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UNDERSTANDING VENTURE CAPITALISTS' DECISION ENVIRONMENT: EVIDENCE FROM CENTRAL AND EASTERN EUROPE

This article examines the decision criteria environment as perceived by investment officers from venture capital firms operating in the most developed venture capital markets throughout the Central and East European (CEE) region, with an emphasis on Hungary, Poland, the Czech Republic and Slovakia (response rate of 56%). While the twenty-six investigated criteria have proved to be useful in outlining the venture capitalists' decision making environment, the study confirms that venture capitalists address three types of decision risk in their investigation: entry risk, operating risk, and exit risk. The paper provides further evidence to demonstrate that the CEE countries should not be treated as one "homogeneous block" by venture capitalists. Venture capitalists operating in the CEE region exhibited significant differences with respect to the relative importance they assigned to the various decision criteria.

Keywords: venture, capital, decision-making, Eastern, Europe

INTRODUCTION

The process used by venture capitalists to make investment decisions encompasses the heart and soul of venture capital investing (Tyebjee and Bruno, 1984; Fried and Hisrich, 1994; Hall and Hofer, 1994). Venture capitalist practitioners often regard the venture capital process as a combination of art and science. The science relates to the application of specific and concrete decision criteria to a detailed and technical investigation of the market or industry competition, technical issues, the firm's financial performance, and its valuation (Tyebjee and Bruno, 1984; Hall and Hofer, 1993; Fried and Hisrich, 1994). By relying on internal and external resources, venture capitalists are able to reach definite yet technical conclusions. There are, however, aspects of the assessment of the firm or its business plan that are more difficult to ascertain. The art of venturing relates to the "soft", unquantifiable, less tangible, non-concrete, and subtle

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evaluation embodied in the assessment of people, deal terms, negotiating tactics, and the “investment story” (Sandberg et al, 1988; Riquelme and Rickards, 1992; Smart, 1999). This may be regarded as venture capitalist’s intuition and be appropriately called experience-driven judgment. Stewart (1999), and Shepherd and Douglas (1999) argue that traditional approaches based on a concrete assessment of tangible criteria may be less reliable and relevant to venture capital decision making.

While there are numerous studies that detail the decision criteria employed by venture capitalists in Western European countries (for review of academic literature see Muzyka et al, 1996; Boocock and Woods, 1997), the decision criteria used by venture capitalists in their investments in CEE firms are not well understood. The studies by Karsai et al (1997), Karsai et al (1998), and Bliss (1999) provided a useful background on venture capitalists’ decision process. Karsai et al (1997) focused on the general evolution of the venture capital market in Hungary and pointed to some screening criteria used by local investors. Karsai et al (1998) focused on the screening and valuation approaches used by venture capitalists in Hungary, Poland, and Slovakia. They noted some differences in the way venture capitalists process deals in the three countries and in comparison to the UK. Bliss (1999) focused on the investment process and decision criteria used by venture capitalists in Poland. He also outlined some unique criteria used by local venture capitalists such as risk of governmental influence, an untested legal system, and quality of management.

The objective of the study is to focus on the key elements of the venture capital decision-making process across various CEE countries. Specifically, the paper examines the decision criteria environment as perceived by venture capitalists making investment decisions in CEE countries, including Hungary, Poland, the Czech Republic, and Slovakia, which have the most developed venture capital industries. Six groups of decision criteria (market and product, entrepreneur and management, strategy and competition, valuation and returns, deal, and other) are examined within the context of venture capital investment in different countries.

1. DECISION MAKING CRITERIA

Extensive research has been conducted to examine the importance of the various decision making criteria used by venture capitalists in Western countries. The field research can be separated into three broad areas: 1) studies assessing venture performance and returns (Dorsey, 1979; MacMillan et al,

1988); 2) research focusing on the venture capital process and the decision making environment (Riquelme and Rickard, 1992; Hall and Hofer, 1993); and 3) literature focusing on the evaluation of venture capitalists' investment decision criteria (Tyebjee and Bruno, 1984; MacMillan et al 1985; Muzyka et al, 1996).

Research investigating the venture capitalists' decision environment has evolved over time, yet has produced a modestly similar set of decision criteria. Three distinct phases of research can be identified. The earlier studies conducted between the 1970s and 1980s focused on identifying the criteria used by venture capitalists in evaluating potential businesses and ascertaining their relative importance through the usage of descriptive statistics. The second wave of research in the field focused on the use of linear statistical methods to condense the decision criteria into identifiable groups. Tyebjee and Bruno (1984) used factor analysis to identify five groups or criteria that reflect five types of risk in venture capital investment: management risk, investment risk, competitive risk, operational risk, and cash out risk. MacMillan et al (1985) employed a similar approach and came up with similar decision criteria as a result of using factor analysis, a process focusing on the importance of management, market, product, external environment, and cash out. In 1996, Muzyka et al, in an attempt to advance prior research in the field (which previously concentrated on the usage of a "laundry list" of decision criteria), employed conjoint analysis to describe the decision making process by measuring the relative importance of criteria within a trade-off environment. The study identified similar category groupings (product-market, strategic-competitive, fund), but also introduced new ones (financial, management team, management competence, and deal). A similar technique was employed by Riquelme and Rickards (1992). While considerable insight had been shed on the decision making process by the middle of the 1980s, academics were dissatisfied with research initiatives in the field. Sandberg et al (1998) notably stated that prior research had "failed to capture and convey the richness, subtlety and discernment embodied in the venture capitalist's decision process and criteria". Such a statement undoubtedly underscored the researchers' inability to fully quantify the complexities of the venture capital decision process. Research in the last years of the 1980s focused on verbal protocol, a technique based on active interaction between researchers and respondents (Sandberg et al, 1998), in an attempt to further expand the understanding of the decision criteria environment.

The study focuses on six groups of decision criteria that could be considered important and follows the research methodology used by Muzyka et al (1996). Firstly, product and market criteria are often considered as the

most important variable for successful venture-backed companies and investments (Tyebjee and Bruno, 1984; Fried and Hisrich, 1994). Defining market size, growth, customer interests, and other variables such as these helps to forecast opportunities and enables entrepreneurs and venture capitalists to understand the driving forces of the market. Secondly, the presence of management is second only to the market as the most important variable for venture capitalists to consider. In order to succeed in business, management needs experience, education values, track record, capability in process management, and, perhaps most importantly, a clear vision. This is often supplied by the entrepreneur, who starts the company and pursues business action that is opportunity driven. A strong management team is also necessary for a successful company, since venture capitalists tend to finance entrepreneurial teams rather than solo entrepreneurs (Baumol, 1968; MacMillan et al, 1985; Muzyka et al, 1986; Roure and Maidique, 1986; Smart, 1999). Thirdly, business strategy deals with the way in which a firm competes in a given industry. The strategy must specify what resources are needed and how they will be obtained, since limited resources may be available. Without a strong business strategy to deal with important business issues, a business venture cannot grow and therefore will not survive (Mitchell, 1991). Fourthly, strong returns from a venture capital investment are critical to financiers. Returns are influenced by business valuations venture capitalists assign to the entrepreneurial business at the point of closing the deal (Tyebjee and Bruno, 1984; Fried and Hisrich, 1994). Fifthly, venture capitalists are concerned with deal criteria. A document called the Term Sheet summarizes the terms of the proposed investment and lays out the principles that govern the relationship between a venture capital fund and a company. The document includes information on the shareholders' level of protection, budget, strategic decision approval procedures, investor rights, and exit mechanisms (Kirilenko, 2001; Stromberg and Kaplan, 2003). Lastly, there are other criteria such as financial measures, strength of local economy, and venture capital funds' specific criteria that are considered (Tyebjee and Bruno, 1984; Muzyka et al, 1996).

2. RESEARCH METHODOLOGY

The primary purpose of the study was to define the decision criteria environment as perceived by venture capitalists operating in the CEE region and to identify differences in the way venture capitalists approach these local

markets. Three hypotheses guided the design of the methodological approach and statistical analysis.

The first hypothesis related to the decision environment and specific criteria used by venture capitalists in their investment decisions. It was hypothesized that venture capitalists would make their decisions on the basis of the criteria identified in previous research studies and commonly applied in western markets. This reflected the fact that many venture capital firms are either run or supervised by western investment professionals and that these professionals would tend to apply business evaluation techniques applied in other countries. Evidence from studies in western countries confirms that venture capitalists use similar criteria in different markets. The first research hypothesis is stated in the null form as follows:

H₁: Investment criteria applied by venture capitalists in Western Europe appropriately describe the decision environment in the CEE region.

The second research hypothesis dealt with the application of these criteria to actual investment projects. Previous studies and academic research (see Tyebjee and Bruno, 1984; MacMillan et al, 1985; Muzyka et al, 1996) confirm that venture capitalists focus on groupings of risks in their investigation of potential investment prospects and the final investment decision. It has been found that instead of focusing on a general "laundry list" of criteria, venture capitalists focus on moderating risks in key areas. The second research hypothesis is therefore stated in the null form as follows:

H₂: There are groupings of decision criteria that can be discerned from available data.

The third research hypothesis was concerned with the way venture capitalists apply these criteria to specific countries in the region. It was further hypothesized that venture capitalists would consistently apply the same criteria in their analysis of key decision areas and across various countries in the CEE region. While limited research exist (Bliss, 1998; Karsai et al, 1998) to support the fact that venture capitalists recognize local realities in their decision making, the hypothesis was based on the fact that all the markets under study developed at the same time and have relatively homogenous macroeconomic indicators. Consequently, the dynamics of the venture capital environment would likely be the same. The third research hypothesis is stated in the null form as follows:

H₃: Venture capitalists focus on the same decision criteria when making their investment decisions.

The sampling frame in this study included the 112 investment officers employed in venture capital firms targeting Hungary, Poland, the Czech Republic, and Slovakia. The target population was derived from a variety of different sources, including a membership list of local venture capital associations and the Book of Lists, published by New World Publishing, which is regarded as the most comprehensive business directory in the CEE region. The list was also cross-referenced with other sources to assure completion. Venture capital firms focusing on different stages of company development were also included in the study (seed financing accounted for 0.5 percent of all the respondents; start-up financing – 14.7 percent; expansion financing – 64.6 percent; replacement capital financing – 11.0 percent; buyout financing – 8.6 percent; undeclared – 0.6 percent), ensuring not only the integrity of the data, but also the reliability of the results.

A mail questionnaire (included in Appendix A) was sent to the investment officers in a personally addressed envelope, along with a covering letter. The first section of the questionnaire pertained to six groups of decision criteria that could be considered important when investing in CEE countries. These included: product and market criteria (market size, maturity and growth, degree of market development, types of product, seasonality), entrepreneur and management criteria (leadership potential, track record, quality of management, competencies, experience), strategy and competitive criteria (strategic positioning, competition, ease of market entry, strength of suppliers and distributors), valuation and returns criteria (business valuation, potential returns, competition for the deal), deal criteria (stage of investment, investor protections), and other criteria (financial measures, strength of local economy, venture capital funds' specific criteria). In this section, a seven-point Likert scale was used by each firm to rate the importance of the twenty listed decision criteria; "1" denoted "very unimportant" and "7" denoted "very important". The design of the questionnaire was based on the literature review. The questionnaire was pre-tested and subsequently refined on a sample of three venture capital firms (not included in the study). The second section of the questionnaire dealt specifically with venture capital firms' demographic data. In this section, closed-ended questions were used to characterize the respondents and their firms. The demographic profile included questions regarding the preferred stages of investment, the number of years of involvement in the venture capital industry, the number of completed investments, the number of employees, the IRR expectations, and the professional background of respondents (i.e. education, years of experience).

According to different industry sources (local venture capital associations, local newspapers, Book of Lists), there are between 95 and 104 venture capital funds operating in Central and Eastern Europe (Hungary: 36-38; Poland: 33-35; the Czech Republic: 17-19; Slovakia: 9-12). The objective of the study was to solicit responses from the entire population of venture capital funds operating in the region. Two questionnaires were sent to each venture capital fund to randomly selected investment officers in these funds. It was conjectured that while the responses in the demographic section received from the same fund were expected to be the same, the responses related to the importance of specific problems were likely to be different, reflecting diverse background of investment officers working in the same fund. In total, 200 questionnaires were sent out to 100 venture capital funds, yielding an initial response of 47.5 percent (95 respondents). Follow-up phone calls were made and resulted in 17 additional responses, increasing the response rate to 56.0 percent. This response rate is considered acceptable.

The statistical analysis was done in stages and was performed with SPSS. The objective of the first stage of analysis was to develop a concise set of variables to be used for further analysis. After establishing a strong set of decision criteria, multiple analyses of variance, and factor analysis were performed. The factor analysis was used to investigate the underlying structures of the twenty-six investment decision criteria, so that one might gain a general understanding of the decision environment and the differences in the perceptions of the decision criteria for different types of respondents. The reliability of the construct was assessed using Cronbach alphas. The multivariate analysis was successfully used in studies performed by MacMillan et al (1985), Riquelme and Rickards (1992) and Muzyka et al (1996).

3. RESEARCH RESULTS AND DISCUSSION

3.1. Decision Criteria and their Structure

Many factors influence the final investment decisions made by venture capital firms. Principal factor extraction with varimax rotation was performed. Using a factor loading of 0.50 as the cut-off for inclusion within a factor, the decision criteria separated three factors, confirming Hypothesis 2. The first factor was labeled "entry risk" and explained 28.5 percent of the variance. The second factor was concerned with "operating risk" and explained 14.8 percent of the variance. The third factor was termed "exit risk" and explained 19.2 percent of the variance. The twenty-six decision

criteria used in the questionnaire provided a comprehensive set of decision criteria to be used by local venture capitalists. The percentage of variance explained by the three factors was equal to 62.5 percent, a favorable comparison to Tyebjee and Bruno (1984) – 60.4 percent – and MacMillan et al (1985) – 60.5 percent. The results confirmed that the list of standard decision criteria successfully used for the analysis of investment decisions in western countries is useful in assessing investment projects in the CEE region. Therefore, Hypothesis 1 was confirmed.

Table 1

Factor and reliability analysis for investment decision criteria and three factor groups.

Decision Criteria	Factor Loadings <i>Entry Risk</i>	Factor Loadings <i>Operating Risk</i>	Factor Loadings <i>Exit Risk</i>
Market size and growth dynamics	0.853		0.518
Degree of market consolidation			
Product or service seasonality		0.579	
Value-added products or services		0.548	
Entrepreneur's leadership potential	0.829		0.502
Complementary management team	0.735		
Industry experience			
Track record of success	0.651		
Ease of market entry		0.634	0.770
Defendable market position		0.543	
Market share	0.843		
Nature and degree of competition		0.583	
Strength of suppliers and distributors		0.780	
Availability of business plan	0.548		
Expected rate of return	0.549		
Ability to cash out			0.872
Competition for the deal	0.521		
Valuation	0.543		
Degree of investor protections	0.745		
Ability to influence operations		0.875	0.769
Stage of investment	0.512		
Ability to force exit and exit potential			0.543
Investment scalability			
Strength of financial performance		0.873	0.7645
Strength of local economy		0.542	
Business agrees with fund's constraints and objectives	0.507		
Cronbach's α	0.8052	0.7945	0.7645
Percentage of variance explained	28.5%	14.8%	19.2%
Eigenvalue	13.27	7.43	8.56
Total percentage of variance explained	62.5%		

Source: own calculations based on research data from the questionnaire

There are many factors influencing the final investment decisions made by venture capitalists. Entry risk tended to be related to the assessment of two areas: the commercial attractiveness of the investment (the “commercial proposition”) and project “do-ability”. The key areas related to assessing a project’s attractiveness are the entrepreneur and management (as well as their track record), market size and growth (as well as market share), and, last but not least, the availability of a comprehensive business plan. The second assessment area within this factor relates to an assessment by the fund pertaining to the probability of the project being completed. In other words, the second area relates to the fund’s ability to successfully complete the deal on terms satisfactory to venture capitalists. This component generally relates to deal issues involving financial contracting, namely structuring, pricing (business valuation), and expected returns. Venture capitalists must be assured, with significant rights and protections, that they have negotiated the best deal. The assessment of a venture capital fund’s ability to successfully execute the deal is important since the risk of not completing the project is normally regarded as above average in the venture capital industry. This is often due to potentially unsuccessful negotiations or the tender approach commonly used in privatization processes in the CEE region.

Once the investment is completed, venture capitalists shift their focus to operational issues. Venture capitalists will commonly ask themselves, “Is the company (and thus the investment) performing in accordance with the business plan upon which the decision to invest was taken?” The operating risk relates to the assessment of the firm’s potential for future business failure or underperformance. In assessing these operating risks, key focus was given to the macro considerations likely to influence the financial performance of the business, namely the country’s economics performance, market and competitive considerations, and management expertise in the industry. All these factors are likely to influence the strength of the company’s financial performance and exit opportunities. Venture capitalists are able to test the reliability and strength of their investor protections, especially when the business is underperforming. Many of the rights agreed upon between business owners and entrepreneurs provide venture capitalists with additional powers and remedies in the event that a venture capital backed business experiences operational problems. Under such circumstances, venture capitalists may decide to change the business leader or the entire management team through the change of control rights.

The third area of concern and risk for venture capitalists relates to the realization of their investment within a reasonable timeframe – the exit risk. While venture capitalists view investment from a long term perspective, they are not operating investors, and must secure ways of selling their shares within a targeted investment holding period. Many times, venture capitalists' partners have a different perspective on holding. For example, they may be attracted by a future dividend stream, the ability to wait for a "preferred" buyer or the ability to retain control of the business, and the status and self-fulfillment that goes with it. This difference in opinion on the value of an "unsold share" means that the exit issue is often one in which the interests of venture capitalists and business owners diverge most. It is, therefore, important for both parties to discuss each other's requirements and expectations early in the process and come to a mutually satisfactory solution. In certain circumstances, venture capitalists are entitled to a "drag along right", where they force an exit through the sale of all shares in the business to a strategic investor.

3.2. Decision Criteria across the CEE Region

Overall, the venture capitalists that were surveyed exhibited significant differences as to their opinions on the relative importance of decision criteria. At the 10% level of significance, venture capitalists operating in various countries differed on 16 out of 26 decision criteria (see Table 2). Furthermore, there was significant disagreement about the relative importance of the top 10 decision criteria. Table 2 presents the mean scores across various decision criteria, along with standard deviation, ranking. The decision criteria not only provide an insight into the spectrum and importance of the various decision processes utilized by venture capitalists, but also outline the varying types of challenges they are likely to encounter in these countries. The three most important decision criteria for each cluster are noted below. One of the most noticeable features pertains to how venture capitalists operating in the Czech Republic and Slovakia have the highest overall importance ratings for their problems (compared to Hungary and Poland) in twenty of the twenty-six decision categories.

Table 2. Mean scores in key decision criteria used by venture capitalists in the CEE region

Decision Criteria	Hungary			Poland			The Czech Republic			Slovakia		
	Rank	Mean	SD	Rank	Mean	SD	Rank	Mean	SD	Rank	Mean	SD
Market size and growth dynamics**	1	6.07	0.45	4	5.71	0.65	3	6.16	0.52	5	6.17	0.67
Degree of market consolidation**	4	5.96	0.87	13	5.41	0.72	12	5.90	0.67	11	5.93	0.61
Product or service seasonality***	13	5.49	0.64	25	4.18	1.17	19	5.68	0.71	17	5.74	0.70
Value-added products or services	18	5.07	0.81	5	5.63	0.93	22	5.57	0.80	20	5.65	0.53
Entrepreneur's leadership potential***	5	5.93	0.45	1	5.89	0.37	1	6.21	0.46	3	6.27	0.43
Complementary management team**	14	5.37	0.67	10	5.49	0.22	2	6.18	0.28	1	6.33	0.48
Industry experience	15	5.32	0.75	3	5.74	0.34	16	5.77	0.67	12	5.90	0.83
Track record of success	6	5.86	0.56	2	5.75	0.56	26	5.28	0.78	2	6.28	0.31
Ease of market entry**	2	6.02	0.35	15	5.26	0.60	15	5.82	0.67	13	5.86	0.59
Defendable market position*	23	4.57	1.09	21	4.74	0.72	21	5.60	0.53	21	5.64	0.61
Market share**	3	5.99	0.42	6	5.60	0.46	8	5.98	0.45	4	6.22	0.55
Nature and degree of competition	17	5.17	0.98	16	5.21	0.71	14	5.86	0.81	24	5.47	0.90
Strength of suppliers and distributors*	19	4.98	0.73	22	4.56	0.88	18	5.69	0.78	14	5.85	0.54
Availability of business plan	26	4.28	1.23	26	4.12	0.75	9	5.97	0.54	10	5.99	0.79
Expected rate of return**	9	5.70	0.63	14	5.37	0.58	4	6.12	0.47	7	6.09	0.63
Ability to cash out***	25	4.31	0.54	17	5.07	0.74	10	5.97	0.67	15	5.84	0.89
Competition for the deal	8	5.71	0.61	18	5.04	0.65	13	5.89	0.89	18	5.73	0.54
Valuation**	10	5.63	0.74	8	5.55	0.41	11	5.94	0.73	16	5.79	0.70
Degree of investor protections***	11	5.58	0.49	9	5.52	0.67	5	6.07	0.63	6	6.13	0.52
Ability to influence operations***	24	4.37	0.63	19	4.94	0.87	6	6.04	0.32	8	6.01	0.59
Stage of investment	21	4.75	0.79	20	4.80	0.54	20	5.65	0.56	23	5.53	0.84
Ability to force exit and exit potential*	22	4.69	0.95	7	5.58	0.65	7	6.01	0.67	19	5.71	0.71
Investment scalability	12	5.51	0.67	11	5.47	0.54	17	5.71	0.71	9	6.00	0.74
Strength of financial performance	7	5.78	0.54	12	5.43	0.56	23	5.43	0.56	22	5.58	0.73
Strength of local economy	16	5.26	0.63	23	4.47	0.63	24	5.42	0.60	25	5.41	0.89
Fund-company fit*	20	4.81	0.76	24	4.36	0.87	25	5.32	0.56	26	5.40	0.26

Significance levels: *P<0.1, **P<0.05, ***P<0.01

Source: own calculations based on research data from the questionnaire

Four market and competitive decision criteria were among the top five decision criteria in Hungary, with market size and growth dynamics, and ease of market entry being ranked number one and two, respectively. Venture capitalists are looking for markets that have been increasing at significant growth rates in the past and from which strong growth is expected to continue in the foreseeable future. The performance of their portfolio companies in the market sectors and the challenge of identifying businesses that are strong performers are two reasons why venture capitalists attribute importance to market considerations. This is confirmed by the relatively high ranking of the company's past financial performance. This finding is consistent with earlier studies outlining a diminishing quality of projects available to venture capitalists. The issue related to management and entrepreneurs is considered as a secondary issue in comparison to market considerations. Local venture capitalists confirm that while having talented and experienced management personnel is critical to any business, finding strong and experienced senior management – especially in the areas of finance and accounting – with western business education (i.e. an MBA degree) is less problematic than in other markets, such as Poland. The high ranking of the deal criteria is a natural progression from market considerations. Once a good deal has been identified and venture capitalists have been granted exclusivity to negotiate it with entrepreneurs, they become concerned with whether the deal works in terms of potential returns and business valuation.

Venture capitalists in Poland are primarily concerned about the quality of entrepreneurs and managers. Polish venture capitalists believe that a successful venture is based on a strong management team and a driven entrepreneur with a successful track record. Venture capitalists are looking for individuals or managements teams that have been in operation for a number of years and have proven themselves competent managers. More importantly, they look for “operators” and not just visionaries. Venture capitalists also search for businesses in which strong senior executives complement the leading entrepreneur and execute the crafted strategy. In short, local venture capitalists are looking for “serial” entrepreneurs and managers, and tend to bet on solid management teams. The second major decision-making theme relates to market considerations. As is the case in Hungary, venture capitalists in Poland rank the importance of market size and growth dynamics highly. This is done to ensure the growth of the top line and improve profitability. Venture capitalists also wish to avoid “commodity-type” products or services with few or no value added

components. They prefer to financially back businesses that can be differentiated from other market offers and where consumers perceive a valued-added component. Ranked at number seven are the provisions related to exit enforceability. Venture capitalists commonly try to negotiate strong exit provisions (such as “drag-along” rights) and will rarely proceed to deal closure without such protection.

Venture capitalists in the Czech Republic and Slovakia are generally concerned with all issues related to management, market, and deal considerations. This is reflected by the high average scores of the decision criteria examined. It is necessary to stress the importance of investor protections. Venture capitalists in these markets are relatively new and less familiar with market conditions, and tend to “over-protect” themselves against any adverse conditions in the legal documentation. Investor protections are also extended to situations where venture capitalists are concerned with having the ability to influence the company’s operations in the case of any material underperformance from the agreed action plan.

CONCLUSIONS

The twenty-six decision criteria have proved to be very useful in outlining the decision making environment for venture capital firms operating in the CEE region. The study confirms that instead of checking off individual risk factors, venture capital firms try to address three fundamental types of risk in their decision process: entry risk, operating risk, and exit risk. The percentage of variance explained by the three factors was equal to 62.5 percent. The entry risk relates to the assessment by venture capitalists of the commercial attractiveness of an investment and their ability to complete the deal. The operational risk relates to venture capitalists’ focus on any potential operational challenges they may encounter during their holding period, as well as ways in which they are able to protect themselves against underperformance, a likely harbinger of low returns. The exit risk relates to the venture capital firm’s ability to successfully exit the investment.

The countries in the CEE region cannot be treated as one homogeneous “block”. Venture capitalists operating in the CEE region exhibited significant differences as to the relative importance of decision criteria. In short, they apply different decision criteria to analyze investment opportunities in the various countries of the CEE region. In spite of

concurrently developing markets, similar efforts to use public capital to rejuvenate entrepreneurship, and relatively homogenous macroeconomics, each country has its unique features. Venture capitalists must learn to understand these features if they are to improve their chances of successful investment in these countries. A better understanding of country-specific decision criteria can help to properly mitigate risks.

The study has numerous implications for academics and practitioners. For academics, the study highlights the differences and similarities in the way venture capitalists in the CEE region make their investment decisions. The study also identifies the main types of risk venture capitalists attempt to hedge against. While the study raises more questions than it answers, it highlights many areas of potential research in the CEE region. Areas pertaining to the returns achieved by venture capital firms operating in the region may be of some importance, and can be explored in at least three different manners. Firstly, while over \$1,226 billion was invested in the market between 1998 and 2002, limited evidence exists to suggest how successful venture capital firms in the region really are in terms of returns. The key research question relates to whether or not local venture capital firms are sufficiently compensated for the risks they are taking in the region. Due to potential problems with return disclosure on the part of venture capital firms, a case-study investigation of the most successful firms in the region would have to be performed. Secondly, various venture capital firms operating in the region developed and executed different entry modes into the market. It would be interesting to research which of these methods was most successful. This matter would be of high importance to any practitioners about to enter the market. Thirdly, this study outlines that unique market characteristics may be responsible for different developments in the CEE markets, their potential, and, consequently, their returns. Understanding the various components of the environment is likely to improve venture capitalists' success rate.

For practitioners, there are numerous implications. Firstly, the investment approach and decision criteria successfully used by venture capitalists when making investments in Western Europe are generally helpful in detailing the decision environment in the CEE region. However, rather than using a system that "checks-off" each of the potential risks, it may be worthwhile to consider investment challenges in terms of three main themes: entry risk, operating risk, and exit risk. Such a classification may prove to be a useful framework for analyzing investment opportunities, and is likely to be quite intuitive for local venture capitalists. Secondly, each of the countries in the

CEE region represents a unique market with its own characteristics, challenges, and opportunities. Understanding these unique market characteristics is the only way that venture capitalists operating in the region can improve their chances of successful investments and exits. It would be a mistake to treat the CEE region as a homogenous investment environment.

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APPENDIX A

Research Questionnaire

Section 1

Below is a list of problems commonly encountered by venture capital (VC) funds in different countries of Central and Eastern Europe.

Please circle the number on the scale which best indicates the importance of the problem under each classification. The number 1 will reflect a very unimportant problem, whereas the number 7 will reflect a very important problem.

1. Market size and growth dynamics in industry in which investee firm operates in	1	2	3	4	5	6	7
2. Degree of market consolidation in industry investee firm operates in	1	2	3	4	5	6	7
3. Investee firm's product or service seasonality	1	2	3	4	5	6	7
4. Value-added products or services provided by investee firm	1	2	3	4	5	6	7
5. Existence of entrepreneur's leadership potential in investee firm	1	2	3	4	5	6	7
6. Existence of complementary management team in investee firm	1	2	3	4	5	6	7
7. Industry experience of entrepreneur and management in investee firm	1	2	3	4	5	6	7
8. Track record of success for entrepreneur and management in investee firm	1	2	3	4	5	6	7
9. Ease of market entry into industry investee firm operates in	1	2	3	4	5	6	7
10. Investee firm's ability to defend its market position	1	2	3	4	5	6	7
11. Investee firm's market share	1	2	3	4	5	6	7
12. Nature and degree of competition in industry investee firm operates in	1	2	3	4	5	6	7
13. Strength of suppliers and distributors co-operating with investee firm	1	2	3	4	5	6	7
14. Availability of business plan in investee firm	1	2	3	4	5	6	7
15. VC fund's average expected rate of return (IRR) from its transactions	1	2	3	4	5	6	7
16. VC fund's ability to cash out from deals (i.e. redemption or dividends)	1	2	3	4	5	6	7
17. Competition for deal from other VC funds	1	2	3	4	5	6	7
18. Valuation of investee firm	1	2	3	4	5	6	7
19. Degree of investor protections negotiated with shareholders of investee firm	1	2	3	4	5	6	7
20. VC fund's ability to influence operations of investee firm	1	2	3	4	5	6	7
21. Stage of investment in investee firm	1	2	3	4	5	6	7
22. VC fund's ability to force exit and exit potential from investee firm	1	2	3	4	5	6	7
23. Investment scalability (i.e. investing in tranches)	1	2	3	4	5	6	7
24. Strength of financial performance of investee firm	1	2	3	4	5	6	7
25. Strength of local economy	1	2	3	4	5	6	7
26. The fit between VC fund and investee firm	1	2	3	4	5	6	7

Section 2

1. Which category below best describes your fund's preferred stage of investment in [country]?

[] Seed

- Start-up
- Expansion
- Replacement
- Buy-out
- Other

2. For how many years has your fund been involved in venture capital investing in [country]?

- 1 – 2 years
- 3 – 4 years
- 5 – 6 years
- 7 – 8 years
- > 8 years

3. How many transaction has your fund completed in total in [country]?

- 1 – 5 transactions
- 6 – 10 transactions
- 11 – 15 transactions
- 16 – 20 transactions
- > 20 transactions

4. How many full (not partial) exits has your fund achieved in [country]?

- 1 – 5 exits
- 6 – 10 exits
- 11 – 15 exits
- 16 – 20 exits
- > 20 exits

5. What are your fund's IRR expectations in [country]?

- < 21%
- 21 – 25 %
- 26 – 30%
- > 30%

6. How many full time professional staff does your fund employ in [country]?

- 1 – 3
- 4 – 6
- 7 – 10
- > 11

7. Which category best describes the average level of education and years of experience of your fund's professional staff in [country]?

Education

- Undergraduate degree
- Graduate degree
- Ph.D.
- Professional designation
- Other

Years of Experience

- 1 – 2 years
- 3 – 4 years
- 5 – 6 years
- 7 – 8 years
- > 9 years