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MASTERS IN MANAGEMENT IN ENTREPRENEURSHIP AND NEW VENTURE MANAGEMENT

Research Title: The nexus between entrepreneurship theory and venture capital financing decisions in South Africa

Violet S'phiwe Buluma

Student Number: 693690

BUSA 7044

Supervisor: Dr Jose Barreira

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ABSTRACT

This explorative study examines the decision making criteria at the screening stage by venture capital firms in South Africa. The study also probes into the decision making criteria on the personality side and whether that has any association with the "big five" characteristics. A three-section questionnaire including both Likert style type (decision making and short version of big five) and nominal questions was sent to venture capital firms. Logistic regression as well as correlation analysis was run on the data. The findings were that individual attributes (entrepreneurs' characteristics and experience) environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) are all positively related to venture capital firms' decision to grant finance to an entrepreneur.

Findings on the big five characteristics are that only openness to experience, consientiousness and extrarversion were seen as critical considerations by venture capital firms, but not agreeableness and emotional stability characteristics. The study findings are beneficial for entrepreneurs and venture capital firms.

Key words – Venture capital, investment criteria, big five personality, entrepreneurship, access to finance

DECLARATION

I Violet S'phiwe Buluma declare that the research work reported in this dissertation is my own, except where otherwise indicated in references and acknowledgements. It is submitted in partial fulfilment of the requirements for the Masters of Management in Entrepreneurship and New Venture Management at the University of the Witwatersrand. This has not been submitted before for any degree or examination in any university or institution. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

_____ _____

Signature of Candidate Date

_____ _____

Signature of Supervisor Date

DEDICATION

This dissertation is dedicated to my loving family especially to my parents for believing in every crazy dream I have ever had.

ACKNOWLEDGEMENTS

All praise and honour be to God for his faithfulness and patience with me. Surely his goodness and mercy shall follow me for all the days of my life.

My unending gratitude goes to all the members of "Team Violet" supporters whom I may not be able to mention all by name.

In particular I would first love to thank my amazing family who provided financial and moral support, encouragement and prayers every step of the way. Thank you so much.

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TABLE OF CONTENTS

LIST OF TABLES…….. 9

LIST OF FIGURES…… 9

LIST OF APPENDICES…….. 10

LIST OF ABBREVIATIONS……. 10

1. CHAPTER 1: INTRODUCTION…….. 11

1.1 PURPOSE OF THE STUDY…….. 11

1.2 RESEARCH BACKGROUND…… 12

1.2.2 BIG FIVE CHARACTERISTICS…… 13

1.2.3 LIFE CYCLE OF FIRMS…… 14

1.2.4 ENTREPRENEURSHIP IN SOUTH AFRICA…… 14

1.2.5 ACCESS TO FINANCE LANDSCAPE…… 15

1.3 PROBLEM STATEMENT…….. 18

1.3.2 MAIN PROBLEM…….. 19

1.4 RESEARCH QUESTIONS……. 20

1.5 OBJECTIVES OF THE STUDY…….. 20

1.5.1 HYPOTHESES …… 20

1.6 SIGNIFICANCE OF STUDY…….. 21

1.7 RESEARCH METHODOLOGY…… 21

1.8 PROPOSED CONCEPTUAL MODEL…… 22

1.9 LIMITATIONS OF STUDY……. 23

1.10 DELIMITATIONS OF THE STUDY…… 23

1.11 ASSUMPTIONS……. 23

1.12 DEFINITION OF TERMS……. 24

1.13 OUTLINE OF TERMS …… 24

1.14 CONCLUSION …… 24

2. CHAPTER 2 - LITERATURE REVIEW……. 26

2.1 INTRODUCTION…… 25

2.2 SOUTH AFRICAN ENTREPRENEURSHIP CONTEXT……. 25

2.3 ENTREPRENEURSHIP…… 28
2.3.1 ENTREPRENEUSHIP THEORIES …… 30
2.4 THE BIG FIVE PERSONALITY DIMENSIONS…….. 40
2.4.1 OPENNESS…… 41
2.4.2 CONSIENTIOUSNESS …… 41
2.4.3 EXTRAVERSION…….. 42
2.4.2 AGREEABLENESS…… 42
2.4.5 EMOTIONAL STABLILITY …… 43
2.5 OVERVIEW OF FINANCIAL SECTOR IN SOUTH AFRICA…….. 43
2.5.1 OVERVIEW OF VENTURE CAPITAL INDUSTRY IN SOUTH AFRICA… 43
2.6 INDEPENDENT AND DEPENDANT VARIABLES…… 59
2.6.1 INDEPENDENT VARIABLES …… 59
2.6.2 DEPENDANT VARIABLE…….. 60
2.7 HYPOTHESES …… 60
3. CHAPTER 3 RESEARCH METHODOLOGY …… 61
3.1 INTRODUCTION…… 61
3.2 RESEARCH METHODOLOGY/ PARADIGM…… 61
3.3 POPULATION AND SAMPLE …… 63
3.3.1 POPULATION, SAMPLE AND SAMPLING METHOD…… 63
3.4 RESEARCH DESIGN…… 64
3.4.1 PRIMARY DATA…… 64
3.4.2 THE RESEARCH INSTRUMENT…… 65
3.4.3 DEMOGRAPHICS ……..67
3.5 SECONDARY DATA……67
3.6 PROCEDURE FOR DATA COLLECTION…… 67
3.7 DATA ANALYSIS…….. 69
3.8 LIMITATIONS OF STUDY…… 70
3.9 VALIDITY AND RELIABILITY…….. 71
3.9.1 RELIABILITY…… 70

3.9.2 INTERNAL VALIDITY…… 71
3.9.2 EXTERNAL VALIDITY…… 72
3.10 ETHICS…… 72
3.11 PILOT ……72
3.12 CONCLUSION …….. ……. 73
4. CHAPTER 4 RESULTS AND DISCUSSIONS…… 74
4.1 INTRODUCTION…….. 74
4.2 DESCRIPTIVE ANALYSIS…… 74
4.2.1 AVERAGE AGE OF ENTREPRENEUR, COMPANY LIFE CYCLE……. 74
4.2.2 INDUSTRY PREFERENCE…… 76
4.2.3 METHOD FOR ATTRACTING CLIENTS…… 78
4.2.4 MARKET CHARACTERISTICS OF PRODUCTS OR SERVICES…….. 79
4.2.5 PREFERRED LOCATION…… 80
4.3 DATA ANALYSIS…… 81
4.3.1 INDIVIDUAL ATTRIBUTES…… 81
4.3.2 ENVIRONMENT, INDUSTRY AND MACRO ECONOMIC……84
4.3.3 CORRELATION ANALYSIS…… 87
4.4 BIG FIVE CHARACTERISTICS…… 90
4.4.1 EXTRAVERSION…… 90
4.4.2 AGREEABLENESS…… 91
4.4.3 CONSCIENTIOUSNESS…….. 92
4.4.4 EMOTIONAL STABILITY…… 93
4.4.5 OPENNESS TO NEW EXPERIENCES……94
4.4.6 BIG FIVE CHARACTERISTICS MEAN…… 95
5. CHAPTER 5 – DISCUSSIONS, CONCLUSION……97
5.1 INTRODUCTION…… 97
5.2 DEMOGRAPHIC SUMMARY…… 97
5.3 HYPOTHESIS…… 98
6. CHAPTER 6 RECCOMENDATIONS OF RESEARCH…… 103

6.1 INTRODUCTION…… 103

6.2 CONCLUSIONS OF THE STUDY…….. 103

6.3 RECOMMENDATIONS…… 103

6.4 SOME SUGGESTIONS FOR FURTHER RESEARCH…… 104

REFERENCES …… 105

APPENDIX 1 …… 114

List of Tables

Table 1: The Financial Life Cycle of a Firm 47
Table 2: Reasons for Rejection of Applications for Finance with VC firms 55
Table 3: Comparison of Venture Capital Selection Criteria 58
Table 4 Logistic Regression Output Constant Equation 84
Table 5 Logistic Regression output (Individual attributes) 84
Table 6 Logistic Regression output Constant 87
Table 7 Logistic Regression Output (Product, Market, Finance) 87
Table 8 Correlation Analysis (Individual Attributes) 89
Table 9 Correlations Analysis (product, market, finance) 90
Table 10 Extraversion 91
Table 11 Agreeableness ..... **Error! Bookmark not defined.**
Table 12 Consientiousness 93
Table 13 Emotional Stability 94
Table 14 Openness 95
Table 15 Means of the big five 96

List of Figures

Figure 2 Shane's Model 37
Figure 3 Contemporary Business Life Cycle 46
Figure 4 Application of the life cycle approach to SME sector 49
Figure 5 Deals trends over time 52
Figure 6 Volume of Deals By Industry 53
Figure 7 Average Age of Firm 75
Figure 8 Average age of entrepreneur and stage of company life cycle 76
Figure 9 Industry preference 77
Figure 10 Current Actual Industry distribution 78
Figure 11 most common ways to access clients 79
Figure 12 Market Characteristics of Products and Services 80
Figure 13 Preferred Location of Investing 81
Figure 14 Value of Deals done 81

List of Appendices

Appendix 1: Cover letter and Questionnaire

List of abbreviations

OECD.....Organisation for Economic Development and Assistance

ADB .....African Development Bank

GDP.....Gross Domestic Product

GEM..... Global Entrepreneurship Monitor

ICT .....Information and communication Technology

IP .....Intellectual Property

SAVCA .....South African Venture Capital Association

SA ..... South Africa

SME .....Small and Medium Enterprises

VC..... Venture Capital

1. CHAPTER 1: INTRODUCTION

1.1 Purpose of the study

The aim of this study was to establish the nexus between entrepreneurship and venture capital financing decisions in South Africa. This study will add to literature both in the areas on venture capital financing as well as entrepreneurship in developing countries especially in South Africa. Is it possible that the venture capital firms use some concepts or theories in entrepreneurship in order to make their venture financing decisions? What is it that venture capital firms are looking for in order to make the decision to grant finance to entrepreneurs? This is an explorative study to evaluate whether there are any commonalities between the financing decision criteria used by venture capital firms and some of the entrepreneurship theories. Venture capital is a niche type of finance for entrepreneurs and this study sought to establish if there is a nexus between some entrepreneurship theories and the financing decisions used by venture capital firms in South Africa. Venture capital is an important source of financing because there is a gap in access to finance that is filled by venture capital. Venture capital firms are able to provide finance to entrepreneurs that the traditional banks would otherwise not be able to grant. At this stage of new venture development, entrepreneurs do not yet have sufficient historical financial statements and neither do they have collateral in order to access finance. Venture Capital also fills a void that micro finance does not fill because micro finance targets only businesses of much smaller sizes.

There is currently neither consensus in research on the definition of an entrepreneur nor is there consensus on the decision making criteria used by venture capital funds to provide funding to a start-up. This research attempted to explore if there was any association between who an entrepreneur is according to diverse literature and the decision-making criteria used by venture capital firms in South Africa. Some literature has inferred that the decision-making criteria used by venture capital firms was not uniform and that possibly even the venture capital firms themselves did not understand how they made their decisions to grant finance (Zacharakis & Meyer, 1998; Sherpherd, 1999). It has been argued whether decision making by venture capitalists to grant finance is an art or a science (MacMillan , Siegal , & Subba Narasimha, 1985). Either way venture capital has been recognized as an important source of financing entrepreneurs, which has the potential to produce exponential economic growth to any country.

Although venture capital is still in its infancy stages in most developing countries including South Africa. As it grows and more research is done, it has the could bring the exponential growth comparable to that experienced in the United States of America and some European countries. Majority of research on both entrepreneurship and venture capital has historically been done in developed countries, and very rarely done in developing countries especially on the African continent. In recent years there has been an increase in the research being done in developing countries, however more research is still needed in order to improve the field of entrepreneurship in Africa. It would also assist entrepreneurs on how they can better position themselves to access finance and in this case venture capital finance. This study was expected to sketch the decision making criteria used by venture capital firms, establish if the entrepreneurial characteristics are indeed the most important decision making criteria and lastly if these characteristics are in any way associated to "the big five" characteristics.

This chapter will include the background to the study, research problem, context of the study, research questions and significance of the study as well as delimitations and definition of key terms.

1.2 Research Background

Entrepreneurship has been identified as a critical component for countries to advance and has been given a lot of attention as a means of contributing to economic growth, reduction of unemployment as well as poverty reduction (Snyman, 2012; Samalia & Sorenson, 2011; Greenwood & Sanchez , 2013). This relationship between entrepreneurship and economic growth has been identified in both developed as well as developing countries. However, access to finance has often been cited as a challenge for entrepreneurship growth especially in cases where the entrepreneurs are not yet established or have no collateral. Venture capital financing has been cited as a potential solution to bridge this gap; however this source of finance is still at its infancy in Africa and even South Africa and is still not well understood by the entrepreneurs causing a possible mismatch between venture capital and potential entrepreneurs.

1.2.1 Entrepreneurship

Entrepreneurship is a budding area of research, which can be approached from a wide range of fields such as management, anthropology, economics, sociology and psychology. The diverse backgrounds from which entrepreneurship may be approached has led to a diverse number of definitions. Hirsch & Peters (1989) defined entrepreneurship as "the process of creating something new with value by devoting the necessary time and effort, assuming the necessary financial, psychic and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence". Entrepreneurship has also been defined as "an activity that involves evaluation and exploitation of opportunities to introduce goods and services, ways of organizing, markets, processes and raw materials through organizing efforts that previously had not existed" (Venkataraman, 1997; Scott & Venkataraman, 2000). The definition of entrepreneurship this study will adopt is "behaviours that are related to the creation of value through exploitation of opportunities in novel and innovative ways" (Hisrich et al., 2005). This definition highlights behaviours as the direct input into entrepreneurship. Although there seems to be no consensus on the definition of entrepreneurship; opportunity recognition, risk taking, growth and innovation seem to be the most quoted factors in describing and differentiating an entrepreneur. Reasons for starting an entrepreneurial venture vary from person to person and this categorises them into opportunity driven versus necessity driven entrepreneurs (Venter, Urban, Beder, Oosthuizen, Reddy, & Venter, 2015). The characteristics of an entrepreneur are percieved as a critical element to the success of a venture by most venture capitalist firms. Gartner (2001) summarised the major components commonly discussed in entrepreneurship as "characteristics of the individual, the organization to be created, the environment and the process of starting the new venture".

1.2.2 Big five characteristics

Multiple Literature has outlined the "big five" characteristics as being the basic factors in which an individual's personality could be defined. The theory originated from psychology and has now been applied to different fields including entrepreneurship, leadership, management and diverse other areas. The big five theory groups a person's personality into groupings listed as; openness, conscientiousness, extraversion, agreeableness, and neuroticism (Zhao & Seibert, 2006; Schjoedt & Baron, 2007). This study explores if there is any association between the big

five characteristics and the personality characteristics preferred by venture capital firms in order to grant finance to an entrepreneur.

1.2.3 Life Cycle of Firms

It is critical to understand that different entrepreneurs have different requirements and possibly different ecosystems in which they are more likely to thrive according to the stage in the firm's life cycle, the industry and other factors. Most countries take a "one-size fits all" approach to develop programs aimed at assisting entrepreneurs, which does not always work. A life cycle theory is usually used to describe the phases a firm goes through from when it begins and throughout all its stages. These stages are commonly referred to as start-up (inception), growth, maturity and decline. This is further advanced into a firm life cycle that splits the growth into growth I, growth II, growth III and then followed by maturity. Empirical studies of the life cycle approach concluded that the financial growth model was partially supported by the results but a universal approach (one size fits all) cannot be applied for financial growth life cycle especially when it comes to small and medium enterprises (SMEs) (Weston & Brigham, 1970; Gregory , Rutherford, Oswald , & Gardiner , 2005). An understanding of the life cycle of a firm is relevant to this research because entrepreneurs usually attempt to access venture capital during start up and growth phases and venture capital firms are usually interested in certain stages of the firm and not necessarily all of them.

1.2.4 Entrepreneurship in South Africa

The World Bank classifies South Africa as an upper middle-income country with an estimated population of 54.0 million and a Gross Domestic Product (GDP) of $350.1 billion. The Global Entrepreneurship Monitor (GEM) 2015 report estimates that SMEs contributed 45% to GDP of South Africa in 2014. The unemployment rate is estimated at 25.1 % and even higher among the youth (World Bank, 2014). Literature generally agrees that entrepreneurs and SMEs play a critical role in the economic development of a country. Snyman (2012) confirms that entrepreneurship impacts various aspects of the economy such as reducing levels of poverty, creating employment as well as contributing to the GDP of a country. This has led to an increase of studies done on entrepreneurship to establish what makes up an entrepreneur, what are the

challenges faced by entrepreneurs and what measures can be taken to enhance the success of entrepreneurs.

1.2.5 Access to Finance Landscape

One of the stages in creating an entrepreneurial venture is to access finance to start or grow the venture. The financial landscape is mirrored with various sources of finance such as savings, family and friends, micro finance, banks, private equity and venture capital. For most start-ups, the common source of funding includes personal savings, family and friends; these sources however tend to be limited and mostly not sufficient to push entrepreneurs to their growth potential (Ullah & Taylor , 2007).

Micro finance, which is basically the issuing of small loans to small businesses, presents itself as the next possible source of finance for entrepreneurs (Kalu & Mokoaleli-Mokoteli, 2010). Kalu & Mokoaleli-Mokoteli (2010) in their conclusion on possible effective financing models for entrepreneurship in South Africa advocated for more effective models to deliver finance in order for South Africa to meet the needs of SMEs. Bank finance is another possible source of finance although it tends to require a certain established financial and operational level of the entrepreneurs. Bank finance is more suited for entrepreneurs with a solid financial record keeping and history. Banks may also require some form of collateral although a lot of entrepreneurs starting up may not have access to substantial collateral sources. The entrepreneur commits to a certain repayment schedule of both capital and interest for the amount borrowed for both bank and micro finance lenders whilst with venture capital; the venture capital firm usually takes an equity stake in the business. Angel financing is another source of funding for entrepreneurs, these usually are investors who provide start-up capital to entrepreneurs for a return. (Kalu , 2010; Kalu & Mokoaleli-Mokoteli, 2010)

1.2.6 Venture Capital

It is important to note that several factors contribute to the success of an entrepreneur; one of which is access to finance (Kalu, 2011). Venture capital, which is the financing source under discussion in this paper, is another viable option for an entrepreneur that bridges the gap between personal sources and formal bank finance. There are still gaps in empirical studies on the role of venture capital as a source of finance in the developing countries and in this particular case

specifically in South Africa. Although venture finance presents itself as an alternative source of financing, there seems to be some information asymmetry between venture capital and the entrepreneurs in the industry in South Africa (Kalu & Mokoaleli-Mokoteli, 2010). Klapper & Love (2011) highlighted information asymmetries as a critical determining factor for young entrepreneurial firms to access finance.

Key deal metrics	**2011-2015**[i]
Number of VC fund managers invested in period[ii]	31
Number of VC fund managers with new deals in period	21
Total number of deals invested in period	112
Total number of deals included in survey period	168
Average transaction value[ii]	R7.34m
Total amount invested in survey period	R865m
Total invested in VC industry at end of survey period	R1.87bn
[i] 2015 is year to date, that is, January to July [ii] Excludes angel investors	

Table 1: Key Deal metrics

Source: SAVCA 2015 Survey

The meeting point between venture capital firms and entrepreneurs seems to be mirrored with uncertainty and information asymmetry; the venture capital firms are not sure where to find the appropriate pool of entrepreneurs and the entrepreneurs are not sure of what type of ventures the venture capital firms are interested in financing. Furthermore, there is limited literature connecting the theories of entrepreneurship and the financing decisions by venture capital firms. Venture capital can be defined as pooled and dedicated capital that is independently managed and focused toward equity and equity linked investments in privately held and high growth entities (Lerner, 2000). The South African Venture Capital Association (SAVCA) defines venture capital as "a subset of private equity class which deals with predominantly equity

funding of high tech, high growth potential businesses whose growth is achieved through radical global scaling (SAVCA, 2015).

Venture capital is constantly stated as an important source of finance for entrepreneurship; it is thus critical to establish that it is a niche source of finance that looks at funding entrepreneurial ventures with specific attributes according to the mandates of the venture capital firms. According to SAVCA 'private equity' refers to shareholder pooled capital that is invested in non-listed entities (privately held) rather than in publicly listed companies. Venture capital is still in its early stages in South Africa with an estimated total of ZAR2.5 billion invested in 316 deals over the past 10 years from 2006 – 2015 (Venture solutions, 2015). Venture solutions on behalf of SAVCA has been doing surveys to track the venture capital industry since 2006 to date, during this period the number of deals concluded range between 11(2011) to 56 (2008) per year and the value of funds invested range from ZAR109 million (2013) to ZAR551 million (2008) per year. The average deal size ranges from 3.4 million to 25.6 million per deal with the spikes sometimes caused by a few big deals in that year. A number of 168 deals were concluded with an underlying value of ZAR865 million over a period of 5 years (2011 – 2015).

Although there is some activity that is taking place in the venture capital industry, there seems to be incongruence on the decision making criteria for venture capital firms. Literature written on the decision making process for venture capital firms has investigated several areas. Firstly the decision making criteria has been broken into deal generation, initial screening, post investments activities and exit or cashing out activities (Wells, 1974; Tyebjee & Bruno, 1984). Some literature has identified the entrepreneurs' personality, the entrepreneurs' experience, characteristics of products or services, characteristics of the market and financial considerations as the major considerations that venture capital firms consider at the screening stage (Tyebjee & Bruno, 1984; MacMillan et al., 1985). This study was concerned with the venture capital decision making criteria at the screening stage.

Investment process

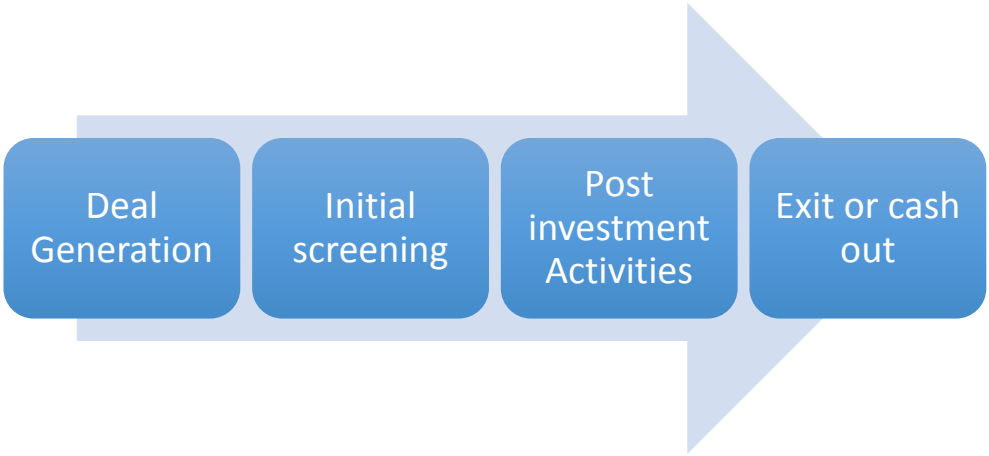


Figure 1 Investment process

It is important to increase the amount of research being done in developing countries to bridge the gap in the venture capital literature especially since venture capital is still at its infancy in most developing countries. Most research on venture capital financing has been done in the developed countries with limited research being done in the developing countries especially on the African continent. This study wishes to establish that nexus in the context of the African economy with specific focus on South Africa. There are several theories that will be considered in this paper in order to establish the niche market that venture capital firms are most likely to finance in South Africa. This research interrogates the following theories; a general theory of entrepreneurship; the individual opportunity nexus; a probabilistic theory of entrepreneurial financing; venture-capital financing of entrepreneurship; theory, empirical evidence, and a research agenda; criteria used by venture capital firms to grant finance; the big five personality dimensions as well as information asymmetry (Macmillan et al. 1985; Raphael, 1999; Shane S. ,2003; Schjoedt & Baron, 2007; Mantell, 2008).

1.3 Problem Statement

There seems to be a gap in literature to identify the niche market that South African venture capital firms are most likely to finance and if the venture capital decision making for an entrepreneur is in any way related to some theories of entrepreneurship (in this case the big five

characteristics entrepreneurship theory). Venture capital firms have raised concerns that the majority of the walk in clients do not research on or fully understand the market for the venture capital firms as well as their market before approaching them (Venture solutions, 2015). Most entrepreneurs in South Africa are not aware of the kind of businesses the venture capital firms are looking for and what is the evaluation criterion used to make a decision to grant finance. If these areas were better understood, it would save time for the entrepreneurs and firms as well as the venture capital firms. The venture capital firms would not waste their time evaluating and discussing non-qualifying ventures and similarly the entrepreneurs would not waste their time approaching the venture firms if their venture does not qualify. Basically in this research, the researcher attempted to identify the target market for venture capital firms.

1.3.1 Main Problem

There is a need for assessment of what the venture capital firms are looking at in order to grant finance to entrepreneurs. There is also a need for an assessment of the criteria to identify theire preferred niche market to finance in terms of "ideal" entrepreneurs' characteristics in comparison to those quoted in the "big five characteristics"

1.3.2 Sub Problems

1.3.2.1 Sub Problem 1

Assess the generic venture capital financing decision criteria used by South African venture capital firms and identify their niche market in SA.

1.3.2.2 Sub problem 2

Compare between venture capital financing decision criteria to characteristics of an entrepreneur in entrepreneurial theory (Shane's Model and big five characteristics).

1.4 Research questions

The research study therefore aimed to address the research questions framed below: -

i. What is the overall financing decision criteria for venture capital firms?

ii. What characteristics of entrepreneurs are venture capital firms looking for in order to finance an entrepreneur ?

iii. Who,what and how does the venture capital selection criteria relate to the big five entrepreneurship theory?

iv. What niche markert are venture capital firms financing?

1.5 Objectives of the Study

The aim of the study was to explore if there is any association between some entrepreneurship theories and the decision making criteria by venture capital firms used in South Africa. The specific objectives of the study were:

1. To identify the main areas that inform the decision making criteria to finance an entrepreneur/ entrepreneurial venture
2. To explore the association between the decision making criteria (entrepreneur characteristic) by venture capital firms and the big five characteristics
3. To identify the niche market that venture capital firms are interested in financing

1.5.1 Hypotheses

H1: Individual attributes (entrepreneurs' characteristics and experience) are significantly related to venture capital firm decision to granting finance to an entrepreneur

H2: Environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) are significantly related to venture capital firm decision to granting finance to an entrepreneur

H3: Entrepreneurs' characteristics considered by venture capital firms are significantly related to the " Big five charasteristics"

1.6 Significance of Study

This explorative study was aimed at filling a gap in research on venture capital in South Africa and can be used to build up a base for other African countries. Although there have been some studies done on venture capital decision making, there seems to be limited studies attempting to link the decision making criteria to the big five personality characteristics and also outlining the demographic preference by venture capital firms. It is aimed at assisting entrepreneurs to better understand what kind of ventures are funded by venture capital finance in South Africa as well as the decision criteria used in order to improve the quality of proposals submitted to venture capital firms. Entities such as universities will also benefit from this study for commercialisation of some of the innovations that are birthed by the universities. It will also assist Government to look at policies to encourage the venture capital industry in order to facilitate the provision of capital to the typology of entrepreneurs and firms identified by the study.

1.7 Research methodology overview

This was a quantitative cross sectional survey research. The information was collected at a particular point in time to assess the practice and how the decisions were being made at that point. The research was done using survey research using a questionnaire instrument with a Likert scale and nominal questions adapted from previous studies**.** This was a deductive research using existing theories of entrepreneurship and venture capital finance and attempted to test relationships among the theories by using constructs. The goal was to either verify the existence of these relationships or consequently not support. The study was viewed from a positivist epistemological perspective; the study used both primary data and secondary data. The secondary data was obtained from previous SAVCA surveys that had been done for venture capital industry dating back to the year 2006. These surveys provided rich information about the venture capital industry in South Africa. The population that was considered for this research were all the venture capital firms located in the South Africa that were full members of SAVCA.

Descriptive statistical analysis was done to obtain the mean, mode, standard deviation of the data. Logistic regression was also run, this was suitable because there was a binary outcome, an entrepreneur either gets finance from the venture capital - invest (1), or the entrepreneur does not get finance (0). Regression analysis can be used for predicting an outcome by applying data into

a logistic curve. The logistic regression data analysis is relevant for small samples with binary data sets. (Mehta & Patel, 1995).

1.8 Proposed conceptual Model

Research Model

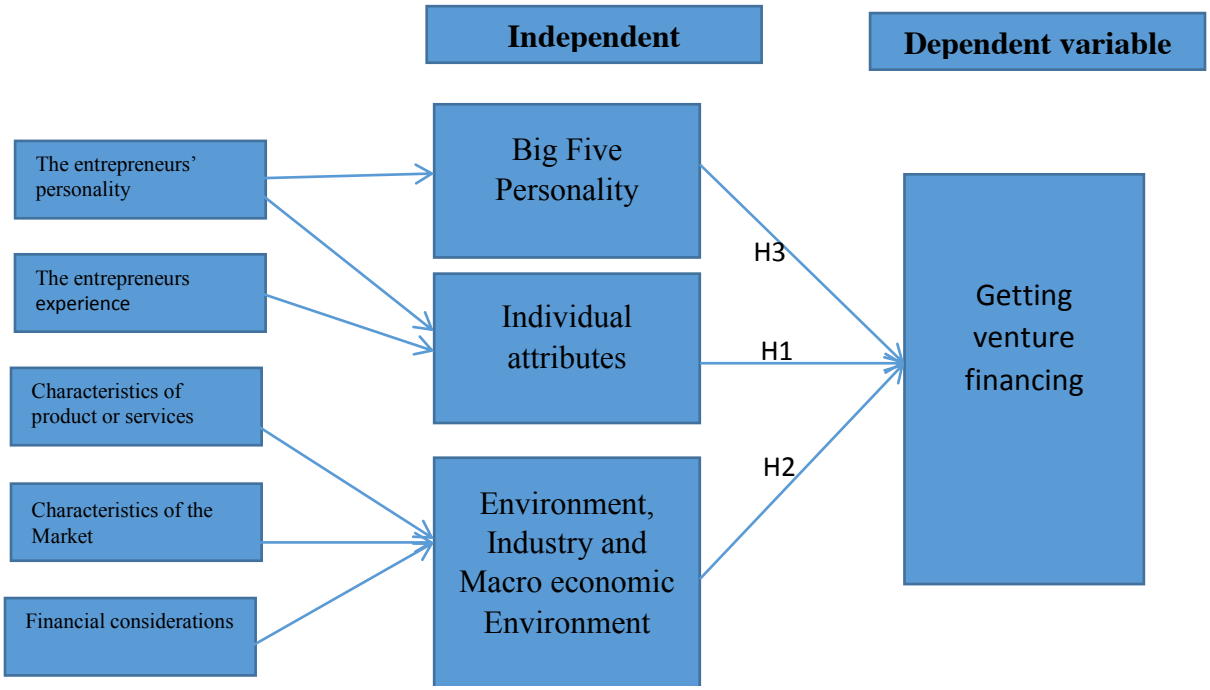


Figure 2 Conceptual Research Model

The conceptual model begins from Shane's model in which he cited individual and environmental attributes that contribute to entrepreneurship (McClelland , 1965; Shane , 2003). These then feed into the decision criteria used in several studies to assess the decision making criterion used by venture capital firms grouped into the entrepreneurs' personality, the entrepreneurs experience, characteristics of products and services as well as financial considerations (Macmillan, et al., 1985; Deventer & Mlambo, 2009; Portman & Mlambo , 2013). This model attempted to begin the journey of identifying the nexus between entrepreneurship theory and decision criteria used by venture capital firms

1.9 Limitations of study

There were several limitations in this study, the first one was that the study has a small population and thus very limited target sample for the quantitative analysis. The second was that due to time limitation, there was no qualitative side to the study as the time was not sufficient time to do a mixed methods study. The qualitative side would have assisted in exploring some of the issues such as specific reasons for granting finance to one entrepreneur instead of another.

1.10 Delimitations of the study

The study was delimited to venture capital finance as the source of finance for entrepreneurs. The venture capital firms were delimited to those registered by the South African Venture Capital Association as opposed to all venture capital firms in South Africa or in Africa. Venture capital decision making criteria was delimited to;

1) the entrepreneurs' personality
2) the entrepreneurs experience
3) characteristics of products or services
4) characteristics of the market
5) financial considerations

1.11 Assumptions

Some assumptions were made for this study;

- The respondents have a basic understanding of venture capital finance and decision making as defined in this research.
- The respondents are in some way involved in the venture capital decision making in their organisations.

1.12 Definition of Terms

*Entrepreneurshi*p - The definition of entrepreneurship we will adopt in this paper is "behaviours that are related to the creation of value through exploitation of opportunities in novel and innovative ways" (Hisrich et al., 2005).

Venture capital – "A subset of the private equity asset class, which deals with predominantly equity funding of high-tech, high-growth-potential businesses, whose growth is achieved typically through radical global scaling (South African Venture Capital Organisation, 2016)

Big Five Characteristics – "The Big Five personality traits are extraversion, agreeableness, conscientiousness, neuroticism and openness. These five factors are assumed to represent the basic structure behind all personality traits" (Bostjan, Bratkovic, Singh, & DeNoble, 2015).

Stages of firm (life cycle) - Seed funding - The initial capital used to start a business; Start-up capital: Early funding used for setting up operations; Development capital Finance used after start-up capital to further launch the business and to support growth in market share, in order to become profitable; Growth capital (post-revenue deals): Equity-type investments used to assist established but still high-risk ventures in expanding activity such as launching into foreign markets, creating new product/technology lines, accelerating production and/or acquiring competitors (South African Venture Capital Organisation, 2016).

Firms – Firm is this document refers to venture capital firms

1.13 Outline of the Study

Chapter 1 – The proposal report was considered as chapter one (1) of the research paper which consists of the introduction, background, statement of the problem, delimitations and limitations as well as definition of the main terms. The remainder of the research report consists of the following chapters:

Chapter 2 –This chapter highlights the literature review on theory and empirical studies covering entrepreneurship, entrepreneurship theories, entrepreneurship in South Africa, access to finance, venture capital, the venture capital industry in South Africa as well as venture capital decision making criteria.

Chapter 3 – This chapter covers the methodology used for undertaking this research including sampling, data collection as well as analysis of the data collected. The limitations of the research methodology are outlined in this chapter.

Chapter 4– This chapter includes the results of the data collected including the descriptive data as well as the analytical results.

Chapter 5 – This chapter draws conclusions and recommendations as well as highlight potential areas recommended for future research.

1.14 Conclusion

Venture capital is still at its nascent stages in Africa including South Africa with very limited existing research in the area. Internationally there is no concensus on the decision making critieria used by venture capitalists to make decisions. It is critical that as this source of finance currently grows, the entrepreneurs should understand the decision making criteria used by the venture capital industry. This exploratory study will attempt to enlighten both entrepreneurs and te venture capital industry on the decision making criteria by attempting to identify and understand the factors that may influence the decision making by venture capitalists to grant finance in South Africa. Exactly what do venture capitalists in South Africa look for in order to grant finance and is this investment decision criteria linked to the personality of the entrepreneur? The following chapter will present an indepth literature review in this area of study.

2. CHAPTER 2 - LITERATURE REVIEW

2.1 Introduction

This chapter reviews the main concepts that form the basis of this research. Since this is an exploratory research, it relies on a large amount of literature in order to form a basis for exploring the proposed relationships. The areas covered by the literature review include entrepreneurship, entrepreneurship theories, and entrepreneurship in the South African context, personality traits, big five-personality traits venture capital as well as venture capital decision criteria.

2.2 South African Entrepreneurship context

Studies done on entrepreneurial aspirations indicated that South Africans have high entrepreneurial aspirations. Prior research indicated that South Africans have a positive attitude towards entrepreneurship with one study quoting that over 83% of the respondents viewed entrepreneurship as an honourable profession and more than 50% with the intentions of starting their own business (Fatoki, 2010; Mahadea, Ramroop, & Zewotir, 2011; Fatoki, 2014). These studies were done at both high school and undergraduate levels. On the other hand, researchers have also highlighted some challenges that are faced by South African Entrepreneurs (Fatoki & Garwe, 2010; Kalu & Mokoaleli-Mokoteli,).

However, results on the ground paint a completely different picture. The Global Entrepreneurship Monitor (GEM) report surveyed the entrepreneurial activity in 78 countries across the world. According to the GEM report (2015), South Africa was the only country among the six African countries surveyed that was classified as an efficiency driven economy. According to the World Economic Forum classification, "the factor-driven phase is a subsistence agriculture and extraction business driven economy, largely relying on basic skilled labour and natural resources. In the efficiency- driven phase, an economy develops a competitive edge with advances in development and starts relying more on economies of scales and is driven by industrialization, there is a dominance of capital-intensive large organizations. As development advances into the innovation-driven phase, businesses are more knowledge-intensive, and the service sector expands". The remaining African countries in the study were classified as factor

driven economies.

South Africa was however ranked very low in its early stage entrepreneurial activity compared to other efficiency driven economies as well as compared to other countries in the African region. In the 2015 report, the South African entrepreneurial activity of 33% was made up of necessity driven entrepreneurs and 66% were opportunity driven entrepreneurs. South Africa also recorded the highest number of non-entrepreneurial youth in the African region at 63%. These results are in contrast to the studies done on both high school and undergraduate students on entrepreneurial aspirations and intentions (Fatoki, 2010; Mahadea, Ramroop, & Zewotir, 2011; Fatoki, 2014). South Africa though was one of the few countries that had a pool of entrepreneurs (27.5%) offering employment to six people or more compared to the other African countries where employment creation per entrepreneur was minimal (Global Entrepreneurship Monitor, 2015).

South Africa was further singled out as one is the countries in Africa that was innovation oriented (30%) second to Tunisia as well as having its own huge market potential. The entrepreneurs in South Africa were cited as having a significant level of internationalization (26% of early stage entrepreneurs have more than 25% of its customer base abroad), which is a positive trait. The economy was characterized by a rate of the discontinuation of business of 4.8 being higher than the new business ownership rate at 3.6. A total of 27.65% of the entrepreneurs surveyed in South Africa noted problems in availability of finance as being the reason for discontinuing their business. The lack of access to finance was the second highest reason for discontinuing a business with the first reason at 34% being the unprofitability of the business itself. The same finding was echoed by Fatoki & Garwe (2010) who identified ecomonic and market factors as the second challenge contributing to discontinuation of businesses. The age range 25 - 44 years had highest number or entrepreneurs (GEM 2015).

According to the survey, the industry distribution of the entrepreneurs was quoted as agriculture (7.2%), mining (6.3%), manufacturing (3.6%), transportation (5.1%), wholesale/retail (50.4%), information, communication and technology (1.0%), finance (2.5%), professional services (3.1%), administrative services (2.5%), health education, government and social services (16.6%), personal/ consumer services (1.5%). On a scale of entrepreneurial finance in 2015 using a scale (Weighted average: 1 = highly insufficient, 9 = highly sufficient), South Africa

attained a ranking of 4.0, which is lower than the average of 4.5 indicating that entrepreneurial finance in South Africa is still currently insufficient.

Research has repetitively highlighted that entrepreneurial start-ups are a the possible solution to the current high unemployment rate in South Africa (Chimucheka, 2014; Fatoki & Musara, 2011). However looking at the rate of business discontinuing compared to the start-ups, maybe South Africa also needs to focus on how to sustain the existing businesses by addressing the challenges highlighted such as lack of profitability and lack of access to finance. In this explorative study, one possible channel of finance called venture capital is assessed. What is the decision criteria in order to provide finance and how is this decision criteria related to the psychological theory of entrepreneurship? This was also modelled into a modified model of Shane's "Individual-Opportunity Nexus".

It is imperative that South Africa as a country promotes and has measures to sustain entrepreneurial ventures. There is no doubt in literature that entrepreneurship promotes economic growth. This has been repeatedly shown in prior research done in both developed and developing countries (Adusei, 2016; Thurik, Carree, Stel, & Audretsch, 2008; Samalia & Sorenson, 2011).

2.3 Entrepreneurship

The field of entrepreneurship is an interesting one because it can be viewed from so many different fields of study including economics, psychology, sociology, decision sciences and management. It can also be viewed from the firm perspective as well as the individual level thus making the definitions for entrepreneurship so wide and varied, but first it would add value to start with some background on the origins of the study of entrepreneurship.

Entrepreneurship itself dates back to the 20th century where it was an initially ignored area of study. Murphy, Jianwen, & Welsch (2006) have dated entrepreneurship back to the ancient Roman society era (476 CE). Basically it is safe to say that entrepreneurship has always existed as a practice as long as human kind has existed but it still in it's infancy as an area of study. In modern times entrepreneurship dates back to Richard Cantillon's Essai sur la Nature du Commerce en General in the 18th century who made the first attempt to define entrepreneurship. He defined that an entrepreneur as a person "willing to buy at a certain price and to sell at an uncertain price" (Cantillon, 1931). This was followed by an attempt in the 19th Century; by Jean

Baptiste Say who narrated that "an entrepreneur is the one who transfer economic resources from a sector with lower productivity into another one with higher productivity and better outcome (Dorin & Alexandru, 2014).

Knight (1921) defined an entrepreneur as one who undertakes investments for which the future returns are uncertain or sometimes unknown. The Schumpeter era then came into existence where he urged that the entrepreneurship theory should not be built without consideration for the actual entrepreneur because the entrepreneur himself is the agent for change and the one who brings about "creative destruction" to the society using innovation (Schumpeter J. A., 1934). The mordern era of enterpreneuership has been described as the rise of capitalism which led to economic advancement, innovation, and potential for growth and strategy. McClelland (1967) outlined some of the characteristics of an entrepreneur to include the need for achievement, affiliation and power. The era of opportunity recognition came with the researchers including Kirzer (1985) and Shane (1997). This study explored a few more definitions of entrepreneurship in order to put it into perspective. Entrepreneurship has been defined as the creation of new products through a combination of resources or the process of creating something new with value (Hisrich et al., 2005). A definition by Shane and Venkataraum (1997) defined entrepreneurship as "activity that involves evaluation and exploitation of opportunities to introduce goods and services, ways of organising, markets, process raw materials through organising efforts that had not previously existed". Due to the varying fields of study from which entrepreneurship is viewed from, there is still no consensus about the definition of entrepreneurship, although there seems to be similarities with regard to entrepreneurship encompassing exploiting opportunities, innovation, taking risks and creation of new ventures or services (Schumpeter J. A., 1934; Shane & Venkataraman 2000; Hisrich et al., 2005). Innovation may be defined as "new combinations" of ideas, resources and capabilities (Fagerberg 2004). For purposes of this study entrepreneurship is defined as "behaviours that are related to the creation of value through exploitation of opportunities in novel and innovative ways" (Hisrich et al., 2005).

Entrepreneurs are commonly described as individuals that are risk takers, have a high need for achievement, high self efficacy, an internal locus of control and a need for autonomy (McClelland , 1965). Entrepreneurs may also be classified in different ways such as high growth vs replicative, neccesity vs opportunity, and local vs systematic (Venter et al., 2015)

There are several processes that an entrepreneur goes through in order to birth a successful venture. These could be divided into searching phase, planning phase, marshalling phase and implementation phase. The searching phase includes opportunity recognition, evalution and developing the idea. In the planning phase, the idea is developed further into a concept, business canvas or business plan. During marshalling phase, the entrepreneur organises and puts into place all required resources such as machinery, capital, labour and customers. It is at this stage that an entrepreneur may begin considering external finance. At the implementation phase the entrepreneur focusses on making sure that the business runs smoothly and that it grows (Venter et al., 2015) . This is the phase in which an entrepreneur may require external financing.

Since entrepreneurship is a multidisciplinary field of study, there are several theoretic groups that have been outlined in entrepreneruship theory, these include opportunity-based entrepreneurship theory, economic entrepreneurship theory, anthropological entrepreneurship theory, psychological entrepreneurship theory, resource-based entrepreneurship theory and sociological entrepreneurship theory (Simpeh, 2011). This research paper concentrated on psychological as well as opportunity based entrepreneurship theory although all other theories have been explained for contextual purposes.

2.3.1 Entrepreneuship Theories

Amit, Glosten, & Muller (1993) define theory of entrepreneurship as " an explaination or prediction of entrepreneurship using verifiable and logical coherent formulation of relationships; or underlying principles". The next section gives an overview of some of the existing entrepreneurship theories.

2.3.1.1 Economic entrepreneurship theory

The economic entrepreneurship theory has roots in the classical and neo classical theories. The classical theory endorsed issues such as competition, specialisation and free trade. In this theory, the entrepreneur was viewed as an individual that is able to competitively produce (using land, capital and labour as modes of production) and distribute goods and services (Simpeh, 2011). When the industrial age began, the classical theory failed to explain the disruption generated by entrepreneurs of the industrial age (Murphy, Liao & Welsch, 2006).

Criticism of the classical theory gave birth to the neo classical theory which has its roots in supply and demand of goods and services. The neo classical theory was based on the exchange of goods and services among parties and the impact of this exchange to the entire market system. There were several critics to this theory; for instance that aggregate demand ignored individual uniqueness as well as the uniqueness of entrepreneurial ventures. Furthermore it failed to reflect the future value of innovation outcomes and neither is the complexity of market systems captured. The efficiency based system does not account for non uniform perfomance or subsume performance just as perfect competition has no room for innovation and entrepreneurial activities. It was impossible to trace all market inputs and outputs and entrepreneurial activity that simply brought creative destruction to the economic system (Leibestein, 1968; Harper, 1996). Research being done even up-to-date continues to reiterate that entrepreneurship is not possible in the neo classical framework because it has predetermined economic assumptions that would not be able to account for open-ended processes and the uncertainty that comes with entrepreneurship (Gimenez Roche, 2016).

Further research identified some unanswered questions raised by the neo classical theory in which the attempts to respond led to a movement called the Austrian Map Process (AMP). AMP was influenced by the Schumpeter school of thought which attempted to address some concerns not answered by the neo classical theory. This school of thought placed the human being (entrepreneur) at the driving seat of the market systems. Schumpeter defined the entrepreneurs as leaders who bring creative destruction (Schumpeter, 1942).

The entrepreneur is able to identify arbitrage opportunities by being alert to profit making opportunities. This view also highlighted that entrepreneurship did not neccesarily entail ownership of resources, it could just entail exploitation of opportunities. The AMP recognised that opportunities are unique and historical information may not always reliably inform future outcomes. Kirzer (1973) formulated some conceptualisations of AMP; the abritrage market that an entrepreneur would be able to identify, alertness of an entrepreneur to profit making opportunities and that ownership was different from entrepreneurship, in other words, an entrepreneur did not necesarily have to own resources. These conceptualisations showed the uniqueness of opportunities.

Nevertheless there were some critics to this theory that led to entrepreneurship being viewed from other disciplines such as management, anthropology, sociology and phychology. Criticisms included that economy was not purely competitive due to some monopolistic behaviours , statutory controls as well as bribery and corruption that contributed to the market system economy. Entreprenueurship could be from any firm whether state or private entity. Acs & Audretsch (1988) rejected the notion that innovation required economies of scale.

2.3.1.2 Anthropological entrepreneurship theory

Anthropology is the study of the origin, development, customs, and beliefs of a community. This theory links cultural origins of individuals to entrepreneurship. It became appealing to study the influence of culture on entrepreneurship when viewing that some cultures seemed to have more entrepreneurs than other cultures (Luiz & Marrioti, 2011). The most prominently quoted study on culture was done by Hofstede (1980). He did a study that examined and identified differences in patterns of culture across different countries that allowed stable patterns overtime. The following dimensions of culture were supported by his study; individualism, allocation of roles between sexes, management of inequalities and uncertainty avoidance. Several models linking entrepreneurship to culture have been developed, such as models viewing the alteration of the status quo by minorities or operating within a specific social and cultural setting as a leadership figure (Glade, 1967; Greenfiled & Strickon, 1981). It concluded that entrepreneurs have a high masculine orientation, tolerance for inequality, are risk takers and they are highly individualistic compared to having a group mentality. Innovation that leads to entrepreneurial attitudes and practices is influenced by cultural practices. The attitudes and behaviour themselves are affected by individual ethnicity (North, 1990; Shane, 1994; Baskerville, 2003). Questions remain on how and to what extent the influences of culture promote entrepreneurship.

2.3.1.3 Sociological entrepreneurship theory

This theory views entrepreneurship at the larger societal level, the society in this theory is the level of analysis linking entrepreneurship to a wider societal context (Landstrom, 1998). This includes the network theory in which social networks provide access to resources, diversity and accessibility to the entrepreneur (Aldrich & Zimmer, 1986). Networks can be made up of stronger ties like family and friends or weaker ties like the acquaintance network. Entrepreneurs

are said to mostly have large acquaintance networks which assist in gathering information and growing both the customer and investor base. Exploratory research has supported availability of resources in networks for start ups but not supported the size and diversity of the networks as being related to entrepreneurship (Aldrich & Zimmer, 1986; Aldrich, Rosen, & Woodward, 1987).

Reynolds (1991) identified four social contexts in relation to entrepreneurship, one was that social networks are important for building trustworthy relationships and not opportunistics ones; second was the lifecourse including the life situation of an individual could contribute to the decision of a person to become an entrepreneur. Third was that the ethnic identification and socialisation background of a person could lead them to taking up entrepreneurship such as that of marginalised groups. And finally the population ecology such as environmental factors, government regulations, customers and employees could influence a person into becoming an entrepreneur.

Critical roles have been identified that are played by social networks in assisting an entrepreneur to start a firm; to assist in fine tuning an idea into a more realistic concept, provision of practical assistance, stimulating aspirations, giving support and stimulating ideas (Dubini & Aldrich, 1991; Rush, Graham, & Long, 1987).

2.3.1.4 Resource-Based entrepreneurship theory

This theory states that the availability of resources is a critical predictor of opportunity based entrepreneurship and new firm growth (Alvarez & Busenitz, 2001). The resources are grouped into financial, human and social resources. Some researchers contend that the availability of financial resources enhances the ability of the individual to detect opportunities and consequently act on them (Aldrich H. E., 1999; Davidson & Honing, 2003).

According to empirical research, it is more common for people with access to financial resources to start up firms (Blanchflower, Oswald, & Stutzer, 2001). This theory is sometimes refered to as the finance theory in literature. There have also been a number of opposing research outlining that numerous founders were able to start their ventures without access to much capital. It seems that although access to capital may not be a requirement for nascent entrepreneurship, it is however a predictor of firm growth (Hurst & Lusardi, 2004). This would present as an

interesting area of research in Africa in order to assess whether it is actually the lack of finance that impedes the growth of new ventures. It also reiterates the importance of venture capital in the African continent and in this case South Africa because although according to the GEM 2015 report a lot of business start-ups occcur in the country although the rate of closing down businesses exceeds that of the start-ups

Social network also presents itself as a resource in the resource based theory. Entrepreneurs are an intergral part of the social networks in which their opportunities emerge (Clausen, 2006). The availability of a larger pool of network connections assists by providing the entrepreneur with a better chance to turn an opportunity into an actual start up. Social network theory focuses on contraints in entrepreneurship that can be facilitated by social links (Anderson & Miller, 2003; Aldrich, Rosen , & Woodward, 1987; Amit 1993). A social network can also assist with financial resources for start-up, there have been findings supporting the rate of business foundings to the resources in social networks but findings did not indicate support for neither network size or diversity as a predictor of new business start-ups (Aldrich & Zimmer, 1986).

Human capital resource is underpinned by education and experience factors (Becker, 1975). A positive relationship has been found between human capital and becoming an entrepreneur (Anderson & Miller, 2003; Davidson & Honing, 2003). An entrepreneurs' experience is also one of the factors that is looked at by venture capital firms in the process of decision making to grant finance to an entrepreneur. MacMillan et al., (1985) concluded in their study that ultimately "it is the jockey (entrepreneur) who determines if the venture capital firm will place the bet regardless of whether the horse (product), horse race (market) or the odds (financial criteria) are all well placed". This therefore anchors the importance of human capital in the process of entrepreneurship (Ammit, Glostein, & Muller, 1993).

2.3.2 Opportunity-Based entrepreneurship theory

This theory is contrary to the Schumpeter and AMP school of throught that entrepreneurs "cause creative destruction". This theory outlines that entrepreneurs do not necessarily cause change, an entrepreneur searches and recognizes change and identifies opportunities created by that change and therefore react appropriately to the opportunities presented by that change (Shane, 2003).

This theory is critical in this research because the entrepreneurs that the current study attempted to profile using the big five personality structure have to identify or discover the opportunity to exploit in order to become an entrepreneur . This theory assist in completing the circle of what entrepreneurship is all about.

This theory does not assume that entrepreneurs create anything but that they have the ability to identify and exploit opportunities in the market that other people are not able to recognise (Druker, 1985; Shane & Venkataraman, 2000; Shane , 2003). This view differs from the one that defines entrepeneurship as creative destruction (Schumpeter J. A., 1934). These two schools of thought may not necesarily have to be mutually exclusive, because an opportunity has to be identified or discovered first and in order to exploit that opportunity, there might be a need to innovate and create a solution that may actually cause "creative destruction".

2.3.2.1 Shane's Model of Entrepreneurship

Discovery theory is also known as individual/opportunity nexus (shane & Venkataraman 2000; Shane 2003). Main assumptions of this theory include the objectivity of the opportunity, uniqueness of individuals as well as entrepreneurs being risk bearing in nature. This view emphasizes the ability to understand and recognize that opportunities are important and it influences the value that these opportunities may create. The theory also assumes that there are certain differences among individuals that result in the ability to recognize opportunities that other people may otherwise not recognize (entrepreneurial alertness). The individual opportunity nexus proposes that entrepreneurship is possible by the combination of unique individuals that are alert to and are able to discover objective opportunities (Shane, 2003)

Shanes Model

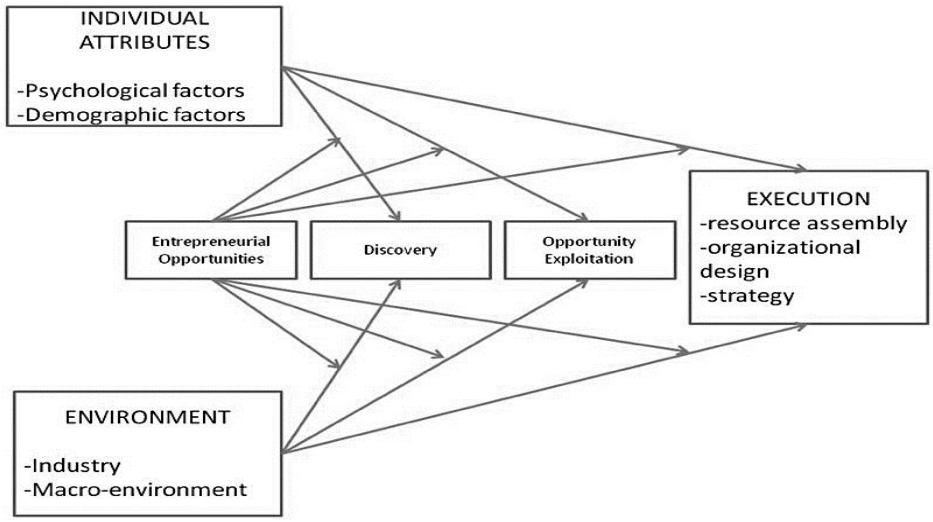


Figure 3 Shane's Model

https://www.researchgate.net/publication/229883626/figure/fig5/Figure-5-Shane's-Model-of-the-Entrepreneurial-Process.png

Shane (2003) in this process theory defines entrepreneurship in terms of the individual's response to opportunity, which he notes includes existence of opportunity, discovery of opportunity, decision to evaluate and exploit the opportunity. Opportunity can be described as a chance to improve an existing situation or create new possibilities. Shane's model was based on a theoretical framework connecting the relationship between the individual and the opportunity leading to an entrepreneurial event. The model explored entrepreneurship from both an individual centric and an environmental centric viewpoint; it could also be defined as the gap left in the market by those who serve it (Shane & Venkataraman, 2000; Venter et al., 2015). This model emphasized that the individual cannot be separated from the opportunity. The model looked at the nexus between opportunity and the environment (Shane, 2003). The importance of the individual was further supported by other studies such as that on human capital and entrepreneurship in which the individual was seen as the critical element in entrepreneurship (Unger, Raunch, Frese, & Rosenbusch, 2011).

In Shane's model of the entrepreneurial process, he highlighted that demographic factors (age, gender and income) and psychological factors (personality and culture) were critical for

explaining the individual attributes of an entrepreneur. The environment in which the entrepreneur lives affected the entrepreneur and the process of opportunity recognition. Shane (2003) also looked at the industry and macro environment (technological; political and regulatory; and social and demographic) that shape the environment. The individual attributes together with the environment and existence of entrepreneurial opportunities lead to discovery of opportunities, opportunity exploitation and execution. The process of execution involves assembling resources, organization design as well as strategy (Shane, 2003).

Researchers has been done from different angles on the role of an individual and the environment with regard to entrepreneurship. Some studies have attempted to explore personality traits such as the big five characteristics that make up an entrepreneur and the environment the entrepreneur lives in and how these then contribute to becoming an entrepreneur. There are several elements in the individual mind-set that are said to make up the entrepreneurial mind-set. These factors affecting an entrepreneur include certain characteristics, entrepreneurial intentions, cognition and Meta cognition, human capital, entrepreneurial intelligence and creativity (Venter et al., 2015).

Shane made several assumptions that are worth noting in the model; opportunities are objective and exist regardless of whether or not a person discovers them, people have differences that lead to ability for some individuals to recognize opportunities that other people would easily not recognise, and that risk bearing is an integral part of the entrepreneurial process (Shane 2003; Shane and Venkataraman, 2000). Shane discusses two reasons why an opportunity is discovered by one person and not the other as access to better information and the ability to put the information to better use. Information itself may be gained through life experiences, social networks, and a continuous search processes.

Of course the discovery theory is not without criticism, there is a creation approach, which denies the pre-existing nature of objective opportunities. Alvarez, Barney, McBride, & Wuebker (2014) argue that entrepreneurs endogenously create opportunities rather than merely discovering pre existing opportunities. This theory is referred to as the creation theory where opportunities are not discovered but are created. Regardless of the current ongoing debates around opportunity creation and discovery theories, Shane's model with minor modifications

broadly covers the areas that venture capital firms use for decision making in order to grant finance to an entrepreneur as outlined in the research model and as will be explored in this study.

For purposes of this research, the broad areas in Shane's model have been aligned to the venture capital decision criteria. For purposes of this research the individual attributes included the entrepreneurs' personality and the entrepreneurs' experience. The environmental, industry and macro-economic environment for this study included characteristics of products or services, characteristics of the market and financial considerations. These are the factors that were used for assessing the decision making of the venture capital firms and are explained in more detail later on the chapter.

2.3.2.2 Psychological entrepreneurship theory

In this research paper we will concentrate on psychological entrepreneurship theory. This theory focuses on entrepreneurship at the individual level (Bird, 1989; Brandstatter, 1997; Landstrom, 1998). Personality traits are used as a base to define entrepreneurship, this theory argues that certain phychological traits can be used to define an entrepreneur. The association of personality traits in entrepreneurship began with McClelland (1967) when he published his work on the achieving society and identified characteristics or personality traits inherent in successful entrepreneurs. Personality traits are "stable qualities that an individual exhibits in most situations". The theoretical challenge of psychological entrepreneurship is to outline a profile of a person who becomes an entrepreneur (Coon , 2004).

McClelland identified the need for achievement and internal locus of control as some of the basic characteristics inherent in successful entrepreneurs. The need for high achievement was characterised as taking up of a decision making role, establishing goals and applying efforts towards achieving them, as well as requiring feedback. This trait narrates a human being's desire to succeed and achieve what basically drives them. Entrepreneurs are said to have this need although other researchers have highlighted that this need for achievement does not however characterise only entrepreneurs as it is a common characteristic among managers as well (Sexton & Bowman, 1985). Some studies have highlighted the need for achievement as a necessary characteristic for successful entrepreneurs (McClelland D. , 1965; Johnson, 1990; Shaver & Scott, 1991)

Another characteristic identified by McClelland was that entrepreneurs have a high internal locus of control. Locus of control as a characterstic was first introduced by Rotter (1966) as the orientation of a person about events that take place in their lives or around them. Individuals with an internal locus of control feel that they have control over events and occurences in their lives and that they are responsible for the outcomes. A person with an external locus of control believes that they do not have any control over their life's events and occurences around them and they are just merely the recipients of the outcome. McClelland (1967) highlighted that entrepreneurs have an internal locus of control. Other supporting research have confirmed that entrepreneurs have an internal locus of control (Cromie, 2000; Begley & Boyd, 1987). More research emerged exploring other characteristics in relationship to entrepreneurs include self efficacy, need for autononomy, tolerence for ambiguity and risk taking (Low & MacMillan, 1988; Sexton & Bowman, 1985).

For purposes of this research, it is necessary to explore the relationship that exists between entrepreneurship and personality traits in order to determine whether or not personality impacts the decision-making process in venture capital firms. Some authors have attempted to explore on whether a relationship exists between the personality of an entrepreneur and propensity to start a business venture as well as the success of a new business venture. Does a relationship really exist, does an entrepreneur have a specific set of characteristics and do venture capital firms use these preconceived personality traits in order to make a decision to grant finance to an entrepreneur?

Miller (2016) highlights the complexity involved in trying to combine entrepreneurship and personality characteristic because the two areas of study are both in their infancy. He however highlighted that it is critical that these relationships be explored further whether they are negative or positive. Amit et al. (1993) cited that some methodological and definitional problems exist in the research on the psychological traits approach such as non-comparable samples and an underlying bias towards successful entrepreneurs. Gartner (1989) stated that the study of personality traits of an entrepreneur is ultimately a psychological study and should thus be undertaken as such and then secondly an entrepreneurship study. It makes sense to then use existing psychological tools in order to examine the traits that an entrepreneur possesses. This

study explores at the big five-factor approach and what kind of entrepreneurs' profile venture capital firms are looking to finance.

2.4 The big five personality dimensions

Research seems to indicate some evidence that entrepreneurs seem to gravitate towards certain personality characteristics. The big five characteristics are generary used as an indicator that may be used to robustly gauge the personality of an individual. Numerous research has been conducted on the big five characteristics also known as a five factor model that encompasses five broad characteristics namely; openness to experience, conscientiousness, extraversion, agreeableness and emotional stability. (Digman , 1990; Judge , Higgins, Thoresen, & Barrick, 1999). The question for this research has been that do these personalities as identified in the big five factor model tend to reflect as a criteria when venture capital firms make the decision on whether or not to finance an entrepreneur?

Miller (2016) agreed that the further exploration of these relationships would provide great benefits. He however contends that although the "big five dimensions" have received a lot of attention in research on personality, it more usefully serves as a base for research but lacks coverage of the pejorative qualities. It however lacks the ability to reflect issues of manipulation, risk taking, egotistic behaviours, Machiavellianism and other possible entrepreneurship relevant characteristics. Other researchers criticized the big five as attempting to gauge a stranger's personality (Block, 1995; Paunonen & Jackson, 2000; De Nisi, 2015;).

Ciavarella, Buchholtz, Riordan, Gatewood, & Garnett (2004) in their study to find linkages between the big five characteristics and venture survival found that conscientousness of the entrepreneur was positively related to the long term venture survival. There was surprisingly a negative relationship between the entrepreneurs openness to experience in correlation to the long term venture survival; and no relationship was found with emotional stability, extraversion and agreableness to long term venture survival. Long term venture survival was measured for ventures that survived longer than eight years.

Zhao & Seibert (2006), in a meta-analytical review of the big five personality dimensions and entrepreneurial status characterized personalities in a five factor model of personality that

included neuroticism, extraversion, openness, agreeableness and conscientiousness in which they found differences between entrepreneurs and managers in four dimensions of personality. The findings concluded that entrepreneurs scored higher on conscientiousness and openness to experience and lower on neuroticism and agreeableness. Gosling, et al., (2003) tested and offered a brief alternative to testing the big five personality traits where short measures are needed. The results indicated the largest difference in neuroticism and agreeableness was that the entrepreneurs much scored lower than managers whilst on the openness to experience and conscientiousness the entrepreneurs scored significantly higher than the managers did. There was no significant difference found on extraversion (Zhao & Seibert, 2006,).

A study was done in Slovenia establishing an association between the big five personality traits and actual start-ups as well as intentions to start up. The findings conclude that the big five-personality factor is a critical tool for start-ups and intentions to start up. The findings indicate that openness was the most important relationship out of the five factors. Existing entrepreneurs scored high on the openness factor followed by those with intentions to start a firm compared to the other people. In this case openness can be defined as creative, intellectual, imaginative, deep, philosophical and complex. Extraversion and to a lesser extent agreeableness were also highlighted to be possibly important personality factors for entrepreneurship (Bostjan et al., 2015).

The big five characteristic theory also has its opponents who say that the big five is similar to attempting to gauge the character of a stranger and that it fails to cover other areas of personality that are also critically important (Block, 1995).

2.4.1.1 Openness

This character trait refers to openness to experiences. This trait is related to individuals that are open to new ideas and experiences, intelligent and highly intellectual. Traits in this broad character include creativity, imaginative, curious and broad minded (Bird, 1989). Entrepreneurs are open to new experiences and do not like routine or repetitive kind of work, this is a trait related to openness to experiences (McClelland, 1967). Entrepreneurs have been described as

creative and innovative people always looking for new ways and new combinations of doing things (Schumpeter, 1942).

2.4.1.2 Conscientiousness

Traits of conscientous individuals include being organised and systematic, achievement oriented and efficient. Ryckman (2000) compared the conscientious trait to the need for achievement as was identified by McClelland (1967) to be a trait of entrepreneurs. This trait has also been related to traits such as an internal locus of control and well as self efficacy (DeNeve & Cooper, 1998). Conscientiousness may have the strongest relationship to entrepreneurship among the big five personality traits (Zhao & Seibert, 2006,)

2.4.1.3 Extraversion

Extraversion is mostly associated with high levels of energy, being talkatative, assertive, sociable and gregarious (Goldberg, 1990). It basically looks at the quantity and intensity of a relationship. McClelland 1998 found that the trait of assertiveness was found to be a differentiating factor beween successful and average entrepreneurs in a study of entrepreneurs from Ecuador, India and Malawi. Extraversion also enhances development of social networks in development of relationships with customers, suppliers and investors (Baker, 1994). Extraversion has also been identified as a characteristic for individuals likely to take on leadership roles (Judge et al., 1999).

2.4.1.4 Agreeableness

Agreeableness includes traits such as cautiousness, flexible, patience, forgiving, friendly and diplomatic (Goldberg, 1990). This trait is very relevant when it comes to building long term and trustworthy interpersonal relationships. It is not clear whether this trait is a critical one for entrepreneurship, however Judge et al. (1999) highlight agreeableness as an important trait for successful careers where customer service is critical.

2.4.1.5 Emotional stability

This trait is also quoted as neuroticism is some literature (neuroticism is basically the opposite of emotional stability). Emotional stability tends to be characterised by independence, individualism and autonomy. Judge et al. (1990) concluded that people with low emotional stability are anxious, irritable, prone to stress and periods of depression. There is a possible negative relationship between neuroticism and entrepreneurship, in other words there is a positive relationship between emotional stability and entrepreneurship (Goldberg, 1990).

2.5 Overview of financial sector in South Africa

Numerous literature talks about challenges of access to finance for entepreneurs and SMEs in South Africa (Fatoki & Musara, 2011; Olawale & Garwe, 2010; Rogerson, 2008). The current models of finance for entrepreneurial ventures in South Africa have been quoted as being ineffective and several solutions were highlighted as potentail solutions to the ineffectiveness. venture capital was highlighted as one of the potential solutions among others (Kalu & Mokoaleli-Mokoteli, 2010).

Access to finance has been highlighted as an obstacle to the growth of SMEs and it has been noted that there is a need for innovative financing methods for SMEs (Beck , Dermirguc-Kent, & Levine, 2007). South Africa is considered to have a robust and fairly modernized financial industry according to the Organisation for Economic Development and Assistance (OECD) and African Development Bank (AfDB) compared to other African countries. The regulatory framework is also well developed. As outlined in the introduction, sources of finance in South Africa for entrepreneurial ventures apart from personal savings and family include government based funding, micro finance, bank finance, angel finance and venture capital financing.

2.5.1 Overview of Venture Capital Industry in South Africa

The major distinctive difference between bank finance and venture capital is that banks use debt whilst venture capital firms mainly use equity securities. De Bettignies & Brander (2007) distinguish the two types of finance in that venture capitals play an active investor role by the provision of additional services such as managerial support, linkages to markets as another distinguishing factor whilst banks play a passive investor role.

Venture capital remains an important factor for economic growth, research done on effects of venture capital financing to economic growth have confirmed the critical role of venture capital to economic growth (Adusei, 2016; Snyman, 2012; Samalia & Sorenson, 2011). Venture capital backed companies at all stages of their life cycle were found to have high growth and this was true for both before and after receipt of venture capital funding (Puri & Zarutskie, 2012). This indicates that venture capital propels an already high growth entity to even higher levels than before the venture funding. Measures of economic growth commonly studied were employment, company growth and economic value creation. Samalia & Sorenson (2011) found a positive correlation between venture capital and some economic factors such as employment, income and number of start-ups. They used panel data from US metropolitan statistical areas for their study.

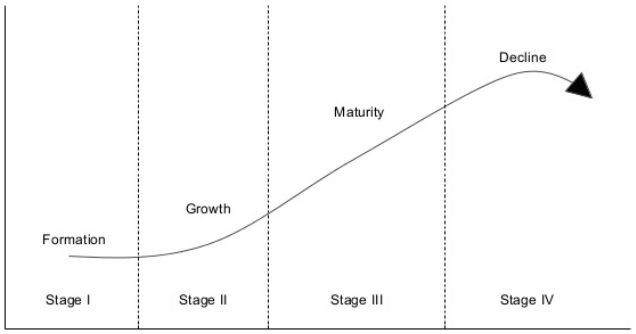
Increases in venture capital were linked to an increase in start-ups and well as well patents (Mollica & Zingales, 2007; Popov & Rosenboom, 2009). Venture capital investments in the US manufacturing industry were assessed for linkages between venture capital financing and patenting, the findings were that there was an association exists between venture capital financing and industries with more patent production. Venture capital was actually found to have a larger effect on patenting than research and development in a corporation. Engel & Keilbach (2007) had the same findings in Germany using a database of start-ups, they found that a company had a better chance of getting venture capital funding if they had more patents.

2.5.1.1 Financial Life Cycle of firm

This is a critical component in venture capital financing because venture capital firms are more likely to provide finance at certain stages of the firm life cycle. Hanks & Chandler (1994) define stages of a firm as start up, expansion, maturity, diversification, and decline stages. However there are inter industry differences in the stages. Firms prefer internal versus external finance because of adverse selection but when external finance is required firms then prefer debt versus equity. Are different industries better aligned to different sources of financing? Are different types of entrepreneurs better aligned to different financing? Firms' requirements for finance may be different at each stage of development or stage of it's life cycle (Berger & Udell, 1998). Mac en Bhaird & Lucey (2009) found that entrepreneurs usually access finance at 4 – 9 years of firm age. In order to better understand the financial life cycle of the firm, it is important to first

understand the business life cycle of a firm. The contemporary business life cycle of the firm is highlighted in figure the table below.

Contemporary Model of Business Life Cycle



Source; Theodore Levitt 1965- exhibit 1

Figure 4 Contemporary Business Life Cycle

The capital demands of a business as highly aligned to the business life cycle. The contemporary business life cycle will be alligned to the different sources of finance in the financial life cycle. The financial life cycle of the firm has an impact on the financing sources that a firm would be accessing and the amount of internal and expernal finance sources that a firm would require (Mac an Bhard & Lucey, 2011; Rogerson, 2008). The contemporary firm life cycle has been embended into the table below that suggests the type of resources that a firms would require at each level by outlining the financial life cycle of a firm. The table has been modified to include the contemporary business life cycle as well and the stages of a firm as outlined by SAVCA.

Table 2: The Financial Life Cycle of a Firm

Contemporary Business Life cycle	Stage	SAVCA Stages	Sources of finance	Potential problems
Formation	Inception	Start up	Owners' resources, venture capital	Undercapitalisation
Growth	Growth I	Seed Funding	As above plus: venture capital, Retained profits, trade credit, bank loans and overdrafts, hire purchase, leasing	Overtrading, liquidity crises
	Growth II	Development capital	As above plus: Longer term finance from financial institutions	Finance gap
	Growth III	Growth	As above plus: New market issue	Loss of control
Maturity	Maturity		All sources available	Maintaining Return On Investment (ROI)
Decline	Decline		Withdrawal of finance: Firm taken over, share repurchase (US), liquidation	Falling ROI

Weston and Brigham (1970, p. 157)

Mac an Bhard & Lucey (2011) empirically examined the financing of SMEs through a financial growth life cycle model. The study supported that SME financing broadly resembles the financial growth life cycle model and also supports the pecking order theory propositions. The study supported the prior findings that internal sources of finance are far exceeded by the external sources of finance for the young firms. Furthermore the study supported previous research findings that the financing for small businesses is still mirrored with information opacity (Berger & Udell, 1998).

Venture capital as a type of capital financing is a relative small quantity (1.78%) compared to other forms of finance. The firms financed by this source of finance were mostly (over 70%) between the firm age five to fifteen years old. Venture capital was only accessed by a small number of firms in certain targeted industries (Mac an Bhard & Lucey, 2011).

The empirical examinations of financial growth life cycles is critical in providing firm resourcing general trends for different ages of the firms and further explore the different financial sources over time including internal and external sources throughout the life cycle of the firm (Mac an Bhard & Lucey, 2011).

Below is an illustration of the different types of financing and how they overlap over the lifetime of the firm. This diagram places venture capital finance at the growth stage of small firms into medium enterprises. The only sources of finance before venture capital finance is self-financing and angel finance (Berger and Udell, 1998).

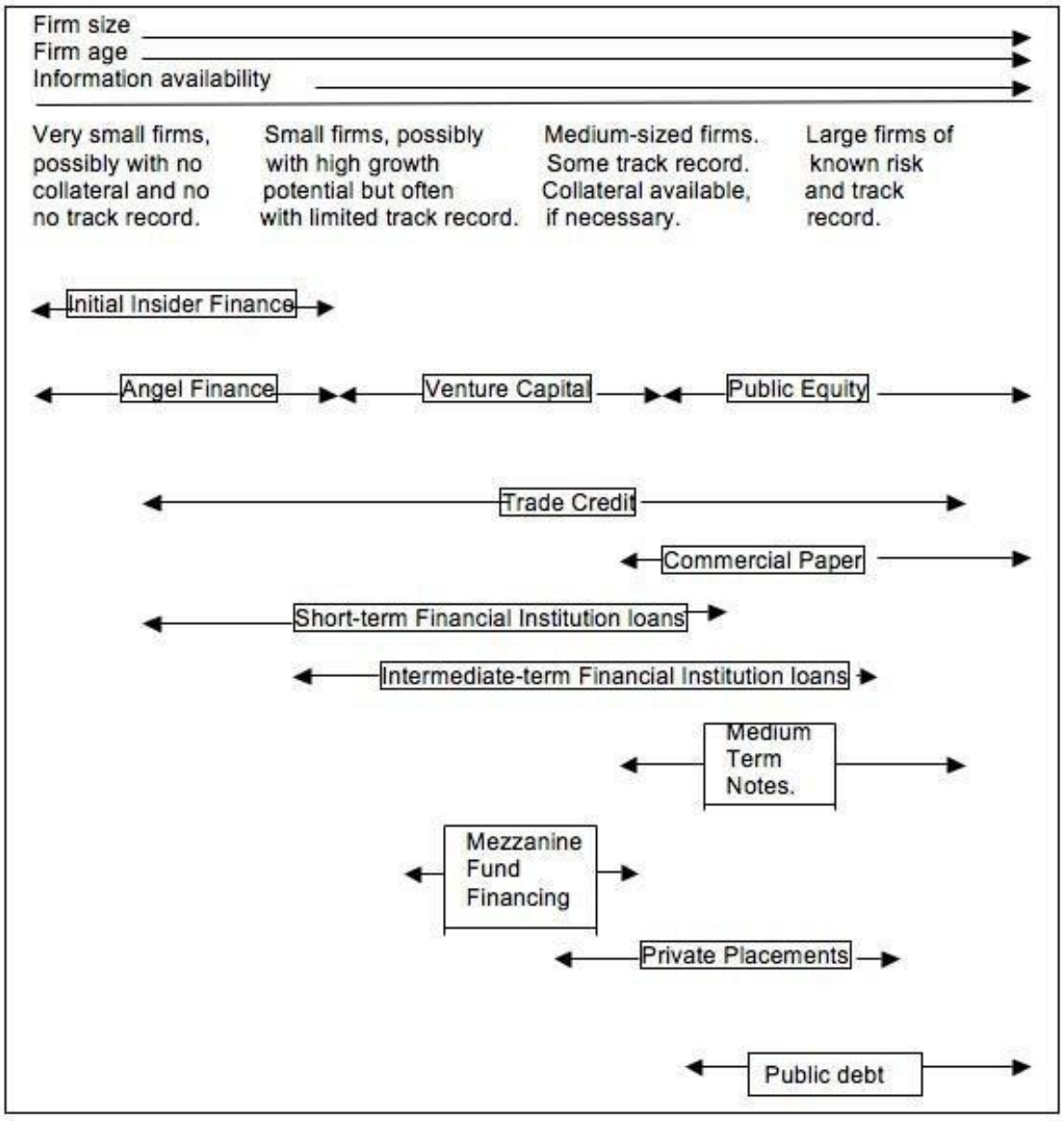


Figure 5 Application of the life cycle approach to SME sector

Source: Berger and Udell (1998: 623)

The financial life cycle above was supported by empirical studies in a research done by Mac an Bhard & Lucey, 2011 which have evidence indicating that SME resourcing broadly corresponds to a financial growth life cycle model. This finding supported previous that firms in the nascent stages of development are largely dependent on the resources of the firm owner, friends and family. Provision of the personal assets of the firm owner as collateral for business debt is particularly important, as evidenced by the relatively high use of debt by respondents in the

youngest categories studies (Berger and Udell, 1998).

2.5.1.2 Venture Capital

Venture capital has been defined by Lerner (2000) as an independently managed pool of capital focused on equity or equity linked in high growth or privately held companies. Using the definition of venture capital offered by SAVCA "a subset of private equity class which deals with predominantly equity funding of high tech, high growth potential businesses whose growth is achieved through radical global scaling. Although venture capital finance is a very small percentage for funding across the world, its gain in industry has been said to have the potential to be exponential (Samalia & Sorenson, 2011; Puri & Zarutskie, 2012). There is evidence from research that indicates that the success rate of firms funded by venture capital firms is higher than the success rate of new ventures in general (Davis & Stetson, 1984). The failure rate for venture capital financed firms is between 30-40% (Smallbone, 1990). This is a much better compared to the general failure rate ranging between 20% failure rate in the first year to about 75% failure rate by the fifth year (Kannadhasan, Aramvalarthan, & Kumar, 2014). This might actually indicate that whatever the screening criteria is, the venture capital firms are able to pick out firms with a higher chance of survival although others might argue that it might not be the decision making criteria but the post investment mentoring and advisory role that helps these companies succeed

The stages of funding according to SAVCA (2015) are classified into seed funding, start-up capital, development capital and growth capital. Seed funding is usually required at the initial stages of conceptualising the business and doing initial research and product development. The funding for this stage would mostly be from "friends, fools and family" (Ullah & Taylor , 2007) . Lack of capital in the nascent stages of business is said to be one of the main causes of business failure (Cressy, 2000).

Start-up capital is the funding required for setting up of the company such as renting premises, recruitment of employees, buying necessary equipment and machinery and any required legal registrations for the company and any intellectual Property (IP) if available. Development or growth capital is for the initial stages of growing the market to push a company towards

profitability. Growth capital is used for pushing the company towards exponential growth by expansion such as breaking into foreign markets or new product development. (SAVCA venture capital industry Survey 2015).

The research on venture capital has mostly been concentrated on the US, which is the biggest venture capital market in the world followed by Europe in which UK is the second biggest market. Research is now being done in other markets such as Australia and developing markets such as India, China and South Africa. Venture capital industry in these developing countries is still at infancy stages and not well developed.

Puri & Zarutskie (2012) found that for the period 1981 – 2005, venture capital funded only 0.11% of the companies created in the US. Although this percentage of funding seems minimal, the findings indicate that the impact on employment was exponential with venture capitals contributing of 4 – 5.5% to employment within the same period. This makes venture capital an important source of funding for any country. Venture capital usually finances high growth sectors in an economy which most of the times would include innovative industries. Hellmann & Puri (2000) noted that innovative companies were more likely to get venture capital funding than imitative ones using a sample that was collected from Silicon Valley. Puri & Zarutskie (2012) inferred that venture capital firms are likely to fund companies with strong growth potential even if they have no initial revenues.

Gompers, Kovner & Lerner (2005) found that the majority (30 – 42%) of venture financed companies are spin off from public companies, the study included a sample from Silicon Valley as well as Boston's route 126. Other sources of venture capital clients are serial entrepreneurs, which represented about 10% of clientele for venture capital (Gompers et al., 2010). Brander & Bettignies (2009) in their model identify that venture capital firms are more likely to invest according to opportunities in the sector and also their sector expertise.

2.5.1.3 Overview of Venture Capital Market in South Africa

The South African venture capital market is estimated at about ZAR1.87 billion active investments in 2015. After the world financial crisis, there was a decline in total amount invested owing to a more conservative approach being taken by the venture capital firms. The average deal size over the 10-year period (2006-2015) under consideration ranged from ZAR3.4

million per deal to ZAR25.5 million per deal in 2012. The 2012 per deal figures were inflated by four big transactions in energy and telecommunications sectors.

VC-type investors captured in this survey, rather than of the impact of the global financial crisis. Investors surveyed typically erate ring-fenced funds or draw from budgets earmarked for VC investments. In such instances, available money will be inves in the first four years (e.g. 2006 to 2009), after which investment activity will move from finding and investing in suitable de to maturing such deals for exits. Fund managers attempting to raise new funds reported experiencing the impact of the gl recession in the latter part of this period.

Deal trends over time

Year	Total amount invested (R million)	Deals done	Average deal value (R million)
2006	304.1	38	8.0
2007	467.6	47	9.9
2008	551.2	56	9.8
2009	242.3	37	6.5
2010	194.3	25	7.8
2011	210.6	26	8.1
2012	281.9	11	25.6
2013	108.7	18	6.0
2014	141.7	34	4.2
2015[i]	146.3	43	3.4
10 years	2 581.7	315	8.2

Figure 6 Deals trends over time

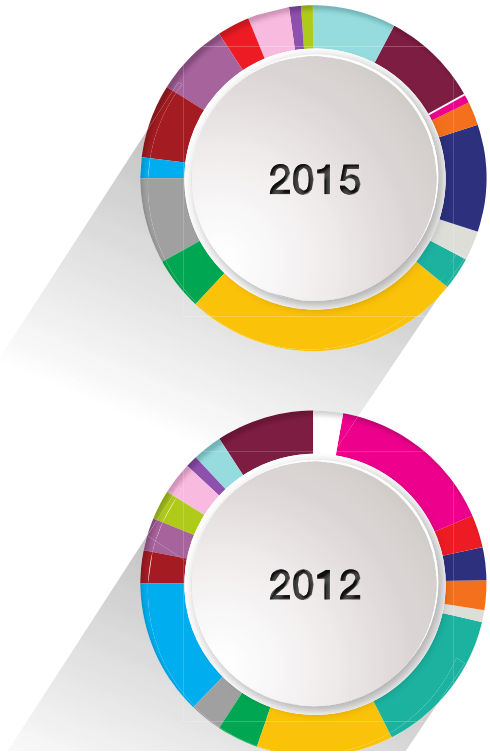
Source SAVCA 2015 venture capital survey pg. 6

The number of deals done every year has been increasing since 2012 from eleven deals to an estimated forty three deals in 2015. Figue 5 presents the total invested, number of deals done and average value per deal over the period 2006 – 2015 (Venture solutions, 2015).

The majority of transactions are invested in early stage transactions with 51% in the start-up capital, 40% invested in growth capital, 8% in development capital and only 1% in seed capital. Seed capital really does not seem to attract any interest in the venture capital industry in South Africa, this is probably where "friends, family and fools" are the main source of finance. Although early stage investments are preferred, preference is given to firms with a trading history. The venture capital firms invest in a diverse number of industries with the five highest investments in the year 2015 being in software at 26% followed by e-commerce at 10%, health at 9%, manufacturing at 8% and media/entertainment at 7%. This trend seems to change over time as this distribution of industries is different from that observed in the previous years (SAVCA, 2015).

porate venture capital unit of one of the large mobile phone operators in South Africa into its mainstream operations; this unit had reported telecoms-type VC deals in the previous survey period. Additionally, the previous survey included deals involving infrastructure and hardware for the rollout of public Wi-Fi services. Medical devices investments are primarily the domain of the public sector fund managers that have reprioritised spending to favour other sectors, but who remain invested in those deals recorded in the previous survey.

Volume of deals by industry sector: comparing 2015 and 2012
Number of deals, as percentage of total



	2015	2012
Manufacturing	8%	3%
Health	9%	9%
Pharmaceutical	0%	3%
Telecommunications	1%	16%
Retail/Distribution	2%	3%
e-Commerce	10%	3%
Security technology	3%	1%
Energy	3%	14%
Software	26%	13%
Consumer products & services	5%	4%
Business products & services	8%	3%
Medical devices & equipment	2%	13%
Media/Entertainment	7%	3%
Financial services	7%	3%
Food & beverages	3%	3%
Electronics/Instrumentation	4%	3%
Mining, mineral & chemical processing	1%	1%
Agriculture	1%	3%

Figure 7 Volume of Deals By Industry

Source: SAVCA 2015 Venture capital report, pg. 10

Venture capital firms reported that the major reason for rejecting proposals was that the proposals were not a match to their fund mandate. Majority of the venture capital firms reported that majority of their new deals were solicited through personal networks and referrals rather than arms length means such as conferences, media and other avenues. Majority of the firms reported annual returns averaging over 20% return on equity and successful exits. Some firms have reported write offs of less than 15% of total transactions (SAVCA, 2015).

2.5.1.4 Venture capital Financing criteria

Venture capital decision making has been an area of research over the past two decades. Research on venture capital decision making has been done with no conclusive findings about a homogenous method which venture capital firms use in order to finance entrepreneurs. There has even been debate on whether the financing decision for venture capital is an art or science. This section will review the existing literature on venture capital decision making.

There are various conclusions on what are the most important factors when venture capital firms are making a decision to grant finance to entrepreneurs. There seems to be concensus in prior studies on the stages of the venture capital decision making which consists of multiple stages loosely groped as deal generation, initial screening, project evaluation and due diligence, deal structuring, post investment activities and exit or cashing out activities (Hudson & Evans, 2001). These stages were collated together using research from four different studies on venture capital management processes (Wells, 1974; Tyebjee & Bruno, 1984; Silver , 1985; Hall, 1989). Majority of the studies on venture capital decision making seem to be concentrated on the initial screening stage in which the venture capital firms do a basic assessment of the proposal or business plan in order to determine whether a deeper assessment is needed. Screening is a critical stage in assessment by venture capital firms because majority of the deals are rejected at this stage. Boocock and Woods (1997); this study estimated that 80% of the proposals get rejected at the screening stage.

Venture capital firms have a high rejection rate of the proposals received ranging from 96.6% to 98.54% (Boocock & Woods, 1997; Bannock, 1991), which implies that proposals have a very minute chance of being funded. This initial screening stage is extremely important and is estimated to take less than 22 minutes because of the amount of proposals that the venture capital firms have to go through (Hall & Hofer , 1993). Research seems to mostly focus on decision making during the screening stage. This stage consists of a number of "must have" criterion that the entrepreneurial firm must possess because the venture capital firm can consider a more detailed evaluation of the proposal in which the venture capital firm performs due diligence. Majority of proposals do not make it to the evaluation/due diligence stage. Boocock & Woods (1997) in a study done in the United Kingdom estimated that a total of 80% of proposals are rejected at the screening stage, this shows that the screening stage is by far the greatest hurdle to

be passed by any entrepreneur looking for venture capital funding. The study shows that another 7.5% of proposals were rejected after the first meeting and an additional 12.5% were rejected after the second meeting. The highest reason for rejection at the screening phase was due to incomplete business plans submitted. The strength of this study is that it was done using written data from venture capital files on the reasons when the proposals were actually being rejected thus giving insight that is more accurate. The weakness of this study however was that incomplete plan could encompass so many things including profile of entrepreneur, market information, financial information and an array of areas. The highest reason for rejection after the second meeting was management skills and experience (Boocock & Woods, 1997).

Table 3: Reasons for Rejection of Applications for Finance with VC firms

Reason for Rejection	Initial Screening	After 1st Meeting	Sub-Total	After 2nd Meeting	Grand Total
Incomplete Plan	29%	1.0%	30%	1.0%	31%
Market Characteristics	12%	0.5%	12.5%		12.5%
Lack of Unique Selling Point	4%		4%		4%
Start up Finance	6%	1.0%	7%	0.5%	7.5%
Project Size	7%	0.5%	7.5%	0.5%	8%
Management Skills/Experience	4%	1.0%	5%	1.5%	6.5%
Excessive Risks	5%	0.5%	5.5%	1.0%	6.5%
Financial Factors	2%		2%		2%
Application Withdrawn	4%	1.0%	5%	5.9%	11%
Other Reasons	6%	2.0%	8%	2.5%	10.5%
Total	80%	7.5%	87.5%	12.5% (1)	100%

Note: (1) Rounding error

Source Boocock and Woods 1997, p.57, Table 4

Timmons & Spinelli (2009) even allocated a higher percentage of 98% to the rejected proposals as compared to Boocock and woods 1997 that estimated 87.5% proposals are rejected. The authors however outline that the reasons for the high rejection rate is very stringent screening criteria these venture capitalists use in order to select opportunities with high propensity for commercial growth.

When comparing the studies done by different researchers on the decision making criteria by venture capital firms to grant finance, there seems to be minimal convergence among the studies and the results are not replicable. Concerns have been raised about the methodologies used in these studies because there is an inherent attempt to model human decision-making and assume that it is homogenous (Wells, 1974; Tyebjee & Bruno, 1984; MacMillan et al., 1985; Sandeberg, et al., 1988). However it can be argued that although venture capital decision making criteria includes human decision making, there must be some generic method that the venture capital firms use during the screening process in order to quickly weed out the "undesirable proposals". Zacharakis & Meyer (1998) and Sherpherd (1999) have raised concerns that maybe even venture capitalists themselves do not fully comprehend their own decision making process and thus responding to a questionnaire on their decision making process may yield inaccurate results.

There is still no convergence about decision making criteria in venture capital financing. These differences may be due to differing methodological issues making it difficult to replicate results or even to compare the results. Some assessments done on the criteria used by venture capital firms to evaluate potential ventures in USA found that although there are other relevant criteria used during the screening, the most important criteria were the ones specifically related to the individual entrepreneur (Tyebjee & Bruno, 1984; MacMillan et al., 1985). The variables explored were; the entrepreneurs' personality, the entrepreneurs' experience, characteristics of product or service, characteristics of the market and financial considerations. MacMillan et al. (1985) concluded that it is ultimately the quality of the entrepreneur that determines the funding decision, he further interrogates the need for the business plan that although it has necessary content on areas such as product, market and competition, it is usually is lacking details about the entrepreneur himself.

Kaplan & Stromberg (2009) on the other hand concluded that the entrepreneur's idea is a more important factor than the entrepreneurs themselves in the decision to offer venture capital. On the contrary the study by Boocock & Woods (1997) found that the biggest reason for rejection of proposals at the screening stage was due to incomplete business plans (29%), followed by market characteristics (12%) with management skills and expertise coming in as the seventh reason for rejection with only 4% of the proposals rejected due to management skills and experience. Although the findings indicate that the biggest reason for rejection was due to incomplete

business plans, other authors however in their research concluded that business plans only play a ceremonial role in venture capital decision-making (Kirsh, Goldfarb, & Gera, 2009). Rah, Jung, & Lee (1994) add a spin to the findings of the previous studies, they found that financing ability although not highlighted as critical by previous studies plays a greater role in venture capital decision making. The finance variable seems to however play a greater role at later stages such as evaluation and due diligence (Dixon, 1989).

Comparison of evaluation criteria in table 4 using the different studies that have been done over the years was able to group the criteria into factors namely; characteristics of the entrepreneur, product/service characteristics, market characteristics, financial characteristics, and other areas (Zacharakis & Meyer, 1998; Hall & Hofer, 1993). The comparison of this research showed a lack of congruence of the research making it difficult to compare the results or even replicate them as each of the researchers used different evaluation criteria in order to determine the investment criteria.

Table 4: Comparison of Venture Capital Selection Criteria

Table 2: Comparison of Venture Capital Evaluation Criteria

Evaluation Criteria	**Wells (1974)**	**Poindexter (1976**	**Tyebjee & Bruno (1984)**	**MacMillam et al. (1985)**	**MacMillam et al. (1987)**	**Robinson (1987)**	**Timmons et al. (1987)**	**Hall & Hofer (1993)**
Methodology	Personal Interviews	Questionnaire	Phone Survey and Questionnaire	Questionnaire	Questionnaire	Questionnaire	Unstructured Interviews	Verbal Protocols
Sample Size	8	97	87	100	67	53	47	16
Characteristics of the Entrepreneur								
- Management Skill and Experience	X	X	X	X	X	X	X	X
- Venture Team				X	X	X		X
- Management Stake in Firm		X	X					
- Personal Motivation	X					X		
- Entrepreneur Personality				X				
Product/Service Characteristics								
- Product Attributes	X		X	X	X			
- Product Differentiation			X				X	
- Proprietary	X			X	X			
- Growth Potential			X					
- Market Acceptance				X			X	
- Prototype				X				
Market Characteristics								
- Market Size	X		X				X	X
- Market Growth	X		X	X	X	X	X	
- Barriers to Entry			X				X	
- Competitive Threat				X	X		X	
- Venture Creates New Market				X				
Financial Characteristics								
- Cash-out Method	X		X					X
- Expected ROI		X	X	X			X	
- Expected Risk		X						
- Percentage of Equity		X						
- Investor Provisions		X						
- Size of Investment	X	X						
- Liquidity				X	X	X		
OTHER								
- References	X					X		
- Venture Investment Stage	X	X	X					
- Venture Capitalist Criteria								X

Source: Zacharakis & Meyer 1998, Table 1, p. 6.

The criteria assessed at the screening stage may also be grouped into; industry potential, uniqueness of product/service, investment stage and market size, significant competitive advantage, potential growth and management team (Golis, 1998).

Petty & Gruber (2009) did a longitudinal study comprising eleven years of 3631 archived data from a venture capital who made only thirty five investments from the total three thousand and thirty one received. The study used actual data and was focused on the actual reasons for rejecting the proposals. In these deals about 20% made it past the screening stage and 10% was presented to investment committee with a preliminary recommendation for further evaluation/due diligence. It was the 20% that was critically analysed. The findings included that some of the deals were rejected because of management issues i.e. lack of confidence in management, lack of management team experience, need for restructuring board and exchange CEO. Contrary to previous research, these constituted a small percentage (n=93). 10 % were classified as dead because venture capital no longer had opportunity to pursue them. 5% of the deals were classified as dead because the entrepreneurs never responded to requests for more information required by the venture capital, this confirms the findings by Boocock & Woods (1997) that majority of deals were rejected due to incomplete proposals. The firm lost 5% of the deals because the entrepreneurs withdrew their application.

Although venture capital industry is still very young in South Africa, there also have been several studies done on the venture capital financing decisions in South Africa. Two studies were modelled aroound the studies done by Tyebjee & Bruno (1984) and McMillan et al., (1985). Van Deventer & Mlambo (2009) undertook research to assess the decision-making criteria for venture capital firms in South Africa using questionnaires. The sample strictly included firms that qualified to be called venture capital firms according to definition and function (sixteen firms qualified) and fourteen responses were received. These findings were that out of the top ten most important criteria, five of them had to do with the entrepreneur's personality and experience. The results supported those of previous research that had been done on evaluation criteria of venture capital firms (MacMillan et al., 1985; Tyebjee & Bruno, 1984; Wells, 1974). This contradicts other researchers' argument that the results are not replicable for these earlier studies.

A similar research was later done in 2010 and published in 2013; the 2013 research the sample consisted of both venture capital firms and private equity (PE) firms in order to include later

stage investments in the study. This study also concluded that venture capital firms as well as private equity firms both rate the entrepreneur or management team higher than any other variable under consideration when deciding to grant finance. Private Equity firms seem to rank financial returns (internal rate of return) as the fourth most important consideration whereas the venture capital firm does not have financial return in the top 10 important considerations. This is attributed to the valuation difficulties in early stage investments (Portman & Mlambo, 2013; Deventer & Mlambo, 2009).

2.6 Independent and Dependant Variables

2.6.1 Independent variables

The independent variables are big five characteristics, individual attributes and environmental, industry and macro-economic environment.

2.6.1.1 Individual attributes

The individual attributes include the entrepreneur's personality and the entrepreneur's experience. In the entrepreneurs' personality, The ability of the entrepreneur to evaluate and manage risks; sustain intense efforts, attention to detail as well as in-depth knowledge of the venture is explored. The entrepreneurs experience assesses the entrepreneur's familiarity of the product and target market, and the leadership potential demonstrated by the entrepreneur. This factor also explores issues of the reputation of the entrepreneurs and who referred them,

2.6.1.2 The environmental, industry and macro-economic environment

The environmental, industry and macro-economic environment will include characteristics of products or services, characteristics of the market as well as financial considerations. The characteristics of products and services will assess the proprietary rights of the product, the development stage, level of market acceptance as well as whether or not the product is highly technological. On the characteristics of the market the details being explored were; is it an existing market or new market, growth rate of the market if it's already existing, threats of competition and familiarity of the entrepreneur of the industry. The financial consideration factor includes the return on the investment and how many years that desired return might

possibly take, the possibilities of exiting the investment as well as whether or not subsequent investments will be required at a later stage.

2.6.2 Dependent variable

The dependant variable is basically quoted as getting venture capital finance or not getting venture capital finance.

2.7 Hypotheses

H1: Individual attributes (entrepreneurs' characteristics and experience) are significantly related to venture capital firm decision to granting finance to an entrepreneur

H2: Environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) are significantly related to venture

H3: Entrepreneurs characteristics considered by venture capital firms are significantly related to the " Big five charasteristics

2.8 Conclusion

This chapter has covered the literature review that forms the basis for this study. The areas reviewed include entrepreneurship, entrepreneuship theories (with a concentration on the pshychological theory), big five personality dimensions. The chapetr further covered the areas of financial life cycle , venture capital, venture capital decision making and then a deep dive into the South African context. Although the topics reviewed were wide and vast, it was necessary in order to formulate the hypothesis for the research.

3. CHAPTER 3 - RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research paradigm, research design as well as the population and sample that were considered for this research. The chapter continues to explain the type of data used for the research as well as the research instrument that was utilised to collect the data. The procedure for data collection as well as the data analysis performed will be explained in the chapter. Limitations of the study were identified and highlighted. The validity and reliability of the data will be explained.

3.2 Research methodology/ Paradigm

The research approach undertaken for this research was exploratory research. This type of research is usually used to carve out the magnitude of a certain behaviour or occurrence, generate preliminary ideas about a research topic, or to assess the viability of a broader research regarding a certain phenomenon (Bhattacherjee, 2012). In this case, exploration was done about the areas used for decision making by venture capital financiers as well as whether the characteristics of an entrepreneur in any way influences this decision making process. Although this research did not give very precise details regarding the decision making process of venture capital firms, it was however a worthwhile precursor to continue scoping out the possible constructs that venture capital firms use in order to decide to grant finance to an entrepreneur.

This research was a quantitative cross sectional research. It was cross sectional because the information was collected at one point in time (during a space of two months) to assess the practice on how the decisions were being made at that point. The disadvantage of cross sectional research is that it does not account for changes that take place over time, so in this case it was not possible to check if the decision making criteria had changed over time thus it was not be covered in this research. The differences with previous research will however be covered in the discussion section. The research used quantitative methods to analyse the decision-making criteria by venture capitalists. A limitation of this approach is that it does not cover deep qualitative issues on why one entrepreneur may receive funding versus another.

This approach is well suited for this type of research and has also been used in other similar research (Tyebjee & Bruno, 1984; Macmillan et al, 1985; Deventer & Mlambo, 2009).

The study was viewed from a positivist epistemological perspective; epistemology is basically our construction of this world based on our understanding of the world (Portmann & Mlambo, 2013). The assumptions of positivism are that a single apprehensible reality can be measured quantitatively by science (Healy & Perry , 2000). Burrell and Morgan (1985) define positivism as an epistemology seeking to predict or gain an explanation of certain occurrences in the social world through exploration of causal relationships or regularities between its essential principals. Epistemology discusses the best way to research the social realities in the world whether it objective or subjective (Bhattacherjee, 2012).

Positivist epistemology therefore attempts to gain an understanding of the world and the ways in which it can be predicted or controlled. This is an appropriate approach because both the concept of entrepreneurship as well as the venture capital decision making processes are not exact sciences and are greatly influenced by the way people view the world (Bhattacherjee, 2012). This has led to the discussion on whether the venture capital decision making is a science or an art (MacMillan et al., 1985). In entrepreneurship studies, opportunity recognition and personality or character traits are viewed as some of the important constructs in making up an entrepreneur (Brandstatter, 1997). Although it would be better if the granting of finance by venture capital firms was solely based on objective reasoning; some literature has suggested that experience and the way the decision makers view the world affects the decisions that they make in granting venture capital finance. Some authors have quoted cognitive differences in the way venture capitalists make decisions including issues such as overconfidence (Zacharakis & Shepherd, 2001; Franke et al. 2006;). This is why this research was done from an epistemological point of view. This study attempted to grasp it in a simplistic manner since it is conceptual and a decision-making process that is more complex and not always as objective. Considerations that are taken when it comes to venture capital financing decisions in South Africa were assessed and therefore an attempt to discover the possible generalisations that may be used across the industry was made.

This study was a deductive research using existing theories of entrepreneurship, big five characteristics and venture capital finance decision making in attempt to test relationships between the theories. The goal was to either verify the existence of these relationships or consequently not support them.

3.3 Population and sample

3.3.1 Population, sample and sampling method

Sampling refers to a selection process of a representative group from the target population that could be used to make inferences about the population at large. In many cases it is not practical to study the entire population due to constraint resources involved (Bhattacherjee, 2012). The sampling method used for this research was non-probability sampling. Convenient sampling was used because for this research as it was more convenient to use the whole population for study; the population was already small and thus sampling it would have made meaningful quantitative analysis difficult.

The population that was considered for this research were all the venture capital firms located in South Africa that are registered with South African Venture Capital Association (SAVCA). The unit of analysis used for this study was the firm, which is this study was representatives of the venture capital firms responded on behalf of the firm. The population was identified using the membership directory for 2016 which was downloaded from the SAVCA website. SAVCA has two membership levels namely full membership and associate membership, the main criteria for being a full member is that the entity must be actively involved in venture finance on a full time basis. The main criteria for being an associate member are that they are institutions or persons that could influence development of venture capital and private equity in Southern Africa. These include lawyers, accountants, banks and other relevant institutions. (South African Venture Capital Organisation, 2016)

For purposes of this research, the target population were just a subset of the full members, the following criteria was used to formulate the population; the members should be actively practicing venture capital. The sample was drawn from the SAVCA membership database, however as mentioned before only the full members qualify. For purposes of this survey only actively practicing venture capitalist were considered. South Africa has an estimated population

of about thirty-one venture capital firms according to the SAVCA survey that was done in 2015 (Venture solutions, 2015). Because of the small size of the population, the entire population was treated as the sample population to respond to the questionnaire. The reason for using the entire population as sample was that the population was already small and there was need to get the maximum responses in order to do statistical analysis. The advantage of using the population as the sample was that the responses would be a good representation of the venture capital decision-making in South Africa.

3.4 Research design

The study used quantitative analysis using both primary data and secondary data. The secondary data was obtained from previous SAVCA surveys that have been done for the venture capital industry dating back to the year 2005. These surveys provided rich background information about the venture capital as well as the private equity industry in South Africa.

3.4.1 Primary Data

The primary data was collected using cross sectional field surveys. All variables were collected using a single survey instrument (questionnaire). The strength of field surveys is that numerous variables can all be collected at once using a single instrument. Field surveys are capable of capturing a large number of variables, which enhances the capabilities to use multiple perspectives to research a problem. In this case the study covered different variables that were considered as possible filters for venture capital firms to make a decision when selecting entrepreneurs to provide funding. Field surveys have several advantages such as external validity due to data being collected in field settings. Field surveys may however be subject to respondent bias and recall bias and may also be difficult to infer because of their non-temporal nature (Bhattacherjee, 2012). The unit of analysis for this survey was the firm.

The reason for using the survey research method is that the method is suitable for use in cases where the respondents are individuals although they will be representing the firm (which the study's unit of analysis). This however presented the risk of having respondent bias if the firm respondent either had a certain bias or was not as knowledgeable about the topic under discussion (Summers & Hammonds, 1969). There is usually a non-response bias in survey

research due to the low response rates usually experienced as well as a possibility of recall bias since the survey depended of the respondent's memory (Berg, 2005).

3.4.2 The research instrument

The research instrument was a structured questionnaire created using combination of questionnaires from several previous studies. This was used for the purpose of collecting primary data with different types of information. The questionnaire was administered in English because it is a commonly used language in the business setting in South Africa. The research instrument consisted of Likert like scales as well as nominal questions. Likert scales were developed in 1938 by Murphy and Likert and provide the respondent with a range of responses usually ranging from how much they approve or disapprove, agree or disagree, the scale will usually be set starting from least to most (Allen & Seaman, 2007). A Likert scale is an ordinal scale and equal weights are assumed for all the items on the scale, and usually summation of each item of responses may be performed may be summed up on Likert scales (Bhattacherjee, 2012). The survey questionnaire tool, which consisted of structured questions, was divided into three sections.

Section one consisted of a Likert scale questionnaire exploring the five different constructs which are considered most common in screening an entrepreneur for venture capital. These constructs are the entrepreneurs' personality, the entrepreneurs' experience, characteristic of the product or service, characteristics of the market and financial considerations (MacMillan et al 1985; Amit at al, 1993; Deventer & Mlambo, 2009). Each construct had five questions relating to each individual construct. This section used a tool that was modified during the study by Macmillan, et al., (1985) where he first interviewed fourteen venture capital firms in the New York area in order to find out their decision making criteria for granting finance. Macmillan et al, then used factor analysis to group the questions into the constructs quoted earlier and modified the tool developed in an earlier study by Tyebjee & Bruno, 1984. These criterions were then grouped into the different constructs in order to formulate the questionnaire. A modification of the same tool has also been used in South Africa for assessing decision making by venture capital firms and private equity firms (Deventer & Mlambo, 2009; Portmann & Mlambo, 2013). The Likert scale questionnaire was modified from a four scale to a seven scale

in order to allow for more refined responses and also to allow the responses if they have a neutral response to any of the questions. In this way they were not forced to either agree or disagree.

Section two was also a Likert scale with seven points that consisted of a brief version of the big five personality tool which was also used in this study to assess the personality traits that are preferred by venture capital firms when selecting firms to finance. This questionnaire was developed in an attempt to produce a shorter or quicker version of assessing the big five characteristics of a person. It has ten questions in total and was adapted from a previous study which was done to find a short version of the big five that can be used for people that do not have a lot of time to respond to a long questionnaire (Gosling et al. , 2003). Venture capital firms would not have a lot of time to respond to a questionnaire and this was then seen as the right questionnaire to administer.

In section three, the questionnaire presented the respondent with general questions with more than two options that were not in any particular order to obtain demographic and industry information about the type of entrepreneurs' and ventures they would be interested in financing. The list of questions was of a nominal scale and the answers were unordered, where one is not more important than the other.

3.4.2.1 Dependent variable

Dependent variables are variables that are described or explained by other variables, which are the independent variable. The dependent variable in this research is getting the venture capital finance represented by the word invest in the model and analysis.

3.4.2.2 Independent variables

These are basically variables that describe other variables.

The independent variables were developed by grouping several constructs into one variable for purposes of testing the hypotheses. Independent variable that were used are highlighted below;

i. Individual attributes - the entrepreneurs' personality, the entrepreneurs' experience

ii. Environment, industry and macro-economic environment - characteristics of products or services, characteristics of the market, financial considerations

iii. Big five characteristics

3.4.3 Demographics

In order to get a full understanding of the desired niche market that the Venture capital financiers are targeting, it was critical to include basic demographic questions in the questionnaire. The demographic questions covered areas such as age of the entrepreneur, stage of life cycle of the business, preferred industry and location of the proposed venture. This information was critical in helping the study formulate a basic overview of the underlying interest of venture capital firms apart from the specific decision making criteria according to the dependent variables.

3.5 Secondary Data

Some information from the SAVCA survey 2015 was used as secondary data in the analysis as a platform for comparison with some of the descriptive analysis of the primary data collected in this study. SAVCA survey. This information was taken from a survey that was done on the venture capital industry by venture solutions on behalf of SAVCA covering the period 2011-2015. The data was collected using survey questionnaires as well as a range of data sources on transactions done including one on one interviews and media. This survey holds a wealth of information about the venture capital industry in South Africa (Venture solutions, 2015). This secondary data will assist with some of the discussions in the results section.

3.6 Procedure for Data collection

Survey research is popular in social sciences quantitative research as it presents a systematic way using standardized questionnaires to collect data about behaviours, thoughts or practices. Survey questionnaires have a strength in collection of data that is unobservable in this case the study collected potential information about the "ideal" type of entrepreneur venture capital firms would finance if the venture capital could "create" one.

The survey consisted of self-administered online surveys. This type of data collection convenient for remote collection of views across a population that is spread out to observe directory and it is also suited for people that would like to respond at their own convenience and not be pressured to do it at a specific time (Bhattacherjee, 2012). This type of data collection is ideally suited where large distances exist in the sample population such as an entire country. In this case, the sample population is based mainly in Cape Town as well as the metropolitan city of

Johannesburg, and it would have been difficult to reach all of them for face-to-face interviews because of distance. This type of survey research was also beneficial to the researcher in saving resources such as time and finances.

The major disadvantage of self-administered mail surveys is that the response rate is usually very low and tends to take a long time to be returned (Kanuk & Berenson , 1975). This type of data collection consisted of online surveys in which participants were given a link to respond to reduce the response time. The total population of venture capital managers was estimated at 31 according to the venture capital survey conducted by venture solutions for period 2009 – 2015. However out of this number of venture capital managers, only 21 had actively done deals during that period under assessment (South African Venture Capital Organisation, 2016; Venture solutions, 2015).

The data collection used multiple methodologies to maximize the response rate especially since the sample was already small. The questionnaires were emailed to the entire target sample in word version as well as an online link. The participants could print the form, answer it then email back the document with responses or respond directly online using the link. The link was formulated for the clients to be able to respond to the questionnaire directly online and reduce the administration of having to print, scan and email an attached response. The contact emails were extracted from the SAVCA database 2016 are publicly available on the SAVCA website.

The data collection was mainly done electronically using the questionnaire that was sent as an electronic link online as well as an attachment sent in an email to the population sample for them to respond. The questionnaire was captured on an electronic platform known as qualtrics platform. Qualtrics is a survey platform used for market or academic surveys with capabilities of constructing questionnaires, distributing them and producing a summary of the results. The questionnaire was set up in such a way that the respondents could not skip a question in order to avoid missing information in the data. The link that was sent allowed the participants to follow the link and respond electronically or respond to an attached word documents and then email back. The contact emails were collected from the SAVCA database, put in an excel spread sheet and uploaded on the qualtrics platform. The qualtrics site was initially used to distribute the survey with an online link. After the questionnaires we sent out, phone calls were made to follow up the participants for responses since the initial response rate was low. It was however difficult

to speak to the decision makers during these calls, however emails for the decision makers were given by some of the organisations. After getting the emails for decision makers during follow up calls were made to follow up with participants, the survey was resent from the Wits university email address directly to their email addresses with an anonymous link that was reusable. The anonymous link was helpful for firms that needed reassurance on confidentiality. This assisted in increasing the response rate for the questionnaires although the response level still remained low. Reminders to respond to the survey were sent four times during a period of two months. Respondents seemed to be more comfortable responding to the anonymous link.

In this survey, 13 responses were received which makes a 41% response rate from the entire population. 3 of the responses were however incomplete and could only be used for the analysis of the big five personality character since that part was fully responded to. For the rest of the analysis 10 responses were utilised which reduces the response rate to 32.25%. In the research by Deventer & Mlambo (2009), based on an estimated total population of 16, 12 responses which represented a higher response rate of 75% on which they conducted the analysis.

3.7 Data Analysis

The data was collected on the qualtrics platform, majority of the responses were received directly from the online link, and two respondents used the word questionnaires that were also recorded into the qualtrics database in order to have one source of data. This data was then exported directly into an SPSS for analysis. Descriptive analysis was done on the demographic data mostly in order to find out the most frequent answers outlining the venture capitalists preferences on the nominal questions asked in the questionnaire. The data exported included both the Likert scale data as well as data from section three, which had nominal responses. The data was first cleaned before analysis was done. Out of the 13 responses received, 3 responses were incomplete and only had the section on the big five characteristics with responses and the rest was blank. The data was automatically coded for analysis, coding of the data was necessary for quantitative analysis. One row was used for each observation and the columns for each measurement item. The Likert scales responses were coded 1-7 as follows

1. Strongly agree

2. Disagree

3. Somewhat disagree

4. Neither agree nor disagree

5. Somewhat agree

6. Agree

7. Strongly agree

Descriptive statistical analysis was first done on the data in order to obtain the mean, mode and standard deviation of the data. Logistic regression was then done, this was suitable because there is a binary outcome, an entrepreneur either gets finance (invest) from the venture capital (1), or the entrepreneur does not get finance (0). Regression analysis can be used for predicting an outcome by applying data into a logistic curve (Mehta & Patel, 1995).

Logistic regression was used to support or not support the hypothesis as stated below:

H1: Individual attributes (entrepreneurs characteristics and experince) are significantly related to venture capital firm decision to granting finance to an entrepreneur.

H2: Environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) are significantly related to venture capital firm decision to granting finance to an entrepreneur.

H3: Entrepreneurs characteristics considered by venture capital firms are significantly related to the " Big five charasteristics".

3.8 Limitations of study

There were several limitations in this study, the first one is that the study has a small population since the study was only limited to the South African venture capital firms and thus very limited target sample for the quantitative analysis. This limitation became even a bigger challenge with a response rate of 33% of the population meaning that there were certain types of quantitative analysis that could not be run on the small sample. This is a big limitation even for forth coming

research in the area of venture capital firms. The second limitations was due to time limitation, since the time was limited, it was not possible to conduct face to face interviews which would have possibly increased the response rateIt was also not possible to explore a qualitative side to the study as the time was not sufficient to do a mixed methods study. The qualitative side would have assist in exploring some of the issues in granting finance further.

One of the biggest limitations faced for this study was the non-response bias. The response rates were very low at 32% and since the initial sample was already small, it made quantitative analysis very challenging and also meant that the results of the study cannot be generalised. Most survey research studies experience a response rate of about 15-20% even after several reminders (Bhattacherjee, 2012).

3.9 Validity and reliability

3.9.1 Reliability

Reliability seeks to examine the degree of consistency and dependability of a construct. If the scale is used to measure a certain construct multiple times will the answers be consistent? At the same time it should be noted that reliability does not imply accuracy of the scale but just consistency (Bhattacherjee, 2012). Unreliability sometimes stems from the researchers subjectivity. The use of quantitative measures may improve the reliability of a scale.

All the research instruments were tested for validity and reliability by doing a preliminary pilot study using the instrument. Possible biases in this research included western cultural bias especially since the original tool was from a developed country. There might also be self-reporting bias. It was necessary to avoid overlap between the constructs to avoid inflation of methods.

3.9.2 Internal Validity

Internal validity measures the ability of the data collection instrument successfully measures each topic under research.) The internal validity in research attempts to define how accurately a concept is measured in the research. Validity may be defined in three different categories namely content validity, construct validity as well as criterion validity. Content validity measures the degree to which the instrument measures all the content with respect to the variable being

measured. Construct validity measures whether inferences can be drawn from the responses to a questionnaire and can be done by measuring homogeneity, convergence as well as theory evidence. Criterion validity measures the degree to which different instruments measure the same variable and can be measured by assessing convergent validity, divergent validity as well as predictive validity (Heale & Twycross, 2015; Bhattacherjee, 2012). The questionnaires being utilised in the research have all been used before, however the construct and criterion validity will be measured through piloting the questionnaire in order to test it in the local market. This will also assist to measure the content validity as the pilot request for any other criteria that has not been included in the current questionnaire.

3.9.3 External validity

External validity has to do with the results being able to be generalise in the population and even beyond the current location and sample. Localisation within the population was generally covered since the sample is the whole population. This was however affected by response bias because the response rate was low.

3.10 Ethics

Consent was requested from everyone doing responses and it was be made clear that participation was voluntary and that the responses would be kept confidential and only used for academic purposes.

The information being requested may be proprietary information; it was therefore critical that the participants were assured of the anonymity and confidentiality of the information. The participants were more comfortable to use an anonymous link to respond the survey rather than the email format.

3.11 Pilot

It was important for the questionnaire to be piloted before the research was done. It was however also important that the target population was not contaminated with the pilot and that a different subset was used.

The sample questionnaire was sent to three venture/private equity firms in Swaziland to avoid contamination of the sample (venture firms in South Africa) since it is already a small sample.

Each firm was requested for 2 -3 respondents in order to have sufficient pilot responses. The pilot received a very low response rate of only one response each from each different firm

Construct and content validity was also assessed. Valuable feedback on content included additional criteria that were considered for addition to the questionnaire. However, this only came from one participant and may have been specific to that firm.
The following addition criteria were proposed by one of the respondents: -

a) Entrepreneurs understanding of the market opportunity

b) Realism of projections

c) Scalability of the proposition

d) How much equity is up for grabs/their valuation of the business

e) Beyond capital, what else do they need? How involved will the venture capital firm be involved in running the business

Responses to the pilot questions seemed fairly similar across the three responses received with minor difference. None of the respondents requested for any further clarification in order to do the survey.

3.12 Conclusion

The methodology used a survey questionnaire divided into three sections distributed electronically a convenient sample (members of SAVCA). A pilot was conducted on the questionnaire to assess validity and reliability. Quantitative analysis using regression was done on the primary data and subsidised by secondary data. The results are outlined and discussed in detail in the following chapter.

4. CHAPTER 4 - RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter outlines a presentation of the analytical results. The chapter begins by presenting a demographic profile of the "ideal" firm or entrepreneur venture capital firms would like to invest in if they were given the opportunity in a menu format. At the same time being cognisant of the fact that the "ideal" does not really exist in life, it is likely that half of the profile is available in a deal and not necessarily the whole package.

Descriptive statistical analysis was mainly used for the demographic analysis and tables and figures were used to present the results in a user-friendly way. Later in the chapter the results and discussions on the hypothesis were carried out to test the hypothesis.

4.2 Descriptive analysis

Demographic information was collected in order to have an overview of the type of entrepreneur that venture capital firms would prefer to finance. The information that was collected included age of firm, age of entrepreneur, stage of life cycle, industry preference, how the venture capital firms access most of their clients, market access as well as preferred location.

4.2.1 Average age of firm, age of entrepreneur, company life cycle stage

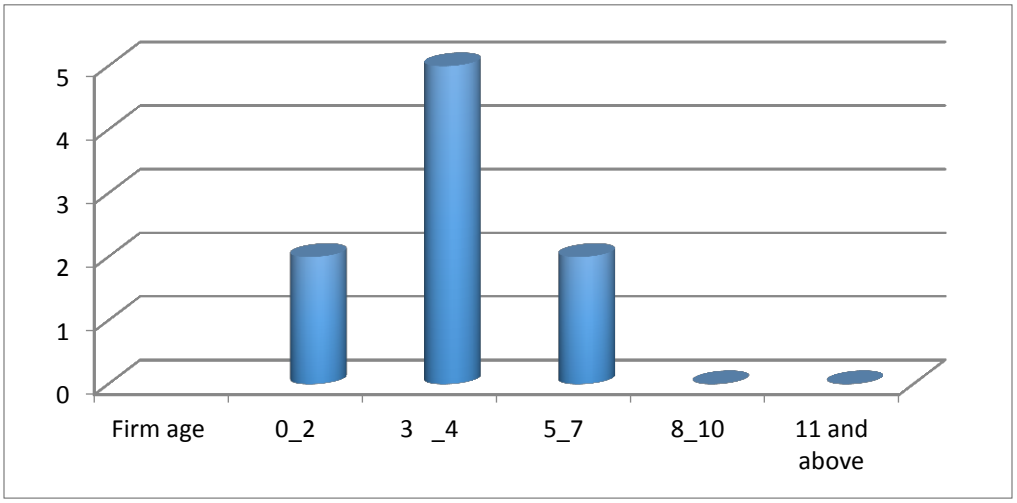


Figure 8 Average Age of Firm

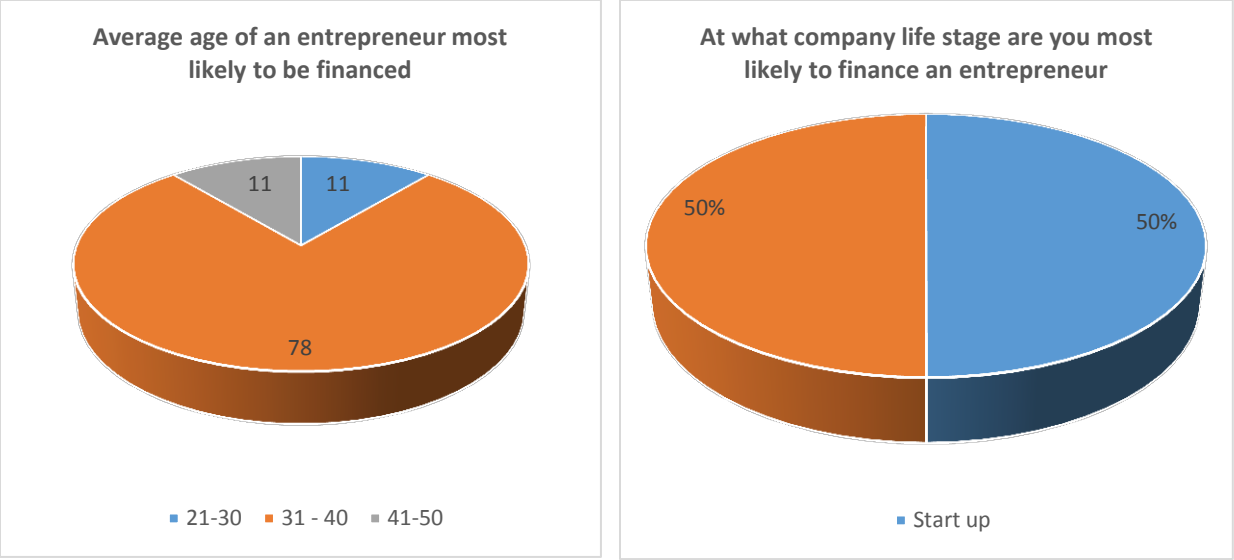


Figure 9 Average age of entrepreneur and stage of company life cycle

The graphs above indicate the results on the age of firm, age of the entrepreneur and preferred life cycle stage. In terms of the firm age, figure 7 clearly indicates that majority of the respondents would prefer to finance a firm that is 3 – 4 years old with a few respondents preferring either the 0-2 age or 6-7 years of firm age. This result is in line with the stage of growth of start-up or growth that the firms would prefer to finance.

Figure 8 above displays Results on the preferred age of the entrepreneur indicated that majority (78%) of the venture capital firms would be more comfortable financing the age group 30-40 years with the remaining respondents being equally split among 20-30 years age group and 40-50 age group.

There was an equal split of the respondents regarding which stage of life cycle they would rather invest. 50% of the respondents would prefer to invest in start-ups whilst the other 50% preferred to invest in the growth stage as presented in figure 8.

4.2.2 Industry preference

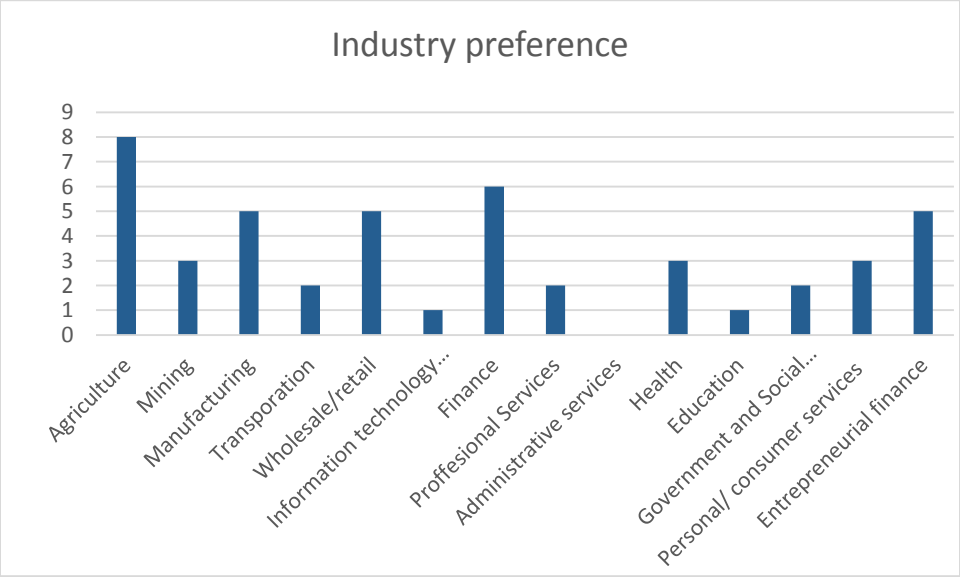


Figure 10 Industry preference

In figure 9 the results of the industry preference are completely different in comparison to industry classification results in figure 10 of the actual deals on the ground according to the in the years 2012 - 2015. In the 2015 survey the majority of the deals done were in the Information and Communication Technology (ICT) and the lowest number of deals done were in the Agriculture industry (Venture solutions, 2015). This chart above reflects a huge appetite for deals to be done in the agriculture field since it seems there is currently interest for investment in this industry. The industry classification used for this study is different from the classification according to the SAVCA survey in shown below in figure 10 and thus limited direct comparison of the results.

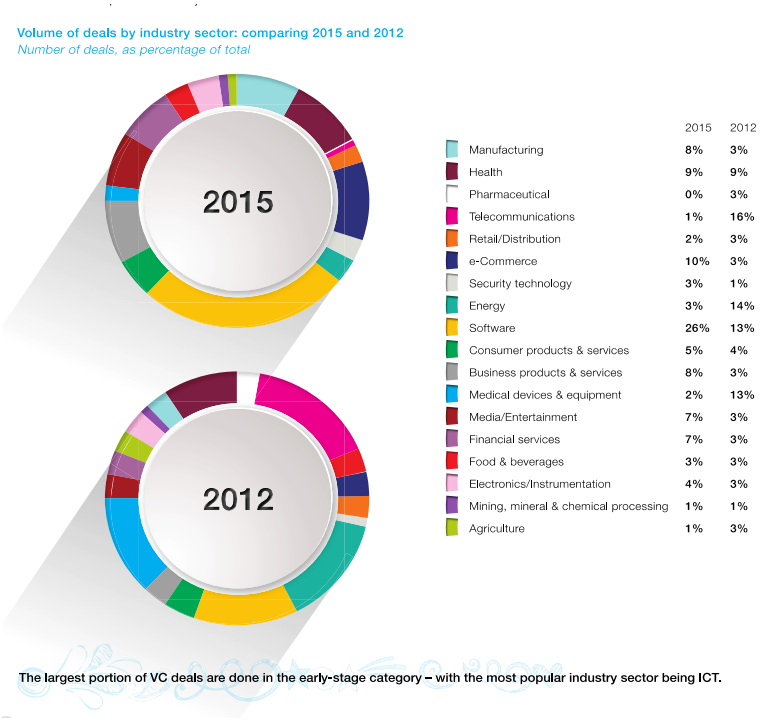


Figure 11 Current Actual Industry distribution

The question on industry preference was based on the respondents ranking their preferences out of the fourteen industry choices presented. For the analysis and results only the industries appearing in the top five were analysed. The industry preferences presented interesting results with Agriculture being the highest preferred industry for the venture capital firms that responded. The second preference was finance followed by an equal preference in manufacturing, wholesale and retail, and entrepreneurial finance. This is a strange finding because it is usually implied that venture capital firms are usually interested in financing high technology industries.

4.2.3 Method for attracting clients

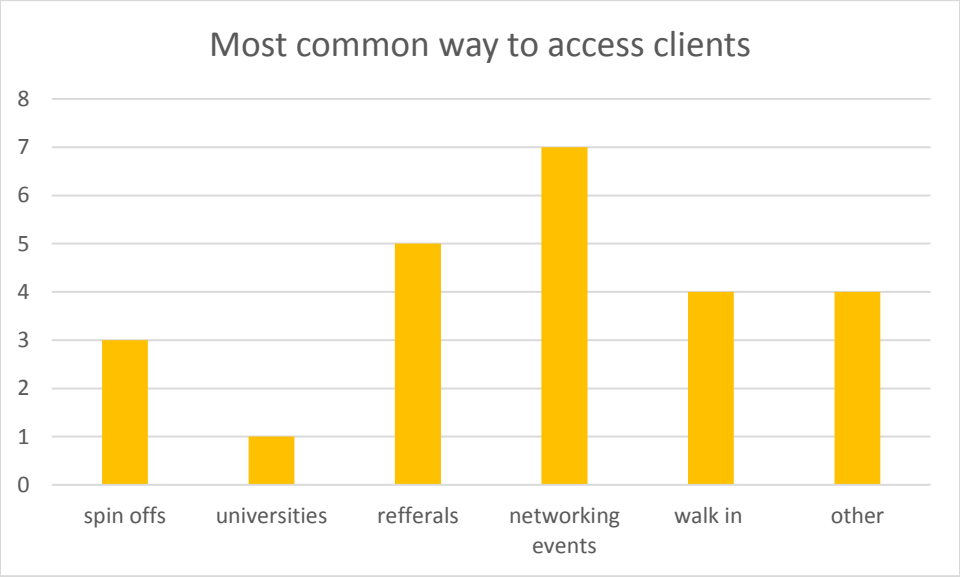


Figure 12 most common ways to access clients

The respondents were asked how they get most of their deals and results are displayed in figure11. This item was analysed according the frequency in the top three methods of how they get their clients. Majority of the respondents indicated networking events as the major way to meet clients, followed by referrals, which was the highest rated way to access clients in the SAVCA 2015 survey. Walk in and "other" were ranked as the third way to access clients. A missed opportunity in the questionnaire was that it did not request respondents to list specific alternative ways under "other". The most common ways recorded were consistent with the sociological entrepreneurship theory, which includes the network theory. Studies done previously have identified that social networks play a critical role in assisting an entrepreneur to start a firm, improve an idea and provision of practical assistance including finance (Rush et al., 1987; Dubini & Aldrich, 1991).

4.2.4 Market Characteristics of Products or Services

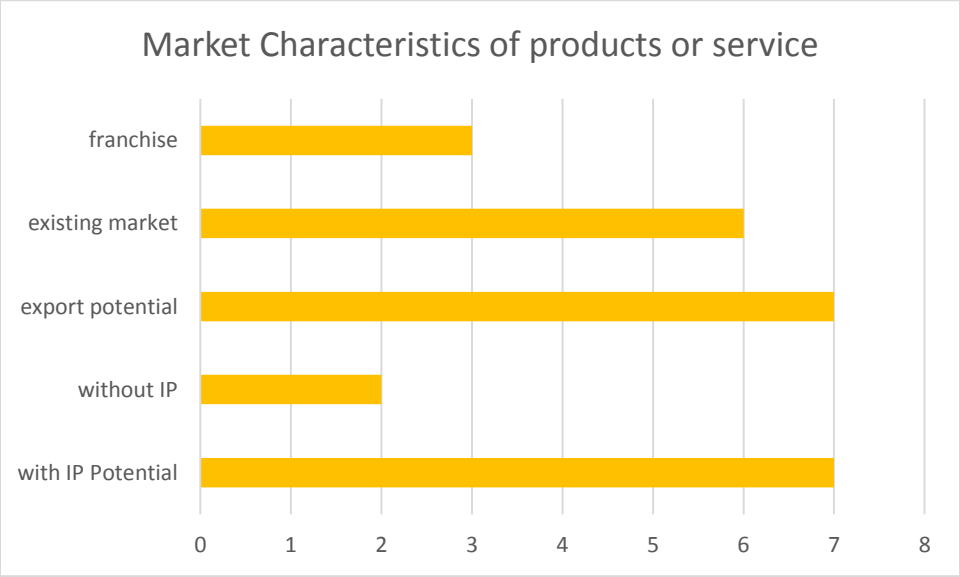


Figure 13 Market Characteristics of Products and Services

The respondents indicated in figure 12 that there was an equal preference for either a product with intellectual property (IP) capabilities or one with export potential above all other market characteristics. The IP preference is in line with some literature, which indicate that venture capital prefer to finance products that have the capabilities of being protected in one way or another. Having an existing market closely followed the IP. This was however interesting because ICT did not fall within the top three industries of interest, the top most industry was agriculture which is not commonly linked to IP.

4.2.5 Preferred location

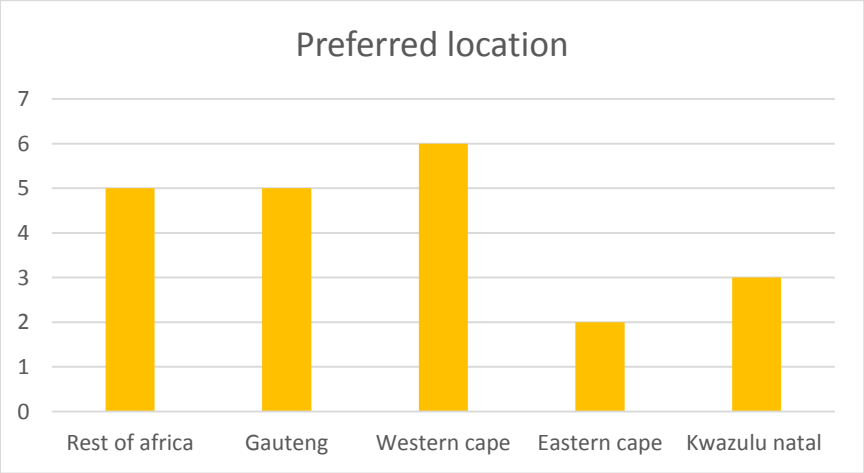


Figure 14 Preferred Location of Investing

In figure 13 above, venture capital firms seem to have a high preference on where the venture they are funding is located. Western Cape was the leading location preferred by the firms followed by Gauteng and the rest of Africa for investment preference. This was an interesting finding that most venture capital firms in South Africa would rather consider investing in the rest of Africa rather than in Kwazulu Natal and Eastern Cape. This preference mirrors that of the survey done by SAVCA as indicated in figure 14 below with the exception of the preference outside South Africa. Maybe this is an emerging location, which will only be reflected in the upcoming surveys.

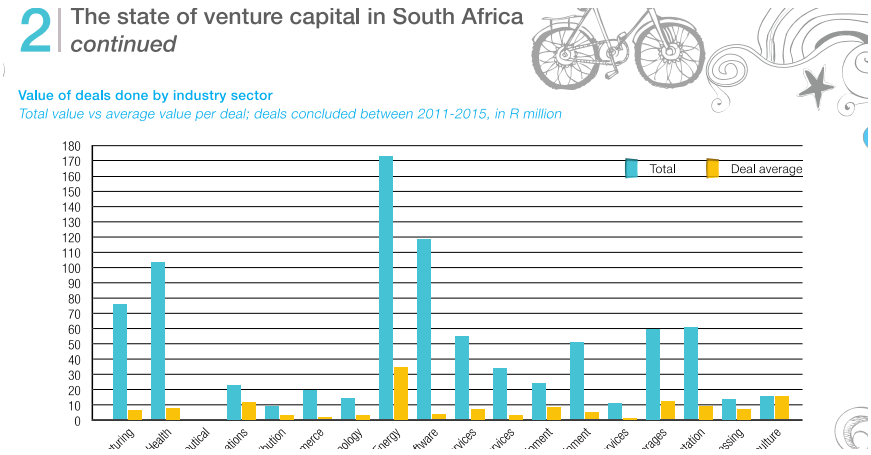


Figure 15 Value of Deals done

Source: SAVCA survey 2015 page 11

4.3 Data Analysis

4.3.1 Individual attititudes (entrepreneurs characteristics and experience)

The questions for each construct highlighted below (i.e. personality and experience) were grouped by adding the responses and the same was done with experience. Since the scale ranged from 1 to 7, 1 being strongly disagree, 4 being neutral and 7 being strongly agree, the average of the personality questions and experience questions was calculated. In both cases the average was 20. This meant that if a respondent scored personality and experience above 20, then they agreed with the hypothesis that a venture capital firm's decision is influenced by the entrepreneur's personality and experience. The dependent variable was that the firm will "invest" given that both personality and experience were above 20. A binary regression model was run with the dependent variable being that the firm will invest with personality and experience above the average of 20. This allowed a determination of whether the variables were significant at 5% level of significance. A correlation analysis was then performed to observe if there were existing any correlations between the dependent variable and the two independent variables.

In the frequency distribution tabulated in the appendix 2 section, there is a clear indication that a majority of the responses (75%) had an overall strong agreement that the components or questions in personality were critical for their evaluation of an entrepreneur. The same finding was indicated for experience where the frequency indicated that the respondents felt that this was a critical area of assessment for them in order to grant finance to an entrepreneur. The tables in appendix 2 show the frequency for the aggregated responses for both personality and experiences.

Logistic Regression was run on the data sets for entrepreneurs' personality and entrepreneurs' experience. In order to perform logistic regression, the first point was to create a dependent variable of which the dependent variables were invest (1) and not invest(0).

H1: Individual attributes (entrepreneurs' characteristics and experince) are significantly related to venture capital firm decision to granting finance to an entrepreneur.

H1 sought to understand if there was a significant relationship between individual attitudes (entrepreneurs' characteristics and experience) and a firm's decision to grant finance. Five

questions each were asked on the entrepreneur's personality and the entrepreneur's experience. The questions had 7 possible answers ranged from strongly agree to strongly disagree.

Personality questions:

1. Capable of sustained intense effort
2. Able to evaluate and react to risk well
3. Articulate in discussing venture
4. Attends to detail
5. Has personality compatible with mine

Experience questions:

1. Thoroughly familiar with the market targeted by venture
2. Demonstrated leadership ability in past
3. Has track record relevant to venture
4. The entrepreneur was referred to me by a trustworthy source
5. I am already familiar with entrepreneur's reputation

Logistic Regression

The logistic equation for individual attributes is indicated below and the results in tables 4 and 5 for individual attributes.

H1

Log (Yi) = B + B_1X_{1i} + B_2X_{2i} +U_i

Yi = "Invest", whether the venture capital firm will invest

B = 0.98

B_1 = 9.924

X_{1i} = Personality

B_2 =6.435

X_{2i} = Experience

Log (Yi) = 0.98 + 9.924X_{1i} + 6.435X_{2i}

Table 5 Logistic Regression Output Constant Equation

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	.981	.677	2.099	1	.147	2.667

Table 6 Logistic Regression output (Individual attributes)

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	Personality	9.924	1	.002
		Experience	6.435	1	.011
	Overall Statistics		9.995	2	.007

- The first model labeled, *variables not in the equation* gave the output of a null model, that is, a model with no predictors.
- The constant in *variables not in the equation* table gave a logs odds which is unconditional (admit =1)
- Test score results also known as Lagrange multiplier test were given in the table labeled variables not in the equation. This table gives an estimated change in model fit in the column labeled score. The additional two columns give the degrees of freedom and the p-value (labeled sig) for the estimated change (score).
- The constant in the table labeled *variables in the equation* gave the unconditional log odds of admission (i.e., **admit**=1).
- Based on the table above, both predictors of personality and experience are expected to improve the fit of the model at a significant level of 95%.

H1: Individual attributes (entrepreneurs' characteristics and experience) are significantly related to venture capital firm decision to granting finance to an entrepreneur .

Based on the above analysis in table 5 and 5 and the p-values both for specific (personality =0.002, experience =0.011) and an overall of 0.07 (located in the column labeled "Sig."), we can see that each of the predictors would be statistically significant, therefore the hypothesis cannot be rejected.

Note: However because of limitations of the small data set, the regression was not able to produce an odds ratio.

4.3.2 Environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations)

The questions for each construct (characteristics of product, market and financial) were grouped by adding the responses for product, market and financial. Since the answers scaled from 1 to 7, 1 being strongly disagree, 4 being neutral and 7 being strongly agree, the average of the product, market and finance were calculated. In the two cases the average was 20, meaning that if a respondent scored product and finance above 20, they agree with the hypothesis that venture capital firm's decision is influenced by the product and finance. In the product construct the average was 16 because there were only four questions for that construct. Our dependent variable was that the firm will "invest" given that both characteristics of the market and financial considerations were above 20 and the product characteristics were above 16. A binary regression model was run with the dependent variable being that the firm would invest if market characteristics and financial considerations are above the average of 20 and for characteristics of the product being above 16. This allowed the researcher to determine if the variables were significant at 5% level of significance. A correlation analysis was also performed to observe if there any correlation existed between the dependent variable and the two independent variables.

In the frequency distribution tabulated in appendix 2, there was a clear indication the majority of respondents had an overall strong agreement that the components or questions in product, market and financial considerations were critical for their evaluation of an entrepreneur. The tables in the appendix 2 show the frequency for the aggregated responses for characteristics of product, characteristics of market and financial considerations.

Logistic regression was run on the data set for product, market and financial considerations. In order to perform logistic regression, the first point was to create a dependent variable. The dependant variables were invest (1) and not invest (0).

H2 sought to understand if there was a significant relationship between environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) and a firm's decision to grant finance. Five questions were

asked on the market and five questions were asked about financial considerations and four questions asked on the market. The questions had 7 possible answers ranging from strongly agree to strongly disagree.

Characteristics of the product or service

1. The product is proprietary or can otherwise be protected.
2. The product enjoys demonstrated market acceptance.
3. The product has been developed to the point of a functioning prototype.
4. The product may be described as "high tech."

Characteristics of the market

1. The target market enjoys a significant growth rate.
2. The venture will stimulate an existing market.
3. The venture is an industry with which I am familiar.
4. There is little threat of competition during the first three years.
5. The venture will create a new market.

Financial considerations

1. I require a return equal to at least 10 times my investment within 5-10 years
2. I require an investment that can be easily made liquid (e.g., taken public or acquired).
3. I require a return equal to at least 10 times my investment within at least 5 years 23.
4. I will not be expected to make subsequent investments.
5. I will not participate in latter rounds of investment (requires my participation in the initial round of investment

Logistic Regression

The logistic equation is for environment, industry and macro economic environment indicated below and the results in tables 6 and 7 for individual attributes.

H2

Log(Yi) = B + B_1X_{1i} + B_2X_{2i} +B_3X_{3i} + U_i

Yi = "Invest", whether the venture capital firm will invest

B = -0.223

B_1 = 7.225

X_{1i} = Product

B_2 =7.232

X_{2i} = Market

B_3 =6.469

X_{3i} = Finance

Log(Yi) = -0.223 + 7.225X_{1i} + 7.232X_{2i} +6.469X_{3i}

Table 7 Logistic Regression output Constant

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-.223	.671	.111	1	.739	.800

Table 8 Logistic Regression Output (Product, Market, Finance)

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	Product	7.225	1	.007
		Market	7.232	1	.007
		Finance	6.469	1	.011
	Overall Statistics		8.361	3	.039

- The first model labeled *variables not in the equation* gave the output of a null model, that is, a model with no predictors.
- The constant in *variables not in the equation* table gave a logs odds which is unconditional (admit =1)
- Test score results also known as Lagrange multiplier test are given in the table labeled *variables not in the equation*. This table gave an estimated change in model fit in the column labeled score. The additional two columns gave the degrees of freedom and the p-value (labeled sig) for the estimated change (score).

- The constant in the table labeled *variables in the equation* gave the unconditional log odds of admission (i.e., **admit**=1).
- Based on the table 7 both predictors of product, market and financial considerations are expected to improve the fit of the mode at a significance level of 95%.

H2: Environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) are significantly related to venture capital firm decision to granting finance to an entrepreneur.

Based on the above analysis and the p-values both for specific (product= 0.007, market = 0.007, finance = 0.011) and an overall of 0.39 (located in the column labeled "Sig."), we can see that each of the predictors would be statistically significant, therefore the hypothesis cannot be rejected.

Note: However because of limitations of the small data set, the regression was not able to produce an odds ratio.

4.3.3 Correlation analysis

The tables 8 and 9 display the correlations of the different constructs to the dependant variable *invest*. The correlation analysis shows that all the constructs are positively related to the *invest* decision. The correlations computed were; personality of entrepreneur (95%), experience of entrepreneur (76.5%), characteristics of product (89.6%), characteristics of market (89.6%), and financial considerations (84.8%). Personality has the highest correlation followed by product and market. These results indicate that all the components under review were considered important for the venture capital firm to make a decision. These correlations were measured at the 95% confidence interval.

Table 9 Correlation Analysis (Individual Attributes)

Correlations- Personality and experience

				Invest	Personality	Experience
Invest	Pearson Correlation			1	.950**	.765**
	Sig. (2-tailed)				.000	.006
	N			11	11	11
	Bootstrap[d]	Bias		0[e]	.000[e]	-.005[e]
		Std. Error		0[e]	.028[e]	.139[e]
		95% Confidence Interval	Lower	1[e]	.870[e]	.354[e]
			Upper	1[e]	.987[e]	.948[e]
Personality	Pearson Correlation			.950**	1	.749**
	Sig. (2-tailed)			.000		.008
	N			11	11	11
	Bootstrap[d]	Bias		.000[e]	0	-.027
		Std. Error		.028[e]	0	.217
		95% Confidence Interval	Lower	.870[e]	1	.174
			Upper	.987[e]	1	.973
Experience	Pearson Correlation			.765**	.749**	1
	Sig. (2-tailed)			.006	.008	
	N			11	11	11
	Bootstrap[d]	Bias		-.005[e]	-.027	0
		Std. Error		.139[e]	.217	0
		95% Confidence Interval	Lower	.354[e]	.174	1
			Upper	.948[e]	.973	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

c. Cannot be computed because at least one of the variables is constant.

d. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

e. Based on 966 samples

Table 10 Correlations Analysis (product, market, finance)

Correlations – product, market and finance

				Invest2	Product	Market	Finance
Invest2	Pearson Correlation			1	.896**	.896**	.848**
	Sig. (2-tailed)				.001	.001	.004
	N			9	9	9	9
	Bootstrap[d]	Bias		0[e]	.004[e]	.000[e]	.015[e]
		Std. Error		0[e]	.049[e]	.063[e]	.089[e]
		95% Confidence Interval	Lower	1[e]	.796[e]	.754[e]	.653[e]
			Upper	1[e]	.980[e]	.986[e]	.989[e]
Product	Pearson Correlation			.896**	1	.850**	.647
	Sig. (2-tailed)			.001		.004	.060
	N			9	9	9	9
	Bootstrap[d]	Bias		.004[e]	0	-.007	.026
		Std. Error		.049[e]	0	.118	.204
		95% Confidence Interval	Lower	.796[e]	1	.571	.202
			Upper	.980[e]	1	.969	.958
Market	Pearson Correlation			.896**	.850**	1	.795*
	Sig. (2-tailed)			.001	.004		.010
	N			9	9	9	9
	Bootstrap[d]	Bias		.000[e]	-.007	0	-.002
		Std. Error		.063[e]	.118	0	.114
		95% Confidence Interval	Lower	.754[e]	.571	1	.510
			Upper	.986[e]	.969	1	.950
Finance	Pearson Correlation			.848**	.647	.795*	1
	Sig. (2-tailed)			.004	.060	.010	
	N			9	9	9	9
	Bootstrap[d]	Bias		.015[e]	.026	-.002	0
		Std. Error		.089[e]	.204	.114	0
		95% Confidence Interval	Lower	.653[e]	.202	.510	1
			Upper	.989[e]	.958	.950	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

c. Cannot be computed because at least one of the variables is constant.

d. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

e. Based on 998 samples

4.4 Big five characteristics

H3 explored the relationships between the characteristics that the venture capital firms were looking for compared to the "Big five characteristics". Analysis of the frequency as well as the means of the different characteristics as outlined in results tables were used to identify the preferred characteristics. The scale was coded from 1 for strongly disagree to 7 for strongly agree. Some of the questions in the questionnaire were reverse questions for the different characteristics although it seems that the respondent's in general did not recognize the reverse order.

4.4.1 Extraversion

Extraversion was measured by two questions in the questionnaire; these were questions 1 and 6 for the reverse question with results below. The results were interesting in that although people mostly agreed (8 out of 12 respondents somewhat agree – strongly agree) that the entrepreneur should be extraverted, 7 out of 12 out of the same respondents in the reverse question are neutral on whether the entrepreneur should be quiet or reserved.

Table 11 Extraversion

The Entrepreneurs Personality - Extraverted, enthusiastic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither agree nor disagree	4	33.3	33.3	33.3
	Somewhat agree	4	33.3	33.3	66.7
	Agree	2	16.7	16.7	83.3
	Strongly agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

The Entrepreneurs Personality - Reserved, quiet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	8.3	8.3	8.3
	Somewhat disagree	4	33.3	33.3	41.7
	Neither agree nor disagree	7	58.3	58.3	100.0
	Total	12	100.0	100.0	

4.4.2 Agreeableness

Agreeableness was measured by two questions in the questionnaire, question 7 and a reverse question 2. The results did not portray expected results for reverse questions. The respondents were divided in terms of whether the entrepreneur should be critical, quarrelsome; some respondents felt that this was a desired trait while other respondents disagreed. Majority of the respondents were however neutral on if the client should be warm and sympathetic, it seems that this trait did not really matter to the venture capital firms.

Table 12 Agreeableness

The Entrepreneurs Personality - Critical, Quarrelsome

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	16.7	16.7	16.7
	Disagree	2	16.7	16.7	33.3
	Neither agree nor disagree	1	8.3	8.3	41.7
	Somewhat agree	4	33.3	33.3	75.0
	Agree	1	8.3	8.3	83.3
	Strongly agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

The Entrepreneurs Personality - Sympathetic, warm

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Somewhat disagree	2	16.7	16.7	16.7
	Neither agree nor disagree	5	41.7	41.7	58.3
	Somewhat agree	3	25.0	25.0	83.3
	Agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

4.4.3 Conscientiousness

Conscientiousness was measured by two questions in the questionnaire, question 3 and a reverse question 8. The results of this personality strongly portrayed expected results for reverse questions. The respondents were almost in full agreement with needing the entrepreneur to be independent and self-disciplined. There was also unequivocal agreement that disorganisation and carelessness are undesired characteristic for an entrepreneur.

Table 13 Conscientiousness

The Entrepreneurs Personality - Dependent, self-discipline

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	8.3	8.3	8.3
	Somewhat disagree	1	8.3	8.3	16.7
	Agree	5	41.7	41.7	58.3
	Strongly agree	5	41.7	41.7	100.0
	Total	12	100.0	100.0	

Entrepreneurs Personality – Disorganised, Careless

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	5	41.7	41.7	41.7
	Disagree	1	8.3	8.3	50.0
	Somewhat disagree	5	41.7	41.7	91.7
	Neither agree nor disagree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

4.4.4 Emotional Stability

Emotional stability was measured by two questions in the questionnaire, question 9 and a reverse question 4. The results of this personality did not portray expected results for reverse questions. The respondents were almost fully in disagreement with needing the entrepreneur to be anxious and easily upset, they were however not as strongly in agreement with wanting the entrepreneur to be calm or emotionally stable.

Table 14 Emotional Stability

The Entrepreneurs Personality - Anxious, easily upset

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	4	33.3	33.3	33.3
	Disagree	3	25.0	25.0	58.3
	Somewhat disagree	4	33.3	33.3	91.7
	Neither agree nor disagree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

The Entrepreneurs Personality - Calm, emotionally stable

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	8.3	8.3	8.3
	Somewhat disagree	1	8.3	8.3	16.7
	Neither agree nor disagree	3	25.0	25.0	41.7
	Somewhat agree	3	25.0	25.0	66.7
	Agree	2	16.7	16.7	83.3
	Strongly agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

4.4.5 Openness to new experiences

Openness to new experiences was measured by two questions in the questionnaire, question 5 and a reverse question 10. The results of this personality portrayed the ideal expected results for reverse questions. The respondents were almost fully in agreement with needing the entrepreneur to be open to new experiences and creative, and they were equally disagreed with any desire for an entrepreneur who is conventional and uncreative.

Table 15 Openness

The Entrepreneurs Personality - Open to new experiences, complex

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither agree nor disagree	1	8.3	8.3	8.3
	Somewhat agree	1	8.3	8.3	16.7
	Agree	7	58.3	58.3	75.0
	Strongly agree	3	25.0	25.0	100.0
	Total	12	100.0	100.0	

The Entrepreneurs Personality - Conventional, Uncreative

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	6	50.0	50.0	50.0
	Disagree	3	25.0	25.0	75.0
	Somewhat disagree	1	8.3	8.3	83.3
	Neither agree nor disagree	1	8.3	8.3	91.7
	Somewhat agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

4.4.6 Big five characteristics mean

The means of all the big five characteristics were calculated in order to find out if they are all positively related to an entrepreneur getting finance. Regression could not be run on this data because of the small sample size.

Table 16 Means of the big five

Big five Characteristic	**Questions**	**Mean**
Openness to experience	Openness to experience	6.0
	Conventional, uncreative	2.0
Conscientiousness	Dependable, self-disciplined	5.83
	Disorganised, careless	2.17
Extraversion	Extraverted, Enthusiastic	5.17
	Reserved, quiet	3.42
Emotional Stability	Calm, emotionally stable	4.83
	Anxious, easily upset	2.17
Agreeableness	Sympathetic, warm	4.42
	Anxious, easily upset	2.17

The means of all the questions were run and compared to the mean of 4 according to the scale. The questions representing each big five charactertistic were placed together in order to conform the reverse ordered questions which had low scores. According to the mean the most desired big five characteristing were openness to experience followed by concientiouness and then extraversion. The other two characteristics of emotional stability and agreeableness were not significantly above 4 and were considered as neutral and not seen as significant for an entrepreneur to possess .

H3: Entrepreneurs characteristics considered by venture capital firms are significantly related to the " Big five charasteristics"

The big five theory groups a person's personality into groupings listed as; openness, conscientiousness, extraversion, agreeableness, and neuroticism (Zhao & Seibert, 2006; Schjoedt & Baron, 2007). Since in this study there only three out of the five characteristics that were significantly above the mean, Hypothesis 3 is rejected. There is no sufficient evidence to support this hypothesis.

4.4.7 Conclusion

The results of the research indicate that the individual attributes outlined in Shane's model (entrepreneurs' characteristics and experience) as well as environment, industry and macroeconomic environment (represented by characteristics of product, service, marker and financial considerations) are all positively related to venture capital firm's decision to grant finance. Findings on the big five personality are that openness to experience, conscientiousness and extraversion were considered as critical considerations by venture capital firms but not agreeableness and emotional stability. The results are further discussed in the following chapter.

5. CHAPTER 5 – DISCUSSIONS

5.1 Introduction

This chapter presents the discussions of the results and compares them to previous studies done on the theories contained in the literature review. It begins with a discussion on the demographic profile followed by discussions on the hypotheses explored in this study.

5.2 Demographic summary

It is critical to continuously assess the niche market that venture capital firms are targeting and relate that information to some aspects of entrepreneurship theory.

This study was exploring what it is that venture capital firms are looking for in order finance entrepreneurs in South Africa. Firstly it looked at the nominal descriptive data to describe the type of entity that would qualify. Using the results from the nominal data to describe an "ideal" entrepreneur to fund would be "an entrepreneur that is in the age range 30 - 40 years old, owns a firm that has been in existence for 3-4 years which either at start up or growth stage of the company life cycle." The venture capital would potentially meet this firm at a networking event; the venture should preferably be in the agriculture industry with export potential or IP potential and based in Cape Town. This profile represents all the top choices for each of the demographic questions. This definition could be extended to include the second or third choices in the demographic data, but what the study outlined is that it is actually possible to outline or create a profile of what venture capital firms are interested in funding. The firm age and stage of life cycle for venture capital are supported by prior literature that most firm look for finance between the firm ages 4-9 year (Berger & Udell, 1998; mac en Bhaird & Lucey, 2009). As this is an academic paper, it is highly disappointing that venture capital firms do not view universities as a source for ventures in which they can invest in, maybe the entrepreneurial courses as well as other taught studies should contain both theoretic as well as practical components of the education.

This study was not intended to rank the importance of one requirement over the other but was meant to critically examine if there are any of the requirements that may not be pertinent for evaluation of a new venture by a venture capital firm. The findings of the study are that individual attitudes (entrepreneurs characteristics and experience) were positively related to

venture capital firm decision to granting finance to an entrepreneur. A similar finding was noted for environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) which were positively related to venture capital firm decision to granting finance to an entrepreneur. The findings of the data analysis concluded that Hypthosis 1 (Individual attributes (entrepreneurs' characteristics and experince) are positively related to venture capital firm decision to granting finance to an entrepreneur) and Hypothesis 2 (Environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) are positively related to venture capital firm decision to granting finance to an entrepreneur) could not be rejected. The analysis however indicated that Hypothesis 3 (Entrepreneurs characteristics considered by venture capital firms are positively related to the " Big five charasteristics") could not be supported.

5.3 Hypothesis

The critical finding of this study was that both individual attributes (entrepreneurs' characteristics and experience) and environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) are important factors for consideration by venture capital firms when looking for funding. This finding is supported by findings that the biggest reason for rejection of applications for funding was an incomplete business plan (Boocock & Woods, 1997). The submission of incomplete proposals may have been influenced by studies highlighting some areas such as finance or product development as more critical than others for venture capital firms to grant finance. Some studies have even concluded that the business plans only play a ceremonial role in an application for venture finance (MacMillan et al., 1985, Kaplan & Stromberg, 2009, Deventer & Mlambo, 2009, Portmann & Mlambo, 2013)

Hypothesis 1: Individual attributes (entrepreneurs' characteristics and experience) are significantly related to venture capital firm decision to granting finance to an entrepreneur.

Hypothesis one was analysed using the constructs the entrepreneurs' personality and the entrepreneurs' experience each of which were represented by five questions. Analysis of hypothesis 1 could be further analysed by discussing the two constructs that were analysed under

hypothesis 1. A logistic regression was done which provided a P value < 5 allowing the rejection of the null hypothesis. A correlation analysis was further done on individual characteristics and the decision to grant finance to an entrepreneur. The correlation between *personality* and *decision* to grant finance (invest) was 95% and the correlation between *experience* and *invest* was 76%. This further supports the importance of the individual characteristics to the decision making criteria.

This finding supports that individual attributes are important for decision making to grant finance by a venture capital finance firm. This finding was supported by prior studies done by Tyebjee and Bruno (1984) and MacMillan et al. (1985; 1987), van De Venter and Mlambo (2008) and Portmann and Mlambo (2010) that personality of an entrepreneur is considered critical when a venture capital firm is granting finance to an entrepreneur. Van De Venter and Mlambo (2008) found that honesty and integrity, which fall under individual characteristics, ranked highest in the consideration for granting finance to an entrepreneur. MacMillan et al. (1985) found that five of the top ten most important criteria had to do with the entrepreneurs' personality or experience. Portmann and Mlambo (2010) further echoed these findings in a study that included venture capital firms and private equity as it was highlighted that management characteristics were the highest criteria considered when making a decision to invest. Becker (1975) concluded that education and experience underpin human capital response and is positively related to entrepreneurship (Anderson & Miller, 2003; Davidson & Honing, 2003).

Hypothesis 2

H2: Environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) are significantly related to venture capital firm decision to granting finance to an entrepreneur

Hypothesis two was analysed using the constructs; the characteristics of products or services, characteristics of the market and financial considerations. Analysis of hypothesis 2 could further be analysed by discussing the three constructs that were analysed under hypothesis 2. A logistic regression was done which provided a P value < 5 allowing the rejection of the null hypothesis. A correlation analysis was further done on environment, industry macro economic environment

and the decision to grant finance to an entrepreneur. The correlation analysis was run between characteristics of products or services, characteristics of the market and financial considerations and the decision to grant finance (invest). The results of the correlation analysis were as follows; characteristics of products or services (89.6%), characteristics of the market (89.6%) and financial considerations (84.5%).

These findings were further supported by different studies that have been done on decision making criteria. MacMillan et al. (1985) supported some of these findings, particularly that the most critical product characteristic was that there should be possibility of the product or service obtaining intellectual property (IP) protection. Respondents in the demographic section of the questionnaire for this study also echoed the preference for IP protection. In terms of market, the most important factor was the high growth rate. Kaplan and Stromberg (2009) concluded that the entrepreneurs' idea (product or service) is a more important factor than the entrepreneurs themselves in the decision making criteria. Bookock and woods (1997) found that market characteristics were the second biggest reason for rejection of proposals. The rate of return was ranked as the third essential criteria, which confirms that financial considerations are still critical for the decision making criteria (MacMillan et al., 1985). Deventer & Mlambo (2009) in the research on venture decision making in South Africa found that seven of the criteria in the top ten were financial, product and market factors. Private equity firms also place emphasis on financial criteria more than venture capitalists (Portmann & Mlambo, 2013).

Hypothesis 3

H3: Entrepreneurs characteristics considered by venture capital firms are significantly related to the " Big five charasteristics"

The study does not support the third hypothesis ; entrepreneurs characteristics considered by venture capital firms are positively related to the " Big five charasteristics". Miller (2016) highlighted that it is very complex to combine the study of personality characteristics and entrepreneurship as both fields of study are still in their infancy.

Although some of these characteristics (openness to experience, consientiousness and extrarversion) are seen as critical considerations by venture capital firms, the venture capital firms seem to be neutral about the other two characteristics (agreeableness and emotional stability) as part of what they would desire in an entrepreneur while considering funding. The big five characteristics are discussed individually below.

Openness to experience

This charactersistic had the highest score as a desired characteristic in an entrepreneur as indicated by the venture capital firms that perticipated in this study. Zhao & Seibert, (2006) had similar findings that entrepreneurs scored very high on openness to experience compared to managers. Bostjan et al., (2015 found that it was by far the most important characteristic in a study done using practicing entrepreneurs in Slovenia. However on a study done comparing openness to long term venture survival, openness scored very low (Ciavarella et al., 2004) .

Consientiousness

The characteristic of consientiousness also scored high in this study as a desired entrepreneurial characteristic by venture capital decision makers. Other studies have also supported this characteristic as being positively related to entrepreneurship (Zhao & Seibert, 2006,). On the other hand some studies have found no significant association between entrepreneuership and consientiousness (Bostjan et al., 2015). In a study comparing the big five to long term venture survival there was a positive relationship between entrepreneurship survival and consientiousness (Ciavarella et al., 2004).

Extrarversion

The study found support for a relationship between venture capital firms desired characteristic in an entrepreneur and extraversion although the scoring was not as strong as openness and extraversion. Prior research has had mixed results on this characteristic; Bostjan et al., (2015) also found that a relationship between extraversion and entrepreneurship and concluded that extraversion may be important for entrepreneurship. Other authours have concluded that extraversion is not associated to entrepreneurship when comparing characteristics between managers and entrepreneurs (Zhao & Seibert, 2006,)

Agreeableness

The study found low score for the need of agreeableness in an entrepreneur being considered for funding. Other studies have also found that there was a low score on agreeableness for entrepreneurs .(Zhao & Seibert, 2006). Bostjan et al., (2015) however found a small extent of support for this trait in practicing entrepreneurs.

Emotional stability

There was a low score on the need for an entrepreneur to have emotional stability. This finding was consistent with prior studies on relationship that found low scores for this characteristic of emotional stability in entrepreneurs (Zhao & Seibert, 2006, Bostjan et al., 2015)**.**

5.4 Conclusion

The results indicate that personality of an entrepreneur seems to be the most important factor towards the decision making criteria by venture capitalists to grant finance. Other factors such as product and market characteristics, experience of entrepreneur as well as financial considerations are also critical for the decision making. On the big five personality traits, agreeableness and emotional were scored as not being critical to the decision making whilst openness to experience was viewed as the most critical trait followed by conscientiousness and extraversion.

6. CHAPTER 6 - CONCLUSIONS AND RECOMMENDATIONS OF RESEARCH

6.1 Introduction

This chapter contains a summary of the findings of this study. It also highlights the recommendations for entrepreneurs and venture capital firms as well. Finally this chapter outlines suggestions for further research.

6.2 Conclusions of the Study

The conclusions drawn from this research echoed the initial sentiments that venture capital firms only finance a small percentage which is a niche market according to the mandate of the firm. It is therefore critical for entrepreneurs to research the different demographic factors that the different firms are looking for in order to strategise better according to industry interest, location of venture and other demographic factors studied in this research.

The critical finding of this study was that all individual attributes (entrepreneurs' characteristics and experience) and environment, industry and macro economic environment (characteristics of product and services, characteristics of the market and financial considerations) are important factors for consideration by venture capital firms when looking for funding. In other words it is important that all components are included clealy in a business plan, canvas or application.

Another finding was that venture capital firms do not expect the entrepreneurs to have all of the big five characteristics, it is however desirable for entrepreneurs to possess the following characteristics ; openness to experience, consientiousness and extrarversion.

6.3 Recommendations

Entrepreneurs should do some research to find out the core mandates of the venture capital firms that they are approaching and what industries, locations and types of firms they are targeting in order to get better results and stand a better chance of accessing finance.

The business plans or applications submitted should be fully complete in order to avoid rejection. Complete applications should encompass all components of individual attributes (entrepreneurs' characteristics and experience) and environment, industry and macro economic environment

(characteristics of product and services, characteristics of the market and financial considerations).

Lastly venture capital firms should host networking events for entrepreneurs in order to expose themselves to a wider range of quality businesses that they could potentially invest in. Currently it is only entrepreneurs that have some sort of knowlegde of venture capital that approach these firms. This is important because venture capital and its understanding is still at its infancy in South Africa and Africa in general.

6.4 Some suggestions for further research

Future research should be done on a bigger pool of venture capital firms in order to do more meaningful quantitative analysis on the data. The number of respondents may be increased either by covering other countries in Africa or by opening up the survey to all decision makers in a venture capital firm.

A recommended study could be based on some actual deals done as well as the ones rejected by venture capital firms in South Africa in order to determine actual reasons that lead to the decision to either finance an entrepreneur or reject.

A mixed study would be beneficial to decision making by venture capital firms since the decisions may not exactly be homogenous across the industry. The qualitative side may provide more indepth knowlegde

And finally it is recommended that some studies are done internationally based on the views of entrepreneurs that received funding.

References

Acs, Z. J., & Audretsch, D. B. (1988). Innovation in Large and Small firms: An empirical Analysis. *American Economic Review , 78*, 678-690.

Adusei, M. (2016). Does Entrepreneurship Promote Economic Growth In Africa.

Alvarez, S. A., Barney, J. B., McBride, R., & Wuebker, R. (2014). Realism in the Study of Entrepreneurship. *Organisation Science , 24*, 301-317.

Alvarez, S., & Busenitz, L. (2001). The Entrepreneurship of Resource Based Theory. *The Journal of Socio-Economics , 32*, 17-36.

Aldrich, H. E. (1999). Organisations Evolving. *Sage Publications* .

Aldrich, H., & Zimmer. (1986). Entrepreneurship Through Social Networks. *The Art Of Science and Entrepreneurship* , 3-23.

Aldrich, H., Rosen , B., & Woodward, W. (1987). The Impact of Social Networks in Business Foundings and Profit: A longtotudinal study. *Frontiers of Entrepreneurship Research* , 154.

Allen, E., & Seaman, C. (2007). Likert scales and data analysis. *Quality Central , 40* (7), 64.

Anderson, A., & Miller, C. (2003). Class matters,Human and Social Capital In the Entrepreneurial Process. *The Journal of Socio Economics , 32*, 17-36.

Amit, R., Brander, J., & Zott, C. (1999). Venture-capital financing of entrepreneurship: theory, empirical evidence, and a research agenda*. In *The Blackwell Handbook of Entreprenurship* (pp. 259-282). Oxford, UK: Blackwell handbooks in Management.

Ammit, R., Glostein, L., & Muller, E. (1993). Challenges to Theory Development in Entrepreneurship Research. *Journal of Management Studies , 30* (5), 815-834.

Baker , W. E. (1994). *How to Build Relationships for Personal and Organisational Sucess*. New York: McGraw Hill.

Bannock, G. a. (1991). Venture Capital and the eQUITY gAP.

Baskerville, R. F. (2003). Hofstede Never Studied Culture. *Accounting, Organisations and Society , 28* (1), 1-14.

Beck , T., Dermirguc-Kent, A., & Levine, R. (2007). Financial Institutions and accross countries and over times: the updated developments and tructure database. *World bank economic review , 24* (1), 72-92.

Becker. (1975). *Human Capital*. Chicago, Illinois, USA: University Press of America.

Begley, T. M., & Boyd, D. P. (1987). Psychological characteristics associated with performance of Entrepreneurial Firms and Smaller Businesses. *Journal of Business Venturing , 2*, 79-93.

Berg, N. (2005). Non Response Bias. *Enclyclopedia of Social Measurement , 2*, 865-872.

Berger, A., & Udell, G. (1998). The economics of small business finance: The role of private equity and debt markets in the financial growth cycle. *Journal of Banking and Finance , 22* (6), 613-673.

Bird, B. J. (1989). *Entrepreneurial Behaviour*. Glenview, Illonois: Scott, Foreman and Company.

Bhattacherjee, A. (2012). *Social Science research: Principles, Methods and Practices*. Tampa: Textbook collections.

Blanchflower, D., Oswald, A., & Stutzer, A. (2001). Latent Enterpreneurship Across Nations . *European Economic Review , 45*, 680-691.

Block, J. (1995). A contrarion View of the five-factor approach to personality description. *Phychological Bulletin , 117* (2), 187-215.

Boocock, G., & Woods, M. (1997). The Evaluation Criteria Used by Venture Capitalists: Evidence from the UK Venture Fund. *International Small Business Journal , 16* (1), 36-57.

Bostjan, A., Bratkovic, K., Singh, G., & DeNoble, A. f. (2015). The Big Five personality - Entrepreneurship. *Journal of Small Business Management , 53* (3), 819-841.

Brander, J., & Bettignies, D. (2009). Venture capital: the role of the predator -prey dynamics with learning by doing. *Economics of Innovation and New Technology , 18* (1), 1-19.

Brandstatter, H. (1997). Becoming and entrepreneur - a question of personality Structure? *Journal of Economic Phychology* (18), 157-177.

Burrel, G., & Morgan, G. (1985). *Sociological Paradigms & Organisational Analysis*. London: Gower publishing.

Casson, M. (2005). The Individual – Opportunity Nexus: A Review of Scott Shane: A General Theory of Entrepreneurship. *Small Business Economics , 24* (5), 423 - 430.

Ciavarella, M. A., Buchholtz, A., Riordan, R. M., Gatewood, R. D., & Garnett, S. S. (2004). The big five and Venture Survival : Is there a Linkage. *Journal of Business Venturing , 19*, 465-483.

Chimucheka, T. (2014). Entrepreneurship Education In South Africa. *Mediterranean Journal of Social Science , 5* (2), 403-416.

Clausen, T. H. (2006). *Who Identifies and Exploits Entrepreneurial Opportunities*. From www.ccsr.ac.uk

Coon , D. (2004). *Introduction to Phsychology* (9th Edition ed.). Minneapolis: West Publishin Company.

Cressy, R. (2000). Why do small businesses die young? *Small Business Economics , 26* (2), 103-116.

Cromie, S. (2000). Assessing Entrepreneurial Inclination: Some Aproaches Emperical Evidence. *European Journal of Work and Organisational Physchology , 9* (1), 7-30.

Davidson, P., & Honing, B. (2003). The role of Social and Human Capital among Nascent Entrepreneurs. *Journal of Business Venturing121 , 20*.

Davis, T. G., & Stetson, C. P. (1984). Creating successful Venture Backed Companies. *Journal of Business Strategy , 5*, 45-58.

De Nisi, A. (2015). Some further thought on entreprenurial personality. *Entrepreneurship Theory and practice , 39* (5), 997-1003.

Deventer, v., & Mlambo. (2009). Factors influencing venture capitalists' project financing decisions in South Africa. *South African Journal of Business Management , 40* (1), 30- 41.

DeNeve, K. M., & Cooper, H. (1998). The Happy Personality: A Meta Analysis of 137 persoanlity traits and Subjective Well Being. *Psychology Bulleting , 124*, 197-229.

Dixon, R. (1989, November). Venture Capitalist and Investment Appraisal. *National West Minister Bank Quarterly Review* , 2-22.

Digman , J. M. (1990). Personality Structure: Emergence of the Five Factor Model. *Annual Review of Psychology , 41*, 417-440.

Dorin, C., & Alexandru, G. S. (2014). Dynamins of Entrepreneurship. *Economic Science Series* , 445-451.

Druker, P. F. (1985). *Innovation and Entrepreneurship*. New York: Harper and Row Publishers.

Dubini, P., & Aldrich, H. (1991). Personal and Extended Networks are Central to Entrepreneurial Process. *Journal of Business Venturing , 6* (5), 305-313.

Engel, D., & Keilbach, M. (2007). Firm - Level implications of early stage venture capital investment - An imperical investigation. *Journal of Emperical Finance , 14* (2), 150-167.

Fatoki, O. (2010). Graduate Entrepreneurial Intentions in South Africa. *International Journal of Business and Management* , 87-98.

Fatoki, O. (2014). The entrepreneurial intention of undergraduate students in South Africa: The influence of entrepreneurship education and previous work experience. *Mediterranean Journal Of Social Sciences* , 294.

Fatoki, O., & Garwe, D. (2010). Obstacles to the growth of New SMES in South Africa: a priniple component analysis aproach. *African Journal of Business Management , 4* (5), 729-738.

Fatoki, O., & Musara, M. (2011). The Effectiveness of Business Development Services (BDS) in Improving Access to Debt Finance by Start Up SMEs in South Africa. *International Journal of Economics and finance , 3* (4), 208-2016.

Franke, N., Gruber, M., Harhoff, D., & Henkel, J. (2006). What you are is what you like - Similarity biases in venture capitallists' evaluations of start up teams. *Journal of business venturing* (21), 802-826.

Garter, W. B. (1989). Some Suggestions for Research on Entrepreneurial Traits and Characteristics. *Entrepreneurship Theory and Practice , 14*, 27-37.

Gimenez Roche, G. A. (2016). The impossibility of Entrepreneurship Under the Neoclassical Framework: Open Vs Closed-end Processes. *Journal of Economic Issues , 3*, 695-715.

Glade, R. (1967). Approaches to a theory of entrepreneurial Formation. *Exploitations in entrepreneurship History , 4* (3), 245-249.

(2015). *Global Entrepreneurship Monitor*.

Goldberg, L. R. (1990). An alternative "Destription of Personality': The big Five Factor Structure . *Journal of Personality and Social Psychology , 59*, 1216-1229.

Golis, C. (1998). *Enterprise and Venture Capital* . Australia: Allen and Unwin.

Gompers , P., Kovner, A., & Lerner , J. (2005). Venture capital Investment Cycles: The role of experience and specialisation. *The Journal of Finance , 60* (2), 577-614.

Gompers , P., Kovner, A., Lerner, J., & Scharfstein, D. (2010). Perfomance persistence in entreprenurship. *Journal of Financial Economics , 96* (1), 18-32.

Gosling , S. D., Rentfrow, P. J., & Swann, W. B. (2003). A brief measure of the big-five personality domains. *Journal of Research in Personality , 37* (6), 504-528.

Greenwood, J., & Sanchez J, W. C. (2013). Quantifying the impact of financial development on economic growth. *Review of economics dynamics , 16* (1), 194-215.

Greenfiled , S. M., & Strickon, A. (1981). A new Paradigm for the Study of Entrepreneurship and Social Change. *Economic Development and Cultural Change , 29* (3), 467-499.

Gregory , B., Rutherford, M., Oswald , S., & Gardiner , L. (2005). An Imperical Investigation of The Growth Cycle Theory of Small Firm Financing. *Journal of Small Business Management , 43* (4), 382-392.

Hall , J., & Hofer , C. W. (1993). Venture Capitalists Decision Criteria in New Venture Evaluation. *Journal of Business Venturing , 8* (1), 25-41.

Hall, J. (1989). Venture Capital Decion Making and the entrepreneur. University Of Goergia.

Hanks , S. H., & Chandler, G. (1994). Patterns of functional specialisation in emerging high tech firms. *Journal of Small Business Management , 32* (2), 23.

Harper, D. (1996). *Entrepreneurship and the Market Process:An inquiry into the Growth of Knowlegde*. London: Routledge.

Healy, M., & Perry , C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research with realism paradigm. *Qualitative market research: An international Journal , 3* (3), 118-126.

Heale , R., & Twycross, A. (2015). Validity and reliability in quantitative methods. *Evidence based nursing , 18*, 66-67.

Hellmann, T., & Puri , M. (2000). The interaction between product market and financing strategy. *The review of financial studies , 13* (4), 959-984.

Hisrich, R. D., Peters, M., & Shepherd, D. A. (2005). *Entrepreneurship* (6th Edition ed.). Boston: McGraw-Hill.

Hofstede, G. (1980). *Culture's Consequenses: International Differences in Work Related Values*. Beverly Hills, Califonia: Sage.

Hudson , E., & Evans, M. (2001). A Review of Research Into Venture Capitalists decision Making: Implications for Entrepreneurs, Venture Capitalists and Researchers. *Journal of Economic and Social Policy , 10* (1).

Hurst, E., & Lusardi, A. (2004). Liquidity Constraints, Household Wealth, Entrepreneurship. *Journal of Political Economy , 2*, 112.

Johnson, B. R. (1990). Towards a Multidimensional Model of Entrepreneurship: The case of Achievement Motivation and the Entrepreneur. *Entrepreneurship Theory and Practice , 14* (3), 39-48.

Judge , T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The big five Personality Traits, General Mental Ability and Sucess Accross the Life Span. *Personal Psychology , 52*, 31-72.

Kalu , O. (2011). Is the importance of enterprise creation Of venture in an emerging market real ? Answers from Johannesburg Securities Exchange's IPO. *The African Finance Journal , 13* (1), 1-24.

Kalu, O., & Mokoaleli-Mokoteli, T. (2010). Posible Effective Financing Models For Entrepreneurship In South Africa: Guides From Micro Finance and Venture Capital Finance. *The African Finance Journal , 12* (1), 1-26.

Kanuk, L., & Berenson , C. (1975). Mail surveys and response rates: A literature review. *Journal of Marketing Research , 12* (4), 440-453.

Kannadhasan, M., Aramvalarthan, S., & Kumar, B. P. (2014). Relationship among Cognitive Biases, risk perceptions and individuals decision to start a venture. *Decision , 41* (1), 87-98.

Kaplan , S., & Stromberg, P. (2009). Leveraged buy-outs and private equity. *The Journal of economic perspectives , 23* (1), 121-146.

Kirsh, D., Goldfarb, B., & Gera, A. (2009). Form or Substance: The role of Business plan in Venture Capital Decision Making. *Strategic Management Journal , 30*, 487-515.

Knight, F. (1921). *Risk, Uncertainity and Profit*. Boston, Mass: Houghton Mifflin.

Krauss, S. (2005). Research paradigms and the meaning making . *The qualitative report , 10* (4), 758-770.

Landstrom, H. (1998, November 26-27). The roots of Entrepreneurship Research. Lyon, France.

Leibestein, H. (1968). Entrepreneurship and Development. *American Economic Review , 38* (2), 72-83.

Lerner, J. (2000). *Venture Capital and Private Equity. A Case Book*. New York, USA: John Wiley and Sons Inc:.

Low, M. B., & MacMillan, I. C. (1988). Entrepreneurship: Past Research and Future Challenges. *Journal of Management , 14*, 139-161.

Love, L., Klapper, F., & Inessa, L. (2011). Entrepreneurship and Development: The role of Information Asymetries. *The world Bank Economic Review , 25* (3), 448 -455.

Luiz, J., & Marrioti, M. (2011). Entrepreneurship in an Emerging and Culturally Diverse Economy; A South African Survey of Perceptions. *SAJEMS , 14* (1), 47-65.

Mac an Bhard, C., & Lucey, B. (2011). An empirical examination of the financial growth life cycle . *Journal of Small Business and Enterprise Development* , 715-731.

mac en Bhaird, C., & Lucey, B. (2009). Determinants of capital structure in Irish firms. *Small Business Economics , 35* (3), 357-375.

MacMillan , I. C., Siegal , R., & Subba Narasimha, P. N. (1985). Criteria Used by Venture Capitalists to Evaluate New Proposals . *Journal of New Business Venturing* , 119-128.

Mahadea, D., Ramroop, S., & Zewotir, T. (2011). Assessing Entrepreneurship perceptions of high school learners in South Africa. *South African Journal of Economic and Management Sciences* .

Mantell, E. H. (2008). A Probabilistic Theory Of Entrepreneurial Financing,. *Annals of economics and finance , 9* (1), 177-197.

McClelland , D. (1965). N achievement and entrepreneurship: a longitudinal Study. *Journal of Pesronality and Social Phychology , 1* (4), 389 - 392.

McClelland, D. C. (1967). *The Achieving Society*. New York: Free Press.

Mehta, C. R., & Patel, N. R. (1995). Exact logistic regression: Theory and examples. *Statistics in Medicine , 14* (19), 2143-2160.

Miller, D. (2016, January). Response to The Dark Side of Personality Traits in Entrepreneurship: Observations from an organizational Behaviour Perspective. *Entrepreneurship Theory and Practice* , 19-24.

Mollica, M., & Zingales, L. (2007). *The impact of venture capital on innovation and the creation of new businesses*. University of Chicago: Unpublished Working Paper.

Murphy , P. J., Jianwen, L., & Welsch, H. P. (2006). A Conceptual history of entrepreneurial though. *Jounal of Management History , 12* (1), 12-35.

North, D. C. (1990). *Institutions, Institutional Change, and economic Performance*. New York: Norton.

Paunonen, S. V., & Jackson, D. N. (2000). What is beyond the big five? Plenty! *Journal of Personality , 68*, 821-835.

Petty, J. S., & Gruber, M. (2009). "This Deal is Dead! " A Longitudinal Study of VC decision Making. *29* (3).

Popov, & Rosenboom. (2009). *Does Private Equity Investment spur innovation? Evidence from Europe*. ECB working paper.

Portmann, D., & Mlambo, C. (2013). Private Equity and Ventire Capital in South Africa: A comparison of project financing decisions. *SAJEMS NS 16 , 16* (3), 258-278.

Puri, M., & Zarutskie, R. (2012). On the life cycle dynamics of venture capital and non venture capital financed firms . *The journal of Finance , 67* (6), 247-2293.

Sandeberg, W. R., Schweiger, D. M., & Hofer, C. W. (1988). The Use of Verbal Protocols in Determining Venture Capital Decision Processes. *Entrepreneurship Theory and Practice , 13* (2), 8-20.

Samalia, S., & Sorenson, O. (2011). Venture Capital, Entrepreneurship and Economic Growth. *The Review of Economics and Statistics , 93* (1), 338 - 349.

SAVCA. (2015). *SAVCA 2015 Venture Capital Survey*.

Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge, MA: Havard University Press.

Schumpeter, M. A. (1942). *Capitalism, Socialism and Democracy* (1st Edition ed.). New York: Harper and Brothers .

Schjoedt, L., & Baron, R. (2007). The big five personality dimensions: Do the big five afeect entreprenurial success at the personal level. *Frontiers of Entreprenurship Research , 27* (5), 10.

Scott, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management , 25* (1), 217-226.

Sexton, D. L., & Bowman, N. (1985). The Entrepreneur: A Capable Executive and More. *Journal of Business Venturing , 1*, 129-140.

Silver , A. D. (1985). *Venture Capital: The complete guide for Investors*. New York: John Wiley and Sons .

Simpeh, K. N. (2011). Entrepreneurship theories and Empirical research: A Summary Review of the Literature. *European Journal of Business and Management , 3* (6), 2222-2839.

Shaver, K. G., & Scott, L. R. (1991). Person, Process, Choice: The psychology of New Venture Creation. *Entrepreneurship Theory and Practice , 16*, 23-45.

Shane , S. (2003). *A General theory of entrepreneurship: the individual opportunity nexus*. Cheltenham, UK: Edward Elgar Publishing.

Shane, S. A. (1994). The effect of National Culture on the Choice between Licensing and Direct Foreign Investment. *Strategic Management Journal , 15*, 627-642.

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management , 25* (1), 217-226.

Sharma, M. D. (2016). Using interpretive Structural modelling in venture capitalists' Decision-Making process. *Decision , 43* (1), 53-65.

Shepherd , D., Zacharis, A., & Baron, R. (2002). VCs decision Making Process: Evidence suggesting more experience may not always be better. *Journal of Business Venturing , 18*, 381-401.

Sherpherd, D. A. (1999). Venture Capitals Introspection; A Comparison of "in Use" and "Enspouse" decision policies. *Journal of Small Business Manangement , 37* (2), 76-87.

Smallbone, D. (1990). Success and Failure in New Business Start ups. *International Small Business Journal , 8* (2), 34-47.

Snyman, H. (2012). Economic Growth, Entrepreneurship and Venture Capital in South Africa. Capetown.

South African Venture Capital Organisation. (2016, July 28). *www.savca.co.za/membership*. Retrieved July 28, 2016 from www.savca.co.za: www.savca.co.za/membership

Summers , G. F., & Hammonds , A. D. (1969). Towards a Paradigm for Respondent Bias in Survey Research. *Sociological Quartery , 10* (1), 113-121.

Rah, J., Jung, K., & Lee, J. (1994). Validation of the Venture Evaluation Model in Korea. *Journal of Business Venturing , 9*, 509-524.

Reynolds, P. (1991). Sociology and entrepreneurship: Concepts and Conntributions. *Entrepreneurship Theory and Practice , 16* (2), 47-70.

Rogerson, C. M. (2008). Tracking SMME Development in South Africa: Issues of Finance , Training and Regulatory Environment. *Urban Forum , 18* (1), 61-81.

Rotter, J. B. (1966). Generalised Expectations of Internal Vs External locus of Control of retirement. *Psychological Monographs , 80*, 609.

Rush, B. L., Graham, J. B., & Long, W. A. (1987). The use of Peer Networks in the Start-up Process. *Frontiers Of Entrepreneurship Research* , 169-183.

Rychman, R. M. (2000). *Theories of Personality*. (7. Edition, Ed.) Belmont, Califonia: Wadson/Thomson Learning.

Thurik, R., Carree, M., Stel, A., & Audretsch, D. (2008). Does Self Employment reduce Unemployment. *Journal of Business Venturing , 23* (6), 687-698.

Tyebjee, T. T., & Bruno, A. V. (1984). A Model of Venture Capitalist Investment Activity. *Management Sciene , 30* (9), 1051-1066.

Ullah, F., & Taylor , P. (2007). Are UK technology- based small firms still finance constrained? *International Journal of Entrepreneurship , 7* (6), 189-203.

Ullah, F., & Taylor , P. (2007). Are UK technology- based small firms still finance constrained? *International Journal of Entrepreneurship , 7* (6), 189-203.

Unger, J. M., Raunch, A., Frese, M., & Rosenbusch, M. (2011). Human Capital and Entrepreneural Sucess; A Meta Aanalysis Review. *Journal of Business Venturing , 26* (3), 341-358.

Zacharakis, A. L., & Shepherd, D. A. (2001). Information and overconfidence in venture capitalists decision making. *Journal of Business Venturing , 16* (1), 311-332.

Zacharakis, A., & Meyer, G. D. (1998). Do Venture Capitalists really understand their won decision process?: A Special Judgement Theory. *Journal of Business Venturing , 13* (1), 57-76.

Zhao, H., & Seibert, S. E. (2006,). The Big Five Personality Dimensions and Entrepreneurial Status: A Meta-Analytical Review. *Journal of Applied Psychology , 91* (2), 259–271.

Wells, W. A. (1974). Venture Capital Desion Making. Carnell-Mellon University.

Weston, F., & Brigham, E. (1970). *Managerial Finance*. Holt, Rinehart and Winston.

Venture solutions. (2015). *SAVCA 2015 Venture capital survey*. Cape Town.

Venter, R., Urban, Beder, Oosthuizen, Reddy, & Venter, E. (2015). *Entrepreneurship Theory in Practice* (3 ed.). Johannesburg: Oxfort University Press Southern Africa.

Appendix 1
Cover letter and Consent

I would like to invite your Venture Capital/ private equity firm as part of the SAVCA membership to participate in a Research Study conducted by Violet S. Buluma a student currently studying Masters in Management in Entrepreneurship and New Venture Management at Wits Business School in Johannesburg South Africa. The study topic is "The nexus between entrepreneurship and venture capital financing decisions in South Africa". In this topic I wish to address the research question below:

The research study therefore aims to address the research questions framed below: -

1. What is the overall financing decision criteria for venture capital firms
2. Who and what are venture capital firms financing (niche market)
3. What characteristics of entrepreneurs are venture capital firms looking for in order to finance an entrepreneur

How does the venture capital selection criteria relate to the big five Entrepreneurship theory

This information is also intended at alerting entrepreneurs to the type of ventures that VC/Private equity are interested in funding and thus improving the quality of proposals being submitted to VC/private equity firms.

If you decide to participate, kindly respond by answering on follow the link to complete the attached questionnaire by the 28th February 2017**.** The survey will take you about 10 minutes of your time.

Any information that will be provided will remain confidential and not shared with any individual or institution. The survey is anonymous and does not require you to fill your details. The research will be submitted as a partial fulfilment towards the Masters in Management in

Entrepreneurship and New Venture Management.

Your participation is voluntary and would greatly enrich the research in your area of practice. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

If you have any questions about the study, please feel free to contact me at 693690@students.wits.ac.za, or call me at +268 76028190. You may also contact my Supervisor Dr Jose Barreira at Wits Business School; emailgenhinge5@global.co.za.

Kind Regards

Violet S Buluma

Questionnaire

Question	1	2	3	4	5
TABLE 1	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
The entrepreneur's personality					
4 Capable of sustained intense effort.					
5 Able to evaluate and react to risk well.					
6 Articulate in discussing venture.					
7 Attends to detail.					
8 Has a personality compatible with mine.					
II. The entrepreneur's experience					
9 Thoroughly familiar with the market targeted by venture.					
10 Demonstrated leadership ability in past.					
11 Has a track record relevant to venture.					

12 The entrepreneur was referred to me by a trustworthy source.					
13 I am already familiar with the entrepreneur's reputation.					
III. Characteristics of the product or service					
14 The product is proprietary or can otherwise be protected.					
15 The product enjoys demonstrated market acceptance.					
16 The product has been developed to the point of a functioning prototype.					
17 The product may be described as "high tech."					
IV. Characteristics of the market					
18 The target market enjoys a significant growth rate.					
19 The venture will stimulate an existing market.					
20 The venture is an industry with which I am familiar.					
21 There is little threat of competition during the first three years.					
22 The venture will create a new market.					
V. Financial considerations 20.					
23 I require a return equal to at least 10 times my investment within 5-10 years					
24 I require an investment that can be easily made liquid (e.g., taken public or acquired).					
25 I require a return equal to at least 10 times my investment within at least 5 years 23.					
26 I will not be expected to make subsequent investments.					

27 I will not participate in latter rounds of investment (requires my participation in the initial round of investment).					
TABLE 2 Criteria Relating to Venture Team Composition					
VI. The venture team					
25. The venture is initiated by one person with the relevant experience to his idea.					
26. The venture is initiated by more than one individual, each having similar relevant experience.					
27. The venture is initiated by more than one individual, the individuals constituting a functionally balanced management team.					
28. None of the above are essential for the venture to go forward.					

CIRCLE THE SINGLE ITEM BELOW THAT IS Essential FOR THE VENTURE TO GO FORWARD

29. Please list any additional criteria you would consider in order to give funding to an entrepreneur

1. ……..
2. ……
3. ……..
4. ……..
5. ……

(MACMILLAN 1985)

Section 2: Personality of entrepreneur

		1	2	3	4	5	6	7
	Question	**Disagree strongly**	**Disagree moderately**	**Disagree A little**	**Neither agree or Disagree**	**Agree a little**	**Agree moderately**	**Agree strongly**
1	Extraverted, enthusiastic							
2	Critical, Quarrelsome							
3	Dependent, self-discipline							
4	Anxious, easily upset							
5	Open to new experiences, complex							
6	Reserved, quiet							
7	Sympathetic, warm							
8	Disorganised, Careless							
9	Calm, emotionally stable							
10	Conventional, Uncreative							

Section 3: Nominal Questions

1. At what age of Firm age are you most like to finance a venture
   a. 0- 2
   b. 3 – 5
   c. 5 – 6
   d. 8 – 10
   e. 10 and above

2. At what lifecycle are you likely to finance an upcoming entrepreneur?
    a. Start up
    b. Growth
    c. Maturity
    d. Decline
3. Average age of an individual Entrepreneur are venture capital firms most like to finance
    a. 20 – 30
    b. 31 – 40
    c. 41 – 50
    d. 51 – 60
    e. 61 and above
4. What industry are venture firms most like to finance (number them in order or preference)
    a. Agriculture
    b. mining
    c. manufacturing
    d. transportation
    e. wholesale/retail
    f. information, communication and technology
    g. Finance
    h. professional services
    i. administrative services
    j. health education
    k. government and social services
    l. personal/ consumer services
    m. Entrepreneurial finance
        i. Please list any additional industries you are targeting
            1. ……
            2. …….
            3. ……
            4. ……..
            5. ……

5. How do you access most of your clients?
    a. Spin offs
    b. Universities
    c. Referrals
    d. Networking events
    e. Walk in
    f. Other (Please state)
6. Which clients are preferred (number them in order of preference)
    a. With IP potential for patents, copyright etc
    b. Without IP
    c. Export potential (international market)
    d. Existing market
    e. Franchise
7. Preferred Firm location
    a. Gauteng
    b. Western Cape
    c. Eastern cape
    d. Kwazulu Natal

Annex 2 – Frequency Tables

Personality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17.00	1	8.3	8.3	8.3
	18.00	1	8.3	8.3	16.7
	20.00	1	8.3	8.3	25.0
	27.00	2	16.7	16.7	41.7
	28.00	1	8.3	8.3	50.0
	29.00	2	16.7	16.7	66.7
	30.00	2	16.7	16.7	83.3
	31.00	1	8.3	8.3	91.7
	32.00	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21.00	1	8.3	9.1	9.1
	23.00	1	8.3	9.1	18.2
	25.00	1	8.3	9.1	27.3
	26.00	1	8.3	9.1	36.4
	27.00	2	16.7	18.2	54.5
	28.00	2	16.7	18.2	72.7
	30.00	3	25.0	27.3	100.0
	Total	11	91.7	100.0	
Missing	System	1	8.3		
Total		12	100.0		

Characteristic of product

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18.00	2	16.7	20.0	20.0
	19.00	1	8.3	10.0	30.0
	21.00	2	16.7	20.0	50.0
	23.00	2	16.7	20.0	70.0
	24.00	1	8.3	10.0	80.0
	25.00	1	8.3	10.0	90.0
	26.00	1	8.3	10.0	100.0
	Total	10	83.3	100.0	
Missing	System	2	16.7		
Total		12	100.0		

Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19.00	2	16.7	20.0	20.0
	20.00	2	16.7	20.0	40.0
	22.00	1	8.3	10.0	50.0
	23.00	2	16.7	20.0	70.0
	24.00	1	8.3	10.0	80.0
	25.00	1	8.3	10.0	90.0
	26.00	1	8.3	10.0	100.0
	Total	10	83.3	100.0	
Missing	System	2	16.7		
Total		12	100.0		

Market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19.00	2	16.7	20.0	20.0
	20.00	2	16.7	20.0	40.0
	22.00	1	8.3	10.0	50.0
	23.00	2	16.7	20.0	70.0
	24.00	1	8.3	10.0	80.0
	25.00	1	8.3	10.0	90.0
	26.00	1	8.3	10.0	100.0
	Total	10	83.3	100.0	
Missing	System	2	16.7		
Total		12	100.0		