Factors of success amongst high-growth entrepreneurs in South Africa

A research report submitted by

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ABSTRACT

Entrepreneurship in South Africa is an area in which limited literature exists. Limited literature surrounding entrepreneurship as a whole and more specifically, factors that contribute to that success. Historically, entrepreneurial studies have been conducted predominantly around individual personality traits and the traits impact on entrepreneurial intentions.

The purpose of this study was to identify if the Big Five characteristics (Urban & Venter, 2015) contribute towards business success. The Big Five characteristics used in this study are made up of self-efficacy, need for achievement, locus of control, need for autonomy and risk taking (Urban & Venter, 2015).

Eighty-five responses were obtained for the study and the data was obtained through the distribution of an online based quantitative survey. The survey consisted of five baseline business success questions as well as thirty-two Likert scale questions, comprising the Big Five characteristics. This study made use of descriptive statistics to analyse the results.

The findings suggest that need for achievement is the highest contributor of business success with self-efficacy contributing somewhat to business success. Need for autonomy indicated a moderate relationship existing between the characteristic and business success. Locus of control was calculated as above average, indicating a sentiment of internal locus of control and that this plays a part in business success. The findings suggest that risk-taking in its base state does not contribute towards business success. However, when decomposing the components that form risk-taking the findings indicated that entrepreneurs with successful enterprises are prone to taking risks, provided the calculable variable have been measured.

Recommendations have been made to aid future research in conducting studies with fewer factors of business success and to utilise additional statistical methods.

DECLARATION

I, Jared Kangisser, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Jared Kangisser

Signed at …………………………………………………

On the …………………………….. Day of ………………………… 20…..

DEDICATION

To my mentor, coach, role model, best friend and late father, Clive Kangisser who instilled in me characteristics that I will never forget.

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CHAPTER 1. INTRODUCTION

1.1 Purpose of the study

The purpose of this study is to identify and assess the common success factors that entrepreneurs in South Africa have implemented to create sustainable businesses.

Therefore, the goal of this study is to gather a more comprehensive understanding of the challenges that entrepreneurs face when creating new businesses and the factors that result in their success.

The study can then be used to assist new entrepreneurs in implementing common and proven success factors that enable economic growth through employment and individual growth through the creation of a successful business.

1.2 Context of the study

"Entrepreneurship is now at the centre of many global policy questions related to science and technology, sustainability, poverty, human capital and employment" (Acs, Desai, & Klapper, 2008, p. 265). A growing number of academic research has focused on entrepreneurship following the rise in interest in the policies and strategies related to entrepreneurial dynamics and processes. The significance of research, regarding the development of policies around entrepreneurship, have emphasised the importance of first measuring it, followed by creating supportive environments to carry out these processes (Acs et al., 2008).

Entrepreneurs are broken down into two different categories, namely, necessity entrepreneurs and high-growth entrepreneurs. Deli (2011) refers to necessity entrepreneurs as low-ability entrants to self-employment, who were 'forced' into self-employment by adverse circumstances, often referred to as survivalists. Whereas high-growth entrepreneurs or high-ability entrants, are those who seek self-employment through the attraction of a promising idea (Deli, 2011).

Urban, Van Vuuren, and Barreira (2008), state that the number of high-growth potential entrepreneurs within the African continent is extremely low. The total entrepreneurial activity (TEA) rate of South Africa, measured through the Global Entrepreneurship Monitor (GEM), depicts that the majority of South African entrepreneurs are necessity entrepreneurs whom exhibit few opportunities of job creation and growth (Urban et al., 2008)

The world's leading association of study in entrepreneurship, known as the Global Entrepreneurship Research Association (GERA) that was created by the GEM, has coordinated and conducted in depth reports that have played an integral role in today's society at further enriching the understanding of the entrepreneurial concept (Global Entrepreneurship Research Association, 2016).

In 2012, South Africa, as an efficiency-driven economy, had an established business activity rate of 2.3 % (percent), the second lowest in the world. This activity rate is considerably lower than the 8 % average of efficiency-driven countries. South Africa's business discontinuation rate of 4 % was higher than its entrepreneurial activity rate, depicting an extremely worrying situation (Turton & Herrington, 2012)

Entrepreneurship carries various associations and as a result, there is no agreement on a common definition. Various researchers view the idea of entrepreneurship as both complex and controversial, due to there being no agreement on the definition (Pretorius & Van Vuuren, 2003).

Pretorius and Van Vuuren (2003) relate to the findings of Kaufmann and Dant (1998) who concluded that through the various definitions surrounding entrepreneurship, three categories exist, namely, traits, processes and activities (Pretorius & Van Vuuren, 2003). With regard to the first category, entrepreneurs are often defined by their inherent traits and qualities that motivate behaviour such as risk taking, leadership, the ability to resolve crises, and motivation (Kaufmann & Dant, 1998). The second category focuses on the entrepreneurial process, relating to the establishment of new businesses, the ability to extract profits from "new, unique and valuable combinations of resources in an uncertain and ambiguous environment" (Pretorius & Van Vuuren, 2003, p. 516). Activities carried out by entrepreneurs comprise the third category surrounding the various definitions of entrepreneurs. Kaufmann and Dant (1998) explain that entrepreneurs perform several activities, such as overcoming market deficiencies, networking into new markets, offering previously absent resources into the market, developing management controls and maintaining a profit orientated business, that allow them to fulfil unsatisfied needs (Kaufmann & Dant, 1998).

As previously mentioned, there are multiple definitions surrounding entrepreneurship with no all-encompassing answer. One needs to assess the factors that contribute to becoming a successful entrepreneur in order to truly gauge the phenomenon of entrepreneurship. South Africa struggles immensely with entrepreneurial growth, mainly through the lack of high-growth potential entrepreneurs. Positive policy creation is required to assist in creating an environment that favours entrepreneurs.

1.3 Problem statement

1.3.1 *Main problem*

To assess which effect factors are likely to contribute to the success of high growth entrepreneurs.

1.3.2 *Sub-problem*

The sub-problem is to identify the factors, which are deemed the most important in high growth businesses.

1.4 Significance of the study

Entrepreneurship is an area, which has been significantly researched. Literature exists on a wide range of entrepreneurship, from determining the correct curricula to offer in entrepreneurial-based university degrees, to the psychological approaches of entrepreneurial success. This paper will contribute to literature surrounding entrepreneurship, however, specifically focusing on the success factors that high-growth potential entrepreneurs within South Africa have implemented.

There is limited research surrounding the factors of success that exist between entrepreneurs from different backgrounds and industries. It is hoped, that this research paper may benefit both current and future entrepreneurs in South Africa by offering insight into the common factors, if any, which have allowed entrepreneurs to become successful.

These findings can then be used by entrepreneurs wishing to change their current business strategies or by new entrants into their respective industries.

1.5 Delimitations of the study

- The study will not preclude any industries and industry types will not impact findings on success factors
- The study will accept findings from businesses that operate in the business to consumer (B2C), business to business (B2B), and business to government (B2G) sectors
- Only companies that are a minimum of eighteen months old will qualify for the study
- Net worth of individuals will not be included in the study as a determinant of business success
- The study will not aim to depict the definite factors which determine success of entrepreneurs in South Africa but rather give insight into whether or not common factors exist, and if so, what those factors are
- The study will be conducted at a specific point in time and any shifts in entrepreneurial methods of success will not be considered.

1.6 Definition of terms

- TEA — Total Entrepreneurial Activity
- GEM — Global Entrepreneurship Monitor
- GERA — Global Entrepreneurial Research Association
- B2B — business to business operations
- B2C — business to consumer operations

- B2G business to government operations.
- ESE Entrepreneurial self-efficacy
- PRF Personality Research Form
- EPPS Edwards Personal Preference Schedule
- TAT Thematic Apperception Test
- APS Adult population survey
- ESE Entrepreneurial self-efficacy

1.7 Assumptions

- The entrepreneurs evaluated in the study are an accurate representation as a sample of the population of entrepreneurs in South Africa
- It is assumed that the entrepreneurial business activities follow that of developed countries' entrepreneurial activities and literature pertaining to outside markets will be studied and referred to
- All business involved in the study are assumed to be cash flow positive

CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

The literature review provides a review of findings, gathered from literature and empirical studies undertaken by other researchers, that pertains to the problems and sub problems of this research report.

The main problem is to assess to which effect, factors are likely to contribute to the success of high growth entrepreneurs. The purpose is to hopefully provide findings that will uncover certain key success factors that are common amongst South African entrepreneurs and will benefit current and future entrepreneurs starting businesses in South Africa.

The sub-problem has been identified to assist in finding information that aids with the main problem. The sub-problem is to identify factors, which are deemed the most important in high-growth business.

The literature review will conclude with certain research questions constructed from the academic research revealed in this section.

2.2 Entrepreneurship

2.2.1 *Necessity versus high-growth entrepreneurs*

Empirical research has revealed that two forces create the need for a person to become an entrepreneur. The first, is the individual is drawn into self-employment through the identification of a profitable prospect, whilst the second force is the pushing of a person into self-employment (Henrekson, 2007). These forces are often referred to as opportunity-based and necessity entrepreneurship (Reynolds, Bygrave, Autio, Cox, & Hay, 2002). To further define the concept, Block and Wagner (2010) relate opportunity or high-growth entrepreneurs as those individuals who enter the field, through the pursuit of a potential business venture, whereas, necessity entrepreneurs are persons who have been forced into self-employment due to minimal possibilities available in the working sector (Block & Wagner, 2010). Continuing from this definition, Deli (2011) set out to prove that if the definitions hold true, then in periods of economic growth, there will be an increase in new businesses being created through opportunity entrepreneurs and times of economic down turns, the high rise in unemployment will bring about an increase in necessity entrepreneurs (Deli, 2011).

Shane (2009) argues that the proposed concepts of necessity and opportunity entrepreneurs are not necessarily always in-line (Shane, 2009). Shane (2009) believes that "opportunity and necessity entrepreneurship refer to the trigger for starting a business (Shane, 2009, p. 142). Individuals can create enterprises that generate employment, large growth and considerable profit even if originally, their intentions were based off necessity (Shane, 2009).

Economists often relate entrepreneurship to job creation, innovation and assisting in the turnaround of weak economic time (Shane, 2009). Lazear (2005) claims that entrepreneurs are of the highest importance in the twenty-first century economy (Lazear, 2005).

Statements from researchers relating to the importance of entrepreneurs, irrespective of whether they are necessity or high-growth is difficult to dispute. However, when focusing on entrepreneurial activity in South Africa, researchers indicate the degree to which South Africa lacks human capital, and when focusing specifically on the creation of employment, it is not the necessity entrepreneurs at the forefront, but rather high quality, high-growth entrepreneurs (Orford, Wood, Fischer, Herrington, & Segal, 2003).

2.2.2 *Entrepreneurship in South Africa*

A large intention of this paper, is to place focus around high-growth entrepreneurs within South Africa, in an attempt to discover whether or not common success factors exist. Urban et al. (2008) discuss the large gap between high-growth entrepreneurs and necessity entrepreneurs, and more specifically the rarity of high-growth entrepreneurs, relative to the large number of necessity entrepreneurs within South Africa, whom (necessity) add very little in terms of economic growth and employment creation opportunities (Urban et al., 2008).

Indicative of the research by Urban et al. (2008), is the importance of the GEM reports, through which TEA rates are measured (Urban et al., 2008). South Africa's economy has contracted relative to its neighbours in Southern Africa, with the major issues being high levels of inequality amongst income earning brackets, as well as the soaring levels of unemployment, through the government's inability to create jobs (Herrington & Kew, 2016). Herrington and Kew (2016) who authored the Global Entrepreneurship Monitor for South Africa in 2016, stress the importance of policy makers decisions to cultivate the South African economy through the incentivising of new businesses, whom will foster employment and economic growth (Herrington & Kew, 2016).

GEM was created in an attempt to answer the foremost question as to why certain nations have greater levels of entrepreneurial activity then others (Global Entrepreneurship Research Association, 2016). GEM measures entrepreneurship "across multiple phases of the entrepreneurial process, providing insights into the level of engagement in each stage" (Herrington & Kew, 2016, p. 14). GEM's main measure of entrepreneurship is through TEA rates, which consists of individuals aged eighteen to sixty-four and are either in the course of new venture creation or alternatively, are already operating a business (Bosma & Amorós, 2014). The primary function of the TEA index is to indicate the frequency of business start-ups and new entrepreneurs (Turton & Herrington, 2012). To expand further, GEM utilises various levels of measurement for entrepreneurship through a segmentation of 6 phases (as seen in Figure 1 below), namely: Potential entrepreneurs, Intentional entrepreneurs, Nascent entrepreneurs, New entrepreneurs, Established business owners and Discontinued entrepreneurs (Herrington & Kew, 2016).

This paper intends to place specific focus on new entrepreneurs and established business owners, whom Bosma, Acs, Autio, Coduras, and Levie (2009) define as individuals involved in a venture that has been remunerating for at least three months but not more than forty-two months and individuals who own and have been involved in operational aspects of their business for more than forty-two months respectively (Bosma et al., 2009).

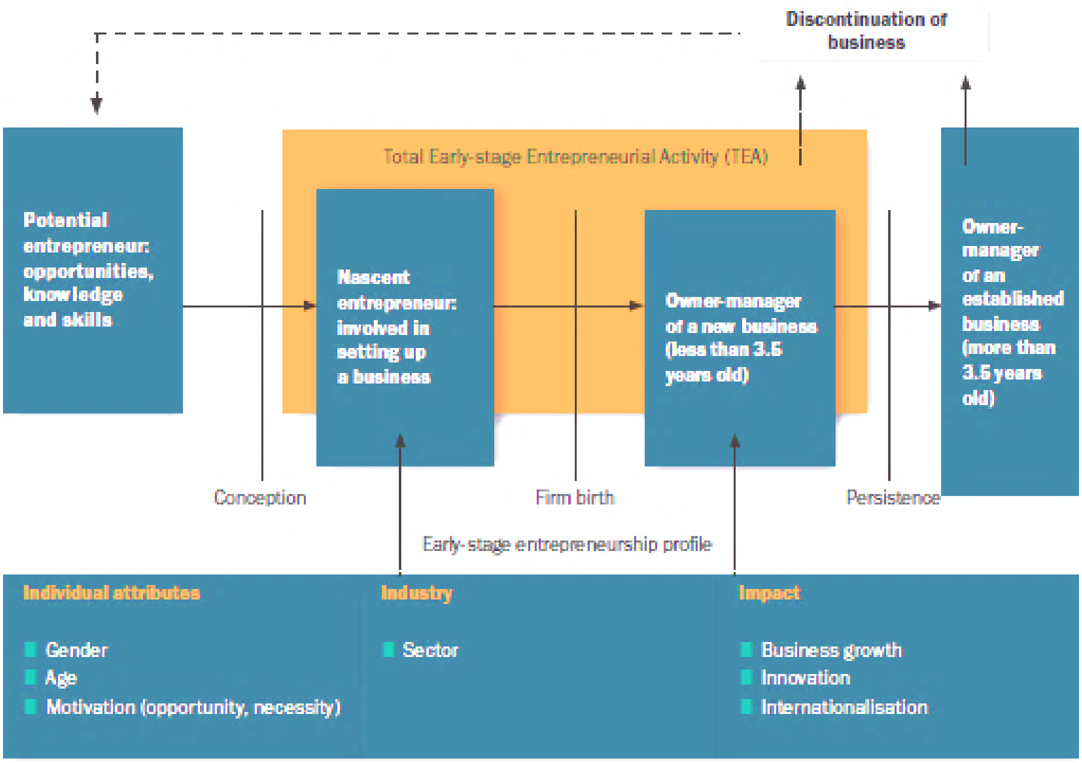


Figure 1 - Model of business phases and entrepreneurship characteristics represented in GEM (Global Entrepreneurship Monitor, 2014 as cited in Herrington & Kew, 2016)

South African high-growth entrepreneurs in 2015 accounted for approximately 67 % of all entrepreneurs, which represented the weakest percentage comparison between opportunity and necessity entrepreneurs since 2011 (Herrington & Kew, 2016). To further substantiate the weak economic conditions surrounding South Africa, necessity entrepreneurship within South Africa grew 18 % year on year from 2014 to 2015, whilst, the research shows that roughly 30 % of entrepreneurs in Africa and Latin America consisted of necessity entrepreneurs (Herrington & Kew, 2016).

Businesses created by high-growth entrepreneurs, through the findings of GEM, exhibit a higher probability of their businesses persisting, which would bring about the expectation that economies with higher developmental levels, would have a larger number of opportunity entrepreneurs then necessity entrepreneurs (Herrington & Kew, 2016). However, the research illustrates that in developing countries, such as South Africa, unless there are, to some degree, government incentives, necessity entrepreneurship outdoes high-growth entrepreneurship (Herrington & Kew, 2016).

Economy	Nascent entrepreneurship rate	New business ownership rate	Early-stage Entrepreneurial Activity (TEA)	Established business ownership rate	Discontinuation of businesses
Africa					
Botswana	23.0	11.9	33.2	4.6	14.7
Burkina Faso	19.7	11.2	29.8	27.8	8.1
Cameroon	16.5	10.0	25.4	12.8	9.0
Egypt	4.0	3.4	7.4	2.9	6.6
Morocco	1.3	3.2	4.4	5.2	2.2
Senegal	24.9	15.0	38.6	18.8	13.3
South Africa	5.5	3.8	9.2	3.4	4.8
Tunisia	5.4	3.4	10.1	5.0	7.2
TOTAL	12.5	7.9	19.8	10.1	8.3

Figure 2 - Phases of entrepreneurial activity in GEM economies in 2015, by geographical region (Herrington & Kew, 2016)

Figure 2 depicts an abridged version of the Global Entrepreneurship Monitor: South African Report 2015 to 2016, as to place specific focus on South Africa relative to African countries. African TEA rates rank amongst the highest in the analysis, with Senegal at the peak with a TEA of 38.6 %, and Morocco at the bottom with a TEA of only 4.4 % (Herrington & Kew, 2016). South Africa's TEA rate of 9.2 % falls far below the average TEA for efficiency-driven economies by 1.6 times (Herrington & Kew, 2016).

The above literature brings to the forefront, the importance of high-growth entrepreneurs and their ability to generate growth and employment, which is pivotal to a countries economic growth and as suggested by Wennekers and Thurik (1999) maybe more so than it has ever been.

2.2.3 *What is entrepreneurship?*

Research indicates that within the last 10 to 15 years, the arena for entrepreneurial theory has been moulded (Bruyat & Julien, 2001). Bull and Thomas (1993) as cited in Bruyat and Julien (2001) show that the field of entrepreneurship has gathered a scientific community, easily proven by the large number of conferences held, in which both academics and business entrepreneurs attend, as well as through numerous scientific journal (Bull & Thomas, 1993 as cited in Bruyat & Julien, 2001).

Bruyat and Julien (2001), exhibit the same sentiment as many other researchers, that the primary issue surrounding the definition of entrepreneurship and the restrictions to the field of study have still not been deciphered (Bruyat & Julien, 2001). Cunningham and Lischeron (1991) acknowledge, that although, entrepreneurs and the field of entrepreneurship bolsters large attention, as well as, many academic publications on the subject, there is still very little known about entrepreneurs (Cunningham & Lischeron, 1991).

Cunningham and Lischeron (1991) explain that in certain instances "self-employed individuals and business proprietors may be surprised to learn that some academics and researchers would suggest they are not really entrepreneurs but small business owners." (Cunningham & Lischeron, 1991, p. 45). Although, over two decades old, Cunningham and Lischeron (1991), revealed that the perceptions, of some individuals, who assumed themselves to be successful entrepreneurs, in fact did not fit the definitions that were being proposed at the time (Cunningham & Lischeron, 1991).

Approximately twenty-five years later, and still academic research struggles to provide the field of entrepreneurship with a unified definition. Research from Kao (1993) shows numerous definitions have been put forward from well-known specialists and entrepreneurs (Kao, 1993). Pretorius and Van Vuuren (2003) discuss the concerns that due to entrepreneurship carrying several meanings, there is still no settlement, amongst academics, on a mutual classification (Pretorius & Van Vuuren, 2003). As a result, Pretorius and Van Vuuren (2003) surmised that the lack of a universally accepted definition of entrepreneurship, is a direct result of the complexities and controversies surrounding entrepreneurship (Pretorius & Van Vuuren, 2003). Nafukho, Kobia, and Sikalieh (2010) exclaim, that after reviewing the various theories of entrepreneurs and the field of entrepreneurship, that an indisputable definition is still very far away (Nafukho et al., 2010).

Venkatraman (1997) states that even though multiple definitions have been put forward, none have been accepted (Venkatraman, 1997). Venkatraman (1997) puts this to the way in which academics have defined the arena both by defining the entrepreneur itself or what the entrepreneur does, and due to there being various versions of these conceptions, an agreement on a definition is not possible (Venkatraman, 1997).

Some researchers classify entrepreneurs as those most associated with starting a new business, irrespective of whether that business is innovative (Gartner, 1990). Gartner (1990) expands the classification to include, those who buy into an existing business, start a non-profit enterprise or government organisation and a person, who creates an innovative unit within a business(Gartner, 1990). Researchers, such as, Kaufmann and Dant (1998), through the multiple definitions in the field, have segmented entrepreneurs into their inherent traits or qualities, the entrepreneurial process and the activities they carry out (Kaufmann & Dant, 1998). Njeru (1996) explains that entrepreneurship cannot be ring-fenced into only traits, entrepreneurial behaviour and seeking out opportunities, by discussing that a manager, who takes ownership of their role, in guiding the business through the use of resources, marketing etc. to provide the goods or service, is an entrepreneur as well (Njeru, 1996 as cited in Nafukho et al., 2010).

Essentially, being an entrepreneur, is to be someone who identifies a potential opportunity with substantial possibilities and acts upon it (McMullen & Shepherd, 2006).

Research in the 1980's revealed that there was no relationship between entrepreneurs and personality theories (Zhao, Seibert, & Lumpkin, 2010). However, more recent studies revealed that the theory around the lack of relationship between personality and entrepreneurship, was a result of a lack of hypotheses and research artefacts (Zhao et al., 2010). Kristof (1996) stated that "a job is defined as the tasks a person is expected to accomplish in exchange for employment, as well as the characteristics of those tasks" (Kristof, 1996, p. 8). Baron and Markman (2004) accepted that by Kristof (1996) definition, entrepreneurship is a job (Baron & Markman, 2004 as cited in Shane, Nicolaou, Cherkas, & Spector, 2010). Therefore, Shane et al. (2010) suggest that an individual will determine whether or not to be an entrepreneur through their pursuit of associating the aspects of running a business to their personalities (Shane et al., 2010).

Shane et al. (2010) further discuss that the argument around the relationship between entrepreneurship and personality should apply to the Big Five personality characteristics, which Costa and MacCrae (1992) have defined as Extraversion, Openness to experience, Agreeableness, Conscientiousness, and Emotional Stability (Costa and MacCrae, 1992 as cited in Shane et al., 2010).

Urban and Venter (2015) acknowledge the Big Five factors of personality and how these factors have revived awareness in multiple arenas, including entrepreneurship (Urban & Venter, 2015).

Urban and Venter (2015) discuss the large volume of literature that exists surrounding entrepreneurial predispositions, attitudes and behaviours and introduce that there are five attributes leading discussion on entrepreneurial profiles (Urban & Venter, 2015). Although there is substantial research surrounding the factors that indicate the need for one to become an entrepreneur, however, there is minimal research surrounding the impact the personality traits have on business success and sustainable ventures (Sandberg & Hofer, 1987).

The Big Five key dimensions of entrepreneurial behaviour have been categorised below, due to the importance they play in determining factors of success in high-growth South African entrepreneurs (Urban & Venter, 2015):

1. Self-efficacy
2. Need for achievement
3. Locus of control
4. Need for autonomy
5. Risk-taking

2.3 Factors, which are deemed, the most important in high- growth businesses

2.3.1 *Self-efficacy*

Wood and Bandura (1989) define self-efficacy as an individual's ‘‘capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives’’ (Wood & Bandura, 1989, p. 364).

Research, surrounding personality traits and behaviours, more specifically, with regards to self-efficacy, specify that entrepreneurs carry out the decision to be involved in tasks that exhibit higher levels of self-efficacy, whilst, prefer to elude tasks with low self-efficacy (Urban & Venter, 2015). Essentially, referring to Wood and Bandura (1989), self-efficacy relates to increased usage of one's intellectual properties (Wood & Bandura, 1989).

Self-efficacy, commonly referred to as entrepreneurial self-efficacy (ESE), gives the impression that it is a highly important initiator of entrepreneurial business persistence (Zhao, Seibert, & Hills, 2005). Additionally, ESE refers to a person's high-levels of belief that they are sufficiently proficient in carrying out the duties and activities of an entrepreneur and is principally useful as it integrates behaviour as well as environmental factors (Boyd & Vozikis, 1994). McGee, Peterson, Mueller, and Sequeira (2009) introduce the discussion of entrepreneurial self-efficacy (ESE) as a predominantly significant precursor to new venture intention (McGee et al., 2009).

Chen, Greene, and Crick (1998) outline people with high-levels of ESE to: evaluate their surroundings to be resourceful rather than perilous, have faith in their skills to accomplish goals and to exhibit the ability of calculating a small chance of failure (Chen et al., 1998).

Amongst the many factors which contribute to the success of entrepreneurs, specific mention is made by Rauch and Frese (2000) as to how self-efficacy in relation to problem solving is directly related to success (Rauch & Frese, 2000).

The Big Five characteristics are discussed in depth throughout the study, however, Ajzen (2002) shows that self-efficacy and controllability hold a relationship no different to that of control over performance of a behaviour linked to internal locus, and an absence of control with external locus (Ajzen, 2002).

Ajzen (2002) delves deeper into the relationship between self-efficacy and controllability through the indication that belief in one's self-efficacy relates to internal factors whereas controllability of the behaviour is said to deal with external factors (Ajzen, 2002).

Judge, Jackson, Shaw, Scott, and Rich (2007) performed research on self-efficacy and personality with work performance (Judge et al., 2007). Judge et al. (2007) found through the research that studies of individual differences is highly important to work performance. Further research indicates that self-efficacy is related to strong self-leadership in significant areas (D'Intino, Goldsby, Houghton, & Neck, 2007).

Wilson, Kickul, and Marlino (2007) highlight the importance self-efficacy would play in entrepreneurial success (Wilson et al., 2007). Wilson et al. (2007) discuss further the link between self-efficacy and entrepreneurial success in so far as the creation of a business, allocation of resources and ability to identify an opportunity must therefore indicate the correlation between self-efficacy and business success (Wilson et al., 2007).

Individuals with high self-efficacy are probable to persist when difficulties arise and search for challenging opportunities (Bandura, 1997). Speier and Frese (1997) discuss that entrepreneurs show a higher degree of individual resourcefulness (Speier & Frese, 1997), whilst Rauch and Frese (2007) show that research specifies entrepreneurs take a long term view on their ventures due to larger aspirations for success (Heckhausen & Schulz, 1995 as cited in Rauch & Frese, 2007). It can therefore be concluded that self-efficacy is positively correlated to business creation and business success (Utsch, Rauch, Rothfufs, & Frese, 1999).

2.3.2 *The need for achievement*

McClelland (1961) undertook research surrounding the need for achievement with specific reference to the characteristics of an entrepreneur and the feeling of success (McClelland, 1961 as cited in Rauch & Frese, 2000). Further research by Urban and Venter (2015) indicates that entrepreneurs seem to be motivated more by the need for achievement, then the need for power or affiliation (Urban & Venter, 2015).

Brandstätter (2011) identifies that need for achievement as a motive is an empirically individual disposition with numerous causes and effect which may be altered dependant on the situation being confronted (Brandstätter, 2011).

Krauss, Frese, Friedrich, and Unger (2005) discuss that individuals with high needs for achievement, exhibit increased levels of performance when undertaking unconventional tasks and take cognisance of their duties (Krauss et al., 2005). This is viewed as the result of the individuals propensity for "seeking feedback, comparing themselves to others, setting challenging goals and consistently attempting to improve their performance" (McClelland, 1961 as cited in Krauss et al., 2005, p. 319). Additionally, entrepreneurial planning facilitates the relationship between need for achievement and business success (Rauch & Frese, 1997).

Literature from Stewart and Roth (2007) fail to link the need for achievement with entrepreneurial success, due to a lack of empirical findings with theoretically corresponding measure of performance (Stewart & Roth, 2007). Studies illustrate that more than twenty instruments have been used, however, debates exists as to whether the measurements should provide outcomes that are either projective or objective (Urban & Venter, 2015; Stewart & Roth, 2007). This is further ratified through the research conducted by Hornaday and Aboud (1971) in which they showed that the difficulties discovered related to the way in which need for achievement is measured (Hornaday & Aboud, 1971).

Objective instruments assume that motivation is situated in the conscious, and measures using scales, such as the Personality Research Form (PRF) and the Edwards Personal Preference Schedule (EPPS) which have been found to be strong identifiers (Johnson, 1990). McClelland (1961), was of the belief that the motivation of an individual is positioned in the unconscious, and as a result, McClelland (1961) used projective measurements to extract the outcomes, a tool known as the Thematic Apperception Test (TAT), encompassing examination through stories compiled in response to a set of pictures (Urban & Venter, 2015).

The results of the research pertaining to Hornaday and Aboud (1971) was that the EPPS yielded no significant value (Hornaday & Aboud, 1971). However, there was a consistency in the findings in so far as research participants indicating that need for achievement was an important factor (Hornaday & Aboud, 1971).

Empirical research acknowledges that the need for achievement of countries results in economic development (Rauch & Frese, 2000). A study conducted by (Cooper & Gimeno-Gascon, 1992) found that in 75% of instances a positive correlation was shown between the success of small enterprises and the need for achievement (Cooper & Gimeno-Gascon, 1992 as cited in Rauch & Frese, 2000). Additionally, research undertaken by Krauss et al. (2005) showed that the need for achievement of the business owner was related to business success (Krauss et al., 2005).

McClelland (1987) researched entrepreneurial success by measuring an individuals need for achievement (McClelland, 1987). Hornaday and Aboud (1971) made reference to an article in Forbes magazine in which McClelland (1969), stated that he had endured twenty years of research to identify why one businessman succeeds and another businessman fails, which is need for achievement breeding business success (McClelland, 1969 as cited in Hornaday & Aboud, 1971).

Rauch and Frese (2000) introduce the findings to their research by first confirming what the literature states in that need for achievement is a contributing factor towards an individual becoming an entrepreneur (Rauch & Frese, 2000). Further to this, Rauch and Frese (2000) found a small but significant relationship existing between business success and an entrepreneur’s need for achievement (Rauch & Frese, 2000). Research conducted by Ciavarella, Buchholtz, Riordan, Gatewood, and Stokes (2004) attempted to ascertain a relationship between achievement-orientation of an entrepreneurs and venture survival (Ciavarella et al., 2004). The study revealed that being achievement-orientated results in an increase in the probability of a venture being successful (Ciavarella et al., 2004).

2.3.3 *Locus of control*

Individuals may exhibit a predominance to one of two type of locus’s of control, namely, internal locus of control or external locus of control. Internal locus of control is defined as those individuals who have the personal belief that they control their own destiny, through their actions (Kaufmann, Welsh, & Bushmarin, 1995). External locus of control, relates to individuals who are the belief, that all outcomes are a result of external forces, to which they have no control (Kaufmann et al., 1995).

Rauch and Frese (2000) show that although, based on the definitions, the perception is that entrepreneurs, would tend to exhibit a stronger internal locus of control (Rauch & Frese, 2000). Conversely, Rauch and Frese (2000) showed in their study that results pertaining to internal locus of control were less consistent then results for need for achievement (Rauch & Frese, 2000).

Research by Green, David, Dent, and Tyshkovsky (1996) showed that there was sufficient evidence purporting that entrepreneurs who had high-levels of internal locus of control believed that their actions directly determined their economic fate (Green et al., 1996).

McShane and Von Glinow (2003) argue that persons who yearn for a position in which their actions directly impact results, will display an increased probability of becoming an entrepreneur as a result of their internal locus of control (McShane & Von Glinow, 2003 as cited in Urban & Venter, 2015).In one study, Goebel and Frese (1999) reported a significant positive correlation between the success of a business and an internal locus of control (Goebel & Frese, 1999 as cited in Rauch & Frese, 2000).

Rauch and Frese (2000) showed that as per the above, the weighted mean correlations were small but statistically positively significant and as such concluded that there is strong empirical evidence of an association between entrepreneurial business success and internal locus of control (Rauch & Frese, 2000).

Lee and Tsang (2001) conducted research on whether personality traits were positively related to venture growth (Lee & Tsang, 2001). More specifically relating to internal locus of control, Lee and Tsang (2001) discovered two findings, namely, one in which entrepreneurs with large businesses and business growth rates displayed internal locus of control (Lee & Tsang, 2001), and two that both need for achievement and internal locus of control showed statistical evidence that they contributed towards venture growth (Lee & Tsang, 2001).

Brockhaus (1975) showed a positive correlation between internal locus of control and business success (Brockhaus, 1975 as cited in Sexton & Bowman, 1985). The correlation was proven by observing entrepreneurial businesses in 1975 to the success rate of their business in 1978. As such, the owners whose businesses existed in 1978 indicated higher levels of internal locus of control (Brockhaus, 1975 as cited in Sexton & Bowman, 1985).

2.3.4 *The need for autonomy*

As per the research on the need for autonomy, logical reasoning would suggest that entrepreneurs desire freedom and the ability to make unhindered decisions (Urban & Venter, 2015). The need for autonomy has been defined as "the extent to which a person needs or is eager to express individual initiative in performing a job" (D'Intino et al., 2007, p. 112).

Empirical evidence shows that when autonomy is used effectively, by either corporate firms or entrepreneurs, positive outcomes are realised (Lumpkin, Cogliser, & Schneider, 2009). The need for autonomy has been presented as a core motivation for individuals wanting to be employed in firms outside of the big business sector (Harrell & Alpert, 1979). Additionally, Harrell and Alpert (1979) illustrated the need for autonomy against the possible varying degrees of organisational autonomy, in which the individual need for autonomy and entrepreneurship were an impeccable fit (Harrell & Alpert, 1979).

Vecchio (2003) discusses that debates around these views have been constructed off the basis that big businesses, are rigid in structure, and quell entrepreneurial flare and freedom (Vecchio, 2003). D'Intino et al. (2007) focused on the need for autonomy as a key characteristic in their study in which they state "Individuals who are high in the personality traits of internal locus of control, self-traits of monitoring, and the need for autonomy are more likely to naturally engage in entrepreneurial behaviours than people who are low in these traits. This does not suggest that people who are low in these traits cannot become successful entrepreneurs" (D'Intino et al., 2007, p. 112).

The need for autonomy suggests that entrepreneurs are wholly against the idea of purely taking orders from higher ups but rather trust their own intuition (Krauss et al., 2005). Krauss et al. (2005) substantiate their views by asserting that “such a position helps to succeed because decisive, self-contained decision making is an important facet of small business owners’ tasks” (Krauss et al., 2005, p. 320). Furthermore, a relationship was found between external success (success of the business against its competitors) and autonomy in South Africa (Krauss et al., 2005).

Rauch and Frese (2007) proposed the hypothesis that a positive relationship exists between business creation and business success and an entrepreneur’s personality traits (Rauch & Frese, 2007). The results to the study conducted by Rauch and Frese (2007) supported the hypothesis in so far as factors for personality, more specifically, the need for autonomy was positively related to both business creation and business success and statistically significant (Rauch & Frese, 2007).

Difficulties exist in the literature to identify studies in which need for autonomy has been assessed against business success. Research is focused around an individual’s intention of becoming an entrepreneur measured against the personality traits of that individual (Cromie, 2000; Harrell & Alpert, 1979; D'Intino et al., 2007). Cromie (2000) further shows through the study that the creation of a business is linked to an entrepreneurs high need for autonomy (Cromie, 2000). Additional findings of individual personality traits linked to the creation of a new business are amongst others need for autonomy (Sexton & Bowman, 1986).

2.3.5 *Risk-taking*

Risk, entrepreneur’s inclinations to follow high risk options and the entrepreneurs ability to manage risk is at the forefront of academic literature in the field of entrepreneurship (Urban & Venter, 2015). The risk levels for innovation entrepreneurs is extremely high, with roughly 50% to 80% of these businesses failing within 5 years of commencing (Dun & Bradstreet, 1967 as cited in Busenitz, 1999). Busenitz (1999) continue by stating, that risk is finite for any new business, that enters the commercial sector in the pursuit of high-growth and performance (Busenitz, 1999).

The inclination of individuals towards risk can be defined as making the decision to accept the likelihood of considerable loss in exchange for the potential to receive substantial gains (Vecchio, 2003). This definition of risk, can be related to an entrepreneur through the understanding that they may encounter poor sales growth, potential losses or reducing bottom lines and new entrants into their markets (Urban & Venter, 2015).

Entrepreneurial risk does not only include the risk of financial capital but other risks, such as career opportunities, family and psychological (Liles, 1974 as cited in Brockhaus, 1980).

Personal financial contributions, along with capital raised through either equity or debt create a substantial risk for the entrepreneur, should the entrepreneurs venture fail. The implications of failure could be catastrophic to the entrepreneur's financial well-being and lifestyle going forward (Brockhaus, 1980).

Urban and Venter (2015) discuss the career risk certain entrepreneurs face when making the move to self-employment, as failure of one's own venture may result in difficulties of the individual finding employment at the same level of remuneration or in their previous position (Urban & Venter, 2015).

Additionally, Urban and Venter (2015) discuss the entrepreneurial risk in respect of one's family and friends. Entrepreneurship consumes almost all of an individual's time and as a result, spousal and children relationships may suffer, along with friends, whom fall down the ladder when time is scarce (Urban & Venter, 2015). However, time management, through brief holidays allow for "welcomed reliefs" as does other stress mitigating mechanisms such as networking, delegating and interpersonal relationships (Urban & Venter, 2015, p. 73).

Concluding the various types of risks entrepreneurs face, is the psychological risk, which an entrepreneur will face if they experience business failure (Brockhaus, 1980). As previously mentioned by Urban and Venter (2015) entrepreneurship consumes almost all of an individual's time, which can be related to the individual having contributed a major part of themselves to the endeavour and as such, failure of the business may result in the individual realising failure at a personal level, which would carry severe psychological impacts for the individual going forward (Brockhaus, 1980).

Zahra (2005) conducted a study on entrepreneurial risk-taking in family firms in which it is highlighted that a family firm's ability to create success rests on innovation and risk-taking (Zahra, 2005). d'Amboise and Muldowney (1988) discuss that entrepreneurs are attracted risk-taking in businesses that show the ability to achieve high growth (d'Amboise & Muldowney, 1988). Research indicates that there is no empirical evidence suggesting that entrepreneurs are prepared to take on more risk than non-entrepreneurs (Palich & Bagby, 1995).

Stefanovic, Prokic, and Rankovic (2010) showed findings that can be considered acceptable for this paper, as their research was conducted within a developing country, such as South Africa. Stefanovic et al. (2010) indicate through their research, that entrepreneurial success is linked to ones preparedness to endure risk (Stefanovic et al., 2010). Sexton and Bowman (1985) discuss an entrepreneurs propensity for risk as being moderate and highlight research conducted through two studies which showed minimal difference in risk-taking between entrepreneurs and business managers (Sexton & Bowman, 1985).

Krauss et al. (2005) conducted research pertaining to an entrepreneurial orientation and whether it is positively correlated to business success (Krauss et al., 2005). With specific reference to risk-taking Krauss et al. (2005) highlight that taking calculated risks are preferable as they reduce the chance of failure, however, are inevitable in environment where risks exist (Krauss et al., 2005).

The results shown by Krauss et al. (2005) indicate inconsistencies and could not accurately show whether risk-taking is a contributing factor to business success but rather suggest that an entrepreneurs risk-taking orientation is more likely to be impacted by environmental hostility (Krauss et al., 2005).

2.4 Conclusion of Literature Review

Literature reviewed has provided information that gives substance to this research report. It has covered areas that are pertinent to the understanding of entrepreneurship, specifically within South Africa, whilst leveraging off of global empirical research for what entrepreneurship is and how to distinguish between necessity and high-growth entrepreneurs.

The literature review introduces the difference between necessity entrepreneurs and high-growth entrepreneurs. Academic literature shows that necessity entrepreneurs are those individuals who have been forced into entrepreneurship through adverse situations and their actions are necessitated out of the need to survive (Reynolds et al., 2002; Henrekson, 2007; Deli, 2011; Block & Wagner, 2010; Shane, 2009). Whereas, high-growth or opportunity entrepreneurs have taken the decision to become self-employed through the identification of an opportunity that will yield future benefits (Reynolds et al., 2002; Henrekson, 2007; Deli, 2011; Block & Wagner, 2010; Shane, 2009).

The research indicates that in terms of economic development, high-growth entrepreneurs are of the highest importance (Lazear, 2005).

The literature review continues with entrepreneurship from a South African perspective, in which entrepreneurial activity is more heavily weighted to necessity entrepreneurs, who lack the ability to create employment and growth (Urban et al., 2008). A seminal report, known as the Global Entrepreneurship Monitor was used to reference findings on entrepreneurial activity. A large area of focus was the TEA rates, which indicated the rate of business start-up through various phases (Herrington & Kew, 2016). Despite African countries exhibiting high levels of TEA, South Africa shows poor performance in this arena, and is currently 1.6 times lower than the average TEA rates of other African countries (Herrington & Kew, 2016).

Literature indicated that entrepreneurship stills lacks a common definition amongst academic scholars and business sector individuals (Cunningham & Lischeron, 1991; Bruyat & Julian, 2001; Kao, 1993; Pretorius & Van Vuuren, 2003). However, numerous academic scholars provide characteristics of entrepreneurs as those individuals involved in new business creation (Gartner, 1990), as well as exhibiting traits, processes and activities (Kaufmann & Dant, 1998).

A linkage between personality characteristics and entrepreneurs was seen and specific focus was placed on Urban and Venter (2015) and their discussion of the Big Five dimensions of entrepreneurship, which are broken down to self-efficacy, the need for achievement, locus of control, need for autonomy and risk-taking (Urban & Venter, 2015).

Further research highlighted the numerous scholars and the research they conducted on the Big Five characteristics of entrepreneurs. As discussed above, the difficulty that this research report experienced is the lack of literature relating to personality traits and the impact they hold on business success (Sandberg & Hofer, 1987; Cromie, 2000; Harrell & Alpert, 1979; D'Intino et al., 2007).

Nevertheless the characteristic were discussed relative to research conducted and where possible, highlighted the findings of the researchers and the outcomes relating to business success. The literature will be used to discuss the findings of this research report in chapter 5.

2.4.1 *Research Question 1:*

Does an entrepreneur's self-efficacy contribute towards business success?

2.4.2 *Research Question 2:*

Does an entrepreneurs need for achievement contribute towards business success?

2.4.3 *Research Question 3:*

Does an entrepreneur's internal locus of control contribute towards business success?

2.4.4 *Research Question 4:*

Does an entrepreneurs need for autonomy contribute towards business success?

2.4.5 *Research Question 5:*

Does an entrepreneur's risk-taking orientation contribute towards business success?

CHAPTER 3. RESEARCH METHODOLOGY

3.1 Research Methodology

Various methodologies exist in research with the most common being qualitative or quantitative. Creswell (2013) discusses that historically these methodologies were distinguished through the use of words and numbers respectively (Creswell, 2013). Further, Creswell (2013) suggest that the main distinction between these two paradigms is through the theoretical assumptions researchers use (Creswell, 2013).

Quantitative research has been defined as a methodology for examining objective theories by inspecting the relationship that exists between variables (Creswell, 2013). Qualitative research is defined as a methodology used to discover and analyse the significance of situations that individuals give credit to (Creswell, 2013). The primary distinction between the two methodologies as stated by Creswell (2013) is that quantitative research uses closed-ended questioning such as quantitative research hypotheses or research questions, whereas, qualitative research makes use of case studies and interview based questioning (Creswell, 2013).

As a result of the literature from (Creswell, 2013) this study has made use of a quantitative research methodology to answer the five research questions.

An online survey will be used to gather the data, through a structured questionnaire. The objective of the survey is to ascertain whether South African entrepreneurs, who have achieved business success, can attribute areas of their success to the Big Five characteristics as defined by Urban and Venter (2015) as self-efficacy, need for achievement, locus of control, need for autonomy and risk-taking (Urban & Venter, 2015).

The research report begins with a proposal intended to ascertain what the factors of success were for high-growth entrepreneurs within South Africa. The literature review covered parts that are relevant to the understanding of entrepreneurship and the research methodology will focus on how the research problem will be answered.

Traditionally, researchers have favoured quantitative data above qualitative data due to the researchers beliefs that evidence was better collected when utilising objective quantitative measures (Durrheim & Painter, 2006). Additionally, Maxwell (2005) suggests that “quantitative research is interested in discovering the variance and regularity – in the effects of one or more particular independent variables on an outcome” (Maxwell, 2005 as cited in Cohen, Manion, & Morrison, 2013, p. 227).

3.2 Research Design

According to Tredoux and Smith (2006), validity is a significant concept that be considered when designing research (Tredoux & Smith, 2006). For this reason, an online survey, available to only entrepreneurs with businesses of at least eighteen months, will be utilised so as to gain more insight into what makes entrepreneurs successful.

As with any research design, there are pro’s and con’s over using one method versus other methods. Both advantages and disadvantages will be considered when analysing the data and corresponding results.

3.2.1 *Advantages of this research design*

The following advantages pertain to this study:

- Ease of access to a large population, not limited to one specific demographic area within South Africa
- A broad range of entrepreneurs within a wide variety of businesses
- Convenient for participants as they can access the survey from any device and at any time
- The participant can remain anonymous
- The data can be analysed objectively as compared to other methods of collecting the data, so as to avoid bias
- Administration of the survey is considered easy to carry out (Wyse, 2012).

3.2.2 *Disadvantages of this research design*

The following disadvantages pertain to this research:

- The online survey will only be available to those entrepreneurs who have access to computers, internet, as well as those that receive the email to the survey link.
- Due to the survey consisting of only closed-ended questions, the validity of the survey may be affected.
- Misinterpretations may be made by both the participant, as well as the researcher.
- Respondents may not be truthful when answering the questions.

The researcher has made use of entrepreneurs whom form part of entrepreneurial clubs with established businesses, thus alleviating the disadvantage linked to computer and email access. Additionally, the validity of the data being affected has been mitigated through the avenues used for data collection, in so far as only entrepreneurs whom have business eighteen months or older were asked to participate.

3.3 Population and sample

3.3.1 *Population*

The population consists of entrepreneurs in South Africa, which have been in operations for no less than eighteen months.

3.3.2 *Sample and sampling method*

The sample of this research will include entrepreneurs that have been in operation for more than eighteen months and that will be notified of the survey through email and will correspondingly access the link to Qualtrics, the survey software being utilised.

The sampling method that is going to be utilised for this research is non-probability sampling, with the use of purposive sampling as it is aimed at a specific population of people (Durrheim & Painter, 2006). "Non-probability sampling refers to any kind of sampling where the selection of elements is not determined by the statistical principle of randomness" (Durrheim & Painter, 2006, p. 139). Saunders (2011) states that for all non-probability sampling techniques, including purposive sampling, the exact sample size is difficult to determine (Saunders, 2011). Thus, the sample size intended for this research is aimed at a minimum of eighty participants, so as to obtain sound validity and reliability of the study.

Coviello and Jones (2004) agree with Saunders (2011) in that purposive sampling creates results that are challenging to generalise (Coviello & Jones, 2004). Tongco (2007) explains that purposive sampling is fundamentally biased and that the biases must be noted (Tongco, 2007).

Resultantly, the academic literature surrounding purposive sampling discusses the importance of validity and reliability in mitigating the pitfalls related to the sampling technique. To minimise sampling error and alleviate bias the internal and external validity measures as well as how reliability was tested have been discussed within this chapter.

In addition to purposive sampling, the research report made use of self-selection sampling, as the entrepreneurs that received the survey, determined themselves, whether or not to participate (Saunders, 2011).

Saunders (2011) advises that when research is conducted using a self-selection sample, the researcher must advertise via the appropriate channels to the respondents and to subsequently “collect the data from those who respond” (Saunders, 2011, p. 241).

Resultantly, the respondents were obtained through various distribution channels, including:

- Entrepreneurship clubs, such as Alpha Code
- Entrepreneurs that the researcher knew

Keeping in-line with the research surrounding self-selection sampling, respondents who participate via these distribution channels will be allowed to opt-out at any time and no compensation will be offered to any respondent who completes the survey.

3.4 The research instrument

This research paper will utilise a self-designed internet based survey. The survey will consist of closed-ended questions and is a structured survey. Participants will be asked to select their preference from an assortment of prearranged choices.

The questionnaire will consist of certain questions aimed at a determining a base as well as to ascertain each respondents business success level. Business success for this research paper has been adapted from Krauss et al. (2005) whom calculated business performance as follows (Krauss et al., 2005):

- The size of the entrepreneurs business
  - Measured against number of employees
- Business growth
  - Profit margins
    - Year on year increase or decrease?
  - Customers
    - Did customers increase or decrease relative to the previous year or did it stay the same?
    - By what percentage did the customer base increase or decrease?
  - Revenue growth
    - Year on year increase or decrease?

Additionally, questions will be adopted from assessment of entrepreneurial self-efficacy found in (Urban & Venter, 2015) as well as the different areas of risk-taking will be included in the question set, under the section on risk-taking.

The reminder of the survey has not been adapted, due to difficulty in locating other surveys which addressed the questions that this research report requires.

The questionnaire and cover note can be found in the appendix as follows:

- Appendix 1 – research survey questionnaire
- Appendix 2 – cover note

3.5 Procedure for data collection

The procedure for data collection will be carried out through the completion of an online survey developed and administered using Qualtrics survey software. For ease of use, the survey will be administered via the internet.

The survey will be distributed via the following channels:

- Entrepreneurship clubs, such as Alpha Code
- Entrepreneurs that the researcher knew

3.6 Data analysis and interpretation

As mentioned previously, data will be collected through an online survey questionnaire utilising Qualtrics software. The researcher will then conduct analysis through descriptive statistics.

Various types of descriptive statistics may be used, such as frequencies, averages, standard deviations, percentages, graphs and tables (Sapsford & Jupp, 2006). Descriptive statistics is the most widely used measure of data analytics found in research report, and cover the three major measures of "central tendency, measures of variability and measure of location" (Sapsford & Jupp, 2006, p. 10).

The study will make use of a dependent variable, business success, and multiple independent variable, such as self-efficacy, need for achievement, locus of control, need for autonomy and risk-taking. A dependent variable is classified as the variable that is being measured whilst the independent variable is the variable you control and its value is not impacted by other variables in the study (Helmenstine, 2015).

3.7 Limitations of the study

- Business data
    - Krauss et al. (2005) identified through the research findings, that African entrepreneurs, may show reluctance in disseminating business related

information, such as profit margins and sales growth figures (Krauss et al., 2005).

3.8 Validity and reliability

3.8.1 *External validity*

External validity speaks to whether the outcomes of the research can be generalised beyond the sample population used in the study (Bryman, 2012). Essentially, the researcher is attempting to prove that the sample populations is representative of the whole high-growth entrepreneurial population that meets the delimitations of the study (Bryman, 2012).

The research samples South African entrepreneurs who are classified as either new entrepreneurs or established business owners and have been in operation for at least eighteen months. Herrington and Kew (2016) use a sample population of two thousand adults, through the administration of the APS to measure the key entrepreneurship indicators (Herrington & Kew, 2016). Based on this, external validity can be related to the sample population used for this study.

3.8.2 *Internal validity*

Loewenstein (1999) explains that internal validity is how research can show causality (Loewenstein, 1999). Adding to this, Bryman (2012), describes that internal validity, assess the legitimacy of research findings that show a causal relationship between an independent and dependant variable (Bryman, 2012).

This study uses multiple independent variables against the dependant variable, business success.

3.8.3 *Reliability*

Contextually, reliability relates to the extent to which a research tool, equivalent to this paper's survey will yield consistent outcomes under equivalent conditions (Roberts, Priest, & Traynor, 2006). Heale and Twycross (2015), discuss that statistically, an estimate of reliability is attainable via various measures (Heale & Twycross, 2015).

After reviewing the various measures available to test for reliability, this report will make use of the Cronbach's Alpha Coefficient as it gauges the internal consistency of individual questions (Cronbach, 1951 as cited in Roberts et al., 2006).

Additionally, Shuttleworth (2009) indicates that Cronbach's Alpha factors into account the amount of probable replies and sample size (Shuttleworth, 2009). The survey created for this report, consists of 37 questions to be answered using a Likert scale ranging between one and five. This further justifies the use of Cronbach's Alpha, as Shuttleworth (2009) explains that a "40-question test with possible ratings of 1 - 5 is seen as having more accuracy than a ten-question test with three possible levels of response" (Shuttleworth, 2009, p. 4).

CHAPTER 4. PRESENTATION OF RESULTS

4.1 Introduction

The purpose of this chapter is to present the research findings from the survey issued. The results will be depicted through the quantitative method of descriptive statistics as discussed in the research methodology. Result will be specifically shown in-line with the research questions posed in chapter three.

The researcher developed the research survey using Qualtrics, an online survey platform. The survey was designed to ascertain entrepreneurial factors of success in relation to the Big Five Characteristics as defined by Urban and Venter (2015). The dependant variable adapted from Krauss et al. (2005) definition of business success formed the first five questions of the survey. The remaining fourteen primary and thirty two secondary questions were Likert scale questions pertaining to the different characteristics as defined by (Urban & Venter, 2015).

The findings illustrated below are based on entrepreneur’s perception of the impacts the big five characteristics have had on the success of their business ventures.

4.2 Results of the survey

As per the sample and sampling method of this study, a minimum of eighty respondents were required. The survey was distributed via the following channels:

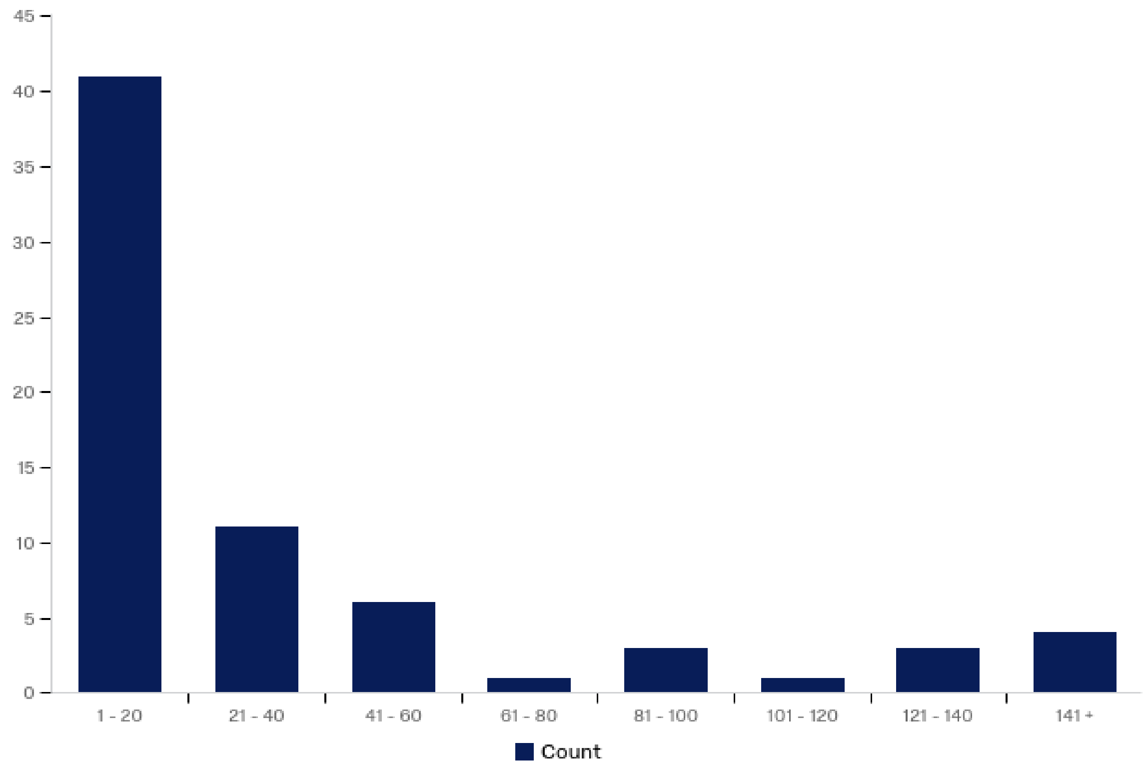
- Emails of the survey link were sent to entrepreneurs who formed part of the entrepreneurship club Alpha Code
- Friends and family who were entrepreneurs and met the primary delimitation of the study were conducted and emailed

The researcher locked the survey and began analysing the data on 23 February 2017 after the required 80 responses were received through Qualtrics survey software.

4.3 Results pertaining to business success

The following are the results from question 1 to question 5 of the survey surrounding business success.

4.3.1 *How many individuals does your business employ on a fixed and permanent basis?*



The above graph represent the results of the first question of the survey. The question was designed to ascertain the number of employees the entrepreneurs have in their employ. The majority of respondents (59 %) employ between one and twenty individuals with 16% of the entrepreneurs who responded employing twenty-one to forty people. The remaining 25 % of respondents employ between forty-one to as much as but not limit to one hundred and forty employees.

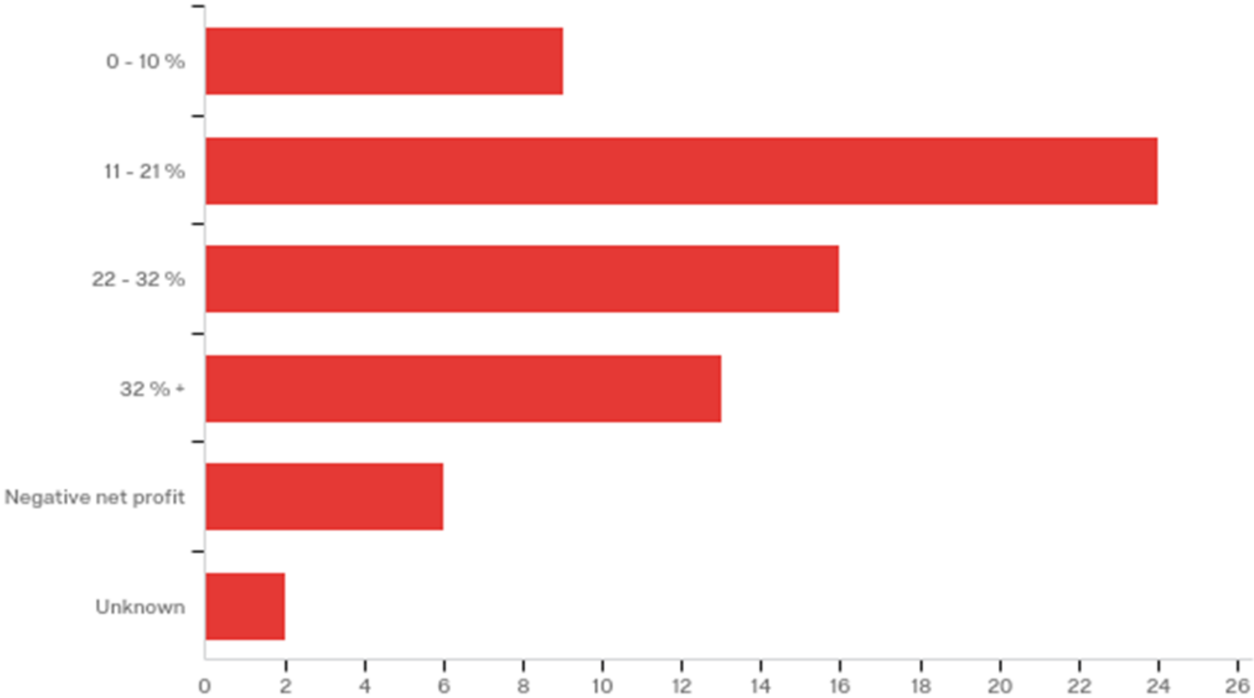
Number (#)	Employees	Percentage (%)	Count
1	1-20	59%	41
2	21-40	16%	11
3	41-60	9%	6
4	141 +	6%	4
5	81-100	4%	3
6	121-140	4%	3
7	61-80	1%	1
8	101-120	1%	1

An interesting observation to question one of the survey is the respondent's weightings to their number of employees. As per the table above, the number of employees does not ascend chronologically as the researcher had expected.

Of all the respondents to question 1 of the survey, 6 % employ more than one-hundred and forty people indicating to the researcher that several respondents have large businesses. The lowest responses to employee size was 1 % of entrepreneurs who employ anywhere from one-hundred and one to one-hundred and twenty individuals with the largest weighting of responses (59 %) to those entrepreneurs who employ between one and twenty people.

4.3.2 *Please select below the applicable % for your business net profit margins*

The second question asked in the survey requested entrepreneurs to indicate the band for which their businesses net profit margins lay. The researcher attempted to ascertain through this question the profitability of ventures older than eighteen months and whether or not entrepreneurs had an understanding of their profitability margins.

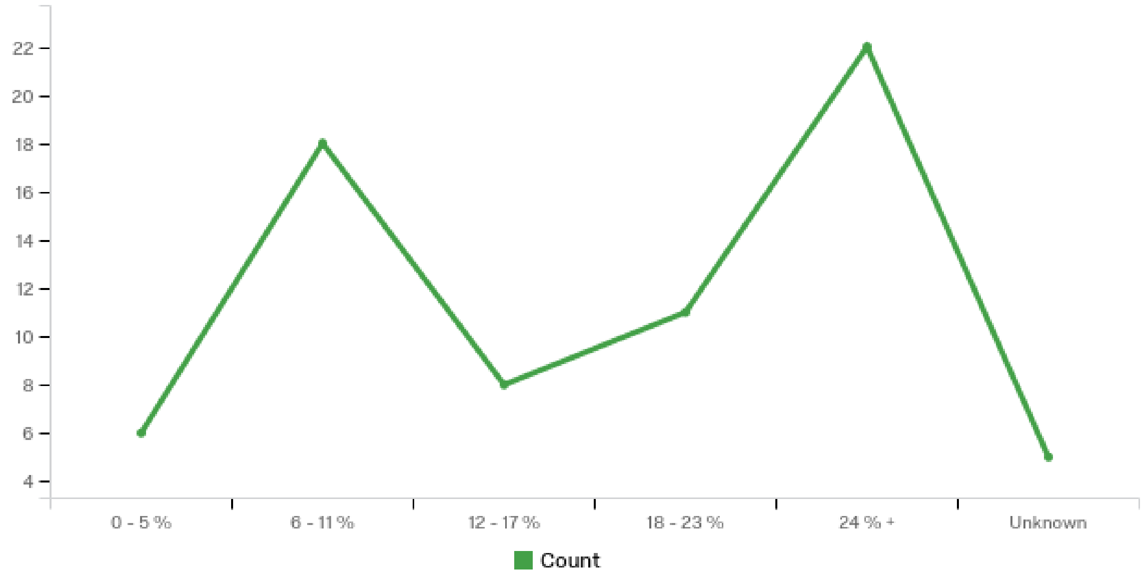


The result pertaining to question two of the survey indicated that 9 % of the entrepreneurs who participated in the study achieved negative net profit and 2 % of the respondents selected unknown on the survey which designates that these entrepreneurs do not know their businesses net profit margins.

The remaining 89 % entrepreneurs who participated in this question selected profit margins from zero to greater than or equal to thirty-two percent. The majority of the respondents (34 %) achieve net profit margins in the band of eleven to twenty-one percent with 23 % achieving net profits of twenty-two to thirty-two percent.

A sizeable 19 % of respondents indicated that their business ventures attain net profit margins of a minimum of 32 percent. After removing those entrepreneurs who either achieve negative net returns or did not know what the margins were an average of 22.15 % of the survey respondents achieve a positive net profit margin.

4.3.3 *If your business has achieved a year on year increase in customer base, please select the applicable % below*



In the study the researcher posed the question surrounding year on year increase in a business's customer base to specifically ascertain one part of business success.

Seventy completed responses were recorded for this question, to which the highest response weighting of 31 % indicated a year on year increase in their businesses customer base of greater than or equal to 24 percent. Of the total recorded responses only 7 % selected unknown. The results yielded that 9 % of entrepreneurs who partook in the study experienced a year on year increase in customers of between zero and five percent, 26 % showed an increase anywhere between six and eleven percent and the remaining 27 % of respondents indicated that their businesses gained anywhere between twelve and twenty-three percent more customers than they had in the previous year.

4.3.4 *If your business has experienced a year on year decrease in customer base, please select the applicable % below*

The follow on question provided for in the survey was to realise to what extent some of the entrepreneurs partaking in the study experienced the loss of customer's year on year. The table below indicates the responses to a year on year decrease in customer base.

Number (#)	Decrease in Customer Base	Percentage (%)	Count
1	0 - 5 %	40%	28
2	6 - 11 %	1%	1
3	12 - 17 %	3%	2
4	18 - 23 %	3%	2
5	24 % +	0%	0
6	Unknown	53%	37

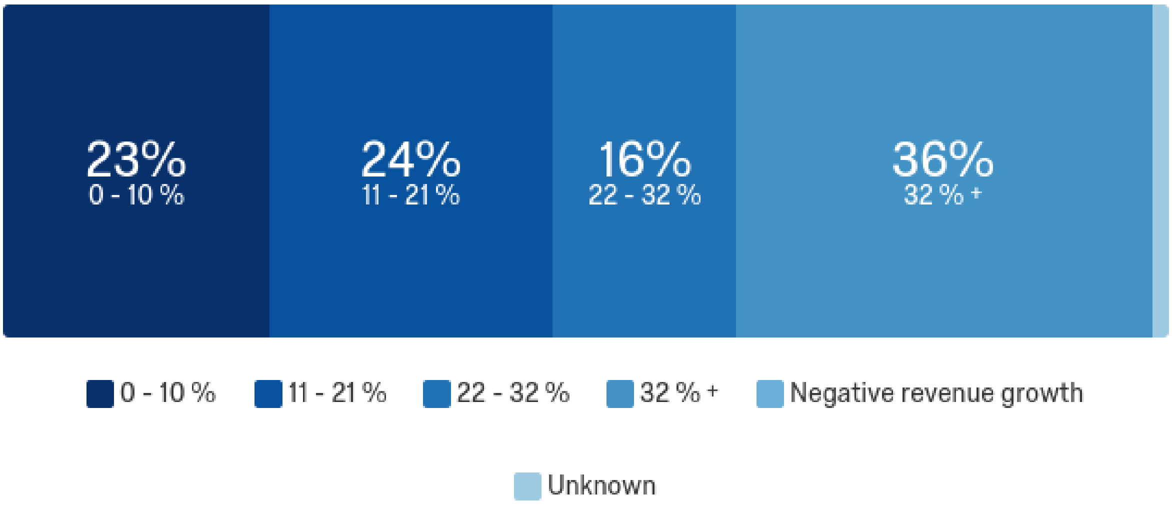
In-line with question 3 of the survey to which entrepreneurs were requested to select the year on year increase in customer base, the majority of responses (53 %) to question 4 indicated unknown, which for purposes of this study equates to not applicable as those respondents would have already indicated an increase in customers.

40 % of respondents to this question showed that their customer base decreased between zero and five percent of the last year with the remaining 7 % of respondents

highlighting a decrease to their businesses customer base of anywhere between six and 24 plus percent.

4.3.5 *Please indicate your businesses year on year revenue growth*

The researcher deemed the above question pivotal in ascertaining whether an entrepreneur's business venture achieves some form of revenue or sales growth on a year on year basis. The above breakdown bar indicates the survey participant's results.



The results show that 0 % of the survey's respondents selected negative revenue growth indicative of a positive response to entrepreneurs with ventures older than eighteen months. Only 1 % of the survey participants selected unknown for revenue growth. The minimum number of responses (16 %) designated that their businesses achieved between twenty-two and thirty-two percent year on year revenue growth. Statistically, the maximum responses (36 %) showed year on year revenue growth for their ventures is at least a minimum of thirty-two percent.

The remaining 47 % of respondents show a combined revenue growth of between zero and twenty-one percent. This consolidation of results is comprised of 23 % indicating revenue growth of zero to ten percent and 24 % highlighting their businesses revenue growth between eleven and twenty-one percent.

To better represent the respondents scoring of revenue growth the below table has been included. As can be seen below, the results with the highest response count show thirty-two or more percentage growth with the lowest (0 %) showing negative revenue growth.

The researcher focused the remaining questions in the survey around the Big Five characteristics of entrepreneurs and the question set was adapted from Urban and Venter (2015).

4.4 Results pertaining to research question 1 – Does an entrepreneur's self-efficacy contribute towards business success?

The researcher constructed the following 5 questions, namely; opportunity recognition, innovation, management, risk-taking and financial control to assess survey participants levels of self-efficacy as adapted from (Urban & Venter, 2015).

Number (#)	Year on year Revenue Growth	Percentage (%)	Count
1	32 % +	36%	25
2	11 - 21 %	24%	17
3	0 - 10 %	23%	16
4	22 - 32 %	16%	11
5	Unknown	1%	1
6	Negative revenue growth	0%	0

The section pertaining to self-efficacy was divided into 5 primary areas of focus with each primary area consisting of 3 secondary measurements all in Likert scale format with a range of 1 to 5. An answer of 1 would rank lowest on the Likert scale as "not very much like me" and ascend to the highest ranking number of 5 which indicates "very much like me".

4.4.1 *Opportunity recognition*

Three Likert Scale questions were constructed for opportunity recognition and the impact this has on self-efficacy.

Question	1 - not very much like me	2	3	4	5 - very much like me
I can set and meet market share goals	3%	9%	29%	35%	24%

The results pertaining to the above question indicates that the entrepreneurs who partook in the study acknowledge a strong ability to set and meet market share goals. 35 % of respondents selected a 4 on the Likert scale with 24 % opting 5 or very much like themselves. 29 % of survey participants indicated that one's ability to set and meet market share goals is in the middle at around 3. The remaining 12 % selected either not very much like me or 2.

Question	Mean	Standard Deviation	Variance
I can set and meet market share goals	3.68	1.03	1.07

The mean (average) of the data for the question above is at 3.68, indicating that all the participants that took part in the study averaged a response of above three for their ability to set and meet market share goals. The standard deviation was 1.03 of the mean and the variance 1.07.

Question	1 - not very much like me	2	3	4	5 - very much like me
I can set and meet sales goals	2%	11%	21%	38%	29%

Participant's responses to whether they can set and meet sales goals varied across all points of the Likert scale. However, the majority of respondents (38 %) indicated a strong sense of ability in setting and achieving sales goals through the selection of 4 out of 5.

The second largest respondent rate (29 %) showed complete confidence in one's ability to set and meet sales goals through selecting the highest point on the Likert scale, which represents 'very much like me'. The balance of respondents (34 %) ranged between 'not very much like me' to 3 on the scale. More specifically, the mid-point 3 was chosen by 21 % of the sample study.

Question	Mean	Standard Deviation	Variance
I can set and meet sales goals	3.82	1.01	1.03

The statistical data denotes that the majority of the sample study indicated a strong sense of ability to set and achieve sales targets as is represented by a mean of 3.82 and a standard deviation of merely 1.01. The variance of 1.03 away from the mean further supports this finding.

Question	1 - not very much like me	2	3	4	5 - very much like me
I can conduct market analysis	5%	9%	21%	36%	29%

In line with the above results, the third question surrounding opportunity recognition shows that majority of respondents (36 %) felt strongly in their ability to conduct efficient market analysis, whilst 29 % of the participants in the study selected 5 (very much like me) on the Likert scale, thus indicating a resolute sentiment towards their aptitude in conducting market analysis.

Question	Mean	Standard Deviation	Variance
I can conduct market analysis	3.76	1.10	1.21

The statistical results specify that there was a sense of commonality between the questions probed for opportunity recognition. The average Likert scale response for conducting market analysis was 3.76, representing a high sense of capacity for competent market analysis.

The results for the above question showed a somewhat large dispersion against the means as indicated by a standard deviation of 1.10 and a variance from the mean of 1.21.

4.4.2 *Innovation*

In line with the above section pertaining to opportunity recognition, the following three Likert scale questions were created around innovation and the influence this has on self-efficacy.

Question	1 - not very much like me	2	3	4	5 - very much like me
I am good at developing new business ideas	3%	3%	8%	33%	53%

The survey participants that concluded the questions regarding innovation depicted through their choices a high sentiment towards being virtuous at developing new business ideas. This is validated through 53 % of the survey respondents selecting the highest rank on this survey's Likert scale (5 – very much like me). Additionally, 33 % of the respondent's designated the second highest rank of 4 on the scale.

Only 14 % of the participants selected their rank between 1 and three, thus indicating that the entrepreneurs who partook in the survey feel that they are strong at developing new business ideas.

Question	Mean	Standard Deviation	Variance
I am good at developing new business ideas	4.3	0.95	0.91

Aligned to the above response weightings, the mean for the above question was 4.3 which is indicative of a high average for a Likert scale ranging between 1 and 5. The dispersion was not significantly high with the standard deviation of the mean calculated at 0.95 and the variance at 0.91.

Question	1 - not very much like me	2	3	4	5 - very much like me
I am good at developing new products or services	0%	2%	17%	42%	39%

Entrepreneurs who were involved in the survey were slightly more spread in their decisions for their ability to develop innovative products or services. This is seen from the results which indicate that the majority of respondents (42 %) ranked themselves 4 on the scale, 39 % chose rank 5 (very much like me) and 17 % selected 3 on the Liker scale.

An interesting result is that of the survey participants, 0 % chose the lowest point on the scale (1), thus showing the researcher that entrepreneurs have an affinity to developing new products and/or services.

Question	Mean	Standard Deviation	Variance
I am good at developing new products or services	4.2	0.76	0.58

The respondent's answers yielded an average of 4.2 with a standard deviation of 0.76 and a variance of 0.58. The standard deviation of 0.76 indicates to the researcher that the data points are spread over a wider area.

Question	1 - not very much like me	2	3	4	5 - very much like me
I can find new markets and territories	0%	5%	20%	47%	29%

The results pertaining to the question "I can find new markets and territories" yielded the following: only 5 % of participants showed that do not feel that they are able to locate new markets and territories as a result of their selection of 2 on the scale. 20 % of the responses were impartial to their ability to identify new markets, whilst the highest amount of responses (47 %) indicated a high probability of finding new markets and territories. 5 on the Likert scale received responses from 29 % of the survey participants, thus indicating a strong sense of belief to find new markets and territories.

Question	Mean	Standard Deviation	Variance
I can find new markets and territories	4	0.82	0.67

The mean for whether an entrepreneur can locate a new market or territory is 4, with a standard deviation of 0.82 and a variance of 0.67.

4.4.3 *Management*

Question	1 - not very much like me	2	3	4	5 - very much like me
I am good at strategic planning	3%	5%	8%	39%	45%

The results for the first question under the management section show that the majority (45 %) of respondents feel that they are very strong at strategic planning, with 39 % of participants ranking themselves good at strategic planning. This yielded a positive response in that 84 % of this respondents feel that they are strongly aligned to strategic planning. The remaining 8 % of the respondents indicated that strategic planning is not suited to them.

Question	Mean	Standard Deviation	Variance
I am good at strategic planning	4.2	0.97	0.95

The question “I am good at strategic planning” has a mean of 4.2 with a wide spread as indicated by the standard deviation of 0.97 and a variance of 0.95.

Question	1 - not very much like me	2	3	4	5 - very much like me
I can establish and achieve goals	0%	6%	11%	42%	41%

The results for the above question are interesting in that 42 % and 41 % of the respondents selected the highest rank on the Likert scale respectively. This shows that 83 % of the participants believe that they can establish and achieve goals. 11 % of the respondents indicated that they are impartial to setting and/or achieving goals. As seen previously in the innovation questions, 0 % was recorded for the lowest ranking on the Likert scale and only 6 % of participants recorded a 2 for the question, indicating that they do not feel establishing and achieving goals is a strong competency of theirs.

Question	Mean	Standard Deviation	Variance
I can establish and achieve goals	4.18	0.85	0.72

The average rank chosen by participants for this question was 4.18 which is representative of a large portion of the sample study acknowledging strength in the creation and execution of business goals.

Question	1 - not very much like me	2	3	4	5 - very much like me
I can define organisational roles	0%	8%	15%	41%	36%

The last question for the management section requested participants to rank where they felt their strength lay in defining organisational roles. The results show that 4 on the Likert scale was the most popular choice with 41 % of respondents selecting this rank. The second highest response rate was recorded for rank 5 on the Likert scale. The remaining 23 % of participants selected either 2 or 3 on the scale. The lowest rank on the scale, namely 1, recorded no selections.

Question	Mean	Standard Deviation	Variance
I can define organisational roles	4.06	0.9	0.81

The mean rank for the above question is 4.06 and the standard deviation is 0.9 with a variance away from the mean of 0.81. The mean of 4.06 is in line with the above data, in so far as 77 % of respondents selected either rank 4 or 5.

4.4.4 *Risk-taking*

Three Likert Scale questions were constructed for risk-taking and the impact this has on self-efficacy.

Question	1 - not very much like me	2	3	4	5 - very much like me
I take calculated risks	0%	8%	20%	42%	30%

To further ascertain an entrepreneur's self-efficacy in relation to business success, the researcher posed three questions to the study's participants. The first question was "I take calculated risks", to which 42 % of the respondents selected rank 4 indicating that the respondents feel that they calculate risk. 30 % of the respondents selected the highest rank (5) which highlights only taking calculated risks. The mid-point rank (3) received 20 % of the study's participants. Only 8 % recorded a low level of calculations before taking risk.

Question	Mean	Standard Deviation	Variance
I take calculated risks	3.95	0.89	0.8

The mean was calculated at 3.95 with a standard deviation of 0.89, indicating a sizeable spread from the mean.

Question	1 - not very much like me	2	3	4	5 - very much like me
I am comfortable with uncertainty and risk	6%	9%	20%	39%	26%

Although 72 % of the participants indicated that they take calculated risks, as per the findings of the first question under the risk-taking section, 26 % of respondents and 39 % of the respondents selected rank 5 and 4 respectively for the question "I am comfortable with uncertainty and risk". 6 % of the participants did record that they do not favour uncertainty and risk and 9 % rank uncertainty and risk at a 2 on the Likert scale, indicating their disfavour with ambiguity and risk.

Question	Mean	Standard Deviation	Variance
I am comfortable with uncertainty and risk	3.7	1.13	1.27

The mean of 3.7 is slightly lower than the previous questions mean of 3.95. However, a large standard deviation (1.13) was recorded which indicates that the data points are widely spread around the mean.

Question	1 - not very much like me	2	3	4	5 - very much like me
I can work under pressure	0%	2%	5%	39%	55%

A large majority of the respondents indicated that they can work under pressure. More specifically, 55 % of participants selected the highest possible rank and 39 % of respondents chose 4 on the Likert scale.

Question	Mean	Standard Deviation	Variance
I can work under pressure	4.47	0.66	0.43

Due to the majority of respondents indicating that they can work under pressure, the mean is at 4.47. The standard deviation of 0.66 and the variance of 0.43 relate to the high average of 4.47 in so far as representing a low spread.

4.4.5 *Financial control*

Question	1 - not very much like me	2	3	4	5 - very much like me
I can perform financial analysis	5%	11%	20%	20%	45%

The results pertaining to how entrepreneurs perceive their ability to perform financial analysis indicates that 45 % of the participants feel highly capable of performing such analysis. 20 % of the respondents selected 4 on the Likert scale as well 20 % of respondents chose 3. Several (5 %) participants ranked themselves weak at performing financial analysis.

Question	Mean	Standard Deviation	Variance
I can perform financial analysis	3.91	1.22	1.48

As per the above response, the mean is 3.91 and the data points are widely spread over the distribution as can be seen by the standard deviation of 1.22.

Question	1 - not very much like me	2	3	4	5 - very much like me
I can develop financial systems	6%	20%	26%	18%	30%

Question	Mean	Standard Deviation	Variance
I can develop financial systems	3.47	1.27	1.61

A wide spread in responses can be seen by the results above. This spread is further confirmed through a standard deviation of 1.27 and a relatively low mean of 3.47 as seen in the data below.

When asked if one can develop financial systems the majority (30 %) indicated ability in performing the task. This was ratified through the 30 % choosing 5 on the Likert scale. 26 % of the participants chose the mid-point on the scale (3) indicating that they feel average in their ability to achieve such a task. 18 % of respondents selected 4 on the scale with 20 % opting for 2, indicating an inability in developing financial systems.

Question	1 - not very much like me	2	3	4	5 - very much like me
I can control costs	0%	12%	14%	35%	39%

74 % of the respondents selected either rank 4 or 5 on the Likert scale. The high response rate indicates a sentiment of the ability to manage costs in a business. 14 % of participants selected 3 on the scale and 12 % chose 2. Zero respondents selected the lowest point on the scale.

Question	Mean	Standard Deviation	Variance
I can control costs	4.02	1.01	1.01

Can entrepreneurs control costs? As per the results to the above question, the sample study shows an average of 4.02 in their selection. The data spread is 1.01 standard deviations away from the mean.

4.4.6 *Conclusion of research question*

Question	Mean	Standard Deviation
Opportunity Recognition	**3.75**	
I can set and meet market share goals	3.68	1.03
I can set and meet sales goals	3.82	1.01
I can conduct market analysis	3.76	1.10
Innovation	**4.17**	
I am good at developing new business ideas	4.30	0.95
I am good at developing new products or services	4.20	0.76
I can find new markets and territories	4.00	0.82
Management	**4.15**	
I am good at strategic planning	4.20	0.97
I can establish and achieve goals	4.18	0.85
I can define organisational roles	4.06	0.90
Risk-taking	**4.04**	
I take calculated risks	3.95	0.89
I am comfortable with uncertainty and risk	3.70	1.13
I can work under pressure	4.47	0.66
Financial Control	**3.80**	
I can perform financial analysis	3.91	1.22
I can develop financial systems	3.47	1.27
I can control costs	4.02	1.01
Consolidated		
Average Mean	**3.99**	

The following can be concluded for the results pertaining to "Does an entrepreneur's self-efficacy contribute towards business success". An averaging of the means for each of the 5 questions that form self-efficacy yielded the following results. Innovation produced the highest mean of 4.17 for the respondents, with an entrepreneur's ability to manage showing the second highest mean of 4.15. The means for risk-taking, financial control and opportunity recognition were 4.04, 3.80 and 3.75 respectively. Self-efficacy in totality produced a mean of 3.99.

The consolidated mean of 3.99 indicates to the researcher that on a 5 point Likert scale entrepreneurs who partook in this study feel strongly towards self-efficacy playing a part in their success. A comparison against the business success results presented above further ratify to the researcher that entrepreneurs who have enterprises older than eighteen months, employ individuals, realise net profits and revenue growth factor self-efficacy as being a contributor to their entrepreneurial success.

The results display that the entrepreneurs who partook in this study show confidence in their capabilities to produce levels of performance that impact outcomes within their lives (Bandura, 1994 as cited in Ramachaudran, 1988).

4.5 Results pertaining to research question 2 – Does an entrepreneur's need for achievement contribute towards business success?

The second research question was asked to establish whether an entrepreneur's need for achievement contributes towards business success. The question was broken down into 5 sub-questions utilising a Likert scale. The scale ranked from 1 to 5 with 1 being "not very much like me" and 5 being "very much like me".

The results below have been depicted per sub-question and analysed by both the percentage response per rank on the scale as well as through the mean and standard deviation of each question.

4.5.1 *Taking responsibility of my tasks*

Question	1 - not very much like me	2	3	4	5 - very much like me
I take responsibility of my tasks	0%	2%	3%	26%	70%

The survey participant's results show the vast majority (70 %) selected 5 on the Likert scale indicating that the respondents felt taking responsibility for their own tasks was very much like them. The second largest response rate was recorded at rank 4 (second highest possible selection on the Likert scale) for only 26 % of the respondents. 3 % of the respondents selected the mid-point on the scale and 2 % indicated that they are not strong at taking responsibility of their tasks. Zero responses were shown or the lowest rank (1-not very much like me) on the scale.

Question	Mean	Standard Deviation	Variance
I take responsibility of my tasks	4.64	0.62	0.38

As per the above response rates, it can be seen that majority of the survey respondents indicated a strong feeling of being able to take responsibility of their tasks. This is further ratified by the mean of 4.64 out of a possible 5 and the low standard deviation of 0.62.

4.5.2 *Preference to non-routine tasks*

Question	1 - not very much like me	2	3	4	5 - very much like me
I prefer non-routine tasks	5%	5%	18%	24%	48%

In-line with the above question, the results pertaining to one's preference to perform non-routine tasks yielded a majority of responses, more specifically, 48 % selecting rank 5. 24 % of the survey participants chose rank 4 with 18 % opting for the mid-point. The remaining 10 % of respondents selected 1 and 2 equally.

Question	Mean	Standard Deviation	Variance
I prefer non-routine tasks	4.08	1.12	1.25

Question 2 in need for achievement shows a more spread set of data points as indicated by the standard deviation of 1.12. However, the results show a strong average of 4.08 indicating majority of respondents feel strong in their ability to prefer non-routine tasks.

4.5.1 *Setting challenging goals*

Question	1 - not very much like me	2	3	4	5 - very much like me
I set challenging goals	0%	3%	12%	35%	50%

When asked whether entrepreneurs set challenging goals, the majority of the survey's participants chose the highest point on the scale. A substantial 35 % of respondents selected 4 with only 12 % selecting 3. Zero responses were recorded for the lowest point on the scale.

Question	Mean	Standard Deviation	Variance
I set challenging goals	4.32	0.80	0.64

A high mean was recorded for the above question indicating that a large portion of the respondents rank themselves high in their ability to set challenging goals. The standard deviation calculated was 0.80.

4.5.1 *The need for feedback*

Question	1 - not very much like me	2	3	4	5 - very much like me
I need feedback	5%	12%	24%	26%	33%

The question above shows a spread amongst the respondents at a visual glance. Responses ascend chronologically from 5 % of respondents selecting 1 to 33 % of respondents selecting 5 on the Likert scale. 24 % and 26 % of the survey participants selected 3 and 4 respectively on the scale. The remaining 12 % of respondents chose 2 on the scale.

Consolidating the results shows that 59 % of respondents selected the high end of the scale indicating a strong need for feedback from others. The 17 % of respondents that form the low end of the scale have shown that they do not rely on feedback and can operates on their own.

Question	Mean	Standard Deviation	Variance
I need feedback	3.71	1.18	1.39

The lower mean of 3.71 relates to the wide variance in responses. This is further endorsed by a high standard deviation of 1.18. The lower mean shows that respondent's selections varied substantially on the Likert scale with an average response indicating impartiality to feedback.

4.5.1 *Comparing myself against others*

Question	1 - not very much like me	2	3	4	5 - very much like me
I compare myself against others	9%	14%	21%	24%	32%

When asked if one compares themselves against others the results indicate that the majority of only 32 % felt strongly related to this question. 24 % showed through their selection that they rank highly their need for comparison with others. 9 % of the respondents highlighted that they do not compare themselves to others. The remaining 35 % of respondents selected either 2 or 3 on the Likert scale representing a sentiment of impartiality to comparing themselves with others.

Question	Mean	Standard Deviation	Variance
I compare myself against others	3.56	1.3	1.7

The high spread in data points is shown through a standard deviation of 1.3. The mean is relatively low at 3.56 indicating that the average response of a survey participant highlights that they do not continually compare themselves against others.

4.5.2 *Conclusion of research question*

Question	Mean	Standard Deviation
Need for Achievement		
I take responsibility of my tasks	4.64	0.62
I prefer non-routine tasks	4.08	1.12
I set challenging goals	4.32	0.8
I need feedback	3.71	1.18
I compare myself against others	3.56	1.3
Average Mean	**4.06**	

The above graph depicts the average means and standard deviations for the different components asked in the survey for need for achievement. The average mean was calculated at 4.06 which indicates to the researcher that entrepreneurs relate need for achievement as a contributor towards business success. The average mean of 4.06 is slightly greater than the mean calculated for self-efficacy (3.99).

4.6 Results pertaining to research question 3 – Does an entrepreneur's internal locus of control contribute towards business success?

The following questions were composed to ascertain entrepreneurial participant's beliefs relating to locus of control, more specifically internal locus of control. People's perception of locus of control differs, in which those who believe that achievements, downfalls or any other outcome in their lives is a results of their own actions are believed to focus on internal locus of control (Ajzen, 2002).

The opposite holds true for external locus of control whose belief is that the outcomes they experience are controlled through coincidence, providence and destiny (Rotter, 1966 as cited in MacDonald, 1971).

To determine the respondent's preference towards the type of locus of control, the primary question is composed of 4 sub-questions utilising a Likert scale. The scale ranked from 1 being "not very much like me" and 5 being "very much like me".

The results are shown below and have been examined by both the percentage response per rank on the scale as well as through the mean and standard deviation of each question.

4.6.1 *Believing I am in control of my future*

Question	1 - not very much like me	2	3	4	5 - very much like me
I believe I am in control of my future	5%	5%	12%	24%	55%

The above question is a primary predictor of locus of control in which respondents ranking themselves in either rank 4 or 5 would indicate a strong sense of internal locus of control.

The results show that 79 % of the surveys participants feel that their success, downfalls and experienced outcomes (Kaufmann et al., 1995), are in their control, thus indicating to the researcher that the there is a high sense of internal locus of control amongst the sample population.

12 % of respondents indicated that they are in between internal and external locus of control. The remaining 10 % were split equally between rank 1 and 2 indicating that they do not believe that they control their own future.

Question	Mean	Standard Deviation	Variance
I believe I am in control of my future	4.2	1.1	1.22

The high mean of 4.2 further ratifies that the majority of the survey participants are in favour of internal locus of control. The spread amongst the mean is somewhat large as depicted by the standard deviation.

4.6.2 *Monitoring myself*

Question	1 - not very much like me	2	3	4	5 - very much like me
I monitor myself	2%	3%	12%	41%	42%

The responses captured highlight that 41 % and 42 % of participants monitor themselves, with only 12 % showing impartiality to this action. 2 % of the sample have shown that they do not monitor themselves at all.

Question	Mean	Standard Deviation	Variance
I monitor myself	4.2	0.87	0.76

In-line with the above question, it can be seen through the mean of 4.2 that the majority of respondents believe in monitoring themselves. The smaller spread indicates as per the standard deviation of 0.87 indicate that majority of the respondents fall near the mean.

4.6.3 *The belief that luck plays an important role*

Question	1 - not very much like me	2	3	4	5 - very much like me
I believe luck plays an important role	12%	21%	20%	27%	20%

Question	Mean	Standard Deviation	Variance
I believe luck plays an important role	3.21	1.31	1.71

When asked if luck plays an important role the respondents answers show a wide spread in opinion as seen by a 1.31 standard deviation of the mean. The mean of 3.21 is close to the mid-point of 3 thus indicating a similar response rate per rank on the Likert scale.

This is further backed at a visual glance by 12 % selecting not very much like me, 21 % indicting that they do not fully believe that lucks plays an important role. 20 % are in the middle and resultantly show neutrality to the luck playing a role.

27 % indicated through their selection of rank 4 that they feel strongly in luck playing a role whilst 20 % of partakers indicated that they believe luck plays an important role.

4.6.4 *Exposing my temperament easily*

Question	1 - not very much like me	2	3	4	5 - very much like me
I expose my temperament easily	11%	21%	20%	30%	18%

. Question	Mean	Standard Deviation	Variance
I expose my temperament easily	3.24	1.27	1.61

Survey participants who responded to the above question have shown a similarity in sentiment as per the question “I believe luck playing an important role”.

The results show that there was a wide spread in data points around the mean of 3.24. However, the majority of respondents selected rank 4 on the Likert scale indicating that they are susceptible to exposing their temperament. Results show that 11 % of participants do not expose the temperament easily. Surprisingly, the results show that 18 % of respondents are prone to losing their temper.

4.6.5 *Conclusion of research question*

The table below indicates the consolidated findings to locus of control.

Question	Mean	Standard Deviation	Average Mean
I believe I am in control of my future	4.20	1.10	3.71
I monitor myself	4.20	0.87	
I believe luck plays an important role	3.21	1.31	
I expose my temperament easily	3.24	1.27	

Comparing the results between "I believe I am in control of my future" and "I believe luck plays an important role" one can see a shifting in responses that indicates a majority of respondents align themselves with internal locus of control. The above graph illustrates the comparison through the depiction of statistical values such as mean and standard deviation. The average mean of 3.71 represents that on average the responses were above the mid-point (rank 3) on the Likert scale, thus showing a preference towards an internal locus of control.

The sub-questions which received the highest mean scores were Ï believe I am in control of my future" and "I monitor myself". Both questions responses average 4.20 indicating a strong sense of internal locus of control. The findings show that when entrepreneurs responded to "I believe luck plays an important role" that the data points were relatively wide from the mean (standard deviation = 1.31).

4.7 Results pertaining to research question 4 – Does an entrepreneur's need for autonomy contribute towards business success?

Following the previous research questions, the need for autonomy was based as a primary question as it forms part of the Big Five characteristics (Urban & Venter, 2015) that this study is predicated upon.

Need for autonomy relates to an entrepreneurs desire to act on their own conclusions when making decisions for their business (D'Intino et al., 2007). In order to ascertain an entrepreneur's need for autonomy 4 sub-questions were asked in Likert scale format. The sub-questions are as follows:

- I dislike receiving orders
- I trust my own decision making
- I need total control
- I dislike having bosses

The results from the study conducted have been analysed through the tables below.

4.7.1 *I dislike receiving orders*

Question	1 - not very much like me	2	3	4	5 - very much like me
I dislike receiving orders	3%	6%	20%	32%	39%

Responses indicate that 39 % of survey participants agree strongly to their abhorrence of receiving orders. The 39 % constitutes a majority in relation to this question. 32 % showed that they too dislike receiving orders.

Garland (1991) highlights that academic researchers have shown as their preference that respondents should make a definitive choice when selecting the ranks of a Likert scale, rather than selecting a neutral position (Garland, 1991).

Nevertheless, due to validity of the study a mid-point was used in the Likert scale and as such 20 % of the respondents showed impartiality towards their distaste for receiving orders. Only 3 % and 6 % of participants selected ranks 1 and 2 respectively. This response shows that a portion of the sample population is content with receiving orders. The discussions surrounding other literature pertaining to the need for autonomy may highlight differences, however this will be discussed in Chapter Five.

Question	Mean	Standard Deviation	Variance
I dislike receiving orders	3.98	1.05	1.11

The mean of 3.98 indicates that the majority of respondents have a strong resentment towards receiving orders. The standard deviation of indicates that there is a spread amongst the data points around the mean of 1.05.

4.7.2 *Trusting my own decision making*

Question	1 - not very much like me	2	3	4	5 - very much like me
I trust my own decision making	0%	3%	6%	41%	50%

50 % of the survey's participants showed that they strongly trust their decision making abilities. 41 % of respondents indicated a slightly lower trust for their own decision making abilities. However, as an indicator of trust for one's decision making capabilities a combined 91 % of respondents ranked the top two highest points on the Likert scale. Zero respondents selected not very much like me.

Question	Mean	Standard Deviation	Variance
I trust my own decision making	4.38	0.73	0.54

Further highlighting the above finding, the mean of 4.38 and the standard deviation of 0.73 showed that there was a high response from the survey participants towards trusting their own decision making.

4.7.3 *The need for total control*

Question	1 - not very much like me	2	3	4	5 - very much like me
I need total control	5%	17%	30%	33%	15%

The results showed that 30 % and 33 % of respondents do not feel strongly for total control but the latter do highlight that it is still a part of their characteristic. Only 15 % of the participants selected 5 on the scale indicated that they require complete control of their enterprises. The outcomes yielded that 17 % do not require total control over their enterprises.

Question	Mean	Standard Deviation	Variance
I need total control	3.38	1.07	1.14

The mean of 3.38 above further confirms the findings that the average response shows impartiality towards having total control of their business.

4.7.4 *I dislike having bosses*

Question	1 - not very much like me	2	3	4	5 - very much like me
I dislike having bosses	3%	6%	23%	26%	42%

In-line with the expectations of the researcher 42 % of respondents dislike having bosses. Further discussions to this will take place in Chapter Five below as comparisons are made against previous academic research in this regard.

26 % showed that they too dislike having bosses through their selection of 4 on the Likert scale. 23 % indicated that they are neutral towards having a boss. Respondents who selected rank 1 and 2 on the scale comprised only 3 % and 6 % respectively which indicates that there were several survey participants who are content with having a superior.

Question	Mean	Standard Deviation	Variance
I dislike having bosses	3.98	1.08	1.17

A high mean can be seen in the table above indicating that the majority of respondents dislike having bosses. The standard deviation represented is 1.08.

4.7.5 *Conclusion of research question*

Conclusion to the research question "Does an entrepreneur's need for autonomy contribute towards business success?" has been discussed below through the use of a consolidated table.

Question	1 - not very much like me	2	3	4	5 - very much like me	Mean	Standard Deviation
I dislike receiving orders	3%	6%	20%	32%	39%	3.98	1.05
I trust my own decision making	0%	3%	6%	41%	50%	4.38	0.73
I need total control	5%	17%	30%	33%	15%	3.38	1.07
I dislike having bosses	3%	6%	23%	26%	42%	3.98	1.08
					Average Mean	**3.93**	

The above table depicts the consolidated results for the 4 sub-questions that comprise the need for autonomy. The highest mean response was 4.38 for "I trust my own decision making" which also had a calculated standard deviation of 0.73 indicating a narrow spread of the response away from the mean. The lowest recorded mean was shown for "I need total control". The remaining two questions each exhibited means of 3.98 and the average for the need for autonomy was 3.93.

This average indicates that respondents felt strongly towards the questions posed in the survey. The findings to the above will be carried out in greater detail in Chapter Five when compared to other academic literature.

4.8 Results pertaining to research question 5 – Does an entrepreneur's risk-taking orientation contribute towards business success?

The final characteristic of the Big Five characteristics to which this study is based on is risk-taking and more specifically, whether or not an entrepreneur's risk-taking orientation contributes towards business success.

To ascertain an entrepreneurs risk taking orientation 4 questions were asked to the survey participants. The subsections below depict graphs that show the results for each of the 4 questions that comprise risk-taking.

4.8.1 *Prone to taking risks*

Question	1 - not very much like me	2	3	4	5 - very much like me
I am prone to taking risks	3%	9%	24%	44%	20%

The results pertaining to whether entrepreneurs are prone to taking risks showed that 44 % of respondents indicated that they are disposed to taking risk. Additionally, 20 % of respondents indicated that they are very much prone to taking business risks. 24 % of the participants registered neutral towards taking risks. Entrepreneurs who are not in favour of taking risks constituted 12 % of the survey's responses.

Question	Mean	Standard Deviation	Variance
I am prone to taking risks	3.68	0.99	0.97

Entrepreneurs who partook in this study recorded an average response of 3.63 on the Likert scale. It can be inferred that the above mean is greater than the mid-point of the scale and therefore the researcher deduced that entrepreneurs are somewhat inclined to taking risks.

4.8.2 *Being risk averse*

Question	1 - not very much like me	2	3	4	5 - very much like me
I am risk averse (i.e. do not like risks)	29%	36%	20%	9%	6%

The results show a majority of respondents indicating that they are not risk averse. This is further confirmed by the findings above in which the majority of respondents showed that they are prone to taking risks. Expanding on this shows that 64 % of respondents were prone to taking risks against 65 % indicating that they are not risk averse. The findings will be discussed in greater detail in Chapter Five through comparisons with literature that pertains to risk-taking and entrepreneurial success.

Question	Mean	Standard Deviation	Variance
I am risk averse (i.e. do not like risks)	2.27	1.15	1.32

The low average of 2.27 indicates that the majority of respondents felt that they are not risk averse, therefore corroborating the findings above in which the majority indicated they are strong. However, the relatively large variance of 1.32 suggests that there is a difference of opinion with regards to entrepreneurs feeling that they attempt to avoid risk.

4.8.3 *Being risk neutral*

Question	1 - not very much like me	2	3	4	5 - very much like me
I am risk neutral (i.e. 50/50 chance)	24%	26%	33%	15%	2%

When asked if one is risk neutral the majority of respondents (33 %) selected rank 3 on the Likert scale thus indicating impartiality towards risk. 26 % and 24 % of respondents selected 2 and 1 on the Likert scale respectively.

The findings show that the responses are in-line with the above questions for risk-taking as one can see that the bulk of respondents are not risk neutral. The researcher feels it is important to note that 15 % of participants did indicate that they are somewhat risk neutral.

Question	Mean	Standard Deviation	Variance
I am risk neutral (i.e. 50/50 chance)	2.44	1.06	1.13

The relatively low mean of 2.44 shows that the average response was nearer toward being not very much like me. The variance of 1.13 indicates that the data is somewhat spread from the mean, however, this is in-line with the above findings.

4.8.4 *Taking calculated risks*

Question	1 - not very much like me	2	3	4	5 - very much like me
I take calculated risks	2%	3%	9%	52%	35%

The findings show that the majority of respondents take calculated risks. More specifically, 52 % and 35 % of participants chose ranks 4 and 5 respectively. It can be inferred that the majority of respondents who are prone to taking risks as per the first sub-questions findings are making calculated decisions to take risks.

Question	Mean	Standard Deviation	Variance
I take calculated risks	4.15	0.82	0.67

Reviewing the results shows a relatively high mean of 4.15 with a low variance of 0.67. Statistically these findings showed that the majority of respondents favour analysing the variables they face before taking risks.

4.8.5 *Conclusion of research question*

Conclusion to the research question "Does an entrepreneur's need for autonomy contribute towards business success?" has been discussed below through the use of a consolidated table

Question	1 - not very much like me	2	3	4	5 - very much like me	Mean	Standard Deviation
I am prone to taking risks	3%	9%	24%	44%	20%	3.68	0.99
I am risk averse (i.e. do not like risks)	29%	36%	20%	9%	6%	2.27	1.15
I am risk neutral (i.e. 50/50 chance)	24%	26%	33%	15%	2%	2.44	1.06
I take calculated risks	2%	3%	9%	52%	35%	4.15	0.82
					Average Mean	**3.14**	

The table above shows the findings for risk-taking and the impact this has on entrepreneurial business success. The highest recorded mean was 4.15 for "I take calculated risks". The mean shows that entrepreneurs on average take risks provided that they have analysed the variables required before taking the decision to incur risk.

"I am prone to taking risks" recorded the second highest mean of 3.68. As the mean of 3.68 is greater than the mid-point of 3 on the Likert scale but less than 4, the researcher suggests that entrepreneurs who partook in the study are prone to taking risk but indicate some reservation in doing so.

When asked if an entrepreneur is risk averse and risk neutral the means of 2.27 and 2.44 respectively, indicate that the respondents do not feel strongly towards these concepts. Inversely, due to the results indicating that entrepreneurs are not against risks then the findings show that entrepreneurs are risk takers provided that they have calculated what the areas of risk exist.

4.9 Summary of the results

The analysis of the findings in chapter 4 culminate to the conclusion of whether or not the Big Five characteristics of entrepreneurs contribute towards business success. Due to the numerous variables of business success, the researcher was unable to peg a single dependent variable to each of the primary questions of this study.

However, the findings presented have allowed for an indication to the factors that contribute to business success. The majority of respondents indicated through the business success factors that they are in businesses that have shown success.

The primary distinction is that entrepreneurs who partook in this study had business ventures older than eighteen months and 89 % of survey respondents showed that their business has generated net profit. 100 % of respondents have in their employ at least one individual, with 6 % of the participants employing more than 141 people.

Further to this, a sound comparison was made for results pertaining to an increase or decrease in customer base, in which 93 % of the entrepreneurs involved in the study indicated an increase in customer base and business growth. Revenue growth was confirmed through 0 % of respondents showing negative revenue growth and only 1 % indicating that they were unsure of what their growth was. The remaining 99 % of respondents showed year on year revenue growth in their businesses.

As per the reliability of this study covered in the research methodology, the research made use of Cronbach’s Alpha Coefficient to test for reliability and internal consistency. Bland and Altman (1997) indicate that an Alpha value between 0.7 and 0.8 are acceptable in research (Bland & Altman, 1997). The Alpha value calculated for this study was 0.822, thus representing that the study as acceptable, reliable and internally consistent.

The findings relating to the research questions above have been summarised below. The results have been summarised according to the means calculated for each of the Big Five characteristics to which this study is predicated upon.

The table below shows the means and standard deviation of each primary question and the subsequent sub-questions.

Big Five Characteristics	Mean	Standard Deviation	Average Mean
Self-Efficacy			
Opportunity recognition	3.75	1.05	
Innovation	4.17	0.84	
Management	4.15	0.91	**3.98**
Risk-taking	4.04	0.89	
Financial control	3.80	1.17	
Need for Achievement			
I take responsibility of my tasks	4.64	0.62	
I prefer non-routine tasks	4.08	1.12	
I set challenging goals	4.32	0.80	**4.06**
I need feedback	3.71	1.18	
I compare myself against others	3.56	1.30	
Locus of Control			
I believe I am in control of my future	4.20	1.10	
I monitor myself	4.20	0.87	**3.71**
I believe luck plays an important role	3.21	1.31	
I expose my temperament easily	3.24	1.27	
Need for Autonomy			
I dislike receiving orders	3.98	1.05	
I trust my own decision making	4.38	0.73	**3.93**
I need total control	3.38	1.07	
I dislike having bosses	3.98	1.08	
Risk-taking			
I am prone to taking risks	3.68	0.99	
I am risk averse (i.e. do not like risks)	2.27	1.15	**3.14**
I am risk neutral (i.e. 50/50 chance)	2.44	1.06	
I take calculated risks	4.15	0.82	

The researcher has used the average of the means to show entrepreneurs preferences to each characteristic.

As seen from the above, each characteristic was presented to the entrepreneurs who took part in the study in a Likert scale. The Likert scale rank from one to five with one indicating 'not very much like me' and 5 indicating 'very much like me'. The mid-point of the scale indicated impartiality or neutrality to the question.

As such, the findings have shown that each characteristic received an average greater than 3, thus indicating that entrepreneurs showed they perceive the characteristics as being pertinent to their business success.

The researcher has ranked each characteristic below in order of importance beginning with the characteristic that entrepreneurs of this study showed as most important in their business success.

#	Big Five Characteristics	Mean
1	**Need for Achievement**	**4.06**
2	**Self-Efficacy**	**3.98**
3	**Need for Autonomy**	**3.93**
4	**Locus of Control**	**3.71**
5	**Risk-Taking**	**3.14**

As can be seen from the above table, the entrepreneurs ranked in order of importance to the contribution of business success their need for achievement, self-efficacy, need for autonomy, locus of control and risk-taking.

Need for achievement with a mean of 4.06 was ranked the highest in the survey. Due to the mean being greater than 4, this indicates that need for achievement was viewed as a considerable factor to entrepreneurial business success.

An entrepreneur's self-efficacy as a contributing characteristic towards business success was ranked on average at 3.98. The mean of 3.98 is substantially greater the mid-point of 3 and just less than the second highest possible rank of 4 on the Likert scale, therefore, the conclusion that can be made is that entrepreneurs believe enough in their ability to produce levels of performance that hold a positive effect on the outcomes in their lives (Bandura, 1994), that contributes towards business success.

The need for autonomy as suggested by Krauss et al. (2005) discusses that entrepreneurs hold an inverse relationship between taking orders from their bosses and prefer to trust their own instincts (Krauss et al., 2005). The mean of 3.93 highlights that on average entrepreneurs prefer to make their own decisions or at least be in a position to realise a sense of autonomy around decision making.

The research question was designed to ascertain whether an entrepreneur's internal locus of control contributes towards business success. An internal locus of control would be determined through the selection of a high rank on the Likert scale (i.e. rank 4 or 5).

The comparison above under the research question for locus of control showed that entrepreneurs believe that they are in control of their own future and that luck does not play a pivotal role in their businesses success. Although, when consolidated with all the sub-questions that formed locus of control, the mean produced is 3.71 which does indicate an average thought process amongst entrepreneurs that they believe they have an internal locus of control and it is this internal control that related to their business success.

The characteristic that received the lowest average in responses was Risk-taking. Risk-taking received an average ranking of 3.14 which is very close to the mid-point of 3. A more in-depth analysis of risk-taking showed that entrepreneurs believe in taking calculated risks and showed that they are prone to risk-taking. This was further confirmed by the low rankings selected for the questions on being risk averse and risk neutral. As such the average for risk-taking as whole was reduced due to this, whereas these low means of 2.27 and 2.44 respectively indicate to the research that entrepreneurs do not show sentiments of being risk averse or neutral.

In conclusion to chapter 4, the findings showed that entrepreneurial business success is linked to the Big Five characteristics through the recorded responses detailed above. The following chapter will show results from academic literature to show whether these factors have aided in business success.

CHAPTER 5. DISCUSSION OF THE RESULTS

5.1 Introduction

The purpose of chapter 5 is to discuss the implications of the findings relating to the research questions of this study. The discussion is made by comparisons with the literature covered in chapter 2 of this research report that pertains specifically to the Big Five characteristics and if they contribute towards business success.

The research questions posed by the study were as follows:

1. Does an entrepreneur’s self-efficacy contribute towards business success?
2. Does an entrepreneur’s need for achievement contribute towards business success?
3. Does an entrepreneur’s internal locus of control contribute towards business success?
4. Does an entrepreneur’s need for autonomy contribute towards business success?
5. Does an entrepreneur’s risk-taking orientation contribute towards business success?

The majority of literature discusses entrepreneurial intentions through analysing the Big Five characteristics and very little literature is present for the Big Five characteristics and the impact each personality trait holds on business success.

5.2 Discussion pertaining to research question 1 – Does an entrepreneur’s self-efficacy contribute towards business success?

Self-efficacy is one’s belief that their abilities create high levels of performance that bring about positive outcomes within their lives (Wood & Bandura, 1989; Boyd & Vozikis, 1994; Chen et al., 1998; Bandura, 1994).

As discussed previously, a large body of academic research is focused on personality traits that prove or disprove entrepreneurial intention. McGee et al. (2009) showed that ESE is a main identifier of an individual's intent to start a new business (McGee et al., 2009). However, studies have been conducted in which self-efficacy was related to business success, such as a direct positive correlation between self-efficacy, more specifically, one's ability to solve problem and business success (Rauch & Frese, 2000).

Studies conducted by Wilson et al. (2007) showed the significance of self-efficacy in relation to entrepreneurial success in so far as new venture creation, the use of resources and opportunity recognition (Wilson et al., 2007). Wilson et al. (2007) concluded through their research that a relationship exists between business performance and self-efficacy (Wilson et al., 2007).

Further endorsement was shown by Utsch et al. (1999) that high levels of ESE are correlated to venture success (Utsch et al., 1999). Utsch et al. (1999) discussed numerous areas of literature, specifically surrounding entrepreneurs abilities to deal with challenges (Bandura, 1997), show ingenuity (Speier & Frese, 1997), hold long-lasting positive views on their business due to greater ambitions for success (Heckhausen & Schulz, 1995 as cited in Rauch & Frese, 2007) all which culminated in the conclusion that self-efficacy is irrevocably related to entrepreneurial venture success (Utsch et al., 1999).

An area of research that concerns self-efficacy highlights that entrepreneurs attempt to avoid actions that necessitate low levels of ESE and tend to focus more of their energy into jobs where high levels of ESE are required (Urban & Venter, 2015). To assess an entrepreneurs level of ESE, Urban and Venter (2015) made use of a self-service questionnaire in which participants are asked to complete questions in Likert scale format on 5 key areas that determine ESE (Urban & Venter, 2015). Urban and Venter (2015) explain that the higher the score, the higher that individuals level of self-efficacy (Urban & Venter, 2015).

This study made use of the above questionnaire to assess entrepreneur's levels of self-efficacy and its contribution to business success. The table below shows the summarised self-efficacy questionnaire specifically relating to the 5 primary questions.

Self-Efficacy	Mean	Mean Category	Self-Efficacy Mean
Opportunity Recognition	**3.75**	Above Average	**3.98**
Innovation	**4.17**	High	
Management	**4.15**	High	
Risk-taking	**4.04**	High	
Financial Control	**3.80**	Above Average	

The findings as discussed in Chapter 4 indicates that on average entrepreneurs who partook in this study ranked self-efficacy on average at 3.98 out of 5. The researcher can show that in-line with above literature, that entrepreneurial self-efficacy contributes somewhat to business success.

Business success was shown to be a combination of various factors, such as employee count, net profit margins, revenue growth and an increase/decrease in customer base. The results showed in chapter 4 that entrepreneurs involved in this study have successful businesses and therefore, the researcher can conclude that self-efficacy is somewhat a contributor to business success.

The argument made is that the average for self-efficacy is just below 4, which indicates that there is a strong belief that self-efficacy plays an important part, however, due to the mean not being above 4 it has been deduced that self-efficacy contributes somewhat to business success.

5.3 Discussion pertaining to research question 2 – Does an entrepreneur's need for achievement contribute towards business success?

The literature surrounding need for achievement shows mixed results. A major finding in academic research is the difficulty in measuring need for achievement. Research shows that numerous instruments, such as, the PRF and EPPS (Johnson, 1990) as well as TAT (McClelland, 1961; Urban & Venter, 2015) amongst other, have been used to assess an entrepreneur's need for achievement and its contributions towards business success.

However the results are inconclusive due to the subjectivity and reliability of the studies (Stewart & Roth, 2007; Hornaday & Aboud, 1971; Urban & Venter, 2015). Hornaday and

Aboud (1971) struggled to relate need for achievement with business success (Hornaday & Aboud, 1971) whilst (Stewart & Roth, 2007) failed to show a correlation between the two metrics (Stewart & Roth, 2007).

To expand further, Hornaday and Aboud (1971) discussed that the EPPS study concluded in showing no significant value, although, findings showed that participants viewed the need for achievement as important to their success (Hornaday & Aboud, 1971). The main concern to the above is the subjectivity and bias of study participants and therefore, one cannot take into account the view of need for achievement being important.

Although a large portion of the literature failed to show a link between business success and the need for achievement, several studies yielded different results. Rauch and Frese (2000) discussed findings in their research that showed a small but positively significant result that the need for achievement of entrepreneurs is related to business success (Rauch & Frese, 2000). Further to this, Rauch and Frese (2000) showed the findings of Cooper and Gimeno-Gascon (1992) who conducted several studies to determine the need for achievement and its involvement in small enterprise success, to which Cooper and Gimeno-Gascon (1992) found that in three out of four studies there was a positive correlation between the two factors (Cooper & Gimeno-Gascon, 1992 as cited in Rauch & Frese, 2000).

Ciavarella et al. (2004) were unable to show a definitive link between an entrepreneur being achievement-orientated and business success but were able to indicated that high levels of need for achievement increase the probability that a business will be success (Ciavarella et al., 2004).

This study ascertained levels of need for achievement through five questions. The questions have been tabulated below and indicated the mean category that the results yielded.

Need for Achievement	Mean	Mean Category	Need for Achievement Mean
I take responsibility of my tasks	**4.64**	High	**4.06**
I prefer non-routine tasks	**4.08**	High	
I set challenging goals	**4.32**	High	
I need feedback	**3.71**	Above Average	
I compare myself against others	**3.56**	Above Average	

In-line with the conclusion made surrounding the business success factors, need for achievement showed a calculated mean of 4.06.

The mean of 4.06 indicated to the researcher that entrepreneurial need for achievement is a contributing factor towards business success. This is justified through the mean being greater than 4 on a scale of 1 to 5 and thus showing a strong sentiment toward need for achievement.

When factoring in the above literature, one can see the mixed results present through previous studies and as such shows the disparity around the results. Nevertheless, the researcher believes that the results above show that entrepreneurs believe that need for achievement contributes towards business success.

5.4 Discussion pertaining to research question 3 – Does an entrepreneur's internal locus of control contribute towards business success?

Locus of control relates to one's belief that either they control their fate or that factors outside of their control determine the outcomes in their lives (Kaufmann et al., 1995). This study assessed locus of control through a Likert scale questionnaire that asked 4 questions. The Likert scale would yield an internal locus of control if the ranks were higher than 4 and would show an external locus of control if the rank were 2 or lower.

Locus of Control	Mean	Mean Category	Locus of Control Mean
I believe I am in control of my future	**4.20**	High	**3.71**
I monitor myself	**4.20**	High	
I believe luck plays an important role	**3.21**	Above Average	
I expose my temperament easily	**3.24**	Above Average	

As can be seen from the above table, that entrepreneurs showed internal locus of control when asked “I am in control of my future”. This finding yielded a mean of 4.20 which confirms the above statement. However, when consolidating all the results, one can see that the mean for locus of control is 3.71.

As per the researcher’s requirements for determining internal locus of control and the contribution this trait has on business success, the findings are somewhat inconclusive. The mean of 3.71 indicates that the responses were above average but not strong enough to show a definite link between internal locus of control and business success.

Relating the findings of this study to previous literature shows that several researchers showed the assumption that higher levels of internal locus of control would related to business success, however the research failed to confirm these assumption (Green et al., 1996).

Rauch and Frese (2000) highlighted through their findings that the outcomes for locus of control were less reliable than the findings for need for achievement (Rauch & Frese, 2000). However, Rauch and Frese (2000) were able to show that there is a weak positive correlation between internal locus of control and business success (Rauch & Frese, 2000).

When reviewing this literature in relation to the findings of this study, one can see a comparison between the outcomes of the study conducted by Rauch and Frese (2000) in so far as the following:

1. Need for achievement yielded a mean of 4.06, whilst the findings for locus of control indicated a mean of 3.71, thus showing that the findings for need for achievement were stronger than that of locus of control
2. Although the mean of 3.71 is above average and not strongly linked to internal locus of control, the argument can be made that there is still a small contributing factor to business success

Further research conducted by Brockhaus (1975) show that a correlation between business success and internal locus of control exists (Brockhaus, 1975), whilst Lee and

Tsang (2001) conducted studies that yielded that there is a relationship between entrepreneurs with sizeable business and internal locus of control (Lee & Tsang, 2001).

In conclusion, the research states that evidence exists in the literature that studies have shown significantly positive correlations between the two metrics as well as studies being unable to show the relationship. Therefore, when the researcher analysed against the research question can state the following:

Does an entrepreneur's internal locus of control contribute towards business success?

Due to the results of this study, the research cannot unequivocally state that internal locus of control contributes towards business success but rather that entrepreneurs show a sentiment of internal locus of control in relation to them having built successful enterprises.

5.5 Discussion pertaining to research question 4 – Does an entrepreneur's need for autonomy contribute towards business success?

Limited literature exists around need for autonomy and its contribution towards business success. The majority of the literature evaluates the personality traits that individuals rank highly in as a precursor to becoming an entrepreneur (Cromie, 2000; Harrell & Alpert, 1979; D'Intino et al., 2007).

In the research conducted by Krauss et al. (2005) they state that the need for autonomy is linked to success in that important facets of small businesses require an entrepreneur to be self-confident in their decision making (Krauss et al., 2005). Krauss et al. (2005) were able to show a correlation between need for autonomy and external success, which they deem to be the ability to succeed against your competitors (Krauss et al., 2005). Although a correlation was shown Krauss et al. (2005), the relationship does not prove to be true for overall business success and whether need for autonomy contributes to this.

The research conducted yielded one study in which statistical significance was proven amongst the correlation of need for autonomy and business creation and success (Rauch & Frese, 2007).

This research report yielded results shown in the table below. Need for autonomy was posed through 4 questions to the study's participants. The most notable responses recorded were the means of 4.38 and 3.98 for "I trust my own decision making" and "I dislike receiving orders" respectively. Entrepreneurs showed that they trust their own decision making explicitly and substantially dislike receiving orders. These findings corroborate with the literature above in so far as entrepreneurial intentions are proven to be aligned with personality traits.

Need for Autonomy	Mean	Mean Category	Need for Autonomy Mean
I dislike receiving orders	**3.98**	Above Average	**3.93**
I trust my own decision making	**4.38**	High	
I need total control	**3.38**	Above Average	
I dislike having bosses	**3.98**	Above Average	

When reviewing the need for autonomy as a whole against the limited literature, it can be seen that the mean of 3.93 is relatively high but still forms part of the above average category.

In-line with the stance on the business success factors, the mean for need for autonomy falls slightly below 4, thus indicating that there is a relatively strong contribution of an entrepreneurs need for autonomy and business success.

Concluding the literature and findings for need for autonomy, the researcher notes that the limited body of academic research poses difficulties in ascertain the link between need for autonomy and business success. However, there are present, several studies which do find statistically significant correlation between the two. The results of this study, fail to show conclusively that need for autonomy is a contributing factor towards business success but does, however, show that a moderate relationship is present in which an entrepreneurs need for achievement contributes towards their business success.

5.6 Discussion pertaining to research question 5 – Does an entrepreneur’s risk-taking orientation contribute towards business success?

A substantial portion of academic research covers entrepreneurial risk-taking and the psychological impacts such as poor business performance, potential losses (Urban & Venter, 2015) and career risk and family risk (Brockhaus, 1980). The literature from Sexton and Bowman (1985) show results indicating entrepreneur’s take moderate risks (Sexton & Bowman, 1985).

Several research studies show the impact risk-taking has on entrepreneurial business success. Although d'Amboise and Muldowney (1988) indicated that entrepreneurs are prone to taking risks in business which show potential for high growth (d'Amboise & Muldowney, 1988), no sufficient statistical analysis was present to substantiate this. Research conducted by Zahra (2005) showed that there is a positive correlation between firm success and risk-taking (Zahra, 2005).

Stefanovic et al. (2010) conducted research in which the results showed that entrepreneurial business success is linked to entrepreneurs with high propensities for risk (Stefanovic et al., 2010). Although not completely related to a high level of risk-taking, Krauss et al. (2005) whose research focused on overall entrepreneurial orientation, did however, find that taking calculated risks is preferable amongst entrepreneurs (Krauss et al., 2005).

It can be seen from the above discussion that a limited repository of research relating specifically to risk-taking and its contribution towards business success exists. Nevertheless, this study’s finding pertaining to risk-taking was compiled through 4 questions. The questions have been shown independently in the table below along with the consolidated average for risk-taking.

Risk-Taking	Mean	Mean Category	Risk-Taking Mean
I am prone to taking risks	**3.68**	Above Average	**3.14**
I am risk averse (i.e. do not like risks)	**2.27**	Low	
I am risk neutral (i.e. 50/50 chance)	**2.44**	Low	
I take calculated risks	**4.15**	High	

Entrepreneurs of this study showed on average that they take calculated risks. This can be seen by the high mean of 4.15 and is similar to the findings of Krauss et al. (2005) who to showed the response to taking calculated risks.

I am prone to taking risks received an average rank of 3.68 indicating that entrepreneurs tend to be prone towards risk-taking but are not completely risk seeking individuals. The remaining two averages of 2.27 and 2.44 respectively are in-line with the researchers expectations as the low means indicate that entrepreneurs are not shy of taking risk.

Therefore, based on the individual analysis of each mean response, the researcher can deduce that entrepreneurs are prone to taking risks, provided that those risks are calculated. Simply reviewing the consolidated mean for risk-taking does not yield the accurate representation that is showing. The low ranks on the Likert scale selected by participants for the risk averse and risk neutral questions heavily reduce the average.

In conclusion, the researcher notes that the consolidated mean of 3.14 indicates that risk-taking does not contribute to business success. However, when isolating each mean individually, the conclusion that can be made is that entrepreneurs taking calculated risks increase the probability of business success.

5.7 Conclusion

To conclude, the findings of this chapter and the study show entrepreneurs sentiment towards the Big Five characteristics and the results indicated the intensity of each characteristics contribution towards business success.

The researcher showed that business success was validated against the sample study through the response rate captured in the survey. Each characteristic was then allocated a mean and leveraged against business success to assess the level or contribution.

The high level summary of findings showed that all research questions had means of no less than 3 on a Likert scale ranging from 1 to 5. The Likert scale indicates a respondent’s sentiment to a specific question with 1 relating to ‘not very much like me’, 3 relates to the mid-point and shows impartiality and 5 relates to ‘very much like me’.

Specific conclusions were made to each research question in this study and the researcher made mention of the limited research surrounding entrepreneurial business success and the Big Five characteristics but that rather literature existed surrounding entrepreneurial intention and the personality traits that determine an entrepreneur.

The findings showed that need for achievement held the highest mean of 4.06 and that need for achievement is a contributing factor to business success. Various academic scholars showed correlation between business success and an entrepreneur's need for achievement (Cooper & Gimeno-Gascon, 1992; Rauch & Frese, 2000).

This study's results showed that self-efficacy scored a mean of 3.98, the second highest in the study. The researcher showed that literature indicated a correlation between self-efficacy and business success (Utsch et al., 1999; Ruach & Frese, 2000; Wilson et al., 2007). Self-efficacy was shown to contribute somewhat to business success.

Need for autonomy had a mean of 3.93 which showed a moderate relationship existed between the characteristic and business success. A notable finding was that entrepreneurs showed a substantial dislike towards receiving orders and felt strongly in the trust they held in making decisions. Literature around need for autonomy showed statistically significant correlations.

Locus of control ranked the second lowest (3.71) when comparing the means of the other characteristics. However the researcher was unable to show a guaranteed contribution towards business success but rather that internal locus of control does play a part in a ventures success.

Similarities were found in the results of this study to that of Rauch and Frese (2000), whereby the results showed that need for achievement was deemed as a higher contributor to success than that of locus of control (Rauch & Frese, 2000). The second relatable finding was that although small, locus of control somewhat contributes to business success.

When analysing the means of each characteristic, risk-taking was ranked the lowest with a mean of 3.14. When observed at this level, the researcher stated that the findings showed risk-taking did not contribute towards business success. However, looking at the components that formed risk-taking the means tell a different story. The researcher made the conclusion that risks, when efficiently calculated have the potential to contribute to business success.

After reviewing the findings and relevant literature, the researcher showed that the Big Five characteristics do to some extent contribute to business success. The results were taken at a point in time when South African entrepreneurship is taking shape and as such the findings shown here may change either in the short term or in the long term.

CHAPTER 6. CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

The final chapter brings the conclusion of this research paper. The purpose of this chapter is to conclude the study, make recommendations to high-growth entrepreneurs in South Africa and make suggestions learnt through this study for future research.

6.2 Conclusions of the study

In conclusion to this study, the researcher shows that the results indicated entrepreneurial characteristics, more specifically, the Big Five characteristics as shown by Urban and Venter (2015) contribute to business success. Each characteristic yielded results that varied amongst the level of contribution towards business success but did to a degree show a link existing.

The difficulties found amongst the literature is the lack of research conducted specifically around personality traits and business success, where a majority of studies show a correlation between personality traits and entrepreneurial intentions.

Overall, the study depicted comparisons between the findings of other researchers, such as Rauch and Frese (2000) who showed need for achievement depicted greater correlation to success than locus of control (Rauch & Frese, 2000). Additional findings were in-line with Utsch et al. (1999) and self-efficacy contribution towards business success (Utsch et al., 1999).

Individuals with entrepreneurial intentions can use this study as a benchmark to assess their personality traits and if strong on the Big Five characteristics may be in a position to achieve business success.

6.3 Recommendations

Entrepreneurship is a field in which numerous definitions exists. This may never change due to the large amount of researchers conducting research and providing different views on entrepreneurship. The significance of this study aimed at attempting to show factors of success amongst high-growth South African entrepreneurs.

Due to the limited literature surrounding success and entrepreneurship and the limited literature on South African entrepreneurs, this study indicated the key characteristics of entrepreneurs and the contributions they held towards venture success.

The outcome of the research can be of value in two areas. One, the research may be indicative to individuals with entrepreneurial intentions to undertake study on their personality traits and two, the contributions that the Big Five characteristics hold on venture success.

6.4 Suggestions for further research

This study has indicated several suggestions that will aid in future research.

6.4.1 *Mixed-method research*

This study was based solely on quantitative research and although the study was found to be acceptable and reliable, the researcher feels that the use of qualitative research would have aided in more in-depth findings.

Future research should hold interviews with highly successful entrepreneurs to be used as a baseline against the findings in the quantitative study.

6.4.2 *Business success factors*

This research attempted to make use of five factors for business success. Although the researcher was able to show that the percentage of responses to each factor showed business success, the study would have been better served making use of success factors that could be calculated through a formula.

6.4.3 *Refining the research*

The research conducted was very broad as the five factors for business success made available the option for multiple focal points. It is suggested that future research should refine the research criteria so that the research can be more focused and not so broad

6.4.4 *Alternative statistical analysis*

This study made use of descriptive statistics, whilst the researcher suggests making use of additional methods of statistical analysis, such as multiple regression analysis in which numerous independent variables can be related against a dependant variable.

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APPENDIX A – Research Questionnaire

3/21/2017 Qualtrics Survey Software

Understanding the 'Big Five' characteristics

Thank you for partaking in this survey. In order to make the survey as easy as possible, the following describes each of the 'big five' characteristics of entrepreneurship on which this survey is based.

Self-Efficacy

Self-efficacy is defined as one's belief in their abilities to produce selected levels of performance that impact outcomes within their lives. Research indicates that self-efficacy is a determining factor of how a person feels, thinks and behaves (Bandura, 1994, as cited in Ramachandran, 1998).

The Need for Achievement

Multiple definitions exist for the need for achievement, however, one definition that resonates within entrepreneurs is those who hold the belief of maintaining high standards and aspire to accomplish difficult tasks (Jackson, 1974 as cited in Phillips & Gully, 1997).

Locus of Control

Locus of control contains two primary forms, namely: internal and external. Individuals generally favour either the internal locus of control or the external locus of control. Internal locus of control can be defined as a person who believes that they control their own destiny, whilst persons who favour the external locus of control tend to believe that the outcomes within their lives are a result of external forces in which they have no control (Kaufmann, Welsh, & Bushmarin, 1995).

The Need for Autonomy

The need for autonomy relates to an entrepreneurs desire to act on their own decisions when carrying out a function of their business or job (D'Intino, Goldsby, Houghton, & Neck, 2007).

Risk-Taking

Some people get excited at the prospect of risk in business, whilst others take their time to calculate all the factors in order to weigh up the risk and reward of their decision. Risk-taking encompasses taking a chance when there is a possibility of losing something tangible or intangible.

Business Success

How many individuals does your business employ on a fixed and permanent basis

- ◯ 1 - 20
- ◯ 21 - 40
- ◯ 41 - 60
- ◯ 61 - 80
- ◯ 81 - 100
- ◯ 101 - 120
- ◯ 121 - 140
- ◯ 141 +

Please select below the applicable % for your businesses net profit margins

- ◯ 0 - 10 %
- ◯ 11 - 21 %
- ◯ 22 - 32 %
- ◯ 32 % +
- ◯ Negative net profit
- ◯ Unknown

If your business has achieved a year on year increase in customer base, please select the applicable % below

- ◯ 0 - 5 %
- ◯ 6 - 11 %
- ◯ 12 - 17 %
- ◯ 18 - 23 %
- ◯ 24 % +
- ◯ Unknown

If your business has experienced a year on year decrease in customer base, please select the applicable % below

- ◯ 0 - 5 %
- ◯ 6 - 11 %
- ◯ 12 - 17 %
- ◯ 18 - 23 %
- ◯ 24 % +
- ◯ Unknown

Please indicate your businesses year on year revenue growth

- ◯ 0 - 10 %
- ◯ 11 - 21 %
- ◯ 22 - 32 %
- ◯ 32 % +
- ◯ Negative revenue growth
- ◯ Unknown

Self-Efficacy

Opportunity Recognition

	1 - not very much like me	2	3	4	5 - very much like me
I can set and meet market share goals	○	○	○	○	○
I can set and meet sales goals	○	○	○	○	○
I can conduct market analysis	○	○	○	○	○

Innovation

	1 - not very much like me	2	3	4	5 - very much like me
I am good at developing new business ideas	○	○	○	○	○
I am good at developing new products or services	○	○	○	○	○
I can find new markets and territories	○	○	○	○	○

Management

	1 - not very much like me	2	3	4	5 - very much like me
I am good at strategic planning	○	○	○	○	○
I can establish and achieve goals	○	○	○	○	○
I can define organisational roles	○	○	○	○	○

Risk-taking

	1 - not very much like me	2	3	4	5 - very much like me
I take calculated risks	○	○	○	○	○
I am comfortable with uncertainty and risk	○	○	○	○	○
I can work under pressure	○	○	○	○	○

Financial Control

	1 - not very much like me	2	3	4	5 - very much like me
I can perform financial analysis	○	○	○	○	○
I can develop financial systems	○	○	○	○	○
I can control costs	○	○	○	○	○

Need for Achievement

Need for Achievement

	1 - not very much like me	2	3	4	5 - very much like me
I take responsibility of my tasks	○	○	○	○	○
I prefer non-routine tasks	○	○	○	○	○
I set challenging goals	○	○	○	○	○
I need feedback	○	○	○	○	○
I compare myself against others	○	○	○	○	○

Locus of Control

Locus of Control

	1 - not very much like me	2	3	4	5 - very much like me
I believe I am in control of my future	○	○	○	○	○
I monitor myself	○	○	○	○	○
I believe luck plays an important role	○	○	○	○	○
I expose my temperament easily	○	○	○	○	○

Need for Autonomy

Need for Autonomy

	1 - not very much like me	2	3	4	5 - very much like me
I dislike receiving orders	○	○	○	○	○
I trust my own decision making	○	○	○	○	○
I need total control	○	○	○	○	○
I dislike having bosses	○	○	○	○	○

Risk-Taking

Risk-Taking

	1 - not very much like me	2	3	4	5 - very much like me
I am prone to taking risks	○	○	○	○	○
I am risk averse (i.e. do not like risks)	○	○	○	○	○
I am risk neutral (i.e. 50/50 chance)	○	○	○	○	○
I take calculated risks	○	○	○	○	○

APPENDIX B – Cover Note

Good day,

My name is Jared Kangisser and I am conducting research as part of a Masters of Business Administration at the University of the Witwatersrand. The area of research of this study is "Factors of success amongst high-growth entrepreneurs in South Africa". I would like to invite you to take part in this study, which will examine which factors are the most important in entrepreneurial business success.

Should you choose to take part in this study, you will be required to complete an online survey, which is very easy to navigate. The survey should take no longer than 5 minutes to complete.

Partaking in this survey is entirely voluntary and you will not be disadvantaged if you choose not to participate. In addition, you are free to withdraw from the study at any time. Responses will remain anonymous and confidentiality and privacy will be maintained throughout the study. As per the delimitations of this study, please note that only entrepreneurs with ventures older than eighteen month are eligible to partake.

Your participation is highly appreciated.

Please click on the link below to access the survey.

https://wits.eu.qualtrics.com/SE/?SID=SV_6QXkWqeEi0AQW69

If you have any further questions about the research, please do not hesitate to contact me.

Kind regards,

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