompers & Lerner 2001).

The relationship between private equity (PE) and VC should be made clear as it is different in the US and Europe. In the US, the term “private equity” consists of two parts: VC and buyouts. Buyouts are investments to established firms which have proven their concept, whereas VC comprises solely of investments made to early stage firms that have not yet proven their concept and therefore are considered as riskier investments than buyouts. In Europe, VC and PE mean the same thing. In other words, buyout investments are also a part of the concept of VC in the European context. (Lauriala 2004) In this literature review, the focus is on the US definition of VC. That is, buyouts will not be discussed in this section.

VCs have also had some role in Finland as a financial intermediary. The first known Finnish VC firms were established in the late 1960s and the 1970s and were largely supported by the Finnish government. In 1988, there were already 48 VC firms, but the number declined by 18 firms in only two years. (Luukkonen 2006) Today, there are 69 members in the Finnish Venture Capital Association (FVCA 2018b).

During the past few years, the Finnish startup scene has blossomed as it was reported that Finnish startups and early-stage companies raised the most capital per GDP in Europe in 2013-2017 (FVCA 2018c). In 2017, Finnish VC funds raised 169 million euros

of new capital which was the highest figure in nine years. However, the total amount invested by Finnish VCs was the second lowest in 11 years, 80 million euros. In total, 122 domestic and foreign firms received funding from Finnish VCs in 2017 and the average investment size was 580 000 euros. (FVCA 2018d). The impact of VC is nevertheless big in Finland, as majority of IPOs in 2017 were backed by VCs (FVCA 2018a)

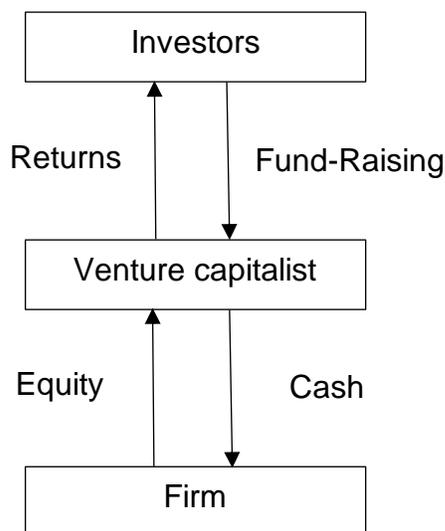


Figure 3. Venture capital process (Gompers & Lerner 2004)

Figure 3. above demonstrates the flow of VC process as presented by Gompers and Lerner (2004). In summary, VCs pool money from investors into a fund and invest the money in young and potential firms in return for equity. VCs then become involved in the business and aim at improving the business to raise the odds of making a successful exit and gaining financial returns. Usually, investors provide 99 % of the capital of the fund while the VC firm brings the last 1 % (Lauriala 2004).

VC firms are usually organized as limited partnerships in which the investors act as limited partners and the managers of the VC firm act as general partners of the VC fund

as presented in Figure 4. below (NVCA 2017; Sahlman 1990). Each fund is a separate partnership, and new funds are established when a VC firm obtains the needed capital from the limited partners (NVCA 2017). Examples of limited partners, or investors, include public pension funds, corporate pension funds, insurance companies, high net-worth individuals, family offices, endowments, foundations, fund-of-funds and sovereign wealth funds (NVCA 2017). In general, VC firms are not very large organizations since an average US based VC firm employs 14 people, five of whom are in decision-making positions (Gompers et al. 2016).

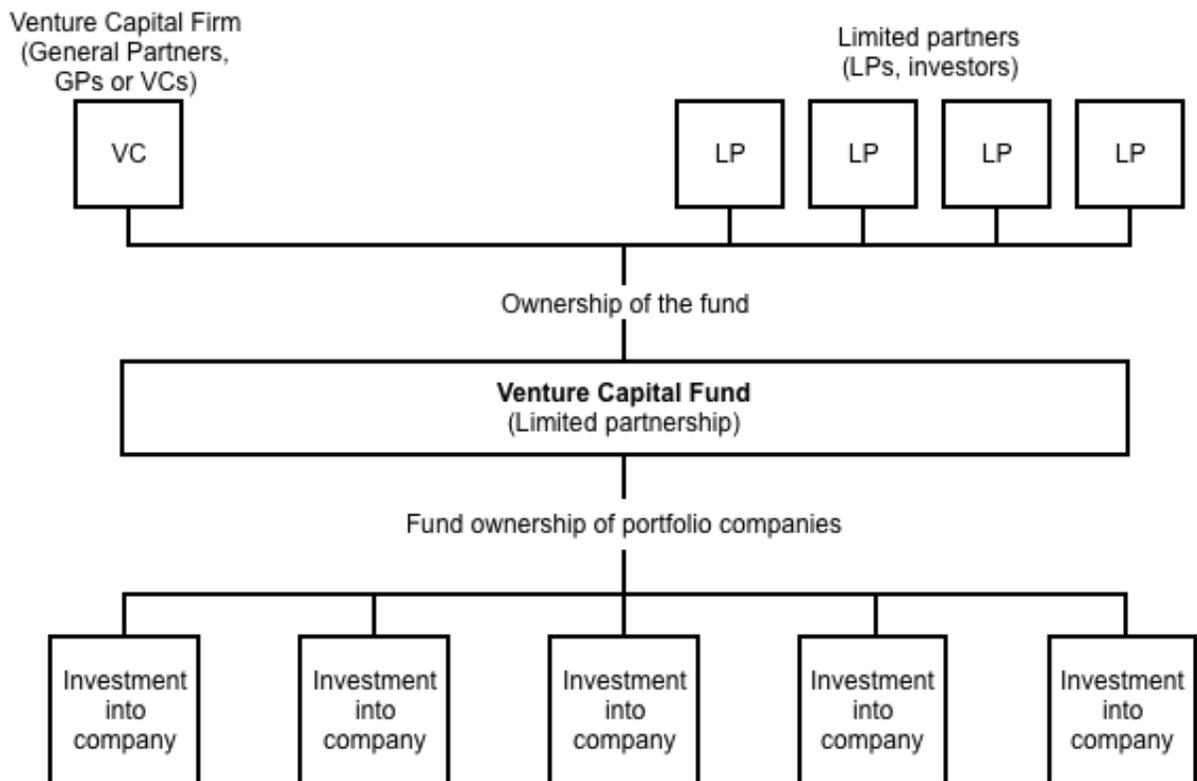


Figure 4. Structure of VC firms (NVCA 2017)

VC is a long-term investment and the lifetime of the fund varies, but is typically 5-10 years, during which the VCs seek for successful exits from the invested firms (Lauriala 2004; NVCA 2017). VCs typically exit their stakes from the startup via an initial public

offering (IPO) or acquisition (NVCA 2017). In a recent study, Gompers et al. (2016) discovered that 15 % of the exits of VCs were through IPOs, 53 % were through M&A and the rest were considered failures. Quite often, IPOs tend to have an advantage over the M&A exit option as they enable higher returns, greater raised capital and local job creation (NVCA 2017).

The question that has not yet been answered is that why does VC exist in the first place and why do startups rely on financing from VCs? How come startups rarely raise capital through traditional forms of financing such as loans or stock issues? The simple answer is that young firms are often unable to meet the requirements of providers of traditional financing. Gompers and Lerner (2004) argue that entrepreneurs usually face four factors that restrict their financing choices: uncertainty, asymmetric information, the nature of firm assets and the relevant conditions in the financial and product markets. First, startups are plagued by high levels of uncertainty as for example there is no guarantee that the product of a young firm will ever succeed. Asymmetric information is also often present as the entrepreneur can be thought to possess more information about the company than investors. This can lead to problems, such as if the entrepreneur adopts a riskier strategy than what was agreed with the investors. Furthermore, startups often have little amount of tangible assets and therefore have difficulties raising capital from traditional sources. Finally, market conditions also limit the financing possibilities. For example, a startup may face intensive competition, or the size and growth rate of the target market can be uncertain. (Gompers & Lerner 2004)

The difficulty of attracting financing from traditional sources is not the only reason why startups seek VC. VCs usually provide useful mentoring and expertise for startups in areas such as strategic and operational decision-making, marketing and budgeting (FVCA 2017). Compared to traditional sources of financing, the role of VCs is quite much more than just a provider of capital. Hellman (2000) used a metaphor of a sports

coach to describe the role of VC to startups. According to Hellman, entrepreneurs are like athletes who fight the actual game while VCs are like their coaches, who choose which athletes get to play, who train and motivate them and who try to create the most favorable conditions for them to succeed. Hellman continued to argue that VCs can give mentoring and advices that help entrepreneurs to turn their efforts into accomplishments.

What are then the incentives for VCs to invest in high-risk startups? The first and most obvious reason is of course financial returns. Perhaps the fantasy of every VC is to find the new Facebook or Amazon and gain returns that go through the roof and beyond. The reality, however, is that most of the startups backed by VCs fail (Wall Street Journal 2012). Moreover, according to the latest data, returns of US based VCs are moderate taking into account the level of risk of VC investments, as the average 10-year internal rate of return (IRR) of VC funds was 9,1 % as measured in 2017 (Cambridge Associates 2017). In Finland, VC funds that had invested in privately held Finnish high-tech firms achieved an IRR of 11 % during the period of 2009-2015 (FVCA 2018e). Nevertheless, it should be highlighted that measuring the financial performance of VCs is not an easy task, as the whole industry lacks transparency and due to the fact that most VC investments are made as minority stakes in the invested firms, which makes the valuation of VC investments difficult (Leleux 2007). This is presumably why in Europe there is a lack of reliable data of VCs financial performance. Still, it has been stated European VCs have historically underperformed as their realized returns have been below required returns (Hege, Palomino, Scheiwnbacher 2009).

Another rationale for the existence of VC firms emerges from agency theory. Asymmetric information is typically present in VC investments in both of its forms, adverse selection and moral hazard. Risk of adverse selection occurs when an entrepreneur has information that the investor does not have for example from the quality of the ventures product. In this case, the entrepreneur can overstate the quality

of the product, leading to a situation where investors have difficulties distinguishing the good investment opportunities from the bad. As investors understand that the risk of adverse selection is present, they may be hesitant to invest their funds in such projects. Risk of moral hazard arises after the investment has been made. Investors have difficulties monitoring the activities of the entrepreneur. Thus, an entrepreneur can act in an undesired manner against the incentives of the investor. Moral hazard and adverse selection can occur in any type of investment but are especially involved in entrepreneurial finance such as VC. This is because startups usually have very little amount of tangible assets to provide as collateral and have no track record that would boost their reputation in the eyes of investors. (Amit et al. 1998)

Amit et al. (1998) argued in the context of agency theory that VC exists because VCs are able to reduce the costs that emerge from asymmetric information. According to Amit et al., VCs can gain expertise in a particular industry, lowering their selecting and monitoring costs and giving them comparative advantage over other investors. In other words, VCs master their game of identifying, capitalizing and mentoring young and promising companies better than anyone else in certain, information loaded, industries. VCs therefore can eliminate some, but not all, adverse selection and moral hazard. Furthermore, the authors noted that VCs should concentrate especially in industries that require specialized expertise, such as computer software and biotechnology, rather than in traditional industries such as hospitality or retail that can be easily monitored by other investors.

2.2 Investment stages of startups

As stated earlier, VCs invest in privately held, young and promising companies. These young companies, or startups, face different development stages. During different

development stages, startups have different sources from which to raise capital. Figure 5. presents these stages and sources of financing.

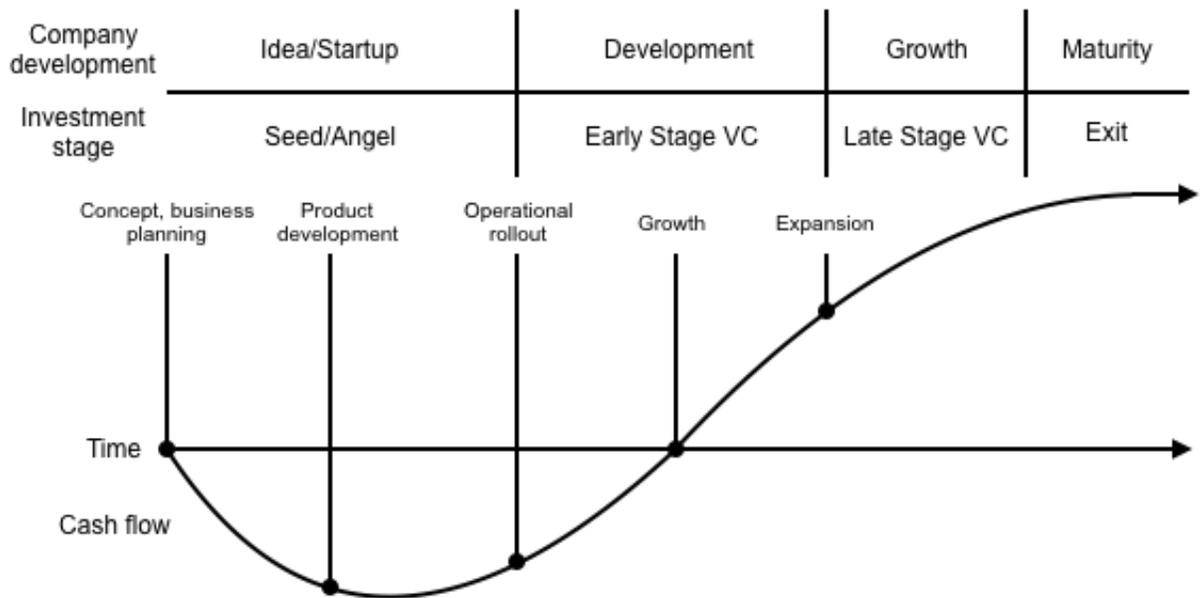


Figure 5. Financing cycle of startups (NVCA 2018)

National Venture Capital Association (2018) divides the investment stages of startups into three steps:

1. Seed stage. The company has just been incorporated and its founders are developing their product or service.
2. Early stage. The company has a core management team and has established its concept or product but lacks positive cash flow.
3. Later stage. The company has proven its concept, approaches positive net income and is about 6 to 12 months away from an IPO or buyout.

The classification of investment stages by NVCA can also be expanded into more specific phases. Ross, Westerfield and Jaffe (2012) use a slightly different

categorization, in which the first two stages are the same, but the later stage is divided into first, second, third and fourth-round financing. In the first-round, a company has used its startup funds and needs additional funds to start sales and manufacturing. In the second-round, funds are used to finance working capital of a company that has sales but is still losing money. In the third-round, or mezzanine financing, company is planning an expansion and is at least breaking even. In the fourth-round, or bridge financing, companies are about six months away from going public.

Commonly in the seed stage, startups rely on financing from friends, family, the startup team as well as trade credit and angel financing. It is not uncommon that VCs invest in seed stage companies. (Berger & Udell 1998), but VCs mainly invest in the early and later stage. In 2017, US based VCs invested 6,8 billion dollars in seed stage companies, 30,3 billion dollars in early stage companies and 47,8 billion dollars in later stage companies (NVCA 2018). In the course of time as firms keep growing and come more established, they may gain access to public debt and equity markets (Berger & Udell 1998).

2.3 Investment process

The investment process of VCs has received significant amount of interest from academics. The amount interest is justified by the question of whether the VC market allocates resources properly or not as VCs face severe adverse selection risk in their investments. To answer this question, one needs to understand how VCs make investment decisions. (Fried & Hisrich 1994) Silva (2004) provided a fine compilation of the findings of previous studies on investment process stages of VCs presented in Table 1.

Table 1. Investment process models of VCs (Silva 2004)

Wells (1974)	Tyebjee & Bruno (1984)	Hall (1989)	Fried & Hisrich (1994)	Boocock & Woods (1997)
Search for investment	Deal origination	Generating a deal flow	Deal origination	Generating a deal flow
Screening of proposals	Screening	Proposal screening	Firm-specific screen	Initial screening
		Proposal assessment	Generic screen	First meeting
Evaluation of proposals	Evaluation	Project evaluation	First-phase evaluation	Second meeting
		Due Diligence	Second phase evaluation	Board presentation
		Deal structuring	Closing	Deal structuring

In summary, VCs investment process consists of four stages: origination, screening, evaluation and deal structuring. Some academics have divided screening stage into two phases: proposal screening and proposal assessment (Hall 1989); firm-specific screen and generic screen (Fried & Hisrich 1994); or initial screening and first meeting (Boocock & Woods 1997). Furthermore, evaluation stage has been divided into two phases as well by some scholars: project evaluation and due diligence (Hall 1989); first phase and second phase evaluation (Fried & Hisrich 1994); or second meeting and board presentation (Boocock & Woods 1997).

In the deal origination phase, VCs face a large number of investment proposals and take actions to decide which deals should be taken into consideration as investment prospects (Tyebjee & Bruno 1984). VCs mainly wait for deals to come to them, but also make themselves known to companies through industry directories (Fried & Hisrich 1994). In the screening stage, the VC firm screens a relatively large number of potential deals in accordance with their investment criteria to narrow down the possible investment opportunities (Tyebjee & Bruno 1984). Fried and Hisrich (1994) argued that VCs first screen the deals on VC firm-related criteria such as investment size, geographic location and stage of financing. If the proposal passes VC firm-specific criteria, it is reviewed in terms of generic criteria. Majority of proposals are rejected in the screening stage (Fried & Hisrich 1994).

In the evaluation stage, VCs weigh the risk and return based on the business plan of the startup and make the investment decision by evaluating the venture on a multidimensional set of criteria (Tyebjee & Bruno 1984). During this phase, VCs first meet with the management of the company several times to increase VCs understanding of the business and assess the manager's knowledge of the industry. VCs also assess the management's ability to handle pressure, check references and analyze the proposal's financial projections. In the second stage evaluation, VCs focus to the obstacles of the investment and try to determine how they can be overcome. Evaluation stage is the most time-consuming stage of the process. (Fried & Hisrich 1994)

If the proposal passes the evaluation phase, VC and the startup company decide on the details of the investment agreement in the structuring stage, which include the price of the deal and the protective covenants (Tyebjee & Bruno 1984). Even though at the structuring stage the time consumed by VCs and entrepreneur's is significant, it is not certain that all of the deal proposals are funded (Fried & Hisrich 1994). If a deal is made, VCs role changes from investor to collaborator. In the post-investment phase, VCs give assistance to the venture in areas such as recruiting key executives, strategic planning, locating expansion financing and orchestrating a merger, acquisition or public offering (Tyebjee & Bruno 1984).

3 INVESTMENT CRITERIA OF VENTURE CAPITALISTS

First studies examining the investment criteria of VCs were conducted in 1974 by Wells and in 1976 by Poindexter (Tyebjee & Bruno 1984). Since then, the academic literature of investment criteria set by VCs has grown rapidly. However, prior literature lacks a consensus regarding the most important criteria that VCs consider when making investment decisions and frankly, researchers have found some similarities and differences in the importance of different evaluation criteria. Nevertheless, most of the studies have found four main criteria that are scrutinized in the evaluation process: (1) characteristics of the entrepreneur and the management team, (2) characteristics of the product, (3) characteristics of the market and (4) financial characteristics (Franke et al. 2008). With respect to different studies, the subcriteria and their relevance under these four main groups of criteria differ.

Most prior studies have relied on post hoc methodologies in collecting data of different evaluation criteria and their importance for VCs. These ex post methods collect data about a decision after the decision has been made. In other words, post hoc studies have used self-reported questionnaires, surveys and/or interviews to ask VCs what criteria they have used to make decisions in the past. (Shepherd & Zacharakis 1999) Most of these studies have utilized Likert-scale survey methods, where the respondents have had to rate the importance of a criterion for example on a scale of 1 to 5. The use of Likert-scale has been argued to be problematic since for example for some respondents, a 3 on a 5-point scale would indicate a low importance and for others, only a 1 could indicate a lesser importance. (Muzyka et al. 1996)

Post hoc studies have been criticized being biased and misleading, as they assume that VCs can accurately recall their own decision-making processes (Zacharakis & Meyer 1998). In general terms, Shepherd and Zacharakis (1999) argued that people

are poor at introspection and tend to suffer from recall. In the context of decision-making of VCs, this statement seems to be true. Zacharakis and Meyer (1998) found that VCs overstate the information they think they rely upon and actually use far less information to make an investment decision. Put simply, studies have shown that VCs do not fully understand how they make decisions (Sharma 2015). In this case, the results of post hoc studies should be at least taken with a grain of salt.

According to Shepherd and Zacharakis (1999), real-time methods can overcome many of the potential research biases identified with post hoc methods. Real-time methods are methods that collect data about the “in use” decision policy as the decision is being made (Shepherd & Zacharakis 1999). Real-time methods that have been utilized in studies regarding VCs’ investment criteria include two different methods: verbal protocols and conjoint analysis. In verbal protocols, research participants are asked to “think aloud”, that is, respondents have to verbalize their thoughts while performing a particular task (Silva 2004). Conjoint analysis, on the other hand, is a general term that refers to a technique where respondents have to make a series of judgements, from which the relative importance of each attribute is captured in the decision process (Shepherd & Zacharakis 1999; Muzyka et al. 1996). These methods have the potential to expand the knowledge of VCs’ decision-making compared to post hoc methodologies (Shepherd & Zacharakis 1999).

Even though it is apparent that post hoc methodologies have had their fair share of criticism (Muzyka et al. 1996; Zacharakis & Meyer 1998; Shepherd & Zacharakis 1999), real-time studies, however, have also had their own shortcomings. Mason and Stark (2004) pointed out that the small sample size, as well as the lack of real world situation of evaluating a deal, were the drawbacks of their real-time study. Zacharakis and Meyer (1998) also mentioned the fact that having a situation that does not perfectly mirror the real-life decision-making was a limitation in their respective research. In addition, even though Petty and Gruber (2011) were able to examine the actual real-life decision-

making, their sample consisted only of one VC firm. Nevertheless, real-time studies have provided useful new information compared to post hoc studies.

In this chapter, the investment criteria of VCs found in prior literature are explored and combined to give an overview of the factors affecting the investment decision-making of VCs. A number of studies are presented in two different subchapters based on the methodologies the studies have utilized. That is, post hoc studies and real-time studies are scrutinized in their own subchapters. After a comprehensive review of past literature, summary of the investment criteria and their relative importance takes place at the last subchapter.

Academic publications that are reviewed in this chapter were gathered through several databases. These databases mainly included LUT Finna, Google Scholar, SCOPUS, ScienceDirect and EBSCO Business Source Elite. Key search word was “venture capital”, and was mixed with “criteria”, “investment criteria”, “evaluation criteria” and “decision-making”. The initial aim was to select only articles that had received the most peer-reviews, but this view was extended by the author to broaden the geographic focus of the literature review and to include more recent studies as well. The ultimate selection of academic publications was also reflected by the authors opinion of the relevance of the studies with respect to the subject of the thesis. Hence, the process of choosing the academic publications for the literature review did not follow a clear pattern. This may affect the possible replication of the findings of the literature review, but still it can be argued that the chosen articles represent a fair sample of both post hoc and real-time studies conducted in several decades and in several geographic locations.

3.1 Post hoc studies

Tyebjee and Bruno (1984) conducted one of the pioneer studies modelling VC firms' investment activity in 1984. In their research, they studied the investment processes of 41 US based VC firms and found four screening criteria that were used by VCs to reduce the number of investment proposals to a more manageable number. The screening criteria were the size of the investment and the investment policy of the venture fund, the technology and market sector of the venture, geographic location of the venture and stage of financing. Following the screening phase, the authors discovered 23 evaluation criteria which were divided into five categories through factor analysis. These categories were (1) managerial capabilities (entrepreneur's skills and references in management, marketing and finance), (2) product differentiation (profit margin, patents, technical advantage and uniqueness of the product), (3) market attractiveness (size, growth and customers' access to market), (4) environmental threat resistance (barriers to entry, down-side risk protection, life cycle of the technology and cyclicity of the business) and (5) cash-out potential (likeliness to realize capital gains through M&A or IPO in the future).

The 23 evaluation criteria were ranked on a data of 90 deals that had received serious consideration from VCs. The most used criteria were related to the managerial capabilities as three of the top four criteria were related to the entrepreneur's skills. These criteria were management, financial and marketing skills of the entrepreneur. The most used criterion related to product differentiation was entrepreneur's ability to use his technical skills in creating a unique product, while size of the market was the most important market criterion. Overall, managerial capabilities were reported to be the most used criteria, followed by product differentiation and market attractiveness.

MacMillan et al. (1985) conducted another influential study of VCs' evaluation criteria in 1985. In the research, MacMillan et al. interviewed fourteen VCs in the New York metropolitan area and discovered 27 criteria used in the evaluation phase, which were sorted into six categories: (1) personality of the entrepreneur, (2) experience of the entrepreneur, (3) product or service characteristics, (4) market characteristics, (5) financial considerations and (6) composition of the venture team. After identifying the criteria through interviews, the authors assembled a questionnaire, in which 102 VCs ranked the criteria of the first five categories on a Likert-scale from 1 to 4. The three criteria that were not ranked on the four-point scale were all related to the composition of the venture team but instead the participants had to choose the optimal structure of the management team out of four options.

MacMillan et al. (1985) discovered that quality of the entrepreneur was the factor that ultimately determined VCs funding decisions as five of the top ten most important criteria were related to the entrepreneur's experience or personality. The most important criterion was that the entrepreneur showed strong commitment, followed by entrepreneur's thorough familiarity with the market targeted by the venture. The most important product characteristic was that the product was protected, while growth rate of the market was the only important market criterion. Required return in 10 years rather than in 5 years was considered to be the most important financial criterion, in addition to the requirement of having an exit opportunity. In general, MacMillan et al. concluded that entrepreneur's personality and experience related criteria were more important than financial criteria, which on the other hand were more important than product and market criteria. Regarding the venture team composition, 42 % of the participants gave the highest importance of having a balanced management team, while 28 % expressed that the composition of the venture team was not essential for the deal to happen. Furthermore, a venture team of one person that had relevant experience was the most essential for 20 % of the VCs, while only 9 % gave the highest weight to a team where all members possessed similar experience.

Table 2. Importance of criteria found by MacMillan et al. (1985) in various geographic locations (MacMillan et al. 1985; Knight & Gilbertson 1994; Zutshi et al. 1999)

Author	MacMillan et al. (1985)	Knight & Gilbertson (1994)	Knight & Gilbertson (1994)	Zutshi et al. (1999)	Mean	Rank
Area	US	Canada	Asia-Pacific	Singapore		
Personality of the entrepreneur						
1. Capable of sustained intense effort	3,60	3,56	3,74	3,58	3,62	1
2. Able to evaluate and react to risk well	3,34	3,31	3,45	3,52	3,41	3
3. Articulate in discussing venture	3,11	2,74	2,77	2,61	2,81	10
4. Attends to detail	2,82	2,68	2,77		2,76	11
5. Has a personality compatible with mine	2,09	1,99	2,19		2,09	18
Experience of the entrepreneur						
6. Thoroughly familiar with the market targeted by venture	3,58	3,68	3,57	3,61	3,61	2
7. Demonstrated leadership ability in the past	3,41	3,01	2,98	3,52	3,23	4
8. Has a track record relevant to venture	3,24	2,68	2,92	3,39	3,06	6
9. The entrepreneur was referred to me by a trustworthy source	2,03	2,10	2,22		2,12	17
10. I am already familiar with the entrepreneur's reputation	1,83	1,50	1,72		1,68	21
Product characteristics						
11. The product is proprietary or can otherwise be protected	3,11	2,28	2,64	2,94	2,74	13
12. The product enjoys demonstrated market acceptance	2,45	2,66	2,81	3,10	2,76	12
13. The product has been developed to the point of a functioning prototype	2,38	3,05	2,92	2,94	2,82	8
14. The product may be described as "high tech"	2,03	1,25	1,42		1,57	23
Market characteristics						
15. The target market enjoys a significant growth rate	3,34	2,86	3,15	3,35	3,18	5
16. The venture will stimulate an existing market	2,43	2,37	2,52		2,44	14
17. The venture is an industry with which I am familiar	2,36	1,81	2,10		2,09	18
18. There is little threat of competition during the first three years	2,33	2,40	2,42		2,38	15
19. The venture will create a new market	1,82	1,63	2,17		1,87	20
Financial characteristics						
20. I require a return equal to at least 10 times my investment within 5-10 years	3,42	2,56	2,94	2,84	2,94	7
21. I require an investment that can be easily made liquid (e.g., taken public or acquired)	3,17	2,39	2,67	3,00	2,81	9
22. I require a return equal to at least 10 times my investment within at least 5 years	2,34	1,99	2,12		2,15	16
23. I require a return equal to at least 10 times my investment within at least 5 years	1,34	1,92	1,72		1,66	22
24. I will not participate in latter rounds of investment (requires my participation in the initial round of investment)	1,20	1,56	1,24		1,33	24

Each criteria are scored on a four-point scale: 1 - Irrelevant, 2 - Desirable, 3 - Important and 4 - Essential.

The paper of MacMillan et al. (1985) has served as a basis for other studies examining the investment criteria of VCs (Zutshi, Tan, Allampalli & Gibbons 1999). For example, the research was replicated in 1990s by Knight and Gilbertson (1994) and Zutshi et al. (1999) in different geographic locations. The results of these studies are presented above in Table 2., where the average scores of criteria are calculated to rank them in order of importance.

Scores of criteria that had a score of lower than three in the US were not reported in the paper of Zutshi et al. (1999) for Singaporean VCs. Overall, the results were notably similar in each of the geographic locations in the most important criteria. That is, personality and experience of the entrepreneur were the most important groups of criteria in each of the continents. In product and financial-related criteria, however, there were some differences between the studies. First, the criterion of having a product that had been developed to the point of a functioning prototype was more important in other areas than in the U.S, whereas VCs in the US gave more weight on having a protectable product. Furthermore, required return at least 10 times the investment within 5-10 years was more important for U.S based VCs, while VCs in other geographic locations did not find expected rate of return as important.

The criteria set suggested by MacMillan et al. (1985) is by no means a definitive list of important criteria and has actually confronted some counterarguments. Fried and Hisrich (1994) discovered that VCs do not use the explicit criteria of MacMillan et al. and argued in accordance with Sandberg, Schweiger and Hofer (1988) that the use of relatively simple questionnaires using Likert-scale grading system is a problematic methodology. According to Sandberg et al. (1988) "it is gradually becoming clear that human decision making cannot be understood by simply studying final decisions. The perceptual, emotional and cognitive processes which ultimately lead to the choice of a decision alternative must also be studied if we want to gain an adequate understanding

of human decision making." In other words, Sandberg et al. underlined that the role of intuition and instinct in the VCs' decision-making should also be studied.

Hisrich and Jankowicz (1990) tried to tackle this problem by employing a new technique in venture capital research called the repertory grid in order to develop a comprehension of intuition and to take into account the "gut feeling" and personal chemistry in the decision-making process of VCs. The authors argued that intuition plays also an important part in the decision-making process. Interestingly, this was one of the few studies that the author of this thesis ran into that highlighted the role of intuition. In their research, Hisrich and Jankowicz (1990) discovered that quality of management team, uniqueness of the opportunity and appropriate returns were the three backbones of VCs decision-making. According to the authors, management team and uniqueness of the opportunity are most prone to subjectivities of VCs. Put differently, they are components to which VCs most likely are to add personal meaning.

The effort of academics to examine the role of intuition stopped after the study by Hisrich and Jankowicz (1990). Still, other interesting studies were to come. Fried and Hisrich (1994) utilized a grounded theory approach and found fifteen criteria from personal interviews of 18 VCs located in Silicon Valley, Boston and the Southwest of the United States. These criteria were divided into three generic criteria groups, which were concept, management and returns. According to Fried and Hisrich (1994), concept refers to four aspects: the venture must have a business idea that works or is almost ready, the concept must offer considerable competitive advantage, the concept must have large potential growth of earnings and that the concept has reasonable capital requirements. Furthermore, the authors argued that VCs want to see certain attributes in the managers of the venture; they should be honest and realistic, have a relevant track record and possess leadership skills as well as management experience. Returns has three components: high expected and absolute rate of return and a clear exit opportunity. Despite the differences in methodologies, the authors found that the

similarities between their criteria and the ones found by MacMillan et al. (1985) were obvious, with the exception that their criteria were more clearly defined and were not limited to new, technology-oriented investments.

Flynn (1991) interviewed 20 San Francisco and Los Angeles based VCs. When discussing about the criteria used in the due diligence process, all of the most important factors were related to entrepreneurial characteristics. In order of importance, these criteria were that the entrepreneur was able to articulate the venture idea clearly, that the entrepreneur had an existing track record of previous successful ventures and that the entrepreneur had references from a reliable source. In addition, Flynn continued that the existence of a formal business scheme was not considered as a significant factor.

Vinig and De Haan (2002) conducted a study comparing the investment criteria of VCs in the Netherlands and in the US. In the study, the authors gathered data through interviews and questionnaires from ten VCs in the Netherlands and nine VCs in the US. First, 22 criteria were discovered from prior literature and experts in the field. These criteria were distributed into four groups, which were the entrepreneur, the idea/product, the market and financials. The authors concluded that Dutch and US based VCs had a similar rank on the relative importance of the main criteria. Not surprisingly, they both considered the criteria related to the entrepreneurial characteristics most important. For US VCs, product, market and financial criteria were all equally important, while for Dutch VCs, product and market criteria had the same level of relative importance before financial criteria. The only difference in the relative importance of sub-criteria between the two countries was related to product characteristics. For Dutch VCs, the importance of innovative product or service was higher, while US VCs considered a proprietary, protected product more important.

Narayanasamy, Hashemoghly and Rashid (2011) studied the importance of investment criteria used by 16 Malaysian VCs. The methodology was similar to other studies, as the authors conducted interviews as well as questionnaires, in which the criteria were ranked on a scale of one to four. The criteria set used in the questionnaire was the same as suggested by Fried and Hisrich (1994). That is, the three main groups of criteria were concept, management and returns. The most important criteria were management integrity, leadership skills, exit opportunity and high return of the investment.

Nunes et al. (2014) conducted a research of the importance of evaluation criteria used by 20 Portuguese VCs. In a similar manner compared to most of the studies presented, the authors collected data through questionnaires. The authors identified 45 criteria from studies by MacMillan et al. (1985), Muzyka et al. (1996) and Pintado (2002). The criteria were divided into six groups, which were (1) personality of the entrepreneur and the management team, (2) experience of the entrepreneur and his management team, (3) market, (4) product, (5) financial aspects and (6) other aspects of the investment. The main result was once again that the most important criteria were related to personality and experience of the entrepreneur and management team. Overall, seven of the ten most important criteria were related to the management team.

Nunes et al. (2014) concluded that the most important criteria with respect to each group of criteria were; honesty and integrity in the group of personality of the entrepreneur and management team; being focused and familiar with the market objectives of the company as well as knowledge of the sector in the group of experience of the entrepreneur and management team criteria; growth rate of the market and ease of access to distribution channels and suppliers in the group of market criteria; potential foreign market in the group of product criteria; expected rate of return and ease of exit in the group of financial criteria; quality of the business plan in the group of other criteria. Interestingly in contradiction with many of the prior studies, Nunes et al. found that

product having a potential foreign market was an important criterion. This implicated that if the domestic market of the venture was small, such in the case of Portugal, VCs put more weight on having potential foreign market as well.

3.2 Real-time studies

As stated earlier, majority of prior studies have relied on post hoc methodologies (e.g. interviews and questionnaires) in gathering data of the evaluation criteria used by VCs. These studies face problems, as they may be biased and misleading since they assume that VCs can accurately recall their own decision processes. (Zacharakis & Meyer 1998) In order to overcome the issues faced by post hoc studies, a number of studies have been conducted utilizing real-time methods, such as verbal protocols conjoint analysis. In this subchapter, a number of such studies are reviewed.

Muzyka et al. (1996) applied conjoint analysis in their research. In the study, VCs had to make a series of trade-offs by deciding which of the two given criteria was more important. A list of 35 evaluation criteria was compiled from prior literature and from seven interviews with European VCs. These criteria were divided into seven categories, which were (1) financial criteria, (2) product-market criteria, (3) strategic-competitive criteria, (4) fund criteria, (5) management team criteria, (6) management competence criteria and (7) deal criteria. The authors added fund and deal criteria as the two new categories in addition to slight alterations to the categories suggested by MacMillan et al. (1985).

After gathering the list of 35 different criteria, 73 VCs across the Europe filled in the experimental questionnaire. As in most post hoc studies, the most important category of criteria was management team criteria as the top five most important criteria were

all related to the characteristics of the management team. Leadership potential of the lead entrepreneur was the most important and leadership potential of management was the second most important criterion. In order of importance, other management team criteria were industry expertise, track record of lead entrepreneur and track record of management team. As far as the author acknowledges, Muzyka et al. (1996) were the first to separate the criteria related to the entrepreneur and the management team.

The most important management competence criteria were marketing and organizational capabilities of the team with final ranks of seven and eight. The most important financial criterion for European VCs was the ability to cash out from the investment. Moreover, the only strategic-competitive criterion in the top ten was that the product had a sustainable competitive advantage in its market as it was ranked as the sixth most important. Furthermore, out of the eight product-market criteria, the degree of product-market understanding was the most important as it was ranked as the tenth most important criterion among all criteria.

In conclusion, Muzyka et al. (1996) noted that good financial characteristics of the investment opportunity were generally meaningless if the venture lacked a correct management team and a reasonable idea. Furthermore, the authors concluded that the criteria in the fund and deal categories were the least important when evaluating investment opportunities. In other words, criteria such as how well the business and product fit the fund portfolio or the stage of investment required were not given a high weight by VCs.

Zacharakis and Meyer (1998) used a real-time method called policy capturing in their research to study the investment process of 51 VCs from Colorado and Silicon Valley. In the study, VCs were asked to make a series of real-time decisions based on different information factors. The authors then applied regression analysis to capture how

important each of the factors were to the actual decisions of VCs and simultaneously asked them how they believed they used the information factors. By doing so, they were able to compare the VCs actual decision-making to their stated decision-making. The results suggested that VCs did not have a strong grasp on their own decision process.

In the research, Zacharakis and Meyer (1998) used important evaluation criteria from prior literature and created three different experiments where VCs had to make an investment decision based on the information available. The information factors were different in each of the experiments. The authors discovered that when certain information regarding the venture came available, VCs shifted their attention to other factors. If more information regarding the ventures competitors came available, VCs focus shifted from entrepreneurial factors to market characteristics. Their findings suggested that characteristics of the entrepreneur were critical when VCs lacked information about the market, but when VCs knew the ins and outs of the market, characteristics of the entrepreneur were not so important. In summary, Zacharakis and Meyer (1998) argued that market characteristics ultimately determined who gets funding and who does not. This was in contradiction with majority of previous renowned studies such as Tyebjee and Bruno (1984), MacMillan et al. (1985) and Muzyka et al. (1996).

Shepherd (1999) utilized conjoint analysis in his research of 66 Australian VCs. In the study, Shepherd examined if VCs assessment policies of new venture survival were consistent with those proposed in strategy literature. In the research, VCs had to evaluate a series of hypothetical conjoint profiles that described new ventures in terms of six criteria. These criteria were (1) stability of key success factors, (2) timing of entry, (3) lead time, (4) competitive rivalry, (5) industry related competence of the entrepreneur and (6) educational capability. Shepherd found that the most important criteria for VCs in the evaluation of a venture's probability of survival was industry

related competence of the entrepreneur. The second most important criterion was the educational capability of the management team, followed by timing of entry of the venture.

Mason and Stark (2004) compared the investment criteria of bankers, VCs and business angels by verbal protocol analysis. The sample consisted of three bankers, three VC firms and four business angels, all located in the south of England. All funders were asked to review three real life business proposals. The proposals were an internet training company providing e-learning courses, a branded restaurant concept based on a successful Chinese model and a provider of test laboratory facilities using its own patented equipment.

The results were notably different compared to post hoc studies. Mason and Stark (2004) concluded that VCs gave the greatest emphasis to market and financial issues. In other words, VCs were interested in the size and growth of the market as well as the level of competition and expected returns. These factors received almost the same weighting from VCs in the study. In addition, characteristics of the entrepreneur and strategy were of secondary importance. The least important criteria were investor fit, operations, product and business plan of the venture.

Franke et al. (2008) studied more closely the evaluation criteria of the management team using conjoint analysis. Franke et al. were interested of the criteria used to evaluate management teams as previous literature had clearly suggested that characteristics of the team was the most important factor in evaluating possible deals. Moreover, the authors were interested in providing in-depth knowledge of evaluations of management teams as previous studies had only provided knowledge on a general level. For example, if industry experience of the management team was found to be an

important criterion in prior literature, the authors were interested in questions such as “is it desirable that all team members possess such experience?”.

The sample of Franke et al. (2008) consisted of 51 VCs located in Munich, Berlin and Vienna. Seven criteria were found from both prior literature and explorative interviews with VCs: (1) relevant industry expertise, (2) field of education, (3) experience in leading teams, (4) acquaintance among team members, (5) level of education, (6) age of team members and (7) prior job experience (in terms of startup vs. large firm). With respect to Franke et al. (2008), the seven criteria were then studied applying an “exploded logit” model in a conjoint experiment, in which the participants had to rank simulated teams in terms of preference from a set that consisted of several alternatives. By doing so, the authors identified the impact of different criteria in the evaluations of VCs.

According to Franke et al. (2008), the three most important management criteria were industry experience, field of education and level of education. Industry experience was found to be a knock-out criterion. In other words, if none of the team members possessed any relevant experience from the industry the startup was targeting, the deal would be turned down. The optimal situation was that some of the members of the management team possessed it – not everyone was required to have industry experience. In field of education, VCs preferred heterogeneous management teams to teams where all members had either engineering or management background. In the criterion of level of education, academic background was found to be essential, but it hardly made a difference whether only some or all of the members had a university degree. The authors continued that the ranks from four to seven were leadership experience, mutual acquaintance, age of team members and prior job experience. Leadership experience was also a knock-out criterion as in the case of industry experience. If none of the team members had leadership experience, VCs were not particularly interested in the venture, while it was sufficient even if some of the members had some relevant experience. Furthermore, VCs found it more important if the

management team had been professionally acquainted for a long time rather than if they possessed long private relationships. Moreover, a team with young members aged between 25-35 years old was a turnoff criterion for VCs, whereas the preferred setting was surprisingly a team with members aged between 35 and 45. Finally, prior job experience of the management team had only little impact on the decision-making of VCs.

Petty and Gruber (2011) conducted a longitudinal study of a European based VC-firm. In the research, the authors were able to examine the actual decision-making of the VC firm, instead of having an artificial decision-making situation like most of the real-time studies. The unique data set comprised of 11 years of data of two funds of the VC firm. During the period of 11 years, the VC firm received 3631 deal proposals in total and accepted 35 deals. The data set was created by reading emails and memos from archived deal files as well as gathering data from the firm's deal flow database. The decision-making and the investment criteria were analyzed using qualitative methods using interpretative approach in analyzing the documents.

Petty and Gruber (2011) discovered that VC-fund related reasons were the most important criteria in rejecting a deal. That is, if factors such as product focus, geographic location or company stage were not in line with the strategy of the VC firm, the deal would be rejected. This was an interesting new finding compared to other studies. Moreover, another new finding was that the lack of time of VCs sometimes turned down the deal, even if the deal was acknowledged to be potentially feasible. In addition to fund related reasons, characteristics of the product or service were also considered to be one of the primary reasons in rejecting a deal. Furthermore, the authors noted that characteristics of the management team did not receive as much as attention from the VC firm that one might had expected from prior literature. In fact, quality of the management team was not a major factor refusing a deal at any phase of the evaluation process. The authors argued that this could have been due to the fact that they

conducted a research that was interested in the criteria used to reject a deal, while prior studies focused on accepting one.

3.3 Summary of the investment criteria

This subchapter combines and summarizes the findings of previous studies on the investment criteria of VCs. The relative importance of the factors VCs use to evaluate investment proposals is discussed. Furthermore, the differences between the findings of post hoc and real-time studies are examined. The role of intuition in the investment selection is also discussed. Finally, a conclusive review of prior literature is provided in a table form at the end of this chapter.

As the well-known saying of the father of modern venture capital Georges Doriot goes, VCs should rather invest “in a grade A man with a grade B idea than in a grade B man with a grade A idea” (Bygrave & Zacharakis 2009). Most studies have found empirical evidence that support this statement. Simply put, several academics have concluded that VCs emphasize the importance of the entrepreneurial characteristics over other aspects (MacMillan et al. 1985; Flynn 1991; Knight & Gilbertson 1994; Muzyka et al. 1996; Zutshi et al. 1999; Vinig & De Haan 2002). Out of the twelve studies presented in Table 3., the research by Petty and Gruber (2011) was the only research that did not include a criterion related to entrepreneurial characteristics in the top three criteria.

The competence and personality of the entrepreneur and the team are crucial criteria for VCs. VCs tend to value companies that have passionate, trustworthy and committed entrepreneurs (MacMillan et al. 1985; Knight & Gilbertson 1994; Naryanasamy et al. 2011; Nunes et al. 2014). The entrepreneur and the team should also possess a relevant track record and industry experience (MacMillan et al. 1985; Flynn 1991;

Shepherd 1999; Zutshi et al. 1999; Franke et al. 2008) as well as leadership skills (Muzyka et al. 1996; Narayanasamy et al. 2011).

Table 3. Three most important criteria of selected prior studies, modified from Franke et al. (2008)

Author(s)	Sample	Area	Post hoc/Real-time	Evaluation criteria by rank order of importance
Tyebjee & Bruno (1984)	46 VCs	US	Post hoc	(1) Management skills & history (2) Market size/growth (3) Rate of return
MacMillan et al. (1985)	102 VCs	US	Post hoc	(1) Capable of sustained intense effort (2) Thoroughly familiar with market (3) At least ten times return in 5-10 years
Flynn (1991)	40 VCs	US	Post hoc	(1) Ability to articulate the venture idea clearly (2) The existing track record of the entrepreneur (3) References from a reliable source
Knight & Gilbertson (1994)	134 VCs	Canada, Asia-Pacific	Post hoc	(1) Capable of sustained intense effort (2) Thoroughly familiar with market (3) Able to evaluate and react to risk well
Muzyka et al. (1996)	73 VCs	Europe	Real-time	(1) Leadership potential of lead entrepreneur (2) Leadership potential of management team (3) Recognized industry expertise in team
Zacharakis & Meyer (1998)	51 VCs	US	Real-time	Treatment 1. (information available is limited) (1) Proprietary protection of product (2) Market familiarity of entrepreneur/team (3) Leadership ability Treatment 2. (competitor information available) (1) Number of direct competitors (2) Strength of competitors (3) Market size
Shepherd (1999)	66 VCs	Australia	Real-time	(1) Industry related competence of entrepreneur (2) Educational capability (3) Timing of entry
Zutshi et al. (1999)	31 VCs	Singapore	Post hoc	(1) Thoroughly familiar with market (2) Capable of sustained intense effort (3) Demonstrated leadership ability in the past
Mason & Stark (2004)	3 VC firms	UK	Real-time	(1) Market (2) Finance (3) Entrepreneur
Petty & Gruber (2011)	1 VC firm	Europe	Real-time	(1) VC fund-related reasons (2) Product/service (3) Market
Narayanasamy et al. (2011)	16 VC firms	Malaysia	Post hoc	(1) Personal integrity (2) Leadership (3) Must provide an exit opportunity
Nunes et al. (2014)	14 VCs	Portugal	Post hoc	(1) Honesty and integrity (2) Long-term vision of entrepreneur (3) Expected rate of return

Some scholars have also emphasized the importance of the target market of the venture. Market criteria reached the top three in five studies (Tyebjee & Bruno 1984; Zacharakis & Meyer 1998; Shepherd 1999; Mason & Stark 2004; Petty & Gruber 2011). Zacharakis and Meyer (1998) argued that market characteristics ultimately determine

who gets funding and who does not. Mason and Stark (2004) also discovered that market issues are of utmost importance for VCs before the consideration of other aspects. To summarize, VCs are interested in the size of the market (Tyebjee & Bruno 1984; Zacharakis & Meyer 1998), but most importantly want to see a market with growth potential (Tyebjee & Bruno 1984; MacMillan et al. 1985; Fried & Hisrich 1994; Muzyka et al. 1996; Zacharakis & Meyer 1998; Vinig & De Haan 2002; Narayanasamy et al. 2011; Nunes et al. 2014) as it enables the growth of earnings (Fried & Hisrich 1994). Some studies have also found that VCs also pay attention to the nature of the competition in the target market (Zacharakis & Meyer 1998) and to the venture's timing of entry in the industry (Shepherd 1999).

Financial criteria were part of the top three criteria in five studies (Tyebjee & Bruno 1984; MacMillan et al. 1985; Mason & Stark 2004; Narayanasamy et al. 2011; Nunes et al. 2014) but none of the financial criteria was the number one criterion in any of the studies. In general, two financial characteristics stood out from the crowd from past studies: expected rate of return and exit possibilities (MacMillan et al. 1985; Fried & Hisrich 1994; Muzyka et al. 1996; Vinig & De Haan 2002; Mason & Stark 2004; Petty & Gruber 2011; Nunes et al. 2014). Quite logically, VCs are interested in how easily they can exit and realize their profits from the investment through M&A or IPO, and how much can they expect to make from the investment. Besides these two driving factors, VCs in relatively smaller economies place some weight on the investment size (Vinig & De Haan 2002; Nunes et al. 2014).

Only two reviewed studies came across evidence that product criteria were among VCs' top three most important criteria (Zacharakis and Meyer 1998; Petty and Gruber 2011). Even though entrepreneurial, market and even financial factors seem to be superior to product-related criteria in terms of importance, there are still certain aspects that VCs seek in the characteristics of the product. Some VCs see potential in a startup that has a product that is protected (MacMillan et al. 1985; Zacharakis & Meyer 1998;

Vinig & De Haan 2002; Nunes et al. 2014) and unique or innovative (Tyebjee & Bruno 1984; Muzyka et al. 1996; Zacharakis & Meyer 1998; Vinig & De Haan 2002; Mason & Stark 2004; Petty & Gruber 2011). Another aspect that some VCs emphasize is the market acceptance of the product (Zutshi et al. 1999; Vinig & De Haan 2002; Nunes et al. 2014). VCs in smaller economies, such as Portugal, are also interested if the product has any global potential (Nunes et al. 2014).

To some extent, the differences between the findings of different studies arise from methodological differences. As stated in the beginning of this chapter, VCs do not fully understand how they make decisions (Sharma 2015) and therefore, results of post hoc studies could be misleading. As presented in Table 3, all post hoc studies have found that the most important criterion is related to entrepreneurial characteristics. Real-time studies have been more hesitant to draw such conclusions as studies by Zacharakis and Meyer (1998), Mason and Stark (2004) and Petty and Gruber (2011) have found evidence of the superiority of market, product or fund related criteria over entrepreneurial factors. Furthermore, out of the five market-related top three mentions in the presented studies, four were conducted utilizing real-time methods. These findings suggest that even though VCs themselves think it mostly about the team, the reality is much more complex and that characteristics of the market also play an important part in the decision-making.

One of the factors affecting investment decision-making that has not yet been discussed is intuition. It is a well-known fact that VCs' decisions are to some degree based on intuition (Hisrich & Jankowicz 1990). For example, it has been stated that if there is no chemistry between the VC and the management team, the deal will be turned down (Zacharakis & Meyer 1998). Therefore, if the word "criterion" is defined as "a standard on which a judgment or decision may be based" (Merriam-Webster 2018), then intuition per se should be taken into account when analyzing the most important investment criteria. Still, not many studies have done so. This is because quantifying

and objectively analyzing intuitive decision-making is difficult (Zacharakis & Meyer 1998). One of the only studies focusing on the role of intuition was conducted by Hisrich and Jankowicz (1990), where they tried to model the role of intuition as discussed in chapter 3.1. Furthermore, the only reviewed post hoc study that included intuition as one of the criteria in the questionnaire was conducted by Nunes et al. (2014). In their study, the criterion “VCs intuition” was ranked as 22nd most important out of 43 criteria. In conclusion, however, it should be underlined that if VCs are not that well aware of they make decisions (Zacharakis & Meyer 1998), the role of intuition should not be underestimated when analyzing the most important investment criteria.

Table 4. summarizes the investment criteria found in 13 prior studies. The criteria are divided into six categories. These categories are (1) personality of the entrepreneur/management, (2) competence of the entrepreneur/management, (3) product, (4) market, (5) financials and (6) other criteria. In the table, the data collection method as well as data analysis methods are reported together with of sample sizes and geographic locations of the studies.

The variety of the criteria is large. It is difficult, and perhaps unnecessary, to draw definitive conclusions from past researches as they clearly lack a consensus. After all, different VCs operate under different circumstances and it would be foolish to expect that a unified set of criteria would exist among all VCs. Hence, it is by no means surprising that during the past forty years of research of VCs evaluation criteria, studies that have utilized various methodologies and that have been conducted in various geographic locations, have ended up with varying results. Nevertheless, by looking at the big picture, this chapter can be ended by arguing that based on previous literature, VCs’ most important investment criterion is management team or entrepreneur, followed by market-related issues and financial characteristics. Finally, even though less important than the other three main criteria, product-related aspects have some role in VCs’ evaluations of investment proposals.

Table 4. Summary of investment criteria found in prior literature

Table presents the relevant investment criteria used by VCs found in prior literature. Table is modified from Zacharakis & Meyer (2000) with additions by author. Table presents the identified criteria (“x” notifies if the criterion was found in the respective study), which are divided into six categories. Furthermore, data collection and analysis methods, as well as sample sizes and geographic locations of the studies are presented in the table.

Study	Tyebjee & Bruno (1984)	MacMillan et al. (1985)	Flynn (1991)	Fried & Hisrich (1994)	Muzyka et al. (1996)	Zacharakis & Meyer (1998)	Shepherd (1999)	Vinig & De Haan (2002)	Mason & Stark (2004)	Franke et al. (2008)	Petty & Gruber (2011)	Narayana-samy et al. (2011)	Nunes et al. (2014)
Data collection method	Interviews and questionnaires	Interviews and questionnaires	Structured interviews	Interviews and questionnaires	Interviews and experimental questionnaires	Real time policy capturing	Conjoint analysis	Interviews and questionnaires	Verbal protocols	Conjoint analysis	Archival data	Interviews and questionnaires	Questionnaires
Statistical analysis	Regression factor & discrimination	Descriptive statistics	Descriptive statistics	Descriptive statistics, content analysis	Pair-wise trade off conjoint	Regression	ANOVA	Descriptive statistics	Descriptive statistics	Discrete choice	Qualitative	Descriptive statistics	Descriptive statistics
Sample Size	46 VCs (Study 1), 41 VC firms (Study 2)	102 VCs	20 VCs	18 VCs	73 VCs	51 VCs	66 VCs	19 VCs	3 VC firms	51 VCs	1 VC firm, 3631 deals reviewed	16 VC firms	14 VCs
Country/Continent	US	US	US	US	Europe	US	Australia	US and the Netherlands	UK	Germany & Austria	Europe	Malaysia	Portugal
PERSONALITY OF ENTREPRENEUR/MGMT													
Strong commitment		x											x
Ability to identify/react to risk		x		x								x	x
Articulates venture idea clearly		x	x										
Attends to detail		x											x
Gets along well with VC		x											x
Trustworthy				x							x	x	x
COMPETENCE OF ENTREPRENEUR/MGMT													
Track record		x	x	x	x	x		x	x	x		x	x
Industry experience		x			x	x	x	x	x	x	x	x	x
Leadership experience		x		x	x	x		x	x	x	x	x	
Field of education							x			x			x
Level of education							x			x			x
Technical skills	x				x				x				x
Marketing skills	x				x				x				
Financial skills	x				x				x				
Management skills	x				x				x				x
References	x	x	x										
Reputation											x		
PRODUCT													
Patentability/protectability	x	x				x		x					x
Uniqueness/innovativeness	x				x	x		x	x		x		x
Competitive positioning				x							x	x	
Market acceptance		x						x			x		x
Development stage		x		x		x		x				x	x
Potential foreign market								x					x

4 INTERVIEWS

The empirical part of the thesis takes place in this section. First, the research approach in its theoretical form is explained in chapter 4.1. This is followed by a description of the practicalities of the six conducted interviews and a review of the backgrounds of the interviewees in chapter 4.2. Finally, the results of the interviews are described in detail in chapter 4.3.

4.1 Research approach

The research approach of this thesis is qualitative. The basis of any qualitative research is to study real life phenomena (Saaranen-Kauppinen & Puusniekka 2006). Whereas quantitative research tries to explain different phenomena through testing of hypotheses using statistical methods, qualitative research tries to build a holistic understanding of the phenomena studied (Eriksson & Kovalainen 2008). Qualitative data is also often based on meanings expressed through words rather than numerical data (Saunders, Lewin & Thornhill 2009).

Semi-structured interviews were used to gather empirical data from six experts in the field in this thesis. In semi-structured interviews, the researcher has a set of questions and themes that he wants cover during the interview (Saunders et al. 2009). The questions are the same or almost the same for every interviewee and are asked in the same order (Saaranen-Kauppinen & Puusniekka 2006). In semi-structured interviews, the researcher can exclude some questions or include additional questions in different interviews depending on the flow of the conversation. In this thesis, semi-structured interviews are preferred to survey because they allow the researcher gain more in-depth information of the subject. (Saunders et al. 2009)

This research also uses an inductive approach. Inductive approach is often used in qualitative studies. Inductive approach “emphasizes gaining an understanding of the meanings people attach to events”. (Saunders et al. 2009) In an inductive approach, the focus of the research is on the given data. Compared to deductive approach, in which an existing theory or model drives the research, inductive approach does not rely on any theory or testing hypothesis. (Saaranen-Kauppinen & Puusniekka 2006) Therefore, inductive approach is chosen because this thesis does not rely on a particular hypothesis nor does it try to test a theory of any kind.

4.2 Description of the data

The empirical data of this thesis consists of six interviews held with Finnish VCs. All in all, 26 cold emails were sent to selected members of the Finnish Venture Capital Association (FVCA). The contact information of the VCs were obtained from the FVCA’s website. Out of the 26 emails sent, 14 responses were received. Out of the 14 responses, ten were positive. However, due to the time limitations of the VCs and the author of this thesis, only six interviews were conducted. In other words, some VCs agreed to participate in the interviews, but were available not until the autumn. Furthermore, the common reason for rejection was VCs’ lack of time.

All of the six interviews were conducted in Finnish via phone during one month between 3.5-4.6.2018. The durations of all of the interviews were approximately 30 minutes. The interviews were recorded and transcribed for the purpose of further analysis. The first part of the interview concentrated on the backgrounds of the interviewees. After this, the focus was on the most important investment criteria. First, a summary of the most important criteria was inquired from the VCs. As past studies had implicated that management team, product, market and financial characteristics were the main categories of criteria, it was expected that the same four criteria would rise above other

criteria in the interviews. This turned out to be the case. Therefore, the focus of the interviews shifted to scrutinizing the subcriteria under the four main criteria. That is, to capture the features of the most important criteria, questions regarding the characteristics VCs saw important in management team and entrepreneur, product, market and financials were asked. The list of questions can be found in Appendix 1. Because of the semi-structured nature of the interviews, the list of questions is not comprehensive as other, elaborating questions were asked in all of the interviews. These additional questions varied between interviews and were dependent on the flow of the interview.

Table 5. Backgrounds of the interviewees

Interviewee	Education	Job title	Experience in VC/PE (years)	Company	Assets under management, millions of €	Range of investment size, millions of €
Tero Luoma	M.Sc. in Economics and Business Administration	Investment director	>10	Taaleri Oyj	5600 in total, 1000 in private equity funds	>2
Timo Kokkila	M.Sc. in Technology	CEO	8	Pontos Oy	350-400	3-20
Petri Laine	L.Sc. in Economics and Business Administration	Managing Partner	20	Innovestor Oy	93	0,2-2
Juha Ruohonen	M.Sc. in Economics and Business Administration	Partner	>10	Superhero Capital Oy	20	0,3-0,5, max. 4
Anonymous A	M.Sc. in Economics and Business Administration	Manager	3	Company A	80	3-12
Anonymous B	MBA in Service Design, B.Sc. in Economics and Business Administration	CEO	14	Company B	14	0,5-1,5

In Table 5. are listed the interviewees and their educations, job titles and experiences from VC industry as well as their companies, the companies' assets under management and common investment sizes. It was agreed with two interviewees that

their identities would be kept anonymous so that direct quotations from their interviews could be used in the thesis. These two interviewees will be referred to as “Anonymous A” and “Anonymous B” from here onwards.

As observable in Table 5, all of the interviewees have at least Master’s level education. Moreover, all except one of the respondents have an educational background in business administration. The job titles vary from manager to CEO, but all of the interviewees are in a relevant position with respect to the evaluation of investment proposals. Furthermore, four of the six interviewees have experience of over ten years from VC or PE industry, whereas the remaining two, Timo Kokkila and Anonymous A have been involved in VC activities for eight and three years respectively. The assets under management of the VC firms vary greatly from 14 million euros to one billion euros. Moreover, the investment sizes of the VCs are from 0,3 million euros to 20 million euros. More detailed presentations of the interviewees and their respective VC firms are given below.

The first interviewee is Tero Luoma, an investment director at Taaleri Private Equity Funds. Taaleri is a large Finnish wealth management and financing company. It had 5,6 billion euros of assets under management in total at the end of 2017 (Taaleri 2018). According to Luoma, Taaleri Private Equity Funds have assets under management totaling 1 billion euros and the average investment size varies between funds but is mainly above 2 million euros. Taaleri Private Equity Funds are primarily involved in buyout investments but have also made some VC investments. Luoma holds a Master’s degree in Economics and Business Administration and has over 10 years of experience from the VC industry. (Luoma, phone interview 3.5.2018)

The second interviewee, Timo Kokkila, is the CEO of a family-owned private equity company called Pontos Oy. Pontos has in total 350-400 million euros of assets under

management and the investment sizes are between 3 and 20 million euros. Pontos invests primarily in real estate, but also in firms that are past their seed stage regardless of the industry. Kokkila has eight years of experience from VC activities and is a Master of Science in Technology. (Kokkila, phone interview 8.5.2018)

The third interviewee, Petri Laine, is a managing partner at Innovestor Oy. Innovestor is a large Finnish VC firm and invests in seed and early stage companies in various industries other than gaming industry. The company has some 93 million euros of assets under management and its range of investment size is 0,2-2 million euros. Laine is a seasoned VC veteran with 20 years of experience from the industry. Laine holds a Licentiate degree in Economics and Business Administration. (Laine, phone interview 25.5.2018)

The fourth interviewee is Juha Ruohonen from Superhero Capital Oy. Ruohonen is a Master of Science in Economics and Business Administration and has worked in the VC industry over ten years. Superhero Capital invests primarily in seed stage firms. Hence, the common investment range of Superhero Capital is the smallest among the companies of the interviewees, 0,3-0,5 million euros, with a maximum investment size of 4 million euros. The industry focus of Superhero Capital is in business-to-business software companies. The company has 20 million euros of assets under management. (Ruohonen, phone interview 4.6.2018)

The fifth interviewee, Anonymous A, is a manager at a Finnish VC firm (referred to as Company A) that has 80 million euros of assets under manager. Company A invests in later stage companies regardless of the industry and the investment size varies between 3-12 million euros. Anonymous A is also a Master of Science in Economics and Business Administration and has three years of experience from the VC industry. (Anonymous A, phone interview 17.5.2018)

The sixth interviewee, Anonymous B, is the CEO at a Finnish VC firm (referred to as Company B). The company invests in later stage companies that are focused in leisure and well-being industries. Average investment size of Company B is between 0,5-1,5 million euros, whereas the company has 14 million euros of assets under management. Anonymous B is an MBA in Service Design as well as a Bachelor of Science in Economics and Business Administration. (Anonymous B, phone interview 29.5.2018)

Table 6. Investment focuses of the interviewees

Interviewee	Industry focus of the firm	Investment stage
Tero Luoma	Various, mainly traditional industries	Buyout
Timo Kokkila	Various, mainly real estate	Later
Petri Laine	Various, but not gaming industry	Seed and early
Juha Ruohonen	B-to-B software	Seed
Anonymous A	Various	Later
Anonymous B	Leisure and well-being	Later

Table 6. lists the industry focuses and investment stages of the interviewed VCs. As seen in the table, the group of interviewees is heterogeneous. Four of the six participants have only little industry requirements and can make investments in various industries with some limitations. The remaining two interviewees, Juha Ruohonen and Anonymous B, have more strict investment focuses. Moreover, the development stages of companies at which the VCs are specialized in investing vary, as four participants are focused in later stage or buyout investments and two target their investments to seed or early stages. The only buyout investor, Tero Luoma from Taaleri, focuses mainly on investments to more established companies, but has also made some earlier stage investments as mentioned earlier. These differences between participants can create opportunities for interesting findings in terms of similarities and differences in the investment criteria employed by the participant VCs. Therefore, for the rest of this

thesis, a reference to seed and early stage investors indicates towards Petri Laine and Juha Ruohonen, while a reference to later stage investors includes Tero Luoma, Timo Kokkila, Anonymous A and Anonymous B.

4.3 Results

In this chapter, the results of the interviews are presented. First, the criteria that VCs pointed out as the most important are listed and discussed. This is followed by scrutinizing in detail the aspects that VCs see important in management team, product, market and financials when evaluating investment opportunities. Furthermore, the role of intuition in the investment decision-making from the viewpoint of Finnish VCs is the is discussed.

4.3.1 Most important investment criteria

The investment criteria that the interviewees cited as the most important are presented below in Table 7. The criteria are not in any order of importance. It should be noted that the languages the interviewees used to characterize the most important investment criteria were not similar. In other words, VCs described similar kind of criteria in a diverse set of words and therefore, the results are subject to interpretation of the researcher in order to provide a compilation of the most important investment criteria.

In total, nine important criteria were distinguished in the interviews. Out of the nine criteria, four were mentioned by more than one interviewee. Not surprisingly, all of these four criteria were the same that previous literature had suggested to be the most important. That is, management team, product, market and financial characteristics were brought up in the interviews more frequently than the other criteria.

Table 7. Most important investment criteria of Finnish VCs

Criteria	Tero Luoma	Timo Kokkila	Petri Laine	Juha Ruohonen	Anonymous A	Anonymous B
Management team	x	x	x	x	x	x
Product	x				x	
Market	x	x		x	x	x
Financials	x	x			x	x
Investor fit		x				
Competitive positioning			x			
Growth potential			x			
Ability to define client's problem				x		
Fit with fund portfolio						x

All of the interviewees mentioned characteristics of management team or entrepreneur as one of the most important criteria. To set things straight, only one of the interviewees, Anonymous B, implicated that most of the investment proposals he deals with are run by single entrepreneurs, whereas rest of the VCs discussed about the importance of the whole management team. Therefore, in the rest of this chapter, the phrase “management team” is used to represent the findings of both entrepreneurial and management team characteristics.

After management team, the criterion that was mentioned the second most was market, as only one of the six interviewees did not highlight the importance of the venture having an attractive target market. Furthermore, four interviewees raised financial characteristics as an important factor, while characteristics of the product was mentioned only by two VCs.

These results are in agreement with past literature. That is, management team seems to be the single most important criterion for the interviewed VCs since every interviewee mentioned the relevance of the team in investment decision-making. Moreover, two

interviewees highlighted management team above other criteria as the most important, while the other four VCs did not indicate any order of importance for their most important criteria. Therefore, based on how frequently the respective criteria were mentioned, market and financial characteristics play the second fiddle after management team, as is the case in existing literature, argued in section 3. Furthermore, product is a somewhat less important criterion than the other three main criteria for Finnish VCs. This is also harmonious with previous studies.

Other important criteria that arose in the interviews that were not as commonly cited in previous literature as management team, product, market and financial characteristics were investor fit, competitive positioning of the company, growth potential of the venture, the company's ability to define the client's problem right and fit with fund portfolio. Investor fit was described by Kokkila (phone interview 8.5.2018) as a situation where the investor thinks that they have something to offer for the company and are thus interested in the venture. Fit of the investment with respect to the fund portfolio links closely to investor fit and was referred by Anonymous B (phone interview 29.5.2018) that Company B is reluctant to invest outside their investment focus and is therefore a driving criterion. Competitive positioning of the firm, according to Laine (phone interview 25.5.2018), means the specific competitive advantage that the company has over its competitors. Thus, it connects closely to both product and market characteristics.

Moreover, growth potential of the venture and the company's ability to define the client's problem correctly were also distinguished as their own, separate criteria, since they did not clearly fall under any of the main criteria. Growth potential of the venture was referred to as the overall growth potential of the venture that can lead to financial appreciation of the investment (Laine, phone interview 25.5.2018). Finally, Ruohonen (phone interview 4.6.2018) mentioned that one of the most important criteria is that the

startup is able to define problems correctly from the customers' point of view. According to Ruohonen, this criterion is especially important for B2B companies.

None of the other criteria were mentioned more than once. Perhaps this was partly because of the self-evident nature of some criteria. For some VCs, the importance of criteria such as growth potential of the venture and investment fit with fund portfolio might have been clear as a daylight, and therefore not worth mentioning. Furthermore, as said above, some of the criteria that were brought up only once were closely linked to other criteria and could have very well been incorporated with some of the main criteria. Hence, to avoid overanalyzing, the empirical part of this thesis focuses only on the details of the four main criteria: management team, product, market and financials. Each of these criteria are now discussed in their own chapter.

4.3.2 Management team

In the interviews, a specific point of interest was to explore the most important characteristics of the management team as previous literature had suggested its superiority over other criteria. Since all of the interviewees mentioned management team as one of the most important evaluation criteria, several important features of a competent team were brought up in the interviews.

“Foundation of everything is trust, and it’s also the most difficult to evaluate. The trust in the people either arises or does not arise. It’s sort of a watershed. The idea can be as good as any, and the case can be good from other aspects, but if there is not a good personal level of confidence in the management team, we will not proceed.” (Luoma, phone interview 3.5.2018)

One of the most cited management team criteria among the interviewees was trustworthiness of the team as discussed by Luoma in the above quotation. Four VCs stated that it is extremely important that they can trust the team. This finding cannot be understated. Even though an investment case is considered excellent from other aspects, Finnish VCs will not proceed with the deal unless trust is found among the participants of the deal. VCs have to feel confident about the management team before any investment. Therefore, the team has to convince the VCs that they are up for the task. Furthermore, an aspect that was brought up by some interviewees as an important part in building mutual trust between the VC and the team was the personal chemistry between the participants of the deal. The quotation below expresses the importance of good chemistry.

“The idea can be good, and the company can be good, but if we notice that we cannot discuss about things or communication does not work, it’s better not to invest because quite often in investment negotiations we are in a situation where the opposite side forgets that we are about to start a collaboration that lasts maybe five years.”
(Anonymous B, phone interview 29.5.2018)

Ruohonen (phone interview 4.6.2018) also indicated that if the chemistry is not there – if the VC does not get the feeling that the team members are trustworthy and can pull the case, or if the management team does not feel positive about the investors – it’s better to leave the deal on the table. Since the cooperation with the company can last over five years, VCs are aware that it is crucial to get along well with the management team. Furthermore, four interviewed VCs indicated that it is also important that the team shows ambition and are passionate about their project. It was implicated that VCs need to feel that the team has the ambition and drive to succeed, as it shows that the team has the ability to overcome difficult obstacles in the future. Anonymous B discussed about the importance of management team and role of ambition, or will to achieve, as follows:

“We are a minority investor, so we look very much at the team that will be involved, typically it is an entrepreneur. His background, knowhow, experience and the will to achieve. Where he aims at and do we think it’s realistic.” (Anonymous B, phone interview 29.5.2018)

An issue that came up in the interviews was that it is difficult to quantify and evaluate rationally things such as chemistry, trustworthiness or ambition. Several interviewees noted that when they’re dealing with people, it’s difficult to assess whether the evaluation of such characteristics is closer to art or science. The message from the interviews was clear: VCs cannot ignore their own feelings and intuition when they are dealing with people. The role of intuition, or “gut-feeling” has been surprisingly disregarded in previous studies, and the insights of the interviewees about the role of intuition in investment decision-making will be discussed more thoroughly later in its own subchapter.

Other qualities not related to personality traits were also mentioned in the interviews. Four out of the six interviewed VCs pointed out that track record and previous experience are important characteristics of the management team. This is in line with the findings of previous studies. In other words, the interviewees implicated that they want to see that team members have some relevant industry experience. VCs want proof that the team has done similar kind of operations in the past. It is better if the team has experience from the same industry as they are now operating, but for some interviewees this was not a requisition. For example, an argument was made by Ruohonen (phone interview 4.6.2018) that if a management team has experience from failures and success of startups regardless of the industry, it can sometimes be enough. Nevertheless, based on the interviews, the bottom line is that that the team should have the credibility to convince VCs that they can pull the case through, and if they want to do so, they should possess market and industry knowledge. Furthermore, it should be

added that some interviewees discussed that it is important if the management team has some previous experience from working together.

Two interviewees indicated that it is favorable that the team members have their own money involved in the company. Luoma (phone interview 3.5.2018) argued that he wants to see that team members have invested their own money in the firm. Kokkila (phone interview 8.5.2018) also mentioned that it's always positive if the executive team has ownership in the company. Based on the interviews, ownership of own firm is a way for team members to indicate that they are committed in their business and trust that the company can succeed in the future.

Only one of the interviewees described an optimal composition of a management team. According to Ruohonen (phone interview 4.6.2018), management teams should be rather heterogenous than homogenous. Ruohonen expressed that too often he runs into teams that consist of four persons that all have their background in technology. The members of the team should complement each other, that is, have different backgrounds in terms of education, skills and experience so that the team would consist of persons with different ways of thinking. On the other hand, some VCs stated that the optimal composition of team is always case-specific and expressed that there is no generic structure of a team that would always guarantee success. For example, Anonymous A (phone interview 17.5.2018) expressed that there is no such thing as an ideal team and continued to argue that there aren't that many similar characteristics in the teams of the companies they have invested in.

Various other desired traits of the team were also mentioned, although less frequently. One interviewee, Laine (phone interview 25.5.2018) said that it is important that VCs are open to new ideas and different visions. This is important because VCs role goes beyond a normal investor. Thus, the team has to be favorable to new ideas so that VCs

feel they have the ability to affect the nature of the venture's business. Moreover, both Laine (phone interview 25.5.2018) and Anonymous B (phone interview 29.5.2018) underlined that they want to see entrepreneurs who are pragmatic and show capability of putting words into action. In other words, they want to see that the management team has a vision of the company's future and can also articulate clearly their planned actions that support their vision. Interestingly though, in contradiction to previous literature (e.g. Muzyka et al. 1996), the importance of leadership potential of the entrepreneur or the management was not mentioned by any of the interviewees. Perhaps commitment and a clear vision assures Finnish VCs that there is leadership potential in the team.

What about the skills that the management team should possess? Although skills such as networking and communication skills were mentioned, none of the skills stood out as more important than others. Moreover, none of the interviewees mentioned previously cited (e.g. Tyebjee & Bruno 1984) "hard" skills such as technical or financial skills to be important for the management team. Instead, it was mentioned by Luoma (phone interview 3.5.2018) that it is not necessary that the team has all the skills and expertise when making the investment. According to Luoma, the team should show the ability to acquire the needed expertise to succeed. In a similar manner, Ruohonen (phone interview 4.6.2018) concluded that VCs do not search for perfect and flawless teams per se but understand that good teams can be built by adding new members.

4.3.3 Product

Even though characteristics of the product were not as acclaimed as the other three main criteria, several interesting findings that VCs thought as important with respect to the product of the venture proposal stood out from the interviews. To begin with, all of the interviewees said that the venture proposals should have an existing product or at least some minimum viable product (MVP).

“There has to be some MVP, some first prototype or proof-of-concept. If someone has only five PowerPoint slides, it’s too early for us. Then the case is for business angels, and even then most of them will not get involved.” (Ruohonen, phone interview 4.6.2018)

The common opinion of the interviewees was that no matter how great the idea is, there has to be some evidence that the product works or that there is some pilot customer for the product. In the case of later stage investors, this is a logical outcome, but for seed and early stage investors, this was also the case as quoted above. However, an existing product is not always an absolute requirement. Kokkila (phone interview 8.5.2018) mentioned that they had invested solely in an idea a few times, but also added that these occasions were not a common practice and closer to “exception proves the rule” type of investments.

Uniqueness and competitive positioning of the product or service were mentioned by four interviewees. To summarize, VCs want to see some advantage in the company’s product that separates it from the competitor’s products. If there is nothing special in the product, or the product is simply a copycat, VCs find it difficult to invest in such cases. Instead, the product should be difficult to copy so that the competitive advantage could sustain. Protectability of the product in terms of intellectual property rights (IPR) such as patents or copyrights was also brought up as an important criterion by some but not all of the interviewees. This was a logical outcome since some of the VCs are focused investing in industries where IPR are not relevant, or even possible.

“The everlasting buzzword is scalability. As we search for positive growth stories, we assess whether companies have the ability to grow significantly bigger.” (Kokkila, phone interview 8.5.2018)

As discussed by Kokkila, another criterion that was frequently acknowledged in the interviews as an important aspect for the product to have was scalability of the product. Three of the interviewed VCs mentioned that they want to see a product that enables a business model in which revenues can be increased with a slower increase in costs, eventually leading to higher profit margins. Compared to previous studies, this is a new finding and suggests that Finnish VCs are more reluctant to invest in capital intensive industries than their international peers.

One of the most interesting findings of the interviews was that four of the interviewed VCs emphasized the global potential of the product. The reason for the two VCs who stated that global potential is not important was because their investment focus is in Finland. Nevertheless, in previous literature, only few studies had proposed that VCs give some weight on having a product that has a potential international market (Vinig & De Haan 2002; Nunes et al. 2014). Furthermore, the former of these studies was conducted in the Netherlands and in the US, whereas the latter was conducted in Portugal. Both the Netherlands and Portugal can be thought as relatively smaller economies, a group in which Finland can also be counted as a part of. Therefore, it is fairly consistent that Finnish VCs also show signs of placing importance on having a potential global market. Tero Luoma summed up well the importance of global potential:

“One of the important factors that we evaluate is the global potential of the company’s idea. After all, the Finnish domestic market is very small. For the most part, the idea needs to have the potential to enter the international market.” (Luoma, phone interview 3.5.2018)

By “idea” Luoma means the sum of the market potential as well as competitive positioning and advantage of the product. The rationale for the importance of global potential is self-evident: the size of the domestic market. As Finnish economy

represents only a tiny fraction of the world's economy, Finnish VCs expressed that they want to invest in products that can go abroad, thus enlarging the potential customer base of the company. Furthermore, it should be noted that the stress here is on the word *potential*. Laine (phone interview 25.5.2018) commented that it is perfectly fine if the business operates first only domestically; the key is that it shows some capability of growing internationally in the future.

4.3.4 Market

When discussing about the most important investment criteria with the interviewees, market characteristics received the second most mentions after characteristics of the entrepreneur and management team. Thus, much attention was paid in the interviews to criteria related to market issues that VCs see important when evaluating investment opportunities.

“We of course evaluate the characteristics of the market. Is there growth potential and what is the size of the market? Can a small company gain a significant share in the market or does the market even grow in the first place? Where does the growth consists of in the target companies and in their business plans?” (Anonymous A, phone interview 17.5.2018)

Two important market characteristics that are also present in the quotation above arose in the interviews: growth rate of the market and size of the market. The importance of a growing market was brought up by all of the interviewees whereas market size was pointed out by five of the six VCs as an important criterion. Compared to previous studies, Finnish VCs do not differ from their international colleagues since the same

two market-related criteria were also the most commonly cited in past literature as discussed in the previous chapter.

Based on the interviews, Finnish VCs do not want to invest in companies that operate in small markets or in markets that show no possible growth in the future. VCs consider that a growing target market is crucial simply because it is much more difficult for a company to grow in a declining market. A thriving market enables the growth of the company and most important, the growth of earnings. Therefore, a common theme in the interviews was that an attractive market is a necessary aspect of any positive investment decision.

“We also analyze the industry. Who are the competitors, how challenging is the market in terms of available options in the field and what is the competitive situation in the industry?” (Luoma, phone interview 3.5.2018)

An attractive market is not only a large and a growing one. As implicated in the above quotation, dynamics of the market is also a fundamental aspect that VCs assess in the evaluation of venture proposals. Although mentioned less frequently, it was pointed out by some VCs that evaluating the market potential by analyzing the other players and their competitive positions in the market is important.

Besides market growth rate and size as well as nature of competition, an additional market criterion that was mentioned was timing of entry to the target market. The importance of entering the market at a right time was mentioned by two interviewees, Laine and Ruohonen. They were the only seed and early stage investors of the group of interviewees. Logically for later stage VCs, timing of entry was not referred to be an important aspect. This is arguably because it is expected that investments of later stage

VCs are made to companies that have already entered the market and proven their concept in the market. Nevertheless, the quotation below summarizes the fundamentals of a successful entry to the market.

“We would like to see that the market is just about to open. Not so that the market would not exist yet, but that the firm would be among the first entrants in the market when the market starts to grow.” (Laine, phone interview 25.5.2018)

The ideal timing of entry seems to be the point in which an already existing market starts to pick up its growth. Furthermore, it was highlighted in the interviews by Ruohonen (phone interview 4.6.2018) that timing of entry is essential because if an entrance is made too early, the creation or establishment of a market is too expensive for the company and if an entrance is made too late, the head start given to the competitors can be of such magnitude that it is difficult to gain an appropriate market share anymore.

Another issue raised in the interviews by the researcher was that do VCs only invest in companies that operate in an industry familiar to them? Previous studies such as MacMillan et al. (1985) and Mason and Stark (2004) had found hardly any evidence of such. The case was the same for this study. Excluding the interviewees that had set their investment focus on a particular industry, the remaining four VCs expressed that they are open for investing in different industries even though they may lack expertise in the given industry. It was also noted that in such circumstances, however, the threshold to invest is higher and requires naturally more background work from the VC. Also, Laine (phone interview 25.5.2018) noted that in such cases the company has to convince the investor about their knowledge of the market.

4.3.5 Financial characteristics

Financial characteristics were indicated as an important aspect in the evaluation of investment proposals by four out of the six interviewees. Both of the remaining two were seed and early stage VCs, which implies that later stage VCs consider financial aspects more important than seed and early stage VCs in the evaluation phase. Nevertheless, all of the interviewees described in detail their most important financial criteria, which are now discussed.

First of all, four of the interviewed VCs give weight on the size of the investment. Two previous studies by Vinig and De Haan (2002) and Nunes et al. (2014) have shown that VCs in relatively smaller economies assess some importance on investment size, but its importance has not been really highlighted over other financial criteria. Based on the interviews, Finnish VCs are interested in how much money is needed and how long their investment will last before the company needs additional investments. The issue of investing too much or too little money is discussed by Petri Laine below.

“We do not want to overfund the company. Too much money may lead the company to do things that are not meaningful in the long run. It (investing the right amount of money) requires skill. The safest way to lose your money is to underfund the company, but it’s almost as dangerous to overfund.” (Laine, phone interview 25.5.2018)

Why is investment size so important? As Laine implies, moral hazard may occur in a stronger form if a firm is overfunded. In case of underfunding, the firm may not be able to do the things required to grow significantly. Based on the interviews, though, the bottom line is that any decision regarding how much money to invest relies on the question of what the firm plans to do with the invested funds. Use of funds can be seen as the basis for forecasting the future of the venture. For example, Anonymous B

(phone interview 29.5.2018) stated that by estimating the impact of the invested funds to the firms' operations in different scenarios, they can estimate possible growth scenarios for the venture, which eventually helps figuring out the attractiveness of venture proposals.

Four of the interviewees also stated that the assessment of cash flows of the investment proposals is an important financial criterion. Especially for later stage investors, the common opinion was that VCs try to avoid companies that have negative cash flows and that do not show any signs of positive cash flows in the near future. The requirement for positive cash flows is linked to profitability: later stage VCs stated that they seek companies that are already making profits or are on the brink of being profitable. Timo Kokkila summarized this well:

“There are quite a few financial indicators: the financial position of the company before the possible investment and generally speaking the profitability. The ability to make profit does not need to be present at the time of investment, but in the near future the ability to produce profit is self-evident.” (Kokkila, phone interview 8.5.2018)

Seed and early stage VCs, on the other hand, argued that cash flows are estimated because of other reasons. Laine (phone interview 25.5.2018) mentioned that through cash flow analysis they try to make sure that the company has sufficient funds to keep their operations running. Ruohonen (phone interview 4.6.2018) stated in a similar manner that the cash flows for the next 12 to 18 months have to be estimated to keep track of the cash outflows and to know when the company runs out of capital and when more capital is needed.

As in several past studies, exit possibilities were also brought up by Finnish VCs. Besides Kokkila (phone interview 8.5.2018) who stated that exit possibilities are not a driving criterion for their firm because they can sit on their investments for a longer period than an average VC, other five interviewees were either neutral or high on having good exit possibilities. Compared to previous studies, however, one could have expected that exit possibilities would have been highlighted even more. Anonymous A (phone interview 17.5.2018) and Anonymous B (phone interview 29.5.2018) described that exits are thought in the evaluation process in its traditional form (could someone be interested in this company in the future and who might that be?). At the same time, Laine (phone interview 25.5.2018) stressed that the key is to develop a good company, since good companies are always bought. Ruohonen (phone interview 4.6.2018) on the other hand stated that exits should much rather be discussed in a strategic sense, that is, to think the actions the company has to do today so that some other, larger player in the market, is forced to buy the company in the future. Interestingly, both of the VCs that did not assess good exit possibilities in its traditional sense were seed and early stage investors. Therefore, it should be stated that good exit possibilities are an important factor for Finnish VCs, but the meaning VCs attach to it varies between investors.

In previous literature, the most commonly cited important financial criterion together with ease of exit was the expected rate of return of the investment. However, in the interviews, Luoma (phone interview 3.5.2018) was the only one who mentioned the relationship between risk and return as an important financial criterion. In similar words as earlier in this section on other occasions, this was probably because of the self-evident nature of the criterion. Considering that the goal of VCs is to make money for their investors, the interviewed VCs most likely did not mention the importance of assessing the expected rate of return of investment proposals since it is more than obvious. Needless to say, it would be irrational to draw any conclusions from this finding.

4.3.6 Role of intuition

As discussed in the management team subchapter, characteristics such as trustworthiness, ambition and chemistry between the team and VC are all important criteria in evaluating investment proposals for majority of the interviewed VCs. Their importance should not be understated. If for example a VC does not trust the team, or there is no chemistry between participants of the deal, the VC will probably leave the deal on the table. As these characteristics are related to the personalities of team members, they are difficult to evaluate rationally or quantify in any way. Therefore, the evaluation of such characteristics is based to some extent on the emotions and intuition of the investor. Such intuitive decision-making that is based on “gut-feeling” is difficult to analyze objectively (Zacharakis & Meyer 1998). Still, intuition plays an important part in the decision-making process (Hisrich & Jankowicz 1990) and its role should not be disregarded. Therefore, the role of intuition in the evaluation of investment proposals is now discussed as five of the six interviewees shared their insights on the matter.

The consensus among interviewees was that intuition has something to do with investment decision-making. None of the VCs denied its existence in the decision-making process. Some interviewees stated that its role is “very important” and that a significant part of investment decisions is based on intuition, while others were more cautious in their statements. For example, Anonymous A said the following when asked about whether they are aware of intuition or whether they think the decisions are purely based on objective analyses:

“It’s a mix of both. To a great degree we base our decisions purely on analysis and hard facts, but intuition and instinct also has a big role in it. But the hard facts have to also support it. We don’t proceed in cases where criteria say it’s not reasonable, but intuition says “let’s go”, we don’t do that. But there is a lot of it. When you’re dealing

with people, it's very much based on the feeling about those people and your own intuition." (Anonymous A, phone interview 17.5.2018)

Anonymous B (phone interview 29.5.2018) also mentioned that even though the backgrounds of the people have to be checked and that the background check can bring new insights that raise either more trust or more questions, the ultimate decision is always partially based on intuition. Kokkila (phone interview 8.5.2018) said that intuition might have more role than one can think, and also expressed that in general, VCs own previous experiences can affect the investment decision. Laine (phone interview 25.5.2018), on the other hand, mentioned that the investment process is to "verify your own intuition" as well as challenge it. He continued to argue in a similar manner as the above quotation that investment decision-making is a mix of art and science. According to Laine, the science part comes from experience and understanding the dynamics of different industries and business models, whereas the art part comes from dealing with people: *"When you're dealing with people, it's closer to art."*

Some interviewees also discussed about making investments against intuition. Laine (phone interview 25.5.2018) expressed that investments that have been made against own intuition and instincts have been consistently poor. Ruohonen (phone interview 4.6.2018) brought up also a deal that was made even though his intuition was against the deal: the outcome was that the investment turned out as a failure. Even though not mentioned by the interviewees, one can only speculate how these experiences affect and shape the decision-making of the VCs in upcoming investment proposals in the future. For example, is it possible that good investment proposals are rejected by VCs because of the memories of experiences that influence the decision-making? Although extremely interesting, this issue falls outside the scope of this thesis, and seems to be more of a matter of behavioral finance.

Clearly, Finnish VCs are aware that intuition and instincts have their role especially in evaluating characteristics of personality that cannot be measured objectively. VCs are also not trying to diminish its role in any case. Ruohonen (phone interview 4.6.2018) said that they have had cases where starting from the numbers everything has seemed to be fine. Still, for some inexplicable reason, the inner feeling has said that something is wrong in the case. The result, according to Ruohonen, is that those cases are better to let pass. Furthermore, Laine (phone interview 25.5.2018) concluded that intuition should by no means be underestimated in any business, especially in VC. Kokkila (phone interview 8.5.2018) mentioned that for their company, intuition might be more present in the screening phase of investment proposals, whereas Anonymous B (phone interview 29.5.2018) discussed that when an investment case is close to take place, he goes routinely through the case thinking: *“Does the case make any sense? Am I making a mistake?”* Thus, intuition seems to be present from start to finish in VCs’ investment process.

5 CONCLUSIONS

A summary of the research is presented in the last chapter. An outline of the goals of this study is provided together with a discussion of the research questions and key findings. This is followed by presenting the practical implications of the research. Furthermore, reliability and validity of the study are discussed. Finally, suggestions for future research are presented.

5.1 Summary and discussion

The purpose of this study was to explore the most important investment criteria of Finnish VCs. There were two objectives in the thesis. First, the aim was to scrutinize previous literature to form an understanding of the relevant criteria that VCs use in evaluating investment proposals. Second, the aim was to extend the existing literature by providing new empirical evidence of the most important investment criteria of Finnish VCs. Through semi-structured interviews of six Finnish VCs, insights of the criteria used by Finnish VCs in the evaluation of investment proposals were obtained. Based on the objectives of the study, two research questions were formed. The first research question was as follows:

What are the most important investment criteria of venture capitalists found in previous literature?

By reviewing a number of studies in chapter three, it can be concluded that the most important investment criteria of VCs are management team, product, market and financial characteristics. Although there are differences between studies in the ranking

of the most important criteria due to for example methodological differences, it can be argued that the most important investment criterion is management team, followed by market-related issues and financial characteristics, and finally by product criteria. That is, VCs assess the attractiveness of investment proposals firstly by evaluating the competence and personal characteristics of the management team or entrepreneur. VCs also evaluate the market potential of the venture and pay close attention to the venture's financial characteristics. Product or service characteristics have also some role in evaluating investment proposals.

The second research question of the study was formed as follows:

What are the most important investment criteria of Finnish venture capitalists and what are the differences and similarities between the criteria found in previous literature and the criteria described by Finnish venture capitalists?

The most important investment criteria of Finnish VCs are management team, product, market and financial characteristics - exactly the same as the most important criteria found in prior literature. The ordering of the criteria follows also the same pattern. The single most important criterion for Finnish VCs is management team. After management team, market and financial characteristics play the second fiddle whereas product is a somewhat less important criterion compared to the other three criteria. In comparison to previous literature, Finnish VCs have some differences in the aspects they consider important in the four main criteria. The differences and similarities between the criteria found in previous literature and the criteria described by Finnish VCs are observable in Table 8., in which the key findings of the study are presented.

Finnish VCs value passionate, trustworthy and committed entrepreneurs that have relevant track record and industry experience. Finnish VCs are thus similar to their

international colleagues (e.g. MacMillan et al. 1985; Flynn 1991; Zutshi et al. 1999), as the team has to show ambition and have knowledge of the industry it operates in to convince VCs of their competence. An important aspect for Finnish VCs is also the chemistry between the VC and the team. If no chemistry is found, Finnish VCs are more likely to leave the deal on the table than their international colleagues. Furthermore, in contradiction to previous studies (e.g. Muzyka et al. 1996; Narayanasamy et al. 2011), leadership skills is not an important criterion for Finnish VCs. In market-related issues, both Finnish and international VCs firstly look for markets where the venture has potential to grow significantly. That is, the market has to be big enough and most importantly a growing one for VCs to show interest in the company.

Table 8. Key findings

Category	Most important criteria in previous literature	Most important criteria of Finnish VCs
Management team	Passionate, trustworthy and committed Relevant track record and industry experience Leadership skills	Passionate, trustworthy and committed Relevant track record and industry experience Chemistry between VC and team
Market	Market size Market growth rate	Market size Market growth rate
Financials	Expected rate of return ¹ Exit possibilities	Investment size Exit possibilities Cash flow Use of funds
Product	Protectability/patentability Uniqueness/innovativeness	Protectability/patentability Uniqueness/innovativeness Scalability Global potential
Other		Intuition

Where previous studies have mainly highlighted the importance of expected rate of return and exit possibilities when evaluating financial characteristics, (e.g. MacMillan et

¹ Finnish VCs did not mention the importance of expected rate of return in the interviews. This was most likely due to the self-evident nature of the criterion, considering that the goal of all VCs is to make money for their investors. Needless to say, it would be irrational to draw any conclusions from this finding.

al. 1985; Muzyka et al. 1996; Nunes et al. 2014), Finnish VCs evaluate companies' financials on a broader scale. Finnish VCs are as well interested in exit possibilities, but also pay attention to the size and use of the investment. That is, Finnish VCs are interested in the amount of money needed and the company's idea of using the funds, as VCs want to see how the team plans to use the money to grow their business. By scrutinizing the possible use of funds, VCs can evaluate whether the management team's growth plans are realistic or not. Finnish VCs also assess cash flows in the evaluation stage in order to either estimate how long the invested funds will last or to evaluate the profitability of the venture. All of these additional financial criteria seem relevant, and therefore it is surprising that majority of previous studies have mitigated their importance.

Besides seeking innovative and unique products that, depending on the industry, are protected by IPR, Finnish VCs want to invest in scalable products that enable a business model in which revenues can be increased with a slower increase in costs. As previous studies have not suggested that VCs seek scalable businesses, it seems that Finnish VCs are more reluctant to invest in capital intensive industries than their international peers. Furthermore, global potential of the product is one of the most important product-related aspects for Finnish VCs. Previously, Nunes et al. (2014) have been the only ones to highlight the importance of a potential global market of the product. As their study was conducted in Portugal, it can be argued that VCs in relatively smaller economies consider global products more attractive investment targets than purely domestic ones.

Although widely disregarded in previous literature, it is a well-known fact that intuition plays an important part in VCs' decision-making (Hisrich & Jankowicz 1990). Finnish VCs are no different. One of the key issues that Finnish VCs articulate is that quantifying and objectively evaluating characteristics related to personality is difficult. In other words, the evaluation of characteristics such as trustworthiness, passion and

chemistry between the team and the VC is based to some extent on intuition or “gut feeling” of the VC. In agreement with Finnish VCs, intuition and own instincts are always present in the evaluation of investment opportunities when dealing with people. Therefore, it can be argued that intuition is a meaningful criterion in the investment decision-making of Finnish VCs.

One of the reasons for studying investment criteria of VCs was that it helps entrepreneurs in their efforts to raise funds from VCs. For Finnish entrepreneurs, the findings of this study provide many useful advices and are as follows. First, investment decision-making is mostly about the management team. For Finnish VCs, the rationale is that people either get or don't get things done and people overcome problems, not products or markets. If you are passionate in what you do and show ambition towards it, the chances are that you are able to convince the VC that you're up for the task. Second, Finnish VCs don't seek for perfect teams per se. Your team does not have to have the perfect set of skills and personalities, but what you do need to have is the ability and will to acquire the needed skills for your team to succeed. Articulate clearly what you are going to do to get where you want to go, and what kind of expertise is needed to accomplish your plans. Third, if your target market is too small and/or on the decline, you should rethink your business if you want funding from Finnish VCs. VCs' goal is to make money for their investors, so if your business does not have market potential big enough, you might want to look for financing elsewhere. Fourth, product characteristics are not your most important issue. Finnish VCs love scalable and unique products that have potential to go abroad, but don't waste too much of your time creating the perfect product. Focus rather on your team dynamics and market potential and make a clear plan of how you will use the funds. Fifth, the chemistry between you and the VC always affects the ultimate investment decision. Don't be intimidated if you get rejected even if you have a great product and market position. Find an investor with whom you are on the same page with and you get along well.

5.2 Reliability and validity

There are some limitations in this study in terms of reliability and validity. Reliability refers to the consistency of the study, or the extent to which other researchers would come up with similar results, observations or conclusions. Validity on the other hand refers to accuracy of the study, that is, whether the research methods measure accurately what they are supposed to measure. (Saunders et al. 2009)

In the context of investment criteria of VCs, the research falls under the category of post hoc studies. Post hoc studies have been widely criticized, and the same criticism therefore applies to this research. That is, it has been stated that post hoc studies can be biased and misleading because they assume that VCs can accurately recall their own decision-making process (Zacharakis & Meyer 1998). Therefore, the validity of this study is threatened by the risk that the interviewed VCs did not correctly recall their most important investment criteria. Furthermore, the reliability is first and foremost threatened by the actions of the researcher. There is a risk that the author of this thesis did not accurately interpret the answers of the interviewees. For example, the importance of some answers might have been mitigated when they should have been highlighted.

Another limitation of the study emerges from the small sample size as only six Finnish VCs were interviewed. Therefore, it is arguable whether the findings of a such small sample size can be used to represent the whole Finnish VC industry. Furthermore, it should be noted that the VC industry is rather heterogenous, consisting of VCs focused at investing in companies of different development stages. Therefore, since the sample of this study consisted of only two seed and early stage VCs and four later stage investors, the generalizability of the conclusions of the differences drawn between these two groups is uncertain.

5.3 Suggestions for future research

The subject of investment criteria of VCs offers many interesting topics for further research in both Finnish and global context. First of all, a study of VCs' investment criteria can be conducted in any geographic location where VCs are present. As this study has shown, VCs in smaller economies highlight some aspects more important than VCs in bigger economies. This serves as a motivation especially for academics in countries where companies have difficulties raising capital in their early days. In bigger economies such as the US, however, traditional post hoc questionnaire studies have very little to offer as the area has been well explored already. Still, industry and investment stage specific perspectives could provide interesting opportunities for future research even in countries where investment criteria have been studied a lot.

In the Finnish context, the sample size could be expanded. There are over 60 members in the FVCA (FVCA 2018b), so a study with a larger sample is feasible in order to reduce the limitations brought by small sample size. Besides the options of replicating this study with a larger sample or conducting a questionnaire study, a research utilizing real-time methodologies could provide more interesting insights from the Finnish VC scene. For example, in the footsteps of Mason and Stark (2004), a possible path for further research is to study the real-time decision-making of Finnish VCs in an artificial decision-making situation. An even more fruitful research would be to examine the archives of Finnish VC firms in a similar manner as Petty and Gruber (2011) to capture the real-life investment policies of Finnish VCs from actual investment cases. This way, most of the possible biases of post hoc studies could be overcome and a more thorough comparison between Finnish and international VCs' investment criteria could be provided.

Nevertheless, the biggest gap to fill in existing literature is to form a better understanding of how intuition, instincts, heuristics and personal experiences affect the investment decision-making of VCs. As suggested in previous literature and in this research, the role of intuition in investment decision-making should by no means be underestimated. Therefore, if we want to know whether the VC industry allocates resources properly or not, we have to know better how behavioral aspects influence VCs in their investment evaluations. A more comprehensive understanding of VCs' decision-making process could be achieved for example by applying theories from behavioral finance. This could enhance the performance of VCs and the entire VC ecosystem.

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APPENDICES

Appendix 1. Interview questions

Background

1. Can your name be mentioned in the thesis?
2. Can the name of your company be mentioned in the thesis?
3. What is your education and job title?
4. How long have you worked in venture capital?
5. Do you invest in a particular industry?
6. Can you describe the development stages of the firms in which you invest?
7. What is the size of the assets under management of your company?
8. What is the average investment size of your company?

Criteria

9. What are the most important investment criteria?
10. What qualities should the entrepreneur and management team possess?
11. What characteristics should the product or service have?
12. What characteristics should the market targeted by the venture have?
13. What financial criteria do you use in evaluating new venture proposals?
14. What is the role of intuition in investment decision-making?
15. Do you have any other remarks?