INVESTMENT CRITERIA SET BY VENTURE CAPITALISTS

Šimić, Marija

Marija Šimić
University of Split
Faculty of Economics
Cvite Fiskovića 5,
21000 Split, Croatia
msimic@efst.hr
Phone: +38521430764

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Abstract

Different funders, like bankers, business angels or venture capitalists, put the accent on various investment criteria while making investment decisions. Entrepreneurs need to be familiar with these criteria or different requirements of potential investors in order to adjust their business plans. Motivated by the phenomenon of venture capital, numerous researchers worldwide are trying to identify the venture capitalists' investment criteria. Despite the large number of studies, there is still no unambiguous answer to what the key venture capitalists' investment criteria are. This paper provides an overview of research about investment criteria set by different suppliers of capital with a special emphasis on venture capitalists' investment criteria. The most used VCs' investment criteria discussed in the literature are identified and analysed in order to provide a new set of VC investment criteria.

Keywords: Venture capital, venture capitalists, entrepreneur, investment criteria

1. Introduction

Without initial capital, which is mostly in the form of money, but can also be in the form of assets and rights (Župčić, 2006), companies cannot be established, registered or obtain the required production factors. After the establishment, additional capital is necessary for business operations and development. It is obvious that funding is very important for the establishment, ongoing operations and development of the company (Marković, 2000), i.e. raising capital is a continuing process (Rogers, 2009).

Seeking capital for entrepreneurs is a difficult task (Callegati et al., 2005). Entrepreneurs looking for necessary financial funding for their companies should be aware that the preparation of a business plan differs depending on the category of potential funders or capital suppliers. Family, friends and fools, business angels, banks, repayable short-term loans, venture capital, foundation, government, public funding, etc. can be suppliers of capital (Callegati et al., 2005; Rogers, 2009; Vidučić, 2012).

Banks, venture capitalists or business angels make a funding decision by taking into account different investment criteria and emphasize different types of information (Mason and Stark, 2004). According to Callegati et al. (2005), different investors have different criteria that are crucial when approving funds, as well as different goals they want to achieve. For family, friends and fools, a personal relationship based on trust is important (Callegati et al., 2005), while for bankers the most important is the ability of loan repayment and collateral. For venture capitalists and business angels that are equity investors, market (size, level of competition, growth) and financial information (level of profitability, use of the money, etc.) are very important, while the financial aspects of the company are significant primarily for bankers (Mason and Stark, 2004). A more detailed display of different criteria set by various suppliers of capital is listed in Table 1.

Table 1 Investors Investment Criteria – Examples

Suppliers of capital	Criteria for accessing funding sources
Family, Friends and Fools	Personal relationship based on trust
Business angels	Meeting or matching of individual entrepreneurs with business angels
	Atmosphere of trust between individuals
	Credible business plan in the eyes of the Business Angel
	Good management team
	Fiscal incentives
	Market knowledge of the entrepreneur
	Availability of exit route
	Return on investment (capital gain)
Banks	Availability of guarantees or collateral
	Perceived ability to repay the loan
	Company track record
	Rating Good management
Repayable short-term loans	Innovative nature of business projects
	Business plan quality
	Management team
Venture capital	Business plan credibility
	Business plan with patent technology
	Track record (over previous years)
	Ability to grow fast and deliver quick
	Management team quality
Public funding	New jobs
	Investment in productive tools

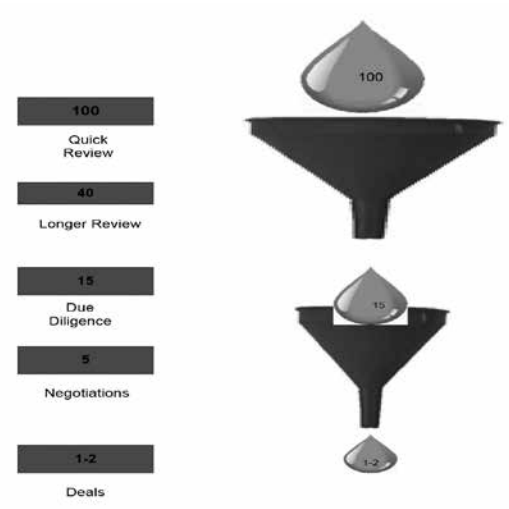
Source: Callegati et al. (2005)

Hoping to get the necessary capital, thousands of entrepreneurs every year submit their business proposals to venture capitalists (Petty and Gruber, 2009). The venture capitalists start analysing hundreds of potentially perspective proposals annually through the filtration process (Figure 1). It is a very challenging and complex process for the entrepreneurs, because there is still no unique and universal filtering process set by venture capitalists. Empirical research shows that on a hundred proposals, more than half are rejected after twenty to thirty minutes of scanning the business plan, the director's summary or after a short conversation, because something essential is missing (Albers, 2006; Cvijanović et al., 2008; Norton, 1995). Since apparently they do not satisfy the "criteria" according to certain stages of the investment process, about 60% of the proposals are rejected in the first phase. However, about 40% of the proposals are sent to a more detailed review after which another 25% of the proposals are rejected. About 15% of the proposals reach the stage of due diligence where the proposals undergo a more complex research. From these 15% of proposals, only 5% is considered suitable for investment and enter the phase of negotiation. Finally, the share of undertaken investments by venture capitalists is less than 3% (Albers, 2006; Hudson and Evans, 2005; Metrick and Yasuda, 2011; Norton, 1995; Visagie, 2011).

According to Hudson and Evans (2005), the problem of presenting entrepreneurs' proposals to venture capitalists is a consequence of the absence of a distinctly defined venture capitalists' decision-making process. Researchers often point out how venture capitalists do not understand their own process of decision-making (Hudson and Evans, 2005; Zacharakis and Meyer, 1998).

According to Streletzki and Schulte (2013), there is still no comprehensive empirical model based on historical data for the whole venture capital market. Furthermore, an additional reason for the sadly low numbers of attractive investment proposals arises from the fact that venture capitalists and entrepreneurs have a different opinion on the investment readiness of companies for financing through venture capital (Proimos and Murray, 2006).

Figure 1 Venture capitalists' filtration process



Source: Author, modified according to Albers, 2006.

In this paper, the emphasis is put on the literature review of investment criteria set by venture capitalists from its beginnings, and the definition of venture capital. The goal is to identify and analyse the most used VCs' investment criteria discussed in the literature in order to provide a new set of VC investment criteria. Fulfilling the proposed set of VC investment criteria could increase the chances to pass the first phase of the VC investment process.

2. The Private equity and venture capital industry

2.1 History of private equity and venture capital

"Equity investments in risky new ventures are as old as commerce itself" (Metrick and Yasuda, 2011).

In the United States of America (USA) and in the United Kingdom (UK) during the 1920s and 1930s activities related to private equity (PE) and venture capital (VC) started to develop (Cvijanović et al., 2008), although in the end of the 19th century and the first decade of the 20th century activities in the branch were based on wealthy individuals and families such as the Rockefellers, Phippes, Vanderbilts, etc. (Gompers, 2004; Lerner et al., 2012). The wealth of these families was under the management of family offices and they counseled and invested in different companies, including the forerunner of AT & T, Eastern Air Lines and McDonnell Douglas (Gompers, 2004; Lerner et al., 2012).

The first PE firm in Europe was the Charterhouse Development Capital established in the UK in 1934 (Cvijanović et al., 2008; Mayilvaganan and Sakthivel, 2014) for the purpose of filling the financing gap for small and medium enterprises (Jesch, 2004). Shortly after that, a private equity fund 3i was founded in 1945 in the UK. This PE fund still exists today and is one of the largest PE funds. At the same time, the private equity and venture capital industry began to develop in the United States, but its development over the Atlantic proceeded much faster than in Europe (Cvijanović et al., 2008).

It can be said that the modern venture capital was born in 1946 when the American Research and Development Corporation (ARD) was launched by general Georges Doriot, a professor at Harvard University together with Karl Compton, president of the Massachusetts Institute of Technology, Merrill Griswold, CEO of Massachusetts Investors Trusts and Ralph Flanders, president of the Federal Reserve Bank of Boston. The aim of ARD was raising funds from wealthy individuals and university foundations with the goal of investing in entrepreneurial "start – up" technology – based manufacturing (Gompers and Lerner, 2001; Bottazzi and Da Rin, 2002; Metrick and Yasuda, 2011; Lerner et al., 2012). ARD was organized as a corporation, unlike modern funds (Metrick and Yasuda, 2011) and during its existence has invested in numerous companies based on high technology. Its investment in 1957 in the Digital Equipment Corporation increased by 5,000% until 1971 (Cvijanović et al., 2008). ARD was sold in 1972 to a conglomerate.

Through the Small Business Act of 1958, the U.S. government started its own venture capital efforts in 1958, whereby the creation of Small Business Investment Companies (SBICs) was allowed. SBICs are federally guaranteed risk-capital pools (Metrick and Yasuda, 2011; Lerner et al., 2012). Since the mid-1970s, the UK and the US have adopted a series of laws that encourage PE/VC. The introduction of new investment rules for institutional investors, particularly pension funds (prudent man rules in 1979) (Gompers, 2004), started significant investments in this type of asset. The Silicon Valley cluster began to develop from the 1950s and inside it PE/VC funds realized their full potential and synergy with state institutions, various individuals, businesses and universities (Cvijanović et al., 2008).

A half century later, venture capital has become a form of financial intermediation. Amazon, Apple, Cisco, e-Bay, Genentech, Genetic Systems, Intel, etc. are just few of today's successful companies that attract venture capital in their initial stages of their company lives (Bottazzi and Da Rin, 2002; Gompers, 2004.).

Venture Capital is primary an American phenomenon, which spread in Europe and Asia.

2.2 *Definition of private equity and venture capital*

According to Lerner et al. (2012), terminology is one of the most confusing things about private equity. In the investment world there are several widely-known expressions, such as private equity and venture capital. However, the definitions of these terms are unclear, and there is no internationally recognized definition that distinguishes venture capital from private equity (Araghy and Björkman, 2009). It can be stated that the number of definitions of private equity (PE) and venture capital (VC) equals the number of authors who were exploring the indicated area.

Private equity represents "investments in private companies in a privately negotiated transaction" (Demaria, 2010). "Institutionally, PE is the provision of capital and management expertise given to companies to create value and, consequently, generate big capital gains after the deal" (Caselli, 2010).

Venture capital is a subcategory of private equity (Landström, 2007; Metrick and Yasuda, 2011). According to Bottazzi and Da Rin (2002), venture capital "consists of financing young, unlisted dynamic ventures through equity or equity-like instruments by limited partnerships of professional investors who raise funds from wealthy and/or institutional investors". Venture capital can be seen as a method of financing (Chotigeat et al., 1997) primarily high-tech, new or young small- and medium-sized enterprises (Chotigeat et al., 1997; Gompers and Lerner, 2001). Venture capital is "an independently managed, dedicated pool of capital that focuses on equity or equity-like investments in privately held, high-growth companies" (Hudson and Evans, 2005). Gompers (2004) pointed out how venture capital is frequently construed as "many different kinds of investors". According to the European Private Equity and Venture Capital Association (EVCA), private equity is a form of equity investment into private companies not listed on the stock exchange, while venture capital is a type of private equity focused on start-up companies. Private Equity comprises of the universe of equity investments made in private companies, whereas Venture Capital is the sub-universe of equity investments in private companies referring to early stage, start-up and expansion capital (CVCA – Croatian Private Equity and Venture Capital Association, 2015).

Table 2 Definition of private equity/ venture capital

Author	Definition of private equity/ venture capital
Wright and Robbie (1998)	Venture capital involves the financing of new or radically changing firms which contrast in many important informational ways to established companies quoted on a stock market, notably the problem of asymmetric information.
Bottazzi and Da Rin (2002)	Venture capital consists of financing young, unlisted dynamic ventures through equity or equity-like instruments by limited partnerships of professional investors who raise funds from wealthy and/or institutional investors.

Hudson and Evans (2005)	Venture capital is an independently managed, dedicated pool of capital that focuses on equity or equity-like investments in privately held, high-growth companies
Demaria (2010)	PE can be described as investments in private companies in privately negotiated transaction.
Caselli (2011).	Institutionally, PE is the provision of capital and management expertise given to companies to create value and, consequently, generate big capital gains after the deal.
EVCA (European Private Equity & Venture Capital Association, 2015)	Private equity is a form of equity investment into private companies not listed on the stock exchange. It is a medium to long-term investment, characterised by active ownership. Private equity builds better businesses by strengthening management expertise, delivering operational improvements and helping companies to access new markets. Venture capital is a type of private equity focused on start-up companies. Venture capital funds back entrepreneurs with innovative ideas for a product or service who need investment and expert help in growing their companies.
NVCA (National Venture Capital Association, 2015)	Private equity – equity investments in non-public companies, usually defined as being made up of venture capital funds and buyout funds. Real estate, oil and gas, and other such partnerships are sometimes included in the definition. Venture capital – a segment of the private equity industry which focuses on investing in new companies with high growth potential and accompanying high risk.
CVCA (Croatian Private Equity and Venture Capital Association, 2015)	Private Equity comprises of the universe of equity investments made in private companies (not public and listed on the stock exchanges), the term is normally used for buyout activity. Venture Capital is the sub-universe of equity investments in private companies referring to early stage, start-up and expansion capital.

Source: Author's own compilation according to different sources

3. Literature review of investment criteria set by venture capitalists

Investment (decision) making criteria applied by venture capitalists are a source of admiration for entrepreneurs who are looking for funding, venture capitalists seeking comparability and scientists seeking wisdom (Visagie, 2011).

In their work, Hall and Hofer (1993) emphasized how knowledge of investment criteria (which funds to take into account when they make an investment decision) is of crucial importance for entrepreneurs who intend to attract funding from venture capital funds. Understanding the investment criteria would allow entrepreneurs easier access to the necessary finance. Furthermore, Fried and Hisrich (1994) stated that, besides knowing the investment criteria used by venture capitalists when evaluating potential investments, it is also necessary to know the venture capital investment process. According to Cope (2004), venture capital practices are heterogeneous and the venture capital decision making process is unscientific.

From the phenomenon of venture capital, authors worldwide try to answer the question what the most important investment criteria are within specific main categories of business evaluations that venture capitalists take into account when making investment decisions. Considerable research on investment criteria exists (Table 3): Wells (1974), Poindexter (1976), Ruby (1984), Tyebjee & Bruno (1984), MacMillan et al. (1985), MacMillan et al. (1987), Siskos & Zoponuidis (1987), Robinson (1987), Timmons et al. (1987), Hisrich & Jankowicz (1990), Roure & Keeley (1990), Dixon (1991), Hall & Hoffer (1993), Rah et al. (1994), Fried & Hisrich (1994), Muzyka et al. (1996), Boocock & Woods (1997), Zacharakis & Meyer (2000), Boehm (2002), Beim (2004), Kaplan & Stromberg (2004) and Martel (2006), but no research has come to a unique conclusion. Moreover, the same authors in different studies have come to different conclusions. Most research have shown that each proposal goes through multi-phase estimation, taking into account five basic categories: the entrepreneur/team characteristics, characteristics of the products/services, market characteristics, financial and other characteristics.

In his study conducted on VCs in the United States, MacMillan et al. (1985) identified 27 investment cri-

Table 3 Overview of past research about investment criteria

										Information factors
Study	Wells (1974)	Poindexter (1976)	Ruby (1984)	Tyebjee & Bruno (1984)	MacMillan et. al. (1985)	MacMillan et al. (1987)	Siskos & Zoponuidis (1987)	Robinson (1987)	Timons et al..(1987)	Hisrich & Jankowicz (1990)
Method	personal interviews	questionnaire		Phone survey& questionnaire	questionnaire	questionnaire		questionnaire	Unstructerd interviews	
Sample size	8	97		46 (study 1) 41 (study 2)	100	67	1	53	47	
Entrepreneur/Team Characteristics		**X**			**X**	**X**	**X**	**X**	**X**	
Mgmt. skills/Leadership		X	X	X	X	X	X	X	X	X
Completeness of team					X			X		
Marketing Skills										
Mgmt. Financial skill										
Mgmt. stake in firm		X		X						
Articulate about venture	X				X	X		X		
Personal motivation	X							X		
Capable of sustained effort					X	X				
Ability to evaluate risk					X	X				
Relevant track record				X	X	X		X	X	X
Market familiarity				X	X	X			X	
Entrepreneur personality	X				X					
References								X		
Product/Service Characteristics		**X**								
Product attributes				X	X	X				
Proprietarity	X		X	X	X	X		X	X	
Uniqueness/ differentiation	X		X	X			X		X	X
Technical edge / Innovation				X						X
Stage of development		X		X			X			
Technology life cycle				X					X	
Expected profit margin				X						
Project Growth in Turnover										
Resistance to risk				X						
Scalability										

used in VC decision

Roure& Keeley (1990)	Dixon (1991)	Hall & Hoffer (1993)	Rah et al.. (1994)	Fried & Hisrich (1994)	Muzyka et al. (1996)	Boocock & Woods (1997)	Zacharakis & Meyer (2000)	Boehm (2002)	Beim (2004)	Kaplan & Stromberg (2004)	Martel (2006)
	interviews	Verbal protocol	personal interview & questionnaire	personal interview & questionnaire	personal interview & questionnaire	personal interview & questionnaire					
36	30	10	10 74	18	73	1					
		X		X			X	X		X	1
X	X	X	X		X	X					
X					X						
X	X		X								
	X		X								
			X								
			X								
			X								
X			X			X					
			X								
			X	X							
				X							
							X				
			X	X				X			
			X								
			X			X					
			X								2
X						X					3
	X										
											4
											5

Barriers to entry				X					X	
Product superiority										
Existing customer base	X									
Market acceptance/ interest				X	X	X				
Potential for partnershi-ps										
Prototype / R&D Level					X		X		X	
Market Characteristics		**X**			**X**					
Market size	X		X	X					X	
Market growth/potential			X	X	X			X	X	
Projected market share										
Competitive strength/ number					X	X			X	
Sensitivity to business cycles				X			X			
Buyer concentration										
Venture creates new market					X					
Financial Characteristics		**X**								
Cash-out method				X			X			
Expected rate of return		X		X	X				X	
Expected risk		X								
Percentage of equity		X								
Investor provisions	X	X								
Size of investment				X						
Funding base	X									X
Liquidity of investment				X	X	X		X		
Valuation										
Other										
Continuity of company										X
Geographic location										

Mgmt: management; mkt: marketing; entr: entrepreneurial
Source: Martel, 2006

teria which were classified into six categories: the entrepreneur's personality, the entrepreneur's experience, the characteristics of the product or service, the characteristics of the market, the financial considerations and the venture team. According to MacMillan et al. (1985), five of ten most important investment criteria are related to the experience or personality of the entrepreneurs. They said: *"There is no question that irrespective of the horse (product), horse race (market), or ads (financial criteria), it is the jockey (entrepreneur) who fundamentally determines whether the venture capitalist will place a bet at all".*

The study of MacMillan (1985) was replicated on VCs in different countries: the Canadian by Knight (1994), the English by Sweeting (1991), the Singapore by Ray (1991), Japan's by Ray and Turpin (1991), the South Korean by Rah, Jung and Lee (1994) and the European by Riquelme (1994), and

											6
X			X							X	
											7
			X								8
											9
							X			**X**	
		X	X	X	X			X			
	X		X	X	X	X					10
X											
X								X			11
X											
					X						
							X			**X**	**12**
		X									
				X	X						
				X		X					
											13
											14
						X					

all the studies have come to similar conclusions as MacMillan et al. (Zutshi et al., 1999), i.e. the personality of the entrepreneur and his experiences are in the main focus. However, all studies were conducted on a very small research sample, which is a major problem in the study of venture capital.

According to Zutshi et al. (1999), investment criteria applied by venture capitalists in Singapore do not differ significantly from those applied in other countries, including the United States. The primary indicators of a company's potential are entrepreneurial characteristics or capacity of top management. Furthermore, they emphasized that the investment criteria applied by the successful venture capitalists do not differ from the criteria used by less successful venture capitalists.

In their study, Vinig and de Haan (2002) compared the screening process of business plans by management companies that invest in the early stage of a venture, in the Netherlands (10 management companies) and in the US (9 management companies). According to them, there is no significant difference between the basic criteria such as Entrepreneur, Product, Market and Finance, even though there is a distinction in the relative importance of the sub-criteria.

Beim and Levesque (2004) pointed out that venture capitalists take into account three broad criteria during the evaluation process of potential companies. These criteria are: unique product or market opportunity, quality of management, and potential for capital appreciation.

Information collected from these criteria are supplemented with subjective factors such as intuition and "gut feeling" of venture capitalists (Beim and Levesque, 2004; Cope, 2004).

Khanin et al. (2008) noted that the literature concerning venture capital investment criteria can be divided into two groups of researchers. One group of researchers are those who consider management skills essential for making an investment decision by venture capitalists. The other group are researchers who find the market size, growth rate and product quality more important than management skills. Furthermore, key investment criteria that they have identified on the basis of past research are: top management, market and market growth, product, risk, return, exit, quality contracts, strategies, customers and competition.

According to Jell et al. (2010), the criteria that venture capitalists take into account are: the attractiveness of the market, product, financial aspects, competencies of the founder, as well as the possibility to exit from the investment.

Kollmann and Kuckertz (2010) again raised the question "on what criteria do venture capitalists actually base their decision about investment during the process".

Table 4 Venture capitalists investment criteria

Factor	Investment criteria	Evidence of criterion's relevance
Personality of the entrepreneur	"VC character"	Pretest
	Leadership capabilities	MacMillan et al. (1985), Robinson (1987)
	Commitment	Dixon (1991), Muzyka et al. (1996)
Experience of the entrepreneur	Track record	Flynn (1991)
	Technical qualification	Shepherd (1999b), Franke et al. (2006)
	Business qualification	Shepherd (1999b), Franke et al. (2006)
Product or service	Innovativeness	MacMillan et al. (1985), Mason and Stark (2002)
	Patentability	Tyebjee and Bruno (1984), MacMillan et al. (1985)
	Unique selling proposition	Mason and Stark (2002)
Market characteristics	Market volume	Tyebjee and Bruno (1984), Mason and Stark (2002)
	Market growth	Tyebjee and Bruno (1984), Mason and Stark (2002)
	Market acceptance	Tyebjee and Bruno (1984), Mason and Stark (2002)
Financial characteristics	Fit to investment strategy	Muzyka et al. (1996), Mason and Stark (2002)
	Return on investment	Tyebjee and Bruno (1984), MacMillan et al. (1985)
	Exit possibilities	Muzyka et al. (1996); Mason and Stark (2002)

Source: Kollmann and Kuckertz, 2010

Because of the overabundance of identified investment criteria during past empirical studies, researchers have to restrict themselves to just a few of the most important. Kollmann and Kuckertz took into account 15 investment criteria (Table 4) and conducted an empirical study on 81 venture capitalists from German-speaking Europe. They tried to combine investment criteria, the investment process and evaluation uncertainty in order to explain the mechanisms of the venture capitalists' selection and decision making process. According to them, "entrepreneurs should signal their readiness and commitment to the intended venture from the very beginning of the process in the most credible way. Postponing this to a later phase of the process heightens the risk that this part of the process will not be reached, because the negotiations will have been terminated by the venture capitalist".

Researching sixteen VCs in the UK, Visagie (2011) concluded that the order of importance of the investment criteria is as follows: Management Team, Market, Product, Scalable Business Model, Commercial Proof of Concept and Specific factors set by VCs. Entrepreneurs should be aware that VCs can analyse the criteria in different order of importance which depends on the way of funding (variant investors) and the country in which they operate.

Narayansamy et al. (2012) conducted an exploratory research on 16 venture capitalists in Malaysia and concluded that management integrity and exit opportunities are of greater importance than business ideas. According to them, venture capitalists experience does not match to expertise in decision making.

Venture capitalists often discuss the "chemistry" that is created between them and the entrepreneurs. The absence of the same leads to the discontinuation of the cooperation, although the entrepreneur meets the basic criteria. This intuition, or "gut feeling" in deciding is difficult to quantify or analyse objectively. According to Hudson and Evans (2005), the decision-making process applied by venture capitalists is more an art than a science and venture capitalists do not understand their decision making process. Different authors in different empirical studies disagree on which of the above criteria within individual basic categories are essential, fundamental, or more important than another in making an investment decision (Khanin et al., 2008). The authors also emphasize the heterogeneity of venture capital practices and the subjective nature of the decision-making process (Cope et al., 2004).

According to Hudson and Evans (2005), there is no general agreement about the use of investment criteria while evaluating investment proposals by venture capitalists which leads to the conclusion of certain authors that it is necessary to observe each fund independently. Furthermore, the inability of developing decision-making frameworks or models which uniformly describe the process of scanning and evaluation of investment proposals by the venture capitalists is the result of the inconsistencies and diversity of existing research results.

Majority of studies about venture capital investment criteria were conducted in developed equity markets (Wells, 1974; Poindexter, 1976; Tyebjee and Bruno, 1981; Tyebjee and Bruno, 1984; MacMillan et al., 1985; MacMillan et al., 1987; Khan, 1987; Sandberg et al., 1988; Riquelme and Rikards, 1992; Hall and Hofer, 1993; Fried and Hisrich, 1994; Boocock and Woods, 1997; Zacharakis and Mayer, 1998; Shepherd, 1999), while for emerging equity markets, small equity markets and transition economies the number of studies is minor (Karsai et al., 1997; Tan, 1997; Bliss, 1999; Silva, 2004). The most frequently used research samples are venture capital funds and venture capitalists, while investments as a sample are studied only in two papers. Between different methods of data collection, interviews and questionnaires dominate. The most used methods of data processing are: descriptive statistics, content analysis and factor analysis (Table 5).

Visagie (2011) states that in the framework of the investment process of venture capital scanning and evaluation phases are dynamic, not static phases, and the whole process is continuously updating or changing over time. In these stages venture capitalists are using different criteria for making decisions. Furthermore, there is a general conclusion among researchers that the criteria that venture capitalists indicated that they use when making investment decisions (so-called espoused criteria) are not a basis for decision making. It is an unclear, implicit mental and social process of the integration of various information, such as information about market conditions, enterprise/business and the requirements of the venture capitalists fund (Martel, 2006).

A large number of theoretical and empirical researches show that there is no unified conclusion about the importance of certain criteria defined by the venture capitalists, as well as who ultimately

Table 5 Overview of research method, sample sizes, data sample and analysis method

Study	Wells (1974)	Poindexter (1976)	Tyebjee Bruno (1981)	Tyebjee Bruno (1984)	MacMillan et al. (1985)	MacMillan et al. (1987)	Khan (1987)	Robinson (1987)	Timmons et al. (1987)	Sandberg et al.
Type of research										
Criteria research	X									
Processual Research	X									
Sample size										
VCF	8	97		41	100	67	36	53		
VCs			46		14					[illegible]
Investments						150	104			
Proposals/applications				90						[illegible]
Profiles										
Type of proposals assessed										
None in specific	X	X	X		X					
Proposals under consideration				X						X
Successful investments						X	X			
Unsuccessful investments						X	X			
Hypothetical ventures										
Context of the study										
Developed equity market	X	X	X	X	X	X	X			X
Cross-national comparison										
Transition economy										
Emerging equity market										
Small equity market										
Data gathering method										
Interviews	X				X					
Questionnaires		X	X	X	X	X	X			
Archival records search										
Verbal protocols										X
Experiment (full profile)										
Experiment (trade-offs)										
Participation observation										
Data analysis method										
Descriptive statistics	X	X	X	X	X	X				
Content analysis	X		X							X
Factor analysis				X	X	X				

(1988)	Riquelme Rikards (1992)	Hall, Hofer (1993)	Fried, Hisrich (1994)	Knight (1994)	Muzyka et al. (1996)	Boocock & Woods (1997)	Karsai et al. (1997)	Tan (1997)	Zacharakis Meyer (1998)	Bliss (1999)	Shepherd (1999)	Boehm (2002)	Silva (2004)
						1		31		6	47		1
1	13	4	18	429	73		9		51	6	66		9
3		16				232							16
	40								50		39		
				X			X	X					
X		X											X
			X							X			
	X				X				X		X		
X	X	X	X			X			X		X		
				X	X			X					
							X			X			
								X					
													X
	X		X		X		X			X			X
			X	X	X		X	X		X			
	X					X							X
X		X											
	X								X		X		
					X								
													X
			X	X		X	X	X		X			X
X		X	X			X				X			X

Discriminant analysis				X						
Cluster analysis					X	X				
Conjunctive modelling							X			
Disjunctive modelling							X			
Regression analysis						X				
Conjoint analysis										

VCF: Venture Capital Fund; VCs: Venture Capitalists
Source: Martel, 2006.

makes the decision about the investing - fund manager or investment board composed of representatives of the investors in the fund.

4. Methodology

The research design is exploratory and involves an extensive literature review of past articles on venture capital investment criteria published in international journals like Journal of Business Venturing, Journal of Business Research, the Journal of Private Equity, conference papers, books and master theses. Data were collected using secondary sources of data collection.

5. Discussion

From the first research about venture capital that dates back to the 1970s, investment criteria set by venture capitalists are in the focus of a large number of different researchers worldwide. Since then, researchers have been questioning over and over again about the most important VC investment criteria. With respect to the previously mentioned, it can be pointed out how venture capitalists take into account five major categories: entrepreneur/management characteristics, product/service, market, financial consideration and other. Researchers about venture capital can be classified into two categories:

Table 6 The most used venture capitalists' investment criteria in the past studies

VENTURE CAPITALISTS INVESTMENT CRITERIA			
CATEGORY	**MacMillan et al. (1985) US VCs**	**Zutshi et al. (1999) Singapore VCs**	**Vinig and de Haan (2002) Comparison US and Dutch VCs**
I.a) The entrepreneur's personality	Capable of sustained intense effort.	Capable of sustained intense effort	Market/industry knowledge
	Able to evaluate and react well to risk.	Able to evaluate and react to risk well	Track record
	Articulate in discussing venture.	Articulate in discussing venture	Leadership
	Attends to detail.	Attends to detail	Referred by reliable source
	Has a personality compatible with mine.	Has a personality compatible with mine	Reputation

					X								
								X					
	X				X						X		

- those who consider entrepreneur/management characteristics as most important (MacMillan et al., 1985; Zutshi et al., 1999; Vinig and de Haan, 2002; Kollman and Kuckertz, 2010; Visagie, 2011),
- those who consider product/market characteristics as most important (Zacaharakis and Meyer, 1998; Tyebjee and Bruno, 1984).

There is still no answer to the question which criteria within that category is more important. Furthermore, the criteria are often supplemented with subjective factors such as intuition and "gut feeling" (Beim and Levesque, 2004; Cope, 2004), which is difficult to quantify. According to Capasso et al. (2014), for the successful finishing of the investment, apart from fulfilling the requirements of the private equity investor, the company has to be motivated to accept an outside investor.

According to Martel (2006), most studies about venture capital investment criteria were conducted in developed equity markets (Wells, 1974; Poindexter, 1976; Tyebjee and Bruno, 1981; Tyebjee and Bruno, 1984; MacMillan et al., 1985; MacMillan et al., 1987; Khan, 1987; Sandberg et al., 1988; Riquelme and Rikards, 1992; Hall and Hofer, 1993; Fried and Hisrich, 1994; Boocock and Woods, 1997; Zacharakis and Mayer, 1998; Shepherd, 1999). Considering the fact that venture capital has spread all over the world in the last twenty years, especially in developing countries, studies about VC investment criteria in emerging equity markets, small equity markets and economies in transition are deficient. The question that appears is whether the criteria set by VCs in those countries differ from the previously analysed. This should be explored using the most used VCs' investment criteria identified in this study. Table 6 summarizes the most used VCs' investment criteria in different studies classified into five categories.

Beim and Levesque (2004) US VCs	**Kollman and Kuckertz (2010) German- speaking Europe VCs**	**Visagie (2011) UK VCs**	**Narayansamy et al. (2012) Malaysian VCs**
Founder's track record	"VC character"	Motivation	Personal integrity
Quality of Board	Leadership capabilities	Industry experience	Strong track record
Quality of Management	Commitment	Start up experience	Realistic
		Experience in leading team	Ability to identify risk
		General likeability	Through understanding of business

I.b) The entrepreneur's experience	Thoroughly familiar with the market targeted by venture	Thoroughly familiar with the market targeted by venture	
	Demonstrated leadership ability in the past	Demonstrated leadership ability in the past	
	Has a track record relevant to venture	Has a track record relevant to venture	
	The entrepreneur was referred to me by a trustworthy source	The entrepreneur was referred to me by a trustworthy source	
	I am already familiar with the entrepreneur's reputation	I am already familiar with the entrepreneur's reputation	
II. Characteristics of the product or service	The product is proprietary or can otherwise be protected	The product is proprietary or can otherwise be protected	Proprietary, protected
	The product enjoys demonstrated market acceptance.	The product enjoys demonstrated market acceptance.	Market acceptance
	The product has been developed to the point of a functioning prototype	The product has been developed to the point of a functioning prototype	Development stage
	The product may be described as "high tech"	The product may be described as "high tech"	Innovative
		The target market enjoys a significant growth rate.	Global potential
		The venture will stimulate an existing market.	
III. Characteristics of the market	The target market enjoys a significant growth rate.	The venture is an industry with which I am familiar.	Not much competition in the first year(s)
	The venture will stimulate an existing market.	There is little threat of competition during the first three years.	The VC is familiar with the market
	The venture is an industry with which I am familiar.	The venture will create a new market.	There are established distribution channels
	There is little threat of competition during the first three years.		Fast growing
	The venture will create a new market.		Existing market
			New market
IV. Financial considerations	I require a return equal to at least 10 times my investment within 5-10 years.	I require a return equal to at least 10 times my investment within 5-10 years.	Require return within 5-10 years
	I require an investment that can be easily made liquid (e.g., taken public or acquired).	I require an investment that can be easily made liquid (e.g., taken public or acquired).	Easily made liquid (e.g., IPO, M&A)
	I require a return equal to at least 10 times my investment within at least 5 years	I require a return equal to at least 10 times my investment within at least 5 years.	Require a return within 5 years

	Track record	Investing own money	Flexibility
	Technical qualification	Inter-team Acquaintance	Leadership
	Business qualification	Education	General management
	Innovativeness	Flexibility to adapt	Potential for earning growth
	Patentability	Satisfy a need or want	Brought to market within 3 to 5 years
	Unique selling proposition	Non-appropriability	Significant competitive advantage
		Persistence	Reasonable capital requirement
First mover	Market volume	First mover	
Potential Market Size (billion US$)	Market growth	Second mover	
Proprietary Technology / Patent Protection	Market acceptance	No preference	
Exit Opportunities	Fit to investment strategy		Exit opportunity
Time to Achieve Profitability	Return on investment		Potential for high rate of return (%)
	Exit possibilities		Potential for high absolute return ($)

	I will not be expected to make subsequent investments.	I will not be expected to make subsequent investments.	Will not participate in latter round
	I will not participate in latter rounds of investment (requires my participation in the initial round of investment).	I will not participate in latter rounds of investment (requires my participation in the initial round of investment).	Will not be expected to make subsequent investments
			Investment more than 1 million
V. Others	Venture team (The venture is initiated by one person with the relevant experience to his idea; The venture is initiated by more than one individual, each having similar relevant experience; The venture is initiated by more than one individual, the individuals constituting a functionally balanced management team; None of the above are essential for the venture to go forward.)	Venture team (The venture is initiated by one person with the relevant experience to his idea; The venture is initiated by more than one individual, each having similar relevant experience; The venture is initiated by more than one individual, the individuals constituting a functionally balanced management team; None of the above are essential for the venture to go forward.) Country risk criteria (political risk, foreign exchange risk, foreign exchange control risk, trade control risks, Socio-culture risk, other).	

Source: Author's compilation

Furthermore, the majority of the studies are related to investment criteria defined from the supply side of the market, from the point of the VCs (entrepreneur/team characteristics, product/service characteristics, market characteristics, financial characteristics and other). The point that should also be addressed is the demand side, that is, the way of VC seeking conducted by companies. It is necessary to explore the attitudes of business owners about what they considered to be the key for attracting venture capital, i.e. whether the VC criteria that entrepreneurs consider crucial differ from the VCs' crucial criteria at different stages of negotiation. With respect to the previously mentioned, the investment criteria should be supplemented with the following criteria: the willingness of entrepreneurs to renounce ownership, readiness to change the management, readiness for dialogue, readiness for the achievement of set goals, the VCs' intuition and "gut feeling" and personal sympathy for the management (Table 7), because VCs often emphasize that a venture capital deal is like a marriage. If those criteria are not satisfied it is difficult to expect that a venture capital deal will be finalized.

Table 7 Proposed new set of criteria

Venture capitalists investment criteria	
Category	Šimić
Investment readiness	The willingness of entrepreneurs to renounce ownership.
	Readiness to change the management.
	Readiness for dialogue
	Readiness for the achievement of set goals.
	VCs intuition and "gut feeling"
	Personal sympathy for the management

Source: Author

Feasibility of Proposition (Realistic Approach to Financing; Well thought out milestones)		VC factors (fund phase, portfolio, timeframe for generation)	

6. Conclusion

The aim of this article was to contribute to a better understanding of investment criteria set by different suppliers of capital with a special emphasis on venture capitalists' investment criteria by providing an overview of research. Furthermore, the goal was to identify and analyse the most used VCs' investment criteria discussed in the literature in order to provide a new set of VC investment criteria. Fulfilling the proposed set of VC investment criteria could increase the chance to pass the first phase of the VC investment process.

Suppliers of capital can be: family, friends and fools, business angels, banks, repayable short-term loans, venture capital, foundation, government, public funding and etc. Entrepreneurs should be aware that a preparation of a business plan differs depending on the category of potential funders or suppliers of capital they want to attract because they have different investment criteria and emphasize different types of information. Criteria important for family, friends and fools are personal relationships based on trust, for bankers it is the ability of loan repayment and collateral, and for venture capitalists and business angels it is market and financial information.

Despite the large number of studies, there is still no unambiguous answer what the key venture capitalists investment criteria are. Most research has shown that each proposal goes through multi-phase estimation, taking into account five basic categories: the entrepreneur / team characteristics, characteristics of the products/services, market characteristics, financial and other characteristics. In order to increase the chances of attracting venture capital, entrepreneurs are supposed to be familiar with this form of financing, and should be investment ready. Entrepreneurs are investment ready if they are aware what conditions they have to meet at which stage of negotiations, primarily in the first stage. Consequently, a new set of VC investment criteria is provided and relates primarily to the following criteria: the willingness of entrepreneurs to renounce ownership, readiness to change the management, readiness for dialogue, readiness for the achievement of set goals, the VCs' intuition and "gut feeling" and personal sympathy for the management.

Considering the fact that venture capital has spread all over the world in the last twenty years, especially in developing countries, studies about VC investment criteria in emerging equity markets, small equity markets and economies transition are deficient. The question that appears is do the criteria set by VCs in those countries differ from the previously analysed. Furthermore, it is necessary to explore the existence of the differences between the entrepreneurs and the VCs' crucial investment criteria.

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Marija Šimić

Investicijski kriteriji ulagača rizičnog kapitala

Sažetak

Različiti ulagači, kao što su bankari, poslovni anđeli ili ulagači rizičnoga kapitala stavljaju naglasak na različite investicijske kriterije prilikom donošenja odluke o ulaganju. Poduzetnici trebaju biti upoznati s navedenim kriterijima, to jest različitim zahtjevima potencijalnih ulagača kako bi im prilagodili svoje poslovne planove. Od pojave rizičnoga kapitala veliki broj istraživača u svijetu pokušava identificirati investicijske kriterije značajne za ulagače rizičnoga kapitala. Unatoč velikom broju istraživanja, još uvijek ne postoji jedinstveni odgovor na pitanje koji su to ključni investicijski kriteriji za ulagače rizičnoga kapitala. Stoga se u ovom radu daje pregled investicijskih kriterija različitih dobavljača kapitala s posebnim naglaskom na investicijske kriterije rizičnoga kapitala. Identificiraju se i analiziraju najčešće korišteni investicijski kriteriji ulagača rizičnoga kapitala koji se navode u literaturi. Navedeni pregled rezultira novim skupom kriterija ulagača rizičnoga kapitala.

Ključne riječi: rizični kapital, ulagači rizičnoga kapitala, poduzetnik, investicijski kriteriji