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APPRAISING AND REFORMULATING THE VENTURE CAPITAL INVESTMENT CRITERIA FOR SMALL AND MEDIUM ENTERPRISES IN SOUTH AFRICA

BY

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DOCTOR OF PHILOSOPHY
IN MANAGEMENT

PROMOTER: EMERITUS PROFESSOR FREDERICK AHWIRENG-OBENG

OCTOBER 2013

DECLARATION

I, Jane Moraa Mwebi, do hereby certify that this thesis which is submitted to the University of the Witwatersrand, Johannesburg, is my own work and all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Signed..Jane Mwebi.....Date..October 15, 2013..

ABSTRACT

Venture capital is one of the most suitable sources of capital for business growth and expansion but most small and medium enterprises in emerging economies, including South Africa, fail to meet the criteria required to access this source of capital. This is because venture capitalists evaluate small and medium enterprises in emerging economies using conventional investment criteria that do not take into consideration the institutional limitations of developing countries in general, and small and medium enterprises in particular. As a result, venture capitalists find small and medium enterprises lacking investment readiness and view them as risky and costly. The purpose of this study was to identify factors that address the lack of investment readiness, high risk and high transaction costs, and determine how the factors mitigate these obstacles to small and medium enterprises equity financing.

Through a literature review, the research identified 17 factors that mitigate the lack of investment readiness, the high risk, and the high transaction costs associated with small and medium enterprises in developing countries. These factors were empirically tested among 31 private equity/venture capitalists and 56 small and medium enterprises in South Africa, to determine the extent of their mitigating effectiveness, particularly, whether mitigation of these obstacles reduces the perceived small and medium enterprises equity financing gap. Data was collected through online survey using the *SurveyMonkey* tool and analysed using factor and regression analyses. The study determined that 15 of the 17 factors do mitigate the lack of investment readiness, high risks, and high transaction costs associated with

small and medium enterprises. In addition, the study found that mitigation of the obstacles also reduces the perceived small and medium enterprises equity financing gap.

More important, the study makes three contributions to the literature on venture capital investment criteria. First, the study proposes a modified set of investment criteria for evaluating small and medium enterprises for equity investment in South Africa. This shifts the focus from the characteristics of the entrepreneur, venture management team, product/service, market, and financial considerations, to factors that mitigate small and medium enterprises' lack of investment readiness, high risk and high transaction costs. The second contribution of the study is the prototype demonstrating application of the modified venture capital investment criteria. The third contribution is recommendations to government policy and practice. Among these, the government needs to review regulations on intellectual property relocation, protection of private investors, initial public offerings exit channels, and innovative entrepreneurship that restrict availability of venture capital to small and medium enterprises.

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ABBREVIATIONS & ACRONYMS

AMA	Angela Motsa & Associates
AVCA	The African Venture Capital Association
BEE	Black Economic Empowerment
CAPM	Capital Asset Pricing Model
DBSA	Development Bank of Southern Africa
DC	District of Columbia
DTI	Department of Trade and Industry
EBRD	European Bank for Reconstruction and Development
EC	ECI*Africa* Consulting (Pty) Ltd
ECI	Ebony Consulting International (Pty) Ltd
FGV	Fundacao Getulio Vargas
GDP	Gross Domestic Product
HM	Her Majesty
ICFAI	Institute of Chartered Financial Analysts of India.
IDC	Industrial Development Corporation
IFC	International Finance Corporation
IFP/SEED	InFocus Programme on Boosting Employment through Small Enterprise Development
Jr	Junior
KPMG	Klynveld, Peat, Marwick and Goerdeler
LAC	Latin America and the Caribbean
M & A	Mergers and Acquisitions
MENA	Middle East and North Africa
MIT	Massachusetts Institute of Technology
NEDLAC	National Economic Development and Labour Council
NEF	National Empowerment Fund
NEPRU	Namibian Economic Policy Research Unit
NYDA	National Youth Development Agency
OECD	Organisation of Economic Co-operation and Development
PE	Private Equity

SAVCA	South African Venture Capital and Private Equity Association
SBS	Small Business Service
SEAF	Small Enterprise Assistance Funds
SFP	Social Finance Programme
SMEs	Small and Medium Enterprises
SMMEs	Small, Medium and Micro Enterprises
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
USA (US)	United States of America
VA	Virginia
VC	Venture Capital
WRI	World Resources Institute

CHAPTER 1

INTRODUCTION, PROBLEM STATEMENT AND DEMARCATION OF THE STUDY

1.1 Introduction

The importance of small and medium-sized enterprises (SMEs) in creating jobs and economic wealth is globally recognized. SMEs make up the largest portion of the employment base in many developing countries and are often the foundation of the local private sector (Acs, 2006; Ayyagari, Beck & Demirguc-Kunt, 2007). The capacity of SMEs to innovate, their flexibility to adjust to changes in technology, employment creation due to their labour intensive nature, and their ability to adapt to current needs of a country's economy, gives them a competitive advantage over larger firms. In South Africa, SMEs contribute between 52% to 57% of the GDP and about 61% of total employment (Abor & Quartey, 2010). However, most SMEs' financial needs are underserved; consequently their growth and development is adversely affected (Pissarides, 1999; Ayyagari, Demirguc-Kunt & Maksimovic, 2006; Mgibisa, 2007).

The growth of SMEs depends on the support available in form of financial and management assistance, training, and reduction of regulatory burdens (Acs, 2006). Although the SME sector is constrained by skills shortage, scarcity of capital goods, poor management, lack of data on the sector, resistance to change and marketing difficulties, by far the biggest problem facing the sector is the unavailability of adequate financing facilities (Beck & Demirguc-Kunt, 2006). Most

financial intermediaries have hesitated to serve the SME sector because they lack appropriate financing mechanisms that can serve the needs of SMEs (OECD, 2006a). Banks, capital markets, and other suppliers of finance tend to serve larger and more established businesses. In contrast, microfinance institutions (mostly supported financially by donors and International Financial Institutions) tend to serve micro businesses. However, SMEs – registered enterprises with fewer than 250 employees – present a challenge to the financial intermediaries especially with respect to information asymmetry, lack of collateral and higher costs of serving smaller transactions. This means that a sizeable share of SMEs cannot obtain financing from banks, capital markets or other suppliers of finance (OECD, 2006a). Figure 1.1 diagrammatically illustrates the percentage of each of the business categories (in the pyramid) and their main funders, and highlights the SME finance gap.

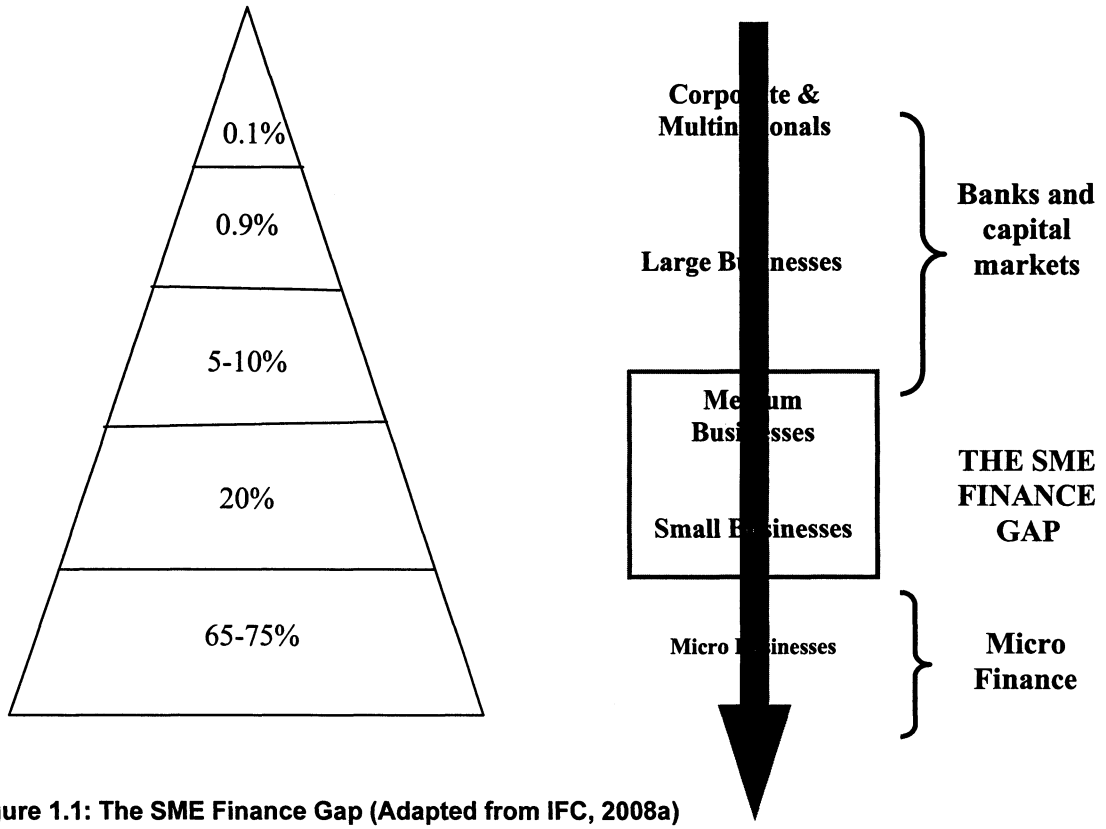


Figure 1.1: The SME Finance Gap (Adapted from IFC, 2008a)

This SME finance gap has drawn a lot of attention from academics, international development organisations, and policy makers around the world (Berger & Udell, 2006; Beck, Demirguc-Kunt & Peria, 2008). As a result, in the recent years most researchers and international development agencies have developed strategies for creating SME market finance (Hallberg, 2000; Yago, Roveda & White, 2007). But, to date, the focus has been largely on debt finance rather than on equity finance. Although SMEs' access to finance can be enhanced through debt finance, SMEs lack the collateral required to support this type of finance (Beck & Demirguc-Kunt, 2006). Debt finance is associated with prohibitively high interest payments that can cripple a young company, and may also be unavailable to firms that have reached

a level of equity gearing that precludes them from getting more debt without new equity.

For the SMEs which are not suited to debt finance, the solution to access equity finance may be found in venture capital. Venture capital has distinct advantages over debt finance because it is long-term in nature, does not require collateral and can provide managerial and marketing advisory functions (Maier & Walker, 1987; Tykvova, 2007; Ojah, 2009). Venture capital provides growth capital for businesses while delaying repayment until the business can afford it (Zahralddin-Aravena, 1997; Winton & Yerramilli, 2008). Apart from investing funds in the entrepreneur's project, venture capitalists provide business advice, needed skills and expertise, and invest substantial amounts of time in the management of the business to improve its ultimate chance for success (Denis, 2004; St-Pierre, Nomo & Pilaeva, 2011; Guo & Jiang, 2013). Venture capitalists are also better equipped than banks to mitigate the risks associated with SMEs. This is because venture capitalists have special abilities that enable them to deal more efficiently with asymmetric information than other types of investors (Amit, Branser & Zott, 1998). Additionally, the venture capitalists' innate ability to reduce asymmetric information (Admati & Pfleiderer, 1994; Ojah, 2011) minimizes the probability that SMEs will be denied financing.

Venture capitalists have a dual role in their investee companies. On the one hand, they are agents of their limited partner investors, and on the other hand, they are

principals of the entrepreneurs in their investee companies (Eisenhardt, 1989). Venture capitalists reduce asymmetric information through various control mechanisms including the use of convertible securities (Gompers, 1997; Cornelli & Yosha, 2003), syndication of investments (Lerner, 1994), the staging of capital infusions (Sahlman, 1990; Gompers, 1995; Durrani & Boocock, 2006), and the separation of ownership and control rights (Gompers, 1997; Black & Gilson, 1998). These control mechanisms enable venture capitalists to address the risks of moral hazard and adverse selection.

Venture capitalists increase the chances of success of SMEs significantly because they provide advice in principal decisions and facilitate contacts with consultants, lawyers, investment bankers or qualified managers (Tykvova, 2007). In particular, venture capitalists can improve the business idea, contribute to the preparation of the business plan, evaluate the potential of success of the venture, put together a strong management team, assist in obtaining additional financing, and market the venture for success (Sagari & Guidotti, 1992). Success of SMEs backed by venture capital has been demonstrated in Europe and the US. For example, in Europe, between 1991 and 1995, net employment in venture capital-backed companies increased by 15% annually, whereas net employment in the 500 most profitable non-venture capital-backed European companies increased by only 2% annually in the same period. In the US, employment by venture capital-backed companies increased by 25% on average every year between 1989 and 1993, while

employment by non-venture capital-backed fortune 500 companies dropped by a yearly average of 3% in the same period (OECD, 2006b).

In South Africa, where the private equity and venture capital market has experienced considerable development in size and number of participants during the past decade, the focus has not been on venture capital, but rather on mergers and acquisitions by larger players. The average investment deal size in the South African venture capital and private equity industry during 2011 was R29.9 million (KPMG & SAVCA, 2012), while most South African SMEs require equity finance of less than R9 million assuming a debt to equity ratio of 60:40. Additionally, as shown in Table 1.1 and figure 1.2, the trend in fund raising shows that funds raised for earlier stage investments (which are usually small businesses) are significantly lower in comparison to funds raised for later stage investments (which are usually large businesses).

Table 1.1: Funds Raised by Business Stage in Rand Billions

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Earlier stage	0.7	0.6	0.2	0.7	0.0	0.0	0.0	0.1	2.1	0.5	0.2	0.0
Later stage	1.0	0.6	1.1	4.2	2.3	2.2	14.5	15.3	8.5	3.3	11.2	8.3

Source: Adapted from KPMG and SAVCA (2001-2012).

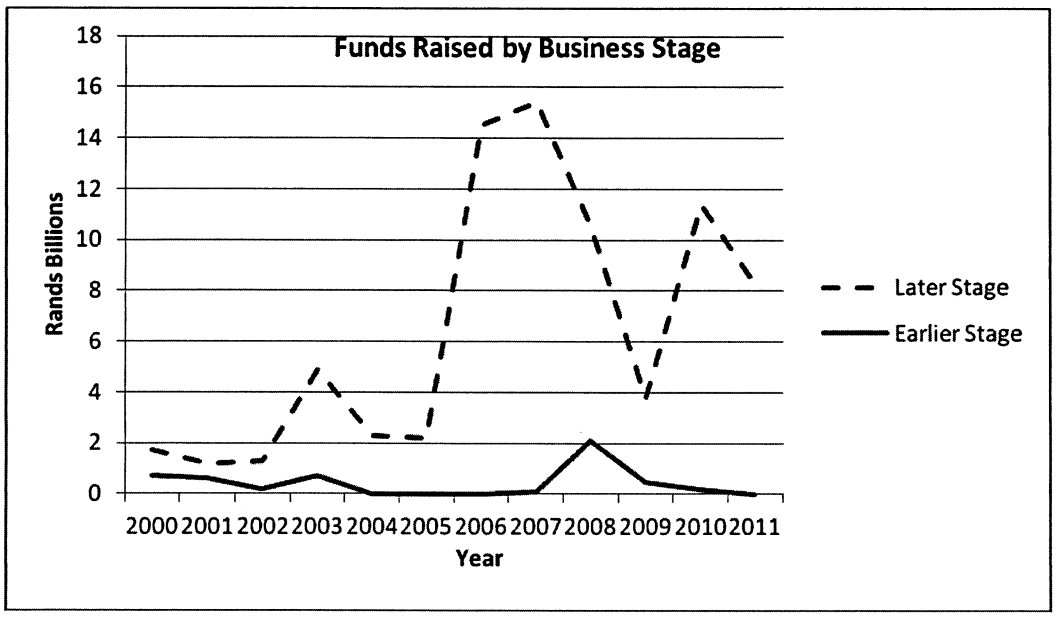


Figure 1.2: Funds Raised by Business Stage (Researcher's own construction from Table 1.1)

Market imperfections in the form of information asymmetry, agency problems, lack of investment readiness, and other transaction costs that are disproportionately large for smaller investments, are attracting venture capital firms to later stage and large businesses in search of economies of scale and perceived lower risks. Consequently, SMEs are not able to access the equity capital they need to thrive. This situation has created an SME equity financing gap in South Africa (ECI, 2003; AMA, 2004; EC, 2006). However, it is difficult to measure the actual SME equity financing gap in South Africa because basic information is lacking, and often the only evidence is in the form of complaints from SMEs themselves (OECD, 2006c). This study therefore focuses on the perceived SME equity financing gap in South Africa.

Market imperfections in developing economies such as South Africa affect SMEs more adversely because the regulatory and legal frameworks may not provide as adequate investor protection as is provided in developed nations (Klonowski, 2011). For example, the South African Companies Act does not mandate the approval of anti-takeover devices by shareholders. This means that if a few investors own shares with significant voting rights, they can effectively control a company even though they did not provide the majority of the capital. This can create potential conflicts of interest and leave corporate constituencies vulnerable (Vaughan & Ryan, 2006). This deficiency can pose a protection issue for venture capital investors.

The South African Companies Act also stipulates that only listed companies, and companies deemed to be in the public interest, are required to be audited and that non-public companies may choose between an independent review and an audit (Republic of South Africa, 2008). This regulation works against venture capital investors because an audit is vital in guiding and promoting good business and corporate governance practices in SMEs.

Further, the South African exchange control regulations on South African developed intellectual property may discourage private equity/venture capital investors. Restrictions on intellectual property relocation and strict globalisation strategies puts South African venture capitalists at a substantial disadvantage to international investors in terms of cost of investment, turnaround time and

utilization of venture capital overhead and management time (SAVCA & Venture Solutions, 2010).

South Africa also lacks suitable systems for innovative entrepreneurship involving tertiary academic and research institutions. A recent study found that the innovation fund has been receiving poor quality applications which imply a declining skills base (Kaplan, Goldberg & Kuriakose, 2011). The declining skills base constrains the delivery of high quality business entrepreneurs who can provide quality business deals for venture capitalists.

Besides market imperfections, there are remarkable differences between developing and developed countries in the areas of SMEs accounting standards, corporate governance practices, and investor exit opportunities (Leeds & Sunderland, 2003). For example, in South Africa, the ALTx for SMEs is not developed for Initial Public Offerings (IPOs), which makes venture capital investment exits difficult (SAVCA & Venture Solutions, 2010). Moreover, SMEs in developing countries may not be ready for venture capital investment because of a lack of understanding of the venture capital business, inability to prepare accurate and quality business proposals, and lack of the experience and skills required to manage venture capital.

In South Africa, due to business skills shortage, entrepreneurs are unable to prepare business plans acceptable to financiers, have a 'copycat' mentality (i.e.,

business ideas are not compelling or different from existing business), and/or lack the skills and experience to sustain businesses from start-up to establishment (Herrington, Kew & Kew, 2009). Lack of business skills also contributes to the poor financial administration of black-owned businesses which results in inadequate or limited financial records (AMA, 2004). These factors contribute to the investor perception of higher transaction costs and higher risks in the SME sector, and leads to the shift from small businesses to larger and later-stage businesses. It is therefore necessary for venture capitalists to adapt their investment criteria to the business environment in order to serve SMEs in South Africa, and thereby reduce the SME equity financing gap.

Notwithstanding these imperfections and limitations, the venture capitalists in various developing countries including South Africa have continued to use the conventional investment criteria for evaluating target companies (Chotigeat, Pandey & Kim, 1997; Kakati, 2003; Mishra, 2004; Deventer & Mlambo, 2009; Wong, 2009). The existing venture capital investment criteria (also referred to as the conventional venture capital investment criteria in this study) were originally shaped in developed markets (mainly in the US) where the relevant institutions to support venture capital are well developed. But similar institutions in developing countries are underdeveloped or do not exist (AVCA, 2006). This institutional development gap demands a different approach to venture capital investment decision-making. As Leeds and Sunderland (2003) argue, a different approach

aligned more closely with developing country business environment realities is therefore necessary so as to reduce the SME equity financing gap.

To summarise, given the relative importance of SMEs to the South African economic development and social stability, the absence of empirical evidence on the relationship between the venture capital investment criteria and the lack of SMEs' access to equity capital presents an important gap in the venture capital literature. This study fills this gap by appraising the venture capital investment criteria, highlighting how these criteria may have hindered SME access to equity capital, and recommending modified investment criteria for evaluating SMEs. Once the factors of the modified investment criteria are identified, the concerned stakeholders can proceed to strategize how to put these factors into operation in the South African environment. This will ensure that SMEs access the equity capital they need to grow and optimise their critically important contribution to the South African economy. The theoretical rationale for this study is graphically depicted in figure 1.3.

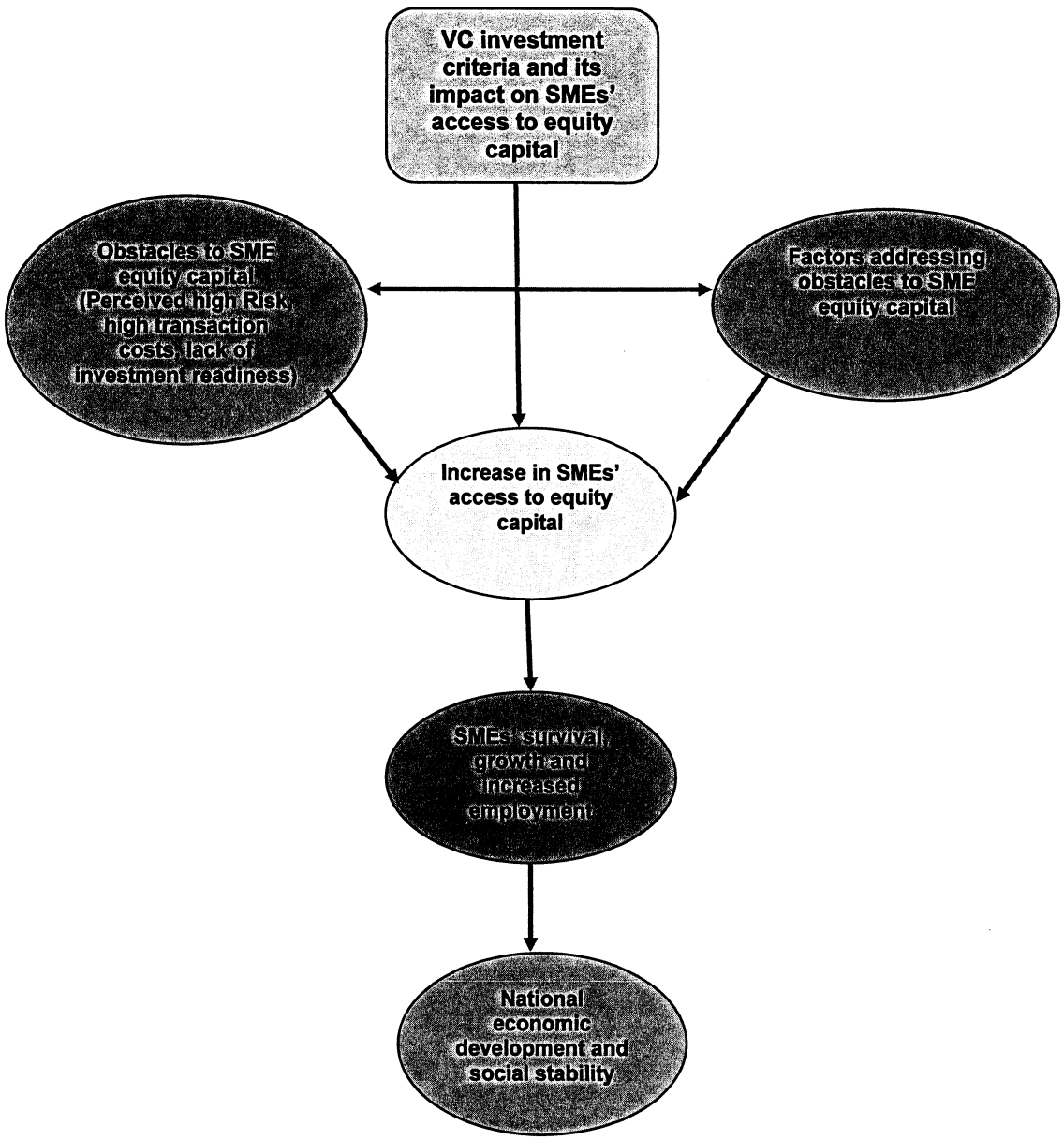


Figure 1.3: Theoretical Rationale (Researcher's own construction)

1.2 Problem Statement

As a significant contributor to the South African economy, the growth and expansion of SMEs is critical. However, recent studies affirm that most SMEs with less than R5 million equity investments do not have access to the equity capital they need for growth and expansion (AMA, 2004; EC, 2006). Studies of the South African venture capital and private equity industry also show that investors prefer larger investment deals and raise significantly lower funds for earlier stage companies (Morris, Watling & Schindehutte, 2000; Pinnock & Butler, 2005; KPMG & SAVCA, 2001-2012). As a result, many smaller businesses at earlier stages lack a source of equity capital. These investment practices may have contributed to the current SME equity financing gap in South Africa.

Venture capitalists in South Africa apply investment criteria which are very similar to those used in developed countries (Deventer & Mlambo, 2009), even though there are remarkable differences between the South African business environment and that of developed countries. This is especially true in the areas of investor protection, SME accounting standards, corporate governance practices, and investor exit opportunities. These differences have contributed to venture capitalists perceiving SMEs as more costly and risky, and caused them to shift their investments to larger and later-stage businesses. Consequently, SMEs have been deprived the capital they need to develop and grow into large businesses, and contribute fully to job creation, economic development and social stability

(OECD, 2006a). Furthermore, most SMEs have been left overleveraged and undercapitalised, a situation which contributes to business failure (Sha, 2006).

1.3 Purpose of the Study

The purpose of this study was to examine the private venture capitalists' investment criteria for SMEs and determine modified criteria that take into account the institutional context of SMEs in emerging economies including South Africa. In order to address the SMEs' lack of access to equity capital problem, the venture capital investors' concerns regarding the lack of investment readiness and high risk and high transaction costs need to be dealt with first. This study identifies factors that address these obstacles to SME equity capital. Using empirical testing and analysis of these factors, the study determines which factors can be turned into investment criteria to evaluate SMEs. The relationship between mitigating obstacles to SME equity finance and reduction of the perceived SME equity financing gap is also examined.

1.4 Objectives of the Research

The goal of this research is to propose modified investment criteria which can be used by private venture capitalists to evaluate SMEs for potential investment in South Africa. To tackle the research problem, this study pursues the following objectives:

1. Identify through a literature review the factors that most private equity/venture capital investors apply to mitigate lack of investment readiness, high risks and high transaction costs of SMEs.
2. Construct a conceptual model that describes the relationships amongst the mitigated obstacles of lack of investment readiness, high risks and high transaction costs of SMEs and the reduction of the perceived SME equity financing gap.
3. Empirically test with venture capital companies and SME samples in South Africa, whether (i) the factors identified in (1) above mitigate lack of investment readiness, high risks and high transaction costs of SMEs, and (ii) mitigation of the obstacles to SME equity finance reduces the perceived SME equity financing gap.
4. Formulate recommendations for criteria that can be used to evaluate SMEs for venture capital investment in South Africa.

1.5 Research Design and Statistical Methods

This research was conducted through a literature review of secondary sources and an empirical survey of primary sources. Chapter seven discusses the research design and statistical methods in greater detail.

1.5.1 Secondary Sources

To identify factors that mitigate obstacles to SME equity capital, a comprehensive literature search was conducted. Secondary sources on existing venture capital investment criteria were reviewed including analysis of case studies in both

developed and developing countries. The literature review found that venture capitalists use very similar investment criteria despite the differences in the business environments. Secondary sources were used also to identify factors that most venture capitalists use to mitigate obstacles to SME equity capital in developing countries.

1.5.2 Primary Sources

Based on the literature review, a survey questionnaire was developed and pre-tested on five respondents from South African private equity and venture capital investors, and on two private equity and venture capital industry experts in South Africa. The pilot study assisted the researcher to determine survey questions that could be misunderstood or survey instructions that were not clear. The procedures used to develop the questionnaire are described in more detail in chapter seven.

1.5.3 Sample

The population for this study consists of private equity and venture capital investors and SMEs in South Africa. The private equity and venture capital investors sample was drawn from the SAVCA directory (As of February 2011, 81 firms were listed as full members of SAVCA). The SME sample was drawn from the South African SME Toolkit directory (As of February, 2011, 528 companies were listed in the South African SME Toolkit directory). These databases were the only ones with email contacts, which is the most appropriate communication tool for an online survey. To achieve an adequate response rate, telephone and/or monthly email reminders

were used. Data was collected from March to June 2011. Chapter Seven discusses the sample used in this study.

1.5.4 Measuring Instrument

Separate questionnaires were developed for private equity and venture capital investors, and for SMEs. The questionnaires were developed based on factors that address the obstacles to SME equity capital identified in the literature review. As perceptions and attitudes were measured during the empirical study, all questionnaires were linked to a 5-point Likert-type scale (ranging from 1 = strongly disagree to 5 = strongly agree).

1.5.5 Statistical Procedures

Data from completed questionnaires was analysed using factor analysis, Cronbach's alpha, and regression analysis. To identify unique variables, component factor analysis was performed. In this way, the discriminant validity of the measuring instrument was confirmed. The Statistical Package for Social Sciences, *(SPSS) version 21*, was used for this purpose. To confirm the reliability of the instrument used, each factor's Cronbach's alpha coefficient was calculated. Regression analysis was used to evaluate the relationships amongst SME investment readiness, SME risk reduction, SME transaction costs reduction and the perceived SME equity financing gap in South Africa.

1.6 Scope of the Study

The empirical part of this study focused on private equity and venture capital firms which are registered as members of the South African Venture Capital and Private Equity Association (SAVCA), and SMEs registered in the South African SME Toolkit directory. SMEs were included in the empirical study to provide a demand-side perspective and to make normative recommendations.

The study excluded private individuals or business angels who may occasionally invest their funds in SMEs in South Africa, and in-house venture capital departments or divisions within corporations (including banks). This is because they are not listed in any directories and there are no public records of their transactions. Also, the study excluded SMEs which were not registered in the South African SME Toolkit directory because there was no other publicly available SME directory with email contacts of SMEs.

1.7 Significance of the Study

Small and medium enterprises' access to equity capital creates employment opportunities through growth and expansion. This is important considering that the unemployment rate in South Africa is about 25.5% (Statistics South Africa, 2012). This study informs policy makers of policy reforms needed to encourage venture capital firms to provide equity capital to SMEs for growth and expansion.

The study helps existing and new venture capitalists looking for appropriate investment criteria in developing countries. This is especially important as developing countries are potential sources of future growth (Holliday Jr., Schmidheiny & Watts, 2002; Neuhof & Wells, 2006; Thompson, 2006; Santiso, 2007). Additionally, South Africa may be a leading destination for capital having risen successfully to the ranks of leading emerging market destinations (Moss, Ramachandran & Standley, 2007).

Furthermore, the study helps entrepreneurs seeking venture capital funding. It informs them of the criteria venture capital firms focus on and thereby increases their chances of getting venture capital funding. Finally, the study contributes to the literature on venture capital investment criteria because the absence of research on the impact of the conventional venture capital investment criteria on SMEs in developing countries, presents an important gap in the venture capital literature.

1.8 Definition of Concepts

The following seven concepts need to be clarified.

Private equity and venture capital

From an investor's perspective, the characteristics of private equity and venture capital are very similar. Therefore, both terms are used interchangeably in this study. Venture capital is defined in this study as long-term, hands-on equity investment in privately-held companies, undertaken and managed by venture

capitalists who are professional investors (Wright & Robbie, 1998). The words capital and finance are also used interchangeably in this study.

Venture capital firms

Venture capital firms are professional investment organisations which raise finance from financial institutions (e.g., banks, insurance companies, pension funds) and other investors (e.g., wealthy families, endowment funds, universities, companies), who - attracted by the potential for superior returns from the venture capital asset class - want to invest in businesses with high growth prospects. These funds are established with a fixed life and will normally have a specific investment focus, for example, in terms of stage of business, industry, and location (Amit et al., 1998).

The focus of this study is on the private venture capital and equity and the investment criteria used by private investors.

Fund Manager

For the purpose of this study, a fund manager is a skilled professional whose duty involves gathering and analysing data in the investment decision process. The fund manager is actively involved in managing the venture capital investment (Friis & Smit, 2004). Venture capitalists as used in this study are fund managers.

Investment Readiness

Investment readiness as referred to in this study is when SMEs are able to put a sound investment proposal to potential venture capital investors and the

entrepreneur and management team is complete and willing to have an equity partner (HM Treasury & SBS, 2003).

Small and Medium Enterprises (SMEs)

SMEs as referred to in this report are those registered companies with total gross assets value of between R1m and R23m, and less than 200 employees (Republic of South Africa, 2003). Assuming a 40:60 equity-to-debt ratio, this study includes SMEs with equity size of between R400,000 and R9m.

The South African Industrial Development Corporation (IDC) defines SMEs as 'those registered companies with less than 200 employees, with a turnover less than R51 million and/or less than R55 million total assets' (IDC, 2010; p.29). This definition's upper limits for turnover and total assets are higher than the 2003 National Small Business Act limits, but are considered reasonable given the elapsed time since 2003. The survey questionnaire used this IDC definition to include private equity/venture capital investors dealing with SMEs with higher turnover and total assets.

The statistical definition of SMEs varies across countries and is usually based on the number of employees or the value of assets. Small businesses are mostly considered to be businesses with fewer than 50 employees and the most frequent upper limit for medium enterprises is 250 employees (OECD, 2006a).

Appendix A shows the various SME sector definitions as defined by South Africa's National Small Business Amendment Bill of 2003.

SME finance gap

This term is "basically used to mean that a sizeable share of economically significant SMEs cannot obtain financing from banks, capital markets or other suppliers of finance" (OECD, 2006a; p.63).

SME equity financing gap

An SME equity financing gap exists where SMEs in need of equity capital are unable to attract investment from venture capitalists which are the principal sources of equity capital for SMEs (HM Treasury & SBS, 2003). Because it is difficult to measure the actual SME equity financing gap in South Africa due to lack of information, this study focuses on the perceived SME equity financing gap.

1.9 Structure of the Thesis

Chapter One is the introduction which gives a background to the study of venture capital investment criteria and hypothesizes their impact on the SME equity financing gap in South Africa. It also presents the purpose, objectives and hypotheses of the research. Secondary and primary sources related to the thesis also are discussed.

Chapter Two offers a discussion of the SME equity finance in South Africa. This chapter provides information on government-sponsored equity funds as provided by the Industrial Development Corporation (IDC), Khula Enterprise finance Limited, National Empowerment Fund (NEF) and the National Youth Development Agency (NYDA). It then gives details on the investment activities of the private equity and venture capital industry in South Africa. The need for SME equity finance and the obstacles to SME equity finance are then discussed.

Chapter Three discusses the theoretical foundations of research into venture capital which include agency theory, theory of contracts, and institutional theory. The venture capital investment process is also discussed with details on the stages of the process. Specifically, the stages of deal generation, deal screening, deal evaluation, deal structuring, post investment activities, and exit from the investment are discussed.

Chapter Four focuses on the private venture capital investment criteria in developed and developing countries. The chapter discusses nine case studies in developed countries and six case studies in developing countries. The limitations of the conventional venture capital investment criteria conclude the chapter.

Chapter Five presents a critical assessment of the SME equity capital success factors in developing countries. The assessment of the SME equity capital success factors focuses on how they mitigate lack of investment readiness, and the high

perceived risks and transaction costs associated with SMEs. These success factors include: investment in clusters, non-financial evaluation methods, outsourcing of core skills, government incentives, availability of viable exit mechanisms, proactive deal selection, business incubators, cross-institutional dialogue, collaboration with non-profit entrepreneurial organizations, training entrepreneurs and venture management, and strategic partnerships and alliances. Networking, leveraging strengths of existing institutions, experienced fund managers, corporate governance practices, portfolio diversification, and hands-on monitoring also are discussed. Chapter Five concludes with a linkage of these factors to SME investment readiness, risk reduction and transaction costs reduction.

Chapter Six presents the conceptual SME equity financing gap reduction model. This chapter discusses how the SME equity success factors mitigate the lack of investment readiness, and the high risks and transaction costs associated with SMEs. The chapter also discusses how mitigation of these obstacles may influence the perceived SME equity financing gap.

Chapter Seven describes the research design and methodology of the study. It further details the nature of the sample, the measuring instruments used and the statistical analyses performed on the data. The chapter also discusses the independent and dependent variables of the conceptual SME equity financing gap reduction model.

Chapter Eight presents the empirical results and the reliability and validity assessments of the measuring instruments used in this study. Chapter Nine discusses the implications of the factor analysis results and the results of the empirical assessment of the relationship between SME investment readiness, risk reduction, transaction costs reduction and the perceived SME equity financing gap.

The final chapter of the study, chapter Ten, concludes the study and offers recommendations for a modified venture capital investment criteria that can be used to evaluate SMEs for venture capital investment in South Africa. This chapter also discusses contributions of this empirical study and indicates areas for future research.

CHAPTER 2

SME EQUITY FINANCE IN SOUTH AFRICA

2.1 Introduction

This chapter deals with SME equity finance in South Africa as provided by government agencies and the venture capital and private equity industry. Although the banking sector and corporate firms provide SMEs with equity finance, such information is not published publicly and hence, is not covered in this study. The chapter discusses also the need for, and obstacles to, SME equity finance in South Africa.

2.2 Government-Sponsored Equity Funds

Government participation in SME equity finance in South Africa has been driven largely by its focus on Black Economic Empowerment (DTI, 2005), which is aimed at empowering previously disadvantaged black entrepreneurs. Historically, the system of apartheid limited the existence of black-owned businesses as well as their ability to grow and become part of the formal economy. Riley (1993) notes that black entrepreneurs were prohibited from operating in urban centres and were mostly limited to supplying a restricted list of goods to the black community. In addition, apartheid legislation including the Land Act of 1913, denied black entrepreneurs land assets which could be used as collateral to borrow from financial institutions (Riley, 1993; Foxcroft, Wood, Kew, Herrington & Segal, 2002). This practice excluded black entrepreneurs from the financial system.

The post-apartheid government introduced black economic empowerment (BEE) initiatives to correct the apartheid-era economic imbalances. As AMA (2004) reports, a BEE commission was mandated to evaluate the direction, pace and results of the BEE initiatives in 2001. Using the results of the BEE commission report, the government introduced its broad based economic empowerment (BBEE) strategy in 2003 to ensure the transformation of the distribution of wealth, income and skills in the South African economy is dealt with comprehensively. This strategy was followed by the Broad Based Economic Empowerment Act (2004) to legislate on various aspects of BBEE (Republic of South Africa, 2004). Additionally, in support of the government BEE initiative, financial institutions negotiated the financial sector charter and committed to achieve BEE objectives related to access to finance and small business development (NEDLAC, 2002).

The government's focus on black economic empowerment resulted in the creation of four national government sponsored equity funds to provide equity finance to black entrepreneurs. These funds include: the Industrial Development Corporation (IDC), the National Empowerment Fund (NEF), Khula Enterprise Finance Limited, and the National Youth Development Agency (NYDA). The government also contributes to an innovation fund for technology seed and start-ups ventures, has introduced a tax incentive in 2008 for venture capital firms investing in SMEs, and provides non-financial support services to help prepare SMEs for investment. Detailed analysis of the government-sponsored funds follows.

Industrial Development Corporation

The Industrial Development Corporation (IDC) is a self-financing, state-owned development finance institution. Between 2004 and 2007, IDC acted as a limited partner to local venture capital funds providing funds for venture capital fund management activities (SAVCA & Venture Solutions, 2010). Thereafter, IDC started funding SMEs in two ways: directly through strategic business units focusing on specific sectors, and indirectly through its wholesale investments department. The wholesale investments department of IDC makes funds available to external fund managers with an SME-oriented mandate (IDC, 2009). One of the strategic business units is the IDC Venture Capital Strategic Business Unit, which provides early-stage finance to entrepreneurs and SMEs of technology companies (IDC, 2010). Its equity stake is between 25%+1 and 50%-1 share with a funding range of between R1 million to R30million (Kaplan et al., 2011).

To access IDC funds, applicants must meet the following risk finance investment criteria as stated on the IDC website (IDC, 2013):

- "demonstrate financial profitability, technical feasibility and economic viability and be environmentally sound,
- highlight job creation characteristics and empowerment compliance,
- demonstrate inclusion of women entrepreneurs,
- show a significant involvement of historically disadvantaged persons in management,
- demonstrate compliance with South African environmental legislation, and

- have a programme for HIV/Aids prevention and awareness".

As reported in IDC's annual reports, the annual IDC financing approvals go largely to SMEs. For example, the percentage of SME financing approvals out of total approvals were 56%, 69%, 67%, and 62% for the years 2008, 2009, 2010, and 2011 respectively (IDC, 2008, 2009, 2010, 2011). Additionally, the value of funding to SMEs has increased from R904 million in 2008 to R2,103 million in 2010 (IDC, 2008, 2010). In 2010, IDC planned to approve 145 SME transactions but only approved 124 SME transactions. It is difficult to determine IDC coverage of the South African SME sector, as no published statistics exist; nor is there information on how many SMEs request, but do not receive the IDC funding.

Khula Enterprise Finance Limited

Khula Enterprise Finance Limited (also referred to in this report as "Khula") is an agency of the Department of Trade and Industry (DTI). Khula was established in 1996 and its mandate is to 'maximize' SME access to finance, development impact, and financial stability. In addition, Khula provides mentorship services at pre- and post-loan stages, which are meant to guide and counsel entrepreneurs (DTI, 2008). With regard to improving SMEs' access to finance, Khula offers loans mainly to black-owned SMEs, for both start-up and early expansion capital. These loans, range from R10,000 to R3 million (Herrington et al., 2009).

Khula also participates in equity funds and its funding criteria focuses on black-owned and managed SMEs, black empowered SMEs, women entrepreneurs, South African citizens' entrepreneurs, among other factors (Khula, 2011a). Because of its wholesale nature, Khula operates through a network of channels to supply funding to small business. Details of the various institutions that Khula works with, and their individual funding criteria, are included in appendix B.

Khula's performance in SME financing activity as reported on its 2010/2011 Corporate Balance Score Card is detailed in Table 2.1.

Table 2.1: Khula SME financing Activity 2010/2011

Key performance Indicator	**2010/2011 Target**	**Year Achievement**
Value of facilities approved to intermediaries	R96 million	R81.25 million
Value of facilities disbursed to intermediaries	R235 million	R70.64 million
Number of SMEs financed by partners	1,500	174

Source: Extracted from Khula (2011b, p.17)

These results show that Khula did not achieve its 2010/2011 targets. Due to a lack of published information, it is difficult to determine Khula's coverage of the South African SME sector, or how many SMEs request, but do not receive Khula funding.

The National Empowerment Fund

The National Empowerment Fund (NEF) is a state-owned provider of empowerment finance. It was created in 1998 as part of the DTI's group of development finance agencies. The NEF mandate is to act as a catalyst for broad-based black economic empowerment through finance and investment activities (Herrington et al., 2009; NEF, 2010). The NEF services its clients through four funds, namely, iMbewu Fund, Umnotho Fund, Rural and Community Development Fund, and Strategic Projects Fund. Table 2.2 provides details on purpose and financing type offered by the NEF funds.

Table 2.2: National Empowerment Fund Funds

Fund	Purpose	Financing Type
iMbewu Fund	Support black entrepreneurs starting new businesses and existing black-owned enterprises with expansion capital.	• debt, quasi-equity and equity finance products • Minimum of R250,000 to a maximum of R20 million.
Umnotho Fund	Provide capital to black-owned and -managed enterprises, black entrepreneurs who are buying equity shares in established white-owned enterprises, and project finance and BEE businesses that are or wish to be listed on the Johannesburg Stock Exchange.	• debt, equity and mezzanine finance • Funding ranges from R2 million to R75 million
Rural and Community Development Fund	Promote sustainable change in social and economic relations, and support the goals of growth and development in the rural economy, through financing of sustainable enterprises.	• debt, equity and quasi-equity instruments • funding threshold ranging from a minimum of R1 million to R50 million.
Strategic Projects Fund (SPF)	Develop South Africa's new and strategic industrial capacity within strategic sectors	• Equity • Minimum project investment size at financial closure of R25 million up to R15 billion.

Source: Researcher's own construction (Adapted from NEF, 2010)

To qualify for NEF funding, SMEs have to meet the following funding criteria (NEF, 2010; p.116):

- "commercial viability of the business case being presented,
- compliance with all relevant laws and regulations,
- demonstrate operational involvement at the managerial and board levels by black people,
- minimum percentage of black ownership or interest of 50.1%,
- ability to repay NEF funding,
- the business must create a reasonable number of jobs,
- geographic location of the business is also important with the focus on rural or economically-depressed areas encouraged,
- meaningful black women participation is viewed more favourably,
- rural and community development projects must have meaningful participation by communities, and
- possibility of co-funding with private or public sector institutions is encouraged in larger projects".

NEF's performance in promoting and supporting business ventures pioneered and run by black enterprises is shown in Table 2.3.

Table 2.3: NEF performance

Key performance Indicator		**2010 Target**	**2010 Achievement**	**2011 Target**	**2011 Achievement**	**2012 Target**	**2012 Achievement**
Promote and support business ventures pioneered and run by black enterprises.	Number of deals approved	77	61	70	62	115	98
	Value of deals approved	R560 million	R749 million	R800 million	R949 million.	897 million	1.16 billion
	No. of deals disbursed	67	48	62	49	95	73
	Value of deals disbursed	R490 million.	R549 million.	R510 million.	R552 million.	750 million	620.1 million

Source: Extracted from NEF (2010, p.24; 2011, pp. 29-30; 2012, p. 30)

NEF did not achieve its deal targets in terms of the number of deals though the approved and disbursed (except for 2012) amounts were more than the budgeted amount. With regard to NEF's coverage of the South African SME sector, or how many SMEs requested NEF funds but did not receive, no publicly- available information exists.

National Youth Development Agency

The National Youth Development Agency (NYDA) was formally launched on June 16, 2009. NYDA was formed from the merger of the National Youth Commission and Umsobomvu Youth Fund. Its mandate is to empower youths aged between 14 and 35 years of age. The NYDA offers entrepreneurship education and training, business development services, opportunities to markets as well as loan financing for the establishment and expansion of SMEs. NYDA provides financing to youths through loans ranging from R1000 to R5 million. The loans are to be used "to start, expand, buy into or buy out existing businesses which confer significant economic benefits to youths" (Herrington et al., 2009; p.134). The NYDA is accessible through youth 'advisory points' and at centres across the country. As stated on the NYDA website (NYDA, 2013), applicants for NYDA funds must meet the following funding criteria:

- "youth (35 and younger) must hold greater than 50% of the shares in the company,
- must be previously disadvantaged South African youth,
- the youth must be involved operationally in the business,
- must demonstrate commitment to the venture, and
- the venture must be economically viable".

The National Youth Development Agency (NYDA) participates in four funds, specifically, the general fund, the progress fund, Massmart SME fund, and MTN

Enterprise Development Fund. Details of loan amounts provided by each fund are shown in Table 2.4.

Table 2.4: National Youth Development Agency Funds

Fund	Range of Loan Amounts
General Fund	R80,000 to R5 million
Progress Fund	R100,000 to R3.2 million
Massmart SME fund	R150,000 to R400,000
MTN Enterprise Development Fund	Loans up to R30,000

Source: Adapted from NYDA (2010)

In addition, while NYDA contributes 80% of the funding for Franchise Fund loans, it does not participate in its management. NYDA only exercises significant influence on the Franchise Fund's activities (NYDA, 2011).

With respect to the performance of the NYDA, it is exceeding its own performance indicators as shown in Table 2.5 below. However, there are no published statistics on the NYDA coverage of the SME sector and on how many youth entrepreneurs request, but do not access, NYDA funding.

Table 2.5: NYDA Economic Participation Performance

Key performance Indicator	2010/2011 Target	2010/2011 Achievement	2011/2012 Target	2011/2012 Achievement
Value of loans (micro individual, group and SME) approved for youth entrepreneurs.	R11 million	R41.7 million	R9.6 million	R26 million
Value of loans (micro individual, group and SME) disbursed.	R10 million	R35.5 million	R6 million	R10.8 million
Number of loans (micro loans, group loans and SME loans) issued to young entrepreneurs.	8,150	13,895	9,000	9,899

Source: Extracted from NYDA (2011, p.15; 2012, p.11)

The government's efforts to provide finance to SMEs has not been quantified to determine to what extent it has addressed the SME equity financing gap. However, Herrington et al. (2009) argue that these government-sponsored funds are poorly marketed to SMEs and tend to be concentrated in urban areas, which imply limited coverage of the South African SME sector. Additionally, Mgibisa (2007) argues that these government-sponsored funds may not be accessible to SMEs due to red tape, or SMEs may not satisfy the fund-specific requirements.

Innovation Fund

The government, through the Department of Science and Technology, established an innovation fund in 1999 to promote investment in technology seed and start-ups ventures. The innovation fund is managed by the National Research foundation and invests in late-stage research and development, intellectual property protection

and commercialisation of novel and inventive South African technologies (Herrington et al., 2009).

Kaplan et al. (2011) report that the innovation Fund offers three funding instruments namely Technology Advancement program, The Seed Fund, and the Patent Support Fund. These funding instruments cover a business idea from its conceptualization to the introduction of the product to the market and/or the registration of the intellectual property. Specifically, the technology advancement program supports research and development projects and provides a maximum funding of R5 million per year, over three years. The seed fund supports innovation in a particular technology, while the Patent Support Fund promotes intellectual property rights, and supports SMEs, research institutions, and techno-entrepreneurs through, loans, equity, loyalties and grants.

With respect to the performance of the innovation fund, Kaplan et al. (2011) found that although the innovation fund has sufficient funds to lend to technology seed and start-up ventures, the deal flow is low and the quality of fund applications is poor. The disbursement statistics for the period up to and including 2007/8, show that the innovation fund disbursed about one (1) billion rands. As these authors report, most of these disbursed funds went to the private sector (33%), the science councils (31%), and higher education institutions (28%).

Government Tax Incentive

Other government finance support to SMEs is a tax incentive to venture capital firms to invest in SMEs. The tax incentive is in form of a tax provision in section 12 (J) of the income tax Act 58, of 1962 which allows a tax deduction with respect to expenditures incurred in acquiring shares issued by a venture capital company (Kaplan et al., 2011). The tax incentive was introduced in 2008, and is in its early stages of implementation, so its impact is not known yet.

Government Non-financial Support Services

In addition to financial support, the government prepares SMEs for investment through non-financial support services provided by the Small Enterprise Development Agency (SEDA). SEDA's mandate is to provide business advice, consultancy, training and mentoring services in all areas of business development including business and technology incubation services (SEDA, 2011). With respect to technology incubation services, SEDA operates 29 incubators in several sectors including furniture, construction, information and communication technology, automobiles, chemicals, floriculture, small scale mining, and essential oils. The incubators provide small businesses with access to quality control, and assessment and training. Additionally, incubators make new technologies, and training on the use of these new technologies, available to SMEs (Kaplan et al., 2011)

The focus of this study is on the private venture capital and equity and the investment criteria used by private investors.

2.3 The Venture Capital and Private Equity Industry in South Africa

The South African venture capital and private equity industry is relatively new. While private equity investing in South Africa dates back to the 1980s when leveraged buy-outs driven by disinvestments of multinationals from South Africa were initiated, the South African Venture Capital and Private Equity Association was only formalised in 1999 (KPMG & SAVCA, 2001). The industry in South Africa is more developed in comparison to other developing markets and its participants invest in all stages of business development, from start-up venture capital funds through to late-stage and buy-out funds. Private equity is generally classified into three categories, namely, venture capital, development capital, and leveraged buyouts. Venture capital is a subset of private equity and consists of seed, start-up and early stage investments. Table 2.6 defines the various private equity investment stages in South Africa.

Table 2.6: Private Equity investment stages in South Africa

Private Equity Category	Stage of Business Development	Typical Application
Venture Capital	Seed Capital	Funding for research, evaluation and development of a concept or business before the business starts trading.
	Start-up and early stage	Funding for new companies being set up or for the development of those which have been in business for a short time (i.e. one to three years).
Development capital	Expansion and development	Funding for growth and expansion of a company which is breaking even or trading profitably.
Buyout	Leveraged buyout (MBO) or buy-in (MBI)	Funding to enable a management team or empowerment partner, either existing or new, and their backers to acquire a business from the existing owners. Buyouts are often leveraged.
	Replacement capital	Funding for the purchase of existing shares in a company from other shareholders through the stock market.

Source: Adapted from KPMG and SAVCA (2012, p.11)

The South African venture capital and private equity industry fund managers include 'independents', who manage funds on behalf of third parties; and 'captives', who manage on-balance sheet investments that were funded by a parent or group, often from an indeterminate pool of money. The industry has benefited from the global trend towards recognizing the private equity asset class as an attractive

investment vehicle for investors (Chen, Baierl & Kaplan, 2002; KPMG & SAVCA, 2009).

In addition, the positive growth trend experienced by the South African venture capital asset class between 2005 and 2009 proves that the South African economy can sustain a venture capital asset class (SAVCA & Venture Solutions, 2010). Moreover, researchers Missankov, Van Dyk, Van Biljon, Hayes and Van Der Veen (2008) found that the private equity class in South Africa displayed significant absolute returns and premiums, relative to conventional asset classes, and better risk-adjusted performance than other asset classes during the period 1992 to March 31, 2006.

Private equity and venture capital is recognized also by governments and development agencies as an effective means of economic development (UNCTAD, 1998). This is because private equity and venture capital builds sustainable businesses and increases private sector participation in the economy (DBSA & SAVCA, 2009). The funds under management in the South African venture capital and private equity industry have grown steadily between the years 2000 and 2011 as evidenced in Table 2.7. As of 31 December, 2011, South Africa's private equity and venture capital industry had total funds under management of R115.80 billion (KPMG & SAVCA, 2012) compared to 34.7 billion at 31 December, 2000 (KPMG & SAVCA, 2001).

Table 2.7: SA private equity and venture capital industry investment activity, in Rand billions

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total funds under management	34.7	35.9	37.0	39.3	39.7	42.5	59.2	86.3	109.4	105.4	114.2	115.8
Funds raised	1.7	1.2	1.3	4.9	2.3	2.2	14.5	15.4	10.6	3.8	11.4	8.3
Funds raised –Earlier stage (% of total funds raised)	0.7(41)	0.6(50)	0.2(15)	0.7(14)	0.0(0)	0.0(0)	0.0(0)	0.1(1)	2.1(20)	0.5(13)	0.2(2)	0.0(0)
Funds raised – Later stage (% of total funds raised)	1.0(59)	0.6(50)	1.1(85)	4.2(86)	2.3(100)	2.2(100)	14.5(100)	15.3(99)	8.5(80)	3.3(87)	11.2(98)	8.3(100)

Source: Adapted from KPMG and SAVCA (2001-2012).

As shown in Table 2.7, funds raised for earlier stage companies are very low compared to funds raised for later stage companies. The numbers shown in parentheses are the percentage of funds raised for earlier and later stages of business. Because seed and early stage companies are necessarily small businesses, the Table shows that there is little equity finance raised for SMEs.

Moreover, there has been a consistent trend of increasing deal sizes with an average investment deal size of R29.9 million during 2011 (KPMG & SAVCA, 2012). The high average deal size is mirrored in the minimum and maximum investment sizes of the fund managers in the South African venture capital and private equity industry. Appendix C demonstrates that only seven out of the 57 fund managers who participated in the 2010 survey can provide equity capital to SMEs that require less than R5 million in investment sizes. Additionally, Pinnock and Butler (2005) observe that most funds under management are invested in later-stage companies which is seen also in the South African venture capital and private equity industry fund commitments in the years from 2008 to 2011 (KPMG & SAVCA, 2012). Figure 2.1 diagrammatically shows the undrawn commitments by stage of investment in the South African venture capital and private equity industry.

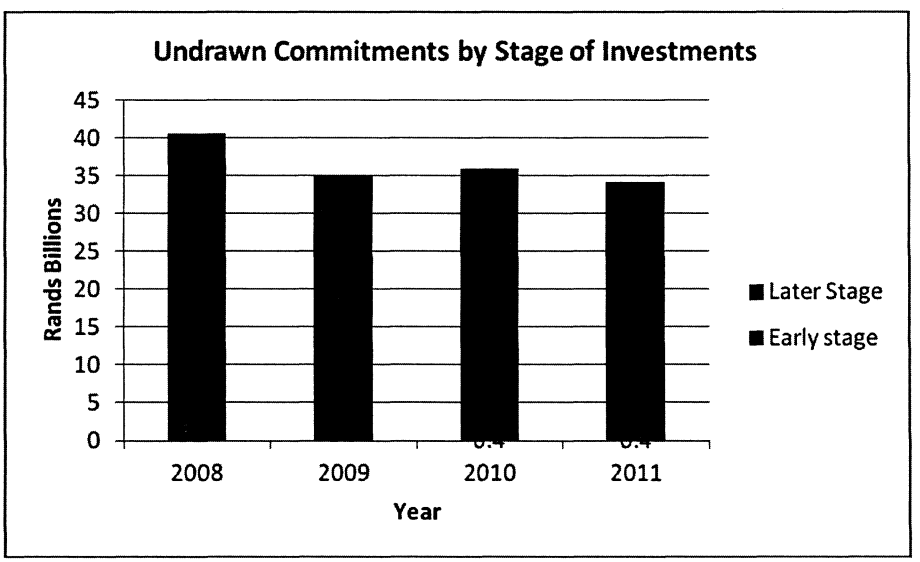


Figure 2.1: South African venture capital and private equity industry undrawn commitments by stage of investments [Adapted from KPMG and SAVCA (2012, p.20)]

As in the case of government-sponsored funds, the South African venture capital and private equity industry plays a significant role in black economic empowerment. This is evidenced by the number of transactions concluded in the industry over the years, as most of these transactions have a significant BEE component. For example, KPMG and SAVCA (2012) reported that captives-government and fund managers that are black owned, empowered or influenced, had R89 billion of funds under management at 31 December, 2011. This represents 76.9% of the total funds under management in the South African venture capital and private equity industry. Additionally, a majority of private equity fund managers have a BEE element to their own shareholding structure (KPMG & SAVCA, 2012).

2.4 The Need for SME Equity Finance

Small and Medium Enterprises (SMEs) form the growth driver of the world's largest economies and are driving much of today's global job creation (Malhotra, Chen, Criscuolo, Fan, Hamel & Savchenko, 2007). SMEs account for a substantial share of employment in many countries, and contribute significantly to national output. In addition, SMEs promote use of local raw materials requiring simple technology, promote innovation and technological development, and produce intermediate goods for large corporations (Hallberg, 2000; GC, 2003; Mason, 2005; Durrani & Boocock, 2006; Malhotra et al., 2007).

In South Africa, SMEs contribute between 52% to 57% of the GDP and about 61% of the total employment (Abor & Quartey, 2010). The capacity of SMEs to innovate, to adjust flexibly to changes in technology, to create jobs due to their labour intensive nature, and their ability to adapt to current needs of a country's economy, gives them a competitive advantage over larger firms. The growth of SMEs depends on the support available in form of financial assistance, management assistance, training and reduction of regulatory burdens (Acs, 2006). Although the SME sector is constrained by skills shortage, scarcity of capital goods, poor management, lack of data on the sector, and marketing difficulties, lack of finance is one of the major problems that contribute to slow development and high mortality rates of small businesses in South Africa (Ladzani & Vuuren, 2002; Sha, 2006; Mgibisa, 2007). South African SMEs are also under-capitalised and over-leveraged (ECI, 2003), a condition which precludes them from getting more debt before they have new equity.

Moreover, many black entrepreneurs lack the collateral and historical credit information required to secure bank loans. This is because during the apartheid era, black entrepreneurs were hindered from legally building up assets (Riley, 1993; Falkena, Abedian, Von Blottnitz, Coovadia, Davel, Madungandaba et al., 2001; Ahwireng-Obeng & Ncube, 2005; Mgibisa, 2007). SMEs tend also to have limited or erratic cash flows which makes the fixed payment schedule of debt financing inappropriate or unmanageable. In this situation, venture capital would be

a more suitable source of finance than debt finance (Falkena et al., 2001; ECI, 2003).

Venture capital provides growth capital for businesses and delays taking profits until the business can afford it (Zahralddin-Aravena, 1997; Winton & Yerramilli, 2008). Also, venture capital can help SMEs avoid the prohibitively high interest payments associated with debt. Hence venture capital facilitates the creation of sustainable businesses (Ojah, 2009). However, currently, the SME equity market is under-serviced and the demand for finance for SMEs continues to increase (IFC, 2008b).

Venture capital is appropriate for SMEs in South Africa because venture capitalists give investee companies active mentorship and support on sensitive internal business issues (Sapienza, 1992; Pratch, 2005; St-Pierre et al., 2011). As entrepreneurs are often inexperienced and have inadequate management skills, this support would promote growth of the SME sector and maximize the benefits of SME equity finance. Venture capitalists also can serve as a sounding board to the management team on a variety of key decisions in the life of a venture, and develop strong internal financial management procedures that will assist in monitoring financial and operating performance (Morris et al., 2000; Pratch, 2005; De Clercq, Fried, Lehtonen & Sapienza, 2006). In cases where businesses do not perform well, venture capitalists usually do an evaluation, and if necessary, replace

management. They may also put pressure on the entrepreneur to focus on attaining agreed objectives (Fried, Bruton & Hisrich, 1998; De Clercq et al., 2006).

In addition, venture capitalists bring large networks of contacts to their business investments that may benefit entrepreneurs with markets for products, provide additional financing opportunities, or other services (Pratch, 2005; Hochberg, Ljungqvist & Lu, 2007). The reputation of the venture capitalists - especially if they have been successful in previous investments - also boosts entrepreneurs' ability to persuade a variety of potential stakeholders to get involved. Examples may include: recruiting of top management, getting initial sales from key customers, attracting other investors and investment bankers, and/or winning acceptance in the public market in case of an exit (Pratch, 2005).

Venture Capital is important because it significantly reduces the time required to bring a product to market (Hellman & Puri, 2002; Popov & Roosenboom, 2013). Venture capital also enables the product to achieve sustainable market acceptance (Ojah & Mokoaleli-Mokoteli, 2010). Moreover, venture capital-backed firms create jobs at a faster rate than other firms (Adongo, 2006). In Europe, for example, venture capital reduced unemployment between 1991 and 1995, when net employment in European venture capital-backed companies increased by 15% annually, whereas net employment in 500 most profitable non-venture capital-backed European companies increased by just 2% annually in the same period (OECD, 2006b).

Additionally, in the US, employment by venture capital-backed companies increased on average by 25% every year from 1989 to 1993, while employment by non-venture capital-backed fortune 500 companies dropped by a yearly average of 3% during the same period (OECD, 2006b). Similarly, in Canada, a study by (GC, 2003) shows that, on average, between 1995 and 1999 among the venture capital-backed companies surveyed, employment increased by 39% annually, sales by 31% annually, exports by 38% annually and research and development expenditures by 52% annually. Finally, a recent study in South Africa found that private equity-backed companies achieved an average domestic employment growth rate of 10% per annum over the three-year period from 2005/6 to 2008/9, compared with 1% across all businesses (DBSA & SAVCA, 2009).

2.5 Obstacles to SME Equity Finance

One of the key factors constraining investment in the SME sector is the perception that SMEs are not profitable because of high transaction costs and high perceived risk (Falkena et al., 2001; AMA, 2004). The absolute return is much smaller than in large private-equity deals, and therefore, contributes much less to the fund manager's bottom line. Abereijo and Fayomi (2005) argue that the operating costs associated with lending a small amount discourage investors because the absolute profits from low-value investment are too small for large players. The associated risks for SMEs include the difficulty of assessing management skills, the lack of entrepreneurs' track records, excessively high transaction costs, and the

knowledge that investing in local SMEs often involves working with entrepreneurs unfamiliar with conventional financing relationships and business practices (Levy, 1991; Hallberg, 2000; Durrani & Boocock, 2006; EC, 2006).

The transaction and administration costs of equity finance are paid out from the investment returns. Transaction costs are the costs related to the technological and market appraisal incurred by the venture capitalists during the investment validation process. These costs are largely fixed and can be higher for SMEs because of the extra due diligence work needed as the financial and business records of SMEs are poor (Mason & Harrison, 2002; Mason, 2005; Eid, 2006). In addition, transaction costs are high because SMEs are small in size and investors have to invest in many SMEs to reach a sizeable investment (Lerner, 2002; Scheela & Chua, 2002; Patricof et al., 2005). Moreover, SME transaction costs are driven higher by investor operational costs where management lack necessary skills and experience (Sagari & Guidotti, 1992; Gray, Cooley & Lutabingwa, 1997; Kanniainen & Keuschnigg, 2004; Patricof et al., 2005). Furthermore, investors may be reluctant to invest in SMEs because SMEs require longer investment periods, and exits through initial public offerings are difficult (Patricof et al., 2005).

From the entrepreneur's side, the potential dilution of the founder's business interests and control of the enterprise prevents increased equity investment into SMEs (Sagari & Guidotti, 1992; Faber, 1996; Reitan & Sorheim, 2000; Eid, 2005; Silva, 2006). The failure of the entrepreneur and the investor to agree on price,

shareholding structure, and composition and power of board of directors (Mason & Harrison, 2002; Zacharakis, Erikson & George, 2010), is also an obstacle to SME equity finance access. Additionally, equity investors can be discouraged about extending finance to enterprises where the entrepreneur is unable to contribute equal or significant amounts of own equity into the business (Mason & Harrison, 2002).

The lack of SME investment readiness is another obstacle to SME equity finance because it contributes to a lack of convergence between the needs of the SMEs and those of investors (Barton Jr., 2012). The inexperience and low skills of SME management affect the quality of business proposals presented to investors because SME management is unable to articulate the venture's potential to the investor (Mason & Harrison, 2002; Mason, 2005; Eid, 2006; Herrington et al., 2009). Consequently, information asymmetry and due diligence costs increase, thereby, discouraging the investor (HM Treasury & SBS, 2003). SMEs' lack of knowledge of external sources of finance and the costs associated with securing equity finance are also obstacles to SME equity finance (HM Treasury & SBS, 2003).

Overall, the perceived risk attached to SMEs is high relative to the expected return. Hence, venture capital investors have no or few incentives to invest in SMEs. The conduct of the market today shows little incentive for private investors to commit to SMEs. In South Africa, the largest proportion of funds is being invested in larger

businesses. Specifically, investment is concentrated in expansion and development stages as opposed to seed capital and start-up deals. Figure 2.2 shows that a larger portion of investments is in expansion and development stages of business which are usually larger businesses.

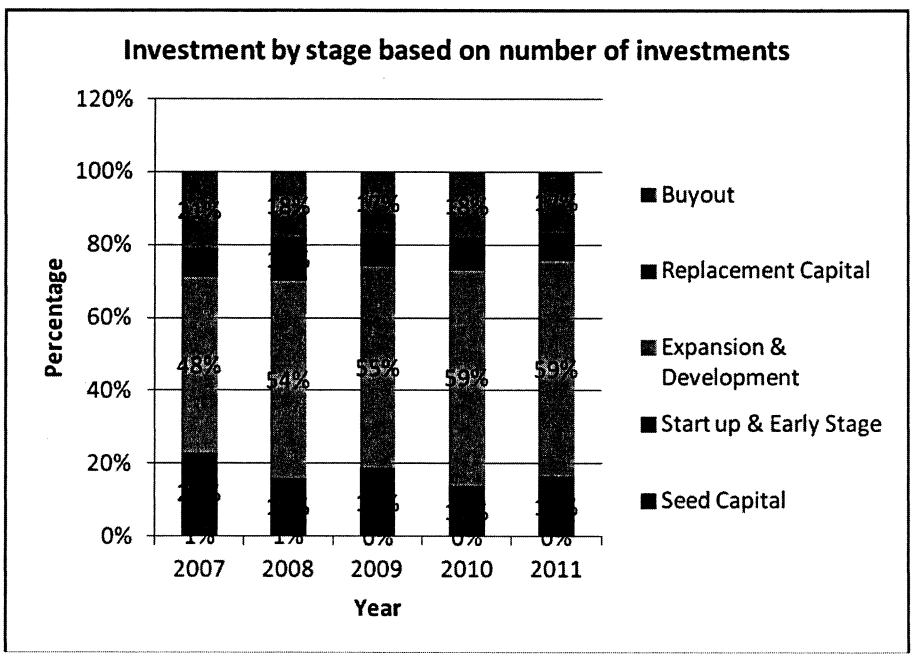


Figure 2.2: SAVCA investments by stage based on number of investments [Adapted from KPMG and SAVCA (2008-2012)]

This practice of investing in larger businesses has left SMEs without equity capital a situation which may have increased the SME equity financing gap.

2.6 Conclusion

This chapter discussed government-sponsored equity funds and the South African venture capital and private equity industry. The contribution of government-sponsored funds to SME equity finance has not been quantified, and therefore, it is

difficult to determine to what extent it has addressed the SMEs' lack of access to equity capital problem. Moreover, the analysis of the venture capital and private equity industry activities reveal a consistent trend of increasing investment deal sizes with the 2011 year average being R29.9 million. Fund raising and investments trends also reveal a focus on later stage companies. Overall, these practices contribute to lack of equity capital for SMEs and may hamper their ability to contribute to employment and economic development. The chapter also discussed obstacles to SME equity finance, i.e., lack of SME investment readiness, high transaction costs, and high perceived risk. These factors, although not explicitly described in the venture capital literature, inform the venture capital investment decision-making process. Chapter Three discusses the theoretical basis for this study.

CHAPTER 3

THEORETICAL FOUNDATIONS FOR THE RESEARCH

3.1 Introduction

This chapter examines relevant theories and reviews in detail the venture capital investment process. In particular, sub-section 3.2 discusses the agency theory, adverse selection, theory of contracts, corporate governance, moral hazard, and institutional theory. Sub-section 3.3 details the venture capital investment process, including: deal generation, initial screening, deal evaluation/due diligence, valuation, deal structuring, post-investment activities, and exit from investment.

3.2 Theoretical Foundations of Research into Venture Capital

Agency theory and the theory of contracts have particular relevance for research into venture capital. Within the principal-agent framework, adverse selection underpins the venture capital investment process and influences the techniques employed by venture capitalists to accept or reject investment proposals. The theory of contracts is discussed because it has a critical impact on the structuring of venture capital deals. Corporate governance and moral hazard are discussed in the context of monitoring venture capital investments. Finally, institutional theory is examined because of its particular relevance to developing countries where institutions are underdeveloped and pose real challenges to the conventional venture capital investment criteria.

Agency theory

Agency theory explains the relationship between the principal who delegates to another, who performs that work, or the agent. The agent acts on behalf of the principal. Eisenhardt (1989) argues that the fundamentals of agency theory are based on the existence of goal divergence between the principal and the agent, and the existence of hidden information either before or after the contracting of the agent. Venture capitalists act as agents with respect to their limited partner investors, and as principals with respect to entrepreneurs in their portfolio firms.

The principal-agent relationship can be affected negatively through adverse selection or moral hazard (Eisenhardt, 1989), especially when the agent may have private information, and an incentive to act in his/her own self-interest at the expense of their principal (Harrison & Harrell, 1993). In a developing country, where institutions are underdeveloped, agency problems make corporate governance very difficult due to lack of independent legal institutions (Dharwadkar, George & Brandes, 2000).

The asymmetric distribution of information between outside investors, 'who provide capital', and entrepreneurs, 'who control its use', creates two important problems which can raise the cost of venture capital. The first problem concerns ex-ante information regarding the quality of the firm seeking financing. When information regarding the quality of investments is asymmetrically distributed between potential investors and owner-managers, an adverse selection problem may arise leading to

a breakdown or a severe limitation of the market. The second problem involves the uneven distribution of ex-post information between investors and owner-managers concerning the behaviour of the latter. Given the agency relationship that exists between equity holders and firm managers, ex-post asymmetric information increases the risk of moral hazard by making it easier for entrepreneurs to pursue their own interests at the expense of investors (Sood, 2003).

Adverse Selection

Substantial information differences exist between entrepreneurs seeking equity finance and potential equity investors. Indeed, entrepreneurs or managers typically possess valuable information about the value of the firms' existing assets, and the return from new investment projects, which is not available to potential investors (Kanodia, Bushman & Duckhaut, 1989). This information asymmetry can be caused by an inadequate supply of information. Because regulation does not require SMEs to comply with stringent financial information reporting requirements, their financial information remains generally private and unavailable to potential investors (Adongo & Stork, 2006). In addition, because of their newness, smaller enterprises tend to have relatively unsophisticated information and accounting systems, and usually lack a good track record of their past performance. This information problem is exacerbated by the reluctance of entrepreneurs to disclose information to outsiders that might promote their self-interest or for fear of compromising the firm's competitive edge (Cardis, Kirschner, Richelson, Kirschner & Richelson, 2001).

Information asymmetry also may exist because of defectiveness in the demand for information. The relatively poor quality of information available on SMEs makes it difficult and expensive for potential investors to gather information in order to assess the value of the SMEs seeking equity finance (ECI, 2003; Abereijo & Fayomi, 2005). Additionally, financial intermediaries such as analysts or rating agencies --who can provide independent information on SMEs -- are not interested.

Despite the challenge of information asymmetry, venture funds have expertise in backing project proposals that uninformed outsiders would reject (Admati & Pfleiderer, 1994; Amit et al., 1998). This is because fund managers can develop or introduce more complete information systems that, in turn, may eliminate private information (Harrison & Harrell, 1993). Venture capitalists also are able to identify sources of information that help them to ascertain the true characteristics of entrepreneurs and to assess the true value of proposed ventures (Jensen & Meckling, 1976).

Thus, the potential for adverse selection is reduced by the venture capitalists' information-gathering skills, specialist knowledge of particular industries and expertise in selection (Berger & Udell, 1998). Eisenhardt (1989) argues that the approximation of full information also reduces adverse selection problems. Additionally, diligent pre-investment screening enhances the perceived

effectiveness of the post-investment control mechanisms (Koryak & Smolarski, 2008).

Theory of contracts

Contracts specify the rights of the agent, the performance criteria by which the agent is evaluated and the payoff functions the agent faces (Fama & Jensen, 1983). It is the contracting technology that permits the venture capitalists to perform their dual role of agent and principal (Barry, 1994). Due to information asymmetry, the venture capital deal must be structured with great care and attention (Durrani & Boocock, 2006). Eisenhardt (1989) notes that, an outcome-based contract influences behaviour indirectly by aligning the interests of an agent, and the principal, thereby minimizing the risks involved in venture capital investments.

Venture capitalists tackle agency risks by utilizing stringent contractual provisions in complete contracts (Fiet, 1995). Durrani and Boocock (2006) note that venture capital contracts normally include restrictions on further fund raising without prior approval, place limits on board representation and on the appointment of auditors and/or key employees, and impose anti-dilution clauses to ensure that additional shares are not sold to new investors without the consent of the initial investor(s). Venture capital funds are usually invested in stages as certain milestones are achieved.

Corporate Governance

Corporate governance is the sum of the mechanisms by which owners of a firm exercise control over management to protect their interests (John & Senbet, 1998). Gompers (1995) argues that corporate control is a fundamental concern for investors because they want to control the functioning of the company to protect their investments. With better investor protection, firm valuation is improved (La Porta, Lopez-de-Silanes & Shleifer, 1999; Agrawal, 2013). Hence control issues are especially important in countries with a low level of investor protection or in countries where the principles of good corporate governance are not yet fully developed. Overall, common law provides the best protection to investors; while French law provides the least protection (La Porta, Lopez-de-Silanes, Shleifer & Vishny, 1998).

Phan and Yoshikawa (2006) argue that venture capitalists have a right to board representation as part of involvement in management of a company. Typically, venture capitalists hold effective control over the board through a voting majority, and sometimes through explicit contractual agreement (Hellmann, 1998). For example, a super-majority requirement for major decisions (Zeng, 2004). The venture capital fund representative to the board may have the power to replace the CEO of the company in certain circumstances. Gompers (1997) found that the control rights received by venture capitalists are greater when the problem of asymmetric information is larger (Kirilenko, 2001).

In situations where venture capitalists take a minority share of the company's shares, they negotiate for a majority share in control and cash flow rights to protect their investments. The Nenova (2003) study found that minority shareholder rights are effectively upheld by a refined legal framework reinforcing the fact that venture capitalists do not have to own majority shares to own control rights. Control rights matter because the controlling party is allowed to make decisions when conflict of interests exist (Hellman, 1998) which are likely in a principal-agent relationship.

The choice of financing instrument to structure a deal also affects the allocation of control, and it normally depends on the most effective type of governance structure. This structure includes entrepreneur control, contingent control, and investor control (Aghion & Bolton, 1992). Venture capitalists prefer a governance structure that increases investor control. As the control issues are very important in venture capital financing, financial contracts between venture capitalists and entrepreneurs include detailed descriptions on how control rights are divided. Kaplan and Strömberg (2003) note that in venture capital finance, cash flow rights, board rights, voting rights, liquidation rights, and other control rights are separately allocated and that allocation of control rights between venture capital and entrepreneur is a central feature of the financial contract.

Control rights give venture capitalists veto rights over certain decisions which are unrelated to the board rights. Many contracts include also mandatory redemption rights, which allow the investors to effectively sell their shares back to the company

at the face value (Gompers, 1997). The use of vetoes and additional clauses enables venture capitalists to obtain considerable control over the company even if minority share is taken or non-voting equity or convertibles are used.

Additionally, the provision of financial information is a crucial aspect of corporate governance. It bridges the information asymmetry between entrepreneurs and external fund providers and provides a check on the stewardship of the company by the entrepreneur and his/her management team. A key role of the non-executive directors is to monitor the provision and accuracy of financial information, thereby reducing the incidence of fraud, whether deliberate or caused by incompetence (Millson & Ward, 2005; Durrani & Boocock, 2006). Hence governance is correlated with the extent of the asymmetric information and contracting imperfections that venture capitalists face in their investment activities (Klapper & Love, 2004).

Venture capitalists also act as agents of their suppliers of finance. In such circumstances, the suppliers of finance exercise power through the governance mechanisms imposed on the venture capital fund (Durrani & Boocock, 2006; Scheela, 2006).

Moral Hazard

The problem of moral hazard stems from information asymmetry and constitutes a prime concern of corporate governance (Durrani & Boocock, 2006). Moral hazard

is a hidden action motivated by self-interest. At the post-investment stage, the venture capitalist has to ensure that the entrepreneur does not pursue objectives that bring the firm into conflict with the venture capital fund. The problem of moral hazard is prevalent in early stage investments in sectors where assets are largely intangible, and the firm faces a number of growth options (Amit et al., 1998).

Agents often have different attitudes towards market risk and, therefore, may pursue different actions to achieve their objectives (Leah & Melicher, 2003; Durrani & Boocock, 2006; Scheela, 2006). When an agent has private information about the projected future performance of a project, the principal is unable to completely monitor the agent's actions, and therefore information asymmetry prevails (Barako, Hancock & Izan, 2006). In such circumstances, venture capitalists reduce information asymmetry by demanding more detailed accounting information than is normally statutorily required for quoted companies (Sweeting, 1991a; Mitchell, Reid & Terry, 1995). Venture capitalists also require more frequent reporting, which can inform them to cut-off new financing in light of negative information about future returns. In the case of successful transactions, however, venture capitalists provide more financing and a greater number of rounds of financing (Gompers, 1995). The venture capitalists' skills applied in structuring the transaction and monitoring the investment minimize moral hazard problems.

Institutional Theory

North (1990, p.3) defines institutions as "the rules of the game in a society... the humanly devised constraints that shape human interaction". According to World Bank (2003, p.37), institutions "coordinate human behaviour, and are essential for sustainable and equitable development". Thus, institutional theory explains the impact that contextual systems have on organizational behaviour and economic performance (North, 1990; Hoskisson, Eden, Chung & Wright, 2000). Institutional theory can be used to better understand organizational performance in developing countries (Hoskisson et al., 2000). For example, organizations operating in developing countries face increasing bureaucratic and information processing costs. Under-developed institutions, particularly, weak legal systems, inefficient financial markets, and unstable political structures are the usual reasons for this (Peng & Heath, 1996). Unlike developing countries, the legal and financial institutions in developed countries are usually more developed and transparent (Pissarides, 1999; Ramamurti, 2000), hence, bureaucratic and information processing costs are much lower.

The role of institutions is to reduce information and transaction costs and establish a structure that facilitates interactions (Hoskisson et al., 2000). Because the institutional framework in developing countries is not fully developed, organisations experience higher transaction costs compared to their counterparts in developed countries (North, 1990). The lack of effective institutions also negatively affects

entrepreneurial potential (Bohata & Mladek, 1999; Zahara, Ireland, Gutierrez & Hitt, 2000), and increases the likelihood of agency problems (Dharwadkar et al., 2000).

3.3 Venture Capital Investment Process

To understand the venture capital investment process, one needs to understand how the venture capital market works. The venture capital market involves three parties: the investors, the venture capital firms, and portfolio companies. As noted under agency theory, venture capitalists (venture capital firms) act as agents with respect to their limited partner investors and as principals with respect to entrepreneurs in their portfolio firms. The venture capital firms usually raise capital from investors and invest it in portfolio companies. Venture capital is meant to fill the void between sources of funds for innovation and traditional, lower-cost sources of capital available to on-going concerns (Zider, 1998). Success is achieved with consistently superior returns on investments in portfolio companies. To address the problems of lack of capital and poor managerial experience in developing countries, venture capitalists offer both equity capital and managerial experience (Tykvova, 2007). Figure 3.1 shows the roles of the investors, venture capital firms and portfolio companies in the venture capital market.

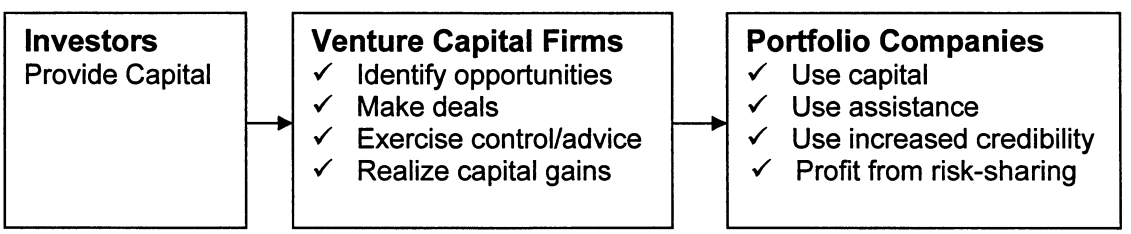


Figure 3.1: The venture capital market: Adapted from Tykvova (2007, p.66)

The venture capital investment process comprises a number of distinct stages. The works of many researchers including Tyebjee and Bruno (1984), Sweeting (1991b), Fried and Hisrich (1994), Silva (2004), and Klonowski (2007) have analyzed the decision criteria involved in each stage of the venture capital investment process. The number of stages identified range from five to nine. The highest number of stages -- in this case nine -- is practiced in developing countries because of underdeveloped institutions (Klonowski, 2007). Table 3.1 summarises some of the research on the venture capital decision-making process stages.

Table 3.1: Venture Capital Investment Process Stages

Tyebjee and Bruno (1984)	Fried and Hisrich (1994)	Boocock and Woods (1997)	Bliss (1999)`	Silva (2004)	Klonowski (2007)
Five stages	**Six stages**	**Seven stages**	**Five stages**	**Five stages**	**Nine stages**
Deal origination	Origination	Generating a deal flow	Origination	Deal origination	Deal Generation
Deal screening	Venture Capital Firm-Specific Screen	Initial screening	Generic screen	Informal screening	Initial screening
	Generic screen	First meeting		Formal screening	
Deal evaluation	First phase evaluation	Second meeting	First phase evaluation	Evaluation	Feedback from Investment committee (Due diligence phase I)
		Board presentation			
	Second phase evaluation	Due diligence	Second phase evaluation		Feedback from Supervisory Board (Due diligence phase I)
Deal structuring	Closing	Deal structuring	Closing	Closing	Pre-approval completions
					Formal approvals & Due diligence phase II
					Deal completion
Post-investment activities					Monitoring
					Exit

Source: Researcher's own construction based on literature review

The venture capital investment process consists of multiple stages, namely, deal origination, screening, evaluation, structuring, monitoring and exit at the appropriate time. The screening and evaluation stages are crucial to the selection of an investment project while the monitoring is the post-investment stage where the venture capitalists exercise their uniqueness as providers of finance through value adding activities. Venture capitalists consider specific factors aimed at reducing risk and costs at each stage of the investment process. These factors may differ considerably from one stage of the decision-making process to another (Hall & Hofer, 1993). The following sections analyse the various stages and highlight the factors considered before a prospective investment is moved to the next investment stage.

3.3.1 Deal Generation

Venture capital firms receive investment opportunities from two main sources - unsolicited deal flow, and personalized networks (Tyebjee & Bruno, 1984; Fried & Hisrich, 1994). The quality of deal flow from personalized networks such as bankers, lawyers, entrepreneurs and other venture capital funds are considered to be superior to unsolicited deal flows. Klonowski (2007) observes that venture capital firms in Central and Eastern Europe rely on their relationships with such service providers as investment bankers, brokers, consultants and lawyers, to obtain leads on deals. Very few deals are obtained through active soliciting (Feeney, Haines & Riding, 1999) and the proactive identification of deals focus on

companies in their later stages of development (Lockett & Wright, 2002; Wiltbank, 2005; Scheela, 2006).

Referrals are preferred by venture capitalists because they often result in high quality deals. These deals meet the venture capital firm's investment focus or general guidelines (Ribeiro & Tironi, 2006). Additionally, these deals are perceived as less risky because those who present the venture capitalists with an investment proposal tend to preserve their reputation and therefore venture capitalists tend to spend less time checking such proposals. Deal generation in developing countries is hindered by the lack of an established network of referrals although it is partially offset by pro-active solicitation methods (Bliss, 1999). Moreover, significant and quality deal flow is difficult to find in developing countries because the sources of deal opportunities are deficient (Patricof et al., 2005; Deloitte, 2007). Thus, the SME equity financing gap widens when venture capitalists do not receive, or reject SME funding requests.

3.3.2 Initial Screening

Prospective projects seeking venture capital funding are required to submit a detailed business plan. Using the business plan document, the screening process reviews the business plans against a set of investment criteria and filters out majority of business proposals that do not meet the venture capital firm's investment criteria (MacMillan, Zemann & Subbanarasimha, 1987; Fried & Hisrich, 1994). The screening investment criteria focus on the investment size, geographic

location, industry, and stage of financing (Klonowski, 2007). Fried and Hisrich (1994) indicate that these screening investment criteria eliminate business proposals that clearly do not meet the venture capital firm's requirements.

The screening stage is a cursory glance at the business plan without a detailed analysis of the proposal (Fried & Hisrich, 1994). The business plan is therefore a key consideration in the decision to accept or reject a proposal at the initial screening stage. The business plan has to meet the venture capitalists' specific criteria in terms of investment focus and general guidelines (Mason & Stark, 2004). Consequently, quality business proposals can assist venture capitalists overcome the asymmetric information that surrounds a deal, and reduce due diligence costs.

Boocock and Woods (1997) note that missing information in the business plan is a major reason for project rejection at the initial screening stage. Business proposals also are rejected because they either lack adequate information (Christensen, 2003) or are poorly presented to potential investors (Patton, Marlow & Sanghera, 2005). Most SMEs in developing countries do not have business plans, and many have two or three sets of accounting records. Because of the lack of quality business plans, and poorly presented financial statements and projections, venture capitalists lose confidence in the entrepreneurs and financial projections. Therefore, most SME projects are rejected and this contributes to the SME equity financing gap.

3.3.3 Deal Evaluation/Due Diligence

The evaluation stage involves intense venture capitalist time and effort in assessing the business proposal. Those deals which pass the initial screening stage are scrutinized in detail in a process which involves the gathering of information from inside and outside sources, and through a series of meetings with management and review of financial statements. This stage may involve also interviews with suppliers, customers, bankers, other investors and industry experts. The venture capitalist has to rely on a largely subjective assessment procedure based upon the business plan presented by the venture's management team (Tyebjee & Bruno, 1984).

Tyebjee and Bruno (1984) found that venture capitalists compare risk against return before they decide whether to invest in a particular deal or not. But few venture capitalists formalise this assessment into a computation of an expected rate of return or determine its sensitivity to future uncertainties. Instead, the decision-making process seeks to subjectively assess the venture on a multi-dimensional set of criteria. These criteria focus on market attractiveness (as represented by market size, growth, and its accessibility), product differentiation (which combines the uniqueness of the product, the profit margin, and its ability to be patented), entrepreneur, venture management team, and financial considerations. These criteria are explained in detail as follows.

Market attractiveness

Market attractiveness depends upon the size, growth, and accessibility of the market; and on the existence of a market need for the venture (Tyebjee & Bruno, 1984). When evaluating a potential investment, venture capitalists consider several aspects of the market such as: familiarity with the market, limited competition, size of the market, stimulation of existing market, a high market growth rate, and an industry capable of long-term growth and profitability (MacMillan, Siegel & Subbanarasimha, 1985; MacMillan et al., 1987; Hisrich & Jankowicz, 1990; Hall & Hofer, 1993). Douglas and Shepherd (2002) argue that favourable results from properly conducted market surveys, consumer clinics, and test market experiments indicating existence of a substantial demand for the product/service by the target market at the proposed price level, is a 'green light' that the new venture is market ready. The existence of a growth market assures the venture capitalist that the venture will grow and possibly achieve a profitable exit opportunity.

Studies of venture capital investment criteria in developing countries show that venture capitalists consider similar characteristics for market attractiveness as those considered in the developed world. Specifically, venture capitalists consider such characteristics as high market growth, little threat of competition during the first three years, large size of the market, familiar market, and creation of a new market by the venture (Chotigeat et al., 1997; Mishra, 2004). For example, in Singapore, venture capitalists look for a significant growth rate in the target market (Zutshi, Liang, Allampalli & Gibbons, 1999). From a risk perspective, Gupta,

Chevalier and Dutta (2003) also identify such risk factors as market growth rate, competitors, and lack of market assurance, as influencing the venture capitalist's decision to invest. This practice indicates that as venture capitalists enter developing countries, they have not adapted their investment criteria to the different market conditions. This practice may increase the SME equity financing gap.

Product or service factors

Product or service differentiation is determined by the ability of the entrepreneurs to apply their technical skills in creating a product or service which is unique, can deter competition through patents and enjoy a high profit margin. That is, the new product or service can be mass-produced at a unit cost that allows sufficient profit at the envisioned price level (Tyebjee & Bruno, 1984; Hisrich & Jankowicz, 1990; Douglas & Shepherd, 2002). Macmillan et al. (1985, 1987) and Douglas and Shepherd (2002) argue that the product must be proprietary, be accepted in the market, have an existing prototype that was successfully tested for durability and reliability, and is also a high-tech product. Generally, projects with high technology are favoured by venture capitalists (Pintado, Lema & Auken, 2007). Proimos and Murray (2006) argue that venture capitalists put an extra effort to ensure that any proprietary technology has adequate intellectual property protection to protect the venture's competitive advantage.

Venture capitalists in developing countries also consider similar product/service factors as those considered in the developed world. Chotigeat et al. (1997) observe that a high tech product, uniqueness of the product, a product developed from a successfully tested prototype, demonstrated market acceptance of the product, and resistance to economic cycle, are important factors venture capitalists consider in the decision-making process. A good market acceptance of the product/service is also important when deciding which projects to invest in (Zutshi et al., 1999; Deventer & Mlambo, 2009).

Entrepreneur

Almost identical entrepreneurial factors are considered in both developed and developing countries. These factors mostly refer to personality and experience of the entrepreneur, including the entrepreneur's ability to evaluate and handle risks. Venture capitalists prefer entrepreneurs who have a thorough familiarity with the target market or industry, demonstrated leadership capability, and a track record that is relevant to the venture (MacMillan et al., 1985; Chotigeat et al., 1997; Zutshi et al., 1999).

In addition, the integrity and openness of the entrepreneur and the reputation of the entrepreneur as known by the fund manager's networks, contribute to the investment decision process (MacMillan et al., 1985; Chotigeat et al., 1997; Feeney et al., 1999; Gupta et al., 2003; Pintado et al., 2007; Deventer & Mlambo, 2009). MacMillan et al. (1985) argue that it is the quality of the entrepreneur that

ultimately determines the investment decision. Moreover, the venture capitalist's level of confidence in the entrepreneur determines the level of financing delivered to the venture (Payne, Davis, Moor & Bell, 2009). Venture capitalists perceive that a choice of a good entrepreneur minimizes the problem of moral hazard.

Venture management factors

Venture capitalists look for strong managerial capabilities such as: appropriate management acumen, prior experience in the same or related industries and markets, prior start-up experience, a strong commitment to the launch, and growth of the new venture (Douglas & Shepherd, 2002; Proimos & Murray, 2006). Additionally, the top management team is collectively expected to have experience and qualifications across the range of business and technology areas that are needed by the particular new venture under consideration (Chotigeat et al., 1997; Douglas & Shepherd, 2002). Tyebjee and Bruno (1984) argue that marketing, finance, and management skills are important for the effective running of a business. With these skills venture management are able to prepare financial information, thus, reducing the information asymmetry problem.

MacMillan et al. (1985, 1987) argue that investors look also for a balanced management team with relevant qualifications and experience. Additionally, Robinson (1987) observes that a motivated management team with organizational skills and managerial experience is important in the project selection process. Later studies also support the earlier research findings regarding the qualification, skills

and experience of the management team (Hisrich & Jankowicz, 1990; Hall & Hofer, 1993; Chotigeat et al., 1997; Pintado et al., 2007). Fried and Hisrich (1994) also emphasise personal integrity, hardworking, realistic, flexibility and leadership characteristics of management teams as important factors in venture capitalists' project selection. Studies in developing countries similarly emphasise that the venture management team must possess a combined range of skills including technical, managerial, financial and marketing skills (Chotigeat et al., 1997; Mishra, 2004).

Financial considerations

Mason (2006) argues that the purpose of performing financial analysis is to ascertain the value of the business, and to assess whether the investment is likely to generate the required rate of return. Studies in developed countries have identified such factors as the potential for a high rate of return and high investment liquidity, as important financial considerations in the venture capitalists decision making process (MacMillan et al., 1985; Fried & Hisrich, 1994). A profitable exit opportunity is also an important factor when evaluating an investment opportunity (Fried & Hisrich, 1994; Feeney et al., 1999; Pintado et al., 2007).

Similarly, studies in developing countries indicate that venture capitalists consider factors such as high expected return (over 25%); venture can easily be made liquid, and has exit opportunities, when deciding which ventures to invest in (Chotigeat et al., 1999; Zutshi et al., 1999; Gupta et al., 2003; Mishra, 2004;

Deventer & Mlambo, 2009). Because SMEs do not have adequate financial information, any calculated expected returns may be unverifiable and unreliable depending on assumptions made regarding future cash flows, risk analysis and discount rates. Consequently, the determined expected rate of return is often low compared to venture capitalists' expectations and has resulted in many good investment opportunities being rejected (Goedhart & Haden, 2003). Thus, the rejection of projects may have led to an increase in the SME equity financing gap.

3.3.4 Valuation

Valuation is the process of placing a monetary value on an investment opportunity. The degree of uncertainty in achieving future expectations at the time and in the amounts expected influences the discount rate applied in evaluating projects for investment. The required rate of return demanded by an investor depends both on the characteristics of the project and the type of financing instrument used (Koomagi & Sander, 2006). Determining the cost of venture capital can be a complicated endeavour due to the mix of financing instruments used.

Finance theory recommends the use of the Capital Asset Pricing Model (CAPM) when estimating the cost of equity used in valuing companies. The CAPM determines the required return as the sum of the long-term risk free interest rate, and the difference between the expected return of the stock market and the long term risk free interest rate (Wright & Robbie, 1998). Although CAPM has some fundamental and technical issues (Ferson & Locke, 1998; Fama & French, 2004;

Fernandez, 2008), as discussed below, it is widely used still in estimating the cost of equity (Bruner, Eades, Harris & Higgins, 1998; Graham & Harvey, 2001; Pereiro, 2002, 2006), and is still relevant in the field of finance (Perold, 2004).

Because of the new ventures' short operating history and limited accounting information, extant financial valuation approaches which rely heavily on accounting information face a lot of challenges. Moreover, little theoretical and experiential information is available to guide the analyst in selecting the appropriate cost of capital to use in discounting expected cash flows from venture capital investments. Although finance theory recommends the use of CAPM, Koomagi and Sander (2006) argue that it is difficult to use CAPM in venture capital projects because of the following shortcomings:

- Investments are made to private companies and therefore liquidity risk exists.
- It does not capture unsystematic risk which is much greater due to technological risks and diversification may not be an option as the entrepreneur is sometimes forced to invest most or even all his wealth into one project.
- The risk and the required rate of return depend on the stage of the project.
- Using staged financing instead of lump sum financing reallocates the risks between entrepreneurs and venture capitalists and thus, may affect the cost of outside equity.

- The distribution of control and voting rights does not correspond to the distribution of cash flow rights. This affects the risk taken by a venture capitalist and the required rate of return.

Although finance theory has tried to adjust the CAPM for use in venture capital projects, practitioners use a completely different approach because beneath the general agreement about cost of capital theory lies considerable ambiguity and confusion over how the theory can best be applied. For this reason, Sahlman (1990) argues that, setting appropriate discount rates is an integral part of the complex process of reducing adverse selection and wider agency problems.

Moreover, finance theory indicates that investors require a return determined as a function of the non-diversifiable risk of the investment (Brealey & Myers, 1996). In principle, the higher the risk, the higher the required rate of return expected by the investor. Despite the acceptance of this principle in conducting investment analysis, venture capitalists use different practices in different countries (Manigart, Wright, Robbie, Desbrieres & De Waele, 1997). Further, similar systems and venture capital markets place varying emphases on different valuation methods with theoretically 'correct' methods not always being preferred in practice (Manigart, De Waele, Wright, Robbie, Desbrieres, Sapienza et al., 2000).

As Dittmann, Maug and Kemper (2004) observe, valuation methodologies have a statistically and economically meaningful impact on the investment performance of

venture capitalists. Therefore, the proper choice of valuation method and the correct application of methodology are important. Although there are several valuation methods advocated by practitioners and academics; sometimes these methods conflict, and sometimes they complement each other.

Discounted cash flow (DCF) analysis is often recommended for valuation of venture capital valuations because DCF offer a greater degree of theoretical validity (Brealey & Myers, 1996; Manigart et al., 1997; Brigham, Gapenski & Daves, 1999). These valuation methods include the dividend discount model, free cash flow to firm model, free cash flow equity model, adjusted net present value model, Net Present Value (NPV), and Internal rate of return (IRR). These methods apply the concept of time value of money and require estimation of expected cash flows and discount rates. In reality, however, it is difficult to obtain accurate information on private companies so as to estimate cash flows and discount rates; hence, DCF based valuations are useful as a cross-check of values estimated under market-based methodologies such as earnings capitalization and market multiplicators.

Notwithstanding the challenges venture capital firms face when using standard valuation methods, a major issue relates to the information inputs into those techniques (Wright, Lockett, Pruthi, Manigart, Sapienza, Desbrieres et al., 2004). In addition, access to valuation information poses a particular problem in venture capital operations because the information is not publicly available (Wright &

Robbie, 1998). Venture capitalists, as a result, take a more active and interventionist role in the venture decisions and are able to collect independent information (Manigart et al., 1997; Karsai, Wright, Dudzinski & Morovic, 1998; Manigart et al., 2000; Durrani & Boocock, 2006). This information may then be supplemented by information presented on the business plan, financial reports, product characteristics, and marketing information. To address potential adverse selection problems, venture capitalists use a wide range of accounting and non-accounting information and techniques (Wright & Robbie, 1996).

Moreover, the valuation of venture capital projects in developing countries is even more complex due to lack of standardized methods for determining discount rates, and SMEs accounting information is limited. These obstacles may demand alternative approaches to assessing the projects potential so that projects with high potential access SME equity finance.

3.3.5 Deal Structuring

Once the decision to invest is made, the next stage is for the venture capitalist and the entrepreneur to negotiate the terms and conditions of the investment. Deal structuring refers to the "set of arrangements negotiated between the entrepreneur and the venture capitalist with the objective of reconciling the different needs and concerns of the two parties with respect to a specific venture capital deal" (Sagari & Guidotti, 1991; p.13). The deal contract terms specify, among other things, control rights, the division of any returns, the kind and mix of financial instruments

to use, and the circumstances in which debt can be converted into equity (Berglof, 1994; Sagari & Guidotti, 1991, 1992). When negotiating an investment deal, a venture capitalist's aim is to be able to control corporate decisions, minimize potential agency costs and risk (Mason, 2006). The deal is intended to give venture capital investors sufficient downstream protection and a favourable position for additional investment or exit (Zider, 1998).

Because deal structuring has a direct effect on the performance of a venture capital investment, and the entrepreneur's capabilities are unknown at the time of contract negotiation or the start of investment (Chan, Siegel & Thakor, 1990), venture capitalists are motivated to use risk reduction mechanisms to encourage entrepreneurs to perform and also to reveal accurate information. If entrepreneurs perform, then venture capitalists are assured of earning their target rates of return. Venture capitalists apply various control mechanisms in structuring deals including choice of financial instrument, staged capital infusion, syndication, separation of ownership and control rights, and portfolio diversification. These control mechanisms are explained in detail as follows.

Choice of financial instrument

The type of financial instrument used in a venture capital operation is crucial because it embodies the basic contract between the venture capitalist and the entrepreneur (Sagari & Guidotti, 1991; Aghion & Bolton, 1992). The financial instrument's design is usually a response to expected agency problems (Cumming,

2005). The choice of the specific instrument is dependent upon the type of firm financed, the venture capitalist's philosophy, and his/her concerns. The legal and business regulations specific to a country also affect the type of financial instrument used. Ultimately, the venture capitalist makes sure crucial issues, such as liquidity of the investment, protection of the investment, and the control of the business are adequately covered in the contract.

The legal regime, contract enforcement efficiency, and other institutional features defining the conditions of a market may determine also the type of financial instrument to use in financial contracting (Cumming, 2005; Ribeiro, 2007a). Studies by Lerner and Schoar (2004, 2005) concluded that high contract enforcement, common law nations, foster an investment climate where convertible preferred stock with covenants can be used by private investors while in low enforcement, civil law nations, private equity groups tend to use common stock and debt, and rely on equity and board control.

Convertible securities dominated by preferred stock are the financial instruments most favoured in venture capital funding (Sahlman, 1990; Sagari & Guidotti, 1991; Norton & Tenenbaum, 1992, 1993; Trester, 1998; Kaplan & Strömberg, 2003). Gompers (1997) argues that convertible securities are widely used by venture capitalists because they offer an effective solution to governance problems in venture capital investment. Convertible securities facilitate the separation of control and cash flow rights enabling the venture capitalists to monitor the firm without

correspondingly reducing the managers' share of profits, a step that would undermine management incentives (Gilson & Schizer, 2003).

Green (1984) suggests that convertible securities also can be used to reduce the problem of excessive entrepreneurial risk taking, arising when a straight debt is used. Convertible securities reward the entrepreneur when the enterprise performs well and act as a discipline mechanism when the enterprise performs poorly. Cornelli and Yosha (2003) argue that use of convertible securities reduce "window dressing" activities through the threat of the venture capitalist exercising the conversion option and becoming the owner of a substantial fraction of the project's equity. Also, convertible securities can facilitate efficient investment without making both parties (entrepreneur and venture capitalist) residual claimant on the margin (Schmidt, 2003). The combining of convertible preferred securities and staged capital infusion, mitigates information asymmetry and agency problems in venture capital operations (Cornelli & Yosha, 2003).

Staged Capital Infusion

Staged capital infusion is a control mechanism which enables venture capitalists to divide their investments into various stages of the venture's life. Neher (1999) notes that the early round of investment, creates collateral that supports later rounds, because the venture capitalist then has history from the first round to rely on when making decisions for later rounds. Staged capital infusions are the most potent control mechanism a venture capitalist can employ to manage agency risk

because they allocate risks between entrepreneurs and venture capitalists in a beneficial way to both parties (Sahlman, 1990). As the risks associated with the project (and required rate of return) decrease during the lifecycle of the project, staging capital infusion results in greater ultimate ownership for the entrepreneurs. Apart from reducing risks, staged financing also controls moral hazard (Wang & Zhou, 2004).

In addition, staging capital infusion allows the venture capitalist to gather information and monitor progress of firms while maintaining the option to periodically abandon projects (Gompers, 1995). This is a real option because major decisions and evaluations are made at the end of each funding stage, and negative information about future returns could cut off new financing. Specifying agreed-upon developmental objectives for a specific round of funding can provide objective measures for subsequent evaluation of investee performance, and help to focus maximum investee effort on critical objectives that must be achieved before the venture can move forward (Ruhnka & Young, 1991).

Syndication

Another control mechanism used by venture capitalists is syndication. Syndication refers to the situation where two (or more) venture capital firms participate together in an investment opportunity. Syndication can provide a valuable second opinion that leads to better decision making during project selection (Sah & Stiglitz, 1986; Bygrave, 1987; Lerner, 1994). In this respect, through information sharing,

syndication significantly mitigates problems of adverse selection (Cumming, 2006). Given this hindsight, venture capitalists tend to choose experienced venture capitalists to syndicate investments in the early stages of the enterprise when information asymmetry is the greatest; they are less selective in their syndicated partners as the enterprise progresses toward later stages (Lerner, 1994; Zeng, 2004; Scheela, 2006). In addition to the sharing of information, venture capitalists may syndicate to share financial value at risk (Lockett & Wright, 2001), to improve decision-making by joint decisions (Lerner, 1994), to pool resources (Bent, Williams & Gilbert, 2004), to improve capabilities to add value (Brander, Amit & Antweiler, 2002), and to establish social status (Hochberg et al., 2007).

Syndication also enables venture capitalists to spread financial risk through portfolio diversification (Bygrave & Timmons, 1992; Lockett & Wright, 1999; Zider, 1998; Wiltbank, 2005). Rational investors diversify their portfolios to reduce idiosyncratic risk and to make their portfolios more efficient (Markowitz, 1952). However, venture capitalists find it more difficult to diversify their portfolio than do public market investors because of the high informational asymmetries of the private investment market (Sahlman, 1990), and possibly because of smaller size of their funds and difficulty in divesting underperforming investments. To achieve an optimal level of portfolio diversification, and to reduce their financial value at risk, venture capital firms may choose to syndicate large investments (Seppä, 2003; Manigart, Lockett, Meuleman, Wright, Lanstrom, Bruining et al., 2006).

Venture capitalists may actively syndicate with value-adding co-investors to combine complementary resources and capabilities to build successful ventures (Maula, Ahlstrom, Haahkola, Heikintalo, Lindstrom, Ojanpera et al., 2006). The potential value-adding activities of a venture capitalist include: monitoring financial and operational performance, recruitment of management, arranging finance from complementary sources, serving the board of directors, arranging incentive plans, providing access to auditors, lawyers, and investment banks, and setting company policies (Gorman & Sahlman, 1989; Sapienza, 1992; Rosenstein, Bruno, Bygrave & Taylor, 1993; Sapienza, Manigart & Vermier, 1996; Hellman & Puri, 2000, 2002; Maula et al., 2006). As Seppä (2003) argues, no single venture capital firm can have superior capabilities in all these areas when compared to a group of venture capital firms, including the main firm.

Separation of ownership and control rights

Separation of ownership and control rights is another effective control mechanism (Gompers, 1997; Black & Gilson, 1998). Gompers (1997) found that venture capital investors tend to rely more on contracting to clearly allocate control rights, separate them from ownership rights, and to impose more oversight. Venture capitalists often face a dilemma. On one hand, the entrepreneur will be motivated by a large share of the enterprise; on the other, the large share gives the entrepreneur an opportunity to expropriate investors (Gompers, 1997). Venture capitalists therefore, assume control rights over the enterprise through contract covenants such as a majority of seats on the board, a super-majority requirement for major decisions, a

mandatory redemption, prohibition on asset sales, restrictions on control transfer, restrictions on expenditures, and restrictions on new securities (Zeng, 2004; Durrani & Boocock, 2006). The control rights covenants enable the venture capitalist to obtain full control if the company performs poorly.

Kirilenko (2001) shows that allocating more control rights to an investor results in a smaller dilution of the entrepreneur's ownership of the venture at higher share prices. Although venture capital financing can allocate control rights through contract covenants -- and not through share ownership -- venture capitalists need protection against future financing rounds having a lower valuation than the valuation of the current (protected) round. This is achieved by inclusion of an anti-dilution protection clause in the financing contracts (Kaplan & Strömberg, 2003).

Portfolio Diversification

Ruhnka and Young (1991) argue that venture capital investors can also reduce risk through diversification of individual prospect risk by including many different investments in a portfolio, including ventures in different industry sectors and geographic areas. Venture capital portfolios may also be diversified among ventures in different stages of development (Robinson, 1987). This risk reduction strategy decreases the chance of investments losses, and increases the chances of including enough winners to offset the losing or below-average investments. Additionally, such diversification reduces the chance of portfolio disasters, especially if a specific industry sector or geographic area goes into a prolonged

slump. As a general practice, "business concepts that enjoy patent, copyright, or trade secret protection or that enjoy unique geographic or market niche advantages are highly valued by venture capital investors, that is, they seek ventures in inefficient markets to reduce the risks of subsequent competition" (Ruhnka & Young, 1991; p.120).

These risk reduction strategies provide protection against agency risk and enable venture capitalists to focus on market risk for which they have the skills to assess (Fiet, 1995). However, the perceived risk of SMEs in developing countries is not sufficiently covered by these techniques as evidenced by the SME equity financing gap. Additional capabilities or risk reduction strategies may be needed.

3.3.6 Post-investment Monitoring

Once the initial investment is made, agency costs are associated with the intensity of monitoring and involvement. Monitoring allows the venture capitalists to collect information on the venture during its operation, particularly information that pertains to its performance (Proimos & Wright, 2005). Venture capitalists monitor their investee companies through a combination of telephone and email conversations, video-conferences and on-site visits (Zider, 1998). Bygrave and Timmons (1992) argue that the more frequent and open communications between entrepreneurs and venture capitalists, the greater the incidence of mutual strategy choices, and the easier it is to resolve problems encountered in establishing or maintaining relationships.

Venture capitalists appoint non-executive directors to protect the reputation of the company, monitor the activities of the company on behalf of all investors, ensure regular provision of high quality information on performance, and perform other special duties to protect the interests of the venture funds (Durrani & Boocock, 2006). It is very common for venture capital firms to demand a seat on the company's board of directors, and to bring outside managers in to supervise the business (Phan & Yoshikawa, 2006). Some of the venture capital firms request observation rights, which allow a partner to attend board meetings even though he/she would not be able to vote (Camp, 2002).

Venture capitalists also use their expertise and networks to help recruit and compensate key individuals in the firm, work with suppliers and customers, help establish tactics and strategy play a major role in raising capital, and help to structure any or all transactions a company might take (Sahlman, 1990). Venture capitalists also put binding mechanisms in place to ensure regular provision of accounting information, in order to prevent information asymmetry and moral hazard (Durrani & Boocock, 2006). In cases where accounting information systems adopted by investee companies need improvement, the necessary upgrade is made a pre-disbursement condition. This is necessary because accounting information is important for operational and monitoring purposes and also in managing the investment contract between the investor and investee (Mitchell, Reid & Terry, 1997).

The degree of involvement is related to contingent factors such as stage of investment, degree of technology innovation, distance, experience and the performance of the investee business (Manigart & Sapienza, 2000). Venture capitalists may change the management if the performance of the business is unsatisfactory (Bruton, Fried & Hisrich, 1997) and, in extreme situations, may even take over day-to-day control of the business (Sahlman, 1990). However, because monitoring is costly and cannot be performed continuously, venture capitalists usually check the project's status periodically and preserve the option to abandon it (Gompers, 1995).

The intensity of monitoring required in developing countries is higher than in developed countries because of the deficiencies in the accounting systems, inadequate managerial skills and higher risk of moral hazard. Consequently, monitoring costs are expected to be higher.

3.3.7 Exit from Investment

Venture capital involves investing for capital gain and not for dividend income (Wright & Robbie, 1998). Thus, the venture capitalists' ultimate aim is to secure profitable exits for their investments. The main objective of venture capitalists is to maximize the returns of the fund rather than to seek that every investment be successful. The existence of a range of exit strategies is crucial for a healthy venture capital industry. Mason (2006) proposes three main mechanisms for exit namely: initial public offering, trade sale, and private placement. In addition to

these three exit options, Coyle (2000) suggests a repurchase and an involuntary exit as other options available to venture capitalists.

In an initial public offering, shares of the venture capitalist -- and potentially other shareholders -- are sold on the stock market. A public listing generally produces the highest returns making initial public offerings the most preferred exit option. However, public markets are cyclical and cannot be relied upon to produce the most profitable exit. Ventures can also be sold to another company in a trade sale (Mason, 2006; KPMG & SAVCA, 2009). A trade sale has the advantage that investors can sell all of their shares immediately. This is an attractive exit alternative because an investor is paid either in cash or in the form of shares of the acquiring company. But is some cases, the acquiring company may require the entrepreneurs to exit with the venture capitalist. This is a problem for the entrepreneurs, especially if they want to continue running the business as an independent entity. A trade sale may also be an option for companies in distress since their assets may have value to a competitor.

Another exit option is a private placement which involves the purchase of the venture capitalist's share by another investor. This is less common although there are some secondary purchase funds which specialize in buying the portfolios of existing venture capital funds rather than making their own individual investments (Mason, 2006). A repurchase is another exit option. Coyle (2000) argues that, a repurchase is important when a company is losing money and faces closure. A

repurchase is also ideal for family owned businesses that do not want to lose ownership of their companies. Involuntary exit is another exit option which happens where a company fails and goes into receivership/liquidation (Coyle, 2000). Karsai, Wright and Filatotchev (1997) observe that the most common form of exit for smaller and/or more troubled companies appears to be liquidation, or the sale of the venture capitalists' shares back to the original owners of the business.

Despite the fact that other exit options may be available in developing countries, initial public offerings are preferred because they are the most profitable. However, initial public offerings are rarely achievable in developing countries because the capital markets are underdeveloped with low volume of private equity transactions and low liquidity. The venture capital investment process is diagrammatically presented in figure 3.2.

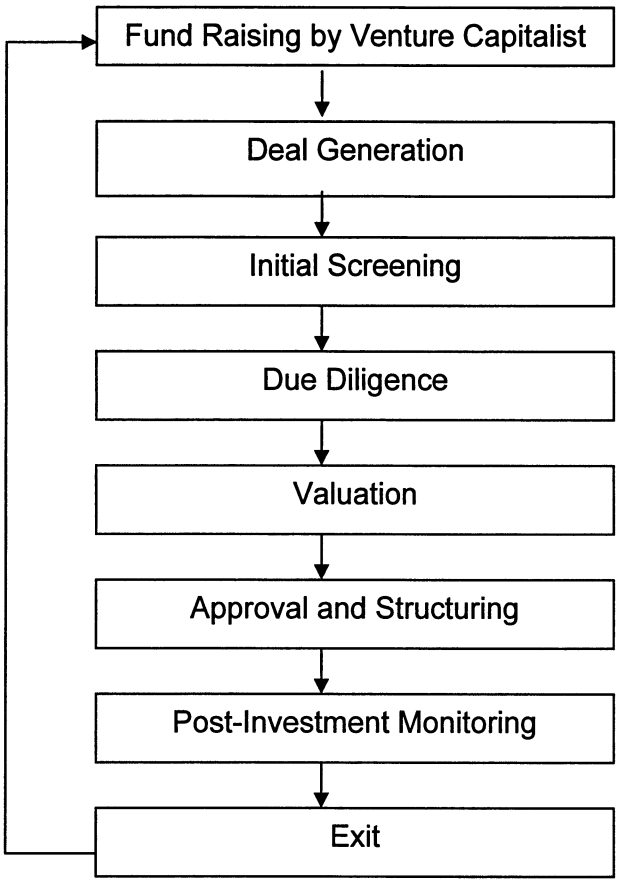


Figure 3.2: The Venture Capital Investment Process: [Durrani and Boocock (2006, p.60)]

3.4 Conclusion

This chapter discussed theories relevant to venture capital investments. In agency theory, adverse selection and moral hazard risks inform the venture capital investment decision-making process and influences the investment criteria employed by venture capitalists. The theory of contracts assists venture capitalists to structure deals to mitigate agency risks, while corporate governance aims to protect venture capital investments. In institutional theory, underdeveloped institutions increase information and transaction costs, thereby negatively impacting investments in developing countries.

The chapter also discussed the venture capital investment process and highlighted the key considerations at each stage. The key considerations are investment deal referrals, business proposals, characteristics of entrepreneur, venture management team, market, and product or service, and financial return of the potential investment. In addition, in deal structuring, venture capitalists employ risk reduction strategies such as the type of financial instruments used, staged capital infusion, syndication, separation of ownership and control rights, and portfolio diversification.

Chapter Four discusses in detail the venture capital investment criteria as practiced in developed and developing countries.

CHAPTER 4

VENTURE CAPITAL INVESTMENT CRITERIA

4.1. Introduction

This chapter discusses the venture capital investment criteria in both developed and developing countries. The aim of this chapter is to illustrate the venture capital practices in both environments for comparison purposes, and to demonstrate that the venture capital investment criteria applied in developed countries is similar to that applied in developing countries. The chapter analyses also limitations of the conventional venture capital investment criteria in developing countries.

4.2. Venture Capital Investment Criteria in Developed Countries

This section analyses the venture capital investment criteria in developed countries, particularly, in the US, Canada, and Europe. Most of the published empirical studies on the venture capital investment criteria were conducted in the US and have informed subsequent empirical studies abroad. The findings of specific empirical studies in the US, Canada and Europe are discussed next.

4.2.1 Empirical Studies in the US

One of the earliest studies on the venture capital investment criteria was conducted in the US by Tyebjee and Bruno (1984). These authors telephonically interviewed 46 venture capital firms and used factor analysis to determine the factors considered important in the venture capital decision criteria. The authors identified five factors that venture capitalists consider important in the selection of a venture

to invest in. These five factors in their order of importance are (1) market attractiveness (represented by size, growth, and accessibility), (2) product differentiation (which combines the uniqueness of the product, the profit margins, and its ability to be patented), (3) managerial capabilities of the entrepreneur or team, (4) environmental threats, and (5) cash-out potential (reflecting the venture capitalist likeliness to liquidate the investment).

Another early study was the MacMillan et al. (1985) study. Specifically, this study collected data from 102 venture capital firms in the US, and used factor analysis to identify five categories of criteria for evaluating venture capital investment. These five categories were: the entrepreneur's personality, the entrepreneur's experience, the product/service characteristics, the market characteristics, and financial considerations. Table 4.1 shows the characteristics that were considered important under each category.

Table 4.1: Venture Capital Investment Criteria by MacMillan et al. (1985)

Category	Criterion	Mean Score
Entrepreneur's personality	• Capable of sustained intense effort • Able to evaluate and react to risk well • Articulate in discussing venture • Attends to detail	• 3.60 • 3.34 • 3.11 • 2.82
Entrepreneur's experience	• Thoroughly familiar with market targeted by venture • Demonstrated leadership ability in the past • Relevant track record	• 3.58 • 3.41 • 3.24
Product/Service characteristics	• Product is proprietary or can be protected	• 3.11
Market characteristics	• High growth rate	• 3.34
Financial Considerations	• Expected return equal to at least 10 times the investment within 5-10 years • Investment can be easily made liquid	• 3.42 • 3.17

Source: Adapted from MacMillan et al. (1985, p.121)

In a subsequent study, MacMillan et al. (1987) sought to address the issue of whether or not the venture capital investment criteria distinguished between successful and unsuccessful ventures. The authors assessed the extent to which criteria identified in Tyebjee and Bruno (1984) and MacMillan et al. (1985) studies are useful predictors of performance.

MacMillan et al. (1987) used a mailed questionnaire to gather data from 67 venture capitalists in the US and did a factor analysis of the data. The authors identified four factors as good predictors of performance. These factors are: the management team (which includes entrepreneur and venture team's qualifications and experience), the product or service characteristics including viability or market acceptance of the product or service, the industry or market characteristics of the

venture including the venture's exposure to competitive attack, and the financial characteristics of the investment, especially the level and the liquidity of the investment. The MacMillan et al. (1987) study confirmed three factors: market attractiveness, product differentiation, and managerial capabilities of entrepreneur and venture management team, in the venture capital investment criteria identified in Tyebjee and Bruno (1984) study and all the five factors in MacMillan et al. (1985) study.

Other studies in the US also found that venture capitalists followed common investment criteria when evaluating new ventures (Robinson, 1987; Hisrich & Jankowicz, 1990; Hall & Hofer, 1993; Fried & Hisrich, 1994). The common criteria included the five main factors as identified in the Macmillan et al. (1985) study. Specifically, these factors are: the personality and experience of the entrepreneur and venture management team, the product or service characteristics, the market or industry characteristics, and the financial considerations mainly financial track record and expected returns.

4.2.2 Empirical Study in Canada

Bogle and Reuber (1992) surveyed members of the Association of Canadian venture capital companies and received responses from 23 venture capital firms. The authors used descriptive statistics such as mean and frequency to analyse data and identify factors that the Canadian venture capital firms considered

important in the evaluation of a venture. The authors identified the following factors which have been classified into five categories:

- Entrepreneur's personality. The characteristics considered in this category included: capability of sustained intense effort, able to evaluate and react to risk well, able to articulate venture discussion, attend to detail, and accept criticism, and compatibility with fund manager(s).
- Entrepreneur's experience. Characteristics considered included: familiarity with the product and the market targeted by the venture, demonstrated leadership ability in the past, shows a track record relevant to the venture, has a functionally-balanced management team, and was referred by a trustworthy source.
- Characteristics of the product or service. These included: product/service ownership can be protected, have been developed into a functioning type, enjoys demonstrated market acceptance, and fits with the venture capital firm's long term strategy.
- Characteristics of the market. These included: a target market that enjoys a significant growth rate; venture that will stimulate an existing market; venture that will create a new market, venture with reduced threat of competition for the first three years, and a venture market that is attractive to the venture capitalist; and with a well-established distribution system for the product.
- Financial considerations. Returns should be equal to at least 10 times the venture capitalist investment within five to 10 years. In addition, investments should be easily liquid, venture capitalist should have a minority position in the

venture, the size of specific investment should be <10%-20% of funds available for venture activity, and the venture business stage should be within the fund's preferences.

The above categories relate to the five common venture capital investment criteria identified by empirical studies in the US. The Canadian study demonstrates that the US venture capital practices have been replicated in Canada.

4.2.3 Empirical Study in Europe

Muzyka, Birley, and Leleux (1996) conducted a study in Europe to assess the investment decision-making process of European venture capitalists. The authors used a survey questionnaire on 73 venture capital firms in Europe, and used a conjoint model to compute the relative rankings of the venture capital decision criteria. The venture capital firms surveyed were from the United Kingdom, Ireland, Germany, Austria, Switzerland, Italy, France, Belgium, Netherlands, Spain, Portugal, and Nordic countries. The authors identified seven factors European venture capitalists considered important in their investment decisions. These factors were: the leadership ability of the lead entrepreneur, the leadership ability of management team, a product with an ability to sustain a competitive market position, a team capable of developing product in the market place, financial considerations, deal characteristics, and fund characteristics. This European study showed that the five common venture capital investment criteria categories, that is, aspects of the entrepreneur or management team, the product and market

characteristics and the financial considerations originally identified in the US are considered important by European venture capital firms. Additionally, this European study found additional factors of investment deal, and fund characteristics that are more specific to the fund investment strategy. Table 4.2 summarises the venture capital investment criteria studies conducted in developed countries.

Table 4.2: Developed countries studies on Venture Capital Investment Criteria

Study	Categories of investment criteria by rank order of importance (1 = Most Important, 7= Least important)						
	1	2	3	4	5	6	7
Tybjee and Bruno (1984)	Market attractiveness	Product attributes	Managerial capabilities	Environment Threat Resistance	Cash out potential		
Macmillan et al. (1985)	Entrepreneur's personality	Entrepreneur's experience	Product/service characteristics	Market characteristics	Financial characteristics	Venture Team	
Macmillan et al. (1987)	Management Team	Product/Service Characteristics	Industry/Market Characteristics	Financial Characteristics			
Robinson (1987)	Management Team	Technical skills and industry requirements	Personal skills and motivation	Financial Track Record	Professional References		
Hisrich and Jankowicz (1990)	Management (entrepreneur and team)	Unique Opportunity (Product-market uniqueness)	Appropriate Return	Other (entrepreneur, technology, market location)			
Bogle and Reuber (1992)	Entrepreneur's personality	Entrepreneur's experience	Characteristics of the product or service	Characteristics of the market	Financial Considerations		
Hall and Hofer (1993)	Venture Capital firm requirements	Characteristics of the proposal	Characteristics of the entrepreneur/team	Nature of the proposed business	Economic environment of proposed industry	Strategy of the proposed business	Financial Information on the proposed business
Fried and Hisrich (1994)	Concept (product/service) characteristics	Management characteristics	Returns (financial) characteristics				
Muzyka et al. (1996)	Leadership ability of the lead entrepreneur	Leadership ability of management team	Product with an ability to sustain a competitive market position	Team capable of developing product in the market place	Financial considerations	Deal characteristics	Fund characteristics

Source: Researcher's own construction from literature review

Based on the studies cited above, the five common factors applied by venture capitalists to evaluate new ventures in developed countries are product characteristics, market characteristics, financial considerations, the characteristics of the entrepreneur, and characteristics of management team. These criteria are the same as those used in developing countries as discussed under section 4.3. To facilitate the comparison of the venture capital investment criteria in developed and developing countries, the venture capital investment criteria in developing countries is discussed next.

4.3 Venture Capital Investment Criteria in Developing Countries

Several studies on the venture capital investment criteria in developing countries have tested the venture capital investment criteria as developed by MacMillan et al. (1985) with modifications to include some factors found relevant by Tybjee and Bruno (1984) and other similar studies in the US. These studies include Chotigeat et al. (1997), Zutshi et al. (1999), Mishra (2004), and Wong (2009).

Other studies such as Kakati (2003) followed methodology of MacMillan et al. (1987) and added two categories, namely, resource-based capability and competitive strategy of the venture. Deventer and Mlambo (2009) used the venture capital investment criteria identified in Europe and the US, and gave the South African venture capitalists an option to report on any additional criteria of their own. A detailed analysis of six case studies on venture capital investment criteria in developing countries follows.

4.3.1 Empirical Study in Taiwan, Sri Lanka and Thailand

Chotigeat et al. (1997) used a questionnaire on 29 venture capital firms in Taiwan, seven in Sri Lanka and 15 in Thailand to analyse the investment criteria used by these venture capitalists. They tested 30 criteria covering five areas, namely: characteristics of the entrepreneurs, characteristics of the product, characteristics of the market, financial considerations, and characteristics of the venture management team. The criteria were ranked on a four-point scale where one (1) represented the least important criterion and four (4) denoted the most important criterion. Table 4.3 shows the results of the study.

Table 4.3: Venture Capital Investment Criteria by Chotigeat et al. (1997)

Category	Criterion	Taiwan Mean score (Na = not applicable)	Sri Lanka Mean score	Thailand Mean score
Characteristics of the entrepreneurs	• Integrity	• Na	• 4.0	• 3.8
	• Ability to evaluate and react to risk involved in the venture	• Na	• 2.7	• 3.4
	• Long-term vision	• Na	• 3.0	• 3.6
	• Urge to grow	• Na	• 3.0	• 3.5
	• Familiarity with target market	• Na	• 2.7	• 3.8
	• Demonstrate leadership ability in the past	• 3.6	• 2.9	• 3.3
	• Track record relevant to the venture	• 2.7	• 2.4	• 3.1
	• Referred by trust worthy source	• Na	• 2.2	• 2.8
	• Familiarity with the entrepreneur's reputation	• Na	• 2.8	• 2.9
	• Well thought-out strategy to remain ahead of competition	• 3.0	• 2.5	• 3.9
Characteristics of the product	• High tech product	• 3.2	• 1.7	• 1.6
	• Uniqueness of the product	• 2.6	• 2.3	• 2.6
	• Product developed to the functioning of a prototype	• 3.0	• 2.4	• 2.6
	• Demonstrated market acceptance of the product	• 3.7	• 2.4	• 3.5
	• Resistance to economic cycle	• Na	• 2.5	• 3.1
Characteristics of the market	• High market growth	• 3.7	• 3.3	• 3.5
	• Little threat of competition during the first three years	• 2.8	• 3.0	• 2.5
	• Large size of the market	• 3.4	• 2.7	• 3.3
	• Product in a market familiar to us	• 3.1	• 1.8	• 2.4
	• Venture will create a new market	• 2.6	• 2.3	• 2.5
Financial Considerations	• Expected return over 25% in five years	• 3.9	• 3.5	• 3.2
	• Expected return over 100% over five years	• Na	• 3.3	• 2.2
	• Venture can easily be made liquid	• 3.7	• 3.5	• 3.0
	• Opportunities for exit	• 3.2	• 3.7	• 3.1
	• Tax benefits	• 2.9	• 1.7	• 2.0
Characteristics of the venture management team	• Technical skills	• 3.8	• 3.6	• 3.0
	• Managerial skills	• 3.6	• 3.1	• 3.8
	• Financial skills	• Na	• 2.9	• 3.5
	• Marketing skills	• 3.2	• 3.1	• 3.4
	• Balanced team	• Na	• 3.0	• 3.7

Source: Adapted from Chotigeat et al. (1997, p.60)

The results of this study indicated that venture capital firms in Taiwan and Sri Lanka ranked financial considerations and characteristics of the management team

as the top categories while in Thailand, characteristics of the management team, characteristics of the entrepreneur and financial considerations were ranked as the top categories.

4.3.2 Empirical Study in Singapore

Zutshi et al. (1999) used a mail survey to study the investment evaluation criteria of 58 venture capitalists in Singapore. The seven groups of criteria tested were entrepreneur's personality, characteristics of the product or service, characteristics of the market, financial characteristics, country risk, and characteristics of the venture team. The criteria were ranked on four-point Likert-like scale where one (1) represented irrelevant, two (2) represented desirable, three (3) represented important, and four (4) represented essential. Table 4.4 shows the criteria which were rated as important or essential.

Table 4.4: Venture Capital Investment Criteria by Zutshi et al. (1999)

Category	Criterion	Mean score
Entrepreneur	• Capable of sustained intense effort	• 3.58
	• Able to evaluate and react to risk well	• 3.52
	• Articulate in discussing venture	• 2.61
	• Be thoroughly familiar with the market targeted by the venture	• 3.61
	• Demonstrated leadership ability in past	• 3.52
	• Has a track record relevant to the venture	• 3.39
Market	• The target market enjoys a significant growth rate	• 3.35
Finance	• A return equal to at least 10 times my investment within 10 years	• 2.84
	• An investment that can be easily made liquid	• 3.00
Product	• The product is proprietary or can otherwise be protected	• 2.94
	• The product enjoys demonstrated market acceptance	• 3.10
	• The product has been developed to the point of a functioning prototype	• 2.94

Source: Adapted from Zutshi et al. (1999, p.15)

The results of the Zutshi et al. (1999) study show that the entrepreneurial personality and the entrepreneurial skills are the focus of assessment as far as investment analysis is concerned. The study also compared rankings for each investment criterion obtained in Singapore with those obtained in Canada, Europe and the US and found that Singapore venture capitalists also used similar investment criteria as those used by venture capitalists in these developed countries.

4.3.3 Empirical Study in India and South Asian Countries

Kakati (2003)'s study focussed on venture capitalists who were financing high-tech industries in India and South East Asian Countries. By surveying 43 venture capitalists, Kakati (2003) investigated 38 criteria in six categories, namely: characteristics of entrepreneurs, resource based capability, competitive strategy, product characteristics, market characteristics, financial considerations, and performance measures. The criteria were ranked on a five-point scale where one (1) represented highly dissatisfactory/disagree, two (2) represented marginally dissatisfactory/disagree, three (3) represented neither satisfactory nor dissatisfactory, four (4) represented marginally satisfactory/agree, and five (5) represented highly satisfactory/agree. Table 4.5 shows the venture capital investment criteria that were rated as marginally satisfactory/agree or highly satisfactory/agree.

Table 4.5: Venture Capital Investment Criteria by Kakati (2003)

Category	Criterion	Mean Score
Characteristics of entrepreneur	• Desire for success • Creativity • Courage • Enthusiasm/capacity for work • Competence in the field of endeavour • Capability of sustained intense effort • Ability to evaluate and react to risk • Attention to detail • Familiarity with the target market • Leadership quality	• 4.46 • 4.62 • 4.23 • 4.77 • 4.62 • 4.38 • 4.00 • 4.00 • 4.69 • 4.15
Resource-based capability	• Input sourcing capability	• 4.15
Competitive strategy	• Quality strategy • Innovation strategy • Customization strategy	• 4.23 • 4.38 • 4.62
Product characteristics	• Product developed to functioning prototype	• 4.15
Market Characteristics	• Market enjoying significant growth rate • Venture stimulated existing market	• 4.16 • 4.03
Performance measures	• Return on investment • Profits	• 4.75 • 4.95

Source: Adapted from Kakati (2003, p. 449)

As shown in Table 4.5, the characteristics of the entrepreneur consisted of 10 out of the 19 criteria considered important by venture capitalists in India and other South East Asian countries. Additionally, Kakati (2003)'s cluster analysis and regression model indicated that the characteristics of the entrepreneur play a critical role in the success of a new venture.

4.3.4 Empirical Study in India

Mishra (2004) administered a questionnaire to venture capitalists (who were regular members of the Indian Venture Capital Association) to determine the criteria they use when deciding on funding new ventures. Mishra (2004) tested 42 criteria covering six areas. These criteria were: the entrepreneur's personality, the entrepreneur's experience, characteristics of the product or service, characteristics of the market, financial consideration, and characteristics of venture management team. Mishra (2004)'s criteria mirrored the criteria developed by MacMillan et al. (1985) and Tybyee and Bruno (1994). The criteria were ranked on a four-point Likert-like scale as used by MacMillan et al. (1985, 1987), where one (1) represented irrelevant, two (2) represented desirable, three (3) represented important, and four (4) represented essential. Table 4.6 shows the venture capital investment criteria rated as important or essential.

Table 4.6: Venture Capital Investment Criteria by Mishra (2004)

Category	Criterion	Mean score
The entrepreneur personality	• Integrity	• 3.96
	• Capable of sustained intense effort	• 3.62
	• Critical competence vis-a-vis venture	• 3.24
	• Ability to evaluate and react to risk	• 3.41
	• Long term vision	• 3.74
	• Attention to detail	• 3.66
	• Urge to grow	• 3.70
	• Commercial orientation	• 3.37
	• Amenable to suggestions and criticism	• 3.11
	• Articulate in discussing venture	• 3.24
	• Compatible personality	• 3.41
The entrepreneur's experience	• Familiarity with target market	• 3.66
	• Demonstrated leadership ability in the past	• 3.41
	• Track record relevant to the venture	• 2.90
	• Referred by trust worthy source	• 3.07
	• Familiarity with the entrepreneur's reputation	• 3.16
	• Competes against self-imposed standards	• 3.16
	• Well thought-out strategy to remain ahead of competition	• 3.33
Characteristics of the product or service	• High tech product	• 3.20
	• Proprietary or otherwise protected product	• 3.24
	• Uniqueness of the product	• 3.16
	• Product developed to the point of a functioning prototype	• 2.61
	• Demonstrated market acceptance of product	• 2.78
Characteristics of the market	• High market growth rate	• 3.91
	• Little threat of competition during the first three years	• 3.45
	• Easy market acceptability	• 3.41
	• Market stimulated by the venture	• 3.24
	• Large size of market	• 3.37
	• Product in a market familiar to venture capital firm	• 2.94
	• Ability to create a new market	• 3.20
Financial Consideration	• Expected return over 25% in five years	• 3.16
	• Expected return over 100% in five years	• 3.45
	• Venture can easily be made liquid	• 3.45
Characteristics of the venture management team	• Technical skills	• 3.51
	• Managerial skills	• 3.45
	• Financial skills	• 3.50
	• Marketing skills	• 3.07
	• Balanced team	• 3.63

Source: Adapted from Mishra (2004, pp. 21-22)

The results of this study show that the entrepreneur's personality and experience are seen as being the primary indicators of a venture's potential. The characteristics of the management team, financial consideration, characteristics of the market and product/service are also considered important.

4.3.5 Empirical Study in South Africa

Deventer and Mlambo (2009) used a Likert scale type questionnaire on 16 South African private venture capital companies that they asked to rate the investment criteria used in their venture screening and evaluation process. Respondents were asked to rank four categories of the investment criteria in order of importance from one (1) to four (4). The four identified categories were: management criteria, product criteria, financial criteria, and market criteria. Respondents were asked also to rate the investment criteria in each category, plus an additional category in order of importance from one (1) to five (5). One (1) being "not important at all" through to five (5) being "very important". According to the authors, the respondents rated 39% of the investment criteria higher than four (4). These investment criteria consisted of 10 management criteria, two product criteria, five financial criteria and four market criteria. These were considered to be the most important investment criteria. Table 4.7 shows the investment criteria rated as important in the South African study.

Table 4.7: Venture Capital Investment Criteria by Deventer and Mlambo (2009)

Category	Criterion	Mean score
Management	• The entrepreneur is honest and has integrity • The entrepreneur has a great desire for success • The entrepreneur has excellent skills/experience • The entrepreneur is hardworking and flexible • The entrepreneur has good leadership ability • The entrepreneur has good risk management abilities • The entrepreneur has a good track record • The entrepreneur has good knowledge of the sector • The entrepreneur is capable of intense, sustained effort • The reference of the entrepreneur are reputable	• 4.9091 • 4.7273 • 4.5455 • 4.5455 • 4.5455 • 4.3636 • 4.2727 • 4.1818 • 4.1818 • 4.0909
Product	• A good market acceptance for the product or service is expected • The product/service has a competitive advantage over competing products	• 4.9091 • 4.7273
Financial	• The venture will provide a high internal rate of return (IRR) • The venture has high valuation projections • The venture has significant potential for earnings growth • The venture has high profit margin projections • The venture will provide a high absolute return	• 4.9091 • 4.7273 • 4.6364 • 4.2727 • 4.1818
Market	• There is a market need for the product or service • There is potential for market growth • The market is big • The product/service has open access to the market	• 4.8182 • 4.7273 • 4.4545 • 4.1818

Source: Adapted from Deventer and Mlambo (2009, p.39)

Deventer and Mlambo (2009) used the Friedman and Sign tests to analyse the data. Their results show that South African venture capitalists consider management related factors as important factors in evaluating new projects for investment.

4.3.6 Empirical Study in Hong Kong

Wong (2009) surveyed 110 Hong Kong venture capitalists listed in the 2007 guide to venture capital in Asia. The aim of the study was to find out which investment criteria identified in prior studies were useful predictors of venture performance and helpful in distinguishing what will be successful ventures from other venture proposals. This study evaluated 25 screening and performance criteria under five categories. The categories were: characteristics of venture team, characteristics of products or services, characteristics of the market, financial considerations, and performance. The criteria were ranked on a four point Likert-like scale as used by MacMillan et al. (1985) where one (1) represented irrelevant, two (2) represented desirable, three (3) represented important, and four (4) represented essential. Based on Wong (2009) study, the criteria rated as important or essential are shown in Table 4.8.

Table 4.8: Venture Capital Investment Criteria by Wong (2009)

Category	Criterion	Mean Score
Characteristics of venture team	• Capability of sustained intense effort • Ability to evaluate and react to risk • Ability to discuss the venture articulately • Attention to detail • Familiarity with the market targeted by the venture • Degree of leadership ability demonstrated in the past • Track record relevant to venture	• 3.38 • 3.49 • 3.47 • 3.62 • 3.40 • 3.47 • 3.56
Characteristics of products and services	• Protection of product • The product enjoyed demonstrated market acceptance • The product had been developed to the point of a functioning prototype • The product was "high tech"	• 3.58 • 3.67 • 3.58 • 3.69
Financial considerations	• Age of venture	• 3.56
Performance	• Sales • Market share of served market • Marketing costs • Production costs • General and administrative costs • Profits • Return on investment	• 3.47 • 3.42 • 3.53 • 3.44 • 3.49 • 3.60 • 3.38

Source: Adapted from Wong (2009, pp. 64-65)

The Wong (2009) study ranked characteristics of the venture team as the top criterion in the evaluation of a venture for investment. Table 4.9 summarizes the venture capital investment criteria studies in developing countries discussed above.

Table 4.9: Developing countries studies on Venture Capital Investment Criteria

Study	Categories of investment criteria by rank order of importance(1 = Most Important, 6= Least important)					
	1	2	3	4	5	6
Chotigeat et al. (1997)	Characteristics of the entrepreneurs	Characteristics of the product	Characteristics of the market	Financial considerations	Characteristics of the venture management team	
Zutshi et al. (1999)	Entrepreneur characteristics	Market characteristics	Finance characteristics	Product characteristics		
Kakati (2003)	Characteristics of entrepreneur	Resource-based capability	Competitive strategy	Product characteristics	Market characteristics	Performance measures
Mishra (2004)	Entrepreneur personality	Entrepreneur's experience	Characteristics of the product or service	Characteristics of the market	Financial consideration	Characteristics of the venture management team
Deventer and Mlambo (2009)	Management characteristics	Market characteristics	Financial characteristics	Product characteristics		
Wong (2009)	Characteristics of venture team	Characteristics of product or service	Financial considerations	Performance characteristics		

Source: Researcher's own construction from literature review

Table 4.9 shows the characteristics considered in evaluation of potential ventures as reported in the six developing country case studies discussed above. The Table shows that the common characteristics relate to the entrepreneur and/or the management team, the product or service, the market, and financial considerations. These common characteristics are the same as those in developed countries. Thus, the similarities of the venture capital investment criteria in both developed and developing countries indicate that the conventional venture capital investment criteria have not been adapted to the developing countries market conditions. Based on the literature analysis, the conventional venture capital investment criteria are diagrammatically presented as shown in figure 4.1.

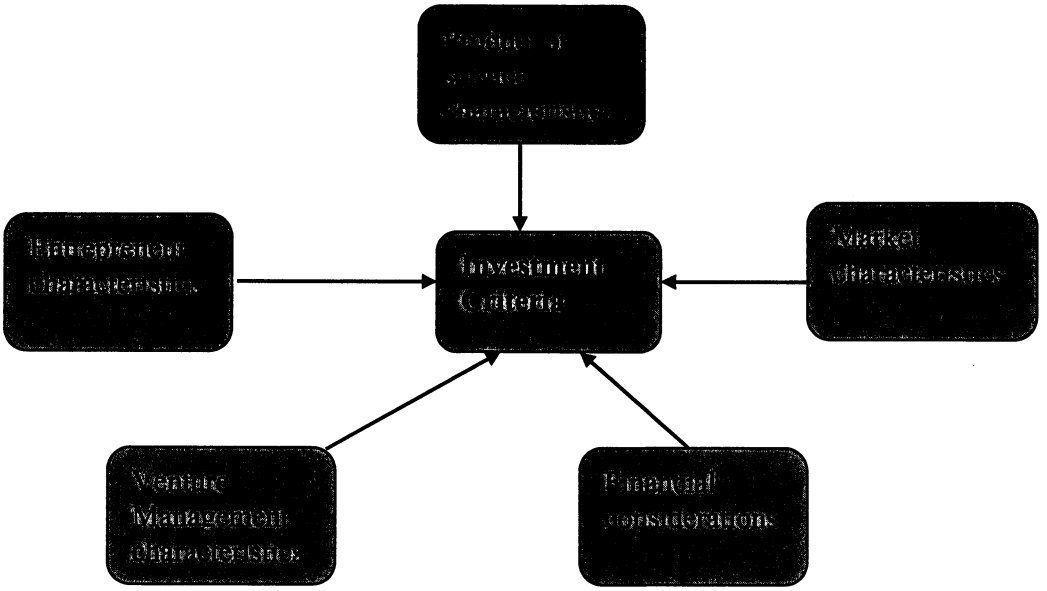


Figure 4.1: Conventional venture capital investment criteria categories (Researcher's own construction from literature review)

Some of the criteria rated by venture capitalists as important in each of the categories, as detailed on Tables 4.3 to 4.8, cannot be met by most SMEs in developing countries. This is because of the barriers to investment such as: entrepreneurs have inadequate skills and education, shortage of skilled workers, scarcity of entrepreneurial and management skills, poor distribution channels, small and/or illiquid markets, underdeveloped legal institutions, ambiguous property rights, lack of standardized methods for determining discount rates, and limited availability of SMEs accounting information. The next section discusses the limitations of the conventional venture capital investment criteria in developing countries.

4.4 Limitations of the Conventional Venture Capital Investment Criteria

The conventional venture capital investment criteria have informed venture capitalists investment decisions irrespective of the degree of development of the markets they invest in. Empirical studies on the conventional venture capital investment criteria in both developed and developing countries indicates reliance on same factors in making venture capital investment decisions (Tyebjee & Bruno, 1984; Macmillan et al., 1985; Chotigeat et al., 1997; Feeney et al., 1999; Pintando et al., 2007; Deventer & Mlambo, 2009). However, it is not a surprise that the investment criteria factors are similar because most of the venture fund investors originate from developed markets. The studies imply that the model of venture capital investment has not been adapted to developing country challenges. This section analyses the limitations of the conventional venture capital investment criteria in developing countries.

Institutional context

In comparison to investors in developed countries, investors in developing countries face greater problems of higher costs of doing business (Scheela & Chua, 2002; Patricof et al., 2005), infrastructural bottlenecks, and unreliable legal systems (Siddiqi, 2008). This is because the legal and financial systems are underdeveloped, property rights are ambiguous, and regulatory systems are not transparent (Peng & Heath, 1996; Ramamurti, 2000). The weak institutional environment contributes, in turn, to piracy and other intellectual property violations, as well as, to a lack of contract enforcement (Deloitte, 2008). For example, in

China there is no effective way to protect private property rights due to the lack of property law (Tingchi & Po Chang, 2007). Without effective institutions, entrepreneurial potential is negatively affected (Bohata & Mladek, 1999; Zahara et al., 2000), and the likelihood of agency problems increases (Dharwadkar et al., 2000).

Moreover, multiple studies show that the accounting environment and corporate governance is poor in developing countries (Chuhan, 1994; Bekaert, 1995; James & Koller, 2000; Scheela & Chua, 2002; Christensen, 2003; World Bank, 2004, 2005, 2006a; Eid, 2005; Deloitte, 2006). This weak accounting environment and poor corporate governance affects the availability and quality of information available for due diligence during project evaluation. Consequently, investors are unable to assess the true credit worthiness of potential SME proposals.

Foreign investors are also barred by indirect barriers stemming from governance issues such as the unavailability of information, the lack of enforcement of international accounting standards, and the lack of investor protection legislation (Bakaert, 1995; Scheela & Chua, 2002; Christensen, 2003). The result is that investors often do not have adequate information on these markets or on the financial health of the companies they intend to invest in. In addition, the settlement systems might be inefficient and slow due to underdeveloped institutions (Chuhan, 1992; James & Koller, 2000; Eid, 2005; Deloitte, 2008).

Deal flow

Deal flow is a problem because developing countries lack quality deals that fit venture capital firms' investment profile (Lerner, 2002; Scheela & Chua, 2002; Deloitte, 2005; Eid, 2005; Patricof et al., 2005; Deloitte, 2007). This is because the sources of opportunities for deals are deficient or lacking, causing long lead times to develop projects. The technology and research environment is also limited (Sagari & Guidotti, 1992; Cetindamar, 2003), channels of communication between research and industry are weak (Hersberg, Nabeshima & Yusuf, 2007; Chen & Kenney, 2007; Wu, 2007), time is lost in the bureaucracy of starting up a business (World Bank, 2005), and regulation does not promote entrepreneurial activities (World Bank, 2005, 2006b). The available deals are therefore, inadequate and most, especially SMEs, are of small size (Bilau & Couto, 2012) which means venture capitalists have to combine many deals and this increases transaction costs.

Moreover, the lack of dialogue between venture capitalists and research centres in universities creates a knowledge gap (Adongo & Stork, 2006). This gap exists because venture capitalists are focused on economic returns while researchers are focused on academic results. These differing objectives make it difficult for the two sides (venture capitalists and researchers) to communicate with each other effectively, which creates problems in valuing business ideas.

Business proposals

Business proposals of enterprises in developing countries are rejected because these proposals lack adequate information (Christensen, 2003) and the entrepreneur is unable to professionally present the firm as an attractive proposition to potential investors (Patton et al., 2005). Additionally, business proposals are rejected because venture capital firms are reluctant to invest in unfamiliar industries and markets (Mason & Harrison, 2002). Moreover, SMEs in developing countries do not have proper accounting records for their business operations, hence unrealistic assumptions or information that is not credible may be included in the business plans (Oketch, 2005; Eid, 2006).

Entrepreneurs and managerial skills

In developing countries, entrepreneurial skills and ideas are relatively scarce. There is also a shortage of skilled workers, experienced local investors, and a talented portfolio management team (Sagari & Guidotti, 1992; Khanna & Palepu, 1997; Mallach, 1997; Kanniainen & Keuschnigg, 2004; Patricof et al., 2005; Deloitte, 2008). This weak managerial capacity is a barrier to commercial ideas or start-up of new firms. Expertise in venture capital finance is also scarce because of the newness of the venture capital business in developing countries (Sagari & Guidotti, 1992; Adongo & Stork, 2006).

Moreover, venture capitalists look for management having the competence, experience, motivation and involvement to succeed. They also look for management with reputation, commitment, drive, honesty and creativity. However,

venture capital firms in developing countries experience difficulties in screening the capabilities of management who typically have not operated in a market environment before and information available may be particularly subjective (Tan, Zhang & Xia, 2008).

Further, most entrepreneurs in developing countries do not understand the nature of venture capital finance (Eid, 2006). This may have suppressed the demand for venture capital and created a perception that there is no critical mass for venture capital. Bottazzi and Da Rin (2002) argue that venture capital cannot thrive without an adequate supply of entrepreneurs and skilled venture capitalists, since venture capitalists competencies are relied upon to assess the technical aspects of the projects, the market conditions, the knowledge base of the firm, and the ability of the management team to successfully execute the business plan (Christensen, 2003).

The Family business models are also a barrier because entrepreneurs are reluctant to give up large equity or quasi-equity stakes to outside investors (Adongo & Stork, 2006). Thus, entrepreneurs argue that venture capital results in dilution and loss of control, loss of management freedom, introduces target pressure from third parties and increases financing costs (Silva, 2006). As a result, entrepreneurs do not want to share power and they worry that strategically sensitive information, may leak out when the venture capital firms discuss the new business with outside partners and experts. The entrepreneurs fear that the more

people the venture capitalists talk to, the more competition they may face in the future (Cardis et al., 2001).

Products/services

For a product or service to generate a high profit margin, high demand or market acceptance is expected. However, it is difficult to measure demand or market acceptance in developing countries due to a lack of trusted sources of information (Lockett, Wright, Sapienza & Pruthi, 2002). Additionally, because the products and services in developing countries are packaged in small sizes due to the limited income of customers (Prahalad, 2005; Mahajan & Banga, 2006), the profit margin per item may be low. However, investors should consider the presence of a mass market opportunity.

Venture capitalists are also concerned about the proprietary protection of the business idea's patent rights. However, it is difficult to guarantee patent-rights protection because developing countries are characterized by undeveloped legal institutions and ambiguous property rights (Peng & Heath, 1996; Ramamurti, 2000). Piracy and other intellectual property violations cannot be prevented through the legal process and the weak institutions lack effective mechanisms to enforce contracts (Khanna & Palepu, 1997). Despite the weak institutions, contracts are usually enforced through relationships and reputation (Fafchamps, 2004).

Market attractiveness

Venture capitalists look for a high market growth rate or a market with a high potential for growth when evaluating the market readiness of a venture. Although developing countries are the markets of tomorrow (WRI, 2002), they are characterised by relatively smaller domestic markets for goods and services compared to developed country markets. Because developing countries markets are fragmented and income is limited (Mahajan & Banga, 2006), the customer base of these markets and other associated market shortcomings do not reflect the potential to nurture many high-growth companies.

High return potential

Investors who base their investment decision on profitability will select projects with a high return on investment (MacMillan et al., 1985). However, in determining the expected rate of return of a project in developing countries, inflated discount rates are applied due to perceived high risk arising from the uncertain financial, economic, and institutional environment (Sabal, 2004; Estrada, 2007). This is because evaluating the expected rate of return includes such extra facts as currency stability and inflation, political stability, corporate governance practices, and stability of legal and regulatory systems (Mitchell, 2006).

As Bruner et al. (1998) argue, the perceived risk is diversifiable and finance theory (Brealey & Myers, 1996) as well as logic, recommends that such risk be adjusted for, in the cash flows (James & Koller, 2000; Pereiro, 2002). Unfortunately there is

no widely-accepted method to determine the size of risk premium, nor is there a standard, widely-accepted, and widely-used model to estimate required returns on equity in developing countries (Estrada, 2007). Thus, practitioners just look for a relatively simple model that generates costs of equity somewhat consistent with their perception of risk (Estrada, 2000).

In addition, there is no good guidance on how fair value calculation assumptions and estimates should be determined (Heathcote & Human, 2008). As a result, the determined expected rate of return is often low compared to investors' expectations hence many good investment opportunities are rejected and the performance of existing businesses is underestimated (Goedhart & Haden, 2003).

All models proposed to estimate discount rates in developing countries have several shortcomings. For example, these models incorporate systematic and unsystematic risk, some of which is diversifiable (Estrada, 2000). In addition, measurement of country risk is very subjective with a number of methodologies each yielding different values, and the companies withhold information because in some countries there is no legislation demanding openness on how they determine the risk premium (James & Koller, 2000; Damodaran, 2003; Estrada, 2007). These shortcomings give room for judgmental discount rates.

Another disadvantage for SMEs in developing countries is that regulation does not mandate that SMEs publish audited financial statements leading to limited

availability of accounting information (Adongo & Stork, 2006). This exacerbates the already existing information asymmetry and venture capitalists end up using unobservable internally generated data and assumptions. Such valuation may produce unverifiable and unreliable results depending on what assumptions were made regarding future cash flows, risk analysis and discount rates.

Small and medium enterprises are also characterised by low or negative cash flows. Their cash flows approximate a J-Curve because of the relatively long period of negative cash flows expected in the beginning and rapid increase in cash flows expected afterwards (Ribeiro, 2007b). This unattractive cash flow position coupled with the uncertainty of success make the application of standard valuation techniques difficult. Additionally, other factors such as the absence of markets to gauge the true asset prices, non-existence of efficiency due to small stock markets, scarcity of market and cost of capital information, short data series and very few comparable companies, complicate the valuation of investment projects in developing countries (Pereiro, 2001a).

Substantial disagreement about the methodology to use when estimating the cost of capital for discounting cash flows in developing countries creates additional problems (Sabal, 2004; Estrada, 2007). The various methodologies applied generate different discount rates ranging between 15% and 50% (Sylvester & Egeli, 2000; Missankov et al., 2008). However, Bruner, Conroy, Estrada, Kritzman

and Li (2002) argue that in reality, the cost of capital in developing countries may be smaller than is usually thought.

Consequently, venture capitalists use these high discount rates despite having specific skills and powers to manage and reduce unique company specific risks (Fiet, 1995; Lockett & Wright, 2001). The different practices have made it difficult to compare venture capital funds in different environments because of different calculation methods which lead to varying results (Adongo & Stork, 2006).

Deal structuring

Mason and Harrison (2002) identify the inability to negotiate acceptable investment terms and conditions with the entrepreneur as another impediment to investment. This may be due to lack of venture capital knowledge (Klonowski, 2007) and the family nature of business on the part of the entrepreneur (Eid, 2005, 2006), or due to the lack of trust between the entrepreneur and venture capitalist (Christensen, 2003). For example, one party may be acting opportunistically as some moral dimensions of the relationship are difficult to eliminate through contracting (Christensen, 2003). Venture capitalists normally eliminate moral hazard through frequent requirement of detailed accounting information (Sweeting, 1991a) and through staged financing (Gompers, 1995).

Financial reports

Small and medium enterprises in developing countries may lack audited accounting records because the accounting standards regulation do not require SMEs to publish audited financial statements regularly (Adongo & Stork, 2006). As a result, financial reports generated by SMEs may not be adequate for purposes of effective monitoring of business performance. Moreover, most entrepreneurs do not have the skills and management experience to prepare the financial reports in formats required by venture capitalists. Thus venture capitalists maintain a continuous presence in their investee companies to monitor performance and facilitate regular financial reporting (Durrani & Boocock, 2006). This continuous presence of venture capitalists in investee companies increases monitoring costs.

Exit options

The difficulty in achieving successful exits is also considered a key impediment to investment in developing countries (Deloitte, 2008). Capital markets in developing countries are underdeveloped, have low volume of private equity transactions, and they lack liquidity. Therefore, venture capital investors are not able to effectively exit and are forced either to remain much longer in the venture or to sell their shares at a high discount (Cumming, Fleming & Schwienbacher, 2005). Table 4.10 summarises the shortcomings of the conventional venture capital investment criteria in developing country conditions.

Table 4.10: Summary of limitations of conventional investment criteria

Investment stage	Decision Criterion	Developing country limitation
Deal Origination	Significant and Quality deal flow	Deals are scarce and/or small in size
Screening	Quality Business proposals	Poorly prepared or inaccurate business proposals
Evaluation	• Entrepreneur track record • Skilled and experienced management team • products/service with high profit margin • High growth market • High return potential	• Entrepreneurs with inadequate skills and education • Shortage of skilled workers • Risk of piracy • Small and fragmented markets • Inflated discount rates distort return potential
Deal structuring	Contracting supported by established relevant institutions	Underdeveloped institutions
Monitoring	Reliable financial reports	Inadequate and/or inaccurate financial reports
Exit	• Majority exits through IPOs • Regulated and liquid stock markets	Due to small and illiquid stock markets, IPOs are scarce

Source: Researcher's own construction, based on literature review

4.5 Conclusion

This chapter discussed the venture capital investment criteria as applied in developed and developing countries. Comparing the venture capital investment criteria in both worlds, the results show that venture capitalists apply similar criteria in evaluation of potential ventures. This is despite the difficult market conditions and the underdeveloped institutions in developing countries. The focus on the entrepreneur, venture management team, product/service, market, and financial potential of the venture, ignores the following barriers to investment in developing countries.

- Entrepreneurial skills and ideas are scarce.
- Managerial skills are in short supply.
- Property rights are ambiguous.
- Distribution channels are poor.
- Availability of SMEs accounting information is limited.
- Methods of determining discount rates are not standardized.
- Stock markets are small and illiquid.
- It is difficult to measure demand or market acceptance of the product/service.
- It is difficult to achieve successful exits.

All these barriers show why the use of common venture capital investment criteria in both developed and developing countries hinders SME access to equity capital. To deal with these barriers of investment, some venture capitalists have worked around the institutional voids in developing countries and developed strategies

which have been successful for pursuing investment opportunities in these markets. These strategies have been referred to as SME equity capital success factors in this study. Chapter five discusses how the SME equity capital success factors prepare SMEs for investment, and reduce risk and transaction costs, which are the obstacles to SMEs' access to equity capital.

CHAPTER 5

SME EQUITY CAPITAL SUCCESS FACTORS IN DEVELOPING COUNTRIES

5.1 Introduction

The previous chapter reviewed and discussed the conventional venture capital investment criteria and its shortcomings with regards to assessing SME projects in developing countries. The limitations of the conventional investment criteria require venture capitalists to devise ways to deal with the high perceived risk and high transaction costs and the fact that SMEs may not be investment ready. Wright, Lockett and Pruthi (2002) and Leeds and Sunderland (2003) advise foreign firms entering emerging markets to adapt to local market conditions rather than to simply replicate their domestic investment strategies. In their study carried out in India, Wright et al. (2002) compared perceptions of the behaviour of local venture capital firms (Indian, and foreign, mainly US firms) and US venture capital firms operating in the US. The authors found that venture capital firms that adapted to local Indian conditions were successful.

Furthermore, Khanna, Palepu and Sinha (2005) argue that successful companies work around institutional voids and develop appropriate strategies for doing business in developing countries. In this context, some venture capitalists investing in developing countries have found new ways to deal with the obstacles to SME equity capital, so as to pursue investment opportunities in developing countries (Wright et al., 2002; Leeds & Sunderland, 2003). These strategies are referred to

as 'SME equity capital success factors' in this study. This chapter identifies SME equity capital success factors and examines how they address the obstacles to SME equity capital. It is perceived that if the obstacles to SME equity capital are reduced or eliminated, venture capitalists will be able to invest in more SME projects and thus reduce the SME equity financing gap. The SME equity capital success factors are discussed in the next section while sub-section 5.3 concludes the chapter.

5.2 SME Equity Capital Success Factors

5.2.1 Investment in Clusters

Clusters in this study include geographical and regional concentration of investee companies. Clusters provide economies of scale and lower costs in the areas of information, monitoring and skill acquisition. Because SME industry sectors are highly fragmented with small players operating at less than optimal scale, clusters facilitate consolidation of small deals and enable economical equity funding (Ribeiro, 2007b; Scheela & Isidro, 2008). Additionally, studies in India and East Asia found that ideas move faster and evolve quickly in clusters (Bowonder & Mani, 2002; Bruton, Ahlstrom & Yeh, 2004).

In addition to economies of scale, a regional focus increases the potential for high deal flow, and the probability of selecting high return companies (Inbona, 2002; Adongo & Stork, 2006). For example, in Brazil and Argentina, a geographic concentration arrangement has assisted venture capital firms to close deals, co-

invest with potential partners and access acquirers for portfolio companies during exit (Pereiro, 2001b; Ribeiro & Carvalho, 2008). In the Philippines, venture capitalists also adopted a regional strategy to address the problem of limited investment opportunities (Scheela & Isidro, 2008).

With this regional focus, venture capitalists also can profit from investment experiences in other countries in the region (Charvel, 2007). Where a regional concentration is not possible, "virtual clusters", located in different geographic regions can create a pool of prospective investments for venture capital firms (Carlson & Chakrabarti, 2007).

Because of the increase in economies of scale, investing in companies in a cluster or region or geographic location makes sense. It reduces SME transaction costs and increases the number of SME projects that qualify for venture capital investment and thereby reduces the SME equity financing gap.

5.2.2 Non-financial Evaluation Methods

Most venture capitalists use discounted cash flow techniques to value potential projects (Wright & Robbie, 1996; Gilbert, 2003; Du Toit & Pienaar, 2005). In the case of developing countries, venture capitalists add a risk premium to the discount rates (Estrada, 2007). The added risk premium inflates the discount rates to excessive high rates, ranging from 15% to 50% (Sylvester & Egeli, 2000,

Missankov et al., 2008). When investors evaluate SMEs using these excessive discount rates, the SME projects do not meet the expected IRR and are rejected.

Considering the limitations of methodologies used to determine discount rates in developing countries (Pereiro, 2002; Sabal, 2004; Estrada, 2007), and the lack of financial information for valuation purposes (Adongo & Stork, 2006), some venture capitalists do not consider financial aspects at the screening stage. For example, venture capitalists in Latin America find the risk premium added to the cost of capital to be arbitrary and unnecessary because the risks are already addressed in the business plan (Grikscheit, 2006). Such venture capitalists assess the risk/return potential of projects through other criteria examined by them (Miloud, Aspelund & Cabrol, 2012). For example, "if the right entrepreneur, right strategy and right product are chosen and the right capability is developed, return will follow" (Kakati, 2003; p.450).

Silva (2004) notes that some venture capitalists in developing countries use financial projections to estimate the break-even point of the potential projects and not as an investment criterion. Such venture capitalists identify their own financial indicators to serve as acceptable surrogates for accessing the viability of the project (Arnold & Quelch, 1998). Alvarez and Jenkins (2007) also advise venture capitalists investing in developing countries to go beyond the numbers and use a hands-on operational lens due diligence approach. This approach requires skilled fund managers who understand how to dig deeper and are able to recognize

previously unseen opportunities and can execute performance improvement plans rapidly and effectively.

Argentine venture capitalists do not adjust the discount rate applied to evaluate potential projects because they choose discount rates as if global markets were fully integrated (Bruner et al., 2002). Therefore, discount rates used in evaluation of projects in Argentina are not excessively high. Other venture capitalists have put greater emphasis on their own market evaluation and due diligence reports (Karsai et al., 1998). This implies that such venture capitalists are competent and use the local experience that enables them to evaluate the potential of business projects. It is expected that evaluating the project's potential using non-financial methods, reduces the number of SME projects rejected and saves unnecessary due diligence costs.

5.2.3 Outsourcing of Core Skills

To address the problem of shortage of skills in developing countries, venture capitalists outsource core skills by hiring knowledgeable local experts to assist in the due diligence evaluation. Due diligence is typically outsourced to professional consulting firms such as PriceWaterhouseCoopers (Adongo & Stork, 2006). Lisle (2003) argues that hiring an outside research-based strategy consultancy firm can ensure that the due diligence process is carried out thoroughly, systematically and efficiently. Some venture capitalists in China hire international accounting firms to help with the financial information, and to physically go to firms and actually count

stock items (Bruton & Ahlstrom, 2003). Ippolito (2007) argues that due to lack of appropriate management skills, expatriates with a solid track record may be hired to improve operations and train local teams. Generally, outsourcing of such functions as due diligence and monitoring reduces operational costs.

5.2.4 Government Incentives

Government incentives such as capital gains tax elimination, offsets the high transaction costs associated with SMEs. Similarly, tax regimes that ensure transparent and equitable treatment of company profits, dividends and capital gains (Campbell & Kraeussl, 2007) and tax free returns to a venture capital fund and its investors, can also reduce the SME transaction costs.

According to Deloitte and SAVCA (2008), venture capital and tax incentives, increase equity investors' interest in early stage businesses and seed capital. Early stage businesses and seed capital mostly fall in the SME sector category. This was demonstrated in the UK, where tax incentives encouraged venture capitalists to invest in SMEs and it led to an increase of more than 52% of the finance provided to SMEs (EC, 2006). A government tax incentive also led to significant growth in the Taiwanese venture capital industry in terms of fund size and number of registered venture capital firms (Liu & Chen, 2006). Furthermore, in Singapore, a government initiative which promoted investment in technology seed and start-ups ventures increased venture capitalists' interest in high technology start-ups by 40% of total venture capital investments (Bruton, Ahlstrom & Singh, 2002).

5.2.5 Exit Strategy Planning

The ability to liquidate investments freely and with substantial capital gains is critical to the success of the venture capital fund. Exits are clearly easier where there is an active stock market. But this is not the case in developing countries, where stock markets are often small and inactive. The limited choice of exit options for divesting makes it difficult to realise the substantial capital gains needed to achieve the high returns normally required by venture capital investors.

Owing to limited options available in developing countries, the exit strategy is often given special attention (Bliss, 1999). Mitchell (2006) advises that venture capitalists determine at the outset a number of possible viable exit opportunities before deciding whether to pursue an investment. The exit planning strategy is also emphasized by a number of studies (Leeds & Sunderland, 2003; Hyytinen, 2005; Grikscheit, 2006; DaSilva, Janezic & Hisrich, 2012). It is important that adequate planning for both a positive and negative investment outcome be done (Grikscheit, 2006). Scherer, Zeidman and Yago (2009) identify planning exit at the outset as a best practice leading to successful investment in developing countries.

Venture capitalists prefer the initial public offering exit method as returns are higher compared to the other exit methods. Consequently, due to small and underdeveloped domestic stock markets in developing countries, venture capitalists are increasingly using foreign stock markets to place their ventures' initial public offerings (Bassolino, 2002). For example, Israeli venture capitalists

have succeeded in foreign markets exits because they have a strategy of establishing the sales and marketing functions and the headquarters close to the main markets, often in the United States with a NASDAQ listing (Maula et al., 2006). This same approach of exiting through initial public offerings in NASDAQ has been successful in Latin America (Pereiro, 2001b), and in Asia (Dossani & Kenney, 2002; Naqi & Hettihewa, 2007). Celtel, a regional mobile phone company operating in Sub-Saharan Africa exited through initial public offerings in the London stock exchange following an MBO by a mobile phone company in Kuwait (Adongo & Stork, 2006).

In the absence of initial public offerings in developing countries, venture capitalists rely on other exit routes such as convertible loans and equity backed by put options (Sagari & Guidotti, 1992), strategic investor (Inbona, 2002; Adongo & Stork, 2006; Naqi & Hettihewa, 2007), trade sales (Cumming & Fleming, 2002; Farag, Hommel, Witt & Wright, 2004; Mariz & Savoia, 2008), refinancing (Huyghebaert & Mostert, 2008), share buyback and reverse takeover (Naqi & Hettihewa, 2007), repurchase, and involuntary exit (Coyle, 2000; Mason, 2006; Durrani & Boocock, 2006). In most developing countries, venture capitalists have established strategic partnerships and alliances that have acquired their investee companies when they are ready to exit (Bruton et al., 2002; Bruton & Ahlstrom, 2003; Ribeiro & Carvalho, 2008; Ozmel, Robinson & Stuart, 2013). The key to most viable exits is to understand one's business partners and their long-term plans, and also the effect of any changes in investors' rights (Grikscheit, 2006).

Viable exit options are perceived to offset the costs of investing in SME projects and reward the venture capital investor with a high profit return.

5.2.6 Proactive Deal Generation

Venture capital fund managers can create deals that fit their skill set and industry knowledge, and offer identifiable opportunities for enhancing value (Feeney et al., 1999; Leeds & Sunderland, 2003). To create deals, Singh, Singh, and Jadeja (2005) advise that fund managers need stamina, patience for good deals and hard work to find the right entrepreneurs and teams to back. In such circumstances, fund managers dig deeper for deals by identifying opportunities to create value and to execute successfully a value-driven operational improvement strategy (Zong, 2005; Alvarez & Jenkins, 2007). For example, fund managers in Africa create their own opportunities by beginning start-ups of their own or going into joint ventures with banks (AVCA, 2006).

To succeed, fund managers adopt more flexible deal structures that can attract higher quality investments. They use for example, active marketing of venture capital services through direct mailing, newsletters, seminars, or workshops (Adongo & Stork, 2006), and publicity, and promotion of success stories (Harding, 2002). Good meeting places for entrepreneurs (Reitan & Sorheim, 2000), road-shows for promising new ventures (Bertoni, Colombo, Croce & Piva, 2007), and seminars for target industry groups (Bliss, 1999) can also be a viable source of

investment deals. Investment deals created by fund managers are likely to meet venture capital firm requirements and to qualify for funding.

5.2.7 Business Incubators

Venture capital promotes innovation, research and development, and entrepreneurship (Adongo, 2006). In addition, venture capital funded firms experience a shorter time-line with respect to bringing a product to the market (Hellman & Puri, 2002; Adongo, 2006; Popov & Roosenboom, 2013). With regard to bringing a product to the market, business incubators have provided a source of deals for venture capital firms in developing countries. Similarly, business incubators increased the survival rates for innovative start-up companies in South Africa (Ndabeni, 2008). Business incubators also nurture and develop entrepreneurs, and foster creativity and innovation (Bygrave & Timmons, 1992; Phan, Siegel & Wright, 2005; Adongo & Stork, 2006; OECD, 2006b).

Brazil, China, and Israel have successful incubators for start-ups that are a source of deals for their venture capital firms (Scaramuzzi, 2002). Business incubators can also foster the creation of new venture capital funds and attract fund investors to the venture capital industry with the adoption of superior fund selection, assessment and monitoring practices (Carvalho, Ribeiro & Furtado, 2006).

5.2.8 Cross-institutional Dialogue

Universities and research organisations have provided innovative business ideas that have led into the creation of new firms. Keuschnigg (2003) observes that an active research environment is an important precondition for the supply of high-quality entrepreneurs and the contribution of new firms through innovation. Moreover, universities and research organisations are valuable sources of new technologies that can be used to realize the business opportunities identified in discussions with large corporations and other potential customers (Maula et al., 2006; Carlson & Chakrabarti, 2007). Singh et al. (2005) also note that partnering with research organizations spins out innovative technologies and companies, which are a source of deals for venture capital firms.

In Israel, the army service supports entrepreneurship by allocating a major share of the long service to research and development type of activities. The Israel venture capitalists source deal flows from the Army research and Technion (Israeli Institute of Technology). Similarly, in Boston, USA, research universities are important sources of deal flow. They have a commercial orientation and clear rules, guidelines and capabilities to commercialize research in collaboration with venture capitalists (Maula et al., 2006).

In China, entrepreneurs affiliated with a Chinese university can obtain funding and the support they need to generate successful enterprises. The universities assist firms directly through linkages and indirectly by way of spillovers (Wu, 2007; Ortin-

Angel & Vendrell-Herrero, 2010). Institutional mechanisms are also in place to facilitate linkages between knowledge generation and economic activity (Chen & Kenney, 2007; Hershberg et al., 2007). Taiwan's product innovation success is also credited to its developed academic community that pursues pure and applied research, and its mature network of research (Badino, Hu & Hung, 2006).

Venture capitalists can also strengthen cross-institutional networks and promote dialogue within the industry and between the entrepreneurs, venture capitalists seeking syndicate partners, accountants, lawyers, financial consultants, and the banking community. Strengthening cross-institutional networks can boost the number of deal referrals and enable venture capitalists to succeed in an environment characterised by low deal flow (Adongo & Stork, 2006; Allen, 2009; Heuven & Groen, 2012).

5.2.9 Collaboration with Non-profit Entrepreneurial Organizations

Singh et al. (2005) advise venture capitalists to support non-profit entrepreneurial organisations and to help start SME support networks. This is because non-financial business development support is an important ingredient of a healthy SME sector (ECI, 2003). These support service firms focus on areas where more SME information is available, thus facilitating transactions/market opportunities.

The non-profit entrepreneurial organisations combine deep local knowledge with operational technical and marketing expertise, and financial resources, to provide quality non-financial support services to SMEs. These non-financial services

include: labour and management training, extension, consultancy, and counselling, marketing and information services, technology development and diffusion, and mechanisms to improve business linkages through subcontracting, franchising, and business clusters (Hallberg, 2000).

Non-financial support services form an important part of the market support structure that helps to build SME competitiveness. This is because they prepare entrepreneurs and relevant management with the skills required by venture capitalists when evaluating potential projects for investment. The non-financial services also reduce investment costs and risks (ECI, 2003). Further, SMEs benefit from the training on market research and analysis techniques which are important when SMEs conduct market research for funds.

5.2.10 Training Entrepreneurs and Venture Management

Training entrepreneurs and venture management helps address the problem of shortage of human skills and also prepares SMEs for investment. Venture capitalists can identify the specialized training or mentoring schemes suitable for a growth oriented company (Adongo & Stork, 2006). This training has a two-fold objective, namely, to help the entrepreneur understand the venture capital investment process and to make the entrepreneur investment ready. Entrepreneurs with business judgment and managerial skills are essential to manage the transformation of a deal into a successful enterprise. Given the frequent lack of business management skills in developing countries, it is difficult to

judge the quality of business promoters based on their track record. However, the entrepreneurs must demonstrate that they have the ability to succeed. In such a situation, the fund manager can assist and guide the entrepreneurs but cannot substitute for them (UNCTAD, 1997).

Venture capitalists need to educate entrepreneurs about the entire venture capital process (Bliss, 1999) including the concepts and benefits of venture capital for business finance (Abereijo & Fayomi, 2007). This is because entrepreneurs need to understand and accept the basis of the business relationship with outside equity investors. By understanding the nature and process of venture capital investment decisions, the entrepreneur can develop quality business proposals and negotiate more effectively with venture capitalists (Aernoudt, 2005; Adongo & Stork, 2006; Proimos & Murray, 2006). SAVCA and Venture Solutions (2010) confirm that South African entrepreneurs need training on the role and modus operandi of the venture capitalists.

Entrepreneurs can also be trained on how to access finance and the support offered by venture capitalists (Adongo & Stork, 2006). The entrepreneurs can be guided in the presentation of their projects both in writing and orally, including bringing them into contact with venture capitalists who might be interested in their projects (Aernoudt, 2005). Therefore, the venture capital firm has an important educational role in explaining and encouraging constructive relationships between entrepreneurs and investors.

Singh et al. (2005) advise venture capitalists to coach entrepreneurs and management staff because entrepreneurial and managerial skills training is necessary in developing economies (Mallach, 1997) in order to develop the required skill set for venture capital investments. Moreover, successful investment management firms are those supported by strong local management teams (Charvel, 2007).

The conduct of awareness campaigns and education on the risks and benefits of venture capital financing is necessary in developing countries where entrepreneurs do not want to lose ownership control of their family businesses (Aylward, 1998; Tan et al., 2008). Entrepreneurs need to understand that although they may lose control or management freedom, the overall growth of the company will bear much fruit and benefit for all parties involved. Pereiro (2001b) advises that venture capital should be exposed to the general public in general, and to entrepreneurs in particular, through the judicious use of media, industry publications and open conferences. Additionally, innovative activities e.g. online portals and model projects can provide a forum for SMEs to meet potential investors (Carvalho et al., 2006).

Better entrepreneurship education will reduce due diligence costs (Mitchell, 2006) because entrepreneurs will prepare quality business plans which clearly articulate risk reduction strategies and thus provide comfort to the investor that the risks are indeed recognised and will be managed effectively by a competent top

management team (Douglas & Shepherd, 2002). Training entrepreneurs and management teams also reduces the information gap between the demand for and the supply of funding in developing countries arising from the fact that entrepreneurs do not fully understand the range of financial options available to them (Aernoudt, 2005). Training promotes the innovative capacity of entrepreneurs (Hallberg, 2000) which leads to increase in quality deals.

5.2.11 Strategic Partnerships and Alliances

Strategic partnerships and alliances provide a channel for identifying deals as well as exit opportunities for venture capital investors (DaSilva et al., 2012; Ozmel et al., 2013). As Maula et al. (2006) observe, links with large corporations are valuable in the due diligence process when assessing the demand for the products of the company. In Asia, strategic partnerships and alliances have provided profitable exit mechanisms (Bruton et al., 2002; Bruton & Ahlstrom, 2003). In Israel, venture capitalists have foreign strategic partners in USA and Asia to support the internationalization of their portfolio companies (Maula et al., 2006). In Brazil, private equity/venture capital managers tend to spend a lot of time networking with potential acquirers, analysing their strategies and preparing portfolio companies for acquisition (Ribeiro & Carvalho, 2008). Consequently, when an investment project is supported by strategic partners and alliances, the venture capitalist is assured of success of the venture and, therefore, the risk of loss is reduced.

5.2.12 Networks

Networks are necessary in markets with institutional deficiencies as they provide information required to assess credit worthiness of the entrepreneur and other due diligence evaluations of the potential venture. In developing countries networks are more pronounced because of the existing institutional voids. Venture capitalists use various networking forums to obtain information about the entrepreneur and the potential investment venture (Rasmussen & Sørheim, 2012). Three networking forums aimed to mitigate information and agency problems are commonly used by venture capitalists in developing countries. These mechanisms include networks with entrepreneur's personal contacts, networks with other business and government, and networks with local investors.

Networking with entrepreneur's personal contacts

In China, venture capital firms focus their due diligence on the entrepreneur's background and their contacts, and build relationship networks with relatives of the entrepreneur and educators to assist in enforcing contracts (Bruton & Ahlstrom, 2003). Bassolino (2002) argues that a well-attuned network of personal contacts is the most effective way to determine creditworthiness of the entrepreneur. In this context, Bruton and Ahlstrom (2003) advise venture capitalists to know the founder, his colleagues and even family; and also to know what sort of connections the entrepreneur has, both with the government and other organisations. Private investors in Hong Kong are no exception as they also take a relational approach in their investment decisions (Chu & Hisrich, 2001).

This same advice is echoed by Bruton et al. (2004) in their study that focused on venture capital in Hong Kong, Singapore and Taiwan. The authors observe that the venture selection process is more challenging in developing countries because of a lack of reliable data from which to conduct due diligence. The authors continue to argue that venture capitalists are expected to know the principal of the funded firm and his or her family, because, the firm principal is less likely to disappear or drop out of the investment if the family is involved. In addition, the authors emphasise that understanding the prospective funded firm's business model and capabilities, any local-partner relationships, and government connections with the firm's top management team, allows a comprehensive assessment of the credit worthiness of the entrepreneurs as well as their idea. This networking investment strategy minimizes adverse selection of investment projects.

In their study on the impact of the institutional environment on the venture capital industry in Singapore, Bruton et al. (2002) observe that venture capitalists prioritise connections and relationships with potential clients during project selection. This study emphasises that cultural-cognitive factors often create the requirement for existing relationships, if SMEs are to access venture capital funding.

Ahlstrom and Bruton (2006) also note that it is important to have connections because they can open doors, obtain information, locate markets, and better secure the investment. Knowing the entrepreneur's history or connections with the venture capitalist, and the entrepreneur's connection to key government officials is

important for the investment. However, connections should be acquired and used judiciously, particularly with regard to government or military connections (Ahlstrom & Bruton, 2006; Zacharakis, McMullen & Shepherd, 2007).

Networking with other businesses and the government

Peng and Heath (1996) support the effectiveness of using a networking strategy as a way to build competitive advantage in economies lacking fully developed institutions. This is because socially-embedded businesses are able to create a web of trusted connections with a diversity of organisations and institutions, to generate a bottom-up development, and to understand, leverage and build on existing social infrastructure (London & Hart, 2004).

In developing economies, networking with civil society organisations, local governments, individuals and non-governmental organisations influences the success of a venture (London & Hart, 2004; Prahalad, 2005). This networking strategy is similarly important to the venture capital industry because relationship building with key influential figures in the public and private sectors influences the success of the venture capital investment (Sylvester & Egeli, 2000; AVCA, 2006). Venture capitalists can also network through venture capital associations (Hill & Power, 2002; Mason, 2005).

Mitchell (2006) advises venture capitalists to increase deal flow by building strong networks with investment bankers, accountants, leading entrepreneurs,

academics, research and development organisations, and lawyers. It is also important that venture capitalists understand local-partner relationships and government connections (Bruton et al., 2004). Relationships with local authorities assist venture capitalists to understand and to manage the local regulatory regime (Bruton & Ahlstrom, 2003; Hassan, 2010).

In Vietnam, networking with government officials offsets the general lack of institutional support and enables venture capitalists to effectively develop investment funds and efficiently manage investee companies (Scheela & Dinh, 2004). For example, Vietnamese venture capitalists work with government officials to get necessary approvals for an investee company or to attempt to improve macroeconomic factors that directly affect venture capital (e.g., improving exit strategies by developing a stock market).

Networking with local investment partners

Yago et al. (2007) observe that knowledge of the local market is a key factor to success in developing countries. Foreign investors are advised to have local investing partners so as to benefit from the information network and to share the risk with local capital providers who have more than a financial stake in the success of the investment (Naqi & Hettihewa, 2007; Yago et al., 2007; Scherer et al., 2009). Zhang (2002) also argues for a co-investment strategy and active participation in the investment to avoid being cheated by corrupt entrepreneurs. Thus co-investment with local partners reduces individual risk (Adongo & Stork,

2006). Local partners can also reduce information asymmetry because they know the market better and have experience on how to navigate it (London & Hart, 2004). Syndication with local investors may be the best instrument to learn the essentials of investing in SMEs and is also a vehicle to acquire risk-reducing information (Aernoudt, 2005; Freiburg & Grichnik, 2012).

The importance of networks is further evidenced in Africa, where some private equity players have a network on the ground that keeps them in touch with local opportunities and information (Allen, 2009). Venture capitalists are advised to leverage on a strong network of contacts covering businesses and social groups that consist of other entrepreneurs and business intermediaries like lawyers, financial consultants and accountants (Megginson, 2004). Networking reduces information asymmetry and adverse selection and thereby attracts venture capital.

5.2.13 Leveraging Strengths of Existing Institutions

Because deal structuring is dependent on the existing laws and regulations, the weak institutions in developing countries have forced venture capital firms to adapt new creative approaches in their deal structuring (Zacharakis et al., 2007). In Brazil, private equity/venture capital regulation recognizes the inefficiency of the legal system and obliges the use of arbitration (Ribeiro & Carvalho, 2008). The Brazil legal system is inefficient because of the long and costly process of going to court, the lack of case law and judges' lack of knowledge in the financial contracting area. Consequently, arbitration is included as a dispute resolution

method in shareholders agreements and stock purchase contracts between private equity and venture capital investors and Brazilian companies (Ribeiro, 2007a).

In Central and Eastern Europe, some venture capitalists diversify and use offshore legal jurisdictions as a basis for venture capital investing. The offshore arrangement allows venture capitalists to structure deals in a flexible manner, offer the protection of more reliable and user-friendly Western court systems, and to optimize tax burdens for venture capitalists and entrepreneurs (Klonowski, 2006, 2007). In Sub-Saharan Africa, contract enforcement is organized primarily around relationships and reputation (Fafchamps, 2004). This is because businesses get around market failures and lack of formal institutions by creating private governance systems in the form of long-term business relationships and/or tight, ethically-based business networks (Biggs & Shah, 2006).

In developing countries, risk is also mitigated through control positions, where the venture capital investors align their interests with those of majority stakeholders, and are actively involved in the management of the venture (Grikscheit, 2006). Control is a regulatory process where standards are erected to ensure more predictable behaviours in the pursuit of some desired outcome (Leifer & Mills, 1996). In a venture capitalist-entrepreneur relationship, control is used to illicit cooperative behaviour from the entrepreneur, and to ensure that invested capital and other resources are properly utilized (Payne et al., 2009). Parhankangas, Landstrom and Smith (2005) argue that control rights tend to promote relational

approaches to solving problems emanating in the venture capitalist-entrepreneur relationship. Specifically, venture capitalists prefer solving problems in collaboration with entrepreneurs, rather than resorting to legal sanctions when faced with disappointments.

In Brazil, investors opt for a majority position to ensure contract enforcement and make the necessary changes in the company especially if growth slows down. This is because, minority investments have more complex contracts that are difficult to enforce under the difficult institutional environment prevalent in Brazil (Ribeiro, 2007b). In instances, where a majority position is not possible, venture capitalists focus on voting mechanisms and other methods of de facto control (Grikscheit, 2006). In Central and Eastern Europe, private equity investors adopt certain covenants such as board veto rights as well as anti-dilution provisions to provide them with additional rights and establish regulations concerning their portfolio companies (Farag et al., 2004). The ownership positions in investee companies enable effective control to address potential adverse selection issues and reduce agency risks (Karsai et al., 1998).

In South Africa, venture capitalists devised non-conventional contract covenants such as "obligating management to sign non-compete contracts that prohibit them from working in the same kind of industry for a future period of time after leaving the portfolio enterprise, and vesting of management's shares over a number of years in order to discourage management to leave the enterprise" (Huyghebaert &

Mostert, 2008; p.25). The granting of equity to management aligns the goals of agent and principal (Millson & Ward, 2005; Zong, 2005).

Additionally, risk is mitigated through the use of financing instruments that are tailored to local risk profiles. For example, some venture capital investors in Latin America invest through debt instruments to take advantage of a lower risk profile and better liquidity (Grikscheit, 2006). Private equity investors in Central and Eastern Europe rely on a combination of direct equity ownership, convertible securities and selected covenants to secure their influence on portfolio companies (Farag et al., 2004). Millson and Ward (2005) observe that some venture capitalists use debt instruments to discipline management and keep it focused on meeting performance metrics. For example, in India, venture capitalists use participating debentures, equipment leasing, hire purchase finance, and overdraft finance to fund entrepreneurs (Verma, 1997). Moreover, to deal with the exit problem, some venture capitalists have avoided the equity route and instead use self-liquidating instruments to structure their deals. The loans are coupled with an incentive fee or royalty to compensate for the risk of borrowers defaulting (AVCA, 2006).

Experience shows that recognizing the value of existing institutions and looking for potential opportunities to leverage on, has increased the success of ventures (London & Hart, 2004).

5.2.14 Experienced Fund Managers

The quality of venture capital fund management is critical to the success of venture capital institutions. Venture capital fund managers have a key role to play in identifying and evaluating investment propositions, structuring and negotiating deals and in managing and divesting the portfolio of equity holdings. To succeed in developing countries venture capitalists require a diverse skill set, distinct from that of established bankers. In addition to an entrepreneurial spirit, they need to have knowledge in strategic planning, financial engineering, investment analysis, operations management, recruiting, market research and sales (Sagari & Guidotti, 1992). These specialized skills are needed to evaluate the risks and rewards of a business plan at each stage of investment, assess the growth potential of an enterprise and help entrepreneurs to build a venture into a success story (Kumar & Kaura, 2003).

Venture capital fund managers need to have in-depth knowledge of specific markets in which they operate (Mitchell, 2006). A combination of broad-based deal experience with local market experience is helpful in deal structuring and also portfolio management (Grikscheit, 2006). An up-to-date understanding of local conditions and a network of contacts with prospective investee businesses are critical to generating deal flow, assessing specific factors that will determine growth potential, and identifying the right method and timing of exits (SEAF, 2004).

In a study of venture capital in Poland, Bliss (1999) found that venture capital firms need skills in several industries due to lack of firm-specific screens. The venture capitalists also need to be open-minded and capable of evaluating deals at any stage of financing. Leeds and Sunderland (2003) argue that fund managers should be culturally-attuned and have a deep understanding of the unique circumstances that differentiate developing countries from developed countries.

A case study by Gunning (2003) carried out between 1996 and 2003 on managing SME investment funds in the Latin America and the Caribbean, found it is important that the fund manager, the board of directors and all the oversight committees have a working knowledge of the local market financial customs and norms. The study also found that fund managers who appreciate the local culture are successful in structuring their investment transactions and have better investment portfolio results.

Ahlstrom and Bruton (2006) observe that the venture capitalist must know the characteristics of the market by having someone on location that understands that market, and have built relationships and integrated themselves into various networks of business and government. The in-depth local knowledge is required to generate successful investment strategies (Grikscheit, 2006; Allen, 2009).

SEAF (2007) emphasises the importance of experienced fund managers who possess the skills required to identify one or more of the criteria that have

contributed to SEAF's financially successful investments. The SEAF criteria include: companies managed by entrepreneurs who are interested in and committed to realizing capital appreciation over the next three to five years, entrepreneurs who seek to address local market deficiencies and meet local demand, entrepreneurs with a desire to achieve market leadership, entrepreneurs active in industry sectors with price/earnings or other acquisition multiples, and entrepreneurs who are willing to exit the business jointly. Parhankangas and Hellstrom (2007) argue that the fund managers' intimate knowledge of the industry and the venture portfolio enables them to apply the SEAF criteria by using experience gained from the outcomes of risk perceptions and risk reduction strategies applied in previous investments. Gompers, Korner, Lerner and Scharfstein (2008, p.2) found that "the most experienced private equity firms generally record the best performance". Additionally, Kaplan and Schoar (2005) found that the skill and quality of fund managers had an impact on performance.

Conversely, when inexperienced venture capitalists operate in an industry, returns are lower because they may choose the wrong investments. In other cases, they lose the opportunity to participate in attractive deals because they subject potential investee companies to unnecessarily lengthy reviews (Fox, 1996). Thus, the poor performance of inexperienced fund managers also impacts on the initial results of a venture capital fund.

Singh et al. (2005) underscores the importance of local teams with deep connections. Deal and portfolio management teams with a combination of broad-based deal experience and local market experience can contribute to successful investments (AVCA, 2006; Grikscheit, 2006). The right type of operational expertise enables fund managers to make informed decisions. Additionally, value enhancement can be achieved through operational strategies led by skilful fund managers who understand how to dig in, recognize previously unseen opportunities, and execute performance improvement plans rapidly and effectively (Alvarez & Jenkins, 2007). Deloitte and SAVCA (2008) affirm that strong management teams also assist in extracting value from investee companies.

Parhankangas et al. (2005) in their study of 78 Nordic venture capitalists found that investors with venture capital and business experience include more protective clauses in venture capital contracts than their inexperienced colleagues. The venture capitalists' experiences guide their contractual choices and responses to unmet expectations. In this way, experienced venture capitalists are expected to reduce the risk of adverse selection and to increase the chance of successful investments and exits.

5.2.15 Corporate Governance Practices

Prahalad (2005) proposes organization and governance innovation in order to operate in developing countries. With respect to venture capital, establishing good corporate governance practices and strong financial control are key aspects of

portfolio management (Mitchell, 2006). Good governance is especially important in developing countries where it enhances professionalism in many young firms (Adongo, 2006). In this case, venture capitalists coach their investees to adhere to norms and standards that are recognized in global markets (Naqi & Hettihewa, 2007). Corporate governance practices help companies to transition from informally run businesses to professionally managed organisations, with the commensurate benefits of better management control and focus.

Firm-level corporate governance provisions matter more in countries with weak legal environments (Klapper & Love, 2004). That is why Leeds and Sunderland (2003) argue that fund managers must take on the difficult and time-consuming tasks of strengthening corporate governance practices, restructuring management, and of positioning the company for a profitable exit. The level of governance is correlated with the extent of the asymmetric information and contracting imperfections that venture capital firms face (Klapper & Love, 2004).

Ribeiro (2007b) advocates taking seats on the board of directors to promote strong corporate governance culture and strategic advice. Venture capitalists' regular access to management information assists in monitoring and control of the venture. Having a permanent representation on the main board and seats on sub-boards enables venture capitalists to insist on transparency in management, accounting, and operational information formulation (Millson & Ward, 2005). Additionally, being physically close to the portfolio companies allows one to understand the local

business environment, to take advantage of in-country experience, and to identify and hire investment staff with expertise in local market conditions (Deloitte, 2007). In an effort to promote good governance, venture capitalists should be resilient in risk-taking, strive for sound governance and enforce it (Zong, 2005; Grikscheit, 2006; Yitshaki, 2012). Venture capitalists also need to educate portfolio companies on company benefits of good governance. These include: greater access to external funding, increased investor confidence, higher company valuation, lower cost of capital, and an increase in the exit premium (Grikscheit, 2006). Adongo and Stork (2006) advise investors to educate the investee managers, on the benefits of good governance, rather than imposing it through strict rules.

Adongo and Stork (2006) also argue that efforts to adopt corporate governance principles and strong accounting and disclosure standards increases transparency and trust between the venture capitalists and the entrepreneur. This reduces information asymmetry and the risk of moral hazard.

5.2.16 Portfolio Diversification

Charvel (2007) advises that a strong risk diversification strategy is beneficial in developing economies. The developing country risk could be diversified away in investment portfolios because the existence of low correlations among developing countries and between developed and developing countries make diversification of country risk possible (Chris, 1997; Sabal, 2004). Globally diversified investors can eliminate some country risk by diversifying across equities in many countries

(Damodaran, 2003). As a result, the cost of capital in developing countries is lower if the diversification of portfolios and the true exposure to country risk are taken into account (Goedhart & Haden, 2003).

Portfolio diversification across investment stages and industries also reduces unsystematic firm-specific risk (Norton & Tenenbaum, 1993; Gao, 2011). Diversifying portfolios among ventures in different industry sectors and geographic areas reduces the chances of portfolio disasters if a specific industry sector or geographic area goes into a prolonged slump. Business concepts that enjoy patent, copyright, or trade secret protection, or that enjoy unique geographic or market niche advantages, are also highly valued by venture capital investors. That is, venture capital investors seek ventures in inefficient markets to reduce the risks of subsequent competition (Ruhnka & Young, 1991). In developing countries, such opportunities exist in projects that address local market deficiencies and meet local demand (Arnold & Quelch, 1998; SEAF, 2007). Projects which address the young population in developing countries include: education, electronic games, entertainment, apparel, fast foods, cafes, fashion, magazines and books, beauty products, music, and cell phones (Mahajan & Banga, 2006). In addition, ventures dealing with infrastructure deficiencies, such as, water purification systems, generators, inverters, and other products, especially those which can use leapfrog technology (Mahajan & Banga, 2006), along with agricultural ventures, such as, agribusiness, and horticulture (Sagari & Guidotti, 1992) also are good business opportunities.

Portfolio diversification is expected to reduce the discount rate applied when evaluating return potential of projects. Hence, a higher acceptance rate of SME projects is expected.

5.2.17 Hands-on Monitoring

Deloitte (2007) argues that a hands-on approach that empowers people on the ground, includes local connections and has an understanding of the culture is necessary to succeed in developing countries. For the hands-on approach to add more value, the fund managers need to have superior market knowledge (Aylward, 1998). In developing countries, due diligence in monitoring investments is necessary due to lack of legal infrastructure and international corporate governance standards (Bassolino, 2002).

Because of the higher perceived risk, venture capital investors require frequent financial reporting (Koryak & Smolarski, 2008; Tan et al., 2008). This regular access to information increases transparency (Millson & Ward, 2005). Bruton and Ahlstrom (2003) and Scheela and Isidro (2008) advise investors to use hands-on monitoring strategy to minimize operating risks. For example, close monitoring helps venture capitalists to know the networks developed by entrepreneurs in investee companies (Bruton & Ahlstrom, 2003), thereby reducing the risk of moral hazard. Hands-on monitoring also enables the investors to manage the performance of the venture along with its resources in order to establish strategic objectives (Zong, 2005).

Active venture capitalists participate on the board, recruit management to fulfil strategy and objectives and source support services that management can take advantage of to increase their capacity to manage the company through its stages of growth (Adongo & Stork, 2006). The Board participation enhances information flow and reduces problems arising from asymmetric information. Venture capitalists can also appoint an experienced chief executive officer and/or senior management team if there is any perceived weakness in the entrepreneur or managerial team (Cope, Cave & Eccles, 2004; Adongo & Stork, 2006).

Venture capitalists also support management teams with strategy development, market research, and finance and accounting. This is done through business advice (financial management, planning, marketing, strategic and management skills) based on venture capitalists knowledge of markets, the entrepreneurial process and a network of contacts (Beltz, 1994; Cetindamar, 2003; Adongo, 2006). This is necessary in order to add value through better governance and improved efficiency (AVCA, 2006; Grikscheit, 2006). Venture capitalists involved in hands-on monitoring are also likely to refocus the business for profitable exit by opening new markets, introducing new technology, strengthening corporate governance practices and restructuring management (Durrani & Boocock, 2006). It is expected that hands-on monitoring reduces the risk of failure and increases the chances of the success of an SME.

5.3 Conclusion

The shortcomings of the conventional venture capital investment criteria lead to evaluation assessments that show SMEs to be very risky, not investment ready, and with high transaction costs. These assessments have led venture capitalists to prefer larger businesses, thus alienating SMEs. As a result, SMEs lack access to the equity capital that is important for their growth and expansion, and ultimately impacts employment and economic growth of the country. The SME equity capital success factors discussed in this chapter prepare SMEs in developing countries for investment, and reduce the perceived high risk and transaction costs. Taking the limitations of the conventional venture capital investment criteria into consideration, these success factors mitigate obstacles to SME equity capital and therefore can be turned into investment criteria for evaluating and funding SMEs.

Figure 5.1 gives a diagrammatic summary of the SME equity capital success factors and the corresponding SME equity capital obstacle mitigated.

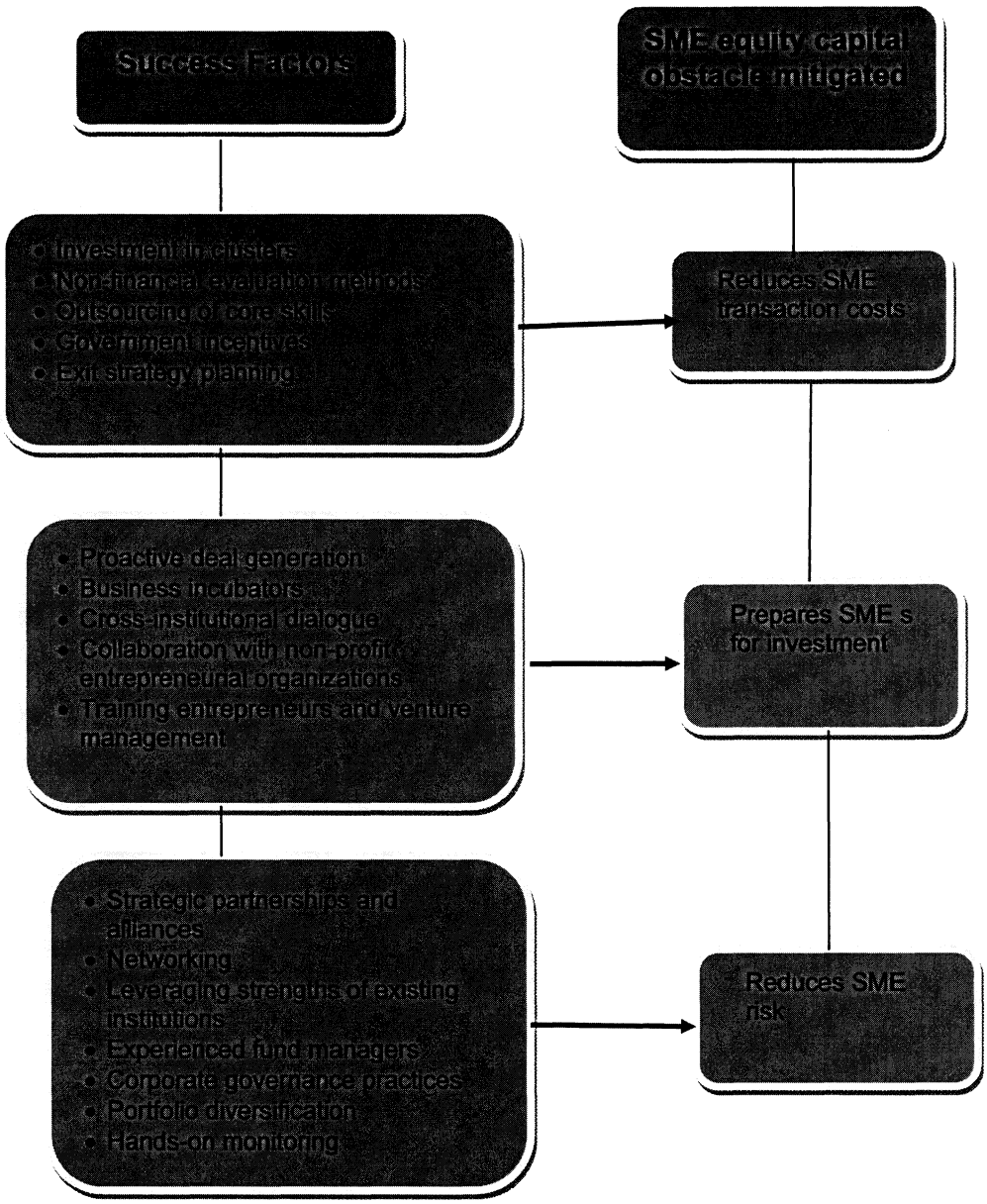


Figure 5.1: Success factors Vs SME equity capital obstacle mitigated (Researcher's own construction from literature review)

Against this background, the next chapter designs a model of perceived SME equity financing gap reduction in South Africa. This model guides the empirical component of this study.

CHAPTER 6

A THEORETICAL MODEL OF SME EQUITY FINANCING GAP REDUCTION IN SOUTH AFRICA

6.1 Introduction

In the previous chapter, various factors applied by venture capitalists to reduce obstacles to SME equity capital in developing countries were discussed. As shown in figure 5.1, these factors can be categorized into three groups: factors that reduce SME transaction costs; factors that prepare SMEs for investment; and factors that reduce SME risk. This chapter discusses the conceptual model that hypothesizes reduction of SME transaction costs, reduction of SME risk, and preparing SMEs for investment decrease the perceived SME equity financing gap. The relationships are based on the discussion of the factors that mitigate obstacles to SME equity capital, as presented in the previous chapters.

6.2 The Model

This study examines the relationship between SME investment readiness factors, SME risk reduction factors, SME transaction costs reduction factors, and reduction of the perceived SME equity financing gap. The dependent variable is the perceived SME equity financing gap, while the independent variables are SME risk reduction factors, SME transaction costs reduction factors, and SME investment readiness factors. The hypothesized interrelationships are shown on figure 6.1. The symbol (+) on figure 6.1 denotes a positive relationship. An inverse relationship is denoted by the symbol (-).

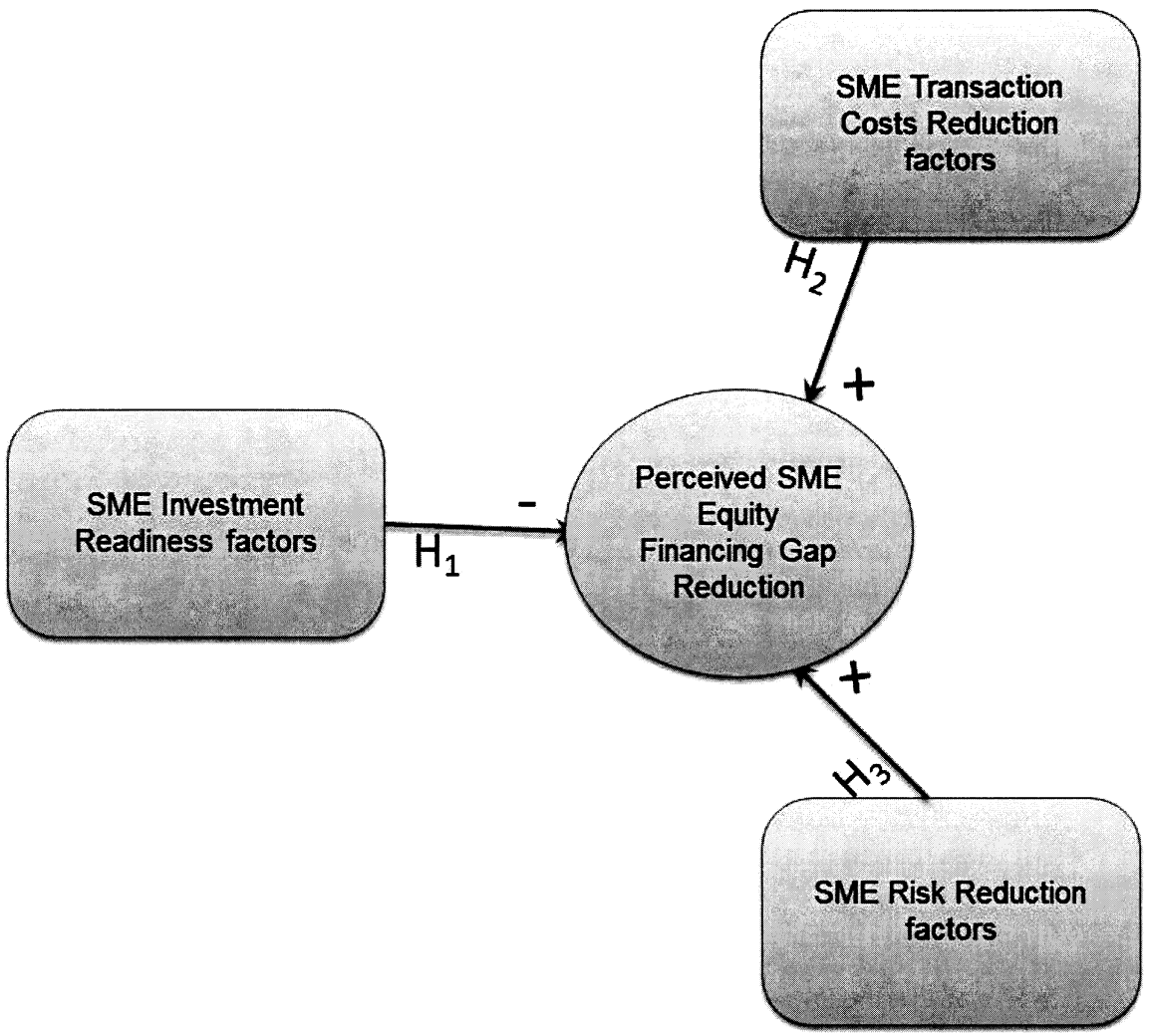


Figure 6.1: Conceptual Model of Reduction of Perceived SME Equity Financing Gap (Researcher's Own Construction from literature review)

Reduction of the SME equity financing gap in South Africa is important because more SMEs will have access to the equity (growth) finance they need to grow and develop into larger businesses. This is beneficial to the country because SMEs are recognized as contributors to both growth and employment. However, venture capitalists who can provide SME equity finance have not adapted their investment criteria to developing country business environment conditions. This is evidenced

by studies on the venture capital investment criteria in developing countries including South Africa (Chotigeat et al., 1997; Kakati, 2003; Mishra, 2004; Deventer & Mlambo, 2009; Wong, 2009). These studies show that venture capitalists in developing countries apply the same investment criteria originally shaped in developed markets, mainly in the US, where the relevant institutions that support venture capital are well developed. But similar institutions in developing countries are underdeveloped or do not exist (AVCA, 2006).

These conventional venture capital investment criteria discriminate against SMEs in developing countries because the factors considered important by 'conventional' venture capitalists cannot be fulfilled by these SMEs. This is because of investment barriers in developing countries including: scarcity of entrepreneurial and management skills, poor distribution channels, small or illiquid stock markets, underdeveloped legal institutions, ambiguous property rights, lack of standardized methods for determining discount rates for valuation, and limited availability of SMEs accounting information. Consequently, most venture capitalists perceive SMEs to be costly and risky, and ignore SME projects when selecting investment projects. Instead of ignoring SME projects, what venture capitalists need is a different evaluation approach aligned more closely with developing country business environment realities.

As discussed in Chapter Five, some venture capitalists have worked around the institutional voids in developing countries and developed strategies for pursuing

investment opportunities in these markets. These strategies are referred to as 'SME equity capital success factors' in this study. These success factors address the main obstacles to SME equity finance identified in this study, that is, high transaction costs, high risk, and lack of SME investment readiness. It is perceived that if these obstacles are reduced or eliminated, venture capitalists will be able to invest in more SME projects and this will reduce the SME equity financing gap. The next section discusses how these success factors minimize the three obstacles of lack of investment readiness, high risk and high transaction costs to narrow the SME equity financing gap.

6.3 Factors that Mitigate Lack of Investment Readiness

Small and medium enterprises in developing countries are mostly unable to raise equity finance because they are not investment ready. Some of the reasons for rejection of SME requests for equity funding include: poor and inaccurate business proposals, limited entrepreneurial education and skills, and inadequate and/or inaccurate financial reports. Chapter Five discussed SME equity success factors that have been applied by venture capitalists to prepare SMEs for investment. These pre-investment factors include: proactive deal generation, business incubators, cross-institutional dialogue, collaboration with non-profit entrepreneurial organizations, and training entrepreneurs and venture management. The role of these factors in preparing SMEs for investment is discussed as follows.

Proactive deal generation

Venture capitalists can prepare SMEs for investment through proactive deal generation in the following ways.

- Identifying a company in the sector of interest and approaching it with a view to preparing it for investment. Such a company must fit the fund managers' skill set and industry knowledge, and offer identifiable opportunities for enhancing value (Feeney et al., 1999; Leeds & Sunderland, 2003). The fund managers then analyse the company to identify opportunities to create value, and execute a value-driven operational improvement strategy (Zong, 2005; Alvarez & Jenkins, 2007). In this case, the fund managers adopt a hands-on approach in the preparation of the business proposal, leading and growing the company, thus guaranteeing that the entrepreneur and management team are guided through the investment process.
- Active marketing of venture capital services through direct mailing, newsletters, seminars, or workshops (Adongo & Stork, 2006) and publicity and promotion of success stories (Harding, 2002). Through this channel, entrepreneurs and the management team are trained on the nature of venture capital, how to access it, and the business support offered by fund managers. This knowledge helps SMEs to prepare quality business proposals and organize their businesses for venture capital investment.
- Meeting with entrepreneurs (Reitan & Sorheim, 2000), doing road-shows for promising new ventures (Bertoni et al., 2007; Gregoriou, Kooli & Kraeussl, 2007), as well as seminars for target industry groups (Bliss, 1999). This

facilitates SME contact with venture capital firms and increases SME awareness on venture capital finance and its benefits. Additionally, SMEs learn about the expectations of the venture capital fund managers with regard to preparation of business proposals.

Business incubators

Business incubators prepare SMEs for investment by nurturing and developing entrepreneurs and cultivating their creativity and innovation (Bygrave & Timmons, 1992; Phan et al., 2005; Adongo & Stork, 2006; OECD, 2006b). Consequently, innovative entrepreneurs develop viable business ideas that qualify for venture capital funding. In addition, business incubators increase the survival rates for innovative start-up companies because they provide hands-on business and management assistance through a combination of in-house expertise and a network of community support (Ndabeni, 2008). In summary, business incubators make companies 'investment ready' by improving entrepreneurs' business skills and business ideas.

Cross-institutional Dialogue

Small and medium enterprises affiliated with universities and research organizations benefit from business expertise, knowledge and innovation within these institutions. Keuschnigg (2003) argues that an active research environment is an important precondition for the supply of high quality entrepreneurs and the contribution of new firms through innovation. Active research on SMEs and

entrepreneurship promotes high quality business ideas and prepares entrepreneurs with business skills required for successful equity investments. Additionally, when venture capitalists partner with universities and research organizations, innovative technologies, and business ideas are created which lead to creation of viable ventures (Singh et al., 2005). Such ventures are suitable for venture capital funding because those SMEs exposed to research are able to access equity funding (Adongo & Stork, 2006; Allen, 2009). This funding in turn contributes to reduction of the SME equity financing gap.

Collaboration with non-profit entrepreneurial organizations

Non-entrepreneurial organizations can prepare SMEs for investment by providing quality non-financial support services to SMEs. These services provide entrepreneurs and relevant management with the skills required by venture capitalists when evaluating potential projects for investment. The non-financial services include: business and management skills training, business marketing and information services, and mechanisms to improve business performance (Hallberg, 2000). The venture capitalists rely on venture management competencies to assess the technical aspects of the projects, the market conditions, the knowledge base of the firm, and the ability of the management team to successfully execute the business plan (Christensen, 2003). Because entrepreneurs are trained in business skills including preparation and presentation of business proposals, the risks and costs arising from information asymmetry are reduced (ECI, 2003).

Training entrepreneurs and venture management

Training entrepreneurs and venture management team helps address the problem of shortage of human skills and also prepares SMEs for investment. The training should focus on the venture capital investment process, access to equity finance, and the support offered by venture capitalists. As part of the training, the entrepreneurs can be guided in the presentation of projects, both in writing and orally, including bringing them into direct contact with venture capitalists who might be interested in their projects (Aernoudt, 2005).

Entrepreneurs who do not want to lose ownership control of their family businesses can be educated on the risks and benefits of venture capital financing (Aylward, 1998; Tan et al., 2008). For example, entrepreneurs need to understand that injection of equity capital enhances the business performance and benefits all parties involved.

Apart from equipping entrepreneurs with business judgment and managerial skills, the training of entrepreneurs reduces due diligence costs (Mitchell, 2006) because entrepreneurs are able to prepare quality business plans and to keep proper accounting records (Douglas & Shepherd, 2002). Training entrepreneurs also reduces the information gap between the demand for and the supply of funding arising from the fact that entrepreneurs do not fully understand the range of financial options available to them (Aernoudt, 2005). With the reduction in the information gap, the risks of adverse selection and moral hazard are reduced.

All these factors discussed in this section help prepare SMEs for investment. 'Investment ready' SMEs are more attractive to venture capitalists as potential investment projects, and have a higher likelihood of being selected for investment. With more SMEs accessing equity finance, the perceived SME equity financing gap is reduced. It is therefore hypothesized that:

Hypothesis 1: There is an inverse relationship between SME investment readiness and reduction of the perceived SME equity financing gap.

6.4 Factors that Minimize High Transaction Costs

SME transaction costs are the costs related to the technological and market appraisal incurred by the venture capitalists during the investment validation process. These costs are largely fixed and higher for SMEs because the financial and business records of SMEs are poor and more opaque than for larger businesses and extra due diligence work is needed (Mason & Harrison, 2002; Mason, 2005; Eid, 2006). SME transaction costs are also driven higher because the lack of experienced and skilled management in developing countries necessitates more hands-on support by fund managers in venture management (Kanniainen & Keuschnigg, 2004; Patricof et al., 2005). Additionally, the immature institutional framework in developing countries increases transaction costs compared to those in developed countries (North, 1990).

Chapter Five identified the following factors that reduce SME transaction costs: investment in clusters, using non-financial evaluation methods to determine project potential, outsourcing core skills, using government incentives, and exit strategy planning. These factors reduce SME transaction costs as follows.

Investment in clusters

Investing in SMEs located within a geographical or regional or industry cluster provides economies of scale and lowers costs in the areas of information, monitoring, and skill acquisition. Because SME industry sectors are highly fragmented with small players operating at less than optimal scale, clusters facilitate consolidation of small deals and enable economical equity funding (Ribeiro, 2007b; Scheela and Isidro, 2008), and also lower operational costs (Adongo & Stork, 2006). Consequently, more SMEs are able to access equity finance, and as a result, the SME equity financing gap is reduced.

Use of non-financial evaluation methods

Non-financial evaluation methods include assessment of the viability of a venture through local operational knowledge and experience. The traditional financial methods are only used to generate financial indicators as a guide (Arnold & Quelch, 1998), but the decision to invest is based on a hands-on operational experience (Alvarez & Jenkins, 2007). This approach is considered beneficial to SMEs due to the lack of standardized methods for determining discount rates, and to the limited availability of SMEs accounting information in developing countries.

Using the hands-on operational experience approach, high potential SMEs that might have been rejected by traditional financial valuation methods, are more likely to access equity finance. This approach also saves unnecessary due diligence costs normally incurred when searching for information inputs to the traditional valuation methods.

Outsourcing Core Skills

In this study, the term 'outsourcing' refers to the use of core skills of local people not working directly under the venture capital firms. Outsourcing core skills reduces SMEs transaction costs because the skills are outsourced from local people who know how to navigate the local business terrain. These experts know the local information systems and are able to obtain the information required to evaluate the viability of SME projects with less difficulty. As a result, due diligence costs are lower, compared to costs incurred by fund managers not familiar with the local market conditions. Outsourcing of monitoring services also reduces operational costs as local experts know the market better, including local SME behaviours.

Using government incentives

Many governments provide tax incentives to investors to encourage them to invest in SMEs. Venture capitalists can use tax incentives in the form of an up-front income tax deduction, a tax write-off on a loss, tax-free dividends, and capital gains tax deferral (EC, 2006). In this way, tax incentives improve the post-tax returns of investors and encourage venture capitalists to invest in more SMEs. Tax incentives

also can be used to improve the performance of the investee SME thus subsidizing operational costs which investors could have incurred.

Exit strategy planning

A planned exit, for example having a strategic partner to take over or to purchase equity investment at the end of the investment term increases the likelihood of a profitable exit. Profitable exits maximize the returns of the venture capital fund and offset the costs of investing in SME projects. A planned exit also cushions against missing a buyer at the end of the investment and being forced to remain longer in the venture or selling shares at a high discount (Cumming et al., 2005; DaSilva et al., 2012). Grikscheit (2006) recommends that the key to most profitable exits in an environment where the SME stock markets are not developed is to understand one's business partners and their long term plans.

All the factors discussed in this section reduce SME transaction costs, and thus attract venture capitalists to consider SME projects as potential investments. With more SME projects accessing equity finance, the SME equity financing gap is reduced. It can therefore be hypothesized that:

Hypothesis 2: There is a positive relationship between SME transaction costs reduction and reduction of the perceived SME equity financing gap.

6.5 Factors that Minimize SME Risk

For this thesis, risk is defined as "potential loss that may arise from a particular investment decision" (Parhankangas and Hellstrom, 2007; p.185). SME risk is often perceived to be high due to: information asymmetry, difficulty of assessing management skills, the lack of track records of entrepreneurs, and the knowledge that investing in local SMEs often involves working with entrepreneurs unfamiliar with conventional financing relationships and business practices (Levy, 1991; Hallberg, 2000; Durrani & Boocock, 2006; EC, 2006).

Conventionally, venture capitalists use particular risk reduction strategies to help to identify and to limit such risks, and to attempt to improve the reward-to-risk ratio of ventures in which they invest. These risk reduction strategies are: use of convertible securities (Cornelli & Yosha, 2003; Kaplan & Strömberg, 2003; Tykvova, 2007), syndication of investments (Cumming, 2006; Hochberg et al., 2007), the staging of capital infusions (Wang & Zhou, 2004; Durrani & Boocock, 2006), and the separation of ownership and control rights (Kaplan & Strömberg, 2003; Nenova, 2003). Even with these risk reduction strategies, SMEs in developing countries are perceived to be of high risk because of poor management skills, lack of an entrepreneurial track record, inadequate business information, and lack of venture/equity capital knowledge (Durrani & Boocock, 2006; EC, 2006).

Due to the difficult market conditions in developing countries, additional risk reduction strategies are necessary. Chapter Five discussed success factors that

reduce SME risk, namely, strategic partnerships and alliances, networks, leveraging strengths of existing institutions, experienced fund managers, good corporate governance practices, portfolio diversification, and hands-on monitoring. These success factors reduce SME risk as follows.

Strategic partnerships and alliances

Strategic partnerships and alliances provide due diligence information for the screening and evaluation of potential investee companies. As Maula et al. (2006) argue, links with large corporations are valuable in the due diligence process when assessing the demand for the products of the potential investee company, as these links reduce the risk of adverse selection.

In addition, companies within strategic partnerships and alliances can acquire investee companies at the end of the investment, thereby providing exit opportunities for venture capitalists (DaSilva et al., 2012; Ozmel et al., 2013). For example, in Asia, strategic partnerships and alliances have provided profitable exit mechanisms for venture capital investors (Bruton et al., 2002; Bruton & Ahlstrom, 2003); in Israel, venture capitalists have links with foreign strategic partners in the US and Asia to support the internationalization of their portfolio companies (Maula et al., 2006). Similarly, in Brazil, private equity/venture capital managers network with potential acquirers to prepare their portfolio companies for acquisition (Ribeiro & Carvalho, 2008). Therefore, strategic partnerships and alliances provide a market for the products of an investee company including a possible acquisition

guarantee. This reduces uncertainty about the future of the business, thereby assuring the venture capitalist of better success and one with a reduced risk of loss.

Networks

Networks provide information required to assess the credit worthiness of the entrepreneur (Bassolino, 2002) and other due diligence evaluations of the potential investee company. Venture capitalists use various networking forums to obtain information about the entrepreneur and the potential investee company. In developing countries, venture capitalists use three network forums to mitigate information and agency problems. These network forums include: networks with entrepreneur's personal contacts, networks with other businesses and government, and networks with local investors. These reduce SME risk as follows.

Entrepreneurs' personal contacts assist in enforcing contracts (Bruton & Ahlstrom, 2003) that addresses the moral hazard risk. Additionally, the lack of reliable data for conventional due diligence procedures makes the use of entrepreneur's personal contacts valuable because the entrepreneur is less likely to disappear or drop out of the investment if the family is involved (Bruton et al., 2004). This type of networking also minimizes adverse selection of investment projects.

Networking with other businesses (e.g., investment bankers, accountants, leading entrepreneurs, academics, research and development organisations, and lawyers)

provides a source of potential investee companies through referrals. Referrals are perceived to be less risky because those presenting the referrals tend to preserve their reputation with the venture capitalist. In such a scenario, referrals are expected to be quality proposals that may help reduce the risk of adverse selection. Networking with local government authorities assist venture capitalists to understand and manage the local regulatory regime (Bruton & Ahlstrom, 2003), especially with regard to contract enforcement (Hassan, 2010), and/or conflict resolution with the entrepreneur. This strategy reduces the moral hazard risk.

Networking with local investors provides foreign investors with knowledge of the local market because local investors know the market better and have the expertise on how best to navigate it (London & Hart, 2004). Apart from sharing financial risk, co-investing with local investors is a vehicle to acquire risk-reducing information (Aernoudt, 2005). Local investor networks also provide information on local opportunities (Allen, 2009; Freiburg & Grichnik, 2012). This addresses the problem of information asymmetry and thus reduces the risk of adverse selection.

Leveraging strengths of existing institutions

Organizations operating in developing countries face increasing bureaucratic and information processing costs because of under-developed institutions. Specifically, these include weak legal systems, inefficient financial markets, and unstable political structures (Peng & Heath, 1996). The lack of effective institutions also increases the likelihood of agency problems (Dharwadkar et al., 2000). Such an

environment presents a big challenge to venture capitalists with regard to contracts enforcement. As a result, venture capital firms have had to adapt new creative approaches in their deal structuring (Zacharakis et al., 2007) so as to reduce the risk of moral hazard or ultimate loss of the venture investment. These new creative approaches include:

- Use of arbitration. Venture capitalists use arbitration clauses in contracts as a way of resolving conflicts. For example, in Brazil, private equity/venture capital regulation recognizes the inefficiency of the legal system and obliges the use of arbitration (Ribeiro & Carvalho, 2008).
- Business relationships and networks. Businesses get around market failures and a lack of formal institutions by creating private governance systems in the form of long-term business relationships and tight ethically-based business networks (Biggs & Shah, 2006). For example, in Sub-Saharan Africa, contract enforcement is organized primarily around relationships and reputation (Fafchamps, 2004).
- Control positions. Venture capitalists can reduce agency risks through the use of control rights. Control rights tend to promote relational approaches to solving problems emanating in the venture capitalist-entrepreneur relationship. In such situations, the venture capital investors align their interests with those of majority stakeholders, and are actively involved in the management of the venture (Grikscheit, 2006). Control rights can be in a form of a majority position, voting mechanisms, board veto rights, anti-dilution

provisions, non-compete contract clauses, and other methods of de facto control (Farag et al., 2004; Grikscheit, 2006; Huyghebaert & Mostert, 2008).

- Financing instruments. Venture capitalists mitigate risk through the use of financing instruments tailored to local risk profiles. For example, debt instruments are considered to be of a lower risk profile and better liquidity for the venture capitalist than equity (Grikscheit, 2006). Another example is a combination of direct equity ownership, convertible securities and selected covenants secures influence on portfolio companies (Farag et al., 2004). Debt instruments also are used to discipline management and to keep it focused on meeting performance metrics (Millson & Ward, 2005). Self-liquidating instruments, such as loans -- coupled with an incentive fee or royalty to compensate for the risk of borrowers defaulting -- also help (AVCA, 2006).

Experienced fund managers

Experienced fund managers can reduce the risk of adverse selection and other agency risks in a number of additional ways.

- Specialized skills. Venture capital fund managers use specialized skills to identify and evaluate investment propositions, structure and negotiate deals, and to manage and divest the portfolio of equity holdings. Specialized skills are used to advise entrepreneurs on venture risk management and strategies to tap the growth potential of a venture into a success story (Kumar & Kaura, 2003).

- Expertise. Fund managers with the right type of operational expertise, broad-based deal experience and local market experience (Sing et al., 2005) -- including appreciation of the local culture (Gunning, 2003) -- usually generate successful investment strategies. The expertise helps the fund managers to assess specific factors that determine growth potential of the venture, and to identify the right method and timing of exits (SEAF, 2004).
- Experience. Experienced fund managers have knowledge of outcomes of decisions made in previous investments including risk reduction strategies, and thus are able to make informed decisions. In particular, previous studies found that experienced fund managers include more protective clauses in venture capital contracts than their inexperienced colleagues (Parhankangas et al., 2005) thus reducing agency risks.

Good governance practices

Good governance practices lead to better management control, focus, and other benefits such as greater access to external funding, increased investor confidence, higher company valuation, lower cost of capital, and an increase in the exit premium (Grikscheit, 2006; Yitshaki, 2012). For example, corporate governance principles and strong accounting and disclosure standards increase transparency and trust between the venture capitalists and the entrepreneur (Adongo & Stork, 2006). The increase in transparency and trust between these two parties addresses the problem of information asymmetry and reduces the risk of moral hazard.

Portfolio Diversification

Portfolio diversification is a strategy employed by venture capitalists to minimize loss from investments. For example, country risk can be reduced through portfolio diversification because the existence of low correlations among developing countries and between developed and developing countries make diversification of country risk possible (Chris, 1997; Sabal, 2004). In the case of globally-diversified investors, some country risk can be eliminated by diversifying across equities in many countries (Damodaran, 2003). The simple reasoning is that the cost of capital in developing countries is lower if both the diversification of portfolios and the true exposure to country risk are taken into account (Goedhart & Haden, 2003).

Portfolio diversification across investment stages and industries also reduces unsystematic firm-specific risk (Norton & Tenenbaum, 1993; Gao, 2011). Further, diversifying portfolios among ventures in different industry sectors and geographic areas also may reduce the chances of portfolio disasters if say, a specific industry sector or geographic area goes into a prolonged slump. Similarly, portfolio diversification is expected to reduce the discount rate applied to evaluate return potential of SME investment projects and that, in turn, may lead to more SME projects qualifying for equity funding.

Hands-on Monitoring

Hands-on monitoring minimizes operating risks which arise from underdeveloped legal systems and a lack of good corporate governance standards (Bassolino, 2002). For example, close monitoring helps venture capitalists to know the networks developed by entrepreneurs in investee companies (Bruton & Ahlstrom, 2003), and to use these networks to reduce the risk of moral hazard. Hands-on monitoring also enables the investors to manage the performance of the venture and its resources to establish strategic objectives (Zong, 2005). Additionally, active venture capitalists who participate on the board are able to access essential information. This reduces problems arising from information asymmetry. Other venture capitalists reduce the risk of moral hazard by requiring frequent detailed accounting information (Sweeting, 1991a).

Further, hands-on monitoring reduces the risk of failure by supporting management teams with strategy development, market research, and finance and accounting. This is done through business advice (financial management, planning, marketing, strategic and management skills) based on venture capitalists' knowledge of markets, the entrepreneurial process and a network of contacts (Beltz, 1994; Cetindamar, 2003; Adongo, 2006). Such support adds value through better governance and improved efficiency (AVCA, 2006; Grikscheit, 2006). Venture capitalists involved in hands-on monitoring also are likely to refocus the business for profitable exit by opening new markets, introducing new technology,

strengthening corporate governance practices and restructuring management (Durrani & Boocock, 2006).

Overall, it is expected that if the perceived high SME risk is mitigated or managed by the factors discussed in this section, venture capitalists will invest in more SME projects thus reducing the perceived SME equity financing gap. Therefore, it can be hypothesized that:

Hypothesis 3: There is a positive relationship between SME risk reduction and reduction of the perceived SME equity financing gap.

6.6 Conclusion

The analysis above developed a conceptual model as presented in figure 6.1. In the conceptual model, SME transaction costs reduction factors and SME risk reduction factors are each positively related to the reduction of the perceived SME equity financing gap, while SME investment readiness factors have an inverse relationship with the perceived SME equity financing gap reduction.

The model is used to empirically test with venture capital firms and SME samples in South Africa, whether (i) the SME equity success factors mitigate lack of investment readiness, high risks and high transaction costs of SMEs, and (ii) mitigation of these obstacles to SME equity finance reduce the perceived SME

equity financing gap. Chapter Seven discusses the research design and the instruments used to measure the conceptual model.

CHAPTER 7

RESEARCH DESIGN AND STATISTICAL METHODS

7.1 Introduction

The venture capital investment criteria have been attributed to the SME equity financing gap in South Africa. The venture capital investment criteria applied in practice was developed in the US and has not been tailored to South African business environment conditions. As stated in Chapter One, the purpose of this research was to examine the venture capitalists' investment criteria for SMEs and to determine modified criteria that would take into account the institutional context of SMEs in emerging economies including South Africa. This chapter discusses the research population, the research instrument used to collect data, and the statistical techniques employed to test the hypotheses.

7.2 Quantitative Testing and Analysis

This sub-section discusses the population studied and demographic information of the sample, the questionnaire and its administration, and the operationalisation of the variables used in the quantitative testing and analysis.

7.2.1 The Research Population

As this study is concerned with SME equity capital, private equity/venture capital investors, and SMEs made up the population under study. The South African venture capital and private equity association (SAVCA) directory was used to obtain email contacts of its 81 full members. Seven of the SAVCA members

indicated they do not deal with SMEs and did not complete the survey. Out of the remaining 74, 34 attempted to complete the questionnaire, but only 31 completed the entire questionnaire. The population excluded private equity/venture capital investors who are not registered with SAVCA as their information is not publicly available.

With respect to the SME population, the researcher sought help for SME email contacts from Business Partners and the South Africa Small Business Association, but this information was not publicly available. Business Partners is the most active investor in the South African private equity market with a contribution of 71% of the total number of reported investments made during 2010 (KPMG & SAVCA, 2011). The researcher therefore used the SME email contacts in the South African SME Toolkit directory as these are the only ones publicly available. SMEs registered in the SME Toolkit directory were representative of SMEs in South Africa because they represented all economic sectors and, based on their physical business addresses, were located in all parts of the country.

A total of 528 SMEs asked to complete the online survey. Of these, 26 indicated that they were not SMEs as defined, but were service providers to SMEs. Out of the 502 remaining, 85 attempted to complete the questionnaire, but only 56 completed the whole questionnaire.

7.2.2 Demographic Information of the Sample

The researcher collected demographic information related to geographic location, gender, age, ethnic group and education level of the respondents. This information is summarized in Table 7.1 for private equity/venture capital respondents and Table 7.2 for SMEs respondents.

Table 7.1: Demographic Composition of Private Equity/Venture Capital Sample				
Investment location		**Percent**	**Cumulative Frequency**	
Rural	2	6.4	**2**	**6.4**
Urban	18	58.1	**20**	**64.5**
Both rural/urban	11	35.5	**31**	**100**
Gender		**Percent**	**Cumulative Frequency**	
Male	23	74.2	23	74.2
Female	8	25.8	31	100
Age Range		**Percent**	**Cumulative Frequency**	
20-30	3	9.7	3	9.7
31-40	18	58.1	21	67.8
41-50	7	22.6	28	90.4
51-60	2	6.4	30	96.8
>60	1	3.2	31	100
Ethnic Group		**Percent**	**Cumulative Frequency**	
Black	5	16.1	5	16.1
White	23	74.2	28	90.3
Asian	2	6.5	30	96.8
Coloured	1	3.2	31	100
Educational Qualification		**Percent**	**Cumulative Frequency**	
Bachelors Degree	3	9.7	3	9.7
Honours Degree	11	35.5	14	45.2
Masters degree	16	51.6	30	96.8
Doctorate	1	3.2	31	100

Source: Researcher's Own Construction from survey results

As shown in Table 7.1, 58.1% of the private equity/venture capital investors indicated they invest in companies located in urban areas, while 35.5% invest in companies located in both rural and urban areas. The approximately six percent remaining invest in companies located in rural areas only. Table 7.1 also shows that of 31 respondents, 74.2% identified themselves as male, and 25.8% as female. With respect to race, 74.2% self-identified as white, 16.1% as black, about seven percent as Asian, and about three percent as coloured. Additionally, Table 7.1 shows that the mode age range of the respondents in years is 31-40. In the case of education, all fund managers have a Bachelors degree and above. Of the 31 respondents, 51.6% had a Masters degree and 35.5% had an honours degree. Only one respondent had a doctorate degree, and three respondents had a Bachelors degree.

Table 7.2: Demographic Composition of SME Sample				
Business Geographic location		**Percent**	**Cumulative Frequency**	
Rural	4	7.1	4	7.1
Urban	38	67.9	42	75
Both rural/urban	14	25.0	56	100
Gender		**Percent**	**Cumulative Frequency**	
Male	41	73.2	41	73.2
Female	15	26.8	56	100
Age Range		**Percent**	**Cumulative Frequency**	
20-30	6	10.7	6	10.7
31-40	19	33.9	25	44.6
41-50	17	30.4	42	75
51-60	10	17.9	52	92.9
>60	4	7.1	56	100
Ethnic Group		**Percent**	**Cumulative Frequency**	
Black	21	37.5	21	37.5
White	27	48.2	48	85.7
Asian	3	5.4	51	91.1
Coloured	5	8.9	56	100
Educational Qualification		**Percent**	**Cumulative Frequency**	
Matric/Grade 12 or less	4	7.1	4	7.1
Certificate/Diploma	24	42.9	28	50
Bachelors Degree	3	5.4	31	55.4
Honours Degree	15	26.8	46	82.2
Masters degree	10	17.8	56	100
Doctorate	-	-	-	-

Source: Researcher's Own Construction from survey results

Table 7.2, shows that 67.9% of SMEs surveyed operate their business in the urban area, while 25% operate their business in both rural and urban areas. Only about seven percent operate their businesses in the rural area only. Table 7.2 also shows that of the 56 respondents, 73.2% self-identified as male, and 26.8% as female. Of these 56 respondents, 48.2% identified themselves as white, 37.5% as black, about five percent as Asian, and about nine percent as coloured. The mode age range in years of the SME respondents is between 31-40 years (33.9%), followed closely by 41-50 years (30.4%). With respect to education qualifications, 42.9% of the SME respondents had a certificate or diploma while 44.6% had an Honours or Masters degree.

7.2.3 The Questionnaire

Based on the previous chapters' discussion of the success factors that address obstacles to SME equity finance, a structured web-based survey questionnaire was developed to reflect factors that would influence the SME equity financing gap as discussed in the literature. Separate questionnaires were developed for SMEs and for private equity/venture capital investors. The web-based questionnaires sought to ensure that exactly the same observation technique is used with each and every respondent in the study. The questionnaire was pretested with five investors and two industry experts to remove ambiguity or uncertainty with the question wording or structure. As Bryman (2008) argues, piloting ensures that the research instrument as a whole functions well.

The web-based questionnaires were set up as two different surveys in the *SurveyMonkey* website. The *SurveyMonkey* tool provided a consistent means of collecting data, reduced bias that may be introduced in data collection through open-ended interviews, and permitted a more detailed quantitative statistical analysis than semi-structured or open-ended interviews (Rea & Parker, 2005; Nardi, 2006).

This study depends on self-report measures of independent variables and dependent variable as perceived by respondents. Thus, its results depend heavily on the quality of the respondents' mental model and may be subject to common method bias. However, to reduce the self-perception bias, responses to the questionnaire were anonymous and data analysis was conducted at an aggregate level.

In total, 87 responses were received, 31 from private equity/venture capital investors, and 56 from SMEs. All the questions on factors that prepare SMEs for investment, reduce SME risk, and reduce transaction costs, were worded as statements, and respondents had to indicate their degree of agreement or disagreement on a five-point Likert scale. All the questions were based on the theoretical discussions on factors addressing obstacles to SME equity capital as extracted from the literature. Information needed to address the problem statement, the research objectives, and hypotheses were integrated into the

question bank. The questionnaire concluded by asking the respondents to supply some general demographic information.

7.2.4 Administration of Questionnaires

The questionnaire was subjected to a preliminary test on five members of the South African venture capital and private equity association (SAVCA), and on two industry specialists to ensure ease of understanding and a suitable length of time for completion. Suggestions and recommendations by the participants were incorporated by way of minor alterations to the final questionnaire.

The final questionnaire was tailored for private equity/venture capital investors and SMEs to capture specific data on business information. For private equity/venture capital investors, specific business information collected include nature of company, choice of economic sector, choice of development stage of business, and reasons for rejection of SME proposals. For SMEs, specific business information collected include location of business, economic sector of business, stage of business development, and obstacles to equity funding. Statements on factors addressing obstacles to SME equity capital, and demographic information were similar in both questionnaires. The cover letter included the researcher's contact email in case of any confusion, or if assistance was needed. Details of the questionnaires are included in Appendix D.

A total of 81 emails were sent to SAVCA members and 528 emails to South African SME Toolkit members with a link to their respective questionnaire in the *SurveyMonkey* website. Seven members of SAVCA declined to complete the survey because they do not deal with SMEs, and 26 members of the SME Toolkit members also declined to complete the questionnaire because they were not real SMEs, but rather SME support service providers. To achieve adequate response rate, the researcher contacted most of the SAVCA members by telephone, explained the research, and requested them to respond. In addition, four follow up email reminders were sent out during a three-month period. In the case of SMEs, email reminders were sent out three times between April and May. Overall, data was collected over three months.

A total of 31 completed responses were received from members of SAVCA (34 started the survey). This was a 41.9% (31/74*100) response rate. In the case of SMEs, a total of 56 SMEs completed the survey (85 started the survey). The response rate for SMEs was 11.2% (56/502*100). Overall, the sample size was a total of 87 responses which is above the minimum required for normal statistical testing.

7.2.5 Operationalization of Variables

Questions were formulated in such a way as to ensure that every variable in the measuring instrument was measured by at least five items. For the purpose of this

research, the variables used in the proposed model – independent and dependent - are defined as follows.

Independent Variables

Independent variables as defined in the conceptual model are SME investment readiness, SME risk reduction and SME transaction costs reduction.

a) SME investment readiness

When SMEs are investment ready, they are able to prepare quality business proposals and articulate the venture's potential to the equity capital provider. Additionally, entrepreneurs understand the venture capital finance requirements and have the business skills required for this type of finance. As a result, such SMEs appear investable and are likely to attract equity capital. When such SMEs are able to access equity capital, the SME equity financing gap is reduced. In this study a five-item scale was used to measure the construct SME investment readiness. These items were developed for this study to specifically test whether (i) they mitigate lack of investment readiness, and (ii) mitigation of lack of investment readiness reduces the perceived SME equity financing gap. These items were based on the literature review and include:

- Proactive involvement of equity investors in the SME sector (through active marketing of venture capital services, publicity and promotion of success stories, meeting with entrepreneurs, road-shows for promising new ventures, and seminars for target industry groups) can contribute to SME investment readiness.

- Business incubators can nurture, develop and prepare SMEs for equity investment.
- A partnership consisting of the private equity and venture capital industry, entrepreneurs, universities and research organizations can spin out innovative technologies and create successful SME businesses.
- Non-financial support services such as business and management skills training can prepare SMEs for investment.
- Training SMEs on the venture capital investment process helps them to understand how to access it and makes them investment ready.

SME investment readiness ultimately reduces information asymmetry and due diligence costs thus SMEs which are investment ready will attract venture capital and the SME equity financing gap will be reduced.

b) SME transaction costs reduction

Investors are interested in a profitable return on their investments. Transaction costs reduce the profits on an investment. Thus, if there are ways of reducing costs of an investment, the returns of the investment will be attractive to the investors. In such circumstances investors will be willing to invest, because the high costs of SMEs are being offset in other ways or through other funds. When investors are willing to invest in SMEs, they provide SMEs with access to equity finance, hence reducing the SME equity financing gap. In this study a five-item scale was used to measure the construct SME transaction costs reduction. These items were developed for this study to specifically test whether (i) they minimize SME

transaction costs, and (ii) minimization of SME transaction costs reduces the perceived SME equity financing gap. These items were based on the literature review and include:

- Investing in SMEs located within a geographical/regional/industry cluster is likely to cost less in due diligence and monitoring costs due to economies of scale.
- Assessing SME projects viability using local operational experience is likely to cost less in due diligence costs compared to using traditional financial methods.
- Using knowledgeable local experts in SME equity finance to perform due diligence evaluation and monitoring of SME investment projects is likely to reduce operational costs.
- Government incentives to SME equity investors, such as the elimination of capital gains tax, can reduce SME transaction costs.
- Private equity or venture capital investors who determine their exit strategy at the beginning of their investment in SMEs are likely to reduce the costs of investment.

c) SME risk reduction

SME risk arises from information asymmetry, entrepreneur and venture management's lack of relevant business skills and knowledge, and the agency relationship between the entrepreneur and investor. When the SME risk is reduced, investors are attracted to these SMEs thus increasing SME access to

equity finance which reduces the SME equity financing gap. In this study a seven-item scale was used to measure the construct SME risk reduction. These items were developed for this study to specifically test whether (i) they minimize SME risk, and (ii) minimization of SME risk reduces the perceived SME equity financing gap. These items were based on the literature review and include:

- Strategic partnerships and alliances can reduce the risk of loss to private equity and venture capital investors.
- Networks (with entrepreneur's personal contacts, other businesses, government and other local investors) can provide information required to perform due diligence evaluation of potential SME projects and thus reduce the risk of adverse selection.
- Equity investors who know how to navigate existing legal systems can adapt new creative approaches to structure their investment deals in such a way that they reduce agency risks.
- Experienced fund managers with local knowledge are likely to reduce the risk of adverse selection and the risk of moral hazard.
- Good corporate governance practices can reduce the risk of moral hazard.
- Equity investors who invest in more than one country or region can diversify away country risk in investment portfolios thus reducing the cost of equity capital.
- Hands-on monitoring can reduce the risk of moral hazard and the risk of business failure.

Control Variables

In this study, the demographic categories of race, gender, and geographical location (rural or urban) were applied as control variables in the regression analysis. Industry dummies were not applied as respondents either invested or were operating in more than one industry and the number of respondents per industry was significantly below the minimum sample (30) acceptable for regression analysis. (See Tables 7.1 and 7.2 for the descriptive statistics of control variables).

Dependent Variable

According to OECD (2006a) the SME equity financing gap is often quantified as a set of boundaries relating to the amount of equity finance sought in which potentially viable and profitable businesses have acute difficulties in raising the finance they need. This does not suggest that there is no equity finance available between these lower and upper boundaries, but only that substantial difficulties exist for viable businesses to raise finance. SME equity financing gap can be measured using statistics pertaining to those SMEs seeking equity financing and estimates of SME equity access success rates. However, because data is not readily available to measure the actual SME equity financing gap in South Africa, this study focused on the perceived SME equity financing gap.

In this study, the reduction of the perceived SME equity financing gap was measured based on responses to one question on whether SMEs and private

equity/venture capital investors agreed that the reduction or elimination of obstacles to equity finance will encourage equity investors to invest in more SME projects. The question had a five point Likert-scale asking respondents to indicate their extent of agreement with the statement "It is perceived that if the obstacles to SME equity finance (i.e., high SME transactions costs, SMEs' lack of investment readiness, and high SME risk) are reduced or eliminated, private equity/venture capital investors will be able to invest in more SME projects" with one (1) being "strongly disagree" through to five (5) being "strongly agree".

7.3 Reliability of the Research Instrument

Reliability refers to how consistently a technique measures concepts so that the results may be replicated by other researchers (Leedy & Ormrod, 2001; Perry, 2001). Reliability is necessary for validity and it is easier to achieve than validity. Although reliability is necessary in order to have a valid measure of a concept, it does not guarantee that a measure will be valid. It is not a sufficient condition for validity. A measure can produce the same result over and over (i.e., it has reliability), but what it measures may not match the definition of the construct (i.e., validity). The reliability of the survey instrument was confirmed by the Cronbach's alpha. Cronbach's alpha is the mean reliability coefficient calculated from all possible split-half partitions of a measurement scale (Bryman & Cramer, 1990). The proportion of true score variance that is captured by the items can be estimated by comparing the sum of the items variances with the variance of the sum scale. In the present study, the Cronbach's alpha coefficient was calculated

for each of the variables included in the empirical model using the Statistical Package for Social Sciences, *(SPSS) version 21*.

As stated above, Cronbach's alpha values are based on the average correlation of variables within a specific set of items measuring a construct. For example, a reliability coefficient of 0.70 indicates that 70% of the variance from the actual scores (obtained from the sample) is due to the variance of the true scores obtained. Reliability analysis helps to determine which items should be selected as a measure of a specific construct. Hinton, Brownlow, McMurray, and Cozens (2004, p.363) advise that "reliability coefficients lower than 0.5 indicates a scale of low reliability, those between 0.5 and 0.75 indicate a moderately reliable scale and is generally accepted, while those with alpha scores above 0.75 indicate a scale of high reliability". In this study, all scales have reliability coefficients ranging from 0.650 to 0.732 which is within the moderate reliability. These results are deemed acceptable given the exploratory nature of the study.

7.4 Validity of the Research Instrument

Validity refers to the accuracy of the study. It is the extent to which the instrument measures what it is supposed to measure (Nardi, 2006). There are three types of validity that are important to this study: internal, external and construct validity.

Internal validity

The internal validity of a research study is the extent to which its design and the data that it yields allow the researcher to draw accurate conclusions about cause and effect and other relationships within the data (Leedy & Ormrod, 2001). For this study, to ensure internal validity, the survey questionnaire was developed by reviewing related literature, discussions with experts in the venture capital and private equity industry, and a pilot pre-test with some members of the South African Venture Capital and Private Equity Association.

External validity

The external validity of a research study is the "extent to which its results apply to situations beyond the study itself" (Leedy & Ormrod, 2001; p.105). In order to ensure external validity, the sample of respondents was drawn from private equity/venture capital investors who are full members of the South African venture capital and private equity association and from SMEs who are registered in the South African SME toolkit directory, a well published database for SMEs looking for equity finance. The sample is deemed to ensure adequate representation of venture capital firms and SMEs in South Africa.

Construct validity

Construct validity is established by relating a measuring instrument to a general theoretical framework in order to determine whether the instrument is tied to the concepts and theoretical assumption they are employing. It assesses the accuracy of a measure. It is based on actual results and sometimes it is not achieved until after the data have been collected and statistically analysed (Nardi, 2006). In order to check construct validity of an instrument, a researcher uses both convergent and discriminant validity. In this study, convergent validity was checked through the evaluation of the item-to-total correlation, based on the correlation of each item to the sum of the remaining items. This approach assumes that the total score is valid and thus the extent to which the item correlates with the total score is indicative of convergent validity of the item. All the question loadings for the three factors used in the conceptual model had an item-to-total correlation score of above 0.3 which is considered reliable (Hinton et al., 2004). Discriminant validity was checked by factor analysis.

7.5 Method of Data Analysis

Factor analysis was used to identify the factors that mitigate lack of investment readiness high risks and high transaction costs of SMEs. Factor analysis simplifies an extensive set of data by reducing the number of variables and identifying the underlying structure of the dimensionality of the data (Dorofeev & Grant, 2006; Suhr, 2006). In this study, factor analysis was used to detect structure in the relationships between 17 factors and to classify the factors into three categories.

The three categories of factors include those that prepare SMEs for investment, those that reduce risk, and those that reduce transaction costs.

The Statistical Package for Social Sciences, *(SPSS) version 21*, principal component factor analysis was performed on the data collected. Kaiser's rule of eigenvalues greater than one (Costello & Osborne, 2005) was used to guide the researcher. But the determination of the number of factors in the data set was considered to be three, based on the conceptual model, and in line with the three categories of data collected by the questionnaire. Items were excluded from the principal component factor if they loaded on more than one factor and also if the loading on a factor was less than 0.4.

Regression analysis was used in this study to assess the hypothesized relationships in the conceptual model. Multiple regression is a "data analysis technique that allows analysts to examine patterns of relationships between multiple independent variables and a single dependent variable" (Spicer, 2005; p. 91). The regression line expresses the best prediction of the dependent variable given the independent variables. The regression analysis calculates the constant α, the coefficient weights of each independent variable and the overall multiple correlation 'R' (Nardi, 2006). The regression coefficients represent the independent contributions of each independent variable to the prediction of the dependent variable (Newbold, 1995; StatSoft, 2008).

One fundamental problem in dealing with the SME equity financing gap (dependent variable) is lack of basic information about just how big such a gap may be. Often, the only evidence is in the form of complaints from SMEs themselves, and this, is difficult to use in analysis or for comparison. Quantifying the SME equity financing gap (where the offer of available financial services only partially meets SME needs) remains a difficult challenge, given the absence of reliable and consistently monitored sources of data on both the SME segment and SME access to financial services (IFC, 2010). As a result, this study focused on the perceived SME equity financing gap.

A Likert scale of five categories was used to collect data for this study. Although Likert-type scale is technically ordinal scales, the data was treated as continuous to enable the use of normal statistics, in this case, linear regression. Zumbo and Zimmerman (1993) argue that this treatment is allowed so long as five or more categories in the Likert scale are used. Similar studies that have collected data using the five category Likert scale include Okpara and Kabongo (2009), and Payne et al. (2009). The average composite scores on the initial items that loaded into a component factor were summed to form one single average summated score and were used for regression analysis. For example, the average scores of six items formed SME risk reduction factor (variable), the average scores of three items formed the SME transaction costs reduction factor (variable), while the average scores of six items formed the SME investment readiness factor (variable). The summated scores have more values than their individual

components and their values often have a distribution that is better adapted to linear regression analysis than that of individual scores.

The dependent variable is the perceived SME equity financing gap as measured by responses to the survey question on whether reduction/elimination of obstacles to SME equity finance will increase equity finance investments in SME projects. The independent variables are SME risk reduction, SME transaction costs reduction, and SME investment readiness. All the independent variables were measured by the summated scales of responses on the items that loaded significantly to the respective component factor.

Multiple Regression Analysis

A standard multiple regression analysis (*method, Enter*) was applied to measure the highest possible multiple correlation between the three variables (SME risk reduction, SME transaction costs reduction, and SME investment readiness), considered simultaneously. The correlation matrix between the variables was used to check for any multi-collinearity that may exist among independent variables. Multi-collinearity is a problem that arises when several variables are highly correlated. A correlation of greater than 0.8 is an indicator of multi-collinearity (Hinton et al., 2004). The results on the Pearson correlation matrix showed that correlations among the three factors were less than 0.4. The absence of multi-collinearity is essential to a multiple regression model.

The hypotheses tested were:

H_1: There is an inverse relationship between SME investment readiness and reduction of the perceived SME equity financing gap.

H_2: There is a positive relationship between SME transaction costs reduction and reduction of the perceived SME equity financing gap.

H_3: There is a positive relationship between SME risk reduction and reduction of the perceived SME equity financing gap.

7.6 Conclusion

This chapter provided insight into the sample, variables and statistical methods used in the empirical study. Demographic information was provided, followed by the statistical techniques used in this research to ensure the reliability and validity of the findings and to test the hypotheses. Factor analysis was used to identify the critical success factors that prepare SMEs for investment, reduce SME risk, and reduce SME transaction costs, while regression analysis tested whether SME investment readiness, risk reduction, and transaction costs reduction, reduce the perceived SME equity financing gap.

Chapter 8 presents the results of the statistical analyses performed.

CHAPTER 8

EMPIRICAL RESULTS OF THE STUDY

8.1 Introduction

This chapter presents the results of the empirical study. The first part of this chapter discusses the descriptive statistics with regard to business characteristics of the sample population. This is then followed by findings from the factor analysis conducted to identify the SME equity capital success factors that prepare SMEs for investment, and reduce SME risk and transaction costs. The factor analysis also assesses the discriminant validity of the instruments used to measure these independent variables. The factor analysis is followed by the assessment of reliability of the component factors of SME investment readiness, SME risk reduction, and SME transaction costs reduction. The final part of this chapter presents the results of the regression analysis, testing whether SME investment readiness, SME transaction costs reduction and SME risk reduction, reduce the perceived SME equity financing gap.

8.2 Descriptive Statistics

This sub-section discusses the business characteristics of the sample with regard to the nature of venture capital firms, the stages of business development, the economic sectors of the South African economy represented by the sample, common reasons for rejection of SME proposals or obstacles to equity funding, and responses on factors that influence SME equity financing gap.

Nature of private equity/venture capital firms

As shown in figure 8.1, of the private equity/venture capital respondents, 58.1% were independents, 25.8% were captive-financial services and 16.1% captive-other (high net worth individuals). In this survey, there were no responses from captives–government, though the researcher followed up with the respective captive-government fund managers four-plus times. Except for the non-response from captive-government, the private equity/venture capital sample is representative of the South African venture capital and private equity industry, where independents and captives – financial services are the main drivers of growth. For example, of the R115.8bn funds under management in 2011, independents managed R53.6bn and captives - financial services managed R24.2bn. In addition, independents are the majority fund managers (42 firms), followed by captives – financial services (11 firms), then captives - other (10 firms), and the least is captive - government with six firms (KPMG & SAVCA, 2012).

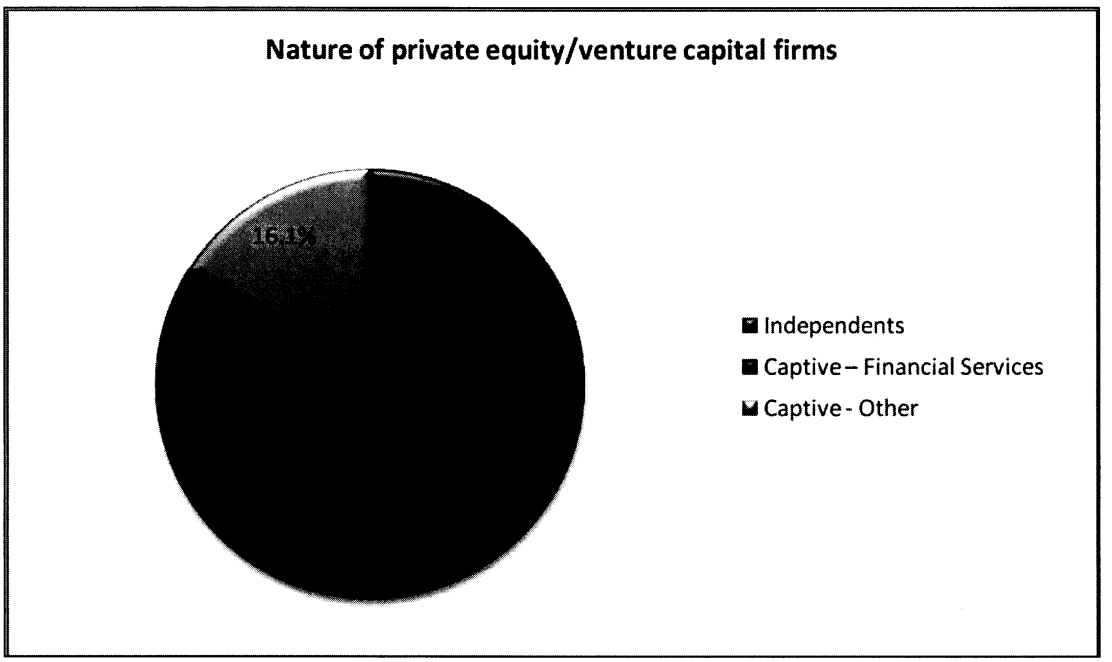


Figure 8.1: Nature of fund managers responding to Survey (Researcher's own construction from survey results)

Stage of business development

The survey results show that 80.6% (25 out of 31) of the private equity/venture capital respondents invest their funds at the expansion and development stage. This is in line with the literature which states that most of the funds are invested in later stages of business development (Pinnock & Butler, 2005; EC, 2006). Just over half (or 54.8%) of the respondents, invested in the start-up and early stage, or leveraged buy-out or buy-in, stages of business development. The replacement capital stage followed with 38.7% of the respondents. The seed stage participation was only 12.9%, which confirms the small amount of funds raised for earlier stages of business development discussed in the literature (KPMG & SAVCA, 2011). The open question response was 'Management Buy-Out' or 'Management

Buy-In' growth capital, which is essentially part of the leveraged buyout business stage. Figure 8.2 diagrammatically shows the results of the survey on the stages of business development of the businesses in which private equity/venture capital firms invest.

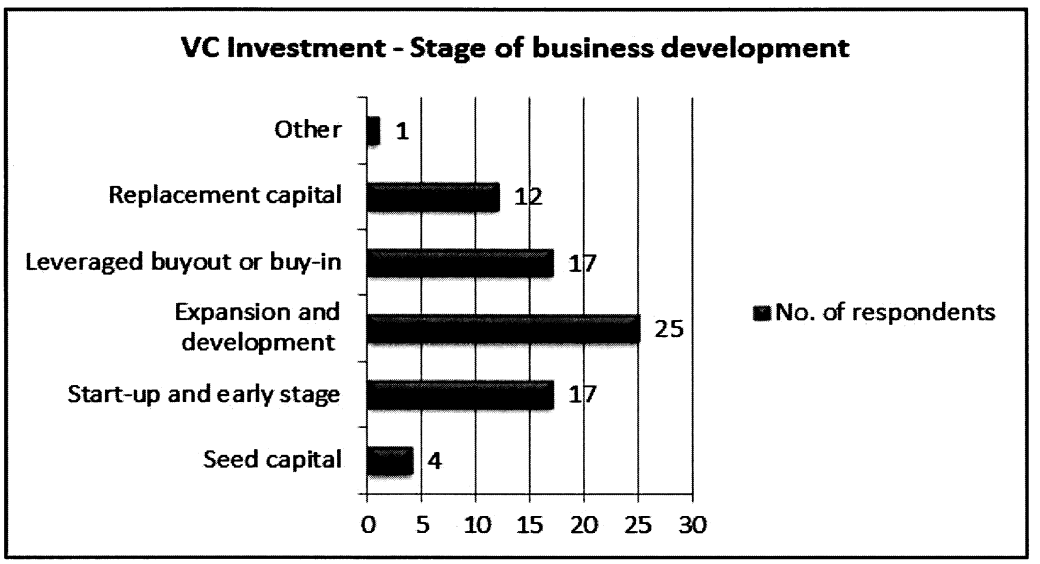


Figure 8.2: Business stages venture capitalists invest-in (Researcher's own construction from survey results)

In the case of SMEs, 48.2% (27 out of 56) of the SME respondents are in the expansion and development stage and 41.1% (23 out of 56) are in the start-up and early stage of business development. Only about five percent (three out of 56) indicated that they were at the seed capital stage. The remaining 5.4% (three out of 56) indicated 'open' responses to describe businesses in their early stages of development. None of the SME respondents were at the bridge financing stage (funding to prepare company for public offering). Figure 8.3 is a diagrammatic presentation of the results of the survey on the SMEs stages of business development.

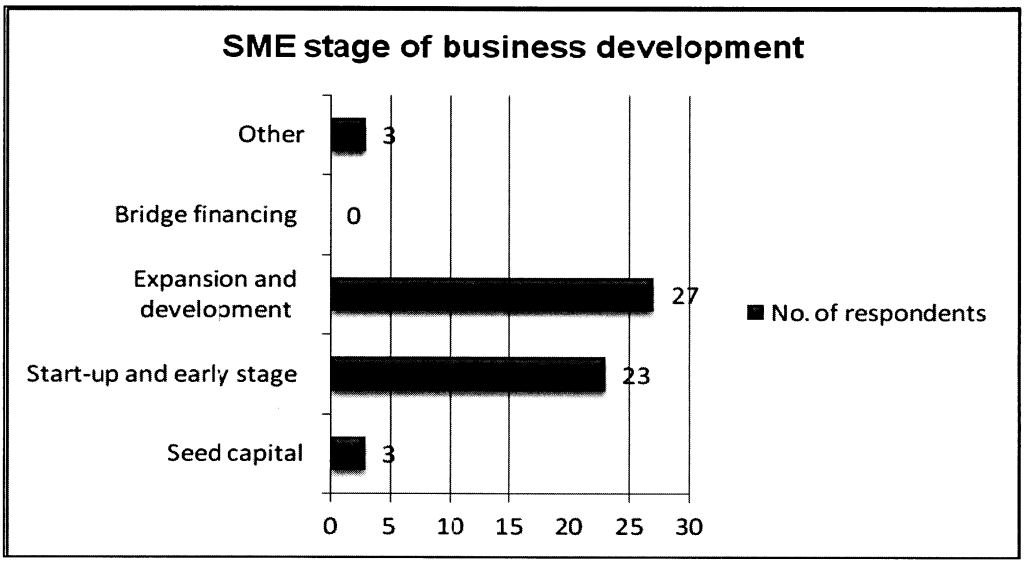


Figure 8.3: SMEs stage of business development (Researcher's own construction from survey results)

Although private equity/venture capital firms indicated they fund business in start-ups and early stage, and expansion and development stage, the results are in contrast with the literature which indicates that most of venture capital investments are large deals that isolate SMEs in these stages of business development. For example, the overall average investment deal size in the South African venture capital and private equity industry was R19.7 million in 2010 (KPMG & SAVCA, 2011). Most of the SMEs require equity funding of less than R 5 million (EC, 2006).

Economic sectors represented

When asked which sectors they invested in, 64.5% (20 out of 31) of private equity/venture capital respondents indicated finance and business services sectors, followed by manufacturing sector at 54.8% (17 out of 31). Overall, the results indicated that all sectors are represented (with a minimum representation of

at least 29%) in the South African venture capital and private equity industry, with private equity/venture capital investors investing in multiple sectors. However, these results contrast with the results of the 2011 KPMG and SAVCA survey, which showed that 34% of the 2010 private equity investments were in the infrastructure sector, 20% in the services sector and 15% in the manufacturing sector, with other sectors receiving 10% or below.

In the case of SMEs, finance and business services sector dominated the sample with 37.5% (21 out of 56), followed by transport, storage and communications sector at 19.6%. The other sectors were represented with shares ranging from about two percent to 14.3%. Most SMEs also classified their businesses in multiple sectors with 28.6% not classifying their businesses in any of the sector options. Figure 8.4 shows sector representation of the SMEs and private equity/venture capital investors' respondents.

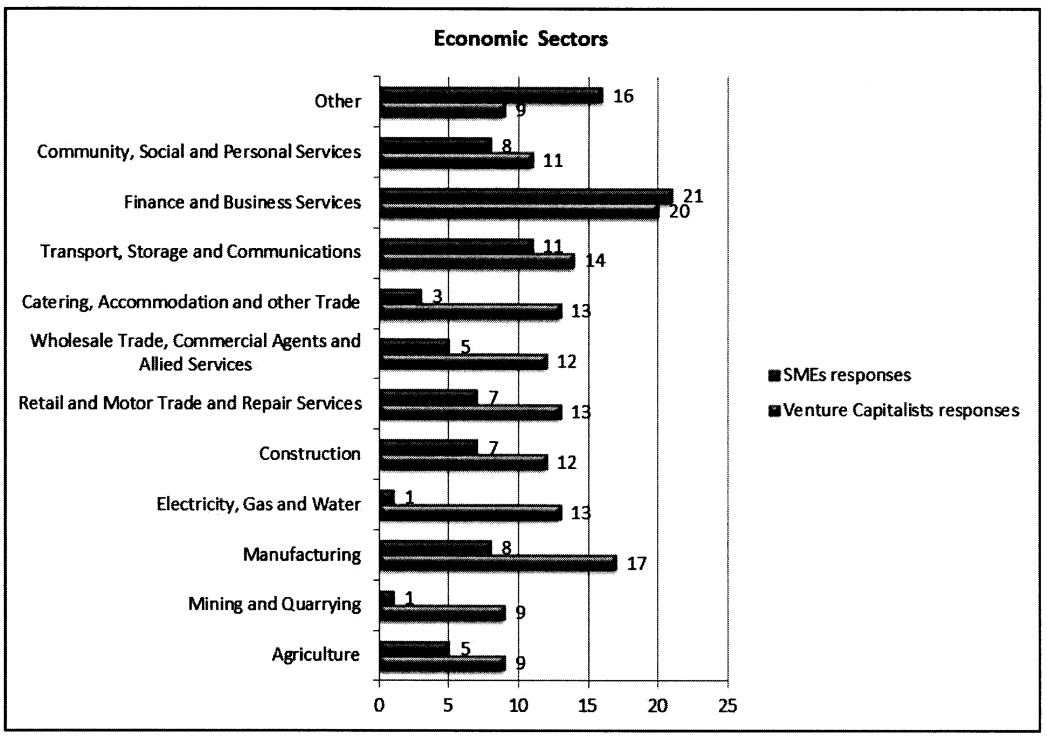


Figure 8.4: Economic sectors representation (Researcher's own construction from survey results)

Reasons for Rejection of SME Funding Requests

When venture capitalists were asked why they rejected SMEs' requests for funds, 77.4% (24 out of 31) selected 'incompetent or inexperienced management' as the major reason. Other factors which topped the list include: 'did not meet our investment size' and 'was not in the stage of financing we concentrate in' - 64.5% (20 out of 31) each, and 'poorly prepared business proposals' – 61.3% (19 out of 31). These responses are in line with the literature on the obstacles/barriers to investment in developing countries (Christensen, 2003; Eid, 2006; Deloitte, 2008). Figure 8.5 depicts the results in diagrammatic form.

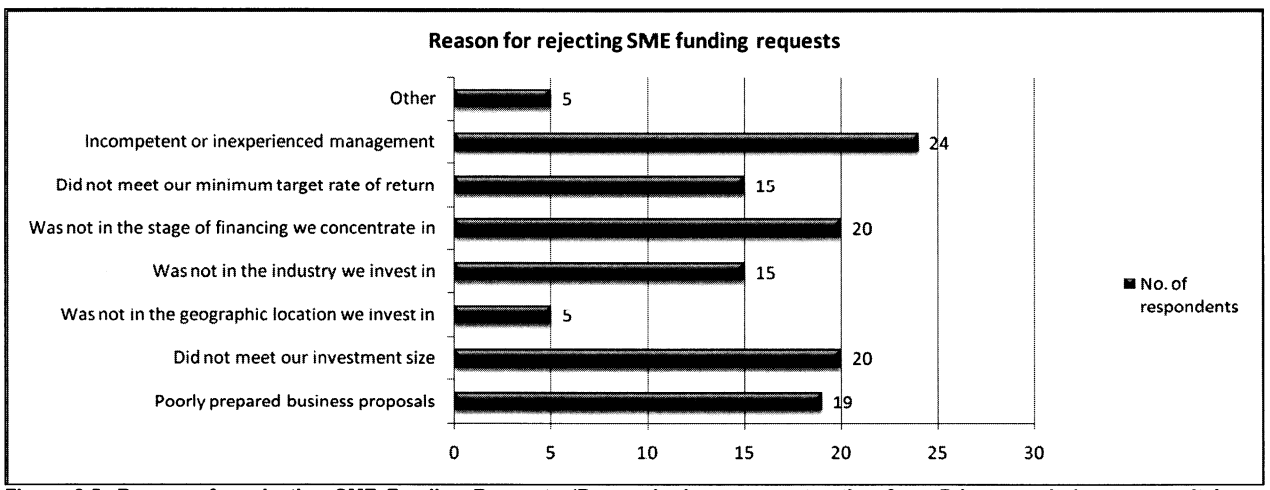


Figure 8.5: Reasons for rejecting SME Funding Requests (Researcher's own construction from Private equity/venture capital survey results)

Responses to the open question on other reasons for rejection of SME requests for funds included: 'not fitting fund investment mandate', 'lifestyle businesses with few scalable opportunities', 'no unique intellectual property/technology/product', and poorly thought out businesses. Most of these reasons can be linked to a lack of innovative entrepreneurship or the so-called 'copycat' mentality of entrepreneurs in South Africa (Herrington et al., 2009).

SME respondents identified 'high costs of securing private equity or venture capital' (48.2%), 'lack of knowledge on private equity or venture capital' (41.1%), and 'not being investment ready' (33.9%), as the top three obstacles to equity funding. The 'fear of loss of control of business and restricted management freedom' also ranked high, with 26.8% (15 out of 56) of SMEs selecting it. These obstacles to equity funding confirm the literature discussed in previous chapters and as Singh et al. (2005), and SAVCA and Venture Solutions (2010) argue, can be addressed by preparing SMEs for equity investment through venture capital investment process awareness and training. Figure 8.6 shows the results of the SMEs responses on obstacles to equity funding.

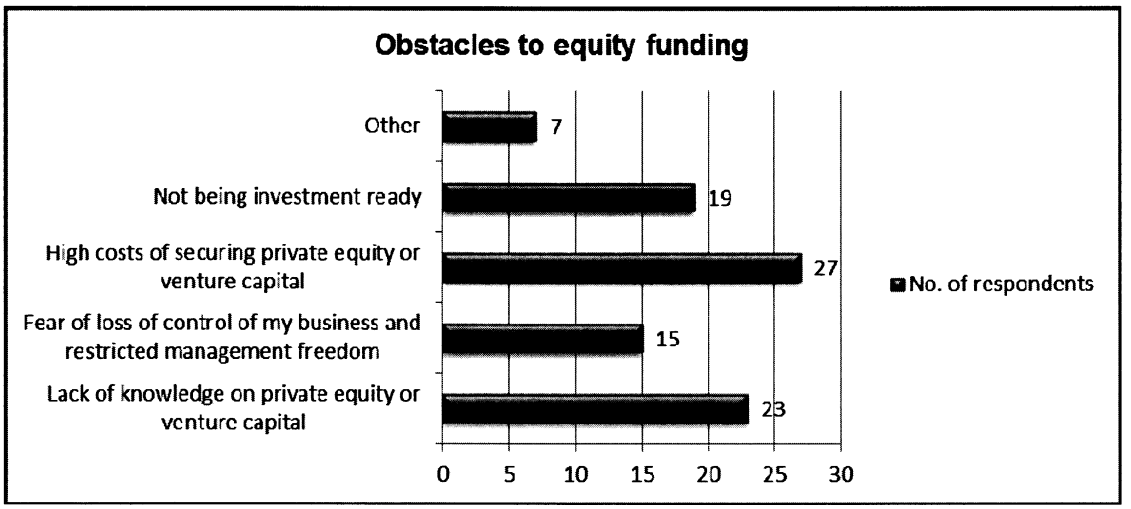


Figure 8.6: Obstacles to equity funding (Researcher's own construction from SME survey)

When responding to the 'open-ended question' on other obstacles to equity funding, SMEs indicated three obstacles: 'lack of collateral security', 'equity not available to the type of business', and 'high investor risk aversion'. These obstacles are also identified in the venture capital literature. For example, Adongo and Stork (2006) argue that private equity/venture capital investors are risk averse. This high investor risk aversion negatively impacts SMEs' access to equity capital, and therefore contributes to the SME equity financing gap.

Responses to factors that influence access to equity capital

Respondents were asked to rate their extent of agreement with five factors that reduce SME transaction costs, five factors that prepare SMEs for investment, and seven factors that reduce SME risk. Based on the results of the combined sample, on a five-point Likert scale, with five (5) being strongly agree, and one (1) being strongly disagree, the survey, found that respondents agree that government incentives would reduce SME transaction costs with a mean score of 3.99. The

means of the other four factors ranged from 3.20 to 3.71, and the standard deviation exceeded one (1) for three factors, an indication of a significant difference of opinion between respondents. The factor 'exit strategy planning' scored the lowest at 3.20.

When answering the open-ended question on other factors that can reduce SME transaction costs, respondents indicated that general pre-investment government support programs (e.g., research and development funding, and entrepreneurial support and training) and government matching funds with preferential terms, will reduce costs of investment for private investors.

With respect to preparation of SMEs for investment, respondents agreed that the five factors (i.e., proactive deal selection, business incubators, cross-institutional dialogue, collaboration with non-profit entrepreneurial organizations, and training entrepreneurs and venture management) do prepare SMEs for investment. The 'non-profit entrepreneurial organisations', and 'training of entrepreneurs and venture management' factors, scored the highest means of 4.36 and 4.32 respectively. All the other factors also scored higher than four (4) mean scores. These results strongly indicate that these factors help prepare SMEs for investment. As part of the open-ended question, respondents included awareness of the entrepreneur, business coaching with qualified experts, on-going support, training and publications, and understanding what venture capital investors are looking for, as other factors that prepare SMEs for investment.

Regarding risk reduction, respondents agreed that five of the seven factors can reduce risk. The mean scores of the five factors are 'hands-on monitoring' 4.38, 'networks' 4.24, 'good corporate governance practices' 4.31 each, 'strategic partnerships and alliances' 4.06, and 'experienced fund managers' 3.99. The factors 'portfolio diversification' and 'leveraging the strengths of existing institutions' got scores of 3.37 and 3.90 respectively. Except for the factor 'portfolio diversification', the standard deviation of the means was less than one, which is an indication that respondents had little difference in opinion, thus the close range of the mean scores. Responses to the open-ended question included on-going due diligence, regular financial statements, corporate governance, and policies.

Details of mean scores and standard deviations of the independent variables (SME investment readiness, SME risk reduction, and SME transaction cost reduction) and the dependent variable (SME equity financing gap reduction) are shown in Table 8.1.

Table 8.1: Mean score for variables

	Combined Sample (N=87)	
Variables	**Mean**	**Std Deviation**
Factors that reduce SME transaction costs		
Investment in clusters	3.44	1.128
Non-financial evaluation methods	3.59	1.029
Outsourcing of core skills	3.71	0.999
Government incentives	3.99	0.921
Exit strategy planning	3.20	1.010
Factors that prepare SMEs for investment		
Proactive deal selection	4.13	0.790
Business incubators	4.21	0.780
Cross-institutional dialogue	4.07	0.832
Collaboration with non-profit entrepreneurial organizations	4.36	0.570
Training entrepreneurs and venture management	4.32	0.539
Factors that reduce SME risk		
Strategic partnerships and alliances	4.06	0.671
Networks	4.24	0.646
Leveraging strengths of existing institutions	3.90	0.648
Experienced fund managers	3.99	0.656
Corporate governance practices	4.31	0.599
Portfolio Diversification	3.37	1.036
Hands-on monitoring	4.38	0.615
SME equity financing gap reduction		
Reduction of obstacles will lead to investment in more SME projects	3.71	1.105

Key: 5 = strongly agree, 4 = Agree, 3 = Don't Know, 2 = Disagree, 1 = Strongly Disagree

Responses to question measuring SME equity financing gap reduction

Of the 87 respondents, 75% (54%+21%) agreed that mitigation of obstacles to SME equity finance will lead to private equity/venture capitalists investing in more SME projects. The mean score of 3.71 and standard deviation of 1.105 (shown in Table 8.1) demonstrates a significant difference of opinions between respondents. Figure 8.7 diagrammatically shows the range of responses to this question.

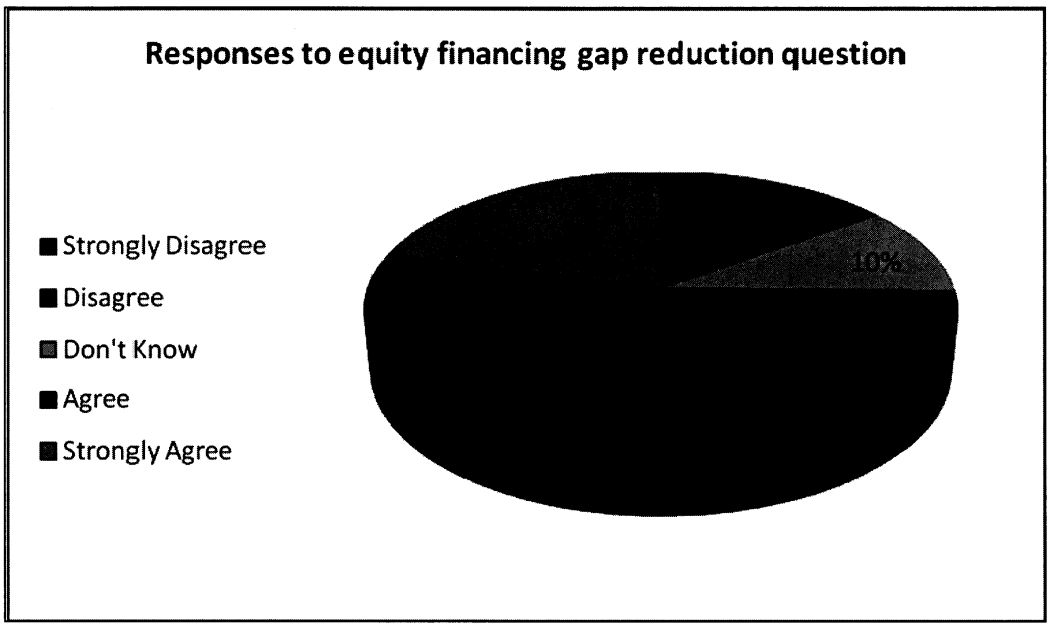


Figure 8.7: Responses to SME equity financing gap reduction question (Researcher's own construction from survey results)

8.3 Factor Analysis

Factor analysis was used to detect structure in the relationships between the 17 factors empirically tested and to classify the factors into three categories, namely, those factors that prepare SMEs for investment, those that reduce risk and those that reduce transaction costs. The Statistical Package for Social Sciences (SPSS) *version 21*, was used to conduct principal component factor analysis on the

empirical data. The first step examined whether the data was suitable for factor analysis because the critical assumptions underlying factor analysis are more conceptual than statistical. Moreover, from a statistical standpoint, the researcher must ensure that the data matrix has sufficient correlation to justify the application of factor analysis.

The researcher performed three tests to determine whether the data is suitable for factor analysis. The first test is the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO test). As a rule of thumb, if the KMO test result is "0.5 or higher, then data is suitable for factor analysis" (Hinton et al., 2004; p. 342). The second test is the Bartlett test. This test is a good check because it indicates whether there are relationships to investigate. According to Hinton et al. (2004), the Bartlett's measure tests the null hypothesis that the original correlation matrix is an identity matrix. For this measure, when *p*-value is less than 0.05, it is a green light to continue with factor analysis as there are some relationships between the variables. The third test is the determinant (R matrix) test, which, according to Hinton et al. (2004) should be greater than 0.000001.

Based on the KMO (0.726), Bartlett (0.000), and determinant (0.005) tests results, the combined survey data was considered suitable for factor analysis.

Although Hinton et al. (2004), documents that a factor loading of 0.3 or greater makes a significant contribution to the component factor, a cut off of 0.4 was used

in this study because the data set was small. Out of the 17 items (SME equity capital success factors) measuring the three variables, SME investment readiness, SME risk reduction, and SME transaction costs reduction, 15 factors loaded significantly to these component factors. One factor loaded to more than one variable and the other did not load significantly on any of the three variables.

The next sub-sections explain the loadings on each component factor and the reliability of the measures of these component factors. The detailed output of the principal component analysis and reliability analysis is included in Appendix E.

8.3.1 Factor Loadings

Three component factors were extracted after deleting items with cross loadings and rerunning principal component analysis. Only variables which loaded to a significant extent ($p>0.4$) with no cross-loadings (i.e., loaded on only one factor) were considered and all items with loadings $p<0.4$ were deleted. As a result, two success factors were dropped. The dropped factors related to proactive deal generation and cross-institutional dialogue. The final variables relevant to this study are listed in Table 8.2.

Table 8.2: Rotated Factor Loadings

SME EQUITY [illegible] FACTORS	[illegible] SME investment readiness	[illegible] SME risk reduction	[illegible] SME transaction costs reduction
Using government incentives	0.413		
Collaboration with non-profit entrepreneurial organizations	0.720		
Training Entrepreneurs and Venture Management team	0.734		
Networks	0.479		
Corporate governance practices	0.753		
Hands-on-monitoring	0.608		
Exit strategy planning		0.657	
Business incubators		0.441	
Strategic partnerships and alliances		0.442	
Leveraging Strengths of existing institutions		0.725	
Experienced fund managers		0.708	
Portfolio diversification		0.495	
Cluster investment			0.783
Non-financial evaluation methods			0.671
Outsourcing core skills			0.685
Eigen value	**4.484**	**1.848**	**1.679**

Extraction method: principal component analysis. Rotation method: Varimax with Kaizer normalization. The rotation converged in 4 iterations.

Table 8.2 shows that six success factors loaded significantly onto SME investment readiness variable, six onto SME risk reduction, and three onto SME transaction costs reduction. Overall, the three component factors explain 47.1% of the total variance in the data. The eigen values for the three component factors are greater

than one; hence the cumulative variance explained is acceptable. The reliability of the factors measuring the component factors is analysed next.

8.3.2 Factor Reliability

Reliability refers to the extent to which a scale produces consistent results if repeated measurements are made (Leedy & Ormrod, 2001; Perry, 2001). The researcher used Cronbach's alpha to confirm reliability of the measuring instrument. Cronbach's alpha scores were computed for each component factor (i.e. SME investment readiness, SME transaction cost reduction, SME risk reduction) to measure the internal consistency and to indicate how different variables can reliably measure the construct. Hinton et al. (2004) indicate that an alpha score above 0.75 is generally taken to indicate a scale of higher reliability, and 0.5 to 0.75 is generally taken to indicate a moderately reliable scale.

Additionally, item-total correlation for the variables in each factor was computed. Cronbach's alpha values, of between 0.650 and 0.732 were recorded, which is generally accepted as reliable, considering the exploratory nature of this study.

The reliability of the three component factors (i.e., SME investment readiness, SME risk reduction, and SME transaction costs reduction) are discussed individually in the next sections.

8.3.2.1 Factor 1: SME Investment Readiness

The initial measuring instrument used to measure the construct, SME investment readiness consisted of five items. Only three of the five items loaded significantly on this factor. Of the remaining two, one did not load on any factor and was dropped, while the other loaded significantly on the SME risk reduction factor. Three items intended to measure SME risk reduction also significantly loaded on this factor. The six factors measuring the factor SME investment readiness, the Cronbach's alpha, the eigen values, and the item-to- total correlations are shown in Table 8.3.

Table 8.3: Factor 1: SME Investment Readiness

Eigen Value = 4.484	Cronbach's Alpha = 0.727	
Question	Factor Loading	Item-Total Correlation
Government incentives to SME equity investors, such as the elimination of capital gains tax, can reduce SME transaction costs	**0.413**	**0.401**
Non-financial support services such as business and management skills training can prepare SMEs for investment.	**0.720**	**0.495**
Training SMEs on the venture capital investment process helps them to understand how to access it and makes them investment ready.	**0.734**	**0.552**
Networks (with entrepreneur's personal contacts, other businesses, government and other local investors) can provide information required to perform due diligence evaluation of potential SME projects and thus reduce the risk of adverse selection.	**0.479**	**0.468**
Good corporate governance practices can reduce the risk of moral hazard.	**0.753**	**0.562**
Hands-on monitoring can reduce the risk of moral hazard and the risk of business failure.	**0.608**	**0.398**

All questions for this factor loaded significantly at above 0.4 and the Cronbach's alpha is 0.727 indicating a reliable measuring instrument for the SME investment readiness component factor.

8.3.2.2 Factor 2: SME Risk Reduction

The initial measuring instrument used to measure the construct, SME risk reduction consisted of seven items. Only three of the seven items loaded significantly on this factor. Of the remaining four, three loaded significantly on SME investment readiness; one did not load on any factor and was dropped. One item intended to measure SME transaction cost reduction significantly loaded on this

factor, and one item intended to measure SME investment readiness also loaded significantly on this factor. The five variables measuring the factor SME risk reduction, the Cronbach's alpha, the eigen values, and the item-to- total correlations are shown in Table 8.4.

Table 8.4: Factor 2: SME Risk Reduction

Eigen Value = 1.848	Cronbach's Alpha = 0.650	
Question	Factor Loading	Item-Total Correlation
Private equity or venture capital investors who determine their exit strategy at the beginning of their investment in SMEs are likely to reduce the costs of investment.	**0.657**	**0.439**
Business incubators can nurture, develop and prepare SMEs for equity investment.	**0.441**	**0.345**
Strategic partnerships and alliances can reduce the risk of loss to private equity and venture capital investors.	**0.442**	**0.268**
Equity investors who know how to navigate existing legal systems can adapt new creative approaches to structure their investment deals in such a way that they reduce agency risks.	**0.725**	**0.497**
Experienced fund managers with local knowledge are likely to reduce the risk of adverse selection and the risk of moral hazard.	**0.708**	**0.418**
Equity investors who invest in more than one country or region can diversify away country risk in their investment portfolios thus reducing the cost of equity capital.	**0.495**	**0.379**

The Cronbach's alpha for this factor is 0.650 and all questions loaded significantly on this factor. Therefore, the measuring instrument for this factor is considered a reliable measure of the SME risk reduction component factor.

8.3.2.3 Factor 3: SME Transaction Costs Reduction

The initial measuring instrument used to measure the construct SME transaction cost reduction consisted of five items. Only three of the five items loaded significantly on this factor. Of the remaining two, one loaded significantly on the SME risk reduction component factor, while the other did not load on any factor and was dropped. The three variables measuring the factor SME transaction cost reduction, the Cronbach's alpha, the eigen values, and the item-to- total correlations are shown in Table 8.5.

Table 8.5: Factor 3: SME Transaction Cost Reduction

Eigen Value = 1.679	Cronbach's Alpha = 0.732	
Question	Factor Loading	Item-Total Correlation
Investing in SMEs located within a geographical/regional/industry cluster is likely to cost less in due diligence and monitoring costs due to economies of scale.	**0.783**	**0.619**
Assessing SME projects viability using local operational experience is likely to cost less in due diligence costs compared to using traditional financial methods.	**0.671**	**0.567**
Using knowledgeable local experts in SME equity finance to perform due diligence evaluation and monitoring of SME investment projects is likely to reduce operational costs.	**0.685**	**0.485**

The Cronbach's alpha for this factor is 0.732 and all the questions loaded positively on this factor at above 0.4. Thus, the measuring instrument is reliable to measure the SME transaction costs reduction component factor.

8.4 Group Statistics

8.4.1 Composite Scores

For further use of the results of the principal component factor analyses of SME equity success factors in regression analysis, the researcher created summated scales. In these scales, the average composite scores of the SME equity capital success factors on the initial variables were computed and used as variables in regression analysis. Researchers support summated scales over factor scores because summated scales include only the initial variables that load highly on the factor while the factor scores represent all variables loading on a factor. Thus the summated scales are more reliable. Summated scales also have a distribution that is better adapted to linear regression analysis than that of individual scores (Hinton et al., 2004).

To identify outliers in the summated scales data, *SPSS Boxplot* was used to display the distribution of the data. Seven outliers were identified which were then excluded from the data used for regression analysis. As a result, the data sample reduced from 87 to 80.

The descriptive statistics of the composite scores are shown on Table 8.6. The summated scales were calculated as average scores across items contained in that variable.

Table 8.6: Composite scores

Variable	Mean	Standard Deviation
SME investment readiness	4.26	0.409
SME risk reduction	3.79	0.420
SME transaction cost reduction	3.60	0.742

Key: 5 = strongly agree, 4 = Agree, 3 = Don't Know, 2 = Disagree, 1 = Strongly Disagree

SME investment readiness mean score of 4.26 is the average of the original scores on success factors, use of government incentives, collaboration with non-profit entrepreneurial organizations, training entrepreneurs and venture management, networks, good corporate governance practices, and hands-on monitoring. Similarly, SME risk reduction mean score (3.79) is the average of original scores on success factors, exit strategy planning, business incubators, strategic partnerships and alliances, leveraging strengths of existing institutions, experienced fund managers, and portfolio diversification. Finally, SME transaction costs reduction mean score of 3.60 is the average of the original scores on success factors, investment in clusters, non-financial evaluation methods, and outsourcing of core skills. The standard deviations are below one (1) thus resultant data is more normally distributed compared to original scores.

8.4.2 Correlations

The correlation matrix was used to check for any multi-collinearity that may exist among the variables. Table 8.7 shows the results of the Pearson correlations.

Table 8.7: Correlation Matrix

		SME equity financing Gap reduction	SME Transaction Costs reduction	SME Risk reduction	SME investment readiness
Pearson Correlation	SME equity financing Gap reduction	1.000	0.134	0.200	-0.190
	SME Transaction Costs reduction	0.134	1.000	0.139	0.207
	SME Risk reduction	0.200	0.139	1.000	0.259
	SME investment readiness	-0.190	0.207	0.259	1.000
Sig. (ρ<0.05)	SME equity financing Gap reduction	.	.117	.038	.046
	SME Transaction Costs reduction	.117	.	.110	.033
	SME Risk reduction	.038	.110	.	.010
	SME investment Readiness	.046	.033	.010	.

The results on the correlation matrix show that correlations among the four variables are less than 0.3 which is low. A correlation of greater than 0.8 is an indicator of multi-collinearity (Hinton et al., 2004). Thus, there is no multi-collinearity among the variables.

The correlation between SME risk reduction and SME equity financing gap reduction is positive. Similarly, the correlation between SME transaction cost reduction and the SME equity financing gap reduction is positive. But the correlation between the SME investment readiness and the SME equity financing gap reduction is negative. These correlations are consistent with the proposed model. The correlations between the two independent variables, (SME investment readiness and SME risk reduction) and the dependent variable, (SME equity financing gap reduction) are statistically significant as the ρ value is less than 0.05. While the correlation of SME transaction cost reduction and the SME equity financing gap reduction is not statistically significant with a ρ value above 0.05.

8.5 Regression Analysis

The proposed regression model is: $\mathbf{Y = \alpha + \beta_1 TC + \beta_2 IR + \beta_3 R + \varepsilon}$

Where Y represents perceived SME equity financing gap reduction, α, represents a constant, TC, represents SME transaction costs reduction, IR, represents SME investment readiness, and R, represents SME risk reduction. β_1, β_2, and β_3 are the coefficients to be estimated, and ε, is the error term. Multiple regression analysis was performed assuming that SME investment readiness, SME transaction costs reduction and SME risk reduction variables influence each other. The multiple regression results using the *enter* method are shown in Table 8.8.

Table 8.8: Multiple regression Results

R^2	Adjusted R^2	Estimated Standard Error	F	Sig.
0.126	0.092	1.05259	3.666	0.016

Variable	Unstandardized Coefficients	Standard Error	Beta	t	Sig.
Constance	3.655	1.484		2.463	0.016
SME Investment Readiness	-0.777	0.305	-0.288	-2.551	0.013
SME risk reduction	0.664	0.293	0.252	2.264	0.026
SME transaction costs reduction	0.236	0.164	0.159	1.444	0.153

Dependent variable = perceived SME equity financing gap reduction; $\rho<0.05$; N=80

The multiple regression model explains 12.6% of the variance in the reduction of the perceived SME equity financing gap. The probability of F statistic (3.666) for the overall regression relationship is 0.016, which is less than the level of significance of 0.05. This means that the regression model is statistically significant. The null hypothesis that there is no relationship between the three independent variables (i.e., SME investment readiness, SME risk reduction, and SME transaction costs reduction) and the reduction of the perceived SME equity financing gap is rejected. Therefore, the research hypothesis that there is a statistically significant relationship between the three independent variables and the dependent variable is supported.

For the independent variable, SME investment readiness, the probability of the t-statistic (-2.551) for the b coefficient is (0.013) which is less than the level of significance of 0.05. The null hypothesis that the slope associated with SME

investment readiness is equal zero (b=0) is rejected because there is a statistically significant relationship between SME investment readiness and reduction of perceived SME equity financing gap. The research hypothesis that there is an inverse relationship between SME investment readiness and reduction of the perceived SME equity financing gap is supported.

For the independent variable, SME risk reduction, the probability of the t-statistic (2.264) for the b coefficient is (0.026) which is less than the level of significance of 0.05. The null hypothesis that the slope associated with SME risk reduction is equal zero (b=0) is rejected because there is a statistically significant relationship between SME risk reduction and reduction of perceived SME equity financing gap. Therefore, the research hypothesis that there is a positive relationship between SME risk reduction and reduction of the perceived SME equity financing gap is supported.

For the independent variable, SME transaction costs reduction, the probability of the t-statistic (1.444) for the b coefficient is (0.153) which is greater than the level of significance of 0.05. The null hypothesis that the slope associated with SME transaction costs reduction is equal zero (b=0) cannot be rejected because there is not a statistically significant relationship between SME transaction costs reduction and reduction of the perceived SME equity financing gap. Therefore, the research hypothesis that there is a positive relationship between SME transaction costs

reduction and reduction of the perceived SME equity financing gap is not supported.

Regression for control variables

The researcher ran regression with control variables of Group (i.e., SMEs and Venture Capital companies), gender, race, and geographic location. Using the *enter* method, the probability of the t-statistic results for the b coefficient of each of the control variables is greater than the level of significance of 0.05 and therefore not statistically significant. However, running the control variables as the only independent variables using the *stepwise* method, the results show that the gender variable has a significant contribution to the prediction of the reduction of the perceived SME equity financing gap. The other control variables have low and insignificant correlation with the dependent variable.

Given that these control variables may not have an effect on their own but their interaction with independent variables may be important, the researcher tested the effect of interaction variables. Interaction variables were computed by multiplying the control variables with the independent variables. The researcher used collinearity statistics tolerance values to check for any collinearity in the resulting data. A collinearity statistics tolerance value of less than 0.1 indicates a collinearity problem (Hinton et al., 2004). The results indicated that the data of interaction variables had collinearity problems because the collinearity statistics tolerance values were less than 0.1. To solve this problem, the researcher used the

'deviation from the mean' values for the independent variables to compute the interaction variables.

The researcher then entered the data in the regression hierarchically, whereby the control variables of gender, race, group and geographical location were entered first and the interaction variables were entered next. Using the *stepwise* method for each set of variables, the regression results produced two variables that make a significant contribution to the prediction of the dependent variable.

The multiple regression results are shown in Table 8.9.

Table 8.9: Multiple regression with control and interaction variables Results

Model	R^2	Adjusted R^2	Estimated Standard Error	F	Sig.
1	0.055	0.043	1.08080	4.515	0.037
2	0.104	0.081	1.05896	4.477	0.014

Model	Variable	Unstandardized Coefficients	Standard Error	Beta	t	Sig.
1	Constant	4.143	0.236		17.566	0.000
	Gender	-0.584	0.275	-0.234	-2.125	0.037
2	(Constant)	4.095	0.232		17.629	0.000
	Gender	-0.561	0.269	-0.225	-2.085	0.040
	Urbanreadiness	0.807	0.391	0.223	2.062	0.043

Dependent variable = perceived SME equity financing gap reduction; ρ<0.05; N=80; Gender (Male = 1, Female = 0); Race (White = 1, Non-White = 0); Geographical location (Urban = 1, Non-urban = 0) Group (SMEs = 1, Venture capital investors = 0)
Note: Due to small samples, race was classified into two categories, white and non-white; similarly geographical location was classified into urban and non-urban.

Stepwise regression produced two statistically significant models. In model 1, gender accounts for 5.5% of the variance in the reduction of the SME equity financing gap. In model 2, both gender and urbanreadiness (i.e., geographical

location * SME investment readiness) account for 10.4% of the variance in the reduction of the SME equity financing gap.

Model 1 shows that of the control variables – group, race, gender, and geographic location - the gender variable makes a significant contribution to the prediction of the reduction of the SME equity financing gap. Model 2 shows that of the control variables and their interaction terms, only gender and urbanreadiness (urban*SME investment readiness) variables make a significant contribution to the prediction of the reduction of the perceived SME equity financing gap. This implies that although geographic location on its own is not statistically important to the prediction of the reduction of the SME equity financing gap, its interaction with SME investment readiness is statistically important.

To test the effect of these significant control and interaction variables (gender and urbanreadiness) on the overall regression model, the researcher ran a regression of the three independent variables, the control variable and the interaction variable. The resulting regression model is statistically significant, but the probability of the t-statistics for the b coefficients of SME investment readiness, SME transaction costs reduction, SME risk reduction, gender, and urbanreadiness, is greater than the level of significance of 0.05. This model explains 16.6% of the variance in the reduction of the perceived SME equity financing gap and the probability of F statistic (2.956) for the overall regression relationship is 0.017, which is less than the level of significance of 0.05.

Detailed multiple regression outputs are included in appendix F.

8.6 Conclusion

The factor analysis identified 15 critical SME equity capital success factors. The Eigen values and Cronbach alphas of the factor analyses for the three sets of factors - i.e., SME investment readiness factors, SME risk reduction factors, and SME transaction cost reduction factors – are robust.

Regression analysis show that the regression model is statistically significant implying that there is a statistically significant relationship between SME investment readiness, SME transaction costs reduction, SME risk reduction, and the reduction of the perceived SME financing gap. The regression results also show that individually, SME investment readiness and SME risk reduction have a statistically significant relationship with the perceived SME equity financing gap reduction but the results for SME transaction costs reduction were statistically insignificant. Further, the control variables regression results are inconclusive as their addition to the regression model makes the independent variables statistically insignificant.

The next chapter discusses the empirical results of the factor and regression analyses.

CHAPTER 9

DISCUSSION OF EMPIRICAL RESULTS OF THE STUDY

9.1 Introduction

This chapter discusses the results of the empirical study presented in chapter 8. The first part of the chapter discusses the results of the Factor Analysis while the second part discusses the results of the Regression Analysis.

9.2 Discussion of Factor Analysis Results

The results of the principal component analysis group the SME equity capital success factors that mitigate the obstacles to SME equity finance into three groups - SME investment readiness, SME risk reduction and SME transaction costs reduction. A discussion of the implications of these results follows.

SME Investment Readiness

The SME equity capital success factors that can prepare SMEs for investment are: use of government incentives, collaboration with non-profit entrepreneurial organizations, training entrepreneurs and venture management, networks, good corporate governance practices, and hands-on monitoring. As discussed in the literature, these factors mitigate the barriers to investment in developing countries, such as the lack of entrepreneurial skills and ideas, and shortage of skilled workers and talented management team (Patricof et al., 2005; Deloitte, 2008). Additionally, these factors also mitigate the limited availability of SMEs financial information

(Adongo & Stork, 2006), unreliable legal systems to enforce contracts (Deloitte, 2008), and lack of quality deals (Eid, 2005; Deloitte, 2007).

Specifically, use of government incentives such as tax incentives can be used to improve the performance of the investee SME where operational costs incurred to train and/or mentor the enterprenuer or venture management are subsidized. The government can also provide preinvestment programs that provide business advice, consultancy, training and mentoring services in all areas of business development, that prepare SMEs for investment (SEDA, 2011).

The SME equity capital success factors - collaboration with non-profit entrepreneurial organizations, and training entrepreneurs and venture management - provide entrepreneurs with business skills such as managerial, financial, marketing and technical skills (Hallberg, 2000). In addition, training on the venture capital investment process helps entrepreneurs understand how venture capital works (Adongo & Stork, 2006; Proimos & Murray, 2006). The training and knowledge of business skills assists the entrepreneurs and venture management team to articulate their business plans. In addition, entrepreneurs are able to adequately present their business plans for investment, evaluate and react to risk, be familiar with their target market, and be entrepreneurial enough to sustain their business. With these skills, characteristics of the entrepreneur and venture management team considered by venture capitalists as demonstrated in the conventional venture capital investment criteria (Mishra, 2004; Wong, 2009) are

fulfilled by preparing SMEs for investment instead of evaluating SMEs when they are not investment ready.

In a similar manner, the hands-on monitoring success factor, supports entrepreneurs and venture management team during the investment period through business advice, better governance, improved efficiency, and connection to new markets (Durrani & Boocock, 2006; Grikscheit, 2006). Also, hands-on monitoring reduces information asymmetry, as it provides venture capitalists with access to essential business information (Zong, 2005). Thus, hands-on monitoring can address the financial concerns of the conventional venture capital investment criteria of profits and return on investment (Kakati, 2003) in an alternative way which considers the institutional context of SMEs in developing countries.

Networks mitigate information and agency risks. In particular, through networks, venture capitalists receive quality deals in form of referrals (Mitchell, 2006; Rasmussen & Sørheim, 2012), venture capital contracts are enforced (Bruton & Ahlstrom, 2003; Hassan, 2010), and information asymmetry is reduced (London & Hart, 2004; Freiburg & Grichnik, 2012). In addition, networking with local government officials assists venture capitalists to navigate the difficult institutional environment (Bruton & Ahlstrom, 2003). Networks therefore, provide an alternative for certain aspects of the product and market categories of the conventional venture capital criteria such as a good market acceptance for the product or

service, easy market acceptability, and product or service in a market familiar to the venture capital firm (Mishra, 2004; Deventer & Mlambo, 2009).

The success factor, corporate governance practices, addresses the conventional venture capital investment criteria limitations of inadequate financial and other performance reports (Adongo & Stork, 2006). Good corporate governance practices also reduce monitoring costs arising from the need for a continuous presence of fund managers in their investee companies to monitor performance and facilitate regular financial reporting (Durrani & Boocock, 2006). Moreover, good corporate governance practices increase investor confidence on a venture and potential for higher valuation, which improve liquidity and exit opportunities. As a result, the financial considerations of the conventional venture capital investment criteria such as venture can easily be made liquid and opportunities for exit are met (Chotigeat et al., 1997; Zutshi et al., 1999; Mishra, 2004).

Although the cross-institutional dialogue generates quality deal flows including high-tech business, and thus address the low quality deal flow problem experienced in developing countries (Deloitte, 2007), and provides products or services of high demand or market acceptance (Deventer & Mlambo, 2009; Wong, 2009), it did not load significantly to any component factor, and was therefore dropped. This may be because South Africa lacks suitable systems to assist in innovative entrepreneurship involving tertiary academic and research institutions (SAVCA and Venture Solutions, 2010). Therefore, public research may have gone

unrecognized as a source of investment deals. Another success factor, proactive deal generation, expected to load to SME investment readiness loaded onto both SME investment readiness and SME risk reductions. This success factor was therefore dropped.

SME Risk Reduction

The SME risk reduction success factors are strategic partnerships and alliances, leveraging strengths of existing institutions, experienced fund managers, exit strategy planning, business incubators, and portfolio diversification. These success factors mainly cover the financial considerations of the conventional venture capital investment criteria. Specifically, strategic partnerships and alliances address the problem of limited exit options (Deloitte, 2008) by providing an avenue for the venture capital investment to be made liquid (Chotigeat et al., 1997; Zutshi et al., 1999; Mishra, 2004; DaSilva et al., 2012; Ozmel et al., 2013) through acquisition. Leveraging strengths of existing institutions addresses the institutional context challenges including contract enforcement and protection of property rights (Deloitte, 2008). This success factor increases chances of success of the venture capital investment.

The success factor, experienced fund managers, address the financial viability concerns because fund managers apply their skill in selection of ventures to invest in, and also in the management of the venture during investment. Experienced and knowledgeable fund managers tap the growth potential of a venture into a success

story (Kumar & Kaura, 2003), generate successful investment strategies (SEAF, 2004), and make informed decisions (Parhankangas et al., 2005). These practices promote significant potential for earnings growth, a financial consideration in the conventional venture capital investment criteria (Deventer & Mlambo, 2009).

The exit strategy planning success factor gives the venture capitalist an option upfront to decide on possible viable profitable exit opportunities before deciding to invest (Grikscheit, 2006; DaSilva et al., 2012). Exit opportunities and profits are important financial consideration in the conventional venture capital investment criteria (Chotigeat et al., 1997; Kakati, 2003).

The success factor, business incubators, addresses the entrepreneur and the product characteristics of the conventional venture capital investment criteria. Apart from nurturing and developing entrepreneurs and cultivating their creativity and innovation, business incubators lead to the creation of innovative start-up companies which are a source of quality deals for venture capitalists (Adongo & Stork, 2006; OECD, 2006b). Business incubators therefore, address the lack of quality deals in developing countries (Deloitte, 2007). Moreover, cultivating innovation among South African entrepreneurs will solve the problem of the 'copycat' mentality of South Africa entrepreneurs (Herrington et al., 2009).

The portfolio diversification success factor reduces the risk of loss from investments (Gao, 2011). Through diversification of country risk (Sabal, 2004), and

unsystematic firm-specific risk (Norton & Tenenbaum, 1993), the cost of capital is lowered (Goedhart & Haden, 2003). Therefore, the discount rate applied to evaluate return potential of SME investment projects is reduced and that, in turn, may lead to more SME projects qualifying for equity funding. In this scenario, portfolio diversification addresses the financial considerations of the conventional venture capital investment criteria.

SME Transaction Costs Reduction

SME transaction costs reduction success factors are three: investment in clusters, non-financial evaluation methods, and outsourcing of core skills. The focus of these success factors is costs management to increase profits or return on investment. Thus, these success factors cover the financial considerations category of the conventional venture capital investment criteria. Specifically, the investment in clusters success factor addresses the low deal flow problem in developing countries (Eid, 2005), and through economies of scale, reduces the costs of many small SME deals (Ribeiro, 2007b).

The use of non-financial evaluation methods addresses the lack of a standardized method to determine the size of the risk premium or estimate required returns in developing countries (Estrada, 2007). Non-financial evaluation methods also address the shortcomings of the conventional venture capital investment criteria. These shortcomings include the use of high valuation projections, high absolute return, and high internal rate of return, as financial considerations in investment

decision-making (Mishra, 2004; Deventer & Mlambo, 2009). The generation of the valuation values is unreliable and unverifiable due to methodological issues (Sabal, 2004; Estrada, 2007), small stock markets, and lack of relevant information (Pereiro, 2001a). Use of these particular valuation items, therefore, negatively affects SMEs in developing countries. Also, the non-financial evaluation method reduces evaluation costs, such as information search costs and high due diligence costs arising from limited availability of SME accounting information in developing countries (Adongo & Stork, 2006).

The outsourcing of core skills reduces due diligence or operational costs that can be incurred by venture capital fund managers who lack local knowledge and experience. The outsourcing normally goes to local people who know how to navigate the local business terrain. The outsourcing of core skills also addresses the lack of skills of the venture management team as the outsourced experts can support the venture management in specific functions where there is need. Thus, outsourcing reduces transaction costs and increases the profit potential of the business, a financial consideration of the conventional venture capital investment criteria (Kakati, 2003).

In summary, the three component factors: SME investment readiness, SME risk reduction, and SME transaction costs reduction address the following limitations of the conventional venture capital investment criteria:

- weak institutional environment

- low quality deal flow
- poorly prepared business proposals
- lack of entrepreneurial ideas and managerial skills
- violations of property rights
- lack of market attractiveness
- shortcomings in financial valuation methods
- lack of venture capital knowledge and the family nature of businesses
- inadequate SMEs' financial information, and
- limited exit options.

Additionally, these three component factors cover characteristics of the conventional venture capital investment criteria from a different perspective. For example, SME investment readiness factors covers entrepreneur, venture management, product or service, and market characteristics. SME risk reduction factors and SME transaction costs reduction factors cover financial considerations. Thus, venture capitalists can adapt these SME equity capital success factors in their evaluation of SMEs in developing countries. SMEs can be evaluated therefore, from the perspective of these investment readiness factors, risk reduction factors and transaction costs reduction factors. Because these factors take into account the institutional context of SMEs in emerging economies including South Africa, more SMEs are likely to access to equity capital. Table 9.1 demonstrates the linkage between the SME equity capital success factors and the limitations of the conventional venture capital investment criteria.

Table 9.1: Linkage between Success Factors and Limitations of Conventional VC Investment Criteria

Category	Conventional criteria limitations addressed	Corresponding Conventional criteria categories
SME Investment readiness (success factors include use of government incentives, collaboration with non-profit entrepreneurial organizations, training entrepreneurs and venture management, networking, good corporate governance practices, and hands-on monitoring)	• Low quality deal flow, • Poorly prepared business proposals, • Lack of entrepreneurial and managerial skills, • Lack of market attractiveness, • Lack of venture capital knowledge and the family nature of businesses, • Inadequate SMEs financial information	• Entrepreneur characteristics • Venture Management team characteristics • Market characteristics • Product/Service characteristics
SME Risk reduction (success factors include strategic partnerships and alliances, leveraging strengths of existing organizations, experienced fund managers, exit strategy planning, business incubators, and portfolio diversification)	• Property rights violations, • Lack of market attractiveness, • Limited exit options	• Financial considerations • Market characteristics • Product/Service characteristics
SME Transaction costs reduction (success factors include investment in clusters, non-financial evaluation methods, and outsourcing of core skills)	• Shortcomings of traditional financial valuation methods • Low quality deal flow	• Financial Considerations

Source: Researcher's own construction from results and literature analysis: Key: VC – Venture capital

9.3 Discussion of Regression Analysis Results

Considering the goodness of fit statistics, the probability of the F-statistic (3.666) for the overall regression relationship is 0.016, which is statistically significant. This indicates that the three independent variables (i.e., SME investment readiness, SME risk reduction, and SME transaction costs reduction) are jointly significant and should remain in the regression model. This is in line with results of factor analysis where 15 factors loaded significantly to these three variables. The Eigen values and Cronbach alphas for the three sets of factors are also robust, which evidences support for the regression model. The probability of the b coefficients of two of the three independent variables shows a significant relationship with the reduction of the perceived SME equity financing gap. These independent variables are SME investment readiness ($\rho = 0.013$) and SME risk reduction ($\rho = 0.026$). However the ρ value for SME transaction costs reduction variable is 0.153 which is not statistically significant. A discussion of the implication of these results follows.

Hypothesis 1: There is an inverse relationship between SME investment readiness and reduction of the perceived SME equity financing gap.

This hypothesis is supported by the regression analysis results. This is consistent with the factor analysis results which show support for the SME investment readiness variable. The Eigen value (4.484) and the Cronbach alpha (0.727) of the factors that loaded to the SME investment readiness variable are robust. The support of this hypothesis is also consistent with the correlation results which show

a statistically significant correlation between SME investment readiness and the SME equity financing gap reduction.

The SME equity capital success factors that loaded significantly onto the SME investment readiness variable are: use of government incentives, collaboration with non-profit entrepreneurial organizations, training entrepreneurs and venture management, networks, good corporate governance practices, and hands-on monitoring. These factors prepare SMEs for investment because they mitigate the barriers to investment in developing countries. Such barriers include lack of entrepreneurial skills and ideas, shortage of skilled workers and talented management team (Patricof et al., 2005; Deloitte, 2008), limited availability of SMEs financial information (Adongo & Stork, 2006), unreliable legal systems to enforce contracts (Deloitte, 2008), and lack of quality deals (Eid, 2005; Deloitte, 2007).

As explained under factor analysis, each of the SME investment readiness factors mitigates barriers to investment in a number of ways:

- Use of government incentives subsidize operational costs incurred to train and/or mentor the entrepreneur or venture management, and fund preinvestment programs that provide business advice, consultancy, training and mentoring services in all areas of business development, that prepare SMEs for investment (SEDA, 2011).

- Collaboration with non-profit entrepreneurial organizations, and training entrepreneurs and venture management, provide entrepreneurs with business skills such as managerial, financial, marketing and technical skills (Hallberg, 2000) and helps entrepreneurs understand how venture capital works (Adongo & Stork, 2006; Proimos & Murray, 2006).
- Hands-on monitoring supports entrepreneurs and venture management team during the investment period through business advice, better governance, improved efficiency, and connection to new markets (Durrani & Boocock, 2006; Grikscheit, 2006).
- Networks mitigate information and agency risks by providing venture capitalists with quality deals in form of referrals (Mitchell, 2006), enforcing venture capital contracts (Bruton & Ahlstrom, 2003; Hassan, 2010), reducing information asymmetry (London & Hart, 2004; Freiburg & Grichnik, 2012), and assisting venture capitalists to navigate the difficult institutional environment (Bruton & Ahlstrom, 2003).
- Good corporate governance practices provide financial and other performance reports which enable investors to monitor venture performance (Durrani & Boocock, 2006). Moreover, good corporate governance practices increase investor confidence on a venture, and potential for higher valuation, which improve liquidity and exit opportunities.

When these barriers to investment are mitigated, venture capitalists are willing to invest in SMEs because they are "investment ready". This leads to an increase in

the number of SMEs accessing equity capital. An increase in the number of SMEs that can access equity capital leads to a reduction in the perceived SME equity financing gap.

As illustrated in Table 9.1 above, in mitigating the barriers to investment, the SME investment readiness factors address the limitations of the conventional venture capital criteria as covered under the entrepreneur, venture management team, product or service, and market categories. Hence, investment readiness factors can be considered as criteria to be used in a modified venture capital investment criteria for evaluation of SMEs.

Hypothesis 2: There is a positive relationship between SME transaction costs reduction and reduction of the perceived SME equity financing gap.

This hypothesis is not supported by the regression analysis results. This result is consistent with the correlation results which show that the correlation between SME transaction costs reduction and the SME equity financing gap reduction is not statistically significant at $\rho<0.05$. However, the non-support of this hypothesis is not consistent with the factor analysis results which show support for the SME transaction cost reduction variable. The Eigen value (1.679) and the Cronbach alpha (0.732) of the factors that loaded to the SME transaction costs reduction variable are strong. These reliability results support the SME transaction costs reduction variable to be in the adapted regression model. This is because jointly

with SME investment readiness and SME risk reduction, SME transaction costs reduction has a statistically significant effect on the perceived SME equity financing gap.

According to factor analysis results, the SME transaction costs reduction factors include investment in clusters, use of non-financial evaluation methods, and outsourcing of core skills. These success factors mitigate barriers to investment as follows:

- Investment in clusters addresses the low deal flow problem in developing countries and through economies of scale reduces transaction costs (Eid, 2005; Ribeiro, 2007b).
- Non-financial evaluation methods address the lack of SME financial information and the small stock markets shortcomings in developing countries and reduce evaluation costs such as information search costs and due diligence costs (Adongo & Stork, 2006).
- Outsourcing of core skills reduces due diligence or operational costs incurred by venture capital fund managers who lack local knowledge and experience.

These success factors reduce SME transaction costs (Ribeiro, 2007b) thereby increasing the profits or returns on investment. With an increase in profits, venture capital investors are encouraged to provide SMEs access to equity capital, which consequently reduces the perceived SME equity financing gap.

As illustrated on Table 9.1 above, SME transaction costs reduction factors addresses shortcomings of the traditional valuation methods (Sabal, 2004; Estrada, 2007) and increase investment deal flow (Eid, 2005). Thus, these transaction costs reduction factors can be used as criteria in a modified venture capital investment criteria to evaluate SMEs.

Hypothesis 3: There is a positive relationship between SME risk reduction and reduction of the perceived SME equity financing gap.

This hypothesis is supported by the regression analysis results. This result is consistent with the factor analysis results which show support for the SME risk reduction variable. The Eigen value (1.848) and the Cronbach alpha (0.650) of the factors that loaded to the SME risk reduction variable are significant. The support of this hypothesis is also consistent with the correlation results which show a statistically significant correlation between SME risk reduction and the SME equity financing gap reduction.

As the factor analysis results demonstrated, the SME risk reduction success factors are strategic partnerships and alliances, leveraging strengths of existing institutions, experienced fund managers, exit strategy planning, business incubators, and portfolio diversification. These success factors mitigate barriers to investment as follows:

- Strategic partnerships and alliances provide an avenue for the venture capital investment to be made liquid (Chotigeat et al., 1997; Zutshi et al., 1999; Mishra, 2004; DaSilva et al., 2012; Ozmel et al., 2013) through acquisition, thus addressing the problem of limited exit options for venture capital investors (Deloitte, 2008).
- Leveraging strengths of existing institutions provides a means to enforce contracts and protect property rights (Deloitte, 2008).
- Experienced fund managers apply their skills to tap the growth potential of a venture into a success story (Kumar & Kaura, 2003), to generate successful investment strategies (SEAF, 2004), and to make informed successful decisions (Parhankangas et al., 2005).
- Exit strategy planning provides possible viable profitable exit opportunities (Grikscheit, 2006).
- Business incubators nurture and develop entrepreneurs, thereby cultivating their creativity and innovation. These entrepreneurs are then able to create innovative start-up companies which are a source of quality deals for venture capitalists (Adongo & Stork, 2006; OECD, 2006b).
- Portfolio diversification reduces the risk of loss from investments (Gao, 2011). This is normally done through diversification of country risk (Sabal, 2004), and unsystematic firm-specific risk (Norton & Tenenbaum, 1993). The diversification of country risk lowers the cost of capital (Goedhart & Haden, 2003). Therefore, the discount rate applied to evaluate return potential of SME

investment projects is reduced and that, in turn, may lead to more SME projects qualifying for equity funding

These risk reduction factors address financial concerns of private equity/venture capitalists, thus, encouraging them to increase SMEs access to equity capital. This leads to a reduction of the perceived SME equity financing gap.

The support of the above additional risk reduction success factors demonstrates that the traditional venture capital risk reduction strategies such as the use of convertible securities (Tykvova, 2007), syndication of investments (Bent et al., 2004), the staging of capital infusions (Wang & Zhou, 2004; Durrani & Boocock, 2006), the separation of ownership and control rights (Kaplan & Strömberg, 2003; Nenova, 2003), and the inherent abilities to deal with information asymmetry (Admati & Pfleiderer, 1994; Amit et al., 1998) are not adequate in developing country business environment conditions.

As illustrated in Table 9.1 above, SME risk reduction factors address the conventional venture capital investment criteria concerns of property rights violations, lack of market attractiveness, and limited exit options. Therefore, these factors can be used as criteria in a modified venture capital investment criteria.

Control Variables

In the case of control variables, the gender variable show a significant effect in the prediction of the reduction of the SME equity financing gap mainly because of the skewness in sample size. The male sample used for regression was 59 while the female sample was 21. A representative sample of both male and female may produce different results. For the interaction variable, urbanreadiness (urban*SME investment readiness), it is significant because most of the venture capital investors are located in the urban areas (29 of 31 of the venture capital respondents). The proximity of an SME which is 'investment ready' to an equity investor increases the chance that the SME will have access to equity capital. Thus, increased access to equity capital contributes to the reduction in the perceived SME equity financing gap.

Although the regression model consisting of the three independent variables, gender, and urbanreadiness, is statistically significant, the coefficients for the variables are not statistically significant. Therefore, the originally proposed regression model with the three independent variables is considered the final model for this study.

9.4 Conclusion

This chapter discussed the results of factor and regression analysis. The factor analysis discussion shows how the identified success factors address the limitations of the conventional venture capital investment criteria. SME investment

readiness factors mitigate the following limitations: low quality deal flow, poorly prepared and presented business proposals, lack of entrepreneurial and managerial skills, lack of market attractiveness, lack of venture capital knowledge, the family-owned nature of SME businesses, and inadequate SMEs' financial information. While SME risk reduction factors address property rights violations, lack of market attractiveness, and the limited exit options. Furthermore, SME transaction costs reduction factors deal with shortcomings in financial valuation methods, and the low deal flow problem. These results, therefore, suggest modified criteria for evaluating SMEs for investment in South Africa. Instead of the current focus on the characteristics of the entrepreneur, venture management team, product or service, and market, and financial considerations, the suggested focus shifts to factors that prepare SMEs for investment, factors that reduce risk, and factors that reduce transaction costs. Such a shift in focus takes into account the institutional context of SMEs in emerging economies, including South Africa and is expected to lead to more SMEs accessing equity capital and thereby lead to a reduction in SME equity financing gap in South Africa.

The regression results show that the adapted model is supported. Consequently, the secondary objective of the research (i.e., mitigating the SME equity finance obstacles of a lack of investment readiness, high risk and high transaction costs will reduce the perceived SME equity financing gap) is achieved. These results are consistent with the factor analysis results as they support modified criteria for

evaluating SMEs for investment in South Africa. Chapter 10 sets out the conclusions of the study.

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CHAPTER 10

CONCLUSIONS, IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH

10.1. Introduction

Venture capital is one of the most suitable sources of capital for growth and expansion, but most SMEs in emerging economies including South Africa fail to meet the criteria required to access this source of capital. This is because venture capitalists evaluate SMEs in emerging economies using conventional investment criteria which do not take into consideration the institutional context of developing countries in general, and SMEs in particular. As a result, venture capitalists find SMEs lacking investment readiness and view them to be risky and costly.

The broad objectives of this study are three-fold. First, it contributes new evidence to the venture capital investment criteria literature. The claim that venture capitalists apply the same investment criteria in both developed and developing countries despite the differences in the business environment conditions, is analysed using case studies. The analysis shows that venture capital investment criteria are conventional, because globally, venture capitalists use the same approach and factors to evaluate ventures. There are no fundamental differences, or any noticeable adaptation to consider the barriers to investment in developing countries, such as: underdeveloped institutions, scarcity of entrepreneurial skills and ideas, shortage of skilled workers, and small and illiquid stock markets. This

approach leads to rejection of many SMEs' funding requests because SMEs are perceived to be risky, costly and lacking investment readiness.

The second objective of the study is to identify factors that have been successfully applied by innovative venture capitalists in developing countries to mitigate the lack of investment readiness, along with the high perceived risk and high transaction costs. These factors are labelled SME equity capital success factors and grouped into three categories – those that prepare SMEs for investment, reduce risk, and reduce transaction costs. These factors are then empirically tested among private equity/venture capital investors and SMEs in South Africa.

The third objective of this study is to formulate recommendations for criteria to be used by venture capitalists to evaluate SMEs in South Africa. Empirical analysis on the SME equity capital success factors suggests 15 factors that may mitigate lack of SME investment readiness, high perceived risk and high transaction costs. As a secondary objective, the relationship between mitigating these obstacles and the reduction of the perceived SME equity financing gap is examined.

The chapter is structured as follows. Sub-section 10.2 provides the conclusions of the study. Sub-section 10.3 discusses recommendations of the study. Sub-section 10.4 provides contributions of the study, and sub-section 10.5 provides directions for future research.

10.2 Conclusions of the Study

Small and medium-sized enterprises play an important role in the South African economy especially in employment, economic development and social stability. While the growth and success of these enterprises does not depend solely on financial support, access to financing is crucial for their growth and expansion (Eid, 2006; Gregoriou et al., 2007). In this respect, venture capital is the most appropriate financing tool for growing SMEs as it provides both growth capital as well as managerial and marketing advisory functions (Tykvova, 2007). However, the conventional venture capital investment criteria have contributed to SMEs' lack of access to venture capital because venture capitalists apply the same criteria to evaluate SMEs despite the difficult business environment conditions in developing countries. The conventional venture capital investment criteria focus on the entrepreneur, the venture management team, the product or service, the market, and financial considerations. These factors are weak or absent in developing countries. Hence, venture capitalists find SMEs to lack investment readiness and perceive them to be risky and costly.

This study found that factors that address lack of investment readiness, risks, and transaction costs also address the limitations of the conventional investment criteria. Specifically, investment readiness, risk reduction, and transaction costs reduction factors address the following barriers to SMEs access to equity capital:

- weak institutional environment
- low quality deal flow

- poorly prepared business proposals
- lack of entrepreneurial ideas and managerial skills
- violations of property rights
- lack of market attractiveness
- shortcomings in traditional financial valuation methods
- lack of venture capital knowledge and the family-owned nature of businesses
- inadequate SME financial information, and
- limited exit options.

Additionally, these three component factors (SME investment readiness, SME risk reduction, and SME transaction costs reduction) cover characteristics of the conventional venture capital investment criteria from a different perspective. For example, SME investment readiness covers entrepreneur, venture management, product or service, and market characteristics. While SME risk reduction and SME transaction costs reduction cover financial considerations.

The study found that SMEs can be evaluated from the perspective of factors that mitigate lack of investment readiness, high SME risk and high SME transaction costs, in order to increase SMEs access to equity capital. The factors considered are shown in Table 10.1.

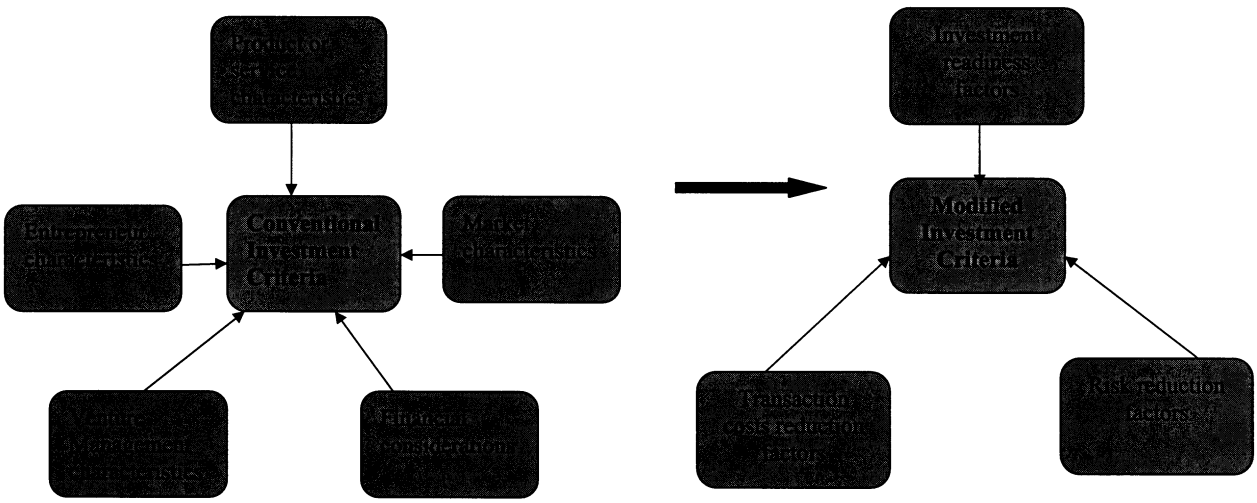
Table 10.1: Modified Venture Capital Investment Criteria

Category	Factors to consider
SME investment readiness	• use of government incentives e.g., tax incentives, and preinvestment support programmes. • collaboration with non-profit entrepreneurial organizations in provision of non-financial support services such as business and management skills training, • training entrepreneurs and venture management team on venture capital investment process, • networking with entrepreneur's personal contacts, other businesses, government and other local investors, • instilling good corporate governance practices, and • practicing hands-on monitoring.
SME risk reduction	• strategic partnerships and alliances, • leveraging strengths of existing institutions (know how to navigate the systems), • experienced fund managers, • exit strategy planning (determine exit strategy at the beginning of investment), • business incubators, and • Portfolio diversification.
SME transaction costs reduction	• investment in clusters (geographical/regional/industry cluster), • non-financial evaluation methods (i.e., assessing SME projects viability using local operational experience), and • outsourcing of core skills (using knowledgeable local experts in SME equity finance).

Source: Researcher's own construction from empirical results

Empirical analysis found that these factors mitigate the obstacles of lack of investment readiness, high risk and high transaction costs. Considered together, these obstacles when mitigated, narrows the SME equity financing gap. Figure

10.1a diagrammatically shows the conventional venture capital investment criteria and figure 10.1b shows the proposed modified venture capital investment criteria.



(10.1a) Conventional venture capital investment criteria (10.1b) Modified venture capital investment criteria

Figure 10.1b: Modified venture capital investment criteria (Researcher's own construction)

10.3 Recommendations

10.3.1 Recommendations for Modified Venture Capital Investment Criteria

The conventional venture capital investment criteria focus on: the characteristics of the product or service, characteristics of the venture management, characteristics of the market, characteristics of entrepreneur, and financial considerations. This study demonstrates how consideration of these characteristics negatively impact SMEs access to equity capital in developing countries. Therefore, adapting the venture capital investment criteria for SMEs in developing countries could increase the number of SME projects that access venture capital. As discussed in section 10.3 the conventional venture capital investment criteria can be modified to focus on factors that mitigate lack of investment readiness, high SME risk and high SME transaction costs.

To illustrate how the conventional venture capital criteria can be adapted, the researcher selected the South African case study by Deventer and Mlambo (2009). This case study identified four categories that venture capitalists consider in evaluating new projects for investment: management, product, financial, and market. The management category focused on the entrepreneur skills and experience, the product category focused on the market acceptance and competitiveness of the product, the financial category focused on high absolute and potential returns, and the market category focused on the market size, accessibility, and growth. As discussed in the literature, SMEs in South Africa are not able to meet these characteristics against which they are evaluated. Hence,

considering the modified investment criteria factors illustrated in Table 10.2, investment readiness factors cover the management, product and market characteristics. While risk reduction factors cover product, market, and financial characteristics, and transaction costs reduction cover financial characteristics. Figure 10.2 illustrates how the categories in the Deventer and Mlambo (2009) case study fit into the modified venture capital investment criteria categories.

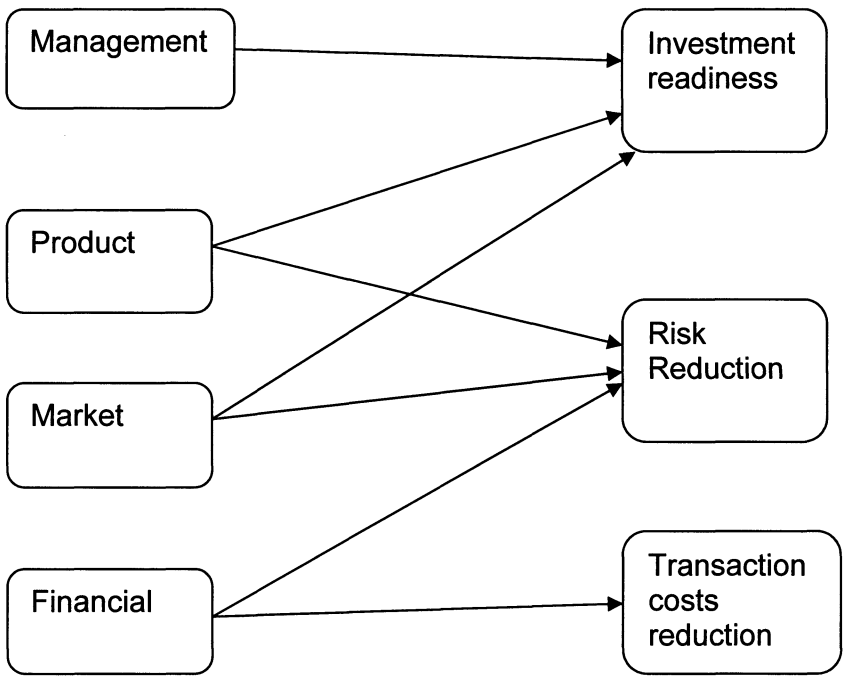


Figure 10.2: Illustration of shift from conventional investment criteria categories to the modified investment criteria categories

Details for the characteristics to be evaluated for each category are illustrated in Table 10.2.

Table 10.2: Simulation of Deventer and Mlambo (2009) study to Modified Venture Capital Investment Criteria

Old Category	New category	Criterion
Management	Investment readiness	• Entrepreneur and venture management team have trained on or understand the venture capital investment process • Entrepreneur and venture management team have trained on business and management skills • Experienced fund managers who can train entrepreneurs and have insight in selection of entrepreneurs • Venture management willing to adhere to accepted business norms and standards • Entrepreneur and venture management team are educated on and accept benefits of good governance to the venture • Accessibility of local teams to venture capital training and mentoring • Availability of government support programs where entrepreneurs and venture management can prepare for equity investment
Product	Investment readiness/risk reduction	• Venture developed in business incubator or through research • Venture developed or prepared for investment by own fund manager, or through seminars/workshops or other marketing of venture capital forum. • Venture product can be marketed abroad • Venture provides opportunity for new technology
Financial	Risks and transaction costs reduction	• The venture is located within a geographical, regional or industry cluster • Venture's potential is verifiable through operational experience evaluation • Venture is in industry with potential strategic partnerships and alliances who can acquire it • Potential exists for venture to be acquired by strategic investor • Opportunity to diversify among other ventures or across geographical locations exists • Fund managers have an in-depth local knowledge and experience of the venture capital industry • Existence of multiple exit options for the venture • Venture has local investor or local investor is willing to co-invest in the venture • Consultancy services with venture capital experience and knowledge is available locally • Availability of government incentives e.g. tax incentives
Market	Investment readiness/Risk reduction	• Venture in a market with potential partners and alliances who need the product or service • Fund managers have a network of contacts within the venture capital industry • Experienced fund managers i.e. fund managers know SME market and behaviour of SMEs

Source: Researcher's own construction from empirical results

10.3.2 Recommendations for Policy and Practice

As Herrington et al. (2009) argue, financial institutions have not adapted to the changes in the South African environment. However, the status quo needs to change in order to apply the modified investment criteria. To apply the investment readiness investment criterion, private equity/venture capital investors should change their mind-set and approach to sourcing investment deals. Due to the barriers to investment in developing countries, private equity/venture capital investors have to be more involved in building local capacity of entrepreneurs and in recognizing the value of existing local institutions. They should learn to collaborate with non-traditional partners such as non-profit entrepreneurial organizations to prepare SMEs for investment, and engage and partner with universities and research institutions to co-invent solutions that promote and develop entrepreneurship (London & Hart, 2004).

As an incentive to private equity/venture capital investors to change their mind-set and approach to investment decisions, the government needs to act on regulations such as initial public offering stock market concerns, investor protection, and the poor state of entrepreneurship, that adversely affect venture capital investments.

Regulatory and legal frameworks should be in place to protect the investor and to make it easier for venture capitalists to invest in SMEs (Klonowski, 2011). Moreover, a study by OECD (2006a) identified the legal, institutional and regulatory framework as the critical determinant of SMEs' access to finance. The South

African Companies Act, for example, should protect private equity/venture capital investors and enable them to access financial and business information of SMEs so as to make informed decisions. However, the 2008 Companies Act stipulates that only listed companies -- and companies deemed to be in the public interest -- are required to be audited and that non-public companies may choose between an independent review and an audit (Republic of South Africa, 2008). This regulation works against venture capital investors because a sound audit is vital in guiding and promoting good business corporate governance practices in SMEs.

With respect to the stock market, South Africa has the ALTx for SMEs, which is not developed for initial public offerings (IPOs). Recent studies indicate that venture capital investment exits are difficult and majority are in form of trade sales. These studies found no data to indicate the use of formal public listings (SAVCA and Venture Solutions, 2010). This is a barrier to venture capital investment in SMEs. To facilitate application of the risk reduction criterion, the government should take the lead in addressing this shortcoming with a view to providing venture capital investors with IPO exit channels, and most importantly, with developing a stock market targeted at entrepreneurial companies (Da Rin, Nicodano & Sembenelli, 2005). Government should also provide effective liquidating mechanisms to deal with under-performing investments (Gregoriou et al., 2007).

In the case of property rights, venture capitalists who invest in companies with international growth potential with an intention of off-shoring these companies are

disadvantaged by the South Africa's exchange control regulations. This is because restrictions on intellectual property relocation and strict globalisation strategies increases cost of investment, turnaround time, and utilization of venture capital overhead and management time (SAVCA and Venture Solutions, 2010). Such regulation restricts the flow of capital thereby undermining equity funding for SMEs with international growth potential. To encourage application of the risk reduction criterion, the government can improve the exchange control regulations as part of its initiatives to improve the regulatory and institutional climate for private equity/venture capital. The focus should be on simplifying regulations for securing property rights, strengthening contract enforcement, and the rule of law (Gregoriou et al., 2007). It is on this basis that Malhotra et al. (2007) and World Bank (2004, 2005), advise governments to increase financial institutions' willingness to provide finance to SMEs by ensuring that both lenders and borrowers have clearly defined property rights (OECD, 2006b).

Although the research environment plays an important role in promoting entrepreneurship, South Africa lacks suitable systems to assist in innovative entrepreneurship involving tertiary academic and research institutions (SAVCA and Venture Solutions, 2010). Further, empirical factor analysis results demonstrated that the SME equity capital success factor "cross-institutional dialogue" did not load significantly to investment readiness, risk reduction, and transaction costs reduction. This implies that public research has not been recognized as a source of investment deals in South Africa. The government, therefore, should promote a

culture of innovation through cross-institutional dialogue whereby entrepreneurs, venture capitalists, researchers and government (through regulators) work together to produce successful start-up businesses. Universities can also train graduates on the emerging needs of the SME sector thereby supplying the needed entrepreneurial and managerial skills. These actions will encourage a focus on entrepreneurship and is a good source of skills to support and prepare SMEs for investment and accelerate the flow of venture capital to SMEs (Shwartz, 1994; Klonowski, 2011). Such actions can solve the low quality investment deal flow problem and encourage the application of investment readiness and transaction costs reduction criteria of the modified investment criteria.

10.4 Contributions of the Study

The empirical results of the study provide new insights into the venture capital investment criteria. In practice, similar criteria are applied in evaluating ventures in both developed and developing countries. But SMEs in developing countries are disadvantaged by these criteria due to the barriers to investment. This study highlighted limitations of the conventional venture capital investment criteria. These limitations impact on the factors of entrepreneur, venture management team, product/service, market, and financial considerations which form the conventional investment criteria. By highlighting the limitations of the conventional venture capital investment criteria, the study provides evidence for the need to adapt the conventional investment criteria for SMEs in South Africa.

Second, this study demonstrated that SME equity success factors mitigate the obstacles of lack of investment readiness, high risk and high transaction costs associated with SMEs and, therefore, reduce the effect of the limitations of the conventional venture capital criteria. In addition, mitigating these obstacles reduces the perceived SME equity financing gap. The venture capital investment criteria can be modified, therefore, to focus on factors that mitigate lack of investment readiness, high SME risk and high SME transaction costs instead of the traditional approach that focuses on characteristics of the entrepreneur, venture management team, product or service, and market, and financial considerations. This study has proposed modified criteria for evaluating SMEs for equity investment in South Africa.

The third contribution of this study is to private equity/venture capital investors interested in strategies that will help ensure successful investments in developing countries. With the modified venture capital investment criteria, private equity/venture capital investors can gain some insight into how to adapt conventional venture capital investment criteria to South African market conditions. The private equity/venture capital investors can consider the simulated study of Deventer and Mlambo (2009) as a starting point prototype with additional validation over time.

The fourth contribution of this study is to the entrepreneurs. With so much focus on investment readiness, entrepreneurs should actively seek education on venture

capital finance and its benefits, prepare adequate business plans, and learn business and management skills. The education and training prepares entrepreneurs for investment and will increase chances of selection for investment by private equity/venture capital investors. Moreover, this may reduce false negatives in the current high rejection rate of SME funding requests and thus narrow the SME equity financing gap.

Finally, to the best of available published knowledge, no such study to date has been published internationally or locally in South Africa. The findings here provide an introduction and foundation and, thereby, act as a basis of comparison for future research in this field.

10.5 Directions for Future Research

The study came up with a new venture capital investment criteria model with the distinctive features of developing country market conditions. Using the proposed simulation, future research should be conducted among South African venture capitalists to explore its applicability and to obtain more information on practicalities for its implementation.

Another important issue for further study pending availability of reliable data is the SME equity financing gap. Due to a lack of statistics on the size of the SME equity financing gap, this study used the perceived SME equity financing gap. The regression results supported the regression model which show that mitigating the

obstacles of lack of investment readiness, high risk and high transaction costs, jointly reduces the perceived SME equity financing gap. Individually, the mitigation of lack of investment readiness and high risk show a statistically significant effect on the perceived SME equity financing gap, but the results for SME transaction costs reduction were statistically insignificant and inconclusive. Also, the addition of the control variables - group, race, gender and geographical location - and their interaction terms to the regression model made the independent variables statistically insignificant. These results were therefore inconclusive. Future research should use larger samples to improve these results.

Finally, this study has examined how conventional venture capital investment criteria can be adapted for SMEs in South Africa. It would be of interest to study how this modified venture capital investment criteria can be adapted in other similar economies. This broader research would then enable a basis for comparative analysis between developing countries and extend the conclusion to developing countries in general.

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APPENDICES

Appendix A: Standard Industrial Classification of SMEs in South Africa

Sector or subsector in accordance with the Standard Industrial Classification	Size or Class (Category)	The total full-time equivalent of paid employees	Total Annual Turnover	Total gross asset value (fixed property excluded)
Agriculture	Medium	100	R5m	R5m
	Small	50	R3m	R2m
Mining and Quarrying	Medium	200	R39m	R23m
	Small	50	R10m	R6m
Manufacturing	Medium	200	R51m	R19m
	Small	50	R13m	R5m
Electricity, Gas and Water	Medium	200	R51m	R19m
	Small	50	R13m	R5m
Construction	Medium	200	R26m	R5m
	Small	50	R6m	R1m
Retail and Motor Trade and Repair Services	Medium	200	R39m	R6m
	Small	50	R19m	R3m
Wholesale Trade, Commercial Agents and Allied Services	Medium	200	R64m	R10m
	Small	50	R32m	R5m
Catering, Accommodation and other Trade	Medium	200	R13m	R3m
	Small	50	R6m	R1m
Transport, Storage and Communications	Medium	200	R26m	R6m
	Small	50	R13m	R3m
Finance and Business Services	Medium	200	R26m	R5m
	Small	50	R13m	R3m
Community, Social and Personal Services	Medium	200	R13m	R6m
	Small	50	R6m	R3m

Source: Adapted from Republic of South Africa (2003, pp. 5-6)

Appendix B: Summary of Khula Enterprise Finance Limited Services

	Channel	Description	Purpose	Financing type/Criteria
1	Retail financial intermediaries: • Marang Financial Services (Pty) Ltd • New Business Finance (Pty) Ltd • True Group Investment Holdings (Pty) Ltd • Retmil Financial Services (Pty) Ltd • The Small Enterprise Foundation • SupplyFIN (Pty) Ltd • Cape Capital Investment & Finance Co Ltd	Independent organisations or companies, which are lent money by Khula on a wholesale basis to on-lend to SMEs	• To provide a funding alternative to SMEs, who would otherwise not be able to obtain funding from the commercial banks • To provide financing solutions to SMEs operating in niche markets, where traditional financial products would otherwise not be able to meet the financial requirements • To provide Khula with a vehicle to facilitate access to finance to previously non-bankable SMEs operating in rural areas.	**Financing type** Loans - minimum of R10,000 and a maximum of R3 million per SME. **Qualifying criteria** • Applicants must be South African, • Applicants must have a viable business plan, • SMEs to have some form of security, and • Applicants need to have some experience in the area of business that they want to go into.
2	The Khula Property Portfolio	An initiative from government to provide business premises to start-ups or those expanding to medium sized businesses.	The rental charged is highly subsidized in order to encourage small business operators to move into formal operating space.	**Qualifying Criteria** • Any small to medium sized business requiring between 50 - 400m² of space, • Business activity must comply with municipal by-laws, • Business must be conducted with a profit motive and be economically viable, • Individual or person holding a controlling interest must be a citizen of the Republic of South Africa, and • Business operator must meet the minimum requirement as set out by the property managing agent.
3	Khula Mentorship Programme	Khula provides both pre and post loan mentorship to small and medium sized enterprises.	• Pre-Loan: Assist with creating viable business plans that can then be submitted to Khula's financing partners for application for funding. • Post – Loan: to provide business support services to enterprises in the early stage (introductory/compliance	N/A

	Channel	Description	Purpose	Financing type/Criteria
			mentorship) as well as the decline phase (turnaround) of the SMEs life cycle.	
4	Khula Credit Indemnity Scheme (participating Banks are : Nedbank Ltd ¬ ABSA Bank Ltd ¬ First National Bank Ltd ¬ Standard Bank of South Africa Ltd.	Established to give access to finance to people who wish to start or expand small to medium sized businesses, but who do not have sufficient collateral / security to support facilities provided by participating banks.	Khula provides a guarantee to the banks for money lent to SMEs by the banks.	**Qualifying Criteria** • Owner-managed businesses - the owner should be involved in the day-to-day running of the business on a full-time basis, • The business must be situated in the Republic of South Africa; the individual or person holding a controlling interest must be a South African citizen, • The business must be operated with a profit motive and be economically viable, • The borrower must be able to repay the bank loan, • The borrower must have proven entrepreneurship, knowledge, skills and experience directly related to the nature of the business, and • The owner/entrepreneur must provide some contribution towards a start-up or expansion of a business.
5	Anglo-Khula Mining Fund	A joint venture between Anglo American and Khula Enterprise Finance	Provide financial assistance to junior mining projects	**Financing type** Individual investments range between R1m and R20m per project. **Qualifying criteria** • The owners of the investee company must be involved on a permanent basis, in the day-to-day management and operations of the investee company. • The owners of the investee company must contribute to the investee company from their own resources to ensure commitment and risk sharing. • The investee company shall comply with all necessary legal requirements as well as Anglo American's standards and procedures regarding environmental and safety policies.

	Channel	Description	Purpose	Financing type/Criteria
				• Deal flow of the investee company should emanate primarily from contracts between the investee company and Anglo and its subsidiaries.
6	Khula Land Reform Empowerment Facility	A Black Economic Empowerment Fund capitalised by the Department of Rural Development and Land Reform and supported by the European Union. The fund is housed in and administered by Khula.	A wholesale financing facility through which Khula lends money to commercial banks and other reputable agricultural lenders for on-lending to Land Reform beneficiaries. The aim of LREF therefore is to broaden the control, management and ownership by black South African citizens in land-based high-value income generating assets in the agricultural sector.	**Financing type** • Mortgage Loan Facility - Maximum loan value of R10 million per project. • Equity Share Scheme. • Loans - Maximum loan of R600,000 per person participating in the venture. **Qualifying criteria** • Only South Africans are eligible to apply, • The project must be a registered legal entity, and • Enterprise to be financed must operate within South Africa.
7	Khula-Akwandze Fund	A joint venture between Khula Enterprise Finance Ltd (Khula) and Akwandze Agricultural Finance (Pty) Ltd (Akwandze).	To provide agricultural development loans to small and medium scale sugarcane growers and contractors within the sugarcane production value chain.	**Financing type** Loans - R1,300 to R16,000 per hectare. **Qualifying criteria** Beneficiary must: a) Be a registered Mpumalanga sugarcane grower with the South African Sugar Association, • Have a Cane Delivery Agreement (CDA) with Tsb Sugar, • Have authority to occupy the land they are farming (freehold, leasehold, right-to-occupy), • Be a citizen of the Republic of South Africa, • Be black owned (>50% black owned) or black empowered (>25% black owned), and • Be viable and creditworthy. b) Be a registered contractor with Tsb Sugar which provides services to growers (e.g. cane cutting and cane haulage), • Be a citizen of the Republic of South Africa, • Be black owned (>50% black owned) or black empowered (>25% black owned), and • Be viable and creditworthy.

	Channel	Description	Purpose	Financing type/Criteria
8	Izibulo SME Fund	A partnership between Khula, Metropolitan Life Ltd and the Media Fund (Pty) Ltd	Provide early-stage funding to SMEs (improve access to finance)	**Financing Type** Investment in any single portfolio company does not exceed R3 million in aggregate. Managed by Median Fund (Pty) Ltd according to their own investment guidelines **Qualifying Criteria** • Black start-ups and/or expansion SMEs, • SMEs must be owner-managed (by South Africans), and • SMEs must demonstrate growth potential of 25% - 40% or more annualised return on investment.
9	Khula Enablis Loan Fund	A partnership between Enablis Entrepreneurial Network, Khula Enterprise Finance Limited and FNB Enterprise Solutions.	To provide predominantly ICT-focused SMEs access to funding to start and or expand businesses.	**Financing type:** Equity or debt instruments **Qualifying Criteria** • South African (SA) citizens, • Companies or closed corporations where 50.1% issued ordinary / members interest is held by SA citizens, • Partnerships where majority partners are SA citizens. If the applicant is a trustee, the majority beneficiaries must be SA citizens, and • Qualifying entrepreneurs for start-up or expansion of businesses.
10	Khula Enablis SME Acceleration Fund	A partnership between Enablis Financial Corporation SA (Pty) Ltd and Khula Enterprise Finance Limited.	Improve access to early-stage funding to SMEs	**Financing type** Equity or debt instruments **Qualifying Criteria** • South African SMEs that are accredited by Enablis Entrepreneurial Network, • Black owned and women entrepreneurs for start-ups and or expansion of the business, • SMEs involved in all sectors - ICT, transport, tourism, agriculture and services industry, and • SMEs that need working capital and or asset finance.

	Channel	Description	Purpose	Financing type/Criteria
11	Identity Development Fund	A partnership between Khula and Identity Development Fund (Pty) Ltd	Create long-term growth from profitable portfolio investments in SMEs	**Financing type** Debt and/or equity funding: Financing ranges: • Start-up / Early Stage – R250k to R3million (Khula funding only) • Emerging / MBO & Expansion – R3million to R7.5million • Community projects – R7.5million to R30million. **Qualifying criteria** • Black, women and youth-owned (owner-managed), • Rural or Peri-Urban based enterprises, and • Investees must be viable, very innovative, great potential for sustainability, and create jobs (social developmental impact).
12	Small Business Growth Trust Fund	Partnership between Khula and Fabvest Investment Holdings	Finance start-ups, expansions, bridging finance and asset based finance to qualifying SMEs	**Financing type** Loans range between R10 000 and R3 million per portfolio entity **Qualifying Criteria** • SME owner-managed by South Africa citizen, • SME at start-up phase, early development or expansion phase, • SME demonstrate potential to achieve a positive social impact, • Viable and demonstrate the potential for sustainability with growth potential of at least ≥25% annualised rate of return, • 10% Own contribution in the form of cash, experience or business assets, and • Security depends on availability and risk profile.
13	Business Partners-Khula Start-up fund	A fund created to enable entrepreneurs to establish new enterprises as well as early phase business	To provide black entrepreneurs with access to start-up capital and technical assistance.	**Financing type** Debt and or equity investment **Qualifying criteria** • Black owned and managed SMEs with a minimum black shareholding of at least 51% • Black empowered SMEs with a minimum 26%

	Channel	Description	Purpose	Financing type/Criteria
		expansion.		black shareholding • Women entrepreneurs • Entrepreneurs must be South African citizens • The business must be registered and based in the Republic of South Africa • In a partnership, the partner(s) who hold(s) the controlling interest in the partnership must be a South African citizen • The business must be owner - managed - meaning that the owner should be involved in the day-to-day running of the business on a full-time basis • Employ fewer than 100 people • Have a turnover of less than R50 million per annum • Entrepreneurs need to possess the necessary knowledge, skills and management ability to operate the business of their choice or be able to acquire the necessary skills • The business must be conducted with a profit motive and be economically viable • New business being established by first-time black entrepreneurs • New businesses being established by existing black entrepreneurs • Existing black businesses planning to offer new products and or services • Black businesses established within the previous 36 months that are planning an early stage expansion • Entrepreneurs must have a clear credit record.

Researcher's own construction – Adapted from Khula (2011a, pp. 6-27)

Appendix C: South Africa Venture Capital and Private Equity Industry Fund Managers Investment Limits

Name	Minimum Investments (R millions)	Maximum Investments (R millions)
Absa Capital Private Equity	R 250m	R1 b
Acorn Private Equity	R 5m	R50m
Actis	US$ 50	US$250
Adlevo Capital	US$ 3m	US$30m
African Infrastructure Investment Managers (south Africa)(pty) ltd	R 140m	R700m
Aureos South Africa Advisers (pty) Ltd, A Division Of Aureos Capital	US$ 4m	US$38m
Brait Private Equity	R 5m	R1 bn
Business Partners Limited	R 500,000	R20m
Capitalworks Equity Partners (pty) Ltd	R 70m	R450m
Capricorn Capital Partners (pty) Ltd	R 10m	R 150m
Collins Private Equity Holdings (pty) Ltd	Nil	R25m
Convergence Partners		
Development Bank Of Southern Africa	R 100m	R700m
Development Partners International LLP	€ 10m	€50m
Emerging Capital Partners	US$ 30m	US$60
Ethos Private Equity	R100m	R800m
Freetel Capital	R 20m	R 200m
Glenhove Fund Managers (pty) Ltd		
Hasso Plattner Ventures Africa	R 5m	R 35m
Horizon Equity Partners	R15m	R50m
Industrial Development Corporation (IDC)	R 1m	Dependent on nature of transaction
Inspired Evolution Investment	R 10 m	R 100 m plus

Name	Minimum Investments (R millions)	Maximum Investments (R millions)
Management (pty) Ltd		(with co-investment rights)
International Housing Solutions (pty) Ltd	R 25m	R 250 m
Invenfin (pty) Ltd	None	None
Investec Principal Investments	EV greater than R150m	No Limit
Kingdom Zephyr Africa Management	$ 20m	$60m
Leaf Capital	R15m	R30m
Lereko Metier Capital Growth Fund Managers	R 50m	R 750m
Medu Capital (pty) Ltd	R 30m	R 175m
Mezzanine Partners (proprietary) Limited	R 50m	R1bn (with co-investors)
Molash Capital	R 20m	R 100m
Musa Capital	R 5m	R100m
National Empowerment Fund	R 250,000	R75m
Nedbank Capital Private Equity	R 30m	R120m
Nodus Equity	R 5m	R25m
Old Mutual Investment Group Alternative Investments	R 5 m	R 500m - R1bn
Phatisa	US$ 5m	US$20m
PoweredbyVC	R 10m	R 25m
RMB Corvest (Pty) Ltd	R 10m	R 500m
Sanlam Private Equity	R 100m	R 250m
Sasfin Private Equity Fund Managers	R10m	R 50m
Senatla Capital	R 10m	R 16m
SP-aktif Investments (pty)ltd	R 20m	N/A
Sphere Private Equity (pty) Ltd	R 10m	R 50m
Standard Bank Private Equity	R 50m	None
Standard Chartered Principal Finance	US$ 20m	US$ 150m
Tamela Holdings (pty) Ltd	None	None

Name	Minimum Investments (R millions)	Maximum Investments (R millions)
Treacle Private Equity (pty) Ltd	R 10m	R 90m
Trinitas Private Equity	R 40m	R150m
Trium Investments (pty) Ltd	N/A	R 20m
Vantage Risk Capital	R 40m	R 350m (with co-investment)
Zico Capital (pty) Ltd	R 15m	R 500m

Source KPMG & SAVCA (2011, pp. 58-60)

Appendix D: QUESTIONNAIRES



SURVEY QUESTIONNAIRE FOR PRIVATE EQUITY/VENTURE CAPITAL INVESTORS

Wits Business School
Sculpting global leaders

The persistence of the Small and Medium Enterprise (SME) equity financing gap in South Africa

Dear private equity/venture capital investor

I am Jane Mwebi, a PhD student in the Wits Business School, University of Witwatersrand, Johannesburg, South Africa. I invite you to participate in my PhD thesis research, by completing a survey of 20 questions, which will take approximately 20-25 minutes. I selected your company because it is registered as a full member of the South African Venture Capital & Private Equity association (SAVCA). Your participation is needed and greatly appreciated.

The purpose of this study is to examine private investors' investment practices and how they can be adapted for SMEs so that SMEs in need of equity finance are able to attract investments from private equity and venture capital investors. For the purposes of this survey, the following definitions apply:

- SMEs are those registered companies with less than 200 employees, with a turnover less than R51 million and/or less than R55 million total assets. The size of SMEs varies depending on sector.
- Private equity/Venture capital is long-term, hands-on equity investment in privately-held companies, undertaken and managed by fund managers.
- Fund managers are skilled professionals whose duty involves gathering and analysing data in the investment decision process and are actively involved in managing the equity investment.
- Captive funds are those funds making investments mainly on behalf of a parent or group, typically an insurance company, bank or institutional asset manager, often from an indeterminate pool of money.
- Independent funds are those private equity companies, managers or funds, raising and disbursing capital which has been sourced mainly from third party investors.
- Investment Readiness: SMEs need to be 'investment ready' in order to attract private equity. Businesses with growth potential are prevented from raising the finance they need if they are not able to put a coherent investment proposition to potential funders. SMEs may also not be 'investment ready' if the management team is incomplete or is unwilling to have an equity partner.
- SME equity financing gap exists where SMEs in need of equity finance are unable to attract investment from private equity investors or venture capitalists which are the principal sources of equity finance for SMEs.
- Moral Hazard is the risk that a party to a transaction has not entered into the contract in good faith, has provided misleading information about its assets, liabilities or credit capacity, or has an incentive to take unusual risks in a desperate attempt to earn a profit before the contract settles.
- Adverse selection is the risk that a poor investment project may be selected because entrepreneurs seeking equity finance and potential equity investors have access to different information.

Your participation and responses will contribute to knowledge on how the SME equity financing gap in South Africa can be reduced. The findings will also provide recommendations for the South African government policy makers to initiate policy reforms needed to enable private equity/venture capital companies to make equity finance accessible to SMEs. Be assured that all information provided will be treated in the strictest confidence. There are no risks associated with this study. In order to protect your privacy, you will not be identified by name and data analysis will be conducted at an aggregate level.

This research is supervised by Prof. Frederick Ahwireng-Obeng. He may be contacted through email: Frederick.Ahwireng-Obeng@wits.ac.za or by the use of telephone at: +27 11 717 3600. If



you have questions or concerns about completing the survey, you may contact the researcher through email: jane_mwebi@yahoo.co.uk. Thank you for your willingness to contribute to the success of this important research project.

Thank you,
Jane Mwebi

Questionnaire

Answer each question by filling an X in the suitable box provided. For open questions, write your answer in the space provided.

Business Information

1. What is the nature of your private equity/venture capital company?

Independent	
Captive – Financial Services	
Captive - Government	
Captive - Other	

If you answered Captive-other, please explain

_____

2. Which of the following economic sectors does your company/fund invest in? Select all choices that are applicable.

Agriculture	
Mining and Quarrying	
Manufacturing	
Electricity, Gas and Water	
Construction	
Retail and Motor Trade and Repair Services	
Wholesale Trade, Commercial Agents and Allied Services	
Catering, Accommodation and other Trade	
Transport, Storage and Communications	
Finance and Business Services	
Community, Social and Personal Services	
Other (please specify)	

If you answered other, please explain

_____

_____

3. In which stage of business development are the businesses that your company invests in? (*Select all choices that apply*)

Seed capital	
Start-up and early stage	
Expansion and development	
Leveraged buyout or buy-in	
Replacement capital	
Other (please specify)	

If you answered other, please explain

_____

_____

4. What is the geographical focus of your investments?

Companies located in Urban areas	
Companies located in Rural areas	

5. With regard to SME requests for funds which your company has rejected in the past, what were the main reasons for the rejection? (*select all choices that are applicable*)

Poorly prepared business proposals	
Did not meet our investment size	
Was not in the geographic location we invest in	
Was not in the industry we invest in	
Was not in the stage of financing we concentrate in	
Did not meet our minimum target rate of return	
Incompetent or inexperienced management	
Other (please specify)	

If you answered other, please explain

_____

_____

6. The following statements are factors which reduce SME transaction costs. Please evaluate each statement and indicate the extent of your agreement with the statement.

Statements on SME transaction costs		1	2	3	4	5
		strongly disagree	disagree	Don't know	agree	strongly agree
1	Investing in SMEs located within a geographical/regional/industry cluster is likely to cost less in due diligence and monitoring costs due to economies of scale.					
2	Assessing SME projects viability using local operational experience is likely to cost less in due diligence costs compared to using traditional financial methods.					
3	Using knowledgeable local experts in SME equity finance to perform due diligence evaluation and monitoring of SME investment projects is likely to reduce operational costs.					
4	Government incentives to SME equity investors, such as the elimination of capital gains tax, can reduce SME transaction costs					
5	Private equity or venture capital investors who determine their exit strategy at the beginning of their investment in SMEs are likely to reduce the costs of investment.					

If you are aware of other factors which reduce SME transaction costs, please specify here.

_____

_____

7. The following statements are factors which improve SME investment readiness. Please evaluate each statement and indicate with an (X) your extent of agreement

Statements on SME investment readiness		1	2	3	4	5
		strongly disagree	disagree	Don't know	agree	strongly agree
1	Proactive involvement of equity investors in the SME sector (through active marketing of venture capital services, publicity and promotion of success stories, meeting with entrepreneurs, road-shows for promising new ventures, and					

Statements on SME investment readiness		1	2	3	4	5
		strongly disagree	disagree	Don't know	agree	strongly agree
	seminars for target industry groups) can contribute to improved SME investment readiness.					
2	Business incubators can nurture, develop and prepare SMEs for equity investment.					
3	A partnership consisting of the private equity and venture capital industry, entrepreneurs, universities and research organizations can spin out innovative technologies and create successful SME businesses.					
4	Non-financial support services such as business and management skills training can prepare SMEs for investment.					
5	Training SMEs on the venture capital investment process helps them to understand how to access it and makes them investment ready.					

If you are aware of other factors which improve SME investment readiness, please specify here.

_____

_____

8. The following statements are factors which reduce SME risk. Please evaluate each statement and indicate with an (X) your extent of agreement

Statements on SME Risk		1	2	3	4	5
		strongly disagree	disagree	Don't know	agree	strongly agree
1	Strategic partnerships and alliances can reduce the risk of loss to private equity investors.					
2	Networks (with entrepreneur's personal contacts, other businesses, government and other local investors) can provide information required to perform due diligence evaluation of potential SME projects and thus reduce the risk of adverse selection.					
3	Equity investors who know how to navigate existing legal systems can					

	Statements on SME Risk	1	2	3	4	5
		strongly disagree	disagree	Don't know	agree	strongly agree
	adapt new creative approaches to structure their investment deals in a way that reduces agency risks.					
4	Experienced fund managers with local knowledge are likely to reduce the risk of adverse selection and the risk of moral hazard.					
5	Good corporate governance practices can reduce the risk of moral hazard.					
6	Equity investors who invest in more than one country or region can diversify away country risk in their investment portfolios thus reducing the cost of equity capital.					
7	Hands-on monitoring can reduce the risk of moral hazard and the risk of business failure					

If you are aware of other factors which reduce SME risk, please specify here.

_____

_____

9. It is perceived that if the obstacles to SME equity finance (i.e. SME transaction costs, SME's lack of investment readiness, and SME risk) are reduced or eliminated, private equity/venture capital investors will be able to invest in more SME projects. (Please indicate the extent to which you agree with this statement).

Strongly Disagree	
Disagree	
Don't Know	
Agree	
Strongly Agree	

Demographic Information

10. What is your gender?

Male	
Female	

11. What is your age range (in years)?

<20	
20-30	
31-40	
41-50	
51-60	
>60	

12. What is your ethnic group?

Black	
White	
Asian	
Coloured	
Other (please specify)	

13. What is your highest formal educational qualification?

Matric/Grade 12 or less	
Certificate/Diploma	
Bachelor's degree	
Honours degree	
Master's Degree	
Doctorate	

Thank you for participating in this research survey.

SURVEY QUESTIONNAIRE FOR SMEs

Wits Business School
Sculpting global leaders

Dear entrepreneur,

I am Jane Mwebi, a PhD student at the Wits Business School, University of Witwatersrand, Johannesburg, South Africa. I invite you to participate in my PhD thesis research, by completing a survey of 18 questions, which will take approximately 15-20 minutes. I selected your business from the South Africa SME Toolkit Directory. Your participation is needed and will be greatly appreciated.

The purpose of this study is to examine private equity investors' investment practices and how they can be adapted for Small and Medium Enterprises (SMEs) so that SMEs in need of equity finance are able to attract investments from private equity and venture capital investors. For the purposes of this survey, the following definitions apply:

- SMEs are those registered companies with less than 200 employees, with a turnover less than R51 million and/or less than R55 million total assets. The size of SMEs varies depending on sector.
- Private equity/Venture capital is long-term, hands-on equity investment in privately-held companies, undertaken and managed by fund managers.
- Fund managers are skilled professionals whose duty involves gathering and analysing data in the investment decision process and are actively involved in managing the equity investment.
- Investment Readiness: SMEs need to be 'investment ready' in order to attract private equity/venture capital. Businesses with growth potential are prevented from raising the finance they need if they are not able to put a coherent investment proposition to potential funders. SMEs may also not be 'investment ready' if the management team is incomplete or is unwilling to have an equity partner.
- SME equity financing gap exists where SMEs in need of equity finance are unable to attract investment from private equity or venture capital investors who are the principal sources of equity finance for SMEs.
- Moral Hazard is the risk that a party to a transaction has not entered into the contract in good faith, has provided misleading information about its assets, liabilities or credit capacity, or has an incentive to take unusual risks in a desperate attempt to earn a profit before the contract settles.
- Adverse selection is the risk that a poor investment project may be selected because entrepreneurs seeking equity finance and potential equity investors have access to different information.

Your participation and responses will contribute to knowledge on how the SME equity financing gap in South Africa can be reduced. The findings will also provide recommendations for the South African government policy makers, to initiate policy reforms needed to enable private equity/venture capital investors to make equity finance accessible to SMEs. Be assured that all information provided will be treated in the strictest confidence. There are no risks associated with this study because your responses are anonymous. In order to protect your privacy, you will not be identified by name and data analysis will be conducted at an aggregate level. To ensure full accuracy and completeness of the survey results, please answer all questions.

This research is supervised by Professor Frederick Ahwireng-Obeng. He may be contacted through email: Frederick.Ahwireng-Obeng@wits.ac.za or by the use of telephone at: +27 11 717 3600. If you have questions or concerns about completing the survey, you may contact the researcher through email: jane_mwebi@yahoo.co.uk. Thank you for your willingness to contribute to the success of this important research project.

Thank you,
Jane Mwebi

Questionnaire

Answer each question by filling an X in the suitable box provided. For open questions, write your answer in the space provided.

Business Information

1. Where do you operate your business?

Rural Area	
Urban Area	
Both rural and urban area	

2. In which economic sector/s would you classify your business? Select by indicating an (X) against all choices that apply.

Agriculture	
Mining and Quarrying	
Manufacturing	
Electricity, Gas and Water	
Construction	
Retail and Motor Trade and Repair Services	
Wholesale Trade, Commercial Agents and Allied Services	
Catering, Accommodation and other Trade	
Transport, Storage and Communications	
Finance and Business Services	
Community, Social and Personal Services	
Other	

3. If you answered other, please explain here.

4. In which stage of business development is your business currently in?

Seed capital (funding to prove concepts and finance feasibility studies)	
Start-up and early stage – (funding to actually get company operations started or for early stages of development)	
Expansion and development (funding for growth and expansion)	
Bridge financing (funding to prepare company for public offering)	
Other	

5. If you answered other, please explain here.

_____
_____
_____
_____
_____
_____
_____

6. Which of the following obstacles have you experienced with regard to private equity or venture capital funding? Select by indicating an (X) against all choices that apply.

Lack of knowledge on private equity or venture capital	
Fear of loss of control of my business and restricted management freedom	
High costs of securing private equity or venture capital	
Not being investment ready	
Other	

7. If you answered other, please explain here

_____
_____
_____
_____
_____
_____

8. The following statements are factors which reduce SME transaction costs. Please evaluate each statement and indicate with an (X) your extent of agreement

	Statements on SME transaction costs	1	2	3	4	5
		Strongly disagree	Disagree	Don't know	Agree	Strongly agree
1	Investing in SMEs located within a geographical/regional/industry cluster is likely to cost less in due diligence and monitoring costs due to economies of scale.					
2	Assessing SME projects viability using local operational experience is likely to cost less in due diligence costs compared to using traditional financial methods.					
3	Using knowledgeable local experts in SME equity finance to perform due diligence evaluation and monitoring of SME investment projects is likely to reduce operational costs.					
4	Government incentives to SME equity investors, such as the elimination of capital gains tax, can reduce SME transaction costs.					
5	Private equity or venture capital investors who determine their exit strategy at the beginning of their investment in SMEs are likely to reduce their costs of investment.					

9. If you are aware of other factors which reduce SME transaction costs, please specify here.

10. The following statements are factors which improve SME investment readiness. Please evaluate each statement and indicate with an (X) your extent of agreement

	Statements on SME investment Readiness	**1**	**2**	**3**	**4**	**5**
		Strongly disagree	Disagree	Don't know	Agree	Strongly agree
1	Proactive involvement of private equity or venture capital investors in the SME sector (through active marketing of venture capital services, publicity and promotion of success stories, meeting with entrepreneurs, road-shows for promising new ventures, and seminars for target industry groups) can contribute to improved SME investment readiness.					
2	Business incubators can nurture, develop and prepare SMEs for private equity investment					
3	A partnership consisting of the private equity and venture capital industry, entrepreneurs, and university and research organizations can spin out innovative technologies and create successful SME businesses.					
4	Non-financial support services such business and management skills training can prepare SMEs for investment.					
5	Training SMEs on the venture capital investment process helps them to understand how to access it and makes them investment ready.					

11. If you are aware of other factors which improve SME investment readiness, please specify here.

_____

_____

_____

_____

_____

12. The following statements are factors which reduce SME risk. Please evaluate each statement and indicate with an (X) your extent of agreement

	Statements on SME Risk	1	2	3	4	5
		Strongly disagree	Disagree	Don't know	Agree	Strongly agree
1	Strategic partnerships and alliances can reduce the risk of loss to private equity and venture capital investors					
2	Networks (with entrepreneur's personal contacts, other businesses, government and other local investors) can provide information required to perform due diligence evaluation of potential SME projects and thus reduce the risk of adverse selection.					
3	Equity investors who know how to navigate existing legal systems can adapt new creative approaches to structure their investment deals in such a way that they reduce agency risks.					
4	Experienced fund managers with local knowledge are likely to reduce the risk of adverse selection and the risk of moral hazard.					
5	Good corporate governance practices can reduce the risk of moral hazard.					
6	Equity investors who invest in more than one country or region can diversify away country risk in their investment portfolios thus reducing the cost of equity capital.					
7	Hands-on monitoring can reduce the risk of moral hazard and the risk of business failure.					

13. If you are aware of other factors which reduce SME risk, please specify here.

14. It is perceived that if the obstacles to SME equity finance (i.e. SME transaction costs, SME's lack of investment readiness, SME risk) are reduced or eliminated, private equity/venture capital investors will be able to invest in more SME projects. Please indicate with an (X) the extent to which you agree with this statement.

Strongly Disagree	
Disagree	
Don't Know	
Agree	
Strongly Agree	

Demographic Information

15. What is your gender?

Male	
Female	

16. What is your age range (in years)?

<20	
20-30	
31-40	
41-50	
51-60	
>60	

17. What is your ethnic group?

Black	
White	
Asian	
Coloured	

18. What is your highest formal educational qualification?

Matric/Grade 12 or less	
Certificate/Diploma	
Bachelor's degree	
Honours degree	
Master's Degree	
Doctorate	

Thank you for your responses and participation in this research survey.

APPENDIX E: FACTOR & RELIABILITY ANALYSIS

Factor Analysis

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Cluster investment	3.4368	1.12788	87
Non-financial evaluation methods	3.5862	1.02924	87
Outsourcing core skills	3.7126	.99893	87
Using government incentives	3.9885	.92125	87
Exit strategy planning	3.1954	1.00971	87
Proactive deal generation	4.1264	.78953	87
Business incubators	4.2069	.77965	87
Cross-institutional dialogue	4.0690	.83238	87
Collaboration with NGOs	4.3563	.57013	87
Training SMEs	4.3218	.53904	87
Strategic partnerships and alliances	4.0575	.67093	87
Networks	4.2414	.64638	87
Leveraging strengths of existing institutions	3.8966	.64762	87
Experienced fund managers	3.9885	.65582	87
Good governance practices	4.3103	.59670	87
Portfolio diversification	3.3678	1.03559	87
Hands-on monitoring	4.3793	.61458	87

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.484	26.377	26.377	4.484	26.377	26.377
2	1.848	10.873	37.250	1.848	10.873	37.250
3	1.679	9.878	47.128	1.679	9.878	47.128
4	1.296	7.624	54.752			
5	1.121	6.594	61.346			
6	.973	5.723	67.069			
7	.852	5.013	72.082			
8	.719	4.230	76.312			
9	.704	4.139	80.451			
10	.630	3.707	84.158			
11	.586	3.449	87.607			
12	.464	2.728	90.335			
13	.434	2.550	92.885			
14	.374	2.200	95.085			
15	.329	1.937	97.022			
16	.263	1.549	98.571			
17	.243	1.429	100.000			

a. Determinant = .005

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.726
Bartlett's Test of Sphericity	Approx. Chi-Square	421.775
	df	136
	Sig.	.000

Rotated Component Matrix[a]

	Component		
	1	2	3
Cluster investment			.783
Non-financial evaluation methods			.671
Outsourcing core skills			.685
Using government incentives	.413		
Exit strategy planning		.657	
Proactive deal generation	.450		.480
Business incubators		.441	
Cross-institutional dialogue			
Collaboration with NGOs	.720		
Training SMEs	.734		
Strategic partnerships and alliances		.442	
Networks	.479		
Leveraging strengths of existing institutions		.725	
Experienced fund managers		.708	
Good governance practices	.753		
Portfolio diversification		.495	
Hands-on monitoring	.608		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

Component 1 = SME investment readiness; Component 2 = SME risk reduction; Component 3 = SME transaction cost reduction

RELIABILITY ANALYSIS

SME investment readiness factor reliability

[DataSet1] J:\Data Results\November 10\Combined SME VC data.sav

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	87	100.0
	Excluded[a]	0	.0
	Total	87	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.727	0.749	6

Item Statistics

	Mean	Std. Deviation	N
Using government incentives	3.9885	.92125	87
Collaboration with NGOs	4.3563	.57013	87
Training SMEs	4.3218	.53904	87
Networks	4.2414	.64638	87
Good governance practices	4.3103	.59670	87
Hands-on monitoring	4.3793	.61458	87

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.266	3.989	4.379	.391	1.098	.021	6
Item Variances	.436	.291	.849	.558	2.921	.043	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
Using government incentives	21.6092	4.264	.401	.182
Collaboration with NGOs	21.2414	5.046	.495	.324
Training SMEs	21.2759	5.016	.552	.374
Networks	21.3563	4.883	.468	.244
Good governance practices	21.2874	4.812	.562	.414
Hands-on monitoring	21.2184	5.149	.398	.246

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
Using government incentives	.732
Collaboration with NGOs	.682
Training SMEs	.671
Networks	.687
Good governance practices	.663
Hands-on monitoring	.707

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.5977	6.639	2.57655	6

SME risk reduction factor reliability

[DataSet1] J:\Data Results\November 10\Combined SME VC data.sav

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	87	100.0
	Excluded[a]	0	.0
	Total	87	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.650	.665	6

Item Statistics

	Mean	Std. Deviation	N
Exit strategy planning	3.1954	1.00971	87
Business incubators	4.2069	.77965	87
Strategic partnerships and alliances	4.0575	.67093	87
Leveraging strengths of existing institutions	3.8966	.64762	87
Experienced fund managers	3.9885	.65582	87
Portfolio diversification	3.3678	1.03559	87

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.785	3.195	4.207	1.011	1.317	.166	6
Item Variances	.667	.419	1.072	.653	2.557	.091	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
Exit strategy planning	19.5172	5.601	.439	.201
Business incubators	18.5057	6.718	.345	.138
Strategic partnerships and alliances	18.6552	7.298	.268	.108
Leveraging strengths of existing institutions	18.8161	6.640	.497	.316
Experienced fund managers	18.7241	6.853	.418	.244
Portfolio diversification	19.3448	5.763	.379	.159

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
Exit strategy planning	.585
Business incubators	.619
Strategic partnerships and alliances	.642
Leveraging strengths of existing institutions	.576
Experienced fund managers	.599
Portfolio diversification	.615

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
22.7126	8.719	2.95276	6

SME transaction costs reduction factor reliability

[DataSet1] J:\Data Results\November 10\Combined SME VC data.sav

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	87	100.0
	Excluded[a]	0	.0
	Total	87	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.732	.730	3

Item Statistics

	Mean	Std. Deviation	N
Cluster investment	3.4368	1.12788	87
Non-financial evaluation methods	3.5862	1.02924	87
Outsourcing core skills	3.7126	.99893	87

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.579	3.437	3.713	.276	1.080	.019	3
Item Variances	1.110	.998	1.272	.274	1.275	.021	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
Cluster investment	7.2989	2.863	.619	.391
Non-financial evaluation methods	7.1494	3.315	.567	.344
Outsourcing core skills	7.0230	3.651	.485	.239

Item-Total Statistics

	Cronbach's Alpha if Item Deleted
Cluster investment	.563
Non-financial evaluation methods	.630
Outsourcing core skills	.723

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
10.7356	6.499	2.54933	3

APPENDIX F: MULTIPLE REGRESSION ANALYSIS

Regression of Independent Variables

Independent Variables: SME investment readiness, SME risk reduction, and SME transaction costs reduction

Dependent variable: Reduction of SME equity financing gap

[DataSet1] J:\Data Results\November 11\Combined SME VC data. after outliers.sav

Descriptive Statistics

	Mean	Std. Deviation	N
Equity Gap	3.7125	1.10458	80
Transaction Cost	3.5958	.74194	80
Risk	3.7896	.41992	80
Investment Readiness	4.2563	.40906	80

Correlations

		Equity Gap	Transaction Cost	Risk	Investment Readiness
Pearson Correlation	Equity Gap	1.000	.134	.200	-.190
	Transaction Cost	.134	1.000	.139	.207
	Risk	.200	.139	1.000	.259
	Investment Readiness	-.190	.207	.259	1.000
Sig. (1-tailed)	Equity Gap	.	.117	.038	.046
	Transaction Cost	.117	.	.110	.033
	Risk	.038	.110	.	.010
	Investment Readiness	.046	.033	.010	.
N	Equity Gap	80	80	80	80
	Transaction Cost	80	80	80	80
	Risk	80	80	80	80
	Investment Readiness	80	80	80	80

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Investment Readiness, Transaction Cost, Risk[b]	.	Enter

a. Dependent Variable: Equity Gap

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.356[a]	.126	.092	1.05259

a. Predictors: (Constant), Investment Readiness, Transaction Cost, Risk

b. Dependent Variable: Equity Gap

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.184	3	4.061	3.666	.016[b]
	Residual	84.204	76	1.108		
	Total	96.388	79			

a. Dependent Variable: Equity Gap

b. Predictors: (Constant), Investment Readiness, Transaction Cost, Risk

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.655	1.484		2.463	.016
	Transaction Cost	.236	.164	.159	1.444	.153
	Risk	.664	.293	.252	2.264	.026
	Investment Readiness	-.777	.305	-.288	-2.551	.013

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.5393	4.8257	3.7125	.39271	80
Residual	-3.06199	1.75006	.00000	1.03241	80
Std. Predicted Value	-2.988	2.835	.000	1.000	80
Std. Residual	-2.909	1.663	.000	.981	80

a. Dependent Variable: Equity Gap

Regression of independent and control variables

[DataSet1] J:\Data Results\November 11\Combined SME VC data. after outliers.sav

Descriptive Statistics

	Mean	Std. Deviation	N
Equity Gap	3.7125	1.10458	80
Transaction Cost	3.5958	.74194	80
Risk	3.7896	.41992	80
Investment Readiness	4.2563	.40906	80
SMEs	.64	.484	80
White	.59	.495	80
Urban	.65	.480	80
Male	.74	.443	80

Correlations

		Equity Gap	Transaction Cost	Risk	Investment Readiness	SMEs	White	Urban	Male
Pearson Correlation	Equity Gap	1.000	.134	.200	-.190	.039	.081	.023	-.234
	Transaction Cost	.134	1.000	.139	.207	.245	-.115	.024	.071
	Risk	.200	.139	1.000	.259	.201	-.139	-.108	-.142
	Investment Readiness	-.190	.207	.259	1.000	.092	-.086	-.204	.166
	SMEs	.039	.245	.201	.092	1.000	-.209	.101	.023
	White	.081	-.115	-.139	-.086	-.209	1.000	-.029	-.096
	Urban	.023	.024	-.108	-.204	.101	-.029	1.000	-.021
	Male	-.234	.071	-.142	.166	.023	-.096	-.021	1.000
Sig. (1-tailed)	Equity Gap	.	.117	.038	.046	.364	.237	.421	.018
	Transaction Cost	.117	.	.110	.033	.014	.155	.415	.265
	Risk	.038	.110	.	.010	.037	.110	.169	.105
	Investment Readiness	.046	.033	.010	.	.210	.224	.035	.070
	SMEs	.364	.014	.037	.210	.	.031	.187	.420
	White	.237	.155	.110	.224	.031	.	.398	.199
	Urban	.421	.415	.169	.035	.187	.398	.	.427
	Male	.018	.265	.105	.070	.420	.199	.427	.
N	Equity Gap	80	80	80	80	80	80	80	80
	Transaction Cost	80	80	80	80	80	80	80	80
	Risk	80	80	80	80	80	80	80	80
	Investment Readiness	80	80	80	80	80	80	80	80
	SMEs	80	80	80	80	80	80	80	80
	White	80	80	80	80	80	80	80	80
	Urban	80	80	80	80	80	80	80	80
	Male	80	80	80	80	80	80	80	80

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Male, Urban, Transaction Cost, White, Risk, SMEs, Investment Readiness[b]	.	Enter

a. Dependent Variable: Equity Gap

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.404[a]	.163	.082	1.05832

a. Predictors: (Constant), Male, Urban, Transaction Cost, White, Risk, SMEs, Investment Readiness

b. Dependent Variable: Equity Gap

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.745	7	2.249	2.008	.066[b]
	Residual	80.642	72	1.120		
	Total	96.388	79			

a. Dependent Variable: Equity Gap

b. Predictors: (Constant), Male, Urban, Transaction Cost, White, Risk, SMEs, Investment Readiness

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.554	1.625		2.187	.032
	Transaction Cost	.265	.169	.178	1.565	.122
	Risk	.606	.308	.230	1.965	.053
	Investment Readiness	-.681	.318	-.252	-2.138	.036
	SMEs	-.007	.263	-.003	-.026	.980
	White	.213	.249	.095	.855	.396
	Urban	-.019	.257	-.008	-.075	.941
	Male	-.406	.280	-.163	-1.451	.151

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.3669	4.5494	3.7125	.44644	80
Residual	-2.77978	1.69934	.00000	1.01034	80
Std. Predicted Value	-3.014	1.875	.000	1.000	80
Std. Residual	-2.627	1.606	.000	.955	80

a. Dependent Variable: Equity Gap

Regression of control variables and their interactions with independent variables

[DataSet1] J:\Data Results\November 21\Combined SME VC data. after outliers.with means.sav

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Male	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Urbanreadiness	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Equity Gap

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.234[a]	.055	.043	1.08080
2	.323[b]	.104	.081	1.05896

a. Predictors: (Constant), Male

b. Predictors: (Constant), Male, Urbanreadiness

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.274	1	5.274	4.515	.037[b]
	Residual	91.114	78	1.168		
	Total	96.388	79			
2	Regression	10.040	2	5.020	4.477	.014[c]
	Residual	86.348	77	1.121		
	Total	96.388	79			

a. Dependent Variable: Equity Gap

b. Predictors: (Constant), Male

c. Predictors: (Constant), Male, Urbanreadiness

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.143	.236		17.566	.000
	Male	-.584	.275	-.234	-2.125	.037
2	(Constant)	4.095	.232		17.629	.000
	Male	-.561	.269	-.225	-2.085	.040
	Urbanreadiness	.807	.391	.223	2.062	.043

a. Dependent Variable: Equity Gap

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	SMEs	.045[b]	.404	.687	.046	.999
	White	.059[b]	.534	.595	.061	.991
	Urban	.018[b]	.161	.873	.018	1.000
	SMEscost	-.189[b]	-1.723	.089	-.193	.983
	SMEsrisk	-.180[b]	-1.638	.106	-.183	.985
	SMEsreadiness	.210[b]	1.937	.056	.216	.994
	Malecost	-.158[b]	-1.443	.153	-.162	1.000
	Malerisk	-.143[b]	-1.307	.195	-.147	.998
	Malereadiness	.212[b]	1.954	.054	.217	.997
	Whitecost	-.007[b]	-.060	.952	-.007	.977
	Whiterisk	-.095[b]	-.831	.408	-.094	.938
	Whitereadiness	.024[b]	.218	.828	.025	.986
	Urbancost	-.114[b]	-1.033	.305	-.117	.998
	Urbanrisk	-.113[b]	-1.007	.317	-.114	.962
	Urbanreadiness	.223[b]	2.062	.043	.229	.998
2	SMEs	.042[c]	.389	.698	.045	.999
	White	.039[c]	.353	.725	.040	.982
	Urban	-.003[c]	-.031	.976	-.004	.991
	SMEscost	-.207[c]	-1.936	.057	-.217	.978
	SMEsrisk	-.212[c]	-1.974	.052	-.221	.969
	SMEsreadiness	.117[c]	.851	.398	.097	.615
	Malecost	-.161[c]	-1.502	.137	-.170	.999
	Malerisk	-.138[c]	-1.284	.203	-.146	.998
	Malereadiness	.115[c]	.797	.428	.091	.564
	Whitecost	-.018[c]	-.166	.869	-.019	.974
	Whiterisk	-.109[c]	-.973	.334	-.111	.934
	Whitereadiness	-.176[c]	-1.295	.199	-.147	.624
	Urbancost	-.148[c]	-1.364	.177	-.155	.979
	Urbanrisk	-.138[c]	-1.253	.214	-.142	.951

a. Dependent Variable: Equity Gap

b. Predictors in the Model: (Constant), Male

c. Predictors in the Model: (Constant), Male, Urbanreadiness

Regression of independent variables including significant control and interaction variables

[DataSet1] J:\Data Results\November 24\Combined SME VC data. after outliers.with means.sav

Descriptive Statistics

	Mean	Std. Deviation	N
Equity Gap	3.7125	1.10458	80
Male	.74	.443	80
Urbanreadiness	.039512	.3045964	80
Transaction Cost	3.595833	.7419398	80
Risk	3.789583	.4199187	80
Investment Readiness	4.256250	.4090603	80

Correlations

		Equity Gap	Male	Urbanreadiness	Transaction Cost
Pearson Correlation	Equity Gap	1.000	-.234	.232	.134
	Male	-.234	1.000	-.040	.071
	Urbanreadiness	.232	-.040	1.000	-.108
	Transaction Cost	.134	.071	-.108	1.000
	Risk	.200	-.142	-.080	.139
	Investment Readiness	-.190	.166	-.757	.207
Sig. (1-tailed)	Equity Gap	.	.018	.019	.117
	Male	.018	.	.363	.265
	Urbanreadiness	.019	.363	.	.169
	Transaction Cost	.117	.265	.169	.
	Risk	.038	.105	.242	.110
	Investment Readiness	.046	.070	.000	.033
N	Equity Gap	80	80	80	80
	Male	80	80	80	80
	Urbanreadiness	80	80	80	80
	Transaction Cost	80	80	80	80
	Risk	80	80	80	80
	Investment Readiness	80	80	80	80

Correlations

		Risk	Investment Readiness
Pearson Correlation	Equity Gap	.200	-.190
	Male	-.142	.166
	Urbanreadiness	-.080	-.757
	Transaction Cost	.139	.207
	Risk	1.000	.259
	Investment Readiness	.259	1.000
Sig. (1-tailed)	Equity Gap	.038	.046
	Male	.105	.070
	Urbanreadiness	.242	.000
	Transaction Cost	.110	.033
	Risk	.	.010
	Investment Readiness	.010	.
N	Equity Gap	80	80
	Male	80	80
	Urbanreadiness	80	80
	Transaction Cost	80	80
	Risk	80	80
	Investment Readiness	80	80

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Investment Readiness, Male, Transaction Cost, Risk, Urbanreadiness[b]	.	Enter

a. Dependent Variable: Equity Gap

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.408[a]	.166	.110	1.04197

a. Predictors: (Constant), Investment Readiness, Male, Transaction Cost, Risk, Urbanreadiness

b. Dependent Variable: Equity Gap

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.045	5	3.209	2.956	.017[b]
	Residual	80.342	74	1.086		
	Total	96.388	79			

a. Dependent Variable: Equity Gap

b. Predictors: (Constant), Investment Readiness, Male, Transaction Cost, Risk, Urbanreadiness

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.509	1.968		1.275	.206
	Male	-.482	.278	-.193	-1.731	.088
	Urbanreadiness	.632	.610	.174	1.036	.303
	Transaction Cost	.243	.163	.163	1.491	.140
	Risk	.505	.303	.192	1.667	.100
	Investment Readiness	-.294	.483	-.109	-.608	.545

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Male	.905	1.105
	Urbanreadiness	.398	2.511
	Transaction Cost	.944	1.059
	Risk	.850	1.177
	Investment Readiness	.352	2.843

a. Dependent Variable: Equity Gap

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Male	Urbanreadiness
1	1	4.752	1.000	.00	.01	.00
	2	.990	2.191	.00	.00	.39
	3	.220	4.645	.00	.89	.00
	4	.029	12.757	.01	.00	.00
	5	.007	26.779	.12	.07	.02
	6	.002	50.670	.87	.03	.58

Collinearity Diagnostics[a]

Model	Dimension	Variance Proportions		
		Transaction Cost	Risk	Investment Readiness
1	1	.00	.00	.00
	2	.00	.00	.00
	3	.01	.00	.00
	4	.98	.04	.01
	5	.01	.95	.07
	6	.00	.01	.92

a. Dependent Variable: Equity Gap

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.4730	4.7123	3.7125	.45067	80
Residual	-2.78465	1.63859	.00000	1.00846	80
Std. Predicted Value	-2.750	2.218	.000	1.000	80
Std. Residual	-2.672	1.573	.000	.968	80

a. Dependent Variable: Equity Gap