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The impact of entrepreneurial alertness on the performance of youth-owned enterprises in South Africa

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirement for the degree of Master of Management in Entrepreneurship and New Venture Creation

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ABSTRACT

The South African government, in an attempt to remedy the high unemployment rate, has introduced policies and bodies to curb the unemployment rate, especially amongst the youth. This effort on the part of the government has shortcomings, as the South African GEM Report (2016/2017) depicts an alarming picture on the rate of business continuation in South Africa. The inabilities of youth to identify business opportunities, creativity and innovation are reasons stated in the GEM Report to be contributors to business discontinuation amongst youth owners.

It is critical for government to develop cognitive skills amongst the youth in South Africa, since that the problem of business discontinuation is associated with cognitive capabilities. Entrepreneurial alertness is considered as an important cognitive skill that has the potential to improve enterprise performance when it is measured by scanning and search, association and connection and evaluation and judgement

Data was collected from youth entrepreneurs in all provinces in South Africa, using a self-administered questionnaire and a sample size of 126 was attained. In the analysis of the data, factor analysis was utilised to reduce some variables and the variables converged into two entrepreneurial alertness dimensions, which are scanning and search and evaluation and judgement. However, scanning and search proved insignificant when regression tests were done.

The findings of the study showed that entrepreneurial alertness tested with evaluation and judgement positively impacts youth-owned enterprise performance in South Africa and this impact is significant. Consequently, no evidence was found to prove that alertness tested with scanning and search has a relationship with enterprise performance. The study recommended that there is a need for an entrepreneurial alertness model that can expand alertness dimensions.

Key words: Youth entrepreneurs, entrepreneurial alertness, opportunity recognition, Enterprise performance

DECLARATION

I, Mafadi Eliot Mahamotse, 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 Management in Entrepreneurship and New Venture Creation at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Name:_____Signature:_____

Signed at ……

On the …….. day of …… 20…..

DEDICATION

This work is dedicated to my late grand-grand-mother (Linah-Nkoti Mahamotse) who invested in my educational foundation. My undergraduate studies would have never been possible without her. “**Robala ka kgotso Lenkoe”.**

To my father (Eliot Nkoehatse Mahamotse), for encouraging and instilling the need and importance of education to me and my siblings. I still remembers his words **“Thuto pele, monate ha o fele”** (in direct translation, this meant Education first, entertainment is endless) has played an important role in my life. “**Ee Lenkoe”.**

To my brothers (Mike Mahamotse and Jerry Mahamotse), my sister (Ntobineng Mahamotse), and the entire Mahamotse family. Thank you all for your love and no words can express my love to you.

To my fiancé (Yvonne Mariri), thank you for your support and understanding when I sometimes only came home in the morning, swallowed by syndicate rooms. Thank you.

To my kids (Rethabile and Karabelo). I pray that the tears felt during the time of this work, can deeply nourishes the tree that shall bear fruits for you, my kids (Rethabile and Karabelo). PAPA HAS FINALLY MADE IT.

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CHAPTER 1: INTRODUCTION

The chapter begins with the purpose of the study, followed by the context of the study, then, the problem statement, highlighting the objectives and research questions of the study, contributions of the study, the chapter ends with delimitation, conceptual definitions of terms and finally, with assumptions.

1.1 Purpose of the study

The purpose of the study was to investigate the impact of entrepreneurial alertness tested by Scanning and search; Association and connection, and Evaluation and judgement, towards performance of youth-owned enterprises in South Africa.

1.2 Context of the study

Globally, there is an increase in the number of young people conceiving ground-breaking innovations and turning them into multi-billion dollar businesses (Whitten, 2015). Whitten (2015) further states that this has revamped the youth and provides the understanding that youth participation in economy through entrepreneurship is undoubly impacful. There is understanding that youth are centre of concertration for study globally and that is equivalent to paying attention to the topology of the social landscape as a whole (Durham, 2000 in Majola, 2017). Studies further suggest that there is a growing number of young people that are resorting to entrepreneurship as a solution to their social problems, based on a high unemployment rate (Musengi-Ajulu, 2010; Seabela & Fatoki, 2014). Seabela and Fatoki (2014) further state that university degrees and diplomas are no longer holding the promise of jobs for young South Africans as a large number battle to find employment.

Studies conducted by Youth Business International, International Labour Organisation (ILO) and Global Entrepreneurship Monitor (GEM) on youth entrepreneuship, provides a couple of reasons on the importance of entrepreneurship amongst the youth and they are;

> Youth entrepreneurship is a choice to create employment; Young entrepreneurs are more likely to create employment for other fellow youths; Young entrepreneurs are particularly sensitive to new economic opportunities and trends; Young people are active in economic participation; Young people are more innovative and creative and often create new forms of independent work; Young people who are self-employed have higher life satisfaction; Entrepreneurship offers youth an opportunity to build sustainable livelihoods and a chance to integrate themselves into society; and Entrepreneurial experience help youth to develop new skills that can be applied to other challenges in life (Kew, Herrington, Litovsky, & Gale, 2013, p. 12)

Despite the importance of entrepreneurship amongst youth in South Africa, the GEM (2016/2017) Report depicts an alarming picture on entrepreneurial participation (Global Entrepreneurship Monitor, 2016/2017). According to StatsSA (2019), young people in South Africa, between the ages of 18 to 35, constitute almost a third of the overall population, but with a lower occurrence of entrepreneurial activity (Global Entrepreneurship Monitor, 2016/2017; Musengi-Ajulu, 2010).

The unemployment rate in South Africa was recorded at 29, 1% in the third quarter of the year 2019 (Smit, 2019). The youth between the age of 15 – 34 unemployment rate was approximately 40.4% in the third quarter of 2019 for both male and female, and translated to approximately four in every ten young people in South Africa that do not have a job (StatsSA, 2019). From unemployment statistics, it is evident that approximate 8,3 million young people are not economically active, and according to StatsSA (2019), this inactive group is referred to as “Not in employment, education and training” (NEET). These numbers increase every year and encompass young people who are discouraged from entering into the labour market (StatsSA, 2019). According to the National Development Plan 2030 (National Planning Commision, 2019), young people who have failed to secure formal employment by the age of 24 are unlikely to ever be formally employed, hence the ultimate solution for youth employment is entrepreneurship (Whitten, 2015). Entrepreneurship has been adopted globally as a

meaningful strategy to facilitate economic participation amongst young people (Musengi-Ajulu, 2010; Nafukho & Muyia, 2010).

The European Commission has highlighted the importance of all stakeholders taking part in imparting an entrepreneurial mind-set in the society and the South African Government, like other countries, takes the development of small, medium, micro enterprises (SMMEs) amongst youth as an important agenda to pursue (European Commission, 2012; Majola, 2017). Youth enterprises receive financial and non-financial support from government through the establishment of the National Youth Development Agency (NYDA) (Nieman & Nieuwenheuizen, 2009). According to Nieman and Nieuwenheuizen (2009), the objective of this agency is to stimulate an entrepreneurial mindset, facilitate business funding and forge market linkages to younth aged 18 to 35 in South Africa (Nieman & Nieuwenheuizen, 2009; National Youth Development Agency, 2018).

On the other hand, South Africa's Department of Trade and Industry (DTI), through its endeavours to faciliate the country's economic growth, wealth and job creation, has made the various establishment of institutions and frameworks for supporting SMMEs. These institutions include the Small Enterprise Development Agecy (SEDA), Small Enterprise Finance Agency (SEFA), National Empowerment Funds (NEF) and frameworks, such as National Youth Economic Empowerment Strategy and Impementation Framework (NYEESIF) for 2009-2019 (DTI, 2009). The objective of all this frameworks and agencies are to improve the quality and quantity of youth entrepreneurship and technical knowledge, reduce poverty and uneployment amongst young people (DTI, 2009; Nieman & Nieuwenheuizen, 2009; Gwija, Ersia-Eke, & Lwu, 2014).

According to Beeka and Rimmington (2011), this suggests that entrepreneurship is one of numerous solutions to reduce youth and graduate unemployment in South Africa. However, the South African GEM Report (2016/2017) paints an alarming picture on the sustainability of small businesses in South Africa. According to the report, 67% of

businesses in 2016/2017 have closed down due to non-profitability. GEM suggest that this non-profitability is associated with a lack of business skills; poor ideas that are not marketable (miscalculation of opportunities); lack of access to market; lack of affordable and efficient support structures and infrastructure (transport, electricity, etc). The GEM Report (2016/2017) further states that non-profitability is associated with the fact that many entrepreneurs in South Africa are active in a saturated market that has high levels of competition, which in turn, threatens the stability of their businesses (Global Entrepreneurship Monitor, 2016/2017).

It is evident that, despite the governmnet support provided to youth enterprises, such has not yielded the intented results, compared to literature on entrepreneurship discountinuation (Galawe, 2017). The study of Fatoki and Oni (2015) has stated that the inability to identify business opportunities, creativity and innovation are reasons for youth-owned enterprises fail or discountinue. Opportunity identification represents one of the most distictive and fundamental entrepreneurial behaviours. According to Fatoki and Oni (2015), entrepreneurial alertness helps to drive the process of opportunity identification. Alert entrepreneurs are likely to become competetive, creative and innovative and perform better than non-alert entrepreneurs.

There is growing interest in the literature to investigate the entrepreneurial alertness as a construct rather than as variable under opportunity recognition literature. A study of Tang et al. (2012) has managed to make a significant contribution in the literature by exploring entrepreneurial alertness variables (scanning & search, association & connection and evaluation & judgement). The study conducted by Fatoki et al. (2015) has tested entrepreneurial alertness variables on enterprise performance of immigrants. However, the study was looking at innovation as the only determinant of enterprise performance.

Following from the context and current state of youth entrepreneurs in South Africa, this study investigated the impact of Entrepreneurial Alertness (EA) and its dimensions, such as scanning and search; association and connections; and evaluation and

judgement on the performance of youth-owned enterprises. The central questions asked in this study, is what impact does EA have on the enterprise performance?

1.3 Problem statement

Youth unemployment is a serious global problem, which seems to be much worse in South Africa, than in other countries as the youth constituted 63.4% of the unemployed population in the first quarter of 2019 (StatsSA, 2019). Youth are regarded as an unattractive labour force because of their inexperience and lack of knowledge and therefore participation in the labour market is difficult (Seabela & Fatoki, 2014). Moreover, the university degrees and diplomas are no longer holding the promise of jobs for young South Africans as large numbers of youth still battle to find jobs (Seabela & Fatoki, 2014).

The notion of youth inexperience seems to be apparent in enterprise development, judging from the high level of failures or business discontinuations, despites efforts by government to provide assistance to youth-owned enterprises. This means that the government needs to find more ways to make entrepreneurship attractive to the South African youth and possibly include market opportunities. The identification of young people who already have their own enterprises and attempt to provide financial assistance to them is already taking place through agencies such as NYDA, however, the problem of business sustainability still persist (Majola, 2017). This therefore calls for a cognitive approach in looking at the individual's intelligence and creativity to be alert to entrepreneurial knowledge.

Recent scholars have continued to advance arguments that alertness involves a proactive stance, based on a number of cognitive capacities and processes, such as prior knowledge and experience, pattern recognition, information processing skills, and social interactions (Ardichvili, Cardozo, & Ray, 2003; Baron & Ensley, 2006; Shane,2000). McMullen and Shepherd (2006) state that alertness is never entrepreneurial unless it involves judgement and a move in the direction of taking an action. "To act on the possibility that one has identified an opportunity that is worth

pursuing" is at the heart of being an entrepreneur (McMullen & Shepherd, 2006, p. 132). The notion of McMullen and Shepherd (2006) linking the entrepreneur with alertness skills is central as the motivation of the study is to investigate the impact of entrepreneurial alertness on enterprise performance.

1.4 Research objective

The objective of the study is to investigate the impact of entrepreneurial alertness towards performance of youth-owned enterprises in South Africa.

1.5 Resesrch questions

What impact does entrepreneurial alertness have on the performance of youth-owned enterprises?

Entrepreneurial alertness, in this study, includes three dimensions and the research questions are sub-divided accordingly, as stated below;

- To what extant does scanning and search as dimension of EA impact enterprise performance?
- To what extent does associstion and connection as dimension of EA impact enterprise perfomance?
- To what extent does evaluation and judgement as dimension of EA impact enterprise performance?

1.6 Contribution of the study

In a country such as Malaysia, the study on opportunity recognition has been advanced (Sambasivan, Abdul, & Yusop, 2009; Khin, 2018; Lim & Xavier, 2015), where entrepreneurial alertness is mentioned as a variable and antecedent of opportunity recognition literature. From the study of Tang et al. (2012), improving on the literature of Kirzner (1979) on the entrepreneurial alertness, it is evident that entrepreneurial alertness is one of the cognitve skills that depends on the entrepreners' intelligence. In the social cognitive theory perspective, the level of alertness can be imparted by

actively being involved in behaviour, action and experiential learning (Lumpkin & Lichtenstein, 2005).

There are fewer studies concentrating on factors contributing to the variable of entrepreneurial alertness and how this variable in turn, affects dimensions of enterprise performance. Dutta and Crossan (2005) state that learning processes such as intuiting, interpreting, and institutionalising can have an impact on scanning and search, association and connection, and evaluation and judgement of entrepreneurial opprtunity. These views of Dutta and Crossan (2005) lack empirical evidence.

This work addresses gaps in the literature of South African entrepreneurship, especially on entrepreneurial alertness. Much work has been conducted on entrepreneurship opportunity recognition, wherein entrepreneurial alertness serves as an antecedent of opportunity recognition. The high rate of failure of youth-owned enterprises at the rate of 50% (Governder, 2019) has motivated the study and the contribution to the body of literature is to investigate cognitive skills embedded into entrepreneurial alertness to impact enterprise performance. This study explores dimensions of entrepreneurial alertness (scanning and search, association and connection and evaluation and judgement) towards enterprise performance. The focus on performance is the focus on all dimensions of performance, which is different to what Fatoki and Oni (2015) have done in their study as they only looked at increase on sales as the variable testing performance. The work of Wiklund (1999) suggests that performance measures should include both growth and financial measures.

1.6.1 Theoritical contributions

First, while previous studies indicate that alertness is an important determinant of entrepreneurial opportunity (Baron, 2006; Gaglio & Katz, 2001; Fatoki & Oni, 2015; Tang et al., 2012), theoritical specification and empirical examiniation of how alertness drives enterprise performance remains incomplete. This research addresses that gap in the entrepreneurship literature, by hypothesising dimensions of alertness on enterprise performance and creating the conceptual framework. This study argues how alertness,

as a cognitive entrepreneurial skill, influences enterprise performance, is predicted on the propensity of the young entrepreneurs to act, exploit opportunities, creativity and innovation (McMullen & Shepherd, 2006).

Second, the study contributes to literature by providing information on the extent that each of the alertness dimensions impact performance. Studies such as Ardichvili et al. (2003); Kirzner (1979); Gaglio et al. (2001) provide enough evidence on the relationship between alertness and performance, but do not concentrate on alertness dimensions individually towards enterprise performance.

1.6.2 Practical contributions

This work also contributes to policy makers and entrepreneurial education providers, such as TVET Colleges and Development Finance Institutions (DFIs), to concentrate more in enhancing entrepreneurial alertness as a cognitive skill rather than just providing funding to youth enterprises.

1.7 Delimitations of the study

The study of entrepreneurial alertness assumes the coverage of entrepreneurial opportunity recognition and its antecedents, such as prior knowledge and social networks and entrepreneurial alertness. This study takes a different angle and tests entrepreneurial alertness as an independent construct with its own variables towards dependent variable enterprise performance.

Secondly, the study of enterprise performance or business performance attempts to cover all five dimensions of performance. However, this study only looked at performance referring to business growth and financial performance.
The study focused on youth-entrepreneurs in South Africa and because of time constraints, the data was collected in Gauteng, Limpopo, Free State, Kwa Zulu Natal and Northern Cape provinces only. It was impractical to collect data in all nine provinces.

1.8 Conceptual definition of terms

Table 1.1: Definition of terms

Terminology	Definition
Youth	Youth refers to young people between the age of 18 and 35, as promulgated on the National Youth Development Agency Act (Act 54 of 2008) (Gazette No. 31780, 2009)
Entrepreneurship	"Entrepreneurship is the recognition of an opportunity to create value, and the process of acting on this opportunity, whether or not it involves the formation of a new entity. While concepts such as 'innovation' and 'risk-taking' in particular are usually associated with entrepreneurship, they are not necessary to define the term" (Schoof, 2006, p. 12)
Youth entrepreneurship	"youth entrepreneurship involves the development of entrepreneurial attitude, skills and opportunities for young people between the age of 18 to 35, from the middle school though young adulthood" (Majola, 2017, p. 11)
Alertness	Alertness is defined as "a process and perspective that helps some individuals to be more aware of changes, shifts, opportunities and overlooked possibilities" (Kirzner, 1979, p. 48)
Performance	According to Maltz (2003, cited in Rylková, 2015), organisational performance measurement should include five main dimensions, namely (Majola, 2017, p. 11): 1. Financial (with indicators such as sales, profits and return on investment); 2. Market and customer (with indicators such as customer satisfaction, retention, and service quality); 3. Process (with indicators such as evaluation of the length and quality of processes); 4. Staff development (with indicators such as employees'

	options, their motivation, and the capacity of information system); and 5. Standards for the future (with indicators such as the depth and quality of strategic planning, forecasting and preparing for unexpected changes in the external environment, the possibility of joint ventures and strategic alliances, and investing in new market development).

Source: (Majola, 2017)

1.9 Assumptions

- Those young entrepreneurs understood their business growth patterns.
- That the respondents read the questionnaire properly.
- Those young entrepreneurs were the real owners of the enterprises.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This section's objective is to review the current literature. The study will first provide a background discussion on the literature, followed by the theoretical foundation, entrepreneurial alertness and enterprise performance, and lastly, it provides the conceptual framework.

2.2 Background discussion

A young person who can be classified as youth in South Africa is between the age of 18 and 35 (National Youth Development Agency, 2018). A young person can be called a youth entrepreneur when he/she opens up a new enterprise and takes all the risks associated with the financial and social responsibility of the enterprise, plus daily operations (Xie & Lv, 2016). Entrepreneurship plays an important role into the economy and society (Rezvani, Lashgari, & Farsi, 2018). When entrepreneurs spot opportunities and take action to exploit them, they drive the process of market production and fulfils social and economic needs (Valliere, 2013). Tili and Tengeh (2017) state that the ability to identify entrepreneurial opportuties is considered as a core attribute in entrepreneurship literature.

The debate whether opportunities are or can be recocognised, dicovered or created is on-going (Venkataraman, 1997; Shane, 2000; Klein, 2008). It is therefore not well known why some people are able to dicover opportunities and others do not (Rezvani et al., 2018). Kirzner (1979) has argued that the difference in individuals in identification of opportunities can only attributed by entreprenerial alertness, therefore many scholars argue that alertness is an antecendant of opportunity recognition (Baron, 2006b; Tang et al., 2012; Valliere, 2013). This means, for opportunitites to be first recognised, youth in South Africa must first be alerted (Fatoki, 2011a).

Valliere (2013) argues that alertness itself is based on the schemata that must be activated, especially if such shemata are based on attributes for value creation. This activivation of schemata can be archived for example, by exposure to education, knowledge, skills or prior information (Baron, 2004a). Baron (2006) adds that alertness to new opprotunities is also by vatue of pattern recognition, with also supports the notion that patterns requires prior knowledge. Other than being exposed to prior information, Baron(2006) mentions that entrepreneurial alertness is based on cognitve capacity with its ability to realise similarities that are meaningful. Alertness depends in part on whether entrepreneurs are able to exploits opportunities when once identified which is the result of their developed entrepreneurial capacities (Short, Ketchen, Shook, & Ireland, 2010).

The relationship between entrepreneurial alertness and performance can be defined in the context of existing incentives in which the entreprenurs can obtain entrepreneurial opportunities that should boost innovative performance (McCaffrey, 2014). There is a growing body of literature that advocates that enterprise performance can be linked to growth and innovation as a result of the alert individual (Ardichvili et al, 2003; Tang et al, 2012). This is supported by Fatoki (2011a) that the enterprise‘s innovative activities and competitiveness can be enhanced by entrepreneurial alertness. Valliere (2011) adds that innovation and growth in youth entrepreneurship is the results of entrepreneurial processes where opportunities are spotted, planning conducted, execution of opportunities takes place and lastly, revenue is generated.

2.3 Theoretical foundation

Cognitive theory is the theory in psychology that attempts to explain human behaviour by understanding the thinking process. In order to analyse and understand the entrepreneur’s decisions and behaviours that lead to the success of the enterprise, it is crucial to understand youth cognitive processes and how they use prior knowledge (experience) in the success of their businesses (Urban, 2012; Baron, 2004). Cognitive theory postulates that everything that individuals do depends on mental process, meaning information is categorised and analysed within internal structures that

individuals develop during their life experience (Baron, 2006; Palich & Bagby, 1995; Rosch, 1978). Mitchell et al. (2002, p. 97) define entrepreneurial cognition as the knowledge structures that people use to make assessment, judgements or decisions involving opportunity evaluations and venture creation and growth. Baron (2004, 2006) emphasises the importance of considering the framework with the objective to promote entrepreneurial awareness, since it guides individuals to be alert to specific information.

This framework emphasises knowledge development and provides four reasons: First, cognitive theory does not rely on inheritance or stability principles, but is based on the principles that individuals are able to develop their cognitive framework through significant experiences that they transform into knowledge (Baron, 2006b). Second, the cognitive approach asks questions such as “how do entrepreneurs think and perform certain activities (Mitchell, et al., 2002). The cognitive perspective describes the entrepreneur’s mind-set. Third, according to the cognitive perspective, every entrepreneur possesses a mental framework that is developed throughout life experience and is able to use these cognitive frameworks to make sense of the environment (Dutta & Crossan, 2005). Last, the cognitive perspective is used in opportunity recognition and regard opportunity recognition as the most important competency that must be developed before other technical competencies (Kuratko, 2003; Pittaway & Cope, 2007).

Entrepreneurial alertness is dependent on the cognitive skills and intellectual capacity of the individuals, coupled with prior knowledge (Lim & Xavier, 2015). Youth entrepreneurs are able to produce innovative and creative solutions in addressing the customer’s problems and that can be translated into improved business performance (Lim & Xavier, 2015). Therefore, this theory provides the understanding that cognitive skills play a vital role in the overall competencies needed by youth entrepreneurs and that influences the performance of their businesses.

The focus of this study is on the contribution of entrepreneurial alertness towards the success of youth owned-enterprises, rather than entrepreneurial alertness as an

antecedent of opportunity recognition as most literature focuses on (Venkataraman, 1997; Tang et al 2012; Ardichvili, Cardozo, & Ray, 2003; Shane & Venkataraman, 2000; Shane, 2000).

2.4 Entrepreneurial alertness and enterprise performance

In entrepreneurial opportunity literature, alertness has been identified as a vital entrepreneurial characteristic that is defined as the “ability to notice without search opportunities that have been overlooked by others” (Kirzner, 1979, p. 48). It is therefore, suggested that entrepreneurial alertness reflects an entrepreneurial ability to recognise an opportunity ahead of others (Gaglio & Katz, 2001) and such can be translated into financial gain (Tang et al., 2012). According to Tang et al. (2012), the major coverage point is that alert entrepreneurs have greater capabilities to recognise profitable opprtunities. Linking alertness to enterprise performance through opportunity recognition, requires that entrepreneurs take action for opportunities to yield commercial maturity (McMullen & Shepherd, 2006). Shane et al. (2003) also add that the appropriateness of opportunities is positively related to venture performance, meaning its only called a good opportrunity if it has a direct impact on enterprise performance. Adomako et al. (2018) allude that existing literature linking alertness and performance lacks theorisation of the entrepreneurial action machanism connecting entrepreneurial alertness to performance.

The study by Tang et al. (2012) however, links alertness to performance throungh innovation. According to Fatoki and Oni (2015a), a firm’s innovative activities and competitive actions are enhanced by entrepreneurial alertness and that can lead to positive firm’s performance. Amato et al. (2017), in extending the work of Shane, Kolvereid, and Westheas (1991), also support the notion that alertness is positively related to the firm’s innovatioveness. It is also imperative to note that identifying and selecting the most appropriate and potentially profitable opportunities for new or existing business is the most important activity carried out by enterpreneurs (Amato, Baron, Barbieri, Belanger, & Pierro, 2017).

Entrepreneurs with high levels of entrepreneurial alertness can accurately locate resources when confronted with a changing market environment (Xie & Lv, 2016). Adaptation to a new environment becomes easier, and therefore ensures the survival of enterprises and the improvement of enterprise peformance (Gaglio & Katz, 2001). Adding to this notion, Roundy and partners (2018) state that facing environmental disruptions, alert decision makers will be more likely to engage in a strategic decision change compared to less alert individuals. However, these authors acknowledge the lack of empirical evidence susbstantiating environmental adoption to enterprise performance (Roundy, Harrison, Khavul, Perez-Nordtvedt, & McGee, 2018).

Entrepreneurs with high levels of alertness also are more skillful in discovering new opportunities through social networks (Ardichvili et al., 2003). For example, young entrepreneurs in fashion can use social networks to optain new key partners important to their value chain and in return, such opportunities can be trasnlated into financial growth. Individuals with high levels of entrpreneurial alertness make efforts to expand and establish new social networks (Xie & Lv, 2016). Social networks provide information and resources and this enhances the performance of enterprises through the integration and utilisation of information and resources (Xie & Lv, 2016; Ardichvili, Cardozo, & Ray, 2003).

On this note, entrepreneurial alertness linkage to enterprise performance can be conceptualised as a cognitive resource that affords entrepreneurs a first hand opportunity ahead of others and who are then able to take action towards such opportunity (Adomako, Danso, Boso, & Narteh, 2018). The ownership of cognitive resources by entrepreneurs might not on itself be translated to business performance; its effect is likely to be determined by entrepreneurs' ability to exploit an opportunity ahead of others (Teece, 2012).

2.5 Enterprise performance

According to Gavrea et al. (2011), organisational performance can be conceptualised as a set of financial and non-financial indicators that offer information on the degree of

achievement of objectives and results. Gavrea and partners (2011) further state that performance may be illustrated by using a causal model that describes how current actions may affect future results. Performance may be understood differently depending on the person involved in the assessment of the organisational performance (e.g., performance can be understood differently from a person within the organisation compared to one from outside (Majola, 2017).

Performance of any enterprise has a big impact on a country's economy. Enterprises are a significant source of employment and are often used to determine the economic, social, and political progress of a country (Gavrea, Lllies, & Stegerean, 2011). Through performance, the organisation can determine in the best way, whether it is growing and progressing, hence amount of management's time is invested in investigating performance indicators (Gavrea et al, 2011).

The 1980s and 1990s mark the years where the realisation that the identification of organisational objectives is more complex than initially considered. According to Gavrea et al. (2011), amongst the organisational objectives lies the enterprise performance. Gavrea et al. (2011) further explain that managers began to understand that an organisation is successful if it accomplishes its goals (effectiveness) using a minimum of resources (efficiency). There are several performance indicators researcher use to measure performance, and profit often used Gavrea et al (2011).

However, according to Lim and Xavier (2015), growth together with profitability are the most frequently used performance dimensions, while Rylkova (2015), cited in Majola (2017), states that performance measurement should include five main dimensions. In addition, he alluded that these dimensions are; Finance, profit and Return on investment (ROI); Marketing and customers; Processes; Staff development and Standard for the future.

Wiklund (2006), cited in Galawe (2017), argues that performance can be measured using two dimensions, which are growth and financial performance. Wiklund (2006)

states that both dimensions are sought to be used simultaneously, in order to provide a richer description of firm performance that when each is used independently.

Table 2.1: Two types of performance measure

Growth	Financial performance

- Sales (volume)
- Employment
- Assets
- Market share
- Office space
- Growth rate compared to competitors
  o Sales
  o Market value
	- Revenue (Rands)
	- Profitability
	- Gross Margin
	- Cash flow
	- FP Compared to competitors
	  o Profits
	  o Cash flow

Source: (Wiklund, 2006; Galawe, 2017)

This paper, therefore, argues that enterprise performance can be influenced by entrepreneurial alertness. Borrowing from Cognitive Theory, we further posit that innovation is the bigger performance driver as the theory advocates the possession of cognitive skills embedded in the individual person.

2.6 Entrepreneurial alertness

Several scholars agree that entrepreneurs are individuals who are more alert in the identification and discovery of opportunities than others (Shane & Venkataraman, 2000; Schumpeter, 1934; Kirzner, 1979). Alertness has been central in the context of opportunities in the recent developing entrepreneurship research (Tang et al., 2012). In an environment where opportunities frequently arise, remaining alert is profitable, Venter, et al. (2017) explain the situation by saying that the development process begins when entrepreneurial alertness exceeds a threshold level. This gives people the incentives to search for and be alert to entrepreneurial opportunities and this creates more entrepreneurial alertness (Eckhardt & Shane, 2003).

The literature on entrepreneurial alertness was developed by Kirzner in 1973 to provide an explanation of entrepreneurial process. Alertness is defined as a process and perspective that helps some individuals to be more aware of changes, shifts,

opportunities and overlooked possibilities (Kirzner, 1979, p. 48). Kirzner (1973) further classified individuals who are more alert as having an “antenna” that allows recognition of gaps with limited clues, while Kaish and Gilad (1991) refer to the individual having alertness as one who possesses unique preparedness and consistently scans the environment to discover hidden opportunities. Kirzner (1985) further posit that non-alert individuals will fail to identify opportunities because they may not seek out pertinent information and misjudge the market environment. Alertness is described as a continuous state of being “on call” (Aviram, 2010).

Work done by McMullen and Shepherd (2006) cited in Tang and partners (2012) argues that alertness involves a proactive stance, based on a number of cognitive capacities and processes such as prior knowledge and experience, pattern recognition, information processing skills and social interactions (Ardichvili, Cardozo, & Ray, 2003; Baron, 2006b; Gaglio & Katz, 2001; Shane, 2000). McMullen and Shepherd (2006) provide the summary of developing views of alertness as thus;

Table 2.2: Developing views of alertness

	Early Kirzner	Later Kirzner	Recent Development
Role of markets	Disequilibrium gaps to be identified	Adjustments of opportunities to fit the market	Opportunities emerge from macro changes
Role of knowledge and pre-existing conditions	Helpful to the extent that it triggers the “Aha” moment	Prior knowledge can be expanded to further pursue opportunities	Prior knowledge and information processing inform observations and feasibility assessment
Alert scanning and search	Passive; a unique preparedness	Passive and active; pursue specific opportunities	Cognitive capacity (e.g. creativity, intelligence) and personal fit
Alert association and scanning	Lying dormant waiting to be identified	Still lying dormant but room for creativity and further development	Initial insight heightens sensitivity and can produce further search and processing
Alert evaluation and judgement	Largely unaddressed, assumed that entrepreneurs would act on opportunities	Evaluations of opportunities can evolve over time	Combining beliefs/ insights and desires for a judgement on venture prospects: distinction between first-and-third-person opportunities

Source: (McMullen & Shepherd, 2006; Baron, 2006; Tang, Kacmar, & Busenitz, 2012)

From the views of McMullen and Shepherd (2006) in Table 2.1, alertness can be conceptualised in three dimensions: Scanning and search, association and connection, and evaluation and judgement (Tang, Kacmar, & Busenitz, 2012). In order for this study to achieve its objectives, these dimensions are explored in the context of its impact towards enterprise performance.

2.6.1 Scanning and search

Scanning and search allows entrepreneurs to be determined and progressive in their efforts to investigate new ideas. This dimension involves prior knowledge, awareness and sensitivity to new opportunities (Lim & Xavier, 2015). Scanning and search will enable the entrepreneurs to examine new ideas in a progressive manner as in the process, they increase the entrepreneur's domain-relevant information (Tang et al ,2012). Scanning and search also refers to continuous scanning of the environment to identify information or changes that are overlooked or unnoticed by other individuals (Fatoki, 2011a; Urban, 2019)

The scanning and search dimension helps in the formulation of a cognitive framework (i.e. prototypes and schemas that reflect an individual's knowledge and beliefs about the external world); such frameworks represent the increasing experience, learning, and knowledge (Tang et al., 2012). The stock of knowledge and information for entrepreneurs provides them with the competitive advantage and in turn, can boost business performance. This study therefore hypothesises, that;

> ***H1: <u>Scanning and search</u>*** *as dimension of Entrepreneurial Alertness (EA) has a positive impact on enterprise performance*

2.6.2 Association and connection

Association and connection dimension involves putting together scatted pieces of information and reassembling them into comprehensible alternatives (Lim & Xavier, 2015). This dimension focuses on the availability of new information, creativity and making extensions in logic. It accounts for how new information is applied or extended

(Tang et al., 2012). Tang and partners (2012) adds that association and connection is all about connecting dots to creating new alternative information.

Once dots are connected, individuals may need to re-assess the environment to further clarify the picture or to explore the usefulness of the newly connected information (Tang et al, 2012). Individuals are unlikely to go from scanning and search to making an on-the-spot judgment about the potentiality of the new connections, rather, the newly gathered information has to be interpreted and perhaps considered for more assessment in order to be certain of its potentiality (Tang et al., 2012). Young entrepreneurs who have various options on the information are considered to be advanced on information, therefore we hypothesis that;

> ***H2: <u>Associations and connection</u>*** *as dimension of Entrepreneurial Alertness (EA) has a positive impact on enterprise performance*

2.6.3 Evaluation and Judgement

This dimension is based on the predictions of potentiality of new information and the effects of business opportunity (Tang et al., 2012). When evaluation and judgement is conducted correctly, this can streamline the collection and interpretation of new and relevant information ensuring that information is correctly processed while simultaneously disregarding extraneous or useless information and knowledge (Cox, 2016). Relevant knowledge and information directly contributes to one's ability to identify opportunities and aids in the development of the opportunities (Baron, 2006b; Shane, 2000).

Judgement is necessarily associated with the evaluation of new information in the context of its usefulness and value for the creation of new opportunities (Cox, 2016). Effective judgement can distinguish between information capable of yielding new innovative solution in the form of opportunities that are perceived as novel (Valliere, 2013). This dimension further enables individuals to distinguish between what is profitable and non-profitable, and high-value versus low-value opportunities (Tang et al

2012). Lim and Xavier (2015) refer to this dimension as decisions to be made on the effect of business opportunity and profit potentials. Profitability is one of the dimensions of business performance and therefore, we hypothesises that;

> ***H3: <u>Evaluation and judgement</u>*** *as dimension of Entrepreneurial Alertness (EA) has a positive impact on enterprise performance.*

2.7 Conceptual framework

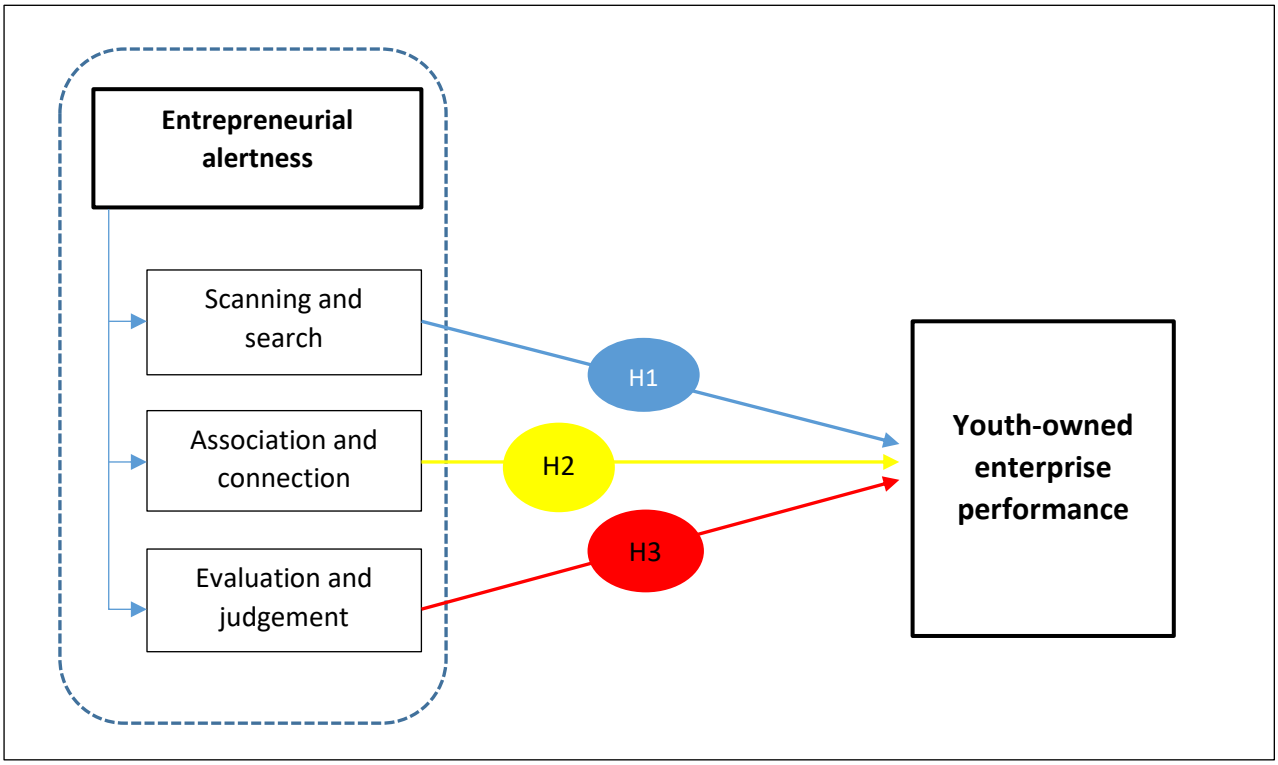


Figure 2.1: Conceptual framework

Source: (Rezvani et al, 2018; Adomako et al, 2018; Fatoki & Oni, 2015a; Roundy et al, 2018; Tang et al, 2012)

2.8 Summary of the chapter

This chapter put forth the theory that underpins the study and connected the constructs and its variables. The construct, entrepreneurial alertness (EA) has the following

variables; scanning and search, association and connection and lastly, evaluation and judgement. Then, entrepreneurial alertness has a positive impact on the enterprise performance construct. Hypotheses were proposed and a conceptual framework created to provide the picture. In the following chapter, the research methodology is outlined.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The aim of this section was to describe in detail, the research methodology that was used and to address the research and hypotheses put forward for this study. The section includes the research design, data collection and sampling, the research instruments, data analysis, ethical consideration and summary of the chapter.

3.2 Research design

This study is quantitative in nature. Quantitative research is a positivist method and is based on numerical data on which the researcher relies (Taylor & Medina, 2011). In quantitative methods, the data is presented by numbers and hence several statistical analyses can be applied which are quantitative in nature (Greenstein, 2003 cited in Gunda, 2013). Quantitative is ideal for this research because it is a statistically based study and the data is analysed in numerical form and this research measures youth-owned enterprise performance against entrepreneurial alertness (alert scanning and search, alert association and connection and evaluation and judgement). A positivist research paradigm is appropriate for this study because the research takes on an objective focus (Creswell & Creswell, 2017).

A quantitative research methodology brings out the relationship of the variables of this research making use of numerical data. It is a multivariate study consisting of more than two variables (Daniel, 2016), in this case, four variables. The dependent variable is enterprise performance whilst the independent variables are scanning and searching, association and connection and evaluation and judgement. The independent variables are used as elements in the entrepreneurial alertness as a cognitive competency a person must have.

The assumption is that quantitative methodology allows for a large sample size and the researcher's involvement is limited therefore preventing bias (Cooper & Schindler,

2008). Ontologically the researcher assumes that the external reality is comprised of facts that are “law-like” and provide structure or a theoretical framework to this reality (Eisner, 1981). Methodological and ontological assumptions in an empirical-analytical inquiry are characterised by the researcher’s detached or objective review from the setting under study (Eisner, 1981; Smith, 1983). The empirical results of this study contribute to literature on what impact cognitive skills, such as entrepreneurial alertness, has on enterprise performance.

This research is conducted for the purpose of partial fulfilment of a Master of Management degree. The degree is made out of course work and a mini-dissertation that must be fulfilled within a period of a year, therefore has a time constraint, hence a cross-sectional quantitative research was used. Cross-sectional research methodology captures a “moment in time” (Cooper & Schindler, 2008). Online, self-administrated questionnaires were distributed using social media platforms, such as WhatsApp, twitter and Instagram to all youth-owned entrepreneurs, in order to collect primary data.

The advantage of using cross-sectional quantitative data, collected by distributing an online link, created using Qualtrics Software, is that it was easy to share the link and to code the collected data for transfer to SPSS system, where analysis of data was conducted

A survey questionnaire however, is limiting in the fact that:

- There is no contact with the respondents hence no chance of further explanation of a question or requirements
- Responding and finishing the survey is absolutely at the discretion of the respondents
- There is a chance of the research being disregarded as spam due to many surveys circling the web.

3.3 Data collection and sampling

In order to collect primary data, a link providing access to the questionnaire was distributed to youth entrepreneurs using different social media platforms, and was not limited to SMSs and emails. Simple random sampling was used to identify the sample. This procedure was used to “select a sample of n objects strictly by chance, the selection of one member does not influence the selection of any other member, each member of population is equally likely to be chosen, and every possible sample of a given size N, has the same chance of selection” (Newbold, Carlson, & Thorne, 2013, p. 3).

3.3.1 Population

A population is defined as people or unit of analysis that possess the characteristics on which one wishes to focus their research (Bhattacherjee, 2012). According to Newbold et al. (2013), a complete set of all items that interest an investigator is considered a population, and its size (n) can be very large or even infinite (∞). The units of analysis for this study was South Africans between the ages of 18 and 35 years who are self-employed or running their own enterprises. The areas to be used predominantly was Gauteng, Limpopo, Free State, KwaZulu Natal and Northern Cape provinces. Due to time constraints, it was not possible to collect data from individual business owners from all nine provinces. It is not the interest of this study to focus on geographic type (i.e. urban or rural).

3.3.2 Sampling method

Newbold et al. (2013) define a sample as a practical portion or subset of a population with the size of the sample given as “N”. Sampling involves ensuring that the questionnaire is administered to the targeted populations (Slavec & Drnovsek, 2012). Although there is no specification about the size of a sample, there are two recommendations to be considered, first, the sample of subjects should be large (Slavec & Drnovsek, 2012), and second, as the number of items increase, the number of respondents should increase (Slavec & Drnovsek, 2012).

The sample was derived from youth entrepreneurs between the ages of 18 and 35 years, who own businesses in South Africa and belonged to specific youth organisations or forum that had national representation. These forums have helped the researcher to reach youth entrepreneurs from provinces such as; Gauteng, Limpopo, Free State, KwaZulu Natal and Northern Cape cost-effectively and with fewer complications.

Sampling random is used to identify the sample. This procedure is used to "select a sample of an object from a population in such a way that each member of the population is chosen strictly by chance. The selection of one member does not influence the selection of any other member, each member of the population is equally likely to be chosen, and every possible sample of a given size, n, has the same chance of selection" (Newbold, Carlson, & Thorne, 2013).

3.3.3 Sampling frame

The study's sampling frame was designed in a way that would produce general representation of the sample from the following provinces; Gauteng, Limpopo, Free State, KwaZulu Natal and Northern Cape in South Africa. The sample frame was youth between the ages of 18 and 35 years who own business in various industries and keeps records of their businesses, in order to understand their business performance. This youth must have social media accounts (WhatsApp, Facebook, Twitter and Instagram).

A few social media group accounts were identified with mass number of youth entrepreneurs, such as Facebook: AFASA Youth – National, Facebook: Local Government Youth Development Forum, Facebook: Independent Thinkers of South Africa, Facebook: Youth Entrepreneurship Campaign, Facebook: Sedibeng Youth Chamber of Commerce & Industry – SYCCI, Facebook: ICT SMME Chamber, Twitter: @djsbu, Twitter: @VusiThembekwayo and Twitter: @NYDARSA.

This approach assisted the researcher to reach respondents from all nine province in s limited period. In order to avoid exclusion of youth entrepreneurs that were not members of the mentioned Facebook pages and following either @djsbu and @VusiThembekwayo, I also posted the link to the survey on my personal Facebook, twitter and Instagram walls.

3.3.4 Sample size

There is not clear indication as, how many participants had accessed the survey especially from Facebook, twitter and Instagram, the platforms holds many potential respondents, however as for WhatsApp messages sent, there is approximate 1500 messages sent. A total of 129 of the responses were viable, 7 did not consent and considered unusable, and 11 had missing data. Therefore, the analysis is based on a sample size of 126 with 3 outliers that were removed.

There are specific requirements as to how big the sample size should be to perform certain statistical tests and statistical analysis. Because factor analysis and multiple regression analysis were used, it was necessary to consider the minimum sample sizes required in order to perform such statistical procedures.

There are no clear theories on how to determine the optimal sample size for both factor and multiple analysis, thus the different views in literature are just rules of thumb. However, the general agreement in factor analysis, is that the higher the commonalities, the lower the required sample size (Field, 2013).

3.4 The research instrument

The research instrument that was used for this study was a self-administered online questionnaire. Self-administered online questionnaire is the most advantageous method as it “permits for easy geographical reach” (Galawe, 2017). Cooper and Schindler (2014) further states more advantages of using online survey such as, fixed and low cost, data can be collected from large samples and it is easy to administer. The online

survey was suitable for this study for the purpose of reaching large sample easily and cost effectively (Wiklund, 2006; Cooper & Schindler, 2008).

The research instrument contained multi-item scales to measure the independent and dependent variables. Multi-item scale type questions are often used in social science researches due to subjective and difficulties to measure variables, sometimes difficult to just measure with a single question (Galawe, 2017; Zikmund, 2003). The questions testing independent variables are based on a 7-point Likert scale: 1 = strongly disagree – 7 = strongly agree, while questions testing dependent variables are based on 5-point satisfactory scale: where, 1= very dissatisfied – 5=very satisfied. Another study by Yang (2008) created a business performance scale that contained eight items and used a seven-point Likert scale. The four indicators of growth were: sales growth, employment growth, sales growth compared to competitors, and market share compared to competitors. The three financial performance indicators were gross profit, return on sales (ROA), and return on investment (ROI). The final indicator was one of overall performance/ success to business performance adapted from Lumpkin and Dess (1996). The work of Wiklund (1999) suggests that performance measures should include both growth and financial measures and therefore it was an objective of this study to factor in both growth and financial dimensions to make sense of the dependent variable.

All of the questions of the research instrument are forced questions in an effort to try to avoid receiving incomplete questionnaires. In order to measure the impact of entrepreneurial alertness to youth-owned enterprises, three variables of the alertness construct was tested. Scales from previous studies were used to obtain some level of reliability and such scales had excellent Cronbach Alpha. The Table 3.1 provides summarised different sections of the research instrument:

Table 3.1: Research instrument summary

Section	Description	Source of question	Type of questions	Comments
SECTION A: Demographic	This section collected demographic information of the respondents such as gender, age, race, level of education, industry, length of time in business and lastly number of employees.	Adapted from Majola (2017)	Multiple choice	• Gender and race is important to determine the representatives. According to Netshitenzhe (2013) woman are amonst the previously disadvantaged and continue to be sidelined in business. • There is strong correlation between age and education level amongst youth entrepreneurs in South Africa (GEM, 2016/2017) • Age of business and number of employee also have correlations (GEM, 2016/2017)
SECTION B: Entrepreneurial alertness	This section collected information of three dimensions: (1) Scanning and search (2) Association and connection (3) Evaluation and judgement	Adapted from (Tang et al., 2012; Tang, Tan et al., 2008)	7 Point Likert scale	• Study of Tang et al. (2012) developed 13 questions to test the alertness scale and the study demonstrated appropriate dimensionality and strong reliability. • Scanning and search had 6 questions, Association and judgement had 3 questions and Evaluation and judgement had 4 questions
SECTION C: Enterprise performance	This section collects data on the business performance, which operationalized as growth, profitability and ability to self-fund.	(Covin & Slevin, 1989)	5-Point Satisfactory scale	• Each of these financial performance criteria were assessed; sales level, sales growth rate, cash flow, return on shareholders' equity, gross profit, net profit from operations, and profit to sales ratio return on investment, and ability to fund business growth from profit (Fatoki, 2011a).

Source: Primary data

3.5 Data analysis

Data was collected using a Qualtrics generated questionnaire and was exported to SPSS for data analysis. Once data was imported into SPSS and coded, the data was cleaned and all errors removed. The errors in the data could be contributed by missing values.

3.5.1 Descriptive statistics

Newbold et al. (2013) define descriptive statistics as graphical and numerical procedures that are used to summarise and process data. The demographic data of the sample and data collected are presented in tables and graphs in Chapter 4 and interpreted in Chapter 5.

3.5.2 Exploratory factor analysis: validity

Validity focuses on whether the research accomplishes accurately an explanation of the concept that the researcher is measuring, the extent to which the conclusions of the study are supported by its design. It is folded into two; internal and external validity

Internal validity is concerned with the results of the study, if they are acceptable because of the sample selection, data recording, or analysis (Handley, 2001). Internal validity states that the outcomes of the data might be skewed, based on how or where the survey is distributed, for example, if the survey is distributed online only. For the research design to be termed internal valid, it must isolate the effects of the variables used in the research such that they can be measured separately (Handley, 2001).

External validity is also known as generalisability. External validity measures if the outcomes of the study would be the same in a different environment with a different subject (Handley, 2001). It is advisable to use a research instrument that has been used several times, with the same or similar outcomes, as this increases its validity.

3.5.3 Cronbach's alpha: Reliability

Reliability is the consistency of the research instrument whether it can yield a certain results when the object being measured is the same (Leedy & Omrod, 2005). Factors affecting reliability include the lack of understanding of the research questions (Leedy & Omrod, 2005). Tavakol and Dennick (2011) outline the relationship between validity and reliability as thus;

- Validity is concerned with the extent to which an instrument measures what it is intended to measure;
- Reliability is concerned with the ability of an instrument to measure consistently;
- The reliability of an instrument is closely associated with its validity;
- An instrument cannot be valid unless it is reliable, however,
- The reliability of an instrument does not depend on its validity.

It is possible to measure effectively the reliability of a research instrument using Cronbach's alpha. Cronbach's Alpha was developed by Lee Cronbach in 1951, to measure internal consistency of a test or scale (Tavakol & Dennick, 2011). The acceptable values of alpha range from 0.70 to 0.95. A low alpha measurement could be because of poor interrelatedness between items, heterogeneous constructs or too few questions (Tavakol & Dennick, 2011).

3.6 Correlation analysis

Correlation analysis is used to evaluate the relationship between two variables; it generally tests the direction and strength of the relationship (Newbold et al., 2013). It looked at the relationships of the dependent variables (Enterprise Performance) and each of the independent variables (Alert scanning and search, Alert association and connection and Evaluation and judgement) and the independent variables against each other. This is done to look out for cases of multicollinearity.

3.7 Multiple regression

The multiple regression model determines the effect of several independent variables individually and concurrently on the dependent variables, using the least squares principles (Newbold, Carlson, & Thorne, 2013). There is a process to follow when developing the multiple regression model: first, develop the model specifically by determining the model variables and model form; second, study the least squares process and analyse the variability to identify the effects of each predictor variable; third, examine the estimation, confidence intervals, and hypothesis testing (Newbold et al., 2013).

3.8 Ethical considerations

Ethics are described as behavioural norms or standards that guide moral choices related to our relationships with others (Cooper & Schindler, 2008). Cooper and Schindler (2008) further states that as in business, research must strive to be ethical to ensure that research activities do not lead to adverse consequences to anyone and also that participants do not suffer embarrassment, loss of privacy, discomfort or pain. In order for research to be ethically, researcher must (Cooper & Schindler, 2008, p. 90):

- Give participants an option to agree or disagree to participate in the research.
- Be honest about the purpose, benefit and confidentiality of the research.
- Demonstrate integrity during the research process
- Guarantee the right to privacy and ensure the protection of participants.

The researcher took the following steps to adhere to ethical considerations in this study;

- The University of Witwatersrand's Ethical Committee issued out official ethical certificate as the first go-head procedure.
- The cover page detailing the purpose and benefits where attached to questionnaire. For the questionnaires send via WhatsApp, such cover was send as first slide then followed by link to the questionnaire.
- The first question on the questionnaire was a consent option that was set to "Exit the participation" if participants choice "no" to consent. This option has ensured

that participants are not forced to participate in the study and that participation if completely voluntarily.

- No personal information has been asked on the questionnaire in order to keep responses strictly anonymous.
- The results of the survey will be destroyed after the research report is published

3.9 Summary of the chapter

This chapter focused on the research methodology that included philosophy and paradigms. The study was a quantitative and was presented in numbers hence several statistical analysis were applied. The SPSS V25 software system was used for descriptive and exploratory factor analysis from the data collected using self-administered questionnaire.

Youth between the ages of 18 – 35 operating businesses in South Africa took part in the study. Because the study has used online survey the random sampling was adopted with could not be quantified, but has achieved 147 usable observations. The survey was distributed amongst different social media groups with number of youth enterprise owners.

Data was screened and cleaned to ensure integrity and quality of data is not compromised. Incomplete responses and responses containing outliers were removed. The reliability and validity of the measurements scales were tested and it was found that they are reliable and valid.

The study further performed correlation analysis and multiple regression to establish the factor structure I order to determine the degree and form of the relationship between Independent variables and Dependent variables and lastly to test hypothesis of the study.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

The objective of this chapter is to present the results and interpretation. The chapter begins with demographic results of the participants, followed by descriptive analysis of the participants, reliability of the measuring scale, explorative factor analysis, hierarchical multiple regression, and then lastly, testing of hypotheses.

4.2 Data screening

The survey was sent through social media (WhatsApp, Facebook, twitter and Instagram); it also included email. The survey managed to attract 147 respondents in total, seven respondents never consent to participate, 11 contained much missing data and therefore were regarded as invalid. There were three outliers found in the data and removed. The results are thus analysed from 126 respondents.

4.3 Demographic profile of respondents

This section presents the demographic information of the respondents and includes gender with race, age group, enterprise industry, age of business and lastly, number of employees.

4.3.1 Gender and race

Sample characteristics results reveal that more males (52.4%) than females (47.6%) were sampled overall. Most of the respondents were African at the total number of 120, followed by Coloured at the total number of three, then whites and Indian by one respondent respectively. Table 4.1 illustrates how the sample is distributed according to gender and race combined.

Table 4.1: Gender and Race Cross-tabulation

			Race					
			African	Coloured	Indian	White	Other	Total
Gender	Male	Count	62	2	1	0	1	66
		% within Race	51.7%	66.7%	100.0%	0.0%	100.0%	52.4%
	Female	Count	58	1	0	1	0	60
		% within Race	48.3%	33.3%	0.0%	100.0%	0.0%	47.6%
Total		Count	120	3	1	1	1	126
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Primary data

4.3.2 Age group

Table 4.2 shows that most respondents (45.2%) were in the 25-29 age group, followed by the 30-35 age group (44.4%) and lastly 18-23 age group (10.3%). According to GEM Global Report 2016/2017, there is relatively lower entrepreneurial occurrence amongst 18 – 24 years cohort, and relatively higher occurrence amongst 25 – 34 years cohort (Global Entrepreneurship Monitor, 2016/2017). GEM further states that the higher the age, the more the decline in entrepreneurial participation.

Table 4.2: Age Group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 23	13	10.3	10.3	10.3
	25 - 29	57	45.2	45.2	55.6
	30 - 35	56	44.4	44.4	100.0
	Total	126	100.0	100.0	

Source: Primary data

4.3.3 Education

The majority of the respondents (47.6%) had tertiary education, that is, a total number of 60, followed by those who had completed secondary education (matriculated) at 38.9% which is total number of 49, followed by 10 and seven respondents who have not completed secondary education and those who hold post-graduate qualifications, respectively. This sample was largely distributed using WhatsApp that needed

understanding of how to access the link directly from the WhatsApp. Figure 4.1 illustrates the education percentage distribution on the respondents.

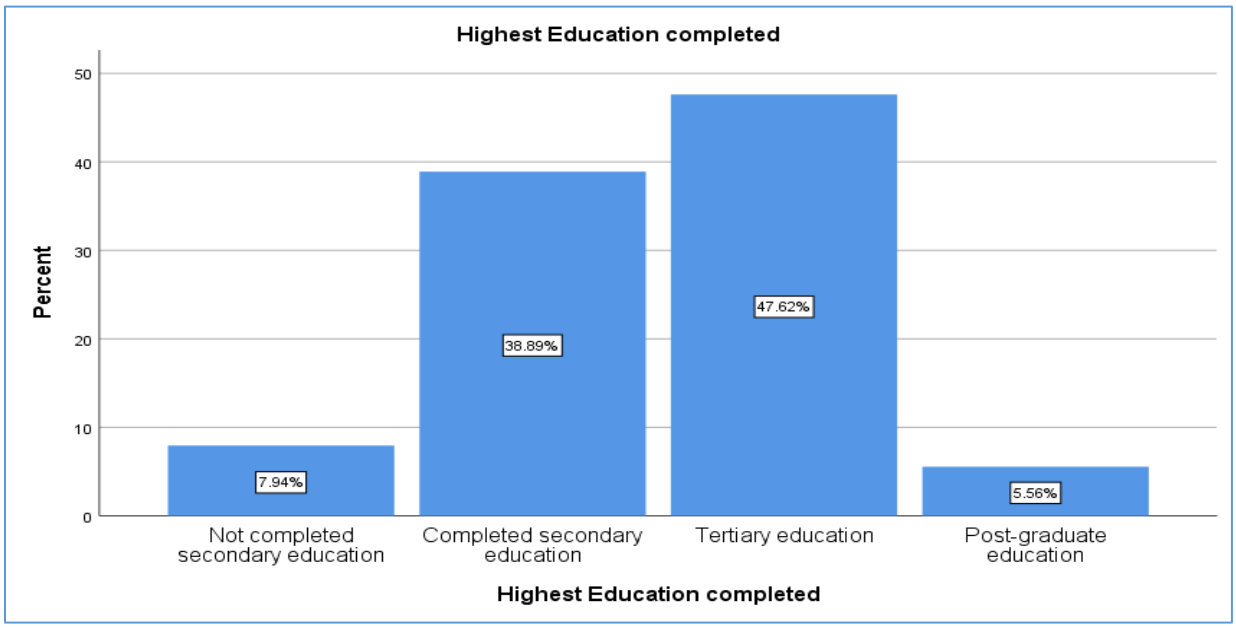


Figure 4.1: Highest Education Completed

Source: Primary data

4.3.4 Enterprise Industry

The majority of respondents (34.1%) have chosen “Other”, followed by 19.8% of the respondents who are in the manufacturing sector, followed by 14.3% of the respondents in wholesale and retail trade, repair of motor vehicles, motor cycles and personal and household goods, hotels and restaurants. The major contributors to the number is mainly wholesale and retail, as suggested by the GEM Report (Global Entrepreneurship Monitor, 2016/2017). According to GEM, wholesale and retail requires fewer skills and lower capital requirements and therefore attracts a lot of entrepreneurial activities (Global Entrepreneurship Monitor, 2016/2017). There is also relatively good participation at 12.7% in community, social and personal services from the respondents. Industries such as agriculture, hunting, forestry, fishing, electricity, gas, water supply, financial inter-mediation, insurance, real estate, business services, transport, storage, accommodation and construction share between one to six respondents. Table 4.3 illustrates industrial domination from respondents.

Table 4.3: Industry of your enterprise

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agriculture, hunting, forestry and fishing	3	2.4	2.4	2.4
	Manufacturing	25	19.8	19.8	22.2
	Electricity, gas and water supply	1	.8	.8	23.0
	Construction	12	9.5	9.5	32.5
	Wholesale and retail trade, repair of motor vehicles, motor cycles and personal and households goods, hotels and restaurants	18	14.3	14.3	46.8
	Transport, storage and accommodation	2	1.6	1.6	48.4
	Financial inter-mediation, insurance, real estate and business services	6	4.8	4.8	53.2
	Community, social and personal services	16	12.7	12.7	65.9
	Other	43	34.1	34.1	100.0
	Total	126	100.0	100.0	

Source: Primary data

4.3.5 Age of Business

Most of the youth-owned enterprises have been paying salaries for between three months and 3.5 years (56.35%), while 26.96% have been paying salaries for more than 3.5 years. Lastly, 16.67% have been paying salaries for less than three months. Salaries paid also include salaries paid to the owners of the businesses, either formally paid or informally paid. Figure 4.2 illustrates the salary statistics.

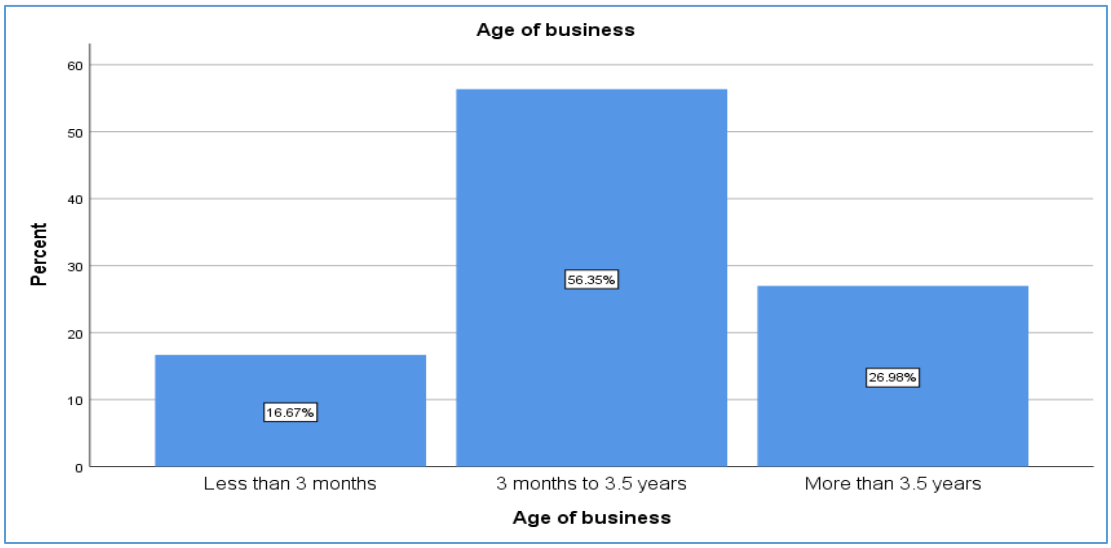


Figure 4.2: Length of time enterprise paid salaries

Source: Primary data

4.3.6 Number of employees

The majority of enterprises (93.7%) had a size of 1-10 employees, followed by 4.8% of enterprises that had 11-50 employees and finally, followed by only 1.6% of enterprises that had more than 50 employees. According to the GEM report, there is a significant correlation between the duration of the business and the number of employees the particular enterprise afford to have (Global Entrepreneurship Monitor, 2016/2017). Table 4.4 illustrates the number of employees enterprises have including the owners.

Table 4.4: Number of Employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 - 10	118	93.7	93.7	93.7
	11 - 50	6	4.8	4.8	98.4
	More than 50	2	1.6	1.6	100.0
	Total	126	100.0	100.0	

Source: Primary data

4.4 Descriptive statistics

The descriptive statistics provide the results of the main constructs and the focus is on showing the means, confidence interval, median, skewness and kurtosis. The results of scanning and search, association and connection as well as evaluation and judgement, including the dependent variable, business performance, are presented in the following tables;

4.4.1 Responses on the Scanning and search

Six questions were asked to measure the impact scanning and search has on the enterprise performance. Table 4.5 provides the results of participation oneach question and no missing results were reported on each question. The majority of respondents (mean=6.25) have responded positively on the question number 6. “I am always actively looking for new information”.

Table 4.5: Descriptive Statistics: Scanning and search

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
SS_1	126	1	7	6.01	1.149	-2.074	.216	5.758	.428
SS_2	126	1	7	6.05	1.344	-2.641	.216	7.432	.428
SS_3	126	1	7	5.58	1.472	-1.490	.216	2.065	.428
SS_4	126	1	7	6.21	1.143	-2.131	.216	5.449	.428
SS_5	126	2	7	5.79	1.177	-1.158	.216	1.087	.428
SS_6	126	3	7	6.25	.885	-1.650	.216	3.422	.428
Valid N (listwise)	126								

Source: Primary data

4.4.2 Responses on Association and connection

Three questions were asked in order to evaluate the impact of association and connection to enterprise performance. The majority of respondents (mean=6.00) have responded positively to question number 2 “I am good at ‘connecting dots’”. Table 4.6 provides the results and no missing value is reported in any of the question asked.

Table 4.6: Descriptive Statistics: Association and connection

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
AC_1	126	1	7	5.02	1.513	-.972	.216	.294	.428
AC_2	126	2	7	6.00	.980	-1.193	.216	2.063	.428
AC_3	126	1	7	5.34	1.303	-1.033	.216	.816	.428
Valid N (listwise)	126								

Source: Primary data

4.4.3 Response on Evaluation and judgement

Four questions were asked in order to evaluate the impact of evaluation and judgement to enterprise performance. The majority of respondents (Mean= 6.02) have responded positively on question number 1 “I have a gut feeling for potential”. Table 4.7 provides the results and no missing value is reported in any of the questions asked.

Table 4.7: Descriptive Statistics: Evaluation and judgement

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
JE_1	126	1	7	6.02	1.039	-2.266	.216	8.051	.428
JE_2	126	1	7	5.92	1.177	-1.847	.216	4.121	.428
JE_3	126	2	7	5.67	1.289	-1.397	.216	1.758	.428
JE_4	126	2	7	5.94	1.049	-1.394	.216	2.674	.428
Valid N (listwise)	126								

Sources: Primary data

4.4.4 Responses on Enterprise Performance

Nine questions were asked in order to evaluate Enterprise performance. The majority of respondents (Mean=3.73) have responded positively to question number 1 “Sales level”. Table 4.8 provides the results and no missing value is reported.

Table 4.8: Descriptive Statistics: Enterprise Performance

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
EP_1	126	1	7	3.73	1.183	.600	.216	.525	.428
EP_2	126	1	7	3.68	1.360	.692	.216	.287	.428
EP_3	126	1	7	3.58	1.556	.872	.216	.356	.428
EP_4	126	1	7	3.55	1.532	.730	.216	.108	.428
EP_5	126	1	7	3.67	1.470	.719	.216	.418	.428
EP_6	126	1	7	3.62	1.419	.787	.216	.606	.428
EP_7	126	1	7	3.72	1.429	.904	.216	.506	.428
EP_8	126	1	7	3.60	1.449	.754	.216	.376	.428
EP_9	126	1	7	3.82	1.455	.434	.216	-.133	.428
Valid N (listwise)	126								

Source: Primary data

4.5 Measurement scale

The dependent variable, business performance, was measured using a 5-point satisfaction scale with nine indicators of testing business performance. Where 1= Very dissatisfied and 5= very satisfied. Entrepreneurial alertness is measured using three

antecedents, scanning and search, association and connection and evaluation and judgement. Entrepreneurial alertness dimensions (Scanning and search, Association and connection, as well as Evaluation and judgement) were all measured using a 7-point Likert scale.

4.5.1 Validity of factors

Exploratory factor analysis was conducted to assess the validity of the scale for enterprise performance and entrepreneurial alertness constructs. The extraction method used was Principle components analysis (PCA) with KMO and scree plot. The pattern matrix was preferred over structure matrix for the purpose of easy of interpretation (Slater, 2019). The primary role of factor analysis is to determine the underlying structure among the variables in order to explain the pattern of correlations amongst the variables (Leech, Barrett, & Morgan, 2015). The scale had been developed by Tang et al. (2012) and the purpose of this section is not to create a new scale but rather to confirm the reliability of the the existing theoritical scales in the context of this study.

4.5.1.1 Entrepreneurial alertness dimensions (IV)

Entrepreneurial Alertness dimensions (Scanning and search, Association and connection and Evaluation and judgement) are independent variables in this study. The sufficiency of 13 items designed to measure alertness, were examined using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of Sphericity. According to Grande (2015). the KMO value must be above 0.50, but the most acceptable is 0.60 and Bartlett's test of Sphericity must be significant at $p<0.001$. Table 4.9 provides results on KMO 0.809, Bartlett's Test of Sphericity= sig. 0.000 and BTS= 313,205, indicating that the data were appropriate for the purpose of factor analysis. Statistically, this means that there exists a relationship between the variables, even though some variables shows weak relationships, but can be included in factor analysis.

Table 4.9: KMO and Bartlett's Test: Independent Variable

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.809
Bartlett's Test of Sphericity	Approx. Chi-Square	313.205
	df	28
	Sig.	.000

Source: Primary data

The eigenvalue summary table, Table 4.10, shows components divided among factors that had strong loadings. After some items showed double (cross loading) and others with no loadings, three components were reduced to only two components. The components had Eigenvalues greater than 1.0, which is a common criterion for a factor to be useful (Leech, Barrett, & Morgan, 2015).

To understand the nature of the two components extracted, the pattern matrix was securitised and loading suppressed to two components with principle axis factoring extraction method. Loadings below 0.4 were suppressed and data sorted ascending and factors were rotated using promax. Factor 1 explains 43.01% of cumulative percentage and 43.01% variance, while Factor 2 explains 60.94% of cumulative percentage and 17.93% of variance. To understand the nature of the extracted factors, the pattern matrix was scrutinised and factors that loaded in multiple components were removed (SS_1, SS_2, AC_1, AC_2 and AC_3).

Table 4.10: Total Variance Explained: Independent Variable

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.441	43.011	43.011	2.953	36.910	36.910	2.551
2	1.435	17.935	60.947	.922	11.527	48.436	2.366
3	.780	9.751	70.698				
4	.659	8.240	78.938				
5	.505	6.318	85.256				
6	.463	5.786	91.042				
7	.382	4.772	95.814				

8	.335	4.186	100.000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Source: Primary data

The pattern matrix table, Table 4.11, was used to illustrate the loading per factor of the alertness construct after some items were disregarded for further analysis. All items loaded above the cut-off point of 0.40. Factor 1 was labelled as *Evaluation and judgement*, while factor 2 was labelled as *Scanning and search.* No items from association and connection (AC_1, AC_2 and AC_2) were loaded in any of the factors (1 and 2).

Table 4.11: Pattern Matrix[a]

	Factor	
	1	2
JE_4	.755	
JE_1	.728	
JE_3	.702	
JE_2	.654	
SS_5		.845
SS_3		.677
SS_6		.552
SS_4		.503

Extraction Method: Principal Axis Factoring.

Rotation Method: Promax with Kaiser Normalisation.[a]

a. Rotation converged in 3 iterations.

Source: Primary data

Evaluation and judgement loaded on factor 1 and all items were loaded with the lowest being 0.654 (JE_2: “I can distinguish between profitable opportunity and not-so-profitable opportunities”) and the highest being 0.755 (JE_4: ”When facing multiple opportunities, I am able to select the good ones”).

Scanning and search loaded in factor 2 and four out six items loaded, lowest loading being 0.503 (SS_4: “I browse the internet every day”) and highest being 0.845 (SS_5: “I am an avid information seeker”).

It was found that Association and connection had the weakest factor loading and thus was dropped because the items did not converge with other factors. All of the items had loaded in other factors. The study conducted by Fatoki and Oni (2015b) showed Association and connection construct with the Cronbach Alpha of 0.71 which is >0.70 required for Alpha, meaning the study found the construct to be reliable. However, the study was testing alertness amonst immigrants while the purpose of this study is to test alertness amonst youth in South Africa.

Association and connection relates to obtaining information of different qualities and building a solid knowledge base for further business alternatives (Urban, 2019). South Africa’s education system is an area that has failed the majority of entrepreneurs which is associated with the lack of entrepreneurial knowledge amongst the youth in South Africa (Global Entrepreneurship Monitor, 2016/2017). The empirical evidence therefore, confirms that young enterprise owners do not think seeing links on previous information or being knowlegable can actually contribute to enterprise performance in the South African context. The evidence suggests that there is no influence of entrerprise performance created by association and connection, hence hypothsis 2 is rejected.

4.5.1.2 Enterprise performance (DV)

Enterprise performance is the dependent variable, which is operationalised as Youth-owned enterprise performance. The data on the nine items measuring business performance provide sufficient correlation to proceed to applying factor analysis. Table 4.12 provides the results of the Kaiser-Meyer-Olkin analysis at 0.950, with is greater than 0.60 and Bartlett’s Test of Sphericity with significance greater than P>1.

Table 4.12: KMO and Bartlett's Test: Dependent Variable

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.950
Bartlett's Test of Sphericity	Approx. Chi-Square	1524.998
	df	36
	Sig.	.000

Source: Primary data

The Total variance explained table, Table 4.13, illustrates that there is only one factor loaded. The factor has an eigenvalue of = 7.510 that is above the required 1, with 83.4% of cumulative percentage that is assumed to be significant, above the recommended level of 60%.

Table 4.13: Total Variance Explained: Dependent Variable

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.510	83.447	83.447	7.329	81.437	81.437
2	.432	4.798	88.245			
3	.241	2.677	90.922			
4	.218	2.419	93.342			
5	.165	1.831	95.173			
6	.157	1.740	96.913			
7	.102	1.135	98.048			
8	.098	1.084	99.132			
9	.078	.868	100.000			
Extraction Method: Principal Axis Factoring.						

Source: Primary data

The factor matrix table (table 4.14) illustrates the items that converged with factor 1 and were all above the required cut-off point of 0.40. The items on enterprise performance have loaded successfully without multiple loading. The highest loading was at 0.937 and the lowest loading was 0.818. There was no rotation required since only one factor was extracted.

Table 4.14: Factor Matrix[a]

	Factor
	1
EP_5	.937
EP_3	.933
EP_8	.926
EP_7	.918
EP_6	.912
EP_4	.911
EP_2	.901
EP_1	.859
EP_9	.818
Extraction Method: Principal Axis Factoring.	
a. 1 factors extracted. 3 iterations required.	

Source: Primary data

4.5.2 Reliability of the measurement scale

The Cronbach's Alpha was used to analyse the reliability of the scale. Table 4.15 provides a summary of overall results from the scale reliability test for all the constructs, with a number of items measuring each construct. The summary table also provides the Cronbach Alpha after items were deleted to improve the scale and the first Alpha before deleting problematic items.

Three constructs were measured using Cronbach Alpha, and the results reveal that the reliability of the scale was good ranging from 0.724 (SS) to 0.975 (EP). Cronbach Alpha literature make mention that the higher the level of Cronbach coefficient Alpha, the higher the reliability of the measurement scale (Cronbach, 1951). In the following tables, the individual constructs are outlined and discussed.

Table 4.15: Summary of Construct Reliability Results

High-Level Factors	Constructs	Code	Latent factors	No. of items	α before adjustment	Items deleted	α after adjustment
Independent variable	Entrepreneurial Alertness	SS	Scanning and search	4	0.724	None	0.724
		JE	Judgement and evaluation	4	0.806	None	0.806
Dependent variable	Business performance	EP	Enterprise Performance	9	0.975	None	0.975

Source: Primary data

4.5.2.1 Scanning and search

The results on the construct, scanning and search, contained four items with Cronbach's Alpha of (α=0.724), had good reliability level as shown in Table 4.15: Summary of Construct Reliability Result above. If the items within the construct ranges above the required Cronbach Alpha of α=0.7, it mean the items can be combined to form a summated scale. The scale were accepted as reliable and consistent.

The inter-item correlations were assessed, and Table 4.16 provides the results for scanning and search. The inter-item correlations are >0.3, indicating that all items are correlating with their respective scales. All scales therefore demonstrate convergence validity.

Table 4.16: Inter-Item Correlation Matrix (Scanning and search)

	SS_3	SS_4	SS_5	SS_6
SS_3	1.000			
SS_4	.373	1.000		
SS_5	.492	.391	1.000	
SS_6	.335	.326	.560	1.000

Source: Primary data

4.5.2.2 Association and connection

This construct was completely excluded during exploratory factor analysis, and therefore cannot be included for reliability and further analysis.

4.5.2.3 Evaluation and judgement

The results on the construct, Evaluation and judgement, contained four items with Cronbach's Alpha of (α= 0.806) with no items being deleted to increase Alpha, and had good reliability level as shown in Table 4.15: Summary of Construct Reliability Result. The scales were accepted as reliable and consistent.

The inter-item correlations were assessed, and Table 4.17 provides the results for Evaluation and judgement. The inter-item correlations are >0.30, an indication that all items are correlating with their respective scales. All items, therefore, demonstrated convergent validity.

Table 4.17: Inter-Item Correlation Matrix (Evaluation and judgement)

	JE_1	JE_2	JE_3	JE_4
JE_1	1.000			
JE_2	.473	1.000		
JE_3	.442	.531	1.000	
JE_4	.435	.560	.630	1.000

Source: Primary data

4.5.2.4 Enterprise performance

The result on construct, Enterprise performance, contained nine items with the excellent Cronbach Alpha of (α= 0.975). If the items within the construct ranges above the required Cronbach Alpha of α=0.7, it mean the items can be combined to form a summated scale. The scale were accepted as reliable and consistent.

All inter-item correlations were assessed, and Table 4.18 provides that results for Enterprise performance. The inter-item correlation are >0.3, indicating that all items correlated with their respective scales. All scales, therefore, demonstrate convergent validity and reliability.

Table 4.18: Inter-Item Correlation Matrix

	EP_1	EP_2	EP_3	EP_4	EP_5	EP_6	EP_7	EP_8	EP_9
EP_1	1.000								
EP_2	.841	1.000							
EP_3	.820	.877	1.000						
EP_4	.802	.841	.890	1.000					
EP_5	.790	.851	.869	.849	1.000				
EP_6	.768	.791	.829	.833	.882	1.000			
EP_7	.793	.786	.843	.808	.847	.847	1.000		
EP_8	.753	.799	.836	.815	.875	.858	.904	1.000	
EP_9	.659	.714	.739	.723	.764	.760	.783	.822	1.000

Source: Primary data

Since the reliability was excellent, the items within each scale were combined to form a summated scale for the construct. The summated scales were computed by calculating the average of the items within the construct.

4.6 Correlational results

Correlation refers to analysis that measures the strength of a linear connection between variables (Cooper & Schindler, 2008). The negative correlations are inverse and result when an increase in one variable results in a reduction in another (Cohen, 1988). The correlations greater than .80 reflect a stronger relationship and conversely, those closer to zero indicate a weak or no relationship at all.

The descriptive statistics in this study provides location, spread and shape of the variables under study. Variability in the distribution of the variable is represented by the standard deviation (Std. dev). Association and connection variable did not converge on factor analysis, therefore the researcher dropped the association and connection independent variable for further analysis. Only the two variables Scanning and search and Evaluation and judgement were used for further analysis.

Table 4.19 provides results that Scanning and search is the highest rated construct (mean=5.98), followed by Judgement and evaluation (mean=5.88) and lastly, Enterprise

performance has the lowest rate of (mean=3.66). The Pearson's correlations coefficient values indicate a positive significant relationship between Judgement and evaluation and Enterprise performance (r=0.305, p-value=<0.01), however the Person's correlations coefficient value between Scanning and search and Enterprise performance indicate an insignificant positive relationship (r=0.152, p-value=>0.01). The correlation between independent variables is less than 0.8 which implies that there is no threat of multicollinearity.

Table 4.19: Correlations

Variables	Descriptive Statistics		Pearson's Correlations		
	Mean	Std. Deviation	Enterprise performance	Scanning Search	Judgement evaluation
Enterprise_performance	3.6623	1.30529	1.000		
Scanning_Search	5.9815	.80642	.152	1.000	
Judgement_evaluation	5.8889	.90860	.305**	.483**	1.000
** Correlation is significant at the 0.01 level (2-tailed).					

Source: Primary data

Based on the correlation results, also in table 4.19, it was deemed viable to conduct further analysis and test the hypotheses on the influence of Scanning and search and Judgement and evaluation on Enterprise performance

4.7 Multiple Regression Assumption Testing

This section of the report provides the results of the regression assumptions testing which includes multicollinearity diagnosis, normality, linearity, and outliers. Regression assumptions looks at whether or not there are any assumptions violated before the running of the actual regression analysis (Slater, 2019).

4.7.1 Multicollinearity diagnosis

Multicollinearity is when two or more predictor variables in the model are highly correlated (r>0.8 or 0.9) and provides redundant information about the responses. The

main reasons for carrying out the test was to determine if any of independent variables are similar (Field, 2013; Tabachnick, 2013; Galawe, 2017).

The measure of multicollinearity is represented by the Tolerance and Variance inflationary factor (VIF), and no value of less .10 has been identified as Table 4.22 above shows. Any value above .10 will imply multicollinearity existence in the variables. It can be concluded that there is no evidence of multicollinearity.

4.7.2 Normality

From the normal probability plot in the Appendix section, it can be observed that the points lies reasonably along the diagonal thus suggesting no major deviations from normality.

4.7.3 Linearity

There is evidence of linearity between dependent and independent variable, the correlations matrix showed that the correlation co-efficient is greater than 0.3 (Table 4.19) thus implying linearity.

4.7.4 Outliers

Figure 4.4 depicts some few outliers that the researcher has dealt with and deleted from the data. The raw data provides a good picture on the pattern respondents (20, 53, and 58) followed in their attempt to answer the questionnaire. There is evidence that observation 20, 53 and 58 are outliers as depicted in the boxplot below and were deleted.

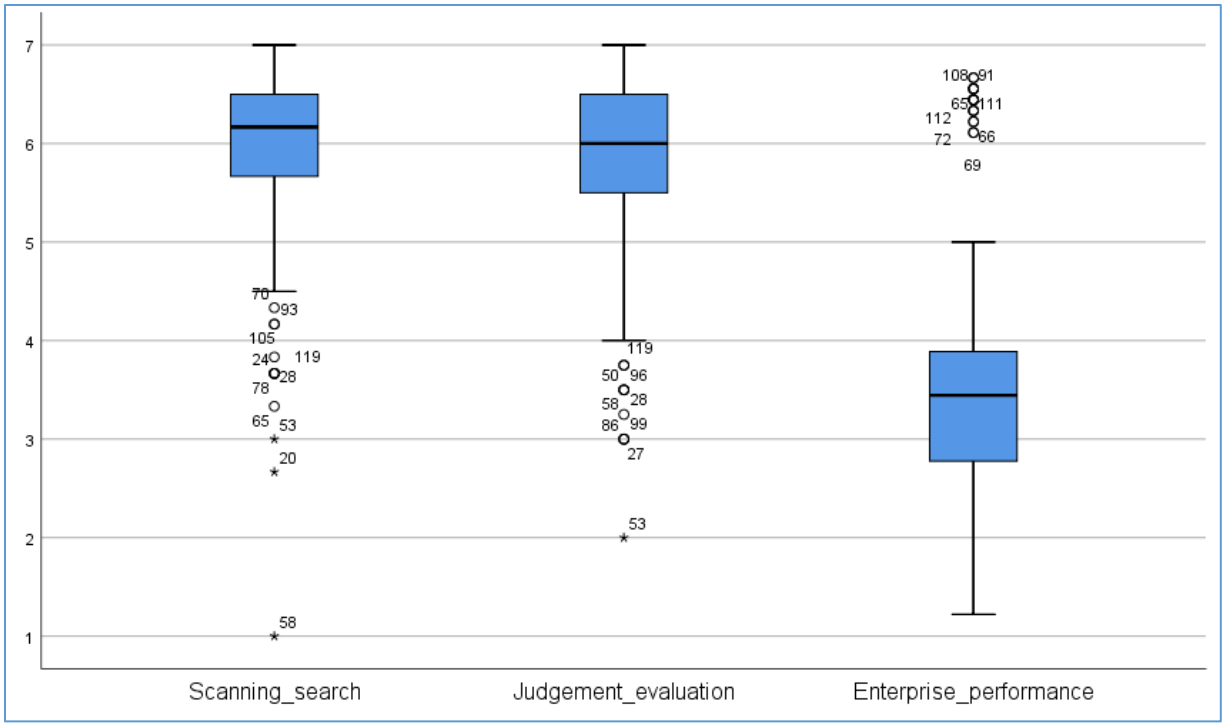


Figure 4.3: Outliers

Source: Primary data

4.8 Hypotheses testing results

To test hypotheses, the multiple regression model was fitted with enterprise performance as the dependent variable and Scanning and search and Judgement and evaluation as independent variables. The purpose of this study was to test the impact of entrepreneurial alertness on youth-owned enterprise performance in South Africa.

Table 4.20 shows the R^2, which is the coefficient of determination. It is a measurement of the predictive capacity of the model and measures how well the model fits the data. In this case, an R^2 value of 0.093 indicates that 9.3% of the variance is seen on performance and can be explained by Scanning and search and Judgement and evaluation and this is significant according to ANOVA analysis as this is below the p-value= 0.001.

Table 4.20: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.305[a]	.093	.078	1.25330	1.079

a. Predictors: (Constant), Judgement_evaluation, Scanning_search

b. Dependent Variable: Enterprise_performance

Source: Primary data

The ANOVA result in Table 4.21 tested the null hypotheses that neither Scanning and search nor Judgement and evaluation were significant in predicting enterprise performance against the alternative hypotheses. The results showed that at least between the two variables Scanning and search and Judgement and evaluation, one was significant in predicting enterprise performance, since the p-value was less than 0.05 (p-value= 0.002).

Table 4.21: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.770	2	9.885	6.293	.002[b]
	Residual	193.203	123	1.571		
	Total	212.973	125			

a. Dependent Variable: Enterprise_performance

b. Predictors: (Constant), Judgement_evaluation, Scanning_search

Sources: Primary data

Entrepreneurial alertness has three dimensions (Scanning and search, Association and connection and Judgement and evaluation), due to the nature of the instrument used in this research, an analysis of the three variables collectively to assess the impact of entrepreneurial alertness on the performance of youth-owned enterprises in South Africa could not be completed using all variables. However, taking into account the fact that there was a positive relationship between two variables (Scanning and search and Judgement and evaluation) even when scanning and search was not significant during analysis, but showed a positive correlation with enterprise performance. It was concluded therefore, that main hypothesis could be supported: Youth-owned enterprises had higher performance level when entrepreneurship alertness is higher.

The coefficient results in Table 4.22 were used to answer the hypotheses. The constant in the table refers to the value of Entrepreneurial alertness when enterprise performance is 0. It is a useful way to conceptualise how one value might be predicted from another. Table 4.22 shows that there is a relationship between Scanning and search and enterprise performance, r=.152, 95% BCa [-.304, .325], p >.01, however it was not significant, also there is relationship between Judgement and evaluation and enterprise performance, r=305, 95% BCa [.154, .712], p<.10, it was significant; as such, this data supports hypothesis 1 and 3.

Table 4.22: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	1.049	.917		1.144	.255	-.766	2.865		
	Scanning_search	.010	.159	.006	.065	.948	-.304	.325	.766	1.305
	Judgement_evaluation	.433	.141	.302	3.073	.003	.154	.712	.766	1.305

a. Dependent Variable: Enterprise_performance

Sources: Primary date

4.8.1 Result for hypothesis 1

H0: Scanning and search as dimension of EA does not have a positive impact on enterprise performance.

H1: Scanning and search as dimension of EA has a positive impact on enterprise performance.

The results showed that Scanning and search (B=0.10, β=0.06, p-value=0.948 was not significant but has a small positive impact on enterprise performance. The p-value has exceeded the required value of <0.05, thus, the hypothesis is rejected in favour of the null hypothesis. It was therefore concluded that there was no impact between Scanning and search and youth-owned enterprise performance in South Africa.

4.8.2 Results for hypothesis 2

H0: Association and connection as dimension of EA does not have a positive impact on enterprise performance. H2: Association and connection as dimension of EA has a positive impact on enterprise performance.

This hypothesis 2 was withdrawn because items could not converge during the exploratory factor analysis test. The researcher noticed the multiple loading of items and with one item that did not load at all.

4.8.3 Results for hypothesis 3

H0: Evaluation and judgement as dimension of EA does not have a positive impact on enterprise performance. H3: Evaluation and judgement as dimension of EA has a positive impact on enterprise performance

The results show that Judgement and evaluation (B= 0.433, β= 0.302, p-value= 0.003) was significant and has a positive impact on enterprise performance. This was because the coefficient for Judgement and evaluation variable was positive. Thus, the null hypothesis was rejected in favour of hypothesis 3. It was therefore concluded that Judgement and evaluation as a dimension of entrepreneurial alertness has a positive impact on the performance of youth-owned enterprises in South Africa.

4.9 Summary of results

In this chapter, the results of the data collected from the sample of 126 youth-owned enterprises were presented. Tests were performed to determine the validity and reliability of the research instrument used to measure the impact of Entrepreneurial alertness' dimensions on enterprise and on the performance of youth-owned enterprises in South Africa.

52.4% of respondents were males while 47.6% were females, which means that mostly males took up the survey. The majority of participants were between the ages of 25-29 (45.2%). The survey has circulated amongst African respondents (95.2%) and was less exposed to Indians, Whites and Others at 0.8% respectively. Most of this youth owners obtained a tertiary qualification (47.6%) followed by matriculants at (38.9%). The majority of participants have chosen “Other” under Industry of the enterprise (34.1%) with duration of the business from three months and 3.5 years (56.3%) with less than 10 employees (93.7%).

The results from factor analysis indicated that there are 29 items that could explain the variance in the data. However, high correlation between factors enabled some items to be combined into two factors: Scanning and search and Judgement and evaluation.

Correlation analysis provided a strong and positive relationship between Judgement and evaluation and enterprise performance, but a positive and weak relationship between scanning and search. Table 4.23 provides the summary of hypotheses testing outcomes.

Table 4.23: Summary of hypotheses results

	HYPOTHESIS	OUTCOMES
H1	Scanning and search as dimension of EA has a positive impact on enterprise performance.	Supported but insignificant
H2	Association and connection as dimension of EA has a positive impact on enterprise performance	Not tested
H3	Evaluation and judgement as dimension of EA has a positive impact on enterprise performance	Supported and Significant

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

The study investigated the impact that entrepreneurial alertness (Scanning and search, Association and connection, as well as Judgement and evaluation) has on the performance of youth-owned enterprises in South Africa. The cognitive theory was adopted therefore, in order to justify alertness, as a skill SMEs must adopt in order to enhance their enterprise performance. Subsequently, a conceptual framework was developed which depicts the influence of Scanning and search to enterprise performance, Association and connection to enterprise performance and lastly, Judgement and evaluation to enterprise performance.

The objective of this chapter, therefore, is to discuss and interpret the results obtained from data analysis of this research. The chapter links results to the literature review and makes comparison concerning the literature of previous studies.

This chapter begins by discussing the demographic results of the respondents, then followed by a discussion on the outcomes of hypotheses, finally draws conclusions.

5.2 Demographic profile of respondents

This section provides discussions on the gender and race of respondents, followed by ages, education, enterprise industry, age of business and finally, number of employees.

5.2.1 Gender and race

It was found that most respondents (51.7%) were African males and followed by African Females (48.3%) who dominated at a total of 120 out of 126 sample size. Women are amongst the previously disadvantaged people in South Africa and this is evident by their representation in business participation (Netshitenzhe, 2013). Women, being marginalised economically and socially, contributes to their limited access to education and resources in South Africa (Netshitenzhe, 2013). There is a need for policy makers

to promote entrepreneurship amongst women of other races, such as Coloured, Indians and Whites.

5.2.2 Age

The age sample for this study was youth between the ages of 18-35 (National Youth Development Agency, 2018) who are in business. 129 responses were received and three of the responses had outliers and were removed from the sample to make a total of (N=126). A study by Venter et al. (2017) states that individuals tends to undertake entrepreneurship and new venture creation at a time when they have fewer family and financial responsibilities. This sentiment of Venter et al. (2017) is supported by GEM: South African report that states that entrepreneurial activity between ages 25 – 34 is higher and might be due to the fact that this age group have high skills and knowledge developments, gathered through education or work experience and that contributes to their confidence (Global Entrepreneurship Monitor, 2016/2017).

The outcomes of this study however reveals high entrepreneurial occurance amongst the ages of 25 – 29 (45.2%) which is not far from the entrepreneurial occurance in age group 30-35 (44.4%) at the differece of 0.8%. The entrepreneurial occurance on the age group 18-23 was at 10.3% and low. The findings of this research concur with GEM: South African Report (Global Entrepreneurship Monitor, 2016/2017).

5.2.3 Education

According to the GEM Report (2016/2017), education has a positive influence on individuals' self-efficacy and self-confidence and such individuals have an opportunity to increase their chances of starting businesses. There is a strong correlation between age and educational level (formal or informal) amongst youth entrepreneurs in South Africa (Global Entrepreneurship Monitor, 2016/2017).

The results of this research reveals that the majority of respondents (47.6%) had tertiary education which is correlated to the age cohort from previous analysis. The GEM Report alludes that 5.6% of respondents had post-graduate qualifactions, while 7.9%

had not completed secondary education. A larger number of participants only obtained a Matriculation qualifation at 38.9%.

5.2.4 Enterprise Industry

According to GEM, the wholesale and retail sector requires fewer skills and lower capital requirements and therefore, attracts many entrepreneurial activities. The findings of the GEM Report also suggests that the Service rendering sector attracts a lot of entrepreneurial activities (Global Entrepreneurship Monitor, 2016/2017). This is evident from the findings of the research that the majority of participants (35.7%) have chosen “Other” as industry. This suggests that “Other” as industry might be dominated by those rendering services. There is also a need to develop entrepreneurial activities in the fields of agriculture, hunting, forestry, fishing, electriciry, gas and water supply as these industries have obtained less then 1% (0.9%).

5.2.5 Age of business and number of employees

Results reveal that the majority of entrepreneurs who participated in the study have been in business between three months and three and half years (56.4%). The low number of employees in early stage businesses is linked with business age (Global Entrepreneurship Monitor, 2016/2017). A business that has operated for less than 3.5 years is classified as early-stage, according to GEM and the objectives of early-stage businesses is growth, more than job creation.

5.3 Outcomes of hypotheses

To what extent does entrepreneurial alertness impact enterprise performance?

This study showed that entrepreneurial alertness in the South African context amongst youth entrepreneurs is best tested not using all three dimensions (Scanning and search, Association and connection and Judgement and evaluation). According to the findings, only Judgement and evaluation in the South African context was found to be the best

determinant of entrepreneurial alertness and has a significant impact on enterprise performance.

The results of this study are not consistent to the study conducted by Fatoki and Oni (2015b), however there is agreement that the higher the entrepreneurial alertness, the higher the impact on enterprise performance. The study of McCaffrey (2014) states that the relationship between entrepreneurial alertness and enterprise performance is explained in terms of the existence of rewards entrepreneurs can harvest out of entrepreneurial opportunities that should harness and be translated into better innovation performance. The outcomes of the research supports Fatoki and Oni (2015b)'s statement that alert individuals have the potential to identify more opportunities than non-alert individuals, and that can subsequently, have an impact on enterprise performance.

It is important to note that although the main hypothesis is supported, the outcomes of this research shows only one hypothesis out of three could be accepted. If innovativeness could be supported by alertness as literature suggests, it is almost guranteed that the enterprise performance will increase, based on the opportunities identified and explored by alert individuals. The outcomes of this research affirms that alertness has an impact on enterprise performance. The research has determined variables of entrepreneurial alertness as outlined from the purpose of the study, those with a greater impact and drivers of alertness. Judgement and evaluation is a key variable of entrepreneurial alertness.

5.3.1 Hypothesis 1

H1: Scanning and search as dimension of EA has a positive impact on enterprise performance

This hypothesis states that alert scanning and search allows entrepreneurs to be persistent and unconventional in their attempts to investigate new ideas and information that will provide the competitive advantage that in turn, can boost business performance

(Lim & Xavier, 2015; Ericsson & Krampe, 1993). Scanning and search is about the continuous searching of environment for the identification of information or opportunities that is unnoticed by others (Urban, 2019).

According to the findings of the study, scanning and search has a positive impact on enterprise performance, even though the impact is not significant, as expected by the researcher. The results of this study further rejected the null hypothesis in favour of the alternative hypothesis, meaning that Scanning and search has a positive impact on enterprise performance.

Academic research conducted by various scholars have already indicated that there is a positive impact between entrepreneurial alertness and enterprise performance (Tang et al., 2012; Fatoki & Oni, 2015b). The study of Fatoki and Oni (2015b) shows that there is positive and significant impact between entrepreneurial alertness tested on all dimensions and enterprise performance. The results of this study are inconsistant to the results of Fatoki and Oni (2015b)'s study. In conclusion, the reseracher provides understanding that South African youth business owners might not possess the right skills to process, search and scan technical information necessary for opportunity identification.

5.3.2 Hypothesis 2

H2: Association and connection as dimension of EA has a positive impact on enterprise performance

The hypothesis tests whether association and connection allows the entrepreneurs to gather the information of different qualities and use that knowledge to build new business ideas (Baron, 2006b; Tang et al., 2012; Urban, 2019). Association and connection is about connecting dots (Tang et al., 2012).

The hypothesis could not be tested since association and connection was dropped during the validity testing stage. Therefore, according to the findings of this study, hypothesis 2 was rejected.

According to the findings, it is evident that youth business owners have regarded association and connection to mean the same as scanning and search since both makes reference to information. A previous study by Fatoki and Oni (2015b) shows high significance and positive impact between the association and connection dimension and enterprise performance. This study concludes that association and connection could best test networks other than information usage, as suggested by the study of Ardichvili et al. (2003) that entrepreneurs with high level alertness are more proficient in recognising and discovering new opportunities through social networks.

5.3.3 Hypothesis 3

H3: Evaluation and judgement as dimension of EA has a positive impact on enterprise performance

The hypothesis tested the judgement and evaluation of information in the context of its usefulness towards profit prospects (Urban, 2019). Effective judgement can distinguish potential information that yields innovation solutions in the form of opportunities that are perceived as feasible (Cox, 2016).

According to the findings of this study, the impact between judgement and evaluation and enterprise performance is confirmed and very significant. The result of this study further reject the null hypothesis in favour of hypothesis 3, meaning that judgement and evaluation has a positive impact on enterprise performance. Therefore, this study concludes that judgement and evaluation as dimension of entrepreneurial alertness is good determinant of alertness and has potential of distinguishing potential opportunity that can lead to enterprise performance.

The results of this study agree with the notion that when new market opportunities are properly judged and planned, they can lead to innovation and subsequently, have a positive influence on enterprise performance and growth (Valliere, 2013). Profitability is one of the key dimensions of the enterprise performance and therefore judgement and evaluation is about making decisions on the business opportunities and profit potentials (Lim & Xavier, 2015). The findings of the study supports the current literature that purports that there is a positive impact between judgement and evaluation and enterprise performance.

5.4 Conclusion

This study was dominated by the African Male respondents during data collection that are between the ages of 25-29. Majority of respondents had tertiary education and operating in “other” sector of business industry that might include service rendering and or retailing. This study also revealed that majority of respondents have been in business for at least more than 3 months, but not more than 3 years and they are classified as early-stage businesses (GEM, 2016/2017). According to GEM Report (2016/2017) the objective of early-stage businesses is growth other than number of employees.

The results of this study support the notion that entrepreneurial alertness has a positive impact on enterprise performance, but is in contradiction with literature that calls for the use of all three dimensions, as developed by Kirzner (1979) who is the forefather of alertness literature. Hypothesis 1 was not supported in this study and therfore the researcher provides understanding that South African youth business owners do not seem to correlate scanning and search to enterprise performance due the reasons associated to challenges surrounding accessibility to information.

This study also provides understanding that association and connection could best test networks other than information usage, as suggested by the study of Ardichvili et al. (2003) that entrepreneurs with high level alertness are more proficient in recognising and discovering new opportunities through social networks.

Therefore, this study concludes that Evaluation and judgement as dimension of entrepreneurial alertness is good determinant of alertness and has potential of distinguishing potential opportunity that can lead to enterprise performance.

CHAPTER 6: CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter gives a summary of the study, conclusions in reference to the literature, followed by limitations, suggestions for future research and finally, recommendations.

6.2 Conclusions of the study

The purpose of this study was to investigate the impact of entrepreneurial alertness (Scanning and search, Association and connection and Evaluation and judgement) on performance of youth-owned enterprises in South Africa. Accordingly, the results of this study support the notion that entrepreneurial alertness has a positive impact on enterprise performance, but the study is in contradiction with literature that calls for the use of all three dimensions, as developed by Kirzner (1979).

The combined results of this study suggests that there is an impact between entrepreneurial alertness when measured with evaluation and judgement to enterprise performance. Literature does not provide entrepreneurial alertness dimensions as a systematic process, therefore implying that any dimension that can be tested positively and significantly can still represent entrepreneurial alertness. For example, the study by Shamudeen et al. (2017) tested alertness in the expansion of the entrepreneurial opportunity model and used prior knowledge, social network and personality traits, other than scanning and search, association and connection and evaluation and judgement, as dimesions.

Results pertaining to research questions are as follows:

Research question 1: To what extent does scanning and search as dimension of EA has positive impact on enterprise performance?

Because scanning and search involves persistent and unconventional way of investigating new ideas, likelihood is that this new ideas must be converted into feasible business opportunities (Lim & Xavier, 2015; Busenitz, 1996). Urban (2019) also adds that scanning and search involves continueous identification of information that is gone unnoticed by others. This information provides competive advantage and in turn leads to enterprise performance (Saarikko, Jonsson, & Burstrom, 2014).

Findings on the first hypothesis were positive, but not as significant as the researcher had hoped them to be. This means that the findings of the study are inconsistent with literature reviewed that has provided empirical evidence that entrepreneurial alertness tested with scanning and search has positive and significant impacts on enterprise performance (Baron, 2006b; Tang et al., 2012; Fatoki & Oni, 2015b; Urban, 2019). According to Shane (2000) discovering of feasible opportunities by any individual is due to their ability to process information, search tecniques and scanning behaviour. This therefore, has led to a conclusion that South African youth seems to lack abilities to process, search and scanning information that provides competitive advantage.

The differences between this study and the study of (Tang et al, 2008; Tang et al, 2012; Fatoki, 2011a; Fatoki & Oni, 2015b) is that all this scholars has found scanning and search dimension to be significantly determinant of entrepreneurial alertness and to have positive impact on enterprise performance which is in contrary to this study.

Research question 2: To what extent does association and connection as dimension of EA has positive impact on enterprise performance?

This dimension is about putting together disparate pieces of information into a logic business sense (Lim & Xavier, 2015; Baron, 2006b). In order for any individual to

perform association and connection, such individual needs ability to connect dots and think outside the box (Ericsson & Krampe, 1993).

Findings of this study is that association and connection was dropped during data analysis because it did not converge. This study therefore, concluded that analysis of unrelated information cannot exit if scanning and search is not performed, therefore this two dimension are interrelated. Tang et al (2012) stated that one is unlikely to go from scanning and search to making judgement about the potentiality of the new connections. Because scanning and search, association and connection dimensions are embedded in cognitive ability and it implies that alertness is based on the knowledge structure and scripts that individuals use to make decisions (Baron, 2006b; Haynie et al, 2009; George et al, 2016).

This study did not found association and connection to be determinat of entrepreneurial alertness.

Reseach question 3: To what extent does evaluation and judgement sas dimension of EA has positive impact to enterprise peformance?

This dimension is about evaluation and judgement on potential of information to yield opportunities and or profit (Tang et al, 2012). Cox (2016) states that judgement is associated to evaluation of information in the context of its usefulness and value in opportunity identification. While Valliere (2013) states that effective judgement leads to innovative solutions and thus positively impact enterprise performance.

Findings of the study reveal a significant impact between entrepreneurial alertness and enterprise performance. Accordingly, the results shows that Judgement and evaluation is the best determinant of entrepreneurial alertness and has a significant impact on enterprise performance in the South African context. The results further show that scanning and search does not have a significant impact on enterprise performance. The correlation between judgement and evaluation to enterprise performance is consistent with extant literature, while the non-significant correlation of scanning and search

provides inconsistency to extant literature, together with a dropped construct, association and connection.

This study concludes that proper evaluation and judgement of the market can lead to profitable opportunities and as such, profitability is a good determinant of enterprise performance. According to Valliere (2013) innovation and growth in Small and Medium Enterprises is the results of new market being properly judged and plans are developed and executed to exploit the opportunities. Because entrepreneurs must distinguish between what is profitable and what is not profitable, it means they must make sense of the market potentiality. Gaglio and Katz (2001) examined literture from cognitive pespective especifically from sense-making dynamic as central for success in an entrepreneurial environment. According to Gaglio and Katz (2001) opportunity assessment is based on the individual's ability that is referred to as cognitive task.

The relationship between entrepreneurial alertness and performance can also be explained in terms of existence of an rewards in which the entrepreneur can find entrepreneurial opportunities that should enhanced and be translated into innovative performance (McCaffrey, 2014). This study is in agreement with notion that proper evaluation and judgement leads to proper assessment of the market and that results in innovative opportunities. Innovation is linked to entrepreneurial alertness and there is growing body of literature that investigating entrepreneurial alertness as antecedent of innovation (Ardichvili et al, 2003; Tanget al, 2012; Urban, 2019)

The key findings are summarised as thus:-

6.2.1 Summary of key findings

- To increase the likelihood of youth-owned enterprise performance, youth must first have the right level of entrepreneurial alertness.
- A conceptual framework of this study is inconsistent with the findings of Fatoki and Oni (2015b)'s study, that tested entrepreneurial alertness using all dimensions and were all positive and significant.

- Scanning and search and Association and connection do not hold as important predictors of entrepreneurial alertness in the South African context as there was no evidence to prove that alertness tested by association and connection impacts enterprise perfomance.
- The results show a non-significant relationshipe between scanning and search and enterprise performance.
- The findings show that youth-owned enterprise performance improves or increases when entrepreneurial alertness, tested by judgement and evaluation, is high.

6.2.2 New conceptual framework

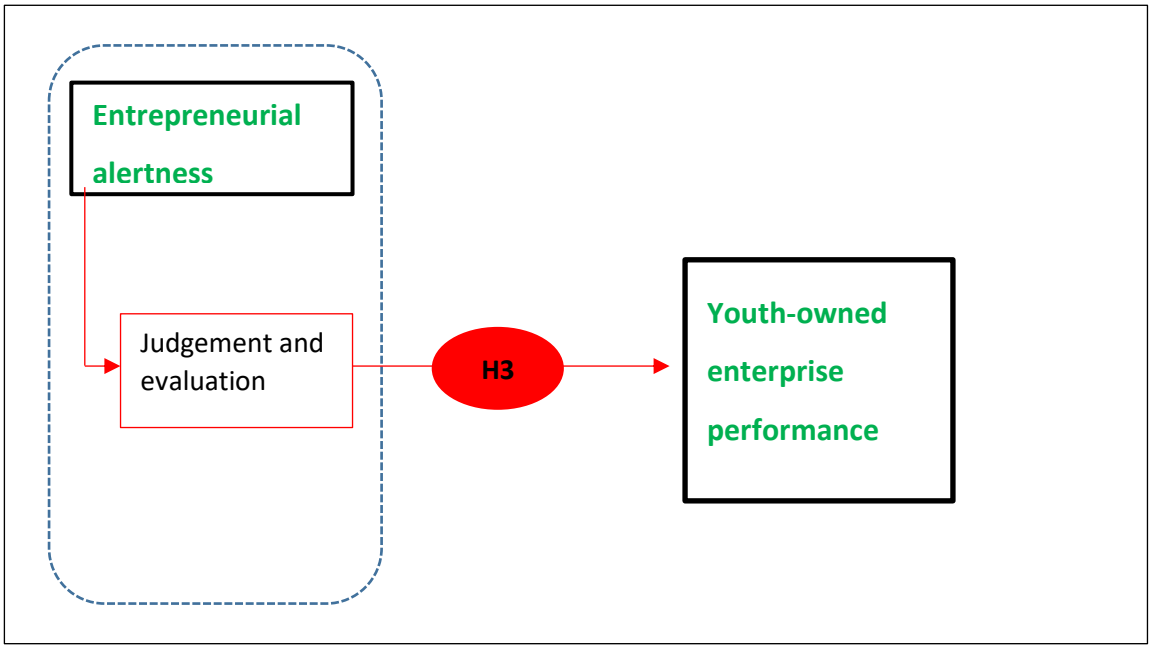


Figure 6.1: New conceptual framework

Source: Primary data

6.3 Implications and recommendation

This section provides both theoretical and practical implications.

6.3.1 Theoretical implications

The implications of the study suggests that although many studies has tested entrepreneurial alertness using all three dimensions and all were tested to be positive and significant (Ardichvili et al 2003; Gaglio & Katz, 2001; Kirzner, 1979), however that is not the case in South Africa amongst youth-entrepreneurs. Youth entrepreneurs in South Africa finds enterprise performance can be achieved when judgement and evaluation is high, but do not think association and connection can be associated with enterprise performance.

The findings of the study are still consistent with the notion of previous researchers that enterprise performance is predicated on the propensity of youth entrepreneurs to act, exploit opportunities, creativity and innovation (McMullen & Shepherd, 2006), furthermore, the findings also imply that this propensity is based on high judgement and evaluation, moderate scanning and search and not association and connection.

6.3.2 Practical implications

The practical implications of this study can be advanced to include youth-entrepreneurs in TVET Colleges, and youth in Developmental Finance Institutions (DFIs) across the country, where the contribution of entrepreneurial alertness can enhance their enterprise performance. This study implies that policy makers must focus on enhancing information seeking skills and judgment skills of youth entrepreneurs in the country.

6.4 Limitations

The study was faced with the following limitations;

- The results are not an equal distribution of the whole country as only provinces such Gauteng, Limpopo, Free State, KwaZulu Natal and Northern Cape were represented.

- The fact that data was collected using social media - the participants could have trust issues or affordability of data costs, especially since the survey was distributed through the WhatsApp system
- Some participants could have completed the survey favourably, instead of being honest in their responses.

6.5 Suggestions for future research

It should be noted that this study has contributed to understanding the entrepreneurial alertness dimensions' impact on youth-owned enterprise performance in the South African context, but with some limitations, that lays the foundation for future research. This study can be redone using a larger sample (>500) from all nine provinces in South Africa as compared to 126 sample used. Nonetheless, the sample used was deemed acceptable in entrepreneurship literature (Galawe, 2017).

Secondly, researchers can further investigate exactly how entrepreneurial alertness, tested with judgement and evaluation can impact creativity and innovation. Further, investigate if entrepreneurial alertness can actually operate without opportunity recognition and exploitation.

Thirdly, researchers must investigate entrepreneurial alertness' impact on enterprise performance on the townships and rural economic setups and whether dimensions of entrepreneurial alertness will continue to make sense given the challenges such as access to information and other socio-economic issues (poverty).

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APPENDIX A: QUESTIONNAIRE COVER LETTER

To Small Business Owners

Dear Sir/Madam

I am a student at Wits Business School enrolled for a Master of Management: Entrepreneurship and New Venture Creation. I would like to request you to share your experiences as a small business owner in South Africa. This will form part of my Master's Research project titled: **Impact of Entrepreneurial Alertness on the performance of youth-owned enterprises in South Africa**.

The objective of this study is to: **investigate the impact of entrepreneurial alertness towards performance of youth-owned enterprises in South Africa. This study will look at impact of alertness' dimensions; scanning and search, association and connection, evaluation and judgement towards performance of youth-owned enterprises.**

If you are willing to participate you can click on the link below which will take you to the questionnaire: https://wits.eu.qualtrics.com/jfe/form/SV_blJnQA83qpRgNmd

It should take approximately 10 - 15 minutes to complete. All the data gathered from this survey will be treated as anonymous, no specific personal or company data will be disclosed but all information will be disclosed as aggregate figures. If you are willing and comfortable to participate and contribute, it will be appreciated if you could complete the questionnaire no later than 18 January 2020

Please feel free to contact myself or my supervisor if you have any concerns or questions

Eliot Mahamotse (Student) (079) 948-6218 2010119@students.wits.ac.za

Jabulile Galawe (Supervisor) (011) 717-3762 jabulile.galawe@wits.ac.za

Thanking you in anticipation for your assistance

Yours sincerely

Eliot Mahamotse

APPENDIX B: RESEARCH INSTRUMENT

SECTION A: Demographics

1.1. Please tick the gender that is applicable to you:					
Male		Female		Other	

1.2. Please tick an age category that is applicable to you:					
18 – 24		25 – 29		30 - 35	

1.3. Please tick the race that is applicable to you:							
Black/African		Coloured		Indian		White		Other:

1.4. Please tick the highest level of education you have completed:							
Not completed secondary education		Completed secondary education		Tertiary education		Post-graduate education	

1.5. Please tick the Industry that best describe the classification of your enterprise	
Agriculture, hunting, forestry and fishing	
Mining and quarrying	
Manufacturing	
Electricity, gas and water supply	
Construction	
Wholesale and retail trade; repair of motor vehicle, motor cycles and personal and household goods; hotels and restaurants	
Transport, storage and accommodation	
Financial inter-mediation, insurance, real estate and business services	
Community, social and personal services	
Other	

1.6. Please tick the length of time that your enterprise has been paying salaries and wages for (including the owner)					
Less than 3 months		3 months to 3.5 years		More than 3.5 years	

1.7. Counting the owner, please tick the amount of people who currently work for your enterprise:					
1 – 10		11 – 50		More than 50	

SECTION B: Entrepreneurial Alertness

The next questions are 7-point Likert scales, where; strongly Disagree=1; Disagree=2; somewhat disagree= 3; neither agree nor disagree= 4; somewhat agree= 5; Agree=6' strongly agree= 7

Indicate the extent to which you agree or disagree and have experience the following statements.

Scanning and search		**1**	**2**	**3**	**4**	**5**	**6**	**7**
2.1.	I have frequent interactions with others to acquire new information	☐	☐	☐	☐	☐	☐	☐
2.2.	I always keep an eye out for new business ideas when looking for information	☐	☐	☐	☐	☐	☐	☐
2.3.	I read news, magazines, or trade publications regularly to acquire new information	☐	☐	☐	☐	☐	☐	☐
2.4.	I browse the Internet every day	☐	☐	☐	☐	☐	☐	☐
2.5.	I am an avid information seeker	☐	☐	☐	☐	☐	☐	☐
2.6.	I am always actively looking for new information	☐	☐	☐	☐	☐	☐	☐

Association and connection		**1**	**2**	**3**	**4**	**5**	**6**	**7**
2.7.	I see links between seemingly unrelated pieces of information	☐	☐	☐	☐	☐	☐	☐
2.8.	I am good at "connecting dots"	☐	☐	☐	☐	☐	☐	☐
2.9.	I often see connections between previously unconnected domains of information	☐	☐	☐	☐	☐	☐	☐

Evaluation and judgement		**1**	**2**	**3**	**4**	**5**	**6**	**7**
2.10.	I have a gut feeling for potential	☐	☐	☐	☐	☐	☐	☐
2.11.	I can distinguish between profitable opportunities and not-so-profitable opportunities	☐	☐	☐	☐	☐	☐	☐
2.12.	I have a knack for telling high-value opportunities apart from low-value opportunities	☐	☐	☐	☐	☐	☐	☐
2.13.	When facing multiple opportunities, I am able to select the good ones	☐	☐	☐	☐	☐	☐	☐

SECTION C: Enterprise Performance

The next questions are 5-point Satisfaction scales,

Please indicate the degree of satisfaction that the form attaches to the following criteria:

Enterprise Performance	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied
Sales level	☐	☐	☐	☐	☐
Sales growth rate	☐	☐	☐	☐	☐
Cash flow	☐	☐	☐	☐	☐
Return on shareholder equity (ROE)	☐	☐	☐	☐	☐
Gross profit margin	☐	☐	☐	☐	☐
Net profit from operation	☐	☐	☐	☐	☐
Profit to sale ratio	☐	☐	☐	☐	☐
Return on investment (ROI)	☐	☐	☐	☐	☐
Ability to fund business growth from profits	☐	☐	☐	☐	☐

**********END*********

APPENDIX C: ETHICS CLEARANCE CERTIFICATE

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

SCHOOL OF GRADUATE SCHOOL OF BUSINESS ADMINISTRATION ETHICS COMMITTEE
CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: WBS/BA2010119/193**
PROJECT TITLE	The Impact of Entrepreneurial Alertness on the performance of youth-owned enterprises in South Africa
INVESTIGATOR	Mr Mafadi Eliot Mahamotse
SCHOOL/DEPARTMENT OF INVESTIGATOR	MM (Entrepr & New Venture Creation)
DATE CONSIDERED	10 December 2019
DECISION OF THE COMMITTEE	Approved unconditionally
RISK LEVEL	MINIMAL RISK
EXPIRY DATE	28 FEBRUARY 2020

ISSUE DATE OF CERTIFICATE 17 February 2020

CHAIRPERSON _____
(Dr MDJ Matshabaphala)

cc: Supervisor: Dr Galawe

DECLARATION OF INVESTIGATOR

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am are authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

_____ 20 / 02 / 2020
Signature **Date**

APPENDIX D: CONSISTENCY MATRIX

Topic: Impact of Entrepreneurial Alertness on the performance of youth-owned enterprises in South Africa

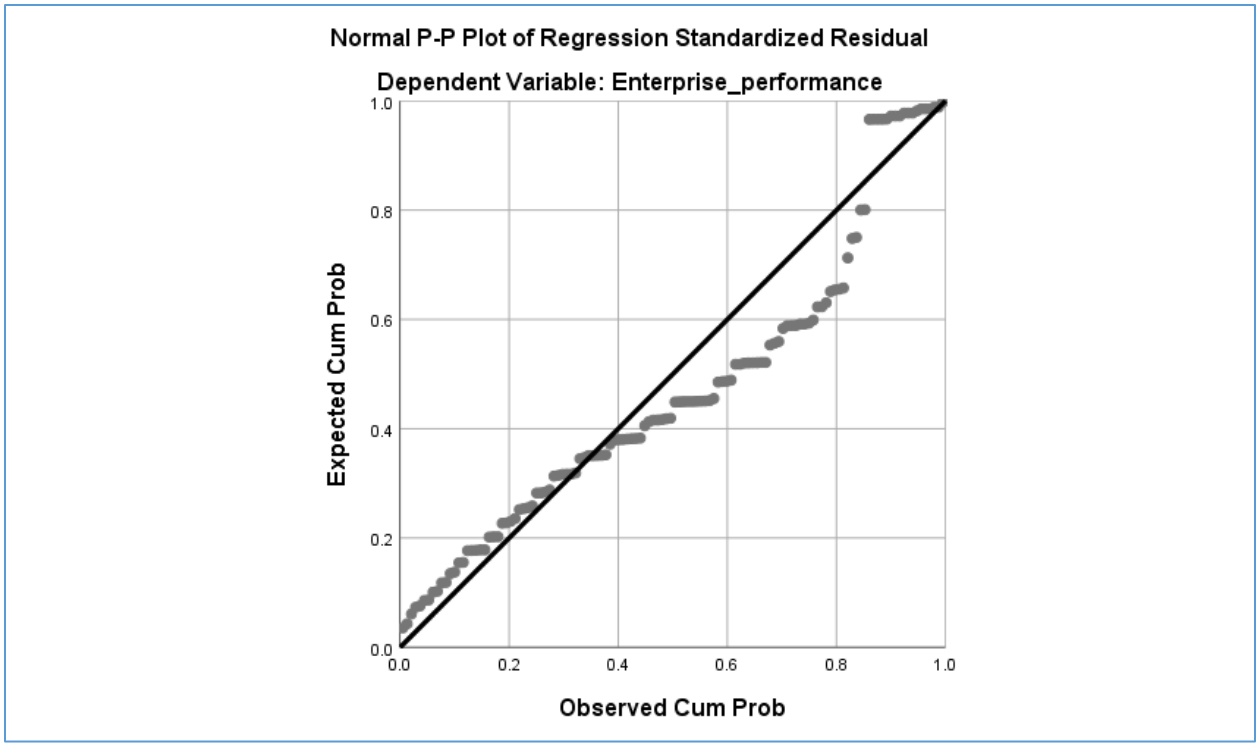
To investigate the extent of entrepreneurial alertness on performance of youth-owned enterprises in South Africa							
Aims	Literature review	Research questions	Hypothesis	Variables	Relevant questions on the instrument	Type of data	Analysis
To Investgate the impact scanning and searching has on enterprise performance	Cognitive theory (Shane & Venkataraman, 2000)	To what extent does **scanning and search** as dimension of EA has impact on enterprise performance?	**H1: Scanning and search** as dimension of EA has positive impact on enterprise performance	IV= Scanning and searching DV= Enterprise performance	2.1 2.2 2.3 2.4 2.5 2.6	Ordinal scale	Descriptive analysis Regression analysis Correlation analysis
To Investigate the impact of **association and connection** has on enterprise performance	Cognitive theory (Shane & Venkataraman, 2000)	To what extant does **association and connection** as dimension of EA has impact on enterprise performance?	**H2: Associations and connection** as dimension of EA has positive impact on enterprise performance	IV= Association and connection DV= Enterprise performance	2.7 2.8 2.9	Ordinal scale	Descriptive analysis Regression analysis Correlation analysis
To Investigate the impact of **evaluation and judgement** has on enterprise performance	Cognitive theory (Shane & Venkataraman, 2000)	To what extant does **evaluation and judgement** as dimension of EA has impact on enterprise performance?	**H3: Evaluation and judgement** as dimension of EA has positive impact on enterprise performance	IV= Evaluation and judgement DV= Enterprise performance	2.10 2.11 2.12 2.13	Ordinal scale	Descriptive analysis Regression analysis Correlation analysis

APPENDIX E: ADDITIONAL RESULTS

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
SS_1	126	1	7	6.01	1.149	-2.074	.216	5.758	.428
SS_2	126	1	7	6.05	1.344	-2.641	.216	7.432	.428
SS_3	126	1	7	5.58	1.472	-1.490	.216	2.065	.428
SS_4	126	1	7	6.21	1.143	-2.131	.216	5.449	.428
SS_5	126	2	7	5.79	1.177	-1.158	.216	1.087	.428
SS_6	126	3	7	6.25	.885	-1.650	.216	3.422	.428
AC_1	126	1	7	5.02	1.513	-.972	.216	.294	.428
AC_2	126	2	7	6.00	.980	-1.193	.216	2.063	.428
AC_3	126	1	7	5.34	1.303	-1.033	.216	.816	.428
JE_1	126	1	7	6.02	1.039	-2.266	.216	8.051	.428
JE_2	126	1	7	5.92	1.177	-1.847	.216	4.121	.428
JE_3	126	2	7	5.67	1.289	-1.397	.216	1.758	.428
JE_4	126	2	7	5.94	1.049	-1.394	.216	2.674	.428
EP_1	126	1	7	3.73	1.183	.600	.216	.525	.428
EP_2	126	1	7	3.68	1.360	.692	.216	.287	.428
EP_3	126	1	7	3.58	1.556	.872	.216	.356	.428
EP_4	126	1	7	3.55	1.532	.730	.216	.108	.428
EP_5	126	1	7	3.67	1.470	.719	.216	.418	.428
EP_6	126	1	7	3.62	1.419	.787	.216	.606	.428
EP_7	126	1	7	3.72	1.429	.904	.216	.506	.428
EP_8	126	1	7	3.60	1.449	.754	.216	.376	.428
EP_9	126	1	7	3.82	1.455	.434	.216	-.133	.428
Valid N (listwise)	126								

Source: Primary data



Normal P-P Plot of Standardized Residual

Source: Primary data

Percentiles

		Percentiles						
		5	10	25	50	75	90	95
Weighted Average (Definition 1)	Scanning_search	3.6667	4.5000	5.6667	6.1667	6.5000	6.8333	6.8333
	Judgement_evaluation	3.5000	4.5000	5.5000	6.0000	6.5000	6.7500	7.0000
	Enterprise_performance	1.9444	2.2222	2.7222	3.4444	3.8889	6.3333	6.5000
Tukey's Hinges	Scanning_search			5.6667	6.1667	6.5000		
	Judgement_evaluation			5.5000	6.0000	6.5000		
	Enterprise_performance			2.7778	3.4444	3.8889		

Source: Primary data

Extreme Values

			Case Number	Value
Scanning_search	Highest	1	11	7.00
		2	40	7.00
		3	45	7.00
		4	54	7.00
		5	64	7.00
	Lowest	1	58	1.00
		2	20	2.67
		3	53	3.00
		4	65	3.33
		5	119	3.67[a]
Judgement_evaluation	Highest	1	23	7.00
		2	29	7.00
		3	30	7.00
		4	32	7.00
		5	38	7.00[b]
	Lowest	1	53	2.00
		2	99	3.00
		3	86	3.00
		4	27	3.00
		5	28	3.25
Enterprise_performance	Highest	1	67	6.67
		2	109	6.67
		3	65	6.56
		4	91	6.56
		5	108	6.56[c]
	Lowest	1	47	1.22
		2	46	1.44
		3	53	1.56
		4	9	1.56
		5	2	1.78

a. Only a partial list of cases with the value 3.67 are shown in the table of lower extremes.

b. Only a partial list of cases with the value 7.00 are shown in the table of upper extremes.

c. Only a partial list of cases with the value 6.56 are shown in the table of upper extremes.

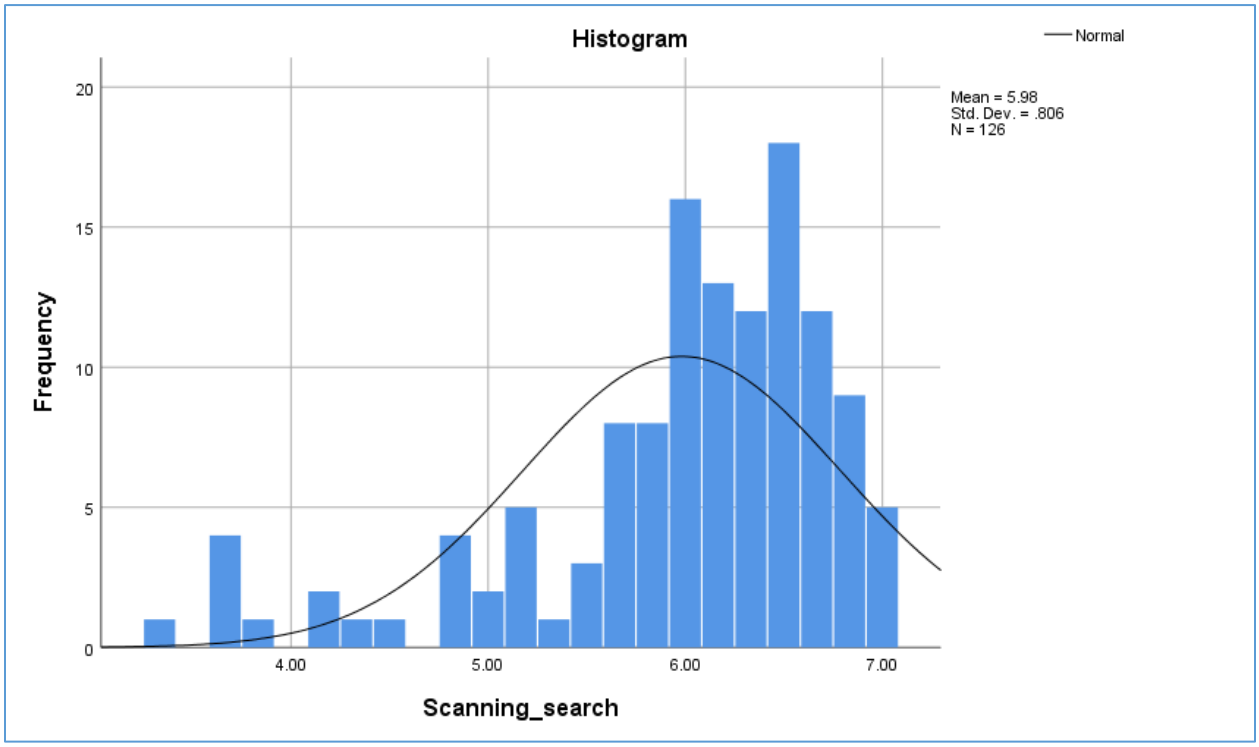
Source: Primary data

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Scanning_search	.202	129	.000	.807	129	.000
Judgement_evaluation	.186	129	.000	.849	129	.000
Enterprise_performance	.202	129	.000	.877	129	.000

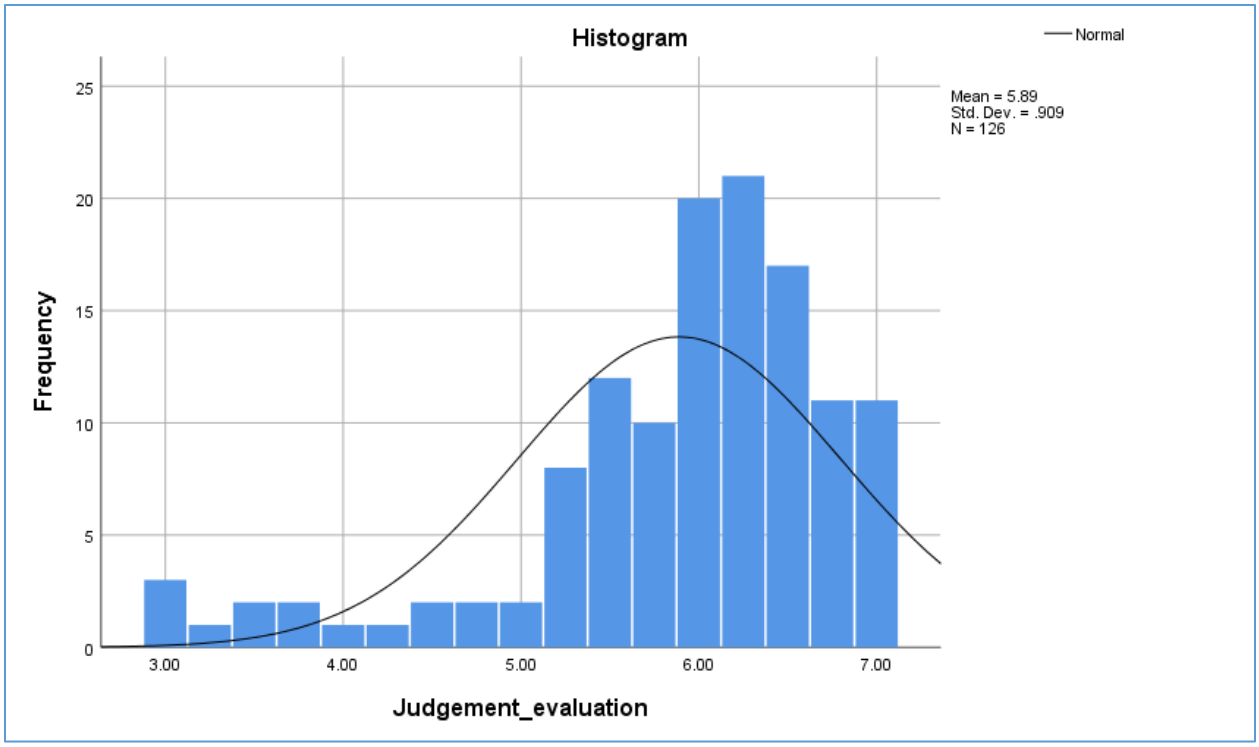
a. Lilliefors Significance Correction

Source: Primary data



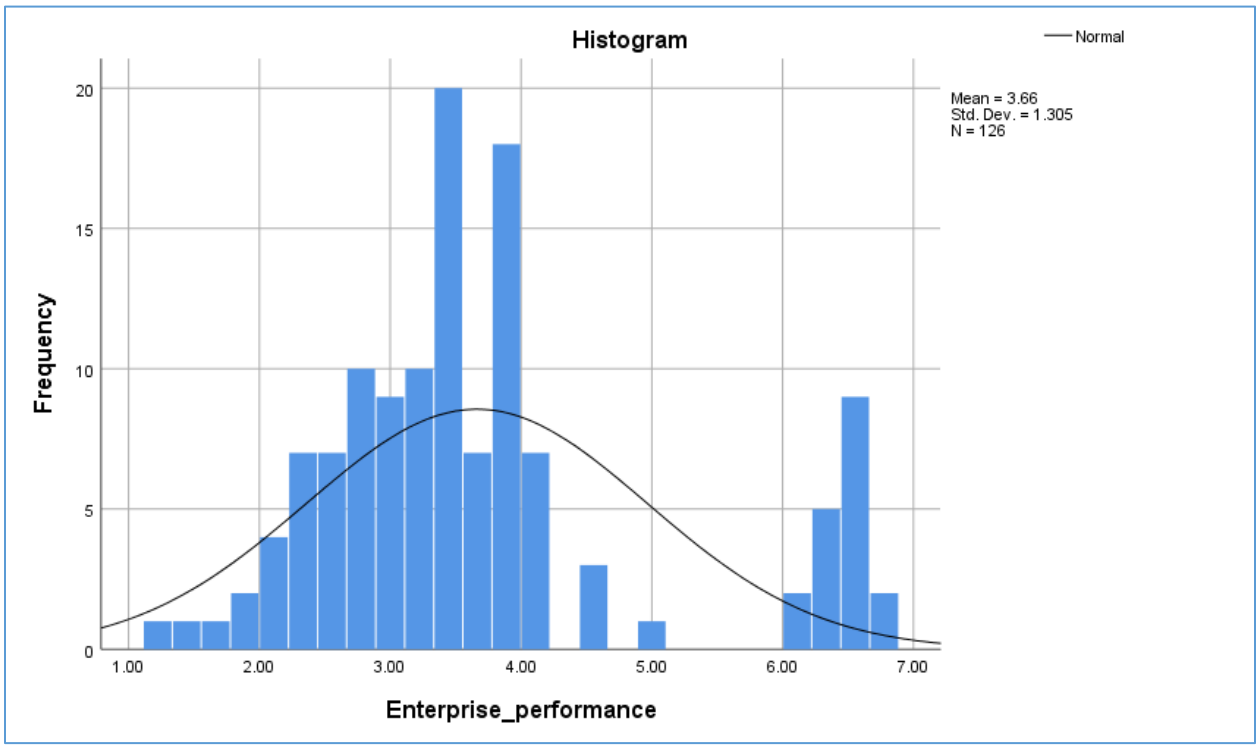
Scanning and search Histogram

Source: Primary data



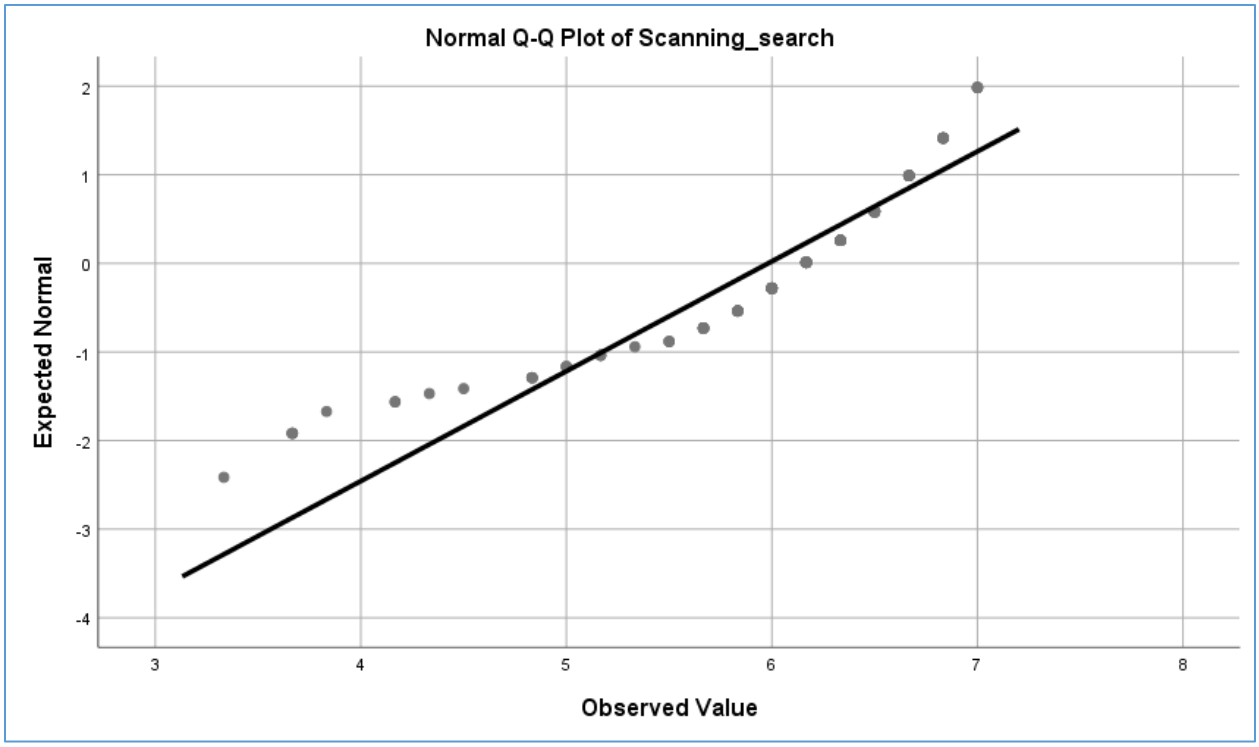
Judgment and evaluation Histogram

Source: Primary data



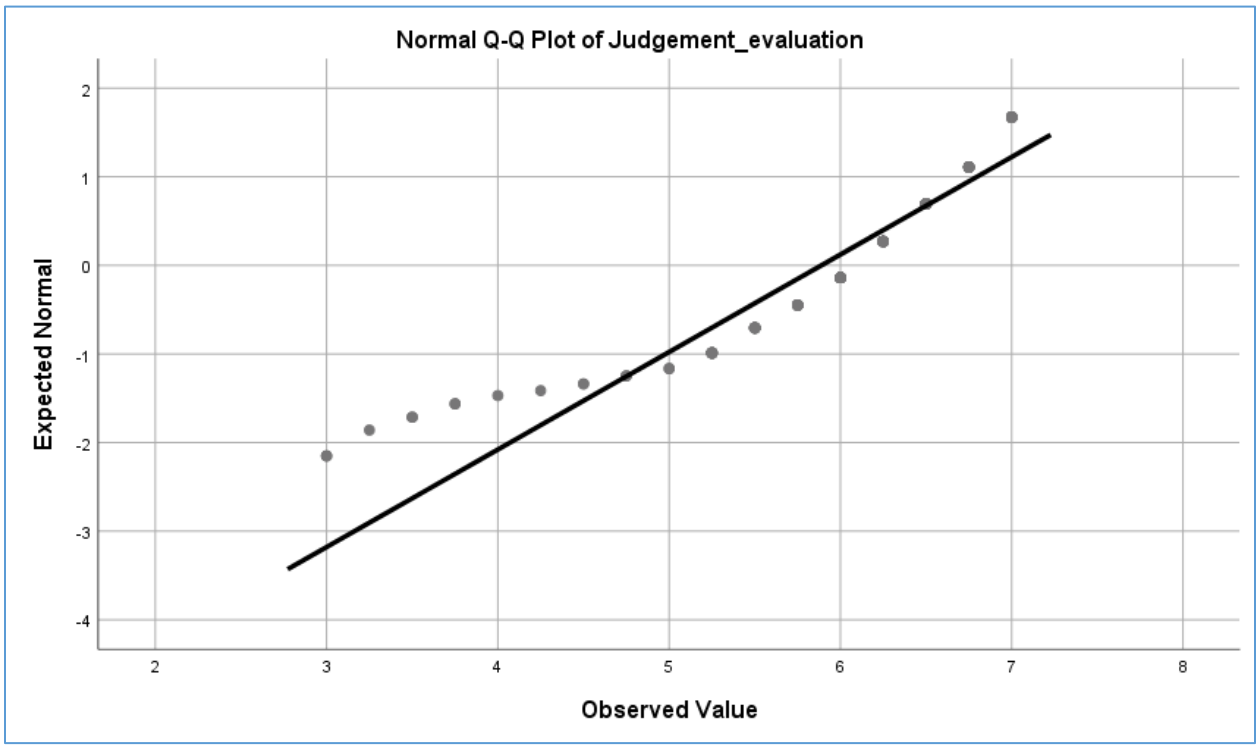
Enterprise performance Histogram

Source: Primary data



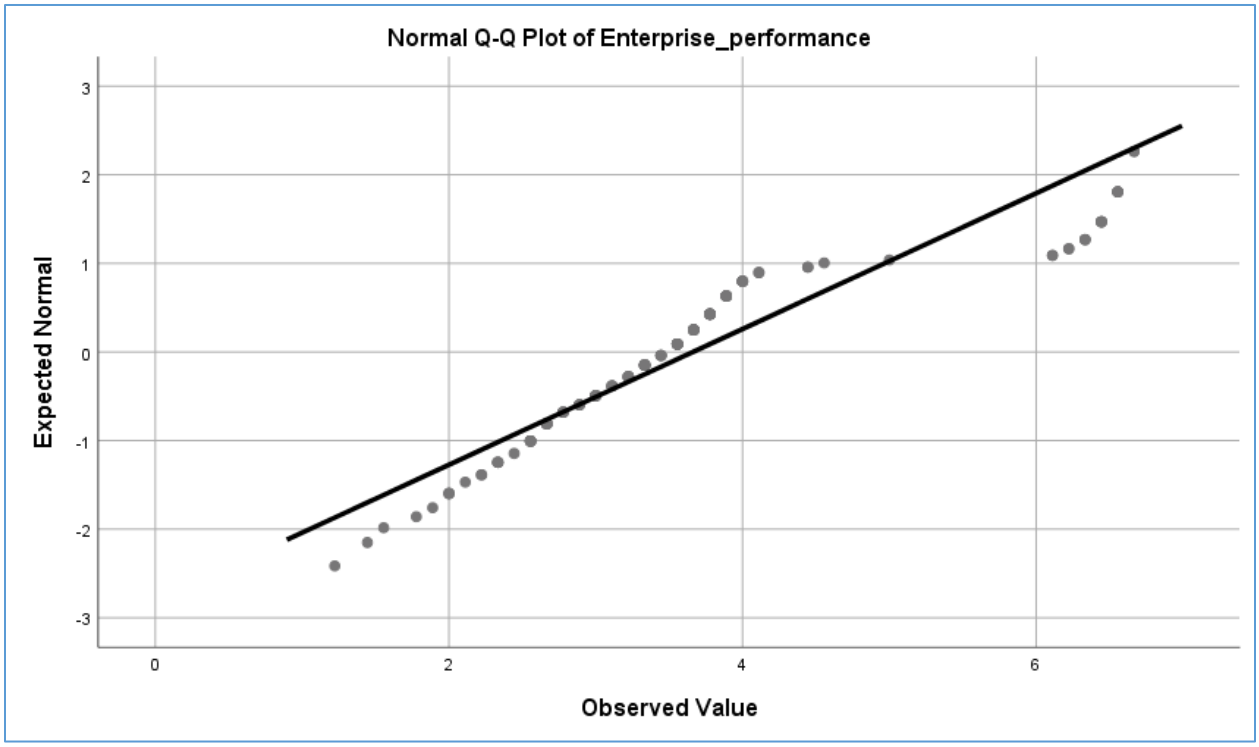
Normal Q-Q Plot of Scanning and search

Source: Primary data



Normal Q-Q Plot of Judgement and evaluation

Source: Primary data



Normal Q-Q Plot of Enterprise performance
Source: Primary data

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Scanning_search	Judgement_evaluation
1	1	2.979	1.000	.00	.00	.00
	2	.012	15.786	.35	.08	.95
	3	.009	18.409	.65	.91	.04

a. Dependent Variable: Enterprise_performance

Source: Primary data