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The relationship between human capital variables and the growth of small, medium and micro enterprises operating in the Johannesburg inner city

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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 requirements for the degree of Master of Management in Entrepreneurship and New Venture Creation

Johannesburg, 2020

ABSTRACT

The study examined one of the critical issues in South Africa - the role of human capital in Small Medium and Micro Enterprises (SMMEs). It adds to the existing theoretical and empirical studies in human capital theory. Human capital has long been acknowledged by scholars as playing a significant role in the productivity of individuals. Based on various studies, it has now gained increasing traction as the most influential factor that largely influences the growth of firms. Human capital is broad with varied definitions, which might leave even the most accomplished scholar confused. Depending on the context, some scholars attribute human capital specifically with education, whereas in other instances, other scholars associate it with the establishment of firms for the economic development of a nation (Mincer, 1996; Texeira, 2002).

The main thrust of this study was to establish whether there is a positive relationship between human capital components, namely, knowledge, and education and work experience (independent variables) with firm growth (dependent variable). More important, the study sought to offer insight into the perceived significance of the relationship between these specific human capital elements and firm growth as delineated in the literature review. This study was motivated by the high failure rate of SMMEs, their staying power and slow growth as major concerns for a country faced with high unemployment, job losses, poverty and crime with an economy almost in recession.

The study used quantitative methods to gather data, as shown in the research methodology chapter. Hypotheses were tested using descriptive statistics. Firstly, the study hypothesised that an entrepreneur's knowledge has a positive relationship with firm growth (H1). Secondly, the study hypothesised that an entrepreneur's level of education has a positive relationship with firm growth (H2). Extant literature has long confirmed the important links between education, venture creation and firm performance (Raposo & Paco, 2011). Thirdly, the study hypothesised that an entrepreneur's work experience has a positive relationship with firm growth (H3). Unger, Rauch, Frese and Rosenbausch (2011), who argued that most entrepreneurs

have significant years of previous experience before becoming entrepreneurs themselves, provide a similar assertion.

The perceived importance of human capital in stimulating firm growth was examined and the results showed no significant relationship between knowledge, education, work experience and firm growth. However, a significant positive relationship exists between the three independent variables. The study was basic as it only focused on the perceived positive correlation of three elements of human capital, rather than dealing with each variable, as outlined in various strands of entrepreneurship theory.

DECLARATION

I, Lazarus Sello Ramahlako, 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 Venture Creation. I further declare that this report has not been submitted before for any degree or examination purposes on this or any other university.

_____

L S Ramahlako

Signed at_____on this_____day_____of 2020

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No study at this level could have been possible without the help of others. Let me, right at the outset; thank my supervisor, Dr Galawe, for her guidance, thorough knowledge of the field of entrepreneurship and feedback. Above all, I would like to thank Dr Galawe for her patience and the empathy she displayed with handling some personal challenges that I faced during this study. You really exhibited what being an African is all about, Ubuntu. To the entire academic staff, Professor Boris, Dr Murimbika, Dr Soumonni and Dr Venter, I sincerely thank you.

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DEDICATION

This report is dedicated to the most special people in my life. Firstly, to my late parents, Matome and Mmamokobe for laying the foundation and inculcating the values that turned me into a strong man. You did your work and the evidence is there for all to see. This one is for you. To my sisters, Mmabjalwa, Nkhumele, Maite and Mokgadi, thank you for your love and support, no matter the challenges. To the most amazing woman in the world, my dearest friend and lifetime partner Motjatji. Thank you DF for being such a great mother to our children and often, lifting my eyes to wider and bigger horizons. Lastly, to my children, Wendy (Wundagirl), Modiegi (Mancho) and Matome (Mavino). You give me strength, pride and a sense of belonging. I love you very much.

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LIST OF ACRONYMS

1. ANOVA-Analysis of Variance
2. BBBEE-Broad Based Black Economic Empowerment
3. COJ-City of Johannesburg
4. EFA-Exploratory Factor Analysis
5. GEDI-Global Enterprise and Development Institute
6. GEM-Global Entrepreneurship Monitor
7. GEP-Gauteng Enterprise Propeller
8. GGDA-Gauteng Growth and Development Agency
9. GVA-Gross Value Added
10. IDP-Industrial Development Policy
11. KMO-Kaiser-Meyer-Olkin
12. NDP-National Development Plan
13. NGO-Non-Governmental Organisation
14. NYE-National Youth Enterprise
15. SMME-Small Medium and Micro Enterprises
16. SSA-Statistics South Africa
17. TEA-Total Entrepreneurial Activity
18. TPB-Theory of Planned Behaviour
19. UK-United Kingdom
20. USA-United States of America

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CHAPTER 1: INTRODUCTION

Throughout the world, policy makers have come to the realisation that the way to the economic activity and sustainable development of a nation is through small medium and micro enterprises (SMMEs). The 2016 start-up survey in South Africa explored the challenges faced by start-ups and the support they need to increase their success rate and staying power. According to Rachelson (2016), almost 50% of start-ups say they created their ventures out of an idea that came to them from the environment in which they live, work and play, while only 4% started their businesses out of necessity. South Africa's employment strategy framework (1998) looks at job creation and poverty alleviation as playing a pivotal role in economic and employment growth. This approach is considered critical in deepening an individual's specialised capabilities to equip them to access income through the creation of SMMEs, and positively contribute to economic and social development of the country.

The study on the relationship between human capital and firm growth is significant for the field of entrepreneurship, particularly in the South African context, given extant debate on the stagnating economy and the role of small, medium and micro enterprises. In addressing the challenges of their ailing economies and underperforming firms, most countries in other developing economies have embraced human capital as a tool that enhances higher performance and growth of businesses (Krasniqi & Mustafa, 2016). Although research investigating the determinants of SMMEs growth has attracted enough interest among researchers and policy makers as well as the broad assumption that human capital has positive effects on firm growth, there is still a need to investigate this notion further.

Argument about the pivotal role played by the human capital of the founder of a business for the success of the business remains intense. As a result, the definition of human capital differs from one researcher to the next. Some researchers refer especially to aspects of human capital that enable an individual to achieve long-term survival and sustainability (Unger, Rauch, Frese & Rosenbusch, 2011). Barreira (2011) argues that entrepreneurial human capital competencies involve characteristics, such as education and work experience (management experience, technical or industry experience) as the most important components required for an

entrepreneur to start a business. In addition, scholars such Becker (1964) and Mincer (1974) had previously argued that cognition, experience and knowledge are characteristics needed for an individual to become productive as they provide the potential for efficiency and further enhance the development of activities. Bates (1995), Shane and Venkataraman (2000) also argue that individuals with higher levels of human capital have a greater chance of becoming successful as a result of self-confidence as they have the propensity to focus more on the outcome and worry less about risk.

Based on the various assertions made regarding human capital and the critical role it plays in the success of the venture, this study sought to further investigate the positive relationship between human capital components, such as education, knowledge and experience with firm growth.

1.1. Purpose of the study

The primary objective of this study was to investigate the relationship between human capital elements, namely, knowledge, education and work experience and the growth of small, medium and micro enterprises. The study is important when taking into account that the South African government has introduced policies that encourage entrepreneurial participation through skills development and training with the aim to increase the human capital of SMMEs in order that they may succeed.

1.2. Context of the study

The major challenge confronting the City of Johannesburg (COJ) is to begin to reconstruct its economy in ways that promote new opportunities for social and economic change, reduce poverty, and wean the City away from the over-reliance on the mining sector, which has been, for many years, the major contributor to the city's income. This over-reliance on a specific key sector of the economy is a challenge prevalent in many developing economies (GEP, 2014).

South Africa is currently facing a serious shortage of skilled workers, a high unemployment rate and an under-performing economy. Shortage of skills has a negative effect on economic prospects and global participation. High unemployment rate and shortage of skills severely affect socio-economic growth and development of

a nation. According to Shepard, Douglas and Shanley (2000), most entrepreneurs start a new business with no knowledge of key dimensions of entrepreneurial orientation such as pro-activeness, risk-taking and competitiveness. Skills are necessary for economic and social development of people. As a result, it is important that entrepreneurs obtain sufficient information necessary for them to survive. To this end, the South African Skills Development Act, No. 97 of 1998 recognises the need to increase the skills levels of individuals, and one of the primary objectives of this act is to promote self-employment.

The possession of human capital is significant as it enables an individual to identify opportunities and easily exploit them. Human capital is a key element in improving the assets of an organisation because it offers sustainable competitive advantage and increases entrepreneurial efficiencies (Pasban & Nojedeh, 2016). Lack of human capital is a key factor in determining the success or failure of SMEs in both developed and developing countries. Furthermore, many entrepreneurs see lack of human capital as a key determinant of their survival, growth and staying power (Taylor, 2012).

According to Statistics South Africa's (Stats SA) labour force survey (2017), South Africa's economy has been shrinking yearly for the past two years, despite having made significant progress to overcome structural factors and produce some of the most innovative and successful enterprises on the continent. This is so, despite the fact that national government provides the institutional support necessary for high-growth businesses to emerge and thrive, with policies aimed at closing historical gaps (GEM, 2017).

According to Coleman (2013), prior research consistently outlines that human capital is a necessary component for small business success and survival. The author also adds that human capital refers to education, employment, industry experience and other types of experience that help the entrepreneur prepare for the challenges of business ownership (Coleman, 2013).

1.3. Problem statement

Although evidence shows that SMMEs play an important role in the economy of a nation, there is still however, an unacceptable number that fail during the first five years of their formation in South Africa (Nieman & Niewenhuizen, 2009, 2014). Only

one in ten small enterprises survive for longer than ten years. This is disturbing in the context of South Africa, given the high unemployment rate and ailing economy.

Despite the availability of previous research on the role of human capital on SMMEs growth, there still exists a gap in research, which invariably suggests that there is a need for further research in this area. Due to the importance of human capital in SMMEs growth, the study aims at adding to the existing research and become a reference point for entrepreneurs, policy makers and researchers.

1.3.1. Main Problem

To investigate the relationship between the human capital of the entrepreneurs in the Johannesburg inner city and the growth of their firms.

1.3.2. Sub Problems

The first sub problem is to establish whether there is a positive relationship between an entrepreneur's knowledge and growth of their firm.

The second sub problem is to investigate whether there is a positive relationship between the entrepreneur's level of education and growth of their firm.

The third sub problem is to investigate whether there is a positive relationship between the entrepreneur's previous experience and growth of their firm.

1.4. Significance of the study

Human capital and SMME growth are areas that have been studied from a number of perspectives, with an overwhelming majority of them being empirical with little conceptualisation. Access to information that is vital to research is limited as most small firm owners are not always willing to divulge information that could advance research. A major weakness is that various studies are fragmented which often leaves aspiring researchers and entrepreneurs confused (Wiklund, 2009). These problems have been highlighted in many reviews (Wiklund, 2009; Davidsson & Wiklund, 2000). Reviews on human capital and firm growth provides compelling evidence that human capital is critical to promoting aspects of entrepreneurship even though some of them

do not contain a comprehensive discussion of the human capital in entrepreneurship research stream (Matthew, Marvel, Davis, & Sproul (2014). Oluwatobi and Ogunrinola (2011) assert that the human capital of entrepreneurs is one of the most important factors that accounts for the wealth of a nation.

The study examined the theoretical constructs that are key determinants of SMME growth. The key construct was human capital, which comprises of knowledge, education and work experience as key variables for the study. In addition, the study has looked at other studies that have focused on the above variables in dealing with the theoretical construct of human capital. Lastly, the findings of this study will stimulate public policy debate and have meaningful implications for future public policy decision-making.

1.5. Delimitations of the study

The study focused only on the relationship between human capital variables, namely, knowledge, education and work experience of owners of SMMEs and did not cover other human capital variables such as social, intelligence and personality attributes that impact on the performance of firms. The study was limited only to SMMEs operating in the Johannesburg inner city.

1.6. Definition of Terms

Small Medium and Micro Enterprises, firm growth, human capital and performance are the key concepts used for the study. It was thought that it could be helpful to clearly define these concepts at the outset to avoid the risk of confusing the concepts and make the study more easily understandable.

1.6.1. Human capital

Human capital is defined as knowledge and skills acquired by individuals through their investment in education, on-the-job training, and other experiential exposure (Urban & Venter, 2015; Unger, Rauch, Frese & Rosenbusch, 2011).

1.6.2. Entrepreneurial growth

Entrepreneurial growth refers to the expansion of the size of business or magnitude from one period to another (Wiklund, 1998).

1.6.3. Small Medium and Micro Enterprises

In terms of the National Small Business Act, SMMEs are defined according to size, number of employees and annual turnover. Small enterprise employs fewer than 50 employees with an annual turnover of less than R2 Million. Medium enterprise employs fewer than 200 employees with less than R4 Million turnover per annum. Micro enterprise employs fewer than five employees with less than R150 000 turnover per annum (BER, 2016).

1.6.4. Performance

Performance is, at its most basic, defined by sales growth, employment growth, sales growth, compared to competitors and market share compared to competitors (Barreira, 2004).

1.7. Assumptions

There are certain assumptions that the researcher made during the research process. Firstly, the study assumed that the respondents freely participated in the survey, and responses given would be truthful. Secondly, the study assumed that the respondents were owners of SMMEs as defined by the National Small Business Act. Lastly, the study assumed that respondents had sufficient knowledge of their businesses and will be able to respond accurately to the questionnaire.

CHAPTER 2. LITERATURE REVIEW

2.1. Introduction

This chapter provided a literature review on the key themes that expanded on the relationship between human capital and firm growth and further provided a critical analysis on previous research undertaken. Furthermore, the theoretical foundations applied to the research problem are in line with the analytical framework established throughout the study to achieve a better analysis of the results. The framework developed is on human capital theory.

Human capital plays a significant role in the productivity of individuals and in recent times, as the most influential factor, that largely influences the competitiveness of firms (Teixeira, 2002). Human capital is broad with varied definitions, which might leave even the most accomplished scholar confused. Depending on the context, some scholars attribute human capital specifically to education, whereas in other instances, it might be associated with the establishment of firms for the economic development of a nation (Mincer, 1996; Texeira, 2002).

In this study, more emphasis was on the concept of human capital in relation to SMMEs growth in the context of South Africa. The literature review also looks at human capital theory to expand the hypotheses linked to human capital variables, namely, knowledge, education, and work experience, in relation to SMMEs growth. Many scholars have thus far investigated the positive role played by human capital in the growth of SMMEs. Extant literature on the strategies pursued by owners of SMMEs have a direct and strong influence on their productivity and growth of their businesses (Shrader & Siegel, 2007).

2.2. Background Discussion

Human capital and SMMEs growth have a strong correlation. Urban and Venter (2015) describes human capital as the knowledge and skills acquired by individuals through their investment in education, on-the-job training, and other experiential exposure. Many studies have so far established that individuals endowed with human capital are likely to recognise entrepreneurial opportunities and further exploit them more easily and faster than those without human capital are able to. Many researchers in both

developed and developing countries recognise the impact of human capital on firm growth by illustrating that the education of entrepreneurs and managers contributes to the growth of their firms.

Entrepreneur's experience is another key dimension of human capital. Several studies reported the existence of a positive relationship between entrepreneurial experience and small firm growth (Capelleras & Robertino 2008; Lee & Tsang 2001). In their seminal work, Sexton and Bowman (1985) demonstrated that successful entrepreneurs have higher levels of education, industry and work experience than unsuccessful entrepreneurs do. Sexton and Bowman (2016) also argue that work experience, education, and other related skills, as well as entrepreneurial perspectives, increase knowledge accumulation and entrepreneurial orientation and are therefore significant qualities that develop entrepreneurial capability.

McMahan et al. (1999); Wright and McMahan (1992); Wright et al., (1994) posit that human capital, especially the ability to perform technical tasks, provides competitive advantage to the firm because it is valuable, rare, inimitable, and non-substitutable. Based on human capital theory, individuals with more human capital, especially education, on-the-job training, tend to enjoy more productivity and succeed more than individuals with lower human capital (Becker, 1962; 1964).

The aim of this study was to advance the understanding of SMMEs growth by drawing attention to the important role played by human capital, however, there still exist a significant number of authors who do not support this argument. Roca-Puig and Beltran-Martin (2012) argue that the positive effect of human capital on a firm's performance is not universally accepted. Similarly, Amaral, Baptista and Lima (2011) quote Blancheflower (2004); Minniti and Bygrave (2003) who insist that different authors in diverse studies have found a non-linear effect on the human capital and performance of an entrepreneur. Many studies have also showed that individuals with a higher level of education have less probability of being entrepreneurs than people holding primary and secondary school level qualifications.

2.2.1. South African Entrepreneurship Contextualised

South Africa's dual-logic economy has led to varying debates amongst policy makers, leaders of big business and scholars (Urban, 2011). At the centre of the debates is the

fact that on the one hand there is a highly developed sector made of big business mostly owned by white males, whereas on the other hand lies an economic sector mostly owned by blacks and regrettably struggling for survival. According to Urban (2011), these skewed disparities act as major determinants to growth, development, employment creation and poverty eradication. In certain instances, the unequal playing field has led to low rates of economic activity, which failed to stimulate an entrepreneurial mind-set.

Entrepreneurship plays an important role in the survival and growth of an emerging economy such as South Africa. Schumpeter (1934) and Bird (1989) argued that economic development is directly attributable to the level of entrepreneurial activity in a country. Entrepreneurial activity is an important mechanism for economic development through job creation, innovation and its welfare effect, which lead to a growing policy interest and debate over an entrepreneurial mind-set at national level (Herrington, Kew & Kew, 2009).

According to the Global Entrepreneurship Monitor (GEM, 2016), in countries that exhibit low levels of per capita income, their national economy is likely to be dominated by SMMEs. The GEM (2016) report maintains that when a nation's per capita increases, industrialisation and economies of scale allow larger and more established organisations to satisfy the increasing demand of growing markets and increase their relative role in the economy.

South Africa's political dispensation in 1994 led to positive economic growth rates. Ironically, this economic expansion was not accompanied by significant growth in employment creation (Mahadea, Ramroop & Zewotir, 2010). Historically, large corporations and the public sector dominated the mainstream economy. During the apartheid era, there was a conspicuous absence of small businesses in the dominant sectors of the economy with little attention paid to enterprise development in policy discussions. Blacks, as the majority race were not allowed property ownership except in designated areas. As a result, blacks had no form of collateral to enable them to access finance.

Based on McGrath and MacMillian's (2000) conceptualisation of the entrepreneurial mind-set, scholars have warmed up to the notion of dynamic sense-making and decision processes as central to success in an entrepreneurial environment (Urban,

2012; Ireland & Sirmon, 2003). South Africa's new democracy has a dual–logic economy in which the one side is a highly developed economic sector and the other side consists of economic participants who struggle for survival (Urban, 2012; Maas & Herrington, 2007).

These contrasting scenarios explain the difference between a necessity driven and opportunity driven divide. The 2001 GEM Report showed that 55% of all entrepreneurial activity in South Africa was necessity driven. This phenomenon explains the racial disparities that exists, with 66% of all entrepreneurial activity amongst black participants being necessity driven, compared with only 23% being whites.

In terms of the Labour Force Survey (Statistics South Africa, 2017), both employment and unemployment decreased in the second quarter, resulting in the employment rate remaining unchanged from the first quarter of 2017. The absorption rate declined to 43.3% and has gone down by 0.4 of a percentage point quarter on quarter while the economically active population increased by 306 000, of which 83 000 were discouraged work-seekers. During this period, out of all the big metros, Johannesburg recorded the highest percentage in terms of employment creation. South Africa is still a new democracy facing major challenges with unemployment being the main one. The challenge of unemployment is even more prevalent amongst the country's youth due to lack of experience, skills and education, not being absorbed by the formal sector. This has led to the majority of youth out of necessity, beginning to find ways of identifying business opportunities for themselves.

2.2.2. Entrepreneurship in Context

"Entrepreneurship is a challenging life choice; founding a business and even sustaining a growing concern is full of obstacles" (Buys, 2012). Gore and Fal (2009, p.7) explain that, "the entrepreneurial journey is filled with obstacles and frustrations." The study of entrepreneurship shows that much of the research conducted appear to have taken a paradoxical approach involving two different streams of literature, namely, the economics literature and the management literature. The economics literature emphasises the role of entrepreneurship in economic development through quantitative econometric studies in which the entrepreneur is an aggregate variable

that depends on an array of factors for growth (Phan, Venkatarman, & Velamuri, 2008).

The economics stream is about the creation of new firms with the aim mainly being to evaluate the impact of different firms in relation to economic development, mostly job creation. The management literature places more emphasis on the individual entrepreneur or firms created by these individuals. The purpose of the management stream is mainly to evaluate the impact of entrepreneurs' attributes, firm's characteristics and strategies as well as environmental impacts on the firm's performance (Phan, Venkataraman, & Velamuri, 2008).

As mentioned in the above paragraph, there is a clear distinction between these two literature streams of entrepreneurship. The economic literature traces back to the work of Schumpeter (1934), who looked at the entrepreneur as primarily responsible for the introduction of radical innovations in the economic system previously in balance. Schumpeterian view held that radical innovations produced what he termed 'creative destruction' of old firms replaced by new ones, which triggers new cycles of economic growth. The Schumpeterian school of thought was later closely followed by the Austrian School, which perceived the entrepreneur as an 'arbitrageur' who identifies and exploits opportunities that are associated with under-allocated economic resources (Hayek, 1984; Kirzner; 1973). Based on the view presented by Venkataraman et al. (2008), the focus of the management literature is mainly on the individual entrepreneur.

Miller (1983) proposed a radical shift in the approach to the management literature that focuses on the individual entrepreneur, which has tended to influence most of the research. Miller's view was that, rather than focusing on the traits and abilities of the entrepreneur, a different approach that focuses on the manager who makes strategic decisions for the firm, and shifts the emphasis to the entrepreneurial activity of the firm. In relation to this view, Miller (1983) emphasised the need to move away from our bias towards the individual entrepreneur and focus on the process of entrepreneurship and the organisational factors, which foster and impede entrepreneurial activity. Again, Miller (1983) argued that entrepreneurial behaviour is the one that engages in product market innovation, undertakes risky ventures, and is always the first that comes up with proactive innovations.

The importance of entrepreneurship as a key driver that influences economic growth remains unchallenged. Audretsch and Turik (2004) suggest that the economic and institutional changes that took place in the 1970s and 1980s, such as the deregulation trend, globalisation of markets and economies and the development of information technology, led to the radicalisation of the economy. Essentially, a managed economy model, based on production of scale and scope and regularities, changed to an entrepreneurial economy model, which encouraged flexible production, innovation, market globalisation and frequent disruptions to the economic order, was favourable to entrepreneurial activity.

There is a widely held belief that confusion is the order of the day in the field of entrepreneurship because no consensus exists among scholars on the definition of an entrepreneur. Conversely, the opposite may ring true in that entrepreneurship is a subject that does not attract specialists from a variety of disciplines (Nieman & Nieuwenhuizen, 2009). Although many researchers agree that entrepreneurship provides a positive contribution to economic growth, however there are other factors influencing economic growth. Despite an array of different views, it is widely accepted that entrepreneurship is an activity or process of discovery and exploitation by an individual with an aim to introduce new goods and services, raw materials, processes and markets (Shane, 2003; Shane & Venkataraman, 2000).

Entrepreneurship is the exploitation of opportunities within a specific market that the entrepreneur has identified. Timmons (1997) describes entrepreneurship as a way of thinking, reasoning and acting that is opportunity obsessed, holistic in approach and leadership balanced. In other words, entrepreneurship can only be realised in an environment that encourages full participation and the desire by participants to succeed. Another view propagated by Morris (1998) posits that entrepreneurship creates value by bringing together unique packages of resource inputs in order to exploit opportunities in the market. In other words, entrepreneurship occurs at various organisational levels and leads to a variety of possible outcomes, including new ventures, products, services, processors, markets and technologies. Based on these definitions, entrepreneurship is defined as the recognition of entrepreneurial opportunity that leads to the exploitation of those opportunities (Urban et al., 2011).

Entrepreneurship is a relatively modern field of study that most scholars believe only accumulated extensive interest beyond the familiar economic and management theories during the last few decades. Plaschka and Welsch (1990) argue that the development of entrepreneurship went through four fundamental phases before it became a formidable field of study. Most management scholars agree that currently there is no single endorsed definition of an “entrepreneur” in the literature. As a result, the existence of the various schools of thought had led to confusion among researchers. Zahra and Dess (2001) also agitate for the lack of a unifying framework that distinguishes entrepreneurship from strategic management.

Entrepreneurship is an important mechanism for economic development through job creation, innovation and its welfare effect has led to a ground swell of policy discussion in national-level entrepreneurial activity (Herrington, Kew & Kew, 2011). Cornelius, Landstrom and Persson (2006) argue that the field of entrepreneurship only began to enjoy extensive interest in policy discussion following huge structural changes that took place in society worldwide, such as economic recessions, oil crises, technical progress, increased globalisation of economies coupled with unprecedented political changes in many countries. As a result, these changes led to heightened uncertainty and disequilibrium, which fostered an increased desire for the refinement and improvement of empirical research, and aligned it with modern theoretical perspectives such as the resource-based view or the evolutionary approach, which enhanced a better understanding of the discipline as a field of study (Chandler & Lyon, 2001).

Lingelbach, de la Vina and Ansel (2005) also argued that entrepreneurship is not a well-developed component of modern economic theory. Nevertheless, there exists a growing body of literature, which agitates for the contextualisation of entrepreneurship and recognises that economic behaviour is defined within its historical, temporal, institutional, spatial, and social contexts (Welter, 2017). Context by its nature provides individuals with recognition of opportunities and enables individuals to set parameters and goals. Gartner (2005) emphasises the need for entrepreneurship research to pay attention to the context in which entrepreneurship occurs and to avoid underestimating the influence of external factors and to show bias towards the influence of internal or personal factors when looking at the behaviour of individuals. The over-emphasis on entrepreneurship being an individual event as opposed to other factors that play an

important role in influencing entrepreneurial behaviour such as background, experiences of individuals, demographic characteristics, and personality traits or motivations for starting a business are also brought into the mix.

Shane (2000; 2003), focused mainly on opportunity recognition and exploitation and entrepreneurial cognition. Shane (2000) further asserts that most research on entrepreneurship only examines the entrepreneurial process after the discovery of opportunities. Therefore, most researchers typically adopt this approach because they draw on neoclassical economic or psychological theories that assume people will discover the same opportunities during a certain technological phase or discover opportunities not correlated with attributes that were prevalent during the initial process of discovery.

Urban (2011) argues that the central premise of the cognitive perspective is that the entrepreneurial behaviour emerges due to the entrepreneur's underlying cognitions. In other words, it is critical to understand the entrepreneurial mind-set, and the reason behind the decisions they take and the things they do. Scholars such as Baker and Nelson (2008); Sarasvathy (2001; 2008) researched cognitive styles and decision-making, entrepreneurial learning and the links between learning and opportunity recognition. Welter (2008) argues that contrary to earlier research that was based on personality and demographic characteristics, current research should build on cognitive processes and cognitive properties of entrepreneurs, which influence the discovery, and exploitation of a business idea, venture development and survival.

Other scholars also introduced a socio-cognitive perspective on opportunity recognition and give credence to the social and wider societal context (de Koning, 2003). Mueller, Volery and Siemens (2012) argue that the central premise of entrepreneurship is about the discovery, evaluation, and exploitation of opportunities that ignite entrepreneurial orientation by individuals and the growth of business ventures. This argument is further supported by Urban (2011), suggesting that entrepreneurial behaviour emerges as a result of an entrepreneur's underlying cognitions which include how an individual thinks and how they go about doing what they do in order to attain their goal. The entrepreneurial cognitions perspective is significant in assisting researchers to enter the mind of entrepreneurs and contextualised what they think, and how they intend to do things.

Mourdoukoutas (1999), focusing on the work of Schumpeter, states that entrepreneurship is a distinct and separate function of the firm and identified five ways of revolutionising the patterns of production: (1) The development of a new product i.e., a product which has never been introduced to the market before, or significant innovation of an existing product. (2) The discovery of a new production method. In this context, discovery does not necessarily mean the process or product of successful scientific inquiry but the innovative way of applying an existing method to improve production. (3) The discovery and exploitation of a new market. In this instance, discovery relates to an unexplored market, which has been in existence, but not thought to be an opportunity worth exploring. (4) The discovery and exploitation of a new source of supply of raw materials.

Again, the term "discovery" does not necessarily apply to a new geographical resource market or an unknown resource, but rather a resource used before in a certain industry and is a completely new invention. (5) The discovery/development and implementation of a new way of organisation. Bull et al. (1995) argue that the Schumpeterian model of the theory of entrepreneurship makes no attempt to deduce what the innovating entrepreneur does or how he or she can do better, nor does it pretend to be the authoritative voice of theoretical reasoning.

Theoretical analysis only enters the discussion when Schumpeter turns to the enhancement of profits made possible by innovation, which in turn, stimulates imitation that finally ends the flow of the innovator’s profits. The essential point is that Schumpeter’s model shows why innovators must search constantly for further novelties if the flow of profits is steady and why they keep on running in order to stand still. Thus, the model leads us to see the innovator as an individual motivated by the pursuit of profits. The model focuses on two relationships: (1) Effects of innovation upon profits. (2) The effects of innovation upon the activities of imitators.

Although there are many theories on entrepreneurship, there remains few mathematical models, which accurately analyse entrepreneurial behaviour within the context of an economic system. Eatwell, Milgate and Newman (1989) are among the seminal examples of scholars who argue that entrepreneurship is by its very nature

spontaneous and therefore, a deterministic model is not a predictor of entrepreneurial behaviour. In the end, opportunity identification and exploitation is incumbent on the individual's key efficacy in determining the future direction of the firm.

2.2.3. Small Medium Micro Enterprises (SMMEs) Contextualised

The topic of SMMEs growth has attracted much interest and has stimulated considerable empirical research (Wright & Stigliani, 2012). Furthermore, entrepreneurship development through SMMEs remains a hotbed for economic development of developing nations (Jafri, Ismail, Khurran & Soehod, 2014). However, too much attention gravitates towards investigating and understanding the reasons surrounding how much the firm grows, and how some firms grow more than others grow (Mc Kelvie & Wiklund, 2010).

Gimeno, Folta, Cooper and Woo (1997) advised that the context of entrepreneurship require special consideration of the determinants of performance and growth of SMMEs. In small entrepreneurial firms, the likelihood is that the entrepreneur exerts control over the organisational decisions, whereas non-owners are less influential. On the contrary, in larger firms there are clear, defined lines of control between ownership and operations. Moreover, operational contributions of the owner to the venture are not only limited to the capital contribution made during formation, but also include managerial and technical expertise (Gimeno, Folta, Cooper & Woo, 1997). To date, the dominant literature has identified some thought-provoking predictors of SMMEs growth which address the 'how much' question by looking at the entrepreneur's characteristics, availability of resources, industry context, and organisational structures and systems. In addition, most studies put more emphasis on firm growth as the primary indicator of business success (Davidsson et al., 2006; 2009).

Many scholars argue that the field of entrepreneurship, particularly in relation to small medium and micro enterprises has advanced and grown considerably in many developing economies, with remarkable developments taking place in research frameworks and methodologies used. The progress made is not only the result of the exchange of ideas and new analysis among scholars. It has also led to a fundamental

policy shift with emphasis no longer placed on large firms (Crijins, Laveren, Landstrom, & Smallbone, 2008). Research has also proven that new and small medium and micro enterprises are the main providers of new jobs in most economies. Generally, countries that exhibit the highest rates of entrepreneurship tend to exhibit a substantial reduction in unemployment rates.

The misplaced view that the cornerstone of the economy is the large firm began during the initial stages of the Industrial Revolution. Adam Smith (1776), with his concept of the scale economies, first proposed this view. Acs (2008) observed that this 'long view' of economic history did not assign much importance or potential to small firms and entrepreneurship in general. The importance of small and medium sized firms is fundamentally key in the development of any economy. Acs (2008) argued that the emergence of SMMEs in the 1980s, which started in the United States of America (USA) and Italy has been largely prompted by the rapidly rising internationalisation of firms. This led to the transformation of the industrialised economies from large-scale standardised production to small and medium scale flexible production. This phenomenon threatened the survival of the line production and led to the development of a completely new set of products and the creation of new markets. Notwithstanding the different views, the overwhelming consensus is that most entrepreneurial activity takes place in Small Medium and Micro Enterprises (SMMEs).

Small Medium and Micro Enterprises constitute 97,5% of all businesses in South Africa and contribute to 35 percent of the gross domestic product (GDP) and further contribute 43% of the total value of salaries and wages paid in South Africa and employ 55% of formal private sector employees (Nieman & Nieuwenhuizen, 2009). Generally, the combination of all businesses, namely SMMEs, large national and multinational companies, determine the state of the country's economy. Employment creation is a key determinant linked to the state of the economy (Nieman & Nieuwenhuizen, 2009). Consequently, when there is no growth in the economy, there will inevitably be no significant employment opportunities to stimulate economic growth.

Table 1: The National Small Business Act.

Enterprise Size	Number of employees	Annual Turnover
Small	Fewer than 50	Less than R2 Million
Medium	Fewer than 100 to 200	Less than R4 Million
Micro	Fewer than 5	Less than R150 000

Source: The DTI (2016).

A relationship should be forged for all stakeholders to support each other so that the economy can grow. A fundamental observation by Mills and Schuman (1995) was that small firms account for a significant share of economic activity in times of economic expansions and reduced share during economic contractions (Acs, 2008). Building on earlier scholars such as Siegler (1939); Marschak and Nelson (1962), they concluded that the growth of any economy rests in the hands of small enterprises as they are able to infuse productive flexibility into an economy which is planned around macroeconomic fluctuations (Acs, 2008).

The sustainable growth of any firm, whether small or large, is its capacity to grow and hold out all kinds of financial, strategic and structural challenges (Moore & Manring, 2009). Human capital is an integral part of organisational growth. Hayton (2003) asserts that human capital is an important source of sustained competitive advantage. Therefore, if this is the case, then it is only logical that entrepreneurs measure and manage it effectively. Although many studies view SMMEs as contributing significantly to Africa's depressed economies, their ability to grow and create employment is due to lack of education, skills, venture knowledge and access to resources (Urban & Kongo, 2015). Barreira (2004) argues that growth is an accurate indicator of the positive relationship between human capital and business growth.

South African SMMEs, like others, especially in developing economies has shown consistent decline in the last decade (Urban, 2016). The literature on small business in South Africa has largely focused on the practicalities surrounding small business development policies (SEDA, 2016). The main areas of focus are the following:

1. An assessment of policies and instruments put in place by the South African government in order to support the small business segment.

2. An examination of the role and impact of private and public sector institutions on small business growth and development.
3. A consideration of the state of South Africa's culture of entrepreneurship, which is common in many other middle-income developing countries and has been a key driver of job creation.

This is a disturbing picture, taking into account that the South African government recognises the SMME sector as important to achieving national objectives and had introduced policy and legal frameworks, as well as entrepreneurial ecosystems for the sector to grow. In addition, the sector is enjoying a significantly improved support from the private sector in terms of financial and non-financial support.

The relative importance accorded to SMMEs in both developing and developed countries has effectively led to the reconsideration of the role they play in the economy of a nation (Aremu, 2011). According to Urban (2012), in the South African entrepreneurial landscape, as stated by the Labour Force Survey (Statistics SA, 2011), 2.5 million SMMEs are operating in South Africa. In terms of this study (Urban, 2012), the majority of these SMMEs are black-owned and women-owned and cannot access opportunities offered by the broader economy. Juxtaposed with Urban's assertion, the 2015/2016 GEM report states that South Africa's Total Entrepreneurial Activity (TEA) is significantly lower than the average for most efficiency-driven economies which are 8% more than the double South Africa's rate of 3.4%.

The GEM report further found that the majority of TEA in South Africa is mostly in the consumer sector and half of early-stage entrepreneurs are active in the wholesale/retail sector. This figure equals the average of Africa and most efficiency-driven economies. Furthermore, the study found that only 9% of early-stage entrepreneurs are in the business-service sector. Most studies have thus found that this sector relies more heavily on knowledge intensity than other mostly recognised elements of human capital, such as work experience and education.

Cant (2016) states that it is estimated that SMMEs failure rate in South Africa is between 70%and 80%. As a result, the sector has lost millions of rand, mostly owing to mistakes. Ironically, most of these businesses started due to their owners having

identified opportunities that were worth exploiting. South Africa, like other developing economies, has shown consistent decline in the last decade (Cant, 2016).

The result of the decline is that it has led to high unemployment and increased disturbing levels of poverty. This is disturbing, taking into account that the South African government recognises the sector as important to achieving national objectives, such as a reduction in poverty, unemployment, crime and lack of skills. It seems a lot still needs to be done to investigate the entrepreneurial growth process in small medium and micro enterprises.

There is a preconceived notion attributed to the entrepreneurs who formed those businesses. A widely expressed view is that owners of small and medium enterprises are naïve about planning and the development of strategy. Another widely held view is that owners of SMMEs lack financial skills and understanding of financial information.

The growth of a business in one sector cannot take the same amount of time as the growth of a business in another sector. The overwhelming view is that most firms grow in the early years of their formation, but then growth diminishes over time. Suffice to say little remains unknown with no adequate theory developed on the growth process of small firms.

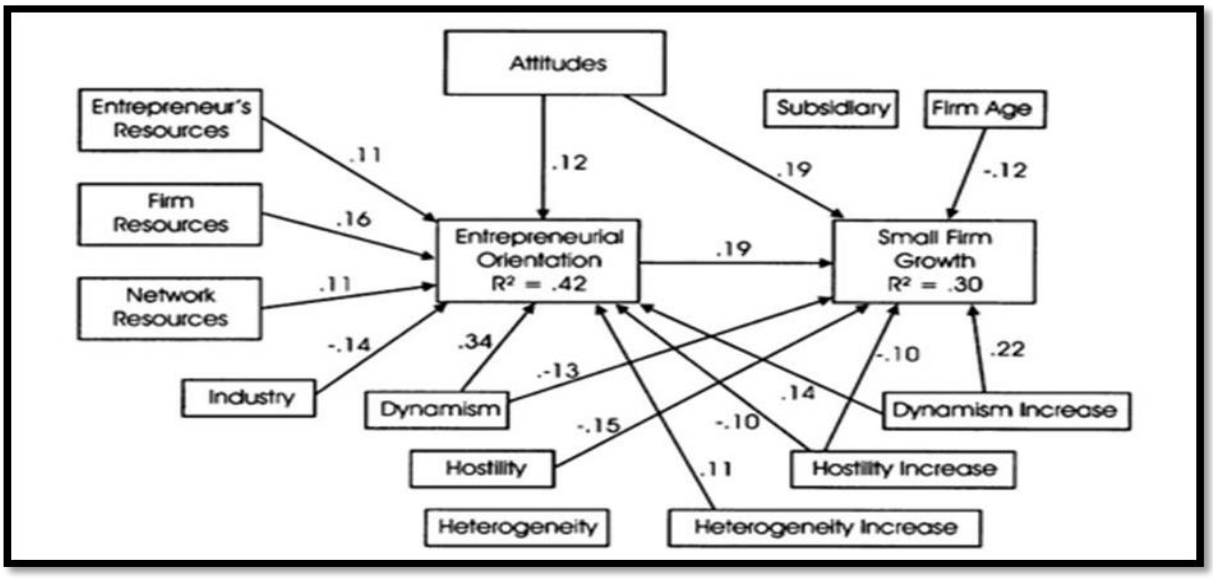


Figure 1: An integrative Model of Small Business Growth (Adapted from Wiklund, Patzelt and Shepherd, 2009, p. 351).

2.3. Human Capital Theory

Today, due to the importance that knowledge plays in the economy of nations, human capital has become the central focus for both academic and public interest (Le, Gibson & Oxley, 2005). The origin of the human capital concept can be traced back to the work of Smith (1776) which underlined the importance of the "acquired and useful abilities of all the inhabitants or members of the society. " After the manifestation of the concept, Schultz (1961) recognised the human capital as an important factor for a national economic growth in the modern economy. Marvel (2009) maintains that the development of modern theories of human capital are the result of the seminal work of Schultz (1961) and Becker (1962). Schultz (1961a) classified skills, knowledge and attributes that people acquire and affect human capabilities for them to do productive work. Human capital perspective generally holds that individual knowledge, education and experience lead to a wide range of positive outcomes.

Broadly, the concept of human capital is theoretically a combination of human and capital. From an economic perspective, the capital refers to 'factors of production used to create goods or services that are not themselves significantly consumed in the production process. Therefore, accumulation of human capital through learning factors that increase production significantly influences firm growth.

Since Schultz (1961), many other definitions of human capital have become part of the field of entrepreneurship. Teixeira (2002) posits that in his seminal work, *Investment in human capital: A theoretical Analysis,* Becker (1962) "included in his concept of human capital activities such as formal education and off-the-job training (general human capital)." In addition to Becker's work, many scholars who have adopted the human capital framework argue that education, skills and human capital are interchangeable concepts (Teixeira, 2002). Even more prevalent is the fact that education is the most important component of human capital (Schultz, 1993).

There are many definitions of human capital used in the entrepreneurship literature. According to Ployhart and Moliterno (2011), human capital should be viewed at the micro (individual) and the macro (organisational) levels. The micro-level school of thought espouses what Ployhart and Molterno (2011) terms the relationship between individual phenomena and knowledge, skills, abilities, and other characteristics of an

individual. The macro-level school of thought's fundamental focus is on the relationship between firm-level phenomena and aggregated organisational-level, which involve experience, education, and skills of employees (Polyhart & Moliterno, 2011; Sujchaphong, 2013).

The resource-based view, as further illustrated by Sujchaphong (2013), perceives human capital as a source of sustained competitive advantage. Shane (2003) argues that venture performance or growth is about how effectively the entrepreneur deals with the entrepreneurial process relating to activities, which culminates in opportunity identification, evaluation and exploitation. However, this assertion has long been the subject of controversy among scholars. At the turn of the 21st century, Shane (2000) argued that the discovery of opportunities is about individual characteristics and is mostly a function of both an individual's stock of knowledge and their alertness to information.

Human capital and organisational ecology theory outline a more comprehensive set of factors that influence the mortality of newly formed enterprises. Human capital theory has identified the business founder's characteristics, especially years of studying, work experience and industry-specific experience, as showing strong direct and indirect effects (Bruderl, Preisendorfer & Ziegler, 1992). Some literature demonstrates a positive correlation between the development of human capital and growth.

Dees and Picken (2000) further assert that human capital literature has moved beyond just focusing on the individual, and that, if put to good use, it can be shared among groups, team and the firm at large. This perspective emanates from the generally accepted view that there is no substitute for knowledge and learning if firms are to become competitive and innovative. In other words, in order to become competitive, firms must relentlessly pursue and focus on knowledge acquisition and learning, both from an individual and organisational level perspective.

The term 'human capital' in its broadest view, is the notion of resources that an individual has to participate in an autonomous way, while participating in the democratisation of work (Gratton & Ghoshal, 2003). According to Urban et al., (2008) "Entrepreneurial human capital is largely acquired on an individual basis, and consists of a combination of skills, knowledge and resources that distinguish an entrepreneur

from his or her competitors." Many scholars accept that human capital is a widely used concept with complex and varying definitions, which can leave people confused.

Mincer (1996) observes that at times, human capital includes schooling (that is, acquired formal education) whereas in certain instances, it encompasses a wider set of investments that can potentially influence the well-being and productivity of people, firms, and nations. These might include investments in health and nutrition, as well as vocational training acquired outside formal education. Walsh (1935) argues that the more advanced an individual acquires education, the more profitable it becomes, and that can easily become the motive for undertaking education as it promises economic gain.

Many scholars have mounted an argument suggesting that formal education is only one way of creating skills. Jin et al. (2010) believe that it is of no use to argue that the generality of an entrepreneur's human capital is only in dimensions of general knowledge, personal abilities, personality characteristics and psychological factors. Adding to the above assertion, Junguera (2011) argues that entrepreneurial human capital manifest itself in this order: (a) entrepreneurial capabilities for discovering new business opportunities; (b) decision to exploit those opportunities, and (c) capabilities to consolidate current businesses. Evidently, individuals who possess human capital are likely to identify opportunities faster, create new businesses, and achieve higher levels of success.

Some human capital literature has moved beyond focusing on the individual as solely behind idea generation and goes further to embrace the idea that knowledge can be shared among groups and teams at the firm level (Wright et al., 2001). In other words, the stock of human capital does not only consist of knowledge, skills and abilities of individuals but includes social capital in the form of relationships, and lastly, the organisation in terms of the processes, systems, and daily routines.

The ability for an individual to act entrepreneurially is associated mostly with such human capital variables as education, work experience, entrepreneurial experience, prior knowledge, prior knowledge of customer problems, and experiential knowledge (Urban, Venter & Rwigema, 2008). Increasingly, the economic growth of many major cities around the world is the result of human capital. Human Capital is frequently discussed in the policy context and formulation of frameworks. Some scholars argue

that a combination of human capital elements, namely, education, work experience, knowledge, and skills, will lead to economic performance and knowledge spill-over (Block et al., 2013).

In the 21st century, the dominating entrepreneurial theme in many countries is the globalisation of firms as it creates economic value. As Cook (2000) observes, “human capital is emerging as a key determinant of international competitiveness and its very long development period makes it necessary to understand the stock of the capital, the influences on it, and the way in which those influences alter.” Although many entrepreneurs still focus on the local markets for profit, growth, and sustainability, countries are increasingly seeing a bias towards globalisation more than local markets.

As a result, for entrepreneurs to gain competitive advantage, the need for individuals with more human capital will become even more necessary than ever before. As Le, Gibson and Oxley (2005:3) put it, “human capital is a complex concept; it has many dimensions and can be acquired in various ways, including at home, at school, at work, and so on.” Initial considerations of many human capital studies identify human capital as a prerequisite for economic performance and international competitiveness. Other scholars argue that the process of industrial deepening and upgrading requires higher levels of skills, knowledge and organisation in almost every function of the firm.

Kenworthy (2010) and Kongo (2014) conclude by describing three categories of human capital. One: Human Capital Theory: this theory envisages that both formal education and experience affect personal career performance. Two: Human Capital Theory with Diminishing Returns: this theory is similar to the Human Capital Theory except that when the investment in education and experience increases, the rate of return decreases. Three: Increasing Human Experience Model: This model is related to the model implicitly planned by Cooper, Gimeno-Gasco and Woo (1994) which has significantly inspired human capital research in the field of entrepreneurship.

Generally, most scholars agree that human capital consist of the individual’s capabilities, knowledge, skills, and experience provided by the organisation’s employees and managers to carry out the demanding tasks, as well as the capacity to add to the individual reservoir of knowledge, skills and experience (Wright, Dunford, & Snell, 2001).

Swanson (2001) developed a model that explains the human capital theory. The model depicts three key relationships in human capital theory and the assumptions underlying these relationships.

In terms of this model, relationship 1 represents the concept of production functions as applied to education. The key assumption underlying this relationship is that investment in education results in increased learning. Relationship 2 represents the human capital between learning and increased productivity. The key assumption underlying this relationship is that increased education results in increased productivity. Relationship 3 represents the human capital relationship between increased productivity, increased wages, and business earnings. The key assumption, therefore, is that greater productivity results in higher wages for individuals and earnings for businesses. In summary, human capital does contribute significantly to the organisational advantages and profits. This theory is an important aspect to boosting firm performance (Marimuthu, Arosiakamy & Ismail (2009). Against this background, this study has piggybacked on this theory for arguing that human capital has a positive relationship with firm performance.

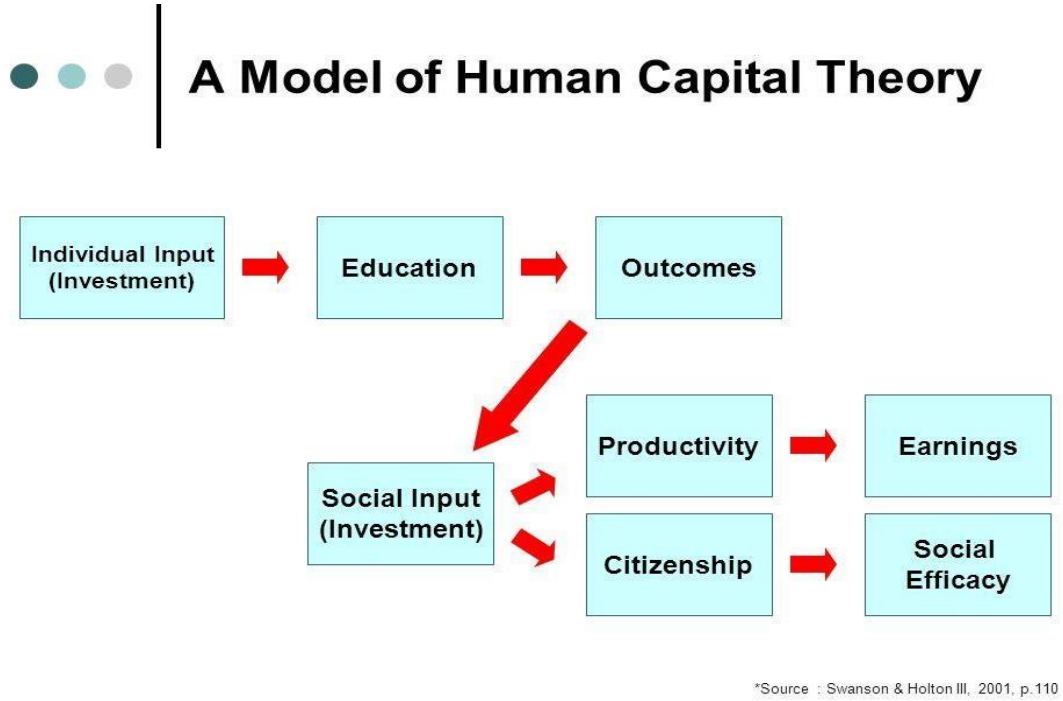


Figure 2: A model of Human Capital Theory

2.4. The Relationship between Human Capital and SMMEs Growth

Growth is a multidimensional concept and empirical literature reports a high diversity of performance indicators (Barreira, 2004; Rauch, Wiklund & Lumpkin, 2009). At an operational level, growth is measured through sales growth, employment growth, assets, profit and others.

In the culture of business, growth is “written as the main characteristics of success” (Nieman & Nieuwenhuizen, 2009, p.275). Growth is a defining feature of an entrepreneurial venture. It “refers to an increase in a specific parameter during a specific term or time period” (Nieman & Nieuwenhuizen, 2009, p.278). Growth must stand out as the main objective and strategy for a venture and needs to be managed carefully (Chimucheka, 2013).

There is a long-standing battle among scholars for attributing SMMEs growth to their entrepreneurial activities (Davidsson, 1989; Wiklund, Patzelt & Shepherd, 2009). Despite various scholarly efforts in SMMEs, growth, theoretical developments have been notably slow (Davidsson & Wiklund, 2000; Delmar, 1997; Mckelvie & Wiklund, 2010), making it difficult for future researchers to come up with a clear explanation of the phenomenon.

Extant reviews on SMMEs growth put particular emphasis on resources the firm possesses in order to grow. Obeng, Robson and Haugh (2014) argue that resources required for a firm’s growth involve physical, financial and human capital resources. In other words, for SMMEs to grow, they need more than the human capital resources an individual possess. However, Miller (1983) argued that entrepreneurship should be assessed by looking at three key entrepreneurial constructs, namely, risk taking, innovation and proactiveness.

According to Miller (1983), if any of these elements are missing, the process becomes “less than entrepreneurial.” Typically, each of these elements will manifest differently depending on the context. For example, risk-taking should be ascribed to the small firm, innovation to the high-tech firm, and proactiveness to an “intrapreneurial” giant (Miller, 1983).

Nieman and Niewenhuizen (2009) assert that when growth is written into the culture of a business enterprise, it then become the hallmark for the venture’s success. Firm

growth leads to expansion, greater profitability, an increase in personnel, greater influence in the market, as well as an increase in resources. Murphy (1996) argues that achieving all these factors could in turn; promise further growth and even higher status in the business community.

Firm growth and the entrepreneur's desire to increase the value of the venture are manifestations of an entrepreneurial mind-set. Entrepreneurial mind-set consistently seeks growth and innovation in order to stay relevant in the market. Block et al. (2013) argue although almost every study of entrepreneurship has proven that knowledge leads to growth; it is ironic that some countries seem to benefit more from investments in knowledge than other countries.

Clearly, investment in knowledge is a prerequisite for any country in order to realise growth, especially emerging economies like Africa, with many of them still reeling from colonialism. Nevertheless, if knowledge is not fully exploited and put to commercial use which would translate into stronger competitiveness and economic growth, such investment will unfortunate yield little to improve the economy of the country (Braunerhjelm, Audretsch, & Carlsson, 2009).

There is substantial literature on the role of human capital and the positive relationship with growth. However, there is also plentiful literature that remains fragmented regarding the conceptualisation of human capital and the success indicators, which account to this positive correlation. Jardon and Martos (2012) studied the process by which success or growth takes place within a particular environment and in their analysis, found that growth could only be realised provided the entrepreneur has the skills, knowledge, and experience gained through previous employment.

Other scholars argue that human capital alone cannot be associated with entrepreneurial success without considering other components that influence entrepreneurship, such as gender, race, and culture. Dumais (2002) added family background, role models and support networks as components of human capital.

Notably, Rogerson (2008) posits a contrary view and agitates for access to finance, training and the regulatory environment in which the entrepreneur operates as core requirements for entrepreneurial growth. This view remains high on the international

agenda as far as policy debates and research for improving the prospects for urban small enterprise development is concerned.

As Barreira et al. (2011, pg. 41) argue, “growth and firm performance form the central question in entrepreneurship literature, which is how entrepreneurs or entrepreneurial teams affect a firm’s strategic growth decisions and subsequent performance.”

According to Rogerson (2007), SMMEs, which are led by educated managers, were mostly performing better in all aspects of business achievement, including having fewer labour problems, engaging in exports and capturing niches in markets often characterised by heavy competition, as opposed to those who have little education.

Gimmon and Levie (2009) collected 29 empirical studies relating to the human capital of the founders of the businesses and their venture performance. The first thing to note in terms of this study is that the 29 empirical studies did not use the same instrument to measure either the human capital or the performance of the ventures.

The researchers collected 12 key points that became apparent in almost every study that consisted of the following:

Academic Titles, Age, Education, Entrepreneurial mind-set (this is a commonly used term in the literature for a wide range of entrepreneurial personality, culture, same factor constructs), Ethnicity, Founder’s team capability, Gender, General management experience, Industry-related experience, Learning ability, Parents were entrepreneurs and Start-up experience.

Out of the 12 elements, the researchers noted that the most relevant to be defined in the human capital are education and experience of the founder. William (2008) argues that it is not only the human capital of the entrepreneur that increases the performance and growth of the firm, but also the intention and vision of the entrepreneur.

2.4.1. Human Capital and Performance

Entrepreneurial performance is a key component of this research as it is the most reliable indicator of small business growth. Many researchers agree that growth, performance and success are mostly used as synonyms in entrepreneurship literature. In a study investigating tourism venture performance in Ghana, Saffu, Apori, Mensah

and Ahumatah (2008) found that there was significant correlation between education, experience and venture performance.

Early literature on human capital focused mainly on two components, which is individuals and firms (Marimuthu, Arokiasamy & Ismail, 2009). Gravan et al. (2001) illustrated that the concept of human capital has four key attributes, namely, flexibility and adaptability, enhancement of individual competencies, the development of organisational competencies, and individual employability. It is clear from the above assertion that these attributes generate and add value to individuals and organisational outcomes.

In another study, Seleim, Ashour, and Bontis (2007) analysed the relationship between human capital and firm performance of software firms and found that the human capital indicators had a positive association on firm performance. Other studies on human capital development also support the assertion that performance is positively impacted by the presence of human capital (Marimuthu, Arokiasamy & Ismail, 2009). Marimuthu et al., also argue that other distinguished scholars such as Shrader and Siegel (2007) support the importance of human capital.

Performance of SMMEs is of great interest to all countries (Olutunla & Obamuyi, 2008:195). According to Naude (2007, p.3), “the performance of an organisation relates to the efficiency and effectiveness with which it carries out the tasks in the process of providing products and services.” Barreira (2004) highlights that performance is a multidimensional concept and easily integrates different dimensions of performance in many empirical studies on firm growth. Barreira (2004) also admits that there is no consensus among scholars on the appropriate measures of SMME performance, and prior research has focused largely on variables for which information was easily accessible. Barreira (2004) also describes four indicators that illustrate small firm performance, which are sales growth, employment growth, sales growth compared to competitors, and market share growth compared to competitors. Out of the four indicators, Barreira (2004) maintains that sales growth is by far the most reliable indicator of firm small firm performance, as sales figures are easily obtainable.

Understandably, most SMMEs, especially during the first few years cannot afford sophisticated packages or professionals to assist them with measurement tools and

therefore rely on sales growth to gauge their performance. Therefore, human capital contributes significantly to firm performance.

2.5. Human Capital dimensions

2.5.1. Human Capital-Skills

Human capital and skills often appear in entrepreneurship literature as interchangeable concepts, which tends to be misleading (Teixeira, 2002). However, before one can describe the importance of skills as a component of human capital and its impact on firm growth, it is also imperative to define the concept itself. Teixeira (2002, p.6) defines skills “as the ability to perform given tasks or to master various techniques, or more broadly, it can refer to the range of behavioural attributes such as reliability, ability to work without supervision, and stability of employment.” Chell (2013, p.8) defines skills “as a multidimensional construct; because they comprise the cognitive–knowledge and what is learnt; the affective-emotional expression and what is experienced; the behaviour-action at strategic, tactical and personal levels; and the context-sectoral, occupational, job and task levels.” Again, skill can mean different things to different people.

The debate about whether skills can be learnt or taught is an old one among researchers. Chell (2013) argues that skills can easily be imparted and improved over time through repetition of tasks and practice. Earlier, Davidsson (1991) argued that when starting a new venture, business related skills, exposure and education are interrelated. Papulova (2007) says that there are areas of managerial skills critical for the growth of SMMEs, namely, technical skills, conceptual skills and communication skills. Chell (2013) also formed a category that includes entrepreneurial skills necessary for business growth.

Table 2: Entrepreneurial skills needed for business growth

Idea identification/creation	**Capitalising on ideas**
• Idea generation / envisioning • Opportunity recognition and means end analysis • Capability to attain data and information about a possible prospect, domain expertise and associated skills • Recognition of societal / market requirements	• Awareness of environment and factors conducive to opportunity exploitation • Ability to garner the necessary material resources • Ability to convince others of the value of an opportunity • Networking and social embedding
Traits/behaviours	**Managerial/leadership skills**
• Self-belief and trust in own verdict • Capability to manage hazard and assume responsibility and accountability. • Ability to tolerate and cope with complications.	• Capacity to manage people • Ability to cope with organisational and other limitations • Ability to transform an idea into commercial opportunity • Capability to me decisions

Source: Chell (2013).

Wu (1992) argues that skills is the required competence or needs of employment although in a more comprehensive sense, skills is a complex “social relation.” This points to the fact that skills can be acquired through education and (formal) training but (mainly) through the course of people’s activities at work. In other words, this is about learning by doing. Additionally, this could include interactions with colleagues on tasks that require skills to perform. It is possible to learn a skill from another person by merely observing and interacting with that person. Generally, skills are acquired by performing specific tasks that are job related.

Rosen (1986) confirms that most specific job skills emanate from performing the tasks themselves. Rosen (1986) argues that formal schooling complements these investments both by setting down a body of general knowledge and principles for students by teaching them how to learn. Rosen (1986) also argues strenuously that there is no perfect substitute for apprenticeship and for work experience respectively. Colardyn and Durand-Drouhin (1995) also maintain that the concept of competence

regarding the capacity to accomplish concrete tasks is now frequently associated with the idea of skills.

Other pre-eminent scholars, such as Venter, Urban and Rwigema (2008), attribute skills to the ability to perform tasks or being adept to specific techniques, including behavioural attributes that an individual possesses in carrying out duties. Rwigema et al. (2008) also argue that the relationship between entrepreneurial competence and commitment is not an addition to the skills set of an entrepreneur but complementary because lack of one could mean lack of entrepreneurial human capital. From an entrepreneurial capital point of view, this could mean multiplicative function of competencies and commitments to be sure to accomplish tasks without supervision. Skills include tangible investments such as investments in education, formal training and the intangible investments that include knowledge and expertise. Most scholars believe that skills acquired through education, especially formal education, give individuals a competitive advantage more than skills acquired through other forms. Generally, the equivalence between human capital and skills depends largely on the tangibles of the respective components.

Howell and Wolff (1991) distinguish between direct measures of skills (cognitive, interactive and motor skills), which mostly measure independent dimensions of job skills and indirect measures of skills (education, attainment and earning indicators) and conclude that educational attainment has a positive relationship with cognitive and interactive skills. It is important to take cognisance of the fact that there are still enormous gaps in literature of the links between skills accumulation and firm growth. No direct evidence exists regarding the impact of skills on firm growth although almost every study suggests that there is a correlation between skills as a key component of human capital and firm growth. In the end, regardless of the definition one chooses, it is undeniable that skills, education, knowledge and experience are interrelated and arguably have a positive relationship with firm growth.

2.5.2. Human Capital-Knowledge

“Whereas at one time the decisive factor of production was the land, and later capital, today the decisive factor is increasingly man himself, that is, his knowledge.” Pope

John Paul II (1991) *Centesimus Annus.* Bontis (1998) argues that organisations have neglected knowledge creation even though scholars like Nonaka and Takunchi (1995) have proven that it is the most important source of international competitiveness. Drucker (1993) in his book titled *'The rise of the knowledge society'* heralds knowledge as just not another resource alongside the traditional factors of production, labour, capital and land, but as the only meaningful resource in today's knowledge economy.

The identification of opportunities is central to the study of entrepreneurship. Gaglio and Katz (2001, p.95) present that "understanding the opportunity of identification process represents one of the core intellectual questions for the domain of entrepreneurship." Researchers suggest that opportunity identification is related to, among other factors, entrepreneurial alertness, prior knowledge (Shane, 2000), and social networks.

According to Shepherd and De Tienne (2005); Venkataraman, (1997) and Shane, (2000), prior knowledge refers to an individual's distinctive information regarding a specific subject matter which provides the individual with the capacity to identify opportunities. Proponents of Shane and Venkataraman argue that people have different prior knowledge, which allows some individuals to identify certain opportunities faster and better than others. Furthermore, prior knowledge should be the result of work experience, education and other means.

Huber (2001) also argues that prior knowledge, is accumulated through experiential learning, intentional or unintentional knowledge that comes from direct experience and vicarious learning and/or through second-hand experience. The concept of human capital also plays a significant role in modern treatment of growth theory and labour economics (Teixeira, 2002). In other words, human capital is not only a process that lead to growth as a cause, but also as an effect of economic growth, or of developments generated by economic growth.

The link between economic growth and the growth of human capital is an important key to sustained economic growth. Various studies have examined the behaviour displayed by the entrepreneur during the start-up stage and found that the main resource that a venture possess is the knowledge of the entrepreneur. Therefore, the knowledge and abilities often prove critical during the start-up phase and it is important

to control and apply the resource in a manner that will lead to a competitive advantage and superior performance by the new venture.

Venter et al (2008, p. 43) argue that “the knowledge of entrepreneurs comes from their previous work experience, education, advice from experts in their particular field and by imitating or copying what others have done. Previous knowledge plays an important role in entrepreneurial performance as it enables the entrepreneur to integrate and accumulate the new knowledge of the business and apply or adapt it to new situations.”

The human capital theory suggests that knowledge provides individuals with increases in their cognitive abilities and leads to more productive and efficient carrying out of activities that mainly require technical skills (Urban, Venter & Rwigema, 2008). Urban, Venter and Duneas (2015) argue that knowledge is a durable and sustainable strategic resource for an individual to acquire in order to maintain competitive advantage over competitors.

Individuals with knowledge of the business that they have started, usually have superior ability in successfully exploiting opportunities. In this regard, firms need to know which capabilities they will need in individuals in order to gain and maintain their competitive advantage (Marr et al., 2004).

Marr et al. (2004) further argue that capabilities can combine to become competencies and as such, when an organisation builds on its internal competency with an aim to become the market leader, that competency would then become known as the organisation’s ‘core’ competency. Consequently, core competencies are from an individual and organisational perspective.

Often, human beings pay attention to the specific capabilities at the individual level that encompass knowledge, talents and skills, whereas at the firm level there is a broadening of the scope as it would include infrastructure, networks, technologies, trade secrets, knowledge and organisational culture. Economists have long recognised that knowledge is a significant asset insofar as human capital literature is concerned (Wright, 2001).

According to Barreira et al., (2011, p. 64), “entrepreneurs tend to notice information that is familiar and related to their own reservoir of knowledge, skills and expertise.”

Under normal circumstances, when an individual comes up with a business idea, all that the individual possesses is knowledge which ostensibly could have been accumulated through education, the environment in which they live or previous work experience.

According to Davidsson and Honig (2003, p. 301), “human theory maintains that knowledge provides individuals with increases in their cognitive abilities, leading to more productive and potential activity.” According to Unger (2011), knowledge and skills are mainly the by-product of human capital investments, such as education and work experience.

As Venter et al. (2008) argue the knowledge gained could be critically decisive during the start-up phase and could further prove to be essential, as the entrepreneur might be able to apply the knowledge to different resources available to them and later give the entrepreneur a competitive advantage and superior performance. Venter and Urban (2008) further argue that an entrepreneur’s knowledge is a consequence of previous work experience, education, and advice from experts in their particular field of interest or simply by imitating what others before them have done.

Barreira et al. (2011) further give a summary of prior knowledge important to the process of entrepreneurial discovery as prior knowledge of markets, prior knowledge of ways to serve markets and prior knowledge of customer problems.

Over the years, research has been conducted on the direct relationship between human capital and business growth. Human capital attributes such as knowledge, education and experience have long been considered as critical for firm growth (Unger, Frese & Rosenbusch, 2011). Some researchers have also argued that human capital is likely to play a much bigger role in the future of a firm because of the increasing demand of knowledge-intensive activities of most jobs. As a result, this study dealt with hypotheses derived from the literature to test whether a statistically significant relationship between the theoretical constructs of human capital in relation to firm growth does exists. The hypotheses focused on the constructs that are directly related to SMMEs growth. Therefore, the first research question is: to what extent does business knowledge lead to firm growth?

2.5.3. Human Capital-Education

Education and training are the most valuable investments in human capital that can positively influence self-efficacy. In modern economies, there are many challenges facing entrepreneurs so much so that there is a need for them to be well prepared before they embark on entrepreneurial activity. Entrepreneurship is risky, mainly because only few entrepreneurs are prepared enough to know exactly what to expect.

Research has proven that entrepreneurs possess skills, many of which are within them. They can easily uncover certain hidden traits and develop them sufficiently to become successful entrepreneurs (Boren, 2010). Drucker (2014) believes that entrepreneurship is nothing more than a discipline, but a discipline that an individual can learn.

Barreira et al. (2011) argue that education mainly provides an individual with the knowledge base, the analytical ability and the problem-solving skills necessary to deal effectively with the demands of entrepreneurship. The human capital theory regards education as fundamental to high growth entrepreneurs because it equips them with the ability to recognise opportunities that others may not see and pursue (Venter et al. 2008).

According to Olaniyan and Okemakinde (2008), the most valuable of all capital is that invested in human beings. Olaniyan and Okeminde (2008) further assert that economists regard education as both a consumer and a capital good because it offers utility to a consumer and serves as an input into the production of other goods and services. Furthermore, it is widely acknowledged that it plays a major role in creating an improved citizenry as well as upgrading the standard of living.

Minnity, Bygrave and Autio (2005) estimated that entrepreneurs who have acquired a secondary level education account for 30% of start-ups. Furthermore, Minniti et al. (2005) insist that the level of education has a significant impact on entrepreneurial behaviour. Over the past three decades, education has emerged as arguably the most potent force for economic development throughout the world.

The economic development of nations and of collegiate business programmes has substantially shifted toward entrepreneurship for economic growth and employment creation. GEM (2008) maintains that there is a wide agreement on the importance of

entrepreneurship for economic development and that education is the force for entrepreneurial success. Hansamark (2008) states that traditional education is a transformation of knowledge and abilities, while entrepreneurship education, in contrast, is the model for changing attitudes and motives. The important role played by education in entrepreneurial activity is critical. Extant literature confirms the important links between education, venture creation and entrepreneurial performance and also entrepreneurial education and entrepreneurial activity (Raposo & do Paco, 2011).

Education provides the knowledge foundation to enable an entrepreneur to become analytical and gain problem-solving skills in order to deal with the demands of entrepreneurship. In addition, most previous studies found that there is a positive relationship between educational qualifications and business success. Smallbone and Wyer (2000) maintain that education affects the entrepreneur's motivation.

For a long time now, literature has been maintaining that the most reliable indicator to evaluate the results of entrepreneurship education is the rate of new business creation. In spite of this claim, some studies insist that the results of educational programmes cannot be immediately realised to confirm their effectiveness. Raposo and do Paco (2011) state that there are many researchers who conclude that it is necessary to carry out longitudinal studies.

Many scholars are still trying to understand the precursors of venture creation. Although the world is full of evidence of entrepreneurs who became successful without formal education, however, many scholars still insist that there is a positive relationship between higher education and the growth of business. The general belief that a strong human capital will lead to a higher propensity to become successful as opposed to failure has verily been tested by scholars such as Reynolds, Bygrave, Autio et al., (2003).

The findings by Toole and Czarnitzki (2009) testify that educated entrepreneurs bring valuable and heterogeneous human capital to their new ventures. Specialised human capital should match the tasks within the firm. Moog (2002) states that an entrepreneur invests in human capital to increase productivity by critically looking into the future with a view that the venture should bring a higher income return than ventures owned by less educated entrepreneurs.

In confirming the theory that suggests that individual investments in human capital lead to increased start-up success, especially university education, Moog (2002) surveyed 17 800 founders of start-ups in Germany between 1992 and 1998. According to the study's findings, the better educated a founder; the greater is his interest to create employment. Following on this assertion, Moog (200) maintains that as a result, educated founders will employ highly qualified individuals knowing that it is highly likely that they will bring skills necessary to increase profitability and success of the business.

The study further indicates that educated founders start their ventures by injecting more capital, especially equity capital. As the findings further illustrate, better-educated founders do not enter a saturated or even overtraded market because they understand the disadvantages that such markets bring. In fact, they start their ventures in niches where quality and innovation of services are required. Moog (2002) concludes by reporting that in terms of the study, German founders with an education and experience become successful and easily create jobs.

Although human capital scholars continue to support the existence of the relationship between the educational level of the founder and entrepreneurial performance (Cooper & Gimeno-Gascon 1994; Unger et al., 2011), other scholars argue that this could only be possible only if education and/or work experience (human capital investments) have a relationship with knowledge and skills (human capital investments).

A contrary view by a South African study on the impact of education on entrepreneurship conducted by Urban and Barreira (2007), confirmed that there is the probability of engaging in entrepreneurial activities after entrepreneurial training and education. Essentially, this is a reflection of the strength of education in stimulating entrepreneurial growth.

Education is one of the most examined components of human capital. Lanzi (2007) asserts that education has become one of the key elements through which public policies for economic and human development can be assessed and analysed. Formal education, in particular, provides the necessary skills to conceptualise and scan the environment. In addition, empirical evidence suggests that education is positively associated with favourable outcomes such as higher earnings and productivity

(Ucbasaran, Westhead & Wright, 2008; Becker, 1975; Davidsson & Honig, 2003). Formal education is especially providing the requisite cognitive skills to adapt to environmental changes.

Education is consistently seen as a source of knowledge, skills, discipline, motivation, and self-confidence (Wright et al., 2008). Some studies have gone further to argue that highly educated individuals are more likely to form new firms, whilst other studies show an inverse relationship between educational attainment and firm formation. There is an on-going debate around the returns to entrepreneurship resulting from being educated. Therefore, the second research question is; to what extent does education lead to firm growth?

2.5.4. Human Capital-Work Experience

Arrow (1962) advanced the hypothesis that technical change in general is attributable to experience, and that it stands out as the activity of production, which lead to problems for which favourable choices were selected over time. Experience is the human capital investment accumulated through learning-by-doing (Unger et al., 2011). According to Ployhart and Moliterno (2011, p. 134), “Experience is a multifaceted construct that reflects an opportunity to learn and transfer knowledge from generic to job and firm specific.” According to this view, in organisations, employees mostly tend to improve productivity by learning new skills or knowledge while they are on the job (Becker, 1962; 1964).

A meta-analysis, which constituted a sample of 82 respondents, by Sturman (2003) showed that work experience was positively linked to performance. Accordingly, the effect of performance rated highest at task level followed by job level and organisational level. In addition, the study found that job experience was a better predictor of performance as opposed to organisational tenure. Based on the analysis, it shows that the best predictor for performance is the time that people spend at their current task or job rather than their organisation.

Sturman (2003) further asserts that within the context of a job, experience entails the accumulation of job specific knowledge from action, practice, and perception of the

tasks and duties associated with a specific job. Although it can be said that much of this analysis is based on perceptions and practice, Sturman (2003, p. 613) argues, “Experience is inherently tied to time whose passage allows for the accumulation of the job-related knowledge.”

Although most research suggests that terms such as job tenure, work experience, organisational tenure, and seniority can be used interchangeably, an in-depth analysis of the variables suggest that they vary by level of specification (task, job, work-group, organisation) and measurement (amount, time, type, density). Nevertheless, many researchers concur on the relationship between job experience and performance.

Chawla, Khanna, and Chen (2010) testify that the entrepreneur’s prior experience and knowledge are the direct results of the firm’s performance. Often, new founders are faced with enormous challenges associated with securing and controlling the resources needed to start their ventures (Smith & Lorke, 2008). This is due to the ‘liability of newness’ as the founder has a limited track record and lacks legitimacy, creating difficulties in gaining the support needed from resource providers.

As a result, prior experience of the founder can mitigate the problems associated with the ‘liability of newness.’ Human capital theory posits that employees make investments of experience in themselves, which increases their ability and influence on job performance (Ehrenberg & Smith, 2000). In other words, the investment made to ensure that an individual spends as much time or longer performing the same task, or being with the same organisation over time, the more experience he or she gains.

The learning theory suggests that work experience increases job ability. In other words, the more an individual spends time on a specific task, the more he or she enhances their ability to perform that specific task. Because work experience leads to the accumulation of relevant knowledge, skills, and abilities, therefore performance should improve. Supporting this perspective, models of performance posit that work experience has a positive effect on work performance.

Schmidt et al. (1986) demonstrated that work experience influences work knowledge and task proficiency, which leads to a positive effect on work experience. Extant literature in entrepreneurship also emphasises the impact of previous professional and

personal experience on venture management as key to the performance and growth of the venture (Morris, Kuratko, & Schindehutte, 2012).

The scholars argue that the entrepreneur starts the venture already with a cumulative stock of prior experience. Entrepreneurial experience adds to specific human capital by providing direct learning and episodic knowledge about the entrepreneurial process (Urban et al., 2011). Davidsson and Honig (2003) state that human capital cannot be associated only with formal education, but should include experience and practical learning that takes place on the job, as well as non-formal education, such as specific training courses that are not part of the traditional formal education structures.

Although some scholars question work experience as vital to starting a business, there is also more studies showing that labour market experience, management experience, and previous entrepreneurial experience relate to entrepreneurial activity. Similarly, Venter et al. (2008) argue that work experience is imperative in the entrepreneurial domain. Their view is that work experience in particular, gives an entrepreneur insight into operational activities that generally take place on a daily basis, such as generating sales, developing market avenues and tactics. These activities are critical and likely to give the entrepreneur a head start, which is critical in dealing with the challenges that come with starting a business.

According to Morris et al. (2006), entrepreneurship scholars have in five ways used the term ‘experience’. One: The outcome of involvement in previous entrepreneurial activities. Two: The experientially acquired knowledge and skills that result in entrepreneurial knowledge and practical wisdom. Three: The sum total of things that happened to a founder over his or her career. Four: The collective set of events that constitute the entrepreneurial process. Five: The direct observation of a participation in activities associated within an entrepreneurial context.

Out of all the five ways, the most common usage is to describe prior knowledge and skills gained either in business or when creating ventures. Many researchers emphasise the role of prior experience as a factor in explaining self-efficacy, entrepreneurial intentions, information processing, business practices, learning from failure, habitual entrepreneurs, and metacognition in decision-making (Morris et al., 2006).

In their study, Unger, Rauch, Frese and Rosenbusch (2011) also argue that most entrepreneurs interviewed had some significant years of previous experience in their respective business before becoming entrepreneurs themselves. Again, the study found that on average, most entrepreneurs have accumulated 5.69 years of prior industry experience and 7.51 years of entrepreneurial experience while only 25%have experience, due to formal training such as university or college specialised entrepreneurial education.

Looking at the study cited above, the result is that these entrepreneurs have accumulated their skills and knowledge through prior industry experience and entrepreneurial experience rather than through formal training (management or technical). According to Shane and Khurana (2003), experience facilitates the procurement of the necessary resources needed and the legitimacy to motivate for the allocation of resources at the appropriate time.

Entrepreneurship literature views work experience as a key indicator of general human capital. According to Davidsson and Honig (2003), work experience can assist in the integration and accumulation of new knowledge and further enable individuals to adapt easily to new situations and become more productive. It is also positively associated with the ability to become self-employed and create new ventures. The third research question is; to what extent does work experience stimulate firm growth?

Table 3: The research questions

1. To what extent does business knowledge lead to firm growth?
2. To what extent does education lead to firm growth?
3. To what extent does work experience lead to firm growth?

2.6. Conceptual Framework

The conceptual framework of this study derives from the basic assumption that entrepreneurial performance is the results of the human capital possessed by individuals or owners of firms. To conduct a comprehensive assessment, the study used human capital theory to formulate hypotheses aimed at testing the positive

relationship between human capital variables (knowledge, education and work experience) with SMMEs growth.

In order to analyse this line of enquiry, Becker (1964), who identified human capital elements vital for firm growth, guided the study. Becker (1964) theorised that knowledge and skills are the results of investments in education and work experience. A distinctive characteristic of human capital is the division between human capital investments versus human capital outcomes.

It is common knowledge that most studies have used education and work experience to investigate human capital (Marvel, Davis & Sproul, 2014).The study also included contributions from leading entrepreneurship journals whose theoretical perspective of human capital is key to research. The study argued that if these variables contribute significantly to small firm growth, therefore more emphasis should be made to encourage owners and managers of SMMEs to acquire one or all them before starting their own ventures.

Since early research emphasised that human capital is measured in terms of knowledge, skills, and behaviour that prove valuable to a particular firm, Becker (1964) argue that higher order constructs including general and specific human capital also increase entrepreneurial performance. Colombo and Grilli (2010), citing the competence-based view, argue that individuals with higher human capital establish more successful firms, further highlighting that there is direct positive correlation of founders and firm growth.

Thus, individuals with higher levels of education, greater work experience, especially in the same sector as the new firm, that is, industry-specific human capital and higher entrepreneur-specific human capital developed either through previously having occupied managerial positions are likely to make sound judgement and offer specialised knowledge that others do not possess. In other words, such individuals stand a better chance to maximise on opportunities that others overlooked for the betterment of their investment (Colombo & Grilli, 2010).

Based on the literature reviewed, the conceptual framework is as follows:

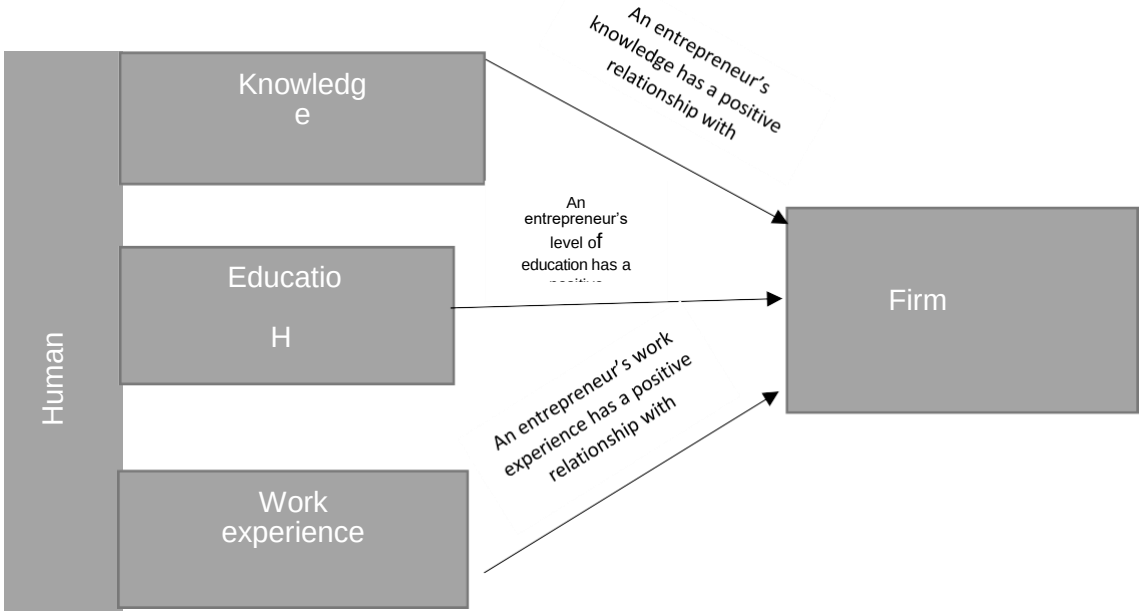


Figure 3: Conceptual Framework of the study.

Source: Own (Adapted from Marimuthu, Arokiasamy & Ismail (2009)

The conceptual framework in Figure 3 was used to formulate the hypotheses of the study, which looked at the relationship between human capital and growth. The respondents were asked questions aimed at measuring their perceived level of importance regarding knowledge, education and work experience represented by different items.

Table 4: Conceptual Framework Items/Variables for Human Capital Factors

Conceptual Framework Items
Knowledge Items
1: Entrepreneur's managerial knowledge and the ability to demonstrate sound business knowledge
2: Entrepreneur's ability to read and interpret financial statements (ability to perform financial analysis)
3: Entrepreneur's knowledge on how to access finance
4: Entrepreneur's knowledge about market analysis (SWOT)
5: Entrepreneur's ability to manage and control business costs
6: Entrepreneur's ability to set organisational targets and objectives
7: Entrepreneur's ability to demonstrate knowledge and benefit offered by his or her product/service
8: Entrepreneur's previous experience in a managerial role.

Education Items
1: Entrepreneur’s formal education
2: Entrepreneur’s ability to write a comprehensive business plan
3: Entrepreneur’s confidence in managing the business
4: Entrepreneur’s ability to scan the marketing environment
Work Experience Items
1: Entrepreneur’s managerial expertise
2: Entrepreneur’s general business skills
3: A track record of running previous businesses
4: Entrepreneur’s previous work experience
5: Entrepreneur’s ability to network
6: Entrepreneur’s ability to manage risk

2.7. Conclusion of Literature Review

Based on the literature review, various definitions were identified and applied to the study. Human capital was defined as involving the knowledge and skills acquired by individuals through their investment in education, on-the-job training, and other experiential exposure (Urban et al., 2011). Many studies still consider the concept of human capital a*s* essential to entrepreneurial success, the nation’s economic growth and development (Rogerson, 2008). Furthermore, literature has shown that human capital provides a basic justification for large public expenditure and is receiving increased attention from policy makers, both in developing and developed nations (Le, Gibson & Oxley, 2005).

Evidence from the literature further suggests a systematic relationship between human capital and the desire by an individual to start a business and the possibility for the

business to survive and grow. The educational background of individuals influences both their chances in the regular labour market and their potential to start a business (Urban et al., 2009). Evidently, once most entrepreneurs become involved in the entrepreneurial process, they accumulate superior capabilities resulting from education, knowledge, skills and prior experience and successfully grow their businesses.

Nevertheless, the role of human capital is not universally acknowledged as the primary reason for entrepreneurial success. Researchers such as Rosa-Puig et al., (2012) maintain that it is not only the human capital of the entrepreneur that increases the performance and growth of the firm, but also the intention and vision exhibited by the entrepreneur.

In this study, the variables selected were entrepreneur's knowledge, entrepreneur's education and entrepreneur's work experience. Based on these variables, three hypotheses were derived for testing.

H1. An entrepreneur's knowledge has a positive relationship with firm growth.

H2. An entrepreneur's level of education has a positive relationship firm growth.

H3. An entrepreneur's prior work experience has a positive relation with firm growth.

CHAPTER 3. RESEARCH METHODOLOGY

This chapter looks at the research methodology used, the choice of the sample population and size, the research instrument, the data gathering process and the statistical method used in order to test the hypotheses and successfully meet the objective of the study.

3.1. Research Paradigm

In social research, the term “paradigm” refers to the philosophical assumptions or to the basic set of beliefs that guide the actions and define the worldview of the research (Lincoln, 2011, Kaushik & Walsh, 2019). Several paradigms or worldviews structure and organise modern social work research (e.g. post positivism, constructivism, participatory action frameworks, or pragmatism).

The term paradigm is used to discuss the shared generalisations, beliefs, and values of community of specialists regarding the nature of reality and knowledge that they have acquired overtime (Kuhn, 1970). In other words, paradigm seeks to curve the trajectory that allows a measure of performance while satisfying the basic set of requirements to arrive at a logical conclusion.

This study has adopted a post positivist approach, which looks at a series of logically related steps and make claims of knowledge based on objectivity, standardisation, deductive reasoning, and control within the research process (Cresswell 2013; Cresswell & Clark 2011; Lanham, 2006). Post positivism argue that theories, hypotheses, background, knowledge, and values of the research influences what is observed. The advantage of this approach is its objectivity when analysing and interpreting data. In particular, the deductive logical reasoning adopted allows the use of current rules, assumptions, findings and theories to reach a conclusion and also allows data to be generalised (Creswell, 2013).

3.2. Research Design

Cooper and Schindler (2011) define research design as the plan and structure of an inquiry aimed to obtain answers to the research question. In essence, research design aims to highlight the procedure to be followed, what is to be done and how it will be

done. It is a programme of action, which outlines how the researcher conceived hypotheses and their operational implications to the final analysis of data (Cooper & Schindler, 2011).

The study used a quantitative, cross-sectional and non-experiential design and relied mainly on numbers for reporting results, sampling and provisions of estimated instruments, reliability and validity. According to Field (2009), surveys are the most used methods for quantitative studies. Some advantages include enabling the researcher to collect data within the shortest period possible. Research is deemed to be of good quality if it has internal validity, external validity, reliability and objectivity (Rehman & Alharti, 2016; Guba & Lincoln, 1994).

When collecting data, there are ethical issues that must be taken into considerations. In this study, the researcher ensured that data was collected in an ethical manner by obtaining respondents consent and being courteous so that the respondents should not feel obligated to participate. The researcher clarified the significance of the study in relation to the SMME sector. Lastly, the researcher made sure that the respondents understood what was needed to be achieved from the study. More importantly, respondents were assured that information gathered would be kept confidential and that, it was specifically intended for the study. A letter confirming the credentials of the researcher from the university was handed to the respondents for confirmation.

3.3. Population

The target population for this study comprised firms (SMMEs) operating in the Johannesburg inner city that had been operating for a period of one to five years and employed between one and fifty employees with a turnover between R500 000 to R5 Million per annum.

3.3.1. Sample and Sampling Method

A volunteer sampling approach was used to gather data from the respondents. This approach is used when a researcher approaches volunteers to participate in the undertaken study. Although this approach is a convenient and quick way of sampling, the disadvantage is that basing a study on a group of volunteers does not lead to conclusive evidence that everybody who participated is representative of a wide

population from which the researcher would like to make generalisations on (Trochim, 2016).

The sample size was identified from registered lists of businesses operating in the Johannesburg inner city. The City of Johannesburg (COJ) and Gauteng Enterprise Propeller (GEP) provided these lists. The City of Johannesburg provided a list of 80 businesses who had recently attended a workshop and Gauteng Enterprise Propeller provided a list of 220 businesses. The 220 businesses selected was the number of businesses that the Agency was prepared to share with the researcher as the owners had signed a consent to have their information shared. However, despite the consent from the entrepreneurs, in presenting the findings, the researcher ensured the respondents were not identified. Through anonymisation, researchers seek to protect research participants from the accidental breaking of confidentiality (Brown & Quigley, 2012).

The total handed to the researcher comprised of 300 businesses and only 120 responded. This number should not be interpreted as the population of SMMEs operating in the Johannesburg inner city, as no statistical number was available to confirm exact population. 120 wide range of businesses were then sampled, as they were typical businesses prevalent in the SMME sector. Based on eligibility criteria and suitability of respondents, and therefore, 120 responses were generated as the final sample.

Although the sample was small, it however offered considerable heterogeneity with regard to the relevant variables under investigation. The respondents qualified in terms of the definition of an SMME. As a result, the researcher was satisfied that the sample provided a reasonably adequate test bed in relation to the theoretical hypotheses of the study.

3.4. The Research Instrument

Greenberger and Sexton (1988) noted that valid test instruments are available to measure some of the factors, but for others, some instruments must first be developed and validated.To carry out research for this quantitative study, a questionnaire was developed, taking into account extant literature on the constructs of the study. Two distinct sections were designed to get information regarding the demographic details

of the entrepreneurs and to get responses through 5-item Likert's scale for 11 question items against all variables.

A structured questionnaire was used to gather data from the respondents, which consisted of section A and section B. Section A consisted of the firm information and demographic profiles of the respondents. In this section, the demographic variables analysed were gender, age, race and education of the respondents. Company turnover and number of employees represented growth. Section B consisted of the three variables of human capital namely, knowledge, education and work experience.

Section A: Firm Information and Demographics of respondents

This section measured population demographics such as, gender, age, race, education (1-4) and firm information, which consisted of firm's legal entity, age of business, number of employees, company turnover per annum, and where the respondent learnt the skills to run a business.

1. Gender: Split into male and female
2. Age of the founder or managing member: Ranges from 21 to 60 and above years
3. Race: involved Black, White, Coloured, Indians and other
4. Education: ranged from NQF 1-3, Grade 12/NQF 4, Higher certificate, Diploma/Advanced certificate, Bachelor's Degree, Advanced Diploma, Honours Degree/Postgraduate Diploma, Master's Degree, Doctoral Degree
5. Business sector: Manufacturing, Retailer, Wholesaler, Services and other
6. Main area of business: Food products, Catering, Textile, Computers/ Office Equipment, Printing and Publishing, and other
7. Firm's legal entity: Sole Proprietor, Close Corporation, Private Company, Partnership
8. Age of business: ranges from 0-1, 1-3, 3-5 and 5+
9. Number of employees: start from 1-3, 3-5 and 5+
10. Company turnover per annum: R 500 000-R 1M, R 1M-R 2M, R 2M-R 3M, R 3M-R 5M, R 5M+

11. Where the respondent learned the skills to run a business: Self-taught (1), Family (2), On-the-job training (3), previous work experience (4), Training programmes (5), Mentor (6) and University/College (7).

Section B: Human Capital Related Questions

This section outlines the human capital constructs namely, knowledge, education and work experience. Knowledge consists of eight questions, which listed a number of different knowledge areas. The participants were required to assess the importance of each by responding on a 5-point dimension, ranging from one (Not at all important) to five (Very important). Education consists of four questions concerning the importance of aspects of education. The same 5-point response dimension as above was used. Work experience consists of six questions relating to different types of work experience. The importance of these were again measured on the 5-point dimension.

3.5. Procedure for data collection

In this study, the researcher was assisted by two unemployed youths for distribution of the questionnaires to the business addresses provided. The procedure followed was in the form of hand delivery of questionnaires to the respondents' premises. However, this approach carried with it a greater risk of bias, which if not carefully scrutinised and examined can somewhat distort the results of the study in that the respondents have contact with the researcher (Schindler & Cooper, 2011). The advantages are cost-efficient, allow for quick response time and easy administration for the researcher.

Research leads to the formulation of theories, and as a result, it is critical that there is available data to test the theories. Therefore, the process of data collection and analysis and generating theories are intrinsically linked. Theories lead to data collection and data analysis informs theories (Field, 2013).

3.6. Data analysis and interpretation

The previous section discussed all structural and fundamental methodological components relevant to the present study. The current section examines the approaches used in dealing with the data that was captured for this study. The data was accessed from the research questionnaires that were distributed with the intention

to identify, investigate, analyse and explain determinants that influence the growth of small and medium enterprises in the Johannesburg inner city.

The current section begins by discussing the framework that was used for analysing and interpreting the data before describing the characteristics of the research participants. This is then followed by an analysis of the results obtained on the participants of this study. Subsequent sections focused on correlation and regression analysis, and were intended to test the existence of the relationships between each of the factors and demographical information. Most of the results in the subsequent chapter are presented either through a tabular arrangement or in a diagrammatic format.

3.6.1. Data Screening

The researcher used SPSS software to analyse the data. To ensure accuracy, the questionnaires were screened to eliminate those that were incomplete, as well as those in which the same answers appeared throughout, which indicated that some of the respondents could not read the questions. This procedure was immediately followed up with the capturing of the data on a Microsoft Excel computer package. The Excel document was then imported into the IBM SPSS Statistics Version 25 where it was coded in preparation for data analysis. The data analysis involved several rigorous statistical tests such as reliability tests, correlation analysis, and regression analysis, and mean score ranking**.** A comprehensive diagrammatic representation of the research path adopted for data analysis is also provided in the next section.

3.6.2. Descriptive Statistics

Data was summarised and presented by using descriptive statistics. Tables, charts, graphs and percentages were used in the presentation of findings. The mean, standard deviation, minimum and maximum values for all scaled questions was computed and used in the explanation of the findings. According to Zikmund et al. (2013, p.54) “descriptive statistics are techniques that help to state the characteristics or appearance of sample data.” Frequency tables and the mean score ranking technique are the major descriptive statistics employed in this study.

Frequency distributions, such as percentages, graphs, line charts, pie charts, histograms and bar charts were utilised to display research findings. Frequency distributions are used to depict absolute and relative magnitudes, differences, proportions and trends (Zikmund, Babin, Carr, & Griffin, 2013). These methods use both horizontal and vertical bars to examine different elements of a given variable (Malhotra, 2011, p. 84). The use of frequency distributions facilitated the assessment of gender, age of the founder or managing member, race, education, number of employees and so forth.

3.6.3. Correlational Analysis

The purpose of correlation analysis is to quantify the association between variables, and it assumes a linear relationship between the variables, which could be related either positively, not related at all or negatively related (Field, 2009). In this study, the first step that was undertaken was to run the analysis on the new computed factors variables. Finally, firm growth (dependent variable) was computed, and correlation analysis was run.

3.7. Validity and Reliability of research

In this study, there was only 120 participants for 18 items. Most of factor analysis literature has numerous recommendations for sample size and often with varied rules of thumb and confusion on exact acceptable numbers (Schmitt, 2011). The normal procedure recommended for checking construct validity is to use exploratory and/or confirmatory factor analyses. Field (2013) recommends that there must be a minimum of 10 participants per item. Due to the small number of participants in this study, it became evident that the results were likely to be unstable. The researcher decided not to conduct factor analysis and therefore relied on internal consistency (Cronbach's alpha).

Validity and reliability are matters of concern in any research setting. In this study, careful consideration was exercised in ensuring that standardised data collection instruments were administered. During data collection and analysis, care was also taken in eliminating errors in the information gathered, and it was further ensured that

there are adequate data verification procedures for corroborating answers received in survey responses.

3.7.1. External validity

According to the classical definition by Campbell and Cook (1979, p.17), “external validity is the inference of causal relationships that can be generalised to different measures, persons, settings, and times.” In this instance, the respondents to the questionnaire were owners and managers of SMMEs operating in the Johannesburg inner city. Therefore, the generalisability of this study and its findings were strictly confined to SMMEs based in the Johannesburg inner city.

3.7.2. Internal validity

Campbell and Stanley (1966, p.71) posit that “internal validity is when a researcher controls all extraneous variables and the only variable influencing the results of a study is the one being manipulated by the researcher.” In other words, the purpose of internal validity is to ascertain that the study is free from bias or confounding data.

3.7.3. Reliability

Reliability means that a measure should consistently reflect the construct that it is measuring. In other words, a researcher should find the same score on a questionnaire whether completed at two different points in time (Field, 2009). It is the ability of the measure to produce the same results under the same conditions. A number of researchers argue that although reliability is necessary, however it is not a sufficient component of the validity of an instrument (Hoti et al. 2007; Ritter, 2010; Tavakol & Dennick, 2011).

In this study, the researcher attempted to ensure that reliability is effectively maximised by only measuring specific items related to the human capital variables (knowledge, education and work experience). In this study, the researcher analysed the internal consistency and reliability of the main constructs using Cronbach’s Alpha at a cut-off point of 0.3 as recommended by Mentzer and Flint (2007, p.199).

This study used established scales to measure relevant constructs. The scales were based on previous studies, which were also supported by empirical studies. A

questionnaire containing the scales and including some demographic questions was developed. The researcher analysed the internal consistency and reliability of the main constructs using Cronbach's alpha. The respondents were managing members (directors), owners of the business or their managers.

3.8. Ethical Considerations

When collecting data, there are ethical issues that must be taken into considerations. In this study, the researcher ensured that data was collected in an ethical manner by obtaining respondents consent and being courteous so that the respondents should not feel obligated to participate. The researcher clarified the significance of the study in relation to the SMME sector. Lastly, the researcher made sure that the respondents understood what was needed to be achieved from the study. More importantly, respondents were assured that information gathered would be kept confidential and that, it was specifically intended for the study. A letter confirming the credentials of the researcher from the university was handed to the respondents for confirmation.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

The previous chapter presented the methodology followed. This chapter presents the results of the study. As highlighted in the research methodology section, data was collected through a questionnaire that was divided into two sections. Section A measured the demographic profile of the respondents and Section B consisted of a scale that measured human capital factors of the respondents. The scale consisted of three subscales, namely, Knowledge, Education and Work Experience. The demographical information was useful in determining and comparing patterns amongst different categories of the research participants. The results obtained for the demographic and firm information were presented using pie charts and bar charts.

4.2 Demographical profile and firm information of the respondents

Section A of the questionnaire elicited information pertaining to the demographic characteristics and firm information of respondents. This section addressed the following attributes pertaining to the respondents: Gender, Age, Race and Education. Each of these characteristics is now presented:

4.2.1 Gender

Percentages pertaining to the respondents' gender are illustrated in figure 5 below.

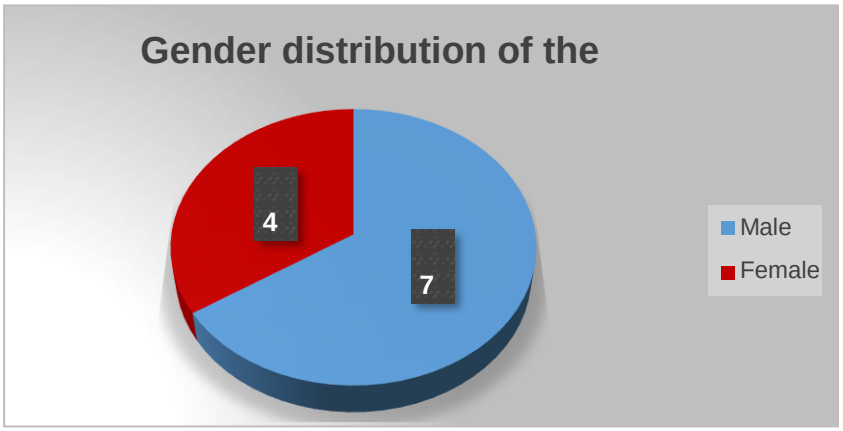


Figure 4: Gender of Respondents (N=120)

The questionnaire was addressed to owners and managers of SMMEs. It represents the number of male and female respondents. Based on figure 4, it is observed that male entrepreneurs are dominant at 66% with their female counterparts at 34% from a sample of 120 entrepreneurs.

4.2.2 Age

Regarding age, frequencies of the respondents were grouped as illustrated in figure 6 below.

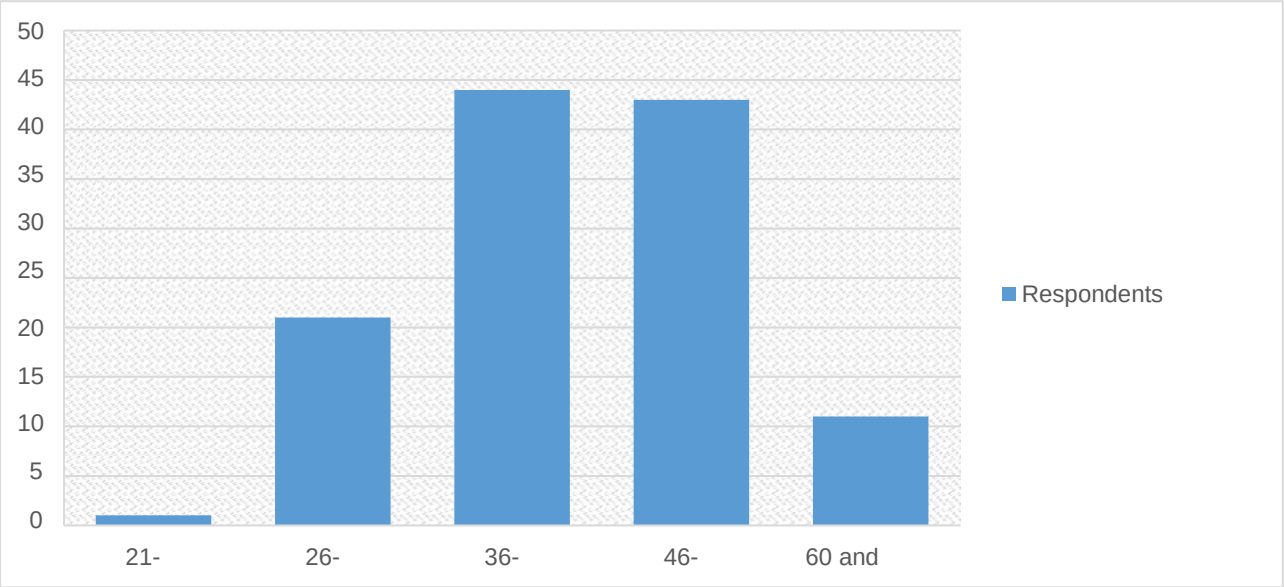


Figure 5: Frequencies of the age groups of respondents (N=120)

The age groups surveyed ranged from 21 years to 60 years and above. According to figure 5, the results show that 36.7% of entrepreneurs started their businesses at an age of between 36-45 years and 35.8% entrepreneurs started their businesses at an age between 46-60 years. The lowest group is between the ages of 21-25 years old at 0.8%.

4.2.3 Race

The percentages of the race groups are illustrated through figure 6 below.

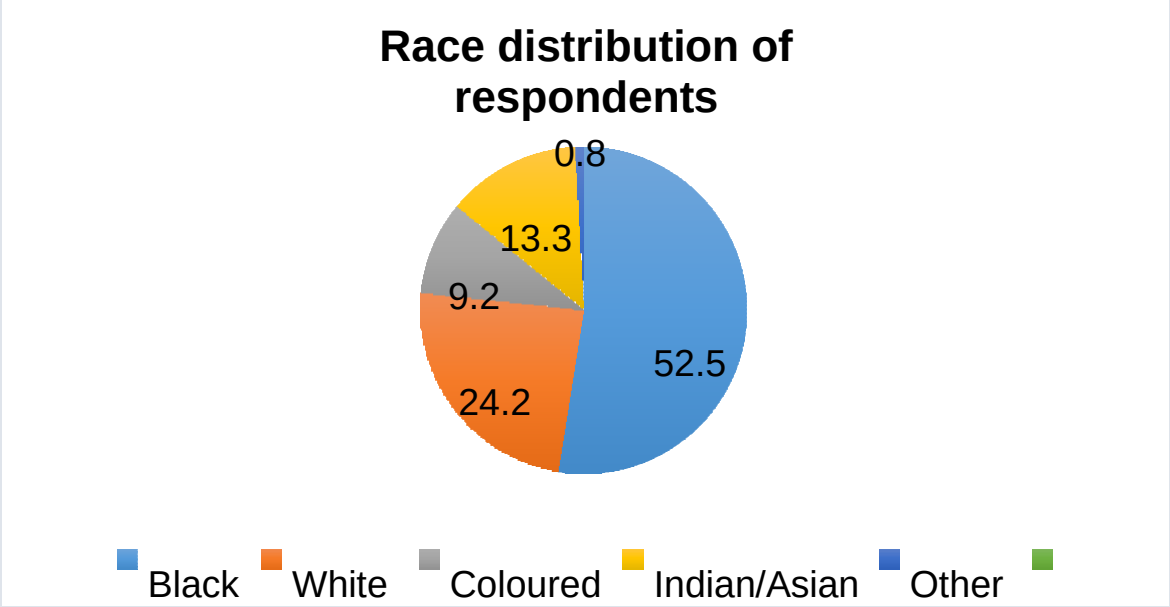


Figure 6: Percentages of the races of the respondents (N=120)

Figure 6 shows that the highest race group that owns businesses is Black at 52.5% followed by White at 24.2%. The lowest group comes from other races at 1% preceded by 9.2% of Coloured and Indian and Asians at 13%.

4.2.4 Education

The main problem of this study was to investigate the relationship between the human capital of SMMEs operating in the Johannesburg inner city and the growth of their firms. To achieve the objective of this study, three research questions were set and tested and the second question pertaining to education sought to establish the extent to which education lead to firm growth.

The educational attainment is represented by various levels of education with the highest being a master degree. The entrepreneurs were asked about the levels of their education to establish the role of education in their ventures.

Figure 8 below shows the percentages of the level of education among respondents.

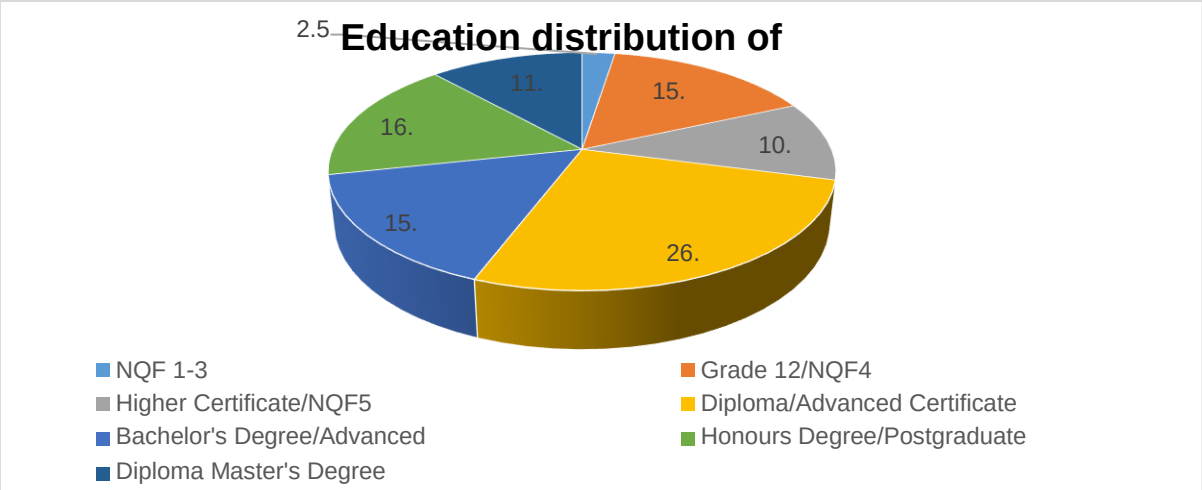


Figure 7: Percentages of the education of respondents (N=120)

The results show that there are fewer less educated entrepreneurs with only 3% of them holding NQF 1-3. The results further show that 27% of entrepreneurs had at least a diploma or an advanced certificate.

Table 5: Demographic detail of a sample respondents (N=120)

		Frequency	Percent (%)
Gender	Male	79	66
	Female	41	34
Age of the founder or Managing Member	21-25 years	1	0.8
	26-35 years	21	17.5
	36-45 years	44	36.7
	46-60 years	43	35.8
	60 years and above	11	9.2
Race	Black	63	52.5
	White	29	24.2
	Coloured	11	9.2
	Indian/Asian	16	13.3
	Other	1	0.8
	Total	120	100
Education	NQF 1-3	3	2.5
	Grade 12/NQF 4	19	15.8

	Higher Certificate/NQF 5	13	10.8
	Diploma/Advanced Certificate	32	26.7
	Bachelor's Degree/Advanced Diploma	19	15.8
	Honours Degree/Postgraduate Diploma	20	16.7
	Master's Degree	14	11.7

4.2.5 Business Sector

The Tables below represent business as elicited from the questionnaire.

Table 6: Type of sector

Type of Sector	Frequency	Percent (%)
Manufacturing	12	10
Wholesale and retail	33	27.5
Services/Consulting/IT	68	56.6
Construction	5	4.2
Financial	1	0.8
Mining	1	0.8
Total	120	100

Table 7: Main area of business

Main area of business	Frequency	Percent (%)
Food Products	10	8.3
Catering	12	10
Textile	15	12.5
Computers/Office Equipment	28	23.3
Printing and Publishing	13	10.8
Transport/Logistic	7	5.8
Finance	4	3.3
Hair dressing and skincare	3	2.5
Medicals	2	1.7
Chemical	2	1.7
Panel beating	1	0.8

Security	1	0.8
Hotel accommodation	2	1.7
Dry cleaning	1	0.8
Construction	4	3.3
Dry cleaning	1	0.8
Debt counselling	1	0.8
Insurance	2	1.7
Diesel Engineering	1	0.8
Investments	1	0.8
Electrical	1	0.8
Enterprise development	1	0.8
Manufacturing	1	0.8
Banking	1	0.8
Mining	1	0.8
Technology	1	0.8
Hospitality	1	0.8
Gardening	1	0.8
consumables	1	0.8
Total	120	100

Table 6 and Table 7 above show that 56.6% of the entrepreneurs operate within the services sector. This services sector was dominated by Computer/Office equipment at 23.3% followed by Printing and Publishing at 10.8%.

Table 8: Firm's legal entity

Firm's legal entity	Frequency	Percent (%)
Sole Proprietor	16	13.3
Close Corporation	49	40.8
Private Company	36	30
Partnership	19	15.8
Total	120	100

The firm's legal entity was dominated by Close Corporation at 41% as shown on Table 8 above. This is mostly companies that employ more than 10 employees. In addition, Private Company have a slightly higher frequency of 36 respondents, which constitutes 30% of the surveyed entrepreneurs.

Table 9: Age of business

Age of business	Frequency	Percent (%)
0-1 year	4	33
1-3 years	20	16.7
3-5 years	15	12.5
5+	81	67.5
Total	120	100

Table 9 above shows that the higher the Age of business, the higher the frequency and percentage. 67.5% of respondents have been operating for over five years and this is almost three quarters of the total frequency of respondents.

Table 10: Turnover

Company Turnover Per Annum	Frequency	Percent (%)
R500 000-R1 M	31	25.8
R1M-R2M	15	12.5
R2M-R3M	21	17.5
R3M-R5M	21	17.5
R5M+	32	26.7
Total	120	100

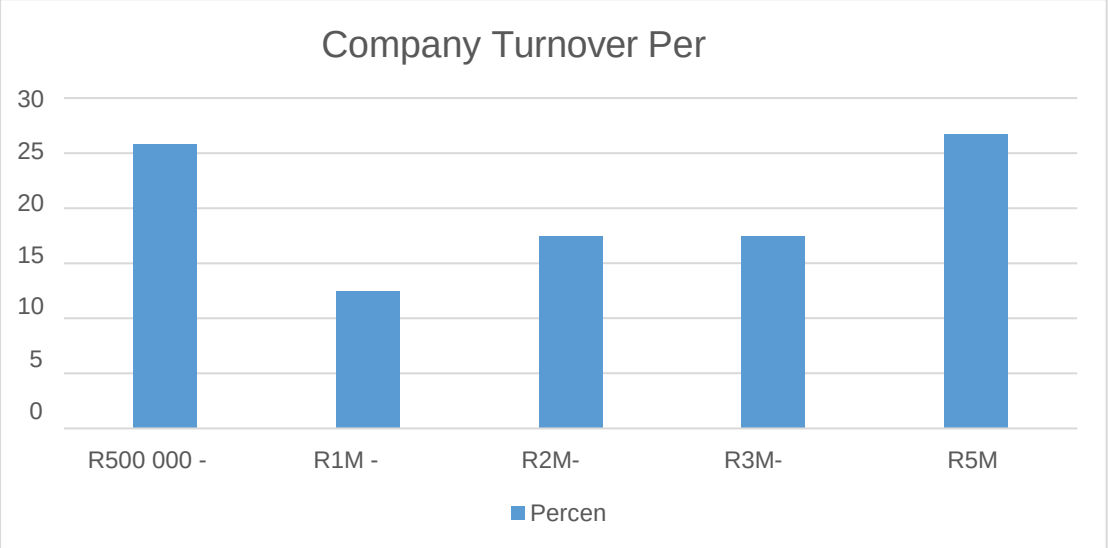


Figure 8: Turnover of companies of respondents

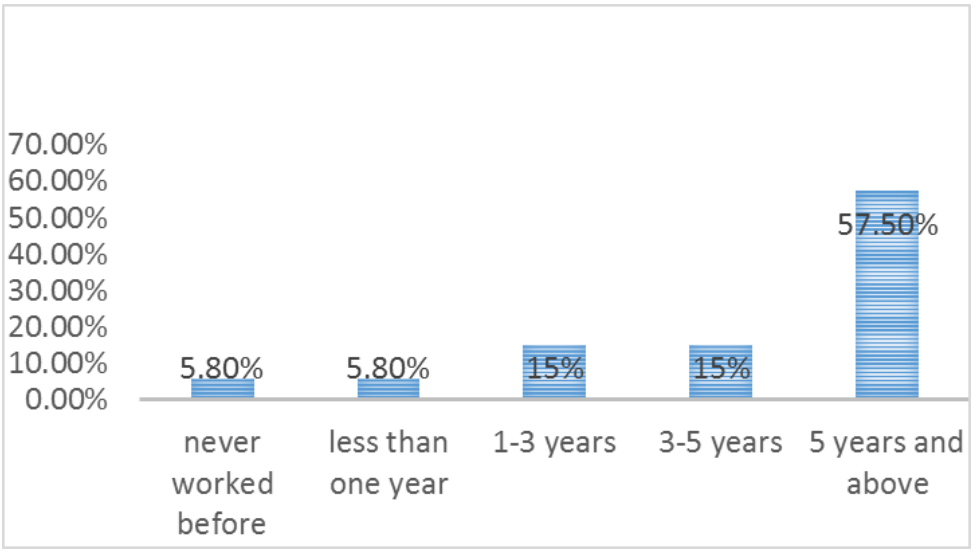


Figure 9: Number of years' experience before starting own business

Table 11: Number of years' experience before starting own business

	Frequency	Percent (%)
Never worked before	7	5.8
Less than 1 year	7	5.8
1-3 years	19	15.8
3-5 years	18	15
5 years and above	69	57.5
Total	**120**	**100**

Both Table 11 and Figure 9 above illustrate the number of years of experience an entrepreneur had before starting his or her own business. The majority of respondents at 57.5% had acquired significant work experience of five years and above before starting their own businesses. Table 10 also shows that 15.8% of respondents had been in business between 1-3 years followed by five years at 15%. Lastly, Table 10 shows that 5.8% had never worked before and those with less than 1-year work experience.

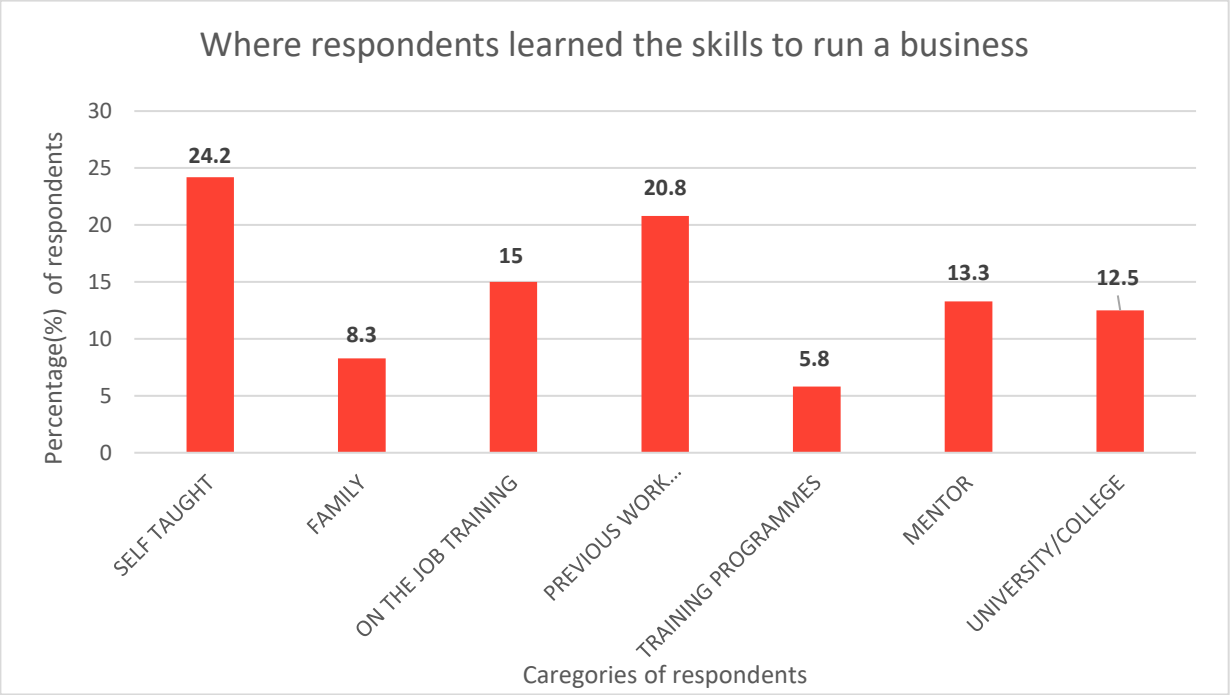


Figure 10: Where respondents learned the skills to run a business

Figure 10 shows that 24.2% of entrepreneurs say that they taught themselves the skills to run a business whereas 20.8% of the respondents say that they learned the skills through previous work experience.

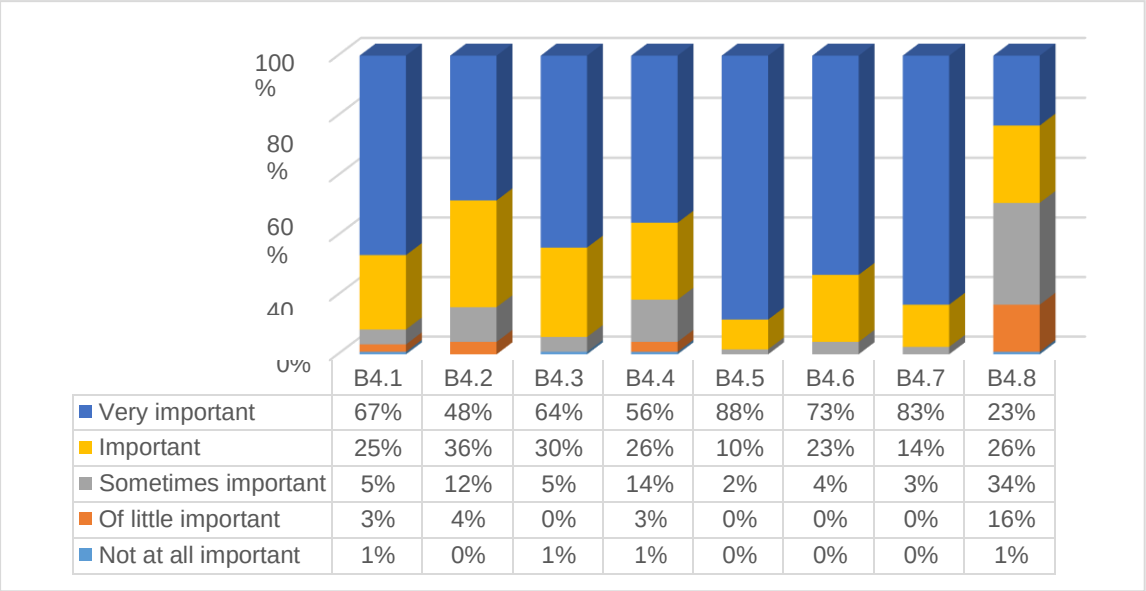
4.3 Descriptive Statistics Results

Table 12 below is a statistical summary of the responses. Descriptive statistics, namely frequencies and percentages were used to analyse the data. In the information presented in tabular form, the numbers 1, 2, 3, 4 and 5 represent not important, of little important, sometimes important, important and very important, respectively. The frequencies are presented both numerically and in percentages. The frequencies and percentages for all 18 items were placed in a rank order.

Table 12: Response (%) of items on business knowledge (N=120)

No of Items	Statement	Not at all important	Of little important	Sometimes important	Important	Very important	Total
B4.1	Entrepreneur's managerial knowledge and ability to demonstrate sound	1%	3%	5%	25%	67%	100%

	business practice						
B4.2	Entrepreneur's ability to read and interpret financial statements (ability to perform financial analysis)	0%	4%	12%	36%	48%	100%
B4.3	Entrepreneur's knowledge on how to access finance	1%	0%	5%	30%	64%	100%
B4.4	Entrepreneur's knowledge about market analysis (SWOT)	1%	3%	14%	26%	56%	100%
B4.5	Entrepreneur's ability to manage and control business costs	0%	0%	2%	10%	88%	100%
B4.6	An entrepreneur's ability to set organizational targets and objectives	0%	0%	4%	23%	73%	100%
B4.7	Entrepreneur's ability to demonstrate knowledge and benefit offered by his or her product/service	0%	0%	3%	14%	83%	100%
B4.8	Entrepreneur's previous experience in a managerial role	1%	16%	34%	26%	23%	100%



	B4.1	B4.2	B4.3	B4.4	B4.5	B4.6	B4.7	B4.8
Very important	67%	48%	64%	56%	88%	73%	83%	23%
Important	25%	36%	30%	26%	10%	23%	14%	26%
Sometimes important	5%	12%	5%	14%	2%	4%	3%	34%
Of little important	3%	4%	0%	3%	0%	0%	0%	16%
Not at all important	1%	0%	1%	1%	0%	0%	0%	1%

Figure 11: Response (%) of items on business knowledge (N=120)

Results in figure 11 show that the majority of entrepreneurs, overall about 67% and 25% think that an entrepreneur's managerial knowledge and ability to demonstrate sound business practice is very important and important respectively. Only 5% think that it is sometimes important with only a negligible number at 3% thinking that it is of little importance and 1% who think that it is not at all important.

48% and 36% perceive an entrepreneur's ability to read and interpret financial statements (ability to perform financial analysis) as very important and important while 36% and 4% say it is sometimes important and of little importance. 64% and 30% think that an entrepreneur's knowledge on how to access finance is very important and important with only 5% saying it is sometimes important.

An entrepreneur's knowledge about market analysis (SWOT) yielded 56% and 26% as very important and important. 14% and 3% think that it is sometimes important and of little importance. An entrepreneur's ability to manage and control business costs yielded 88% and 10% as both very important and important with only 2% thinking that it is sometimes important.

Regarding an entrepreneur's ability to set organisational targets and objectives, 73% and 23% think that it is very important and important as well and only 4% think that it is sometimes important with no one thinking that it is of little importance and not important at all. An entrepreneur's ability to demonstrate knowledge and benefit

offered by his or her product/service, 83% and 14% indicated that it was very important and important and only 3% is of the view that it is sometimes important.

Lastly, 23% and 26% of respondents think that an entrepreneur's previous experience in a managerial role is both very important and important too. 34% and 16% say it is sometimes important and of little importance also.

Table 13: Response (%) of items on education related (N =120)

No of Items	Statement	Not at all important	Of little important	Sometimes important	Important	Very important	Total
B5.1	Entrepreneur's formal education	4%	16%	24%	37%	19%	100%
B5.2	Entrepreneur's ability to write a comprehensive business plan	7%	27%	28%	16%	23%	100%
B5.3	Entrepreneur's confidence in managing the business	0%	0%	4%	31%	65%	100%
B5.4	Entrepreneur's ability to scan the marketing environment	0%	2%	12%	30%	57%	100%

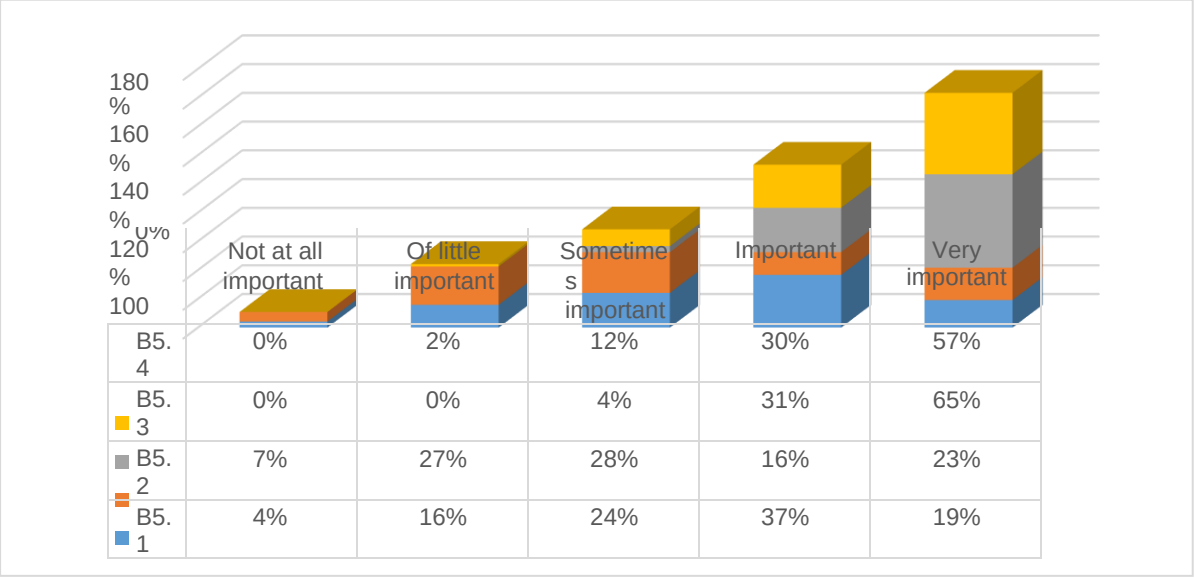


Figure 12: Response (%) of items on education related (N=120)

The responses in figure 12 above show that only 19% entrepreneurs think that an entrepreneur's formal education is very important for their business growth or performance. Quite a sizable number of 37% of entrepreneurs believe that even though it is not very important, it is however still important. 24% of respondents think that it is sometimes important with 16% and 4% of them who hold the view that it is of little importance and not important at all respectively.

An entrepreneur's ability to write a comprehensive business plan has yielded percentages that are almost close to each other which could well demonstrate the level of its perceived importance by entrepreneurs. 23% of respondents on this item think that it is very important and 16% of them think that it is important. 28% of the respondents think that it is sometimes important whilst 27% and 7% think that it was of little importance and not at all-important.

An entrepreneur's confidence in managing business was rated as very important at 65%, 31% also think that it was important. This simply means that even though it was not perceived as very important, it was however still a compelling requisite for business success. Only 4% believe that it sometimes important with no one having indicated that it is not important at all.

A significant number of entrepreneurs at 57% think that an entrepreneur's ability to scan the environment is very important followed by 30% who think that it is important. Only 12% think that it is sometimes important with only 2% of those who think that it is of little important.

Table 14: Response (%) of items on work experience (N =120)

No of Items	Statement	Not at all important	Of little important	Sometimes important	Important	Very important	Total
B6.1	Entrepreneur's managerial expertise	1%	8%	28%	28%	34%	100%
B6.2	Entrepreneur's general business skills	0%	1%	15%	42%	43%	100%
B6.3	Entrepreneur's track record of managing previous business	2%	8%	38%	28%	24%	100%
B6.4	Entrepreneur's previous work experience	3%	8%	19%	48%	23%	100%
B6.5	Entrepreneur's ability to network	0%	2%	2%	23%	73%	100%
B6.6	Entrepreneur's ability to manage risk	1%	2%	1%	22%	75%	100%

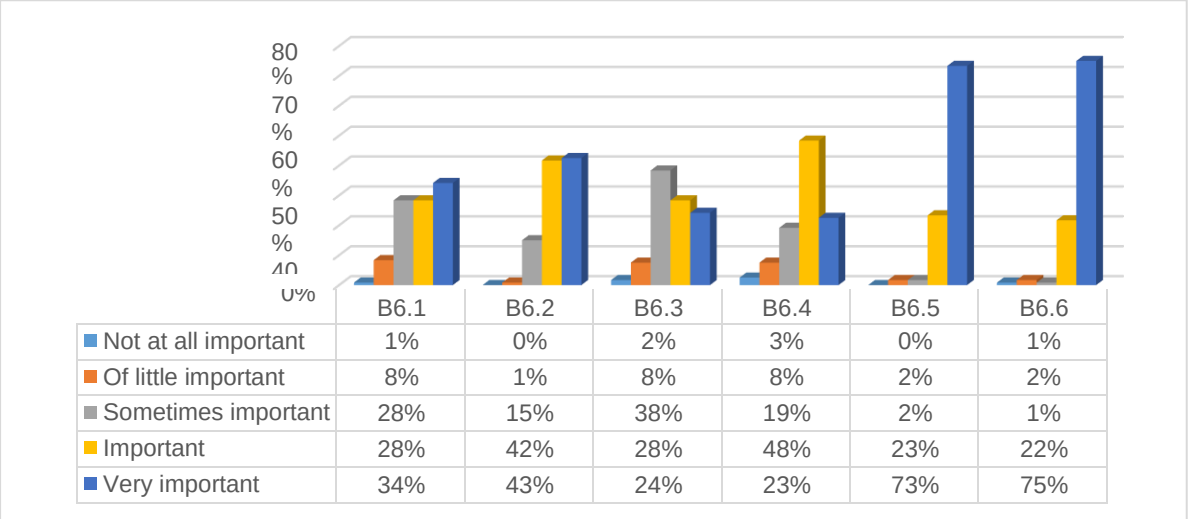


Figure 13: Response (%) of items on work experience (N=120)

Responses in Figure 13 above show diverse responses and an equal number of responses on other items. Firstly, 34% of entrepreneurs think that an entrepreneur's managerial expertise is not very important, with only 28% of those that think it is important, nonetheless. Interestingly, an equal number, at 28%, think that it is sometimes important. The above figure was followed by 8% of little importance and 1% as not important at all.

An entrepreneur's general business skills show an almost equal number of respondents who think that it is both very important at 43% and 42% of those who

think that it is important. 15% of respondents think that it is sometimes important and only 1% of them think that it is of little importance. No one among the respondents think that it is not important at all (0%).

The above item was followed by an entrepreneur's track record of managing previous business. Out of the total sample, only 24% think that it is very important, and 28% think that it is important. A slightly higher number of the respondents at 38% think that it is sometimes important. The remaining number of 8% and 2% think that this item is of little importance and not important at all.

An entrepreneur's previous work experience has also shown interesting responses. 23% think previous work experience is very important and 48% think that it is important. 48% is significantly high especially because other percentages are lower than 24% and the figure is slightly over half of the rest of the other responses. 19% think that it is sometimes important, and 8% and 3% of the respondents think that itis of little importance and not at all important.

A high number of entrepreneurs think that an entrepreneur's ability to network is very important (73%). 23% think that although it is very important or sometimes important, it is however important. Only 2% of the respondents think that it is of little importance.

Lastly, an entrepreneur's ability to manage risk has shown a high number with 75% of respondents who think that it is very important. Only 22% think that it is important followed by 2% and 1% of the respondents who think that it is of little importance and not important at all.

4.4 Construct Validity

In this study, the researcher started by conducting a Principal Component Analysis as shown in the Correlation Matrix table below. Due to the small number of respondents with the sample, the results were likely to be unstable. With 18 variables, 120 participants, the factors were unstable and should not be used. Therefore, it became impossible to do construct validity test using EFA. However, for completeness, the results of the Principal Component Analysis are presented below.

Table 15: Principal Component Analysis

Correlation Matrix[a]

	B4.1	B4.2	B4.3	B4.4	B4.5	B4.6	B4.7	B4.8	B5.1	B5.2	B5.3	B5.4	B6.1	B6.2	B6.3	B6.4	B6.5	B6.6
B4.1	1	0.037	0.144	0.246	0.172	0.37	0.131	0.024	0.028	-0.034	0.203	0.166	0.15	0.18	0.048	0.032	0.12	-0.02
B4.2	0.037	1	0.375	0.177	-0.063	0.122	0.124	0.282	0.275	0.026	0.043	0.04	0.229	0.102	0.073	0.006	0.066	0.173
B4.3	0.144	0.375	1	0.162	0.227	0.18	0.275	0.143	0.208	-0.049	0.054	0.04	0.045	-0.066	0.047	-0.066	0.284	0.114
B4.4	0.246	0.177	0.162	1	0.058	0.249	-0.026	0.279	0.239	0.032	0.08	0.18	0.241	0.153	0.02	-0.003	0.155	-0.026
B4.5	0.172	-0.063	0.227	0.058	1	0.2	0.425	-0.148	-0.137	-0.23	0.064	0.188	-0.049	0.148	-0.014	-0.138	0.179	0.131
B4.6	0.37	0.122	0.18	0.249	0.2	1	0.266	0.155	0.135	-0.068	0.119	0.328	0.041	0.174	0.125	0.175	0.212	0.147
B4.7	0.131	0.124	0.275	-0.026	0.425	0.266	1	-0.004	-0.057	-0.161	0.16	0.109	-0.152	0.146	-0.078	-0.086	0.27	0.34
B4.8	0.024	0.282	0.143	0.279	-0.148	0.155	-0.004	1	0.233	0.24	-0.056	0.189	0.516	0.3	0.325	0.243	0.232	0.112
B5.1	0.028	0.275	0.208	0.239	-0.137	0.135	-0.057	0.233	1	0.194	0.117	0.204	0.399	0.206	0.221	0.437	0.17	0.056
B5.2	-0.034	0.026	-0.049	0.032	-0.23	-0.068	-0.161	0.24	0.194	1	0.087	0	0.21	0.124	0.17	0.148	0.072	0.013
B5.3	0.203	0.043	0.054	0.08	0.064	0.119	0.16	-0.056	0.117	0.087	1	0.104	0.136	0.278	0.158	0.123	0.124	0.041
B5.4	0.166	0.04	0.04	0.18	0.188	0.328	0.109	0.189	0.204	0	0.104	1	0.263	0.31	0.219	0.052	0.366	0.234
B6.1	0.15	0.229	0.045	0.241	-0.049	0.041	-0.152	0.516	0.399	0.21	0.136	0.263	1	0.355	0.351	0.295	0.219	-0.027
B6.2	0.18	0.102	-0.066	0.153	0.148	0.174	0.146	0.3	0.206	0.124	0.278	0.31	0.355	1	0.265	0.201	0.088	0.152
B6.3	0.048	0.073	0.047	0.02	-0.014	0.125	-0.078	0.325	0.221	0.17	0.158	0.219	0.351	0.265	1	0.658	0.197	0.015
B6.4	0.032	0.006	-0.066	-0.003	-0.138	0.175	-0.086	0.243	0.437	0.148	0.123	0.052	0.295	0.201	0.658	1	0.143	-0.024

	B6.5	0.12	0.066	0.284	0.155	0.179	0.212	0.27	0.232	0.17	0.072	0.124	0.366	0.219	0.088	0.197	0.143	1	0.403
	B6.6	-0.02	0.173	0.114	-0.026	0.131	0.147	0.34	0.112	0.056	0.013	0.041	0.234	-0.027	0.152	0.015	-0.024	0.403	1

1. Determinant = .010

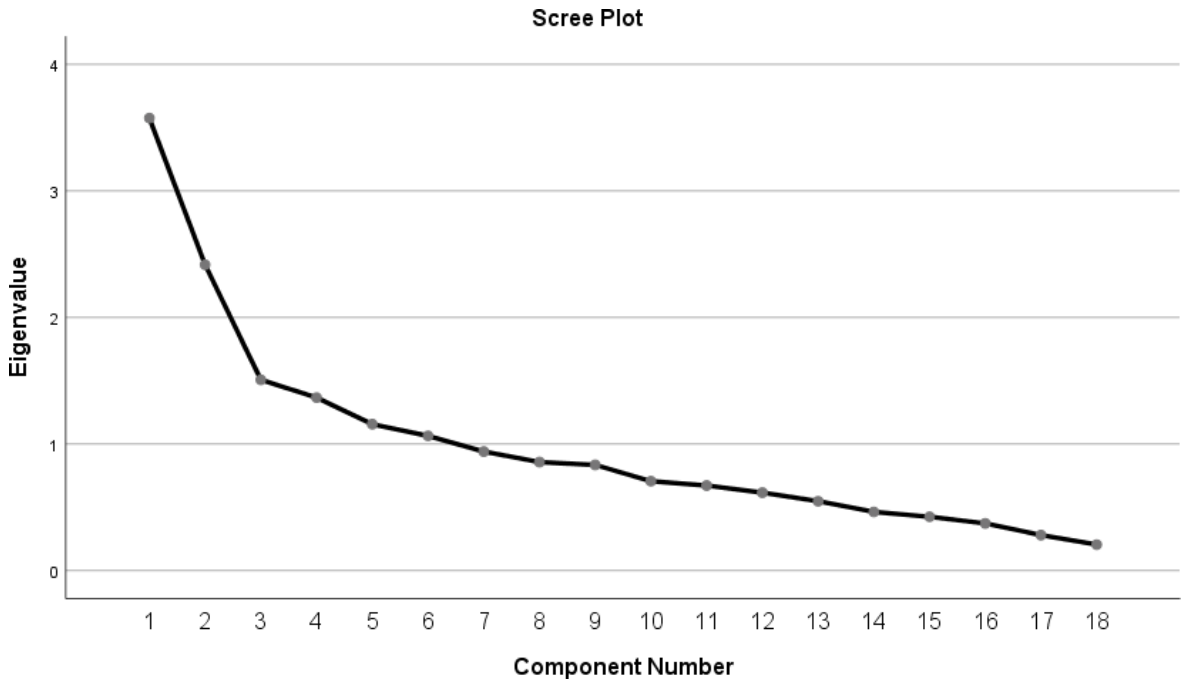


Figure 14: Scree plot

The programme extracted 3 components (factors) as shown on the scree plot above, which illustrate that after 3, the eigenvalues flatten out.

The Kaiser-Meyer-Olkin (KMO) measure of adequacy was above the recommended 0.5, implying that the sample was adequate.

Table 16: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.644
Bartlett's Test of Sphericity	Approx. Chi-Square	513.960
	df	153
	Sig.	.000

Table 17: Communalities

	Initial	Extraction
B4.1	1.000	.241
B4.2	1.000	.552
B4.3	1.000	.532
B4.4	1.000	.240
B4.5	1.000	.501
B4.6	1.000	.382
B4.7	1.000	.533
B4.8	1.000	.525
B5.1	1.000	.449
B5.2	1.000	.241
B5.3	1.000	.232
B5.4	1.000	.378
B6.1	1.000	.549
B6.2	1.000	.414
B6.3	1.000	.542
B6.4	1.000	.552
B6.5	1.000	.381
B6.6	1.000	.255

Extraction Method: Principal Component Analysis

None of the communalities were above 0.6, and only 7/18 is above 0.5. According to Field (2013, p.684) “In the worst scenario of low communalities (well below .5) and a larger number of underlying factors, Mac Callum, Widaman, Zhang and Hong (1999) recommend samples above 500.” Tabachnick and Fidell (2012); Comrey and Lee (1992) suggest a sample of 300 to be a good size. Nunnally (1978) was the source of the rule of thumb being 10 participants per variable (item). All these suggest that the study’s sample of 120 makes the factors and factor loadings very unstable.

Table 18: Interpreting the Principal Components Factors

Rotated Component Matrix[a]

			Components		
			1	2	3
B4.1	Knowledge Item 1	Entrepreneur's managerial knowledge and ability to demonstrate sound business practice			
B4.2	Knowledge Item 2	Entrepreneur's ability to read and interpret financial statements (ability to perform financial analysis)			0.736
B4.3	Knowledge Item 3	Entrepreneur's knowledge on how to access finance			0.682
B4.4	Knowledge Item 4	Entrepreneur's knowledge about market analysis (SWOT)			
B4.5	Knowledge Item 5	Entrepreneur's ability to manage and control business costs		0.63	
B4.6	Knowledge Item 6	An entrepreneur's ability to set organizational targets and objectives		0.587	
B4.7	Knowledge Item 7	Entrepreneur's ability to demonstrate knowledge and benefit offered by his or her product/service		0.61	
B4.8	Knowledge Item 8	Entrepreneur's previous experience in a managerial role	0.542		
B5.1	Education Item 1	Entrepreneur's formal education	0.543		
B5.2	Education Item 2	Entrepreneur's ability to write a comprehensive business plan			
B5.3	Education Item 3	Entrepreneur's confidence in managing the business			
B5.4	Education Item 4	Entrepreneur's ability to scan the marketing environment		0.547	
B6.1	Work Experience Item 1	Entrepreneur's managerial expertise	0.68		
B6.2	Work Experience Item 2	Entrepreneur's general business skills			
B6.3	Work Experience Item 3	Entrepreneur's track record of managing previous business	0.699		
B6.4	Work Experience Item 4	Entrepreneur's previous work experience	0.722		
B6.5	Work Experience Item 5	Entrepreneur's ability to network			

B6.6	Work Experience Item 6	Entrepreneur's ability to manage risk			

On this table, we have only loadings that are significant. That is, over 0.5. Below is each factor looked at separately.

Factor 1: Experience (Cronbach α = 0.745)

Entrepreneur's previous experience in a managerial role	B4.8	0.542	Knowledge Item 8
Entrepreneur's formal education	B5.1	0.543	Education Item 1
Entrepreneur's managerial expertise	B6.1	0.68	Work Experience Item 1
A track record of running previous businesses	B6.3	0.699	Work Experience Item 3
Entrepreneur's previous work experience	B6.4	0.722	Work Experience Item 4

Factor 2: Management and marketing expertise (Cronbach α = 0.537)

I5: Entrepreneur's ability to manage and control business costs	B4.5	0.63	Knowledge Item 5
I6: Entrepreneur's ability to set organisational targets and objectives	B4.6	0.587	Knowledge Item 6
I7:Entrepreneur's ability to demonstrate knowledge and benefit offered by his or her product/service	B4.7	0.61	Knowledge Item 7
I4: Entrepreneur's ability to scan the marketing environment	B5.4	0.547	Education Item 4

Factor 3: Financial expertise and fund raising (Cronbach α = 0.0.534)

I2: Entrepreneur's ability to read and interpret financial statements (ability to perform financial analysis)	B4.2	0.736	Knowledge Item 2
I3: Entrepreneur's knowledge on how to access finance	B4.3	0.682	Knowledge Item 3

The table above showed the interpretation of the factors that emerge from the EFA. We also ran the Cronbach alpha on these factors, and found that only the first one had an acceptable alpha.

As illustrated above, there is no relationship between the theoretical subscales and components. Field (2013) notes that Guadagnoli and Velicer (1988) found that if a factor has less than 4 variables with loading over.6, then the factors are considered unreliable.

In terms of the aforementioned, it became clear that the study's sample of 120 makes the factors and factor loadings very unstable. Thus, it was decided that it would be unwise to attempt to interpret the findings and it was then decided to use Cronbach Alpha to see whether the theoretical factors used in the development were reliable/consistent

4.5 Reliability Testing

After deciding that the Principal Component Analysis should not be used, as it was unstable due to the low number of participants, we performed the Cronbach alpha to determine the reliability/internal consistency of the categories of the measures.Table 19 below provides the results for the tests, which were elaborated. The descriptive statistics column indicates the mean value regarding responses otherwise described above as well as respective standard deviation values. The means show the percentage on how the respondents rate the question based on a 5-point Likert scale.

Table 19: Internal consistency reliability values of scales

Subscale	Cronbach's Alpha	Number of items
Knowledge	0.623	8
Education	0.456	4
Work Experience	0.645	6

There is a considerable debate about what constitutes acceptable levels of Cronbach's Alpha. An $\alpha \geq 0.7$ is generally considered acceptable for a research scale. However, there are many examples of research studies that have deemed that an α of between 0.6 and 0.7 as acceptable (Gliem & Gliem, 2003). Thus, the knowledge and work experience subscales can be taken to have acceptable internal consistency. The education subscale is more problematic. The small number of items does, to an extent, account for the low α. However, there are illustrative examples of the literature that demonstrate that Cronbach's Alpha may be acceptable despite visible problems

with the scales measured (Taber, 2017). The scores on each of the subscales were averaged and used in the correlation and regression analyses subheadings below.

4.6 Regression Assumption Test

The distribution of the subscale scores were checked for normality using the criteria that showed that the skewness and kurtosis coefficients fall between -1 and +1, as also recommended by Huck (2012).

Table 20: Descriptive Statistics of the Subscales' Averaged Scores

Subscales	Mean	Std. Deviation	Skewness	Kurtosis
Knowledge	4.454	.384	.840	.865
Education	3.935	.591	.101	.376
Work experience	4.165	.499	.398	.217

Table 20 above illustrates that skewness and kurtosis coefficient of all subscales fall between -1 and +1, so the subscales are acceptably close to a normal distribution for parametric statistics to be used.

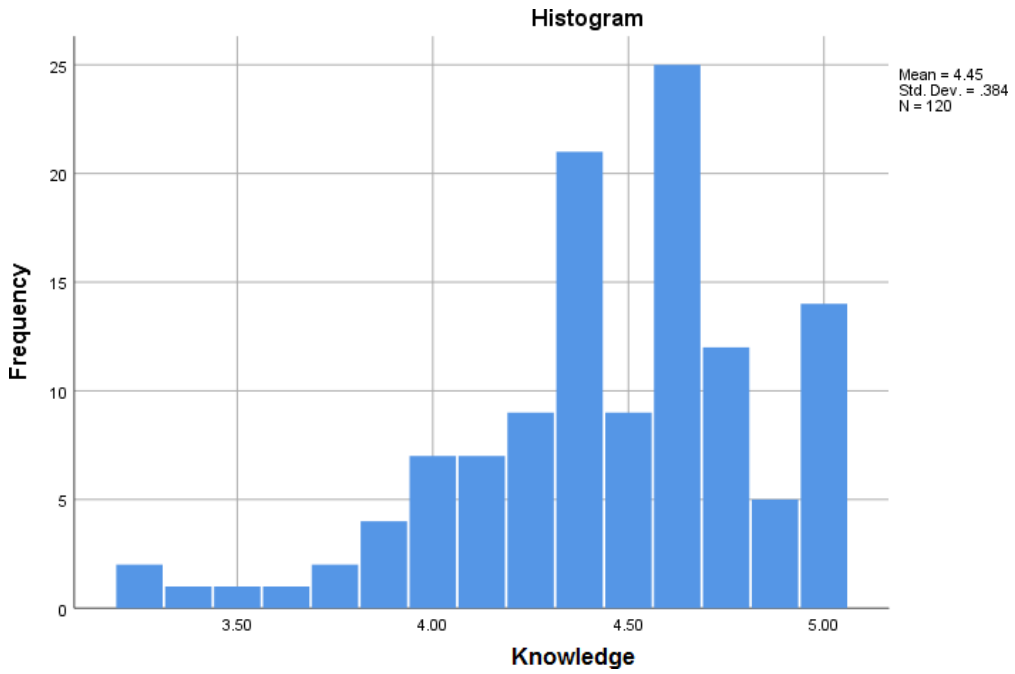


Figure 12: Histogram on Knowledge

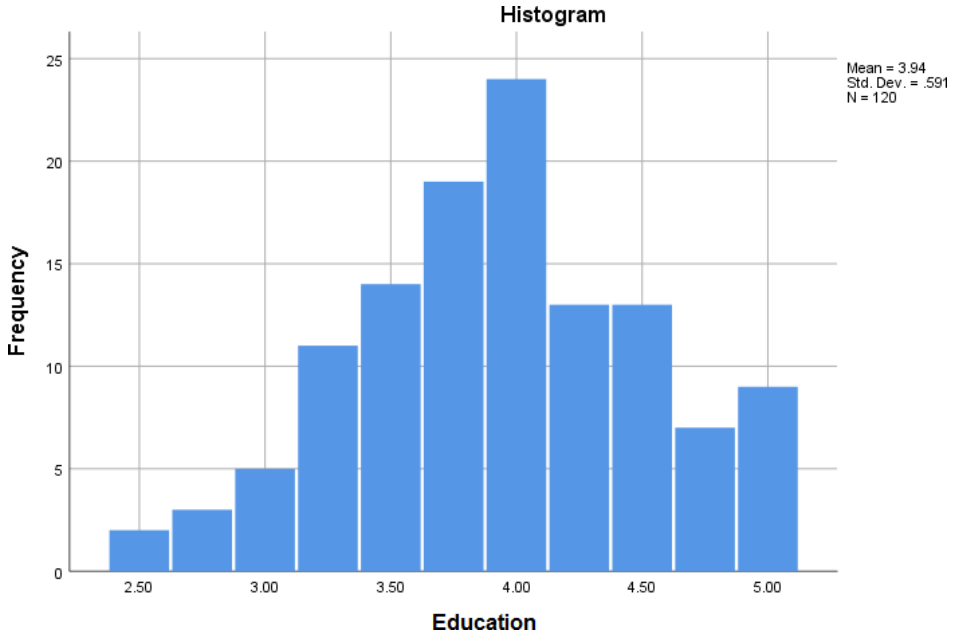


Figure 16: Histogram on Education

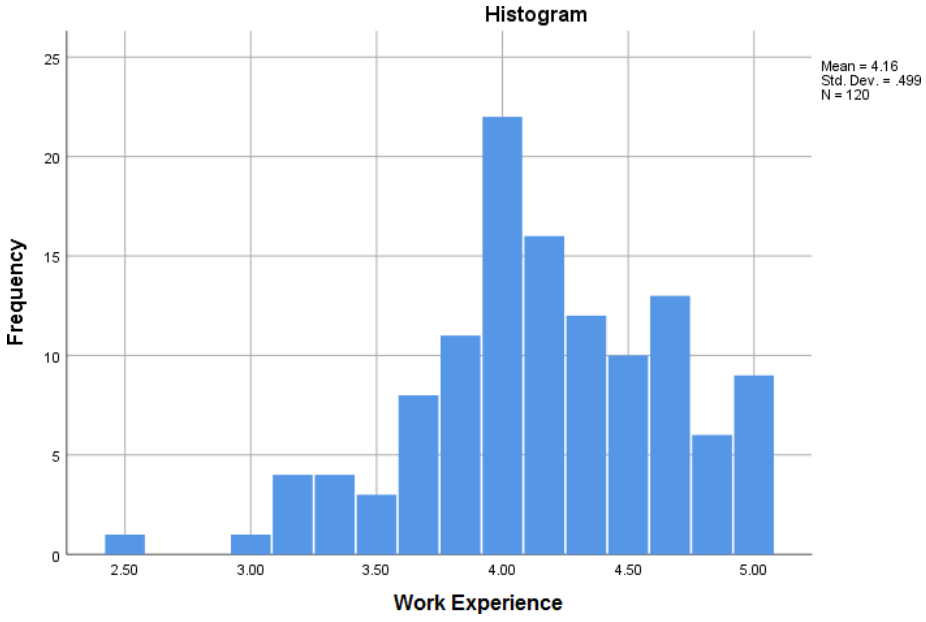


Figure 17: Histogram on Work Experience

4.7 Correlation Analysis

Correlation analysis was conducted to measure the relationship between variables. To represent firm growth question A10, that is, company turnover per annum was computed to formulate a new variable called growth, representing the dependent variable. With the above undertaken, correlation analysis was conducted and the results are revealed in Table 21 below.

Table 21: Correlations

	Turnover	*Knowledge*	*Education*	*Experience*
Turnover	***1***			
Knowledge	***0.82***	***1***		
Education	***0.24***	***0.430****	***1***	
Experience	***0.13***	***0.346****	***0.543****	***1***

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

Firstly, the results on table 21 reveal that the subscales were not significantly correlated with turnover, which represents growth. However, the subscales were all significantly correlated with each other. There is a positive relationship between work experience and education as indicated by the Pearson Correlation of r=0.543 and the correlation is significant at 0.01. The results further reveal that knowledge is positively related to amount of work experience an individual possesses with a coefficient of r=0.346, which is also significant at 0.01. Knowledge is also positively related to the education of the individual with a coefficient of r=0.430, significant at 0.01.

4.8 Regression Analysis

Linear regression analysis was selected to explore whether the outcome variable (growth) could be predicted by predictor variables (knowledge, education and work experience). The regression analysis was run on firm growth and the three variables (knowledge, education and work experience), and the results are illustrated in Table 23 below.

Table 22: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.153[a]	.024	-.002	1.617

a. Predictors: (Constant), Knowledge, Education, Work Experience

b. Dependent Variable: Growth

Table 23: ANOVA

ANOVA[a]

	Source	Sum of Squares	df	Mean Square	F	Sig.
	Regression	7.319	3	2.440	.933	.427[b]
	Residual	303.481	116	2.616		
	Total	310.800	119			

a. Dependent Variable: Growth

b. Predictors: (Constant), Knowledge, Education, Work Experience

Table 24: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.715	1.857		.385	.701
	Knowledge	.278	.432	.066	.644	.521
	Education	-.242	.314	-.089	-.771	.442
	Work Experience	.504	.358	.156	1.409	.162

The above results present the results of the multiple linear regression of knowledge, education and work experience on firm growth. The value of R^2 of .024 tells us that knowledge, education and work experience accounts for 2.4% variation in firm growth. The ANOVA of the regression is not significant ($F(3,116) = 0.933$, $p>.05$). This indicates that the human capital subscales do not explain firm growth as reinforced by the beta values, which are all insignificant.

4.9 Conclusion

This chapter presented the results of the study. The findings in this chapter indicated significant correlations between the independent variables namely, education, knowledge and work experience. However, no significant relationship between the independent variables and firm growth were found. The questionnaire was not a good measure of the study's constructs, as it did not have good psychometric results and the fact that it was more of a perception and responses in general, as opposed to direct responses to the entrepreneur's firm. Lastly, the regression analysis that were undertaken and resulted in the rejection of all three hypotheses.

CHAPTER 5. DISCUSSION OF THE FINDINGS

5.1 Introduction

The previous chapter presented the results obtained from the survey. The data were examined and analysed using descriptive statistics. In this chapter, evidence obtained from the data analysis and interpretation is discussed along with theories outlined in the literature review. As a result, the research propositions outlined in the derivatives of hypotheses section mainly formed the basis for the discussion. In addition, the results elicited from chapter 4 are used to address the research hypotheses, and where necessary, disprove or substantiate the hypotheses, and give a clear picture of what they represent. The aim of the discussion chapter is to examine the outcome of the respondents' answers and compare their responses to the study's hypotheses.

The focal point of the study were SMMEs operating in the Johannesburg inner city. Based on the literature the researcher hypothesised that:

H1. An entrepreneur's knowledge has a positive relationship with firm growth.
H2. An entrepreneur's level of education has a positive relationship with firm growth.
H3. An entrepreneur's work experience has a positive relationship with firm growth.

The three human capital variables investigated were entrepreneurial knowledge, education and work experience (independent variables) with firm growth (dependent variable). All the independent variables were hypothesised to have a positive relationship with firm growth. Knowledge was defined as an individual's distinctive information regarding a specific subject matter that provides the individual with the capacity to identify opportunities, as advanced by Shepherd and De Tienne (2005); Venkataraman, (1997) and Shane (2000). Drawing from Sturman (2003), the study also defined work experience as the accumulation of specific knowledge from action, practice, and perception of tasks and duties associated with a specific job. Morris & Webb (2013) define an education as transformation of knowledge and abilities.

Supporting Venkataraman (1997) and Shane (2000), the researcher argued that knowledge allows individuals to identify certain opportunities faster and better than others. According to literature, SMMEs owners with higher education could use their acquired knowledge to effectively manage their enterprises and realise growth faster than their competitors. In addition, many years of experience meant that owners or managers were exposed to different working environments and found it easy to adapt to a new environment.

As already presented in chapters 3 and 4 respectively, the researcher attempted to ensure that reliability is effectively maximised by measuring specific items related to the human capital variables (knowledge, education and work experience). This was done by analysing the internal consistency and reliability of the main constructs using Cronbach Alpha at a cut-off 0.3 as recommended by Mentzer and Flint (2007, p. 199). The results showed that no statistically significant relationship between the three subscales and firm growth exists. This finding disproved the conceptual assumptions made in this study, and is therefore not consistent with the theoretical perspectives prevalent in previous studies.

5.2 Demographic profile and firm information of respondents

As illustrated in chapter 4, the demographic profile of participants included gender, age, race and education, and firm information involved firm's legal entity, age of business, number of employees, company turnover as well as where entrepreneurs learned the skills to run their businesses.

In terms of the results, pertaining to gender, male entrepreneurs were dominant at 66% as opposed to their female counterparts at 34%. The age groups surveyed ranged from 21 to 60 years. The results show that 36.7% of entrepreneurs started their businesses at an age of between 36-45 years and this figure constituted the majority. In terms of race, Blacks were in the majority at 52.5%. A significant number at 82% of entrepreneurs had acquired some form of post matric qualification. 68% of businesses were older than five years with the majority of them at 41% being close corporations. In terms of company turnover, 27% of them had a turnover of over R5

million per annum and the majority of entrepreneurs at 57% had experience before starting their own businesses.

Consistent with other theories of entrepreneurship, scholars such as Oluwatobi and Ogunrinola (2011); Bruderl, Preisendorfer and Ziegler (1992) have all argued that there is a positive correlation between the development of human capital and firm growth. Barreira (2011) argues that prior work experience is one of the most consistent predictors of future firm performance. Industry-specific experience impacts positively on a new firm's performance due to the founder's experience with tasks and skills learned in previous industries in which the entrepreneur worked, rather than skills learned directly from managing start-ups (Barreira et al., 2011).

5.3 Discussion: Hypothesis 1

H1: An entrepreneur's knowledge has a positive relationship with firm growth.

The purpose of H1 was to establish whether entrepreneurial knowledge has a positive association with firm growth**.** Literature cited in this study has shown that various studies have examined the behaviour displayed by an entrepreneur during the start-up stage and found that the main important resource is knowledge**.** Further literature reflects that researchers are divided on whether human capital has a significant role to play on firm growth**.** Empirical studies of entrepreneurship have mostly used profitability or rate of growth, or both, as measures of venture performance and growth (Lee & Tsang, 2001).

Many researchers argue that growth can be measured by an increase in the number of employees. Zubeidi (2005) also adds that growth can be defined in terms of sales growth, employment growth and longevity of the firm. In this study, firm growth was measured in terms of turnover as illustrated in Table 18. With regard to hypothesis 1, it was hypothesised that entrepreneurial knowledge is positively linked with firm growth. According to literature, other indicators have shown some shortcomings to small business owners' perception about firm growth. For example, accumulation of equipment or assets and number of employees are not necessarily perceived as indicators for entrepreneurial growth. The growth measurements used to assess the

relationship between entrepreneurial knowledge and firm growth were that, the entrepreneur's knowledge of accessing finance, knowledge to manage and control costs and understand the market, would rate higher than other growth measurements.

Unger (2011); Davidsson and Honig (2003); Barreira (2011); Wright (2001); Urban, Venter and Rwigema (2008); Urban, Venter and Duneas (2015) argue that generally businesses run by individuals with prior business knowledge affect performance and growth of the business. Literature confirms that enterprises run by educated individuals have higher levels of growth (Olaniyan & Okeminde 2008; Minnity; Bygrave & Autio 2005; Barreira 2007). Scholars such as Ployhart and Moliterno (2011); Becker (1962; 1964); Sturman (2003); Smith and Lorke (2008) all testify that prior work experience acquired by an entrepreneur translates into sustained business growth.

Oluwatobi and Ogunrinola (2011) argue that human capital has been acknowledged worldwide as one of the most important factors that is accountable for the wealth of nations. However, scholars are still divided on whether human capital positively influences firm growth. Scholars such as Roca-Puig and Beltran-Martin (2012); Amaral, Baptista and Lima (2011); Blancheflower (2004), Minniti and Bygrave (2003) all confirm that different authors in diverse studies have found a non-linear effect on the human capital and the performance of the entrepreneur.

The survey consisted of 300 participants and only 120 responded to the business section pertaining to the level of importance of the various items relating to entrepreneurial knowledge and its effect on firm growth. All the measured constructs pertaining to this section show a significant positive relationship between knowledge and firm growth. In terms of the results, as shown in figure 13, it is evident that the majority of the respondents think almost all the items are important for entrepreneurial growth. The respondents were asked about the importance of managerial knowledge and ability to demonstrate sound business knowledge and 67% indicated that it was very important for the success of the business while almost 1% think it is not

important. However, 88% believe that the ability to manage and control business costs is more important than all the items listed on knowledge.

According to the Association of the Chartered Certified Accountants (ACCA, 2016, p.2), *"*financial management is at the heart of running a successful business as it affects every aspect, from managing cash flow and tracking business performance to developing plans that ensure that business owners can make the most of opportunities*."* Datar et al. (2009) emphasise the need for SMMEs to acquire cost management skills. From the scholars' experience, management of business costs have an important role to play in ensuring the success of SMMEs. Although access to finance is clearly important for SMMEs' success, knowledge of managing and controlling business costs can lead to a sustained business. Also emphasises the need for entrepreneurs to estimate accurate costs for their products and services. The ability to know how to access finance came third at 64%. GEM (2009) report shows that many entrepreneurs complain that lack of access to funding has led to many SMMEs failing to succeed. Other studies have also mentioned that small firms are usually more financially constrained than larger firms are and are less likely to have access to formal financial institutions who require much more than they can provide. Berger and Udell (1998); Galindo and Schantiarelli (2003) also argue that the problem of access to finance is prevalent both to developing and developed nations worldwide. Literature further indicates that favourable policies to access finance are necessary to enhance small firm growth.

Further thought-provoking assessment was regarding the entrepreneur's market knowledge. Literature posits that market knowledge can increase a firm's ability to discover and exploit opportunities as it manifests in awareness of the customer's problems before they arise and determines the market value of new discoveries such as technology, demographics, markets, government policies, and other related factors. This item elicited 56% from the respondents. The study had predicted that this item would be either second or third in terms of importance as illustrated by literature. However, this average percentage can be attributed to the fact that most entrepreneurs are either looking for independence or are driven by their internal locus of control. For some entrepreneurs, as mentioned in the literature review, opportunity

identification is because of their socio-cognitive perspective, which should be seen within the context of social and wider societal demands (de Koning, 2003).

An alarming figure comes from the previous managerial experience item, which was 23%. Here research has also shown that owners of small businesses with previous managerial experience have a more significant impact on the success of their firms than those with less experience. Further research has shown that most SMMEs do not achieve their desired results because their owners “have not been there, done that” as most of them rely on their social networks (Valliere, 2014). Further research indicates that social networks provide resources, access to resources and emotional support. Nevertheless, this should in no way be a substitute for managerial experience.

5.4 Discussion: Hypothesis 2

H2: An entrepreneur’s level of education has a positive relationship with firm growth.

This study supported the positive role played by education in owners of SMMEs and hypothesised that an entrepreneur’s level of education has a positive relationship with firm growth, thereby becoming a defining factor in determining the growth of the venture. The purpose of H2 was to gain further insight through research regarding the role of education in SMME growth. The focus relating to H2 was to determine which elements of education were perceived to be important to enhance growth of the business. Based on the evidence of the literature review, it was confirmed that education appears to be the most valuable variable of human capital in relation to firm growth. Minniti et al. (2005) claim that an entrepreneur with higher levels of education has a will to easily perform better in their business.

Education consisted of four items and out of all of them; the entrepreneur’s formal education rated the lowest at 19%. Although 81% of the respondents for this study had obtained higher level of education, it is mindboggling that only 19% believe that education is important for the success of the business. The result is in stark contrast with almost all the scholars cited in the literature review chapter who all concluded

that founders with formal education find it easy to grow their ventures faster than those without education. This was followed by an entrepreneur's ability to write a comprehensive business plan at 23%. Empirical evidence had shown that most financial institutions regard a business plan as an important selling tool for an entrepreneur to access funding. In South Africa, a high number of SMMEs fail during the first few years of operation because they ventured into business without plans in place (Nieman & Nieuwenhuizen (2009). Pretorius and Shaw (2004) indicate that throughout the academic and business world, a business plan is perceived as an essential tool that will guide the entrepreneur regarding setting up a venture.

Almost three quarter (65%) of the respondents, believe that an entrepreneur's confidence in managing the business is very important. According to Dimov (2010, p.1126), an entrepreneur's confidence reflects two personal beliefs: (1) that it is feasible; and (2) that they will be able to establish a venture that exploits the opportunity. Davidsson (2006); Dimov (2010) posit that an entrepreneur should be motivated to pursue an opportunity, but that until such time the venture has been established, the opportunity is nothing else but an idea. Urban (2013) argues that currently, the education system in South Africa is not playing much of a role in encouraging positive perceptions of personal feasibility and desirability regarding entrepreneurship. Clearly, the opportunity rests in the entrepreneur's belief about the feasibility of the outcome and the confidence to run the venture successfully. Aspiring entrepreneurs and those who are already running businesses need to first perceive themselves as capable and willing to be entrepreneurial (Urban, 2013). In other words, growth of the venture is dependent on the entrepreneur's judgement. Enough confidence is required for the venture to become successful.

The entrepreneur's confidence in managing the business was closely followed by a further impressive number of respondents at 57% who think that an entrepreneur's ability to scan the marketing environment is very important. Ucbasaran, Westhead, and Wright (2007) observed that owners of businesses who engage in market scanning have a richer array of information and are confident that they could create a fit between their market environment and the organisation when using external information to improve their internal operational processes and systems. Cohen and

Levinthal (1990) posit that the absorptive capacity of a firm is its capacity to recognise the value provided by the external information. In order for the venture to realise the commercial benefits, it should be able to succinctly assimilate to it, apply it as a critical component of innovative capability. Dess (1987) further observed that environmental scanning influences the firm's trajectory and is necessary in establishing goals and primary strategies for the firm to compete. Lack of information regarding competitors, new technology activities and events taking place in the environment in which the firm operates can be catastrophic for the survival of the firm.

5.5 Discussion: Hypothesis 3

H3: An entrepreneur's previous work experience has a positive relationship with firm growth.

H3 hypothesised that there is a positive relationship between work experience and firm growth. Based on the literature review, it was highlighted that work experience is a key component of human capital (Coleman, 2005; Becker, 1963; Gimmon & Levie, 2009). As highlighted in the literature review chapter, in the study conducted by Sturman (2003) it was also found that individuals with work experience in their industry led the strongest firms. Morris, Kuratko and Schindehutte (2012) also posit that the entrepreneur's record of accomplishment of managing previous businesses, general business skills, and entrepreneur's managerial expertise were rated highly as key components of work experience. Bates (1990) highlights that individuals who have previously held managerial positions or were previously self-employed are likely to have superior levels of general human capital. A further illustration by literature argues that managerial experience can be leveraged in order to innovate new productive resource combinations and pursue business opportunities (Shane & Khurama, 2003).

The results of this study further show that only 34% of respondents regard managerial expertise as important and 43% regard general business skills as a key component for firm growth. Both percentages negate Bates' (1990) argument that managerial expertise by an entrepreneur significantly increases firm growth. Previous work experience (23%) was regarded as not very important as well as an entrepreneur's

previous record of managing previous businesses (24%). The results dismiss the notion that work experience is directly linked to small business growth.

The present study has revealed that most of the respondents are between the ages 36-45 and 46-60 who by all accounts, have already accumulated work experience before they started their own businesses. However, most of them do not seem to give due regard to work experience and managing of previous businesses. These findings, it would appear, confirm the assertion that previous professional and personal experience on venture management are key to the performance of the venture (Morris, Kuratko, & Schindehutte, 2012). However, despite the findings, it would be disingenuous to reject the notion that work experience has a positive relationship with firm growth, especially because of the sample of the study, which is considerably low considering the number of SMMEs in the inner city.

The results show that there is a perceived significance for an entrepreneur's ability to network (73%), and firm growth. Urban, Venter and Rwigema (2011) refer to social capital as the relationships and networks from which individuals can derive institutional support for the success of their ventures. The ability to network by an entrepreneur has a fundamental theoretical perspective that should be interrogated fully. Literature argues that network resources, networking activities, and network support are key in establishing firms (Bruderl & Preisendorfer, 1998).

Some survey-based empirical studies also support the argument by demonstrating a positive statistical relationship between firm performance and networking. Evidently, it can be confirmed that entrepreneurs with a broad and diverse social network are more likely to be successful as they can tap into that pool for information and guidance. There is adequate empirical evidence that illustrates the importance of social ties in the formation and maintenance of SMMEs. Timmons (1994) firmly believe that successful entrepreneurs not only possess creative and innovative flair but also have strong general management skills, business knowledge and supportive networks. Johanson and Mattson (1988) define business networks as long-term business relationships that firms possess with the customers, distributors,

competitors, and government -all of them are considered key actors in a business network. Networks enhance both qualitative and quantitative firm growth.

Further observation from the findings showed the degree at which most owners of SMMEs perceive the ability to manage risk as crucial for the success of the business (75%). Liles (1974) suggested that the decision by an individual to become an entrepreneur brings with it an individual's risk regarding financial well-being, career opportunities, family relations, and psychic well-being. It is a fact that SMMEs operate in the same environment as big business even though they do not enjoy the same benefits, such as adequate capital and extended human resources (Smit & Watkins, 2012). Risk identification and management are arguably the major concern for all businesses, especially for SMMEs.

The assessment of threats and opportunities pertaining to the enterprise should be given maximum attention by owners and managers of SMMEs. Watson (2004); Smit and Watkins (2012) advise that one of the skills required to enable an entrepreneur to navigate the challenges that their businesses confront on a daily basis is the ability to identify and analyse risks and ultimately take advantage of the calculated risks. Based on the analysis drawn from this item, it is evident that risk management is a concept well known and understood by owners and managers of SMMEs. Overall, work experience was not accepted as having a positive relationship with firm growth.

5.6 Conclusion

This chapter discussed the results obtained from the research study as presented in chapter 4. The findings of this study indicated that there is a positive relationship between the independent variables (knowledge, education and work experience). The results showed different mean scores for knowledge, education and work experience. Knowledge had a mean score of 4.45 while education and work experience had mean scores of 3.93 and 4.16 respectively. The logical conclusion drawn is that the questionnaire lacked psychometric soundness and the fact that most participants responded based on perception and generalisation as opposed to directly referring to their own businesses. As indicated in the presentation of results chapter, the

questionnaire was not a good measure of the study's constructs and further study should be undertaken to explore this anomaly.

CHAPTER 6. CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

6.1. Introduction

The previous chapter discussed the results of this study. This chapter summarises the relevant findings of the study, and insights gained from the research. The findings did not support H1, H2 and H3 as having positive relationships with firm growth. In addition, this chapter outlines practical implications and recommendations, limitations of the study and suggestions for future research.

6.2. Summary and conclusions of the study

The main thrust of this study was to investigate the relationship between human capital components, namely, knowledge, education and work experience (independent variables) and firm growth (dependent variable). More importantly, the study sought to conceptually offer insight into the perceived importance of the relationship between specific human capital elements discussed and firm growth by 'piggy-backing' on previous scholars who provided strands of theory to hold. In this connection, the aim was to determine the extent to which these elements of human capital are significantly related to SMME growth.

The study was largely motivated by the high failure rate of SMMEs, their staying power and slow growth, undoubtedly major concerns for a country facing high unemployment, job losses and an economy that is facing recession. The findings of this study did not confirm previous studies, which examined the positive link between the independent variables and firm growth. However, evidence obtained from previous studies showed that owners of SMMEs with human capital have a better staying power and faster growth. Evidently, SMMEs possessing superior human capital tend to out-perform their counterparts.

The researcher began by investigating H1 and hypothesised that an entrepreneur's knowledge has a positive relationship with firm growth. In this study's findings, knowledge showed no significant relationship with firm growth. Secondly, the researcher hypothesised that an entrepreneur's level of education has a positive

relationship with firm growth. Based on the results of the study, the researcher's hypothesis was rejected together with extant literature, which also confirmed the existence of a positive relationship between education and venture growth and/or entrepreneurial performance (Minnity, Bygrave & Autio, 2012). Thirdly, the researcher hypothesised that an entrepreneur's work experience has a positive relationship with firm growth. Scholars such as Unger, Rauch, Frese and Rosenbusch (2011) who argued that most of the entrepreneurs that they interviewed for their study had some significant years of previous experience before becoming entrepreneurs also influenced this study.

In this study, the results have shown that such a relationship does not exist. The results further negate the work of Lazear (2002), who also maintained that the most important determinant of being an entrepreneur is the number of years work experience an individual possessed before becoming an entrepreneur. Chawla, Khanna and Chen (2010) also argued that it was reasonable to conclude that individuals with several years of work experience are likely to succeed in their own ventures and that prior experience has a direct relationship with firm performance.

Despite the rejection of the existence of a positive relationship between knowledge, education and work experience with firm growth, and the generalisation of responses from participants, this study was able to confirm that human capital is a source of value, both at organisational, managerial and individual level. Most entrepreneurs employ more than five people and in view of that, the study confirms that SMMEs in the inner city are essentially the source of job creation. The objective of the study was achieved as it has opened the door for further policy discussion and further research.

6.3. Limitations of the study

This study, like many others before it, has some limitations that suggest the necessity for further research. Firstly, the study focused only on SMMEs operating in the Johannesburg inner city. Secondly, the researcher together with his assistants personally approached the participants in the two lists obtained from GEP and COJ with some of them known to the researcher as the researcher was based in the inner city. In other words, the lists themselves comprised of certain names known to the

researcher. Lyon, Mollering and Saunders (2012); Charmaz (2014) observed that if the researcher approached known participants, bias and preconceptions could not have been eliminated. Smith and Noble (2014), also warn researchers that research bias impacts on the validity and reliability of study findings and interpretation of data. Thirdly, the questionnaire was not a good measure of the study's constructs. The questionnaire did not have a good psychometric base, and the fact that it was more of a perception in that participants responded in general, as opposed to direct responses to their firms affected the responses. Lastly, due to the small number of respondents with the sample, which comprised of 18 variables and 120 participants, the factors were unstable and should not have been used in the first place.

Because of these limitations, reasonable care should be exercised in the interpretation and application of the results of this study as well as generalisation of the findings as a true reflection of all SMMEs in other large metros around the country. The study was also simplistic as it only focused on the perceived correlation of the three human capital dimensions and firm growth rather than looking at each component of human capital consistent with entrepreneurship theory.

6.4. Implications and recommendations

This study offers a few practical implications and recommendations. The issue of SMMEs' growth remains critical and requires a concerted effort from all key stakeholders in order to ensure that this sector continues to be the engine for job creation and economic growth. Many previous studies have focused on SMMEs' funding and a less stringent regulatory environment as silver bullets that will ensure sustainability and growth of the sector. While it is widely acknowledged that SMMEs' funding and a reasonable regulatory environment for SMMEs are critical to stimulate the sector, it is also critical that owners should be supported with the acquisition of relevant human capital variables to compete not only locally, but also beyond their own borders.

As Rogerson (2008) observed, the significance of issues concerning SMMEs' funding, training and regulation remain a continuous thread in South Africa's policy discussions. However, until they are adequately addressed as a 'sine qua non', this sector will not yield as many dividends as it would be expected from a developing country.

Having extensively defined the role of human capital in SMMEs growth, the way forward is to thoroughly address the challenges faced by SMMEs as highlighted in this study. Human capital is a broad concept in the field of entrepreneurship. The obvious practical implication is that this study has limitations in terms of the dataset and the measurement of growth as a dependent variable. Accordingly, a considerably larger data set would be required to enable a robust research and to construct a theoretical framework that can pass the rigours of research as a field of study. According to Davidsson (2004), entrepreneurship's unique contribution to science needs to explain dependent variables that other fields do not address and thereby set itself apart from others. In other words, the selection of a dependent variable should be based on the phenomenon of interest rather than purely on some context. For this reason, this study is not exhaustive and cannot be solely relied on for providing all the solutions faced by SMMEs.

Since the study has not provided evidence that the three human capital options investigated have a positive relationship with firm growth, owners of SMMEs should consider acquiring skills sets relevant to their potential ventures before entering the business. From a firm growth perspective, owners need to focus on forming social networks, especially with families and other organisations as the relationships can provide emotional support and supplement the effects of their already acquired knowledge, education, experience and financial capital (Urban, 2011). This is also critical since various studies have shown that SMMEs are the country's engine for job creation and economic development, especially for developing countries. It is also important for SMMEs not to rely too much on their previous work experience and conclude that this will automatically increase their staying power.

The study's objective was to stimulate public policy discussion and therefore hopes that this study will indeed provide the impetus for policy makers and researchers to continue to dig deeply for solutions. It is encouraging to note that government has shown interest in ensuring the success of this sector by introducing stimulus packages and has established agencies that are directly responsible for its success. However, the researcher is of the view that this study will add to the rallying cry for more support from big business and labour to work together with government in order to stimulate and encourage participation and the creation of new start-ups.

Furthermore, for small businesses to increase their growth, founders should ensure that they have good managerial competencies and a reasonable level of education. The main observation from the results is that many of the respondents have acquired a higher level of education, which bodes well for the future of their businesses. Moreover, as Bates (1990) observed, the level of owner education is a major determinant for the success of their business. Work experience as an antecedent of venture creation was most prominent in the results, revealing that work experience provides the foundation from which an individual can venture into business with confidence. Previous studies demonstrated that founders of SMMEs with specific human capital characteristics, such as university education and greater work experience in the same industry as the new firm, could leverage their distinctive capabilities associated with knowledge and skills of their founders and grow faster than their peers grow (Colombo & Grill, 2010).

Lastly, as Urban (2012, p.28) observed, “Entrepreneurship is a charismatically charged term, and carries with it a lot of social weight.” Therefore, the researcher hopes that this study will create awareness that the role of SMMEs is not to set their owners apart from the rest of the crowd by providing a badge of honour and independence. SMMEs have a significant role to play in poverty alleviation, job creation and economic growth, especially in the context of developing countries such as South Africa. Overall, it is critically important for everyone involved to continue to look at ways to improve this sector.

6.5. Suggestions for future research

There is enough evidence to confirm that human capital plays a pivotal role in sustainable competitive advantage in modern economy regardless of the size of the business. The pivotal role played by human capital in the growth of SMMEs should continue to be a thread for academia, business and policy makers.

The need for a more sustainable SMME sector is increasingly becoming imperative in South Africa, more than any other time previously. Skills shortages, high unemployment, poverty and crime are creating an added burden to the already ailing economy. Clearly, the argument about the human capital of SMMEs’ owners and venture growth is far from over.

Bland and Altman (1998) argue that the usefulness of any research lies primarily in the information gained from the research participants. Firstly, the researcher recommends that a well-structured questionnaire, which provides psychometric soundness, needs to be constructed and eliminate any possibility for bias. Due to the small sample of the present study, the researcher suggests that a similar study with a bigger sample should be carried out in the inner city. Better still, an extension to the dataset involving SMMEs in all major cities in South Africa could give a much broader picture of the scale of challenges faced by the SMME sector and the perceived significance of human capital and firm growth.

Future research should not only focus on the positive relationship between the variables investigated in this study, but should also look at the personality characteristics of an individual before starting a venture, resources available to the entrepreneur during the start-up phase and the environment in which the entrepreneur operates. An opportunity also exists for researchers to further investigate the human capital possessed by owners of informal businesses, mostly foreigners, and examine their performance compared to their counterparts as they are generally competing for the same market. Lastly, the researcher suggests that a qualitative study should also be undertaken to provide a wider perspective to participants' assumptions, their basic set of beliefs and their daily observations to obviate responses based only on perception and generalisation as fully demonstrated in this study.

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APPENDIX A. LETTER TO RESPONDENTS

Dear Respondent

I am inviting you to be part of a survey I am conducting in order to gather information related to the role of human capital in small, medium and micro enterprises operating in the Johannesburg inner city in respect to their growth.

I conduct this study as a student undertaking my Master of Management Degree in Entrepreneurship and New Venture Creation at the Wits Business School. It should not take longer than 15 minutes. I understand you are extremely busy, and your contribution will be highly appreciated.

Please be assured that your responses will be kept confidential. And if the results of this study were to be written for publication, your personal details and information will be disclosed. Furthermore, should you wish to confirm the veracity of my request, please feel free to contact Ms Meisie Moya, Programme Manager on the following number: 011 7173629.

Thank you in advance for your assistance.

Sello Ramahlako
Master of Management in Entrepreneurship and New Venture Creation
Student Number: 9311814h

2017

APPENDIX B. QUESTIONNAIRE

Name of Business Owner or Director……

Section A

Demographi

cs:

1. Gender

Male	1	Female	2

2. Age of the founder or Managing Member:

21-25	1	26-35	2	36-45	3	46-60	4	60 and above	5

3. Race

Black	1	White	2	Coloured	3	Indian	4	Other	5

If other please specify…….

4. Education:

NQF 1-3	1
Grade 12/NQF 4	2
Higher Certificate/NQF 5	3
Diploma/Advanced Certificate	4
Bachelor's Degree/Advanced Diploma	5
Honours Degree/Postgraduate Diploma	6
Master's Degree	7
Doctoral Degree	8

If other please specify…….

5. Business Sector:

Manufacturing	1	Retailer	2	Wholesaler	3	Services	4

If other please specify……..

6. What is your main area of business:

Food Products	1	Catering	2	Textile	3	Computers/Office Equipment	4	Printing and Publishing	5

If others please specify……..

7. Please indicate firm's legal entity

Sole Proprietor	1	Close Corporation	2	Private Company	3	Partnership	4

8. Age of Business: How old is your business?

0-1	1	1-3	2	3-5	3	5 +	4

9. Number of Employees:

1-3	1	3-5	2	5 +	3

10. Company Turnover Per Annum:

R500 000- R1 M	1	R1 M- R 2M	2	R2 M- R3 M	3	R3 M- R5 M	4	R5 M +	5

11. Where did you learn to the skills to run a business: Please choose one

Self-taught	1	Family	2	On the job-training	3	Previous work experience	4	Training Programmes	5	Mentor	6	University/ College	7

Section B

1. Please indicate the number of years of experience before starting your own business (Please tick one).

Never worked before	1	Less than 1 year	2	1-3 years	**3**	3-5 years	**4**	5 years and above	**6**

2. How many years of experience in the following areas did you have before starting your own business?

Finance	**1**
Marketing	**2**
Human Resources	**3**
Information Technology	**4**
Productions/Operations	**5**
Legal	**6**

3. Please indicate if you started your business in the same industry as your previous employer

Yes	1	No	2	

4. Business Knowledge Questions

On a scale of 1 to 5, please indicate the level at which you think the following has an impact on an entrepreneur's ability to grow the business (1-Not important at all, 2-Of little importance, 3-Somewhat not important, 4- Somewhat Important, 5-Very important) Please tick the appropriate box

4.1 Entrepreneur's managerial knowledge and ability to demonstrate sound business practice

1	2	3	4	5

4.2 Entrepreneur's ability to read and interpret financial statements (ability to perform financial analysis)

1	2	3	4	5

4.3 Entrepreneur's knowledge on how to access finance

1	2	3	4	5

4.4 Entrepreneur's knowledge about market analysis (SWOT)

1	2	3	4	5

4.5 Entrepreneur's ability to manage and control business costs]

1	2	3	4	5

4.6 An entrepreneur's ability to set organisational targets and objectives

1	2	3	4	5

4.7 Entrepreneur's ability to demonstrate knowledge and benefit offered by his or her product/service

1	2	3	4	5

4.8 Entrepreneur's previous experience in a managerial role

1	2	3	4	5

5. Education related Questions

On a scale of 1 to 5, please indicate the level at which the following impacts on an entrepreneur's ability to grow the business. (1-Not at all important, 2-Of little importance, 3-Sometimes important, 4-Important, 5-Very important). Please tick the appropriate box

5.1 Entrepreneur's formal education

1	2	3	4	5

5.2 Entrepreneur's ability to write a comprehensive business plan

1	2	3	4	5

5.3 Entrepreneur's confidence in managing the business

1	2	3	4	5

5.4 Entrepreneur's ability to scan the marketing environment

1	2	3	4	5

6. Work Experience Questions

On a scale of 5, please indicate the level at which you think the following impacts on an entrepreneur's ability to grow business (1-Not at all important, 2-Of little importance, 3- Sometimes important, 4-Important, 5-Very important

6.1 Entrepreneur’s managerial expertise

1	2	3	4	5

6.2 Entrepreneur’s general business skills

1	2	3	4	5

6.3 Entrepreneur’s track record of managing previous business

1	2	3	4	5

6.4 Entrepreneur’s previous work experience

1	2	3	4	5

6.5 Entrepreneur’s ability to network

1	2	3	4	5

6.6 Entrepreneur’s ability to manage risk

1	2	3	4	5

APPENDIX C. LIST OF TABLES

Table 15: Conceptual Framework Items/Variables for Human Capital Factors

Conceptual Framework Items
Knowledge Items
I1: Entrepreneur's managerial knowledge and the ability to demonstrate sound business knowledge
I2: Entrepreneur's ability to read and interpret financial statements (ability to perform financial analysis)
I3: Entrepreneur's knowledge on how to access finance
I4: Entrepreneur's knowledge about market analysis (SWOT)
I5: Entrepreneur's ability to manage and control business costs
I6: Entrepreneur's ability to set organisational targets and objectives
I7:Entrepreneur's ability to demonstrate knowledge and benefit offered by his or her product/service
I8: Entrepreneur's previous experience in a managerial role
Education Items

I1: Entrepreneur’s formal education
I2: Entrepreneur’s ability to write a comprehensive business plan

I3: Entrepreneur’s confidence in managing the business
I4: Entrepreneur’s ability to scan the marketing environment
Work experience Items
I1: Entrepreneur’s managerial expertise
I2: Entrepreneur’s general business skills
I3: A track record of running previous businesses
I4: Entrepreneur’s previous work experience
I5:Entrepreneur’s ability to network
I6:Entrepreneur’s ability to manage risk

The National Small Business Act.

Table 16: The definition of SMMEs in the National Business Act

Enterprise Size	Number of employees	Annual Turnover
Small	Fewer than 50	Less than R2 Million
Medium	Fewer than 100 to 200	Less than R4 Million
Micro	Fewer than 5	Less than R150 000

Table 17: Demographic detail of a sample respondents (N=120)

		Frequency	Percent
Gender	Male	79	65.8
	Female	41	34.2
Age of the founder or Managing Member	21-25 years	1	0.8
	26-35 years	21	17.5
	36-45 years	44	36.7
	46-60 years	43	35.8
	60 years and above	11	9.2
Race	Black	63	52.5
	White	29	24.2
	Coloured	11	9.2
	Indian/Asian	16	13.3
	Other	1	0.8
	Total	120	100
Education	NQF 1-3	3	2.5
	Grade 12/NQF 4	19	15.8
	Higher Certificate/NQF 5	13	10.8
	Diploma/Advanced Certificate	32	26.7
	Bachelor's Degree/Advanced Diploma	19	15.8
	Honours Degree/Postgraduate Diploma	20	16.7
	Master's Degree		

Business Sector

Table 18: Business Information

Table 19: Firm's legal entity

Firm's legal entity	Frequency	Percent (%)
Sole Proprietor	16	13.3
Close Corporation	49	40.8
Private Company	36	30
Partnership	19	15.8
Total	120	100

Table 20: Response (%) of items on business knowledge (N=120)

No of Items	Statement	Not at all important	Of little important	Sometimes important	Important	Very import
B4.1	Entrepreneur's managerial knowledge and ability to demonstrate sound business practice	1%	3%	5%	25%	67%
B4.2	Entrepreneur's ability to read and interpret financial statements (ability to perform financial analysis)	0%	4%	12%	36%	48%
B4.3	Entrepreneur's knowledge on how to access finance	1%	0%	5%	30%	64%
B4.4	Entrepreneur's knowledge about market analysis (SWOT)	1%	3%	14%	26%	56%
B4.5	Entrepreneur's ability to manage and control business costs	0%	0%	2%	10%	88%
B4.6	An entrepreneur's ability to set organizational targets and objectives	0%	0%	4%	23%	73%
B4.7	Entrepreneur's ability to demonstrate knowledge and benefit offered by his or her product/service	0%	0%	3%	14%	83%
B4.8	Entrepreneur's previous experience in a managerial role	1%	16%	34%	26%	23%

Table 12. Response (%) of items on education related (n =120)

No of Items	Statement	Not at all important	Of little important	Sometimes important	Important	Very importa
B5.1	Entrepreneur's formal education	4%	16%	24%	37%	19%
B5.2	Entrepreneur's ability to write a comprehensive business plan	7%	27%	28%	16%	23%
B5.3	Entrepreneur's confidence in managing the business	0%	0%	4%	31%	65%
B5.4	Entrepreneur's ability to scan the marketing environment	0%	2%	12%	30%	57%

Table 21: Analysis of Variance (ANOVA)

ANOVA[a]					
Model		Sum of Squares	df	Mean Square	F
1	Regression	197.070	11	17.915	2.22
	Residual	860.757	107	8.044	
	Total	1057.827	118		
2	Regression	404.571	13	31.121	5.00
	Residual	653.256	105	6.221	
	Total	1057.827	118		

Table 22: Descriptive statistics

	Mean	Std. Deviation	N
Business Knowledge	35.7083	2.99410	120
Gender	1.34	.476	120
Age of the founder or Managing Member	3.35	.904	120
Race	1.86	1.102	120
Business sector	3.50	1.461	120
What is your main area of business?	7.03	6.718	120
Firm's legal entity	2.48	.917	120
Age of Business: How old is your business?	3.44	.887	120
Number of Employees	2.62	.700	120
Company Turnover Per Annum	3.07	1.554	120
Where did you learn to the skills to run a business?	3.66	2.072	120
Education	15,665	3.71256	120
Work experience	24.9580	2.98696	119

Table 23: Coefficients

Model		Unstandardized Coefficients		Standardized coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	28.669	2.376		12.066	0					
	Gender	-0.177	0.599	-0.028	-0.295	0.769	-0.065	-0.028	-0.026	0.837	1.195
	Age of the founder or Managing Member	0.606	0.33	0.183	1.835	0.069	0.054	0.175	0.16	0.764	1.309
	Race	-0.478	0.281	-0.176	-1.699	0.092	-0.17	-0.162	-0.148	0.709	1.41
	Education	0.412	0.178	0.228	2.32	0.022	0.234	0.219	0.202	0.785	1.273
	Business sector	0.364	0.196	0.178	1.855	0.066	0.17	0.177	0.162	0.828	1.208
	What is your main area of business?	0.006	0.041	0.014	0.148	0.883	0.101	0.014	0.013	0.908	1.101
	Firm's legal entity	0.565	0.322	0.173	1.753	0.082	0.251	0.167	0.153	0.782	1.279
	Age of Business: How old is your business?	0.039	0.4	0.012	0.097	0.923	0.027	0.009	0.008	0.541	1.847
	Number of Employees	0.61	0.486	0.143	1.256	0.212	0.127	0.121	0.11	0.589	1.697
	Company Turnover Per Annum	-0.022	0.219	-0.011	-0.098	0.922	0.085	-0.01	-0.009	0.589	1.698
	Where did you learn to the skills to run a business?	-0.011	0.151	-0.008	-0.075	0.941	0.134	-0.007	-0.007	0.698	1.433
2	(Constant)	16.122	3.084		5.228	0					
	Gender	0.71	0.552	0.113	1.286	0.201	-0.065	0.125	0.099	0.762	1.313

2	Age of the founder or Managing Member	0.444	0.292	0.134	1.52	0.132	0.054	0.147	0.117	0.757	1.321

Race	-0.252	0.252	-0.093	-1.002	0.318	-0.17	-0.097	-0.077	0.684	1.461
Education	0.542	0.158	0.3	3.431	0.001	0.234	0.317	0.263	0.768	1.301
Business sector	0.143	0.177	0.07	0.808	0.421	0.17	0.079	0.062	0.789	1.268
What is your main area of business?	-0.013	0.036	-0.03	-0.371	0.712	0.101	-0.036	-0.028	0.894	1.119
Firm's legal entity	0.68	0.284	0.208	2.392	0.019	0.251	0.227	0.183	0.776	1.288
Age of Business: How old is your business?	0.175	0.354	0.052	0.493	0.623	0.027	0.048	0.038	0.534	1.874
Number of Employees	0.375	0.43	0.088	0.872	0.385	0.127	0.085	0.067	0.582	1.719
Company Turnover Per Annum	-0.071	0.193	-0.037	-0.367	0.714	0.085	-0.036	-0.028	0.588	1.701
Where did you learn to the skills to run a business?	0.055	0.133	0.038	0.412	0.681	0.134	0.04	0.032	0.691	1.448
Education	0.432	0.134	0.297	3.233	0.002	0.405	0.301	0.248	0.699	1.431
Work experience	0.269	0.096	0.268	2.809	0.006	0.377	0.264	0.215	0.646	1.548

Dependent Variable: Firm Growth

Principal Components Analysis

Correlation Matrix[a]

	B4.1	B4.2	B4.3	B4.4	B4.5	B4.6	B4.7	B4.8	B5.1	B5.2	B5.3	B5.4	B6.1	B6.2	B6.3	B6.4
B4.1	1	0.037	0.144	0.246	0.172	0.37	0.131	0.024	0.028	-0.034	0.203	0.166	0.15	0.18	0.048	0.032

B4.2	0.037	1	0.375	0.177	-0.063	0.122	0.124	0.282	0.275	0.026	0.043	0.04	0.229	0.102	0.073	0.006
B4.3	0.144	0.375	1	0.162	0.227	0.18	0.275	0.143	0.208	-0.049	0.054	0.04	0.045	-0.066	0.047	-0.066
B4.4	0.246	0.177	0.162	1	0.058	0.249	-0.026	0.279	0.239	0.032	0.08	0.18	0.241	0.153	0.02	-0.003

B4.5	0.172	-0.063	0.227	0.058	1	0.2	0.425	-0.148	-0.137	-0.23	0.064	0.188	-0.049	0.148	-0.014	-0.138
B4.6	0.37	0.122	0.18	0.249	0.2	1	0.266	0.155	0.135	-0.068	0.119	0.328	0.041	0.174	0.125	0.175
B4.7	0.131	0.124	0.275	-0.026	0.425	0.266	1	-0.004	-0.057	-0.161	0.16	0.109	-0.152	0.146	-0.078	-0.086
B4.8	0.024	0.282	0.143	0.279	-0.148	0.155	-0.004	1	0.233	0.24	-0.056	0.189	0.516	0.3	0.325	0.243
B5.1	0.028	0.275	0.208	0.239	-0.137	0.135	-0.057	0.233	1	0.194	0.117	0.204	0.399	0.206	0.221	0.437
B5.2	-0.034	0.026	-0.049	0.032	-0.23	-0.068	-0.161	0.24	0.194	1	0.087	0	0.21	0.124	0.17	0.148
B5.3	0.203	0.043	0.054	0.08	0.064	0.119	0.16	-0.056	0.117	0.087	1	0.104	0.136	0.278	0.158	0.123
B5.4	0.166	0.04	0.04	0.18	0.188	0.328	0.109	0.189	0.204	0	0.104	1	0.263	0.31	0.219	0.052
B6.1	0.15	0.229	0.045	0.241	-0.049	0.041	-0.152	0.516	0.399	0.21	0.136	0.263	1	0.355	0.351	0.295
B6.2	0.18	0.102	-0.066	0.153	0.148	0.174	0.146	0.3	0.206	0.124	0.278	0.31	0.355	1	0.265	0.201
B6.3	0.048	0.073	0.047	0.02	-0.014	0.125	-0.078	0.325	0.221	0.17	0.158	0.219	0.351	0.265	1	0.658
B6.4	0.032	0.006	-0.066	-0.003	-0.138	0.175	-0.086	0.243	0.437	0.148	0.123	0.052	0.295	0.201	0.658	1
B6.5	0.12	0.066	0.284	0.155	0.179	0.212	0.27	0.232	0.17	0.072	0.124	0.366	0.219	0.088	0.197	0.143
B6.6	-0.02	0.173	0.114	-0.026	0.131	0.147	0.34	0.112	0.056	0.013	0.041	0.234	-0.027	0.152	0.015	-0.024

a. Determinant = .010

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.644
Bartlett's Test of Sphericity	Approx. Chi-Square	513.960
	df	153
	Sig.	.000

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy should be above .7. A KMO of .6 to .7 implies that the sample is mediocre.

Communalities

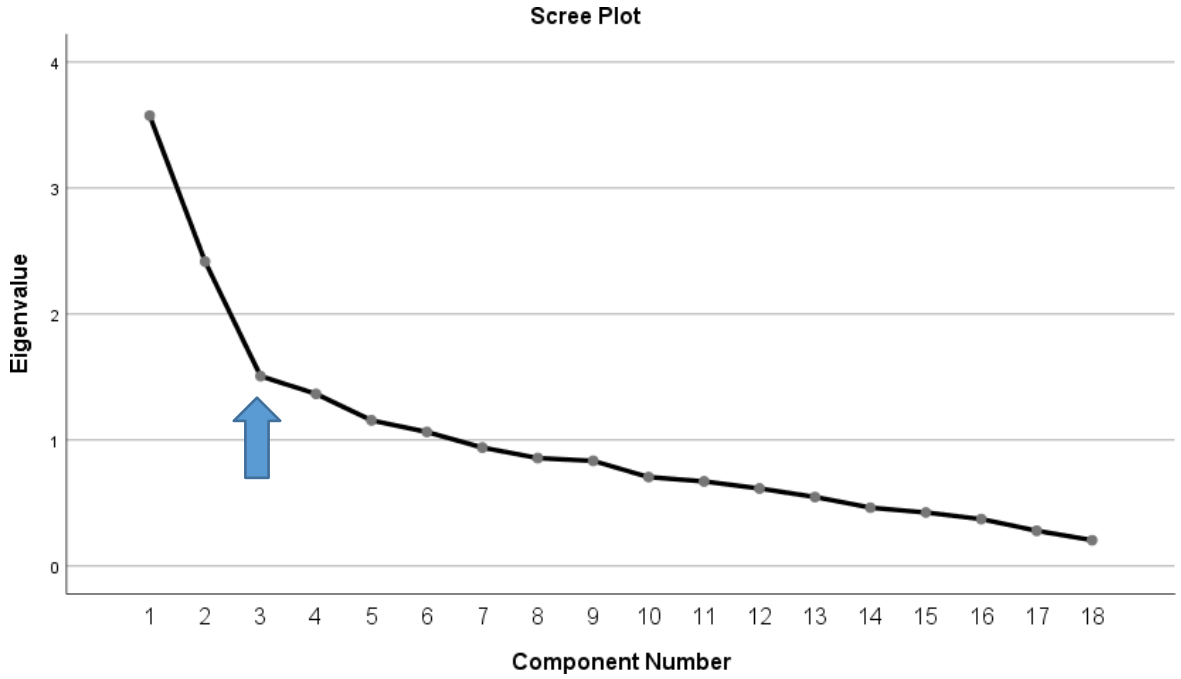
	Initial	Extraction
B4.1	1.000	.241
B4.2	1.000	.552
B4.3	1.000	.532
B4.4	1.000	.240
B4.5	1.000	.501
B4.6	1.000	.382
B4.7	1.000	.533
B4.8	1.000	.525
B5.1	1.000	.449
B5.2	1.000	.241
B5.3	1.000	.232
B5.4	1.000	.378
B6.1	1.000	.549
B6.2	1.000	.414
B6.3	1.000	.542

B6.4	1.000	.552	
B6.5	1.000	.381	
B6.6	1.000	.255	

Total Variance Explained

Component	*Initial Eigenvalues*			*Extraction Sums of Squared Loadings*			*Rotation Sums of Squared Loadings*		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.575	19.863	19.863	3.575	19.863	19.863	2.919	16.218	16.218
2	2.416	13.423	33.286	2.416	13.423	33.286	2.581	14.34	30.558
3	1.507	8.374	41.659	1.507	8.374	41.659	1.998	11.101	41.659
4	1.367	7.592	49.251						
5	1.156	6.423	55.674						
6	1.064	5.91	61.584						
7	0.94	5.22	66.804						
8	0.857	4.759	71.564						
9	0.835	4.636	76.2						
10	0.706	3.921	80.121						
11	0.671	3.73	83.851						
12	0.615	3.418	87.269						
13	0.548	3.042	90.311						
14	0.463	2.573	92.883						
15	0.425	2.359	95.242						
16	0.372	2.068	97.311						
17	0.28	1.553	98.864						
18	0.204	1.136	100						

Extraction Method: Principal Component Analysis.



Component Matrix[a]

	Component		
	1	2	3
B4.1	.332	.290	-.215
B4.2	.381	.056	.635
B4.3	.322	.388	.527
B4.4	.418	.061	.248
B4.5	.123	.654	-.240
B4.6	.471	.373	-.146
B4.7	.203	.701	-.034
B4.8	.604	-.272	.294
B5.1	.568	-.285	.212
B5.2	.233	-.428	.065

B5.3	.313	.100	-.352
B5.4	.533	.214	-.221
B6.1	.641	-.366	.067
B6.2	.550	-.015	-.333
B6.3	.559	-.358	-.319
B6.4	.493	-.455	-.319
B6.5	.533	.307	.043
B6.6	.294	.399	.099

Extraction Method: Principal Component Analysis.[a]

a. 3 components extracted.

Statistics Solution website:(https://www.statisticssolutions.com/factor-analysis-sem- exploratory-factor-analysis/)

Statistics Solution suggests the following factor loadings:

Greater than + .30-minimum consideration (orange)

+ .40-more important (blue)

+ .50-practically significant (yellow)

Rotated Component Matrix[a]

	Component		
	1	2	3
B4.1	.069	.485	.030
B4.2	.089	-.044	.736
B4.3	-.161	.201	.682
B4.4	.192	.160	.421
B4.5	-.322	.630	-.017
B4.6	.092	.587	.170
B4.7	-.344	.610	.207
B4.8	.542	.014	.481
B5.1	.543	.023	.391
B5.2	.444	-.194	.079
B5.3	.219	.407	-.136
B5.4	.262	.547	.103
B6.1	.680	.076	.284
B6.2	.457	.452	-.032
B6.3	.699	.215	-.084
B6.4	.722	.111	-.135
B6.5	.141	.489	.349
B6.6	-.098	.392	.304

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 12 iterations.

As illustrated above, there is no relationship between the theoretical subscales and factors/components. Field (2013) notes that Guadagnoli and Velicer (1988) found that if a factor has less than 4 variables with loading over.6, then the factors are considered unreliable.

Component Transformation Matrix

Component	1	2	3
1	.684	.559	.469
2	-.698	.687	.201
3	-.209	-.465	.860

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

APPENDIX D. LIST OF FIGURES

Youth Unemployment

The Youth Unemployment rate in South Africa increased to 55.90% in the second quarter of 2017 from 54.30% in the first quarter of 2017 reaching an all-time high:



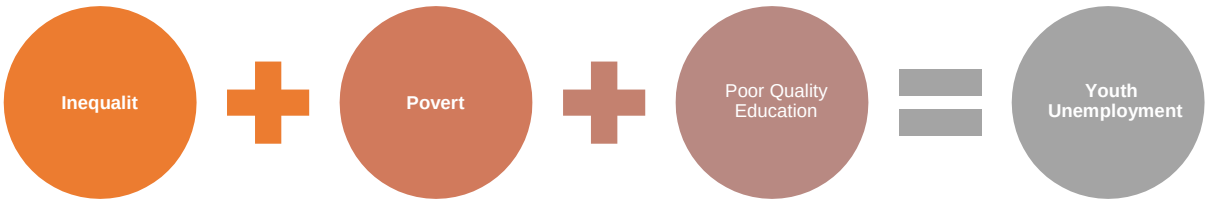


Figure 13: South African Youth Unemployment Rate

- 9.3 million South Africans are Unemployed
- Of these, 67.4%are younger than 25 (expanded definition)*
- Most of these young people are “not in employment, education or training”
- This group is arguably the most vulnerable to chronic unemployment, poverty and social exclusion**,** as they are neither improving their skill through education nor gaining the work experience needed to progress in the labour market.

**the expanded definition of unemployment includes discouraged work seekers*
Source: quarterly labour force data released by Statistics South Africa on August 8, 2017.

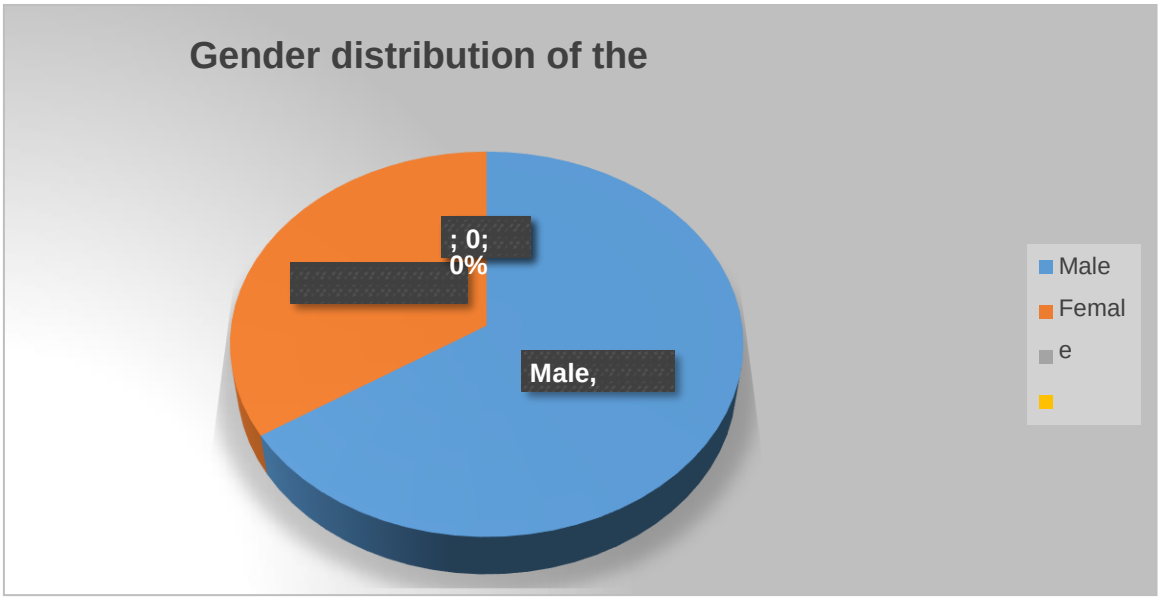


Figure 14: Gender of respondents (N=120)

Figure 3 shows that out of the 120 entrepreneurs that were surveyed, 79 (65.8%) were males and 41 (34.2%) were females**.**

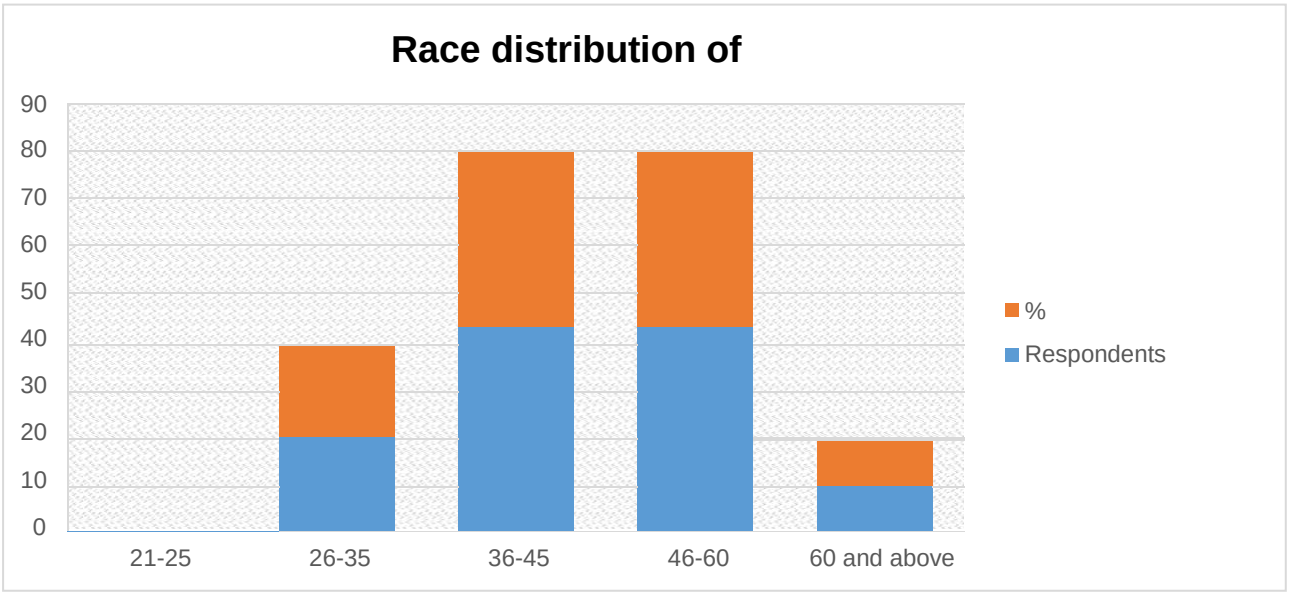


Figure 15: Frequencies and percentages of the age groups of respondents (N=120)

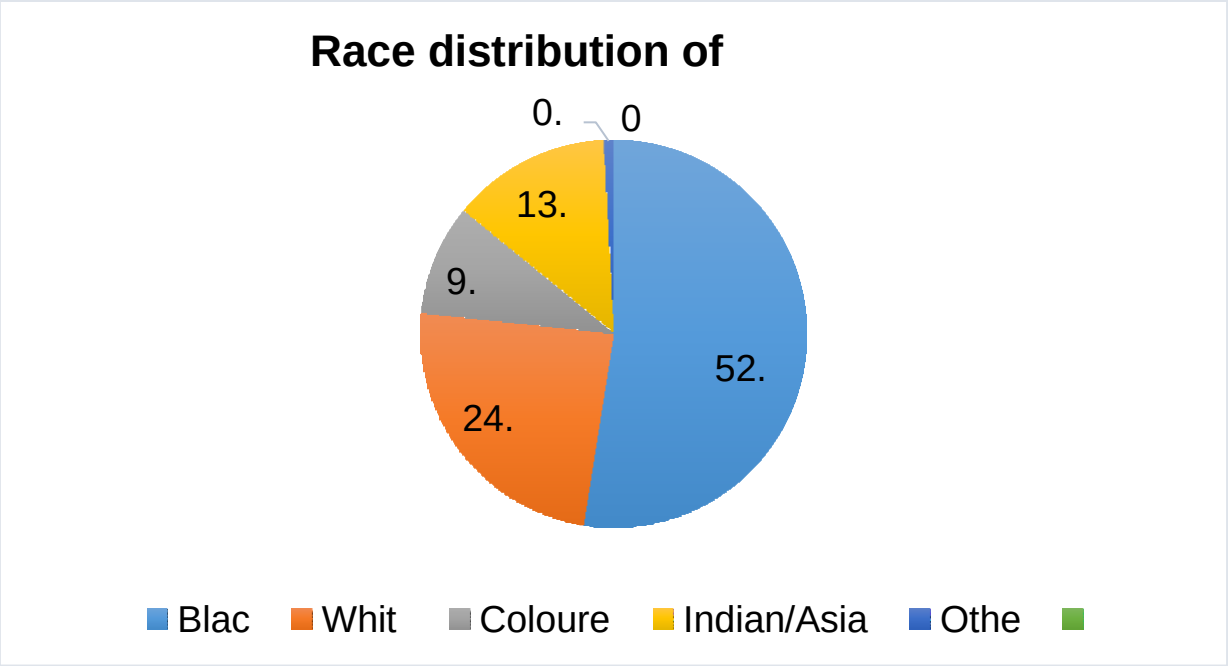


Figure 16: Frequencies and percentages of the races of respondents (N=120)

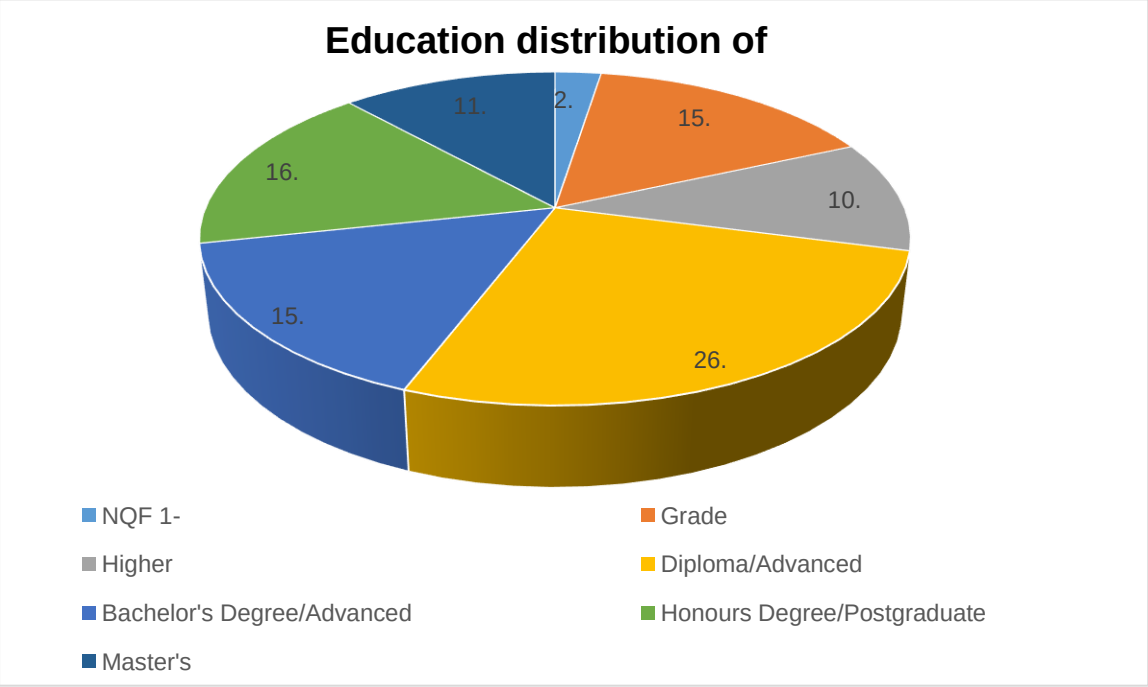


Figure 6: Education distribution of respondents (N=120)

Turnover

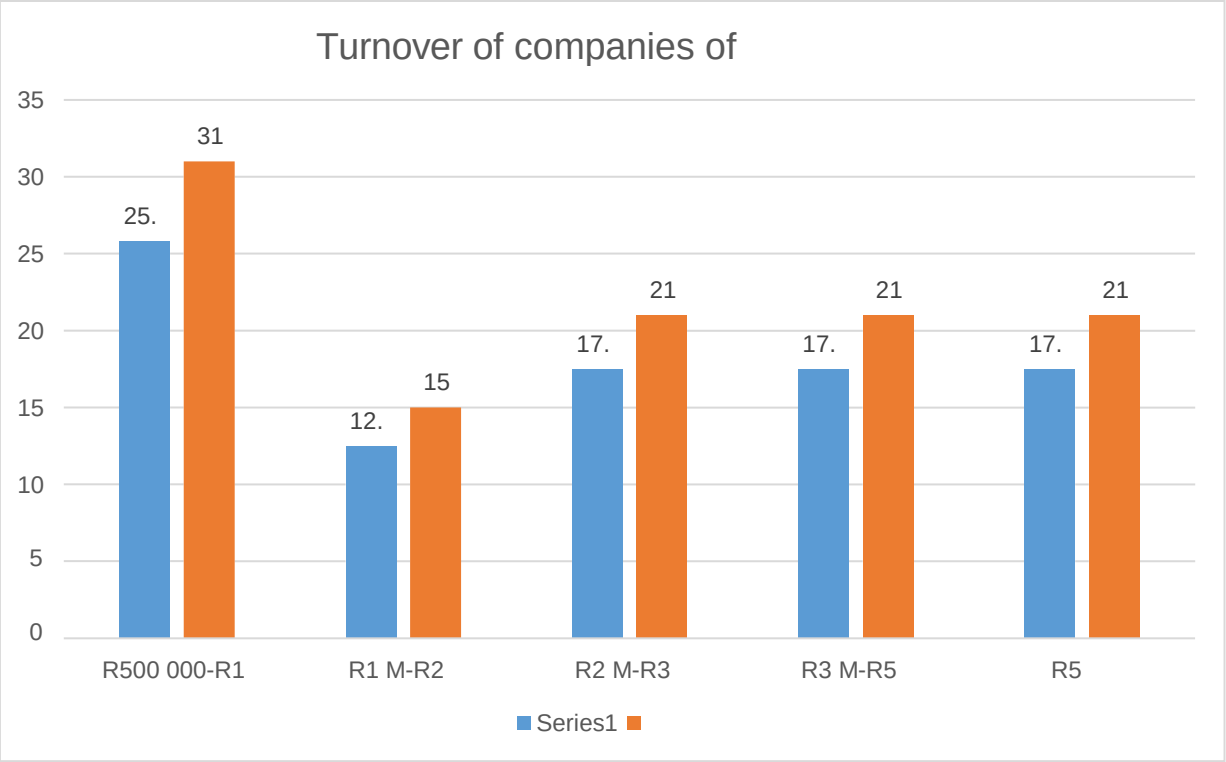


Figure 17: Turnover of companies of Respondents

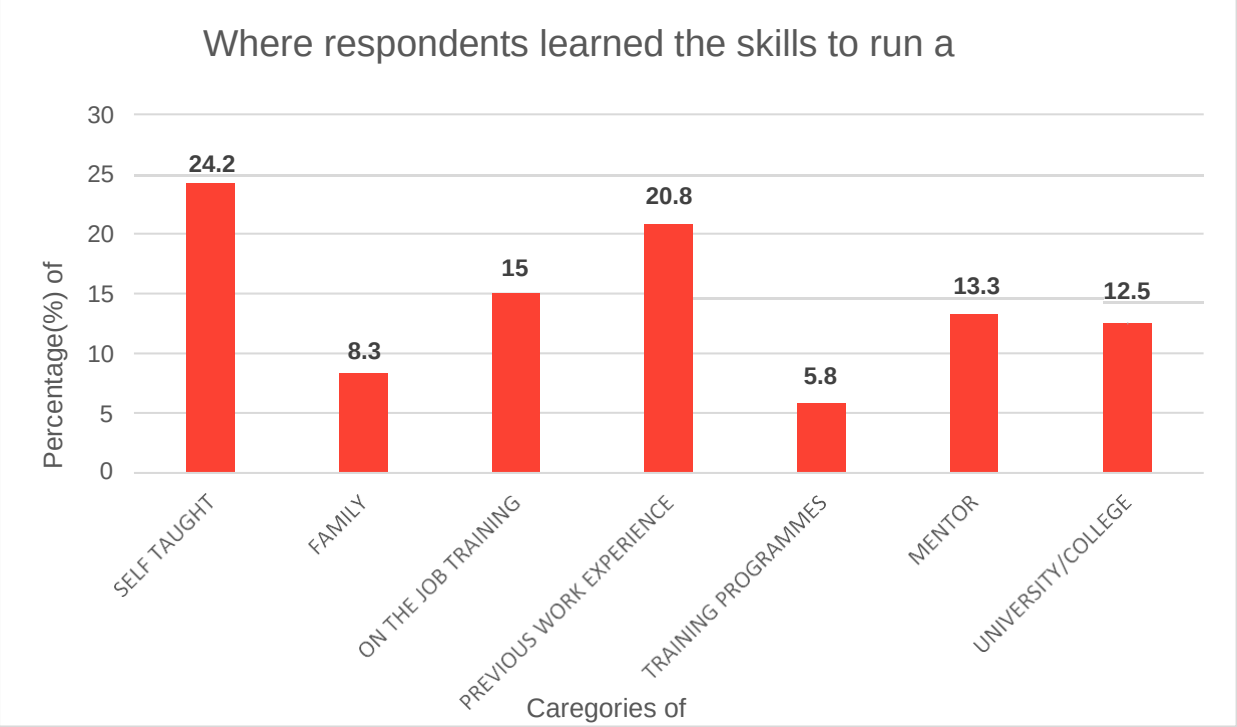
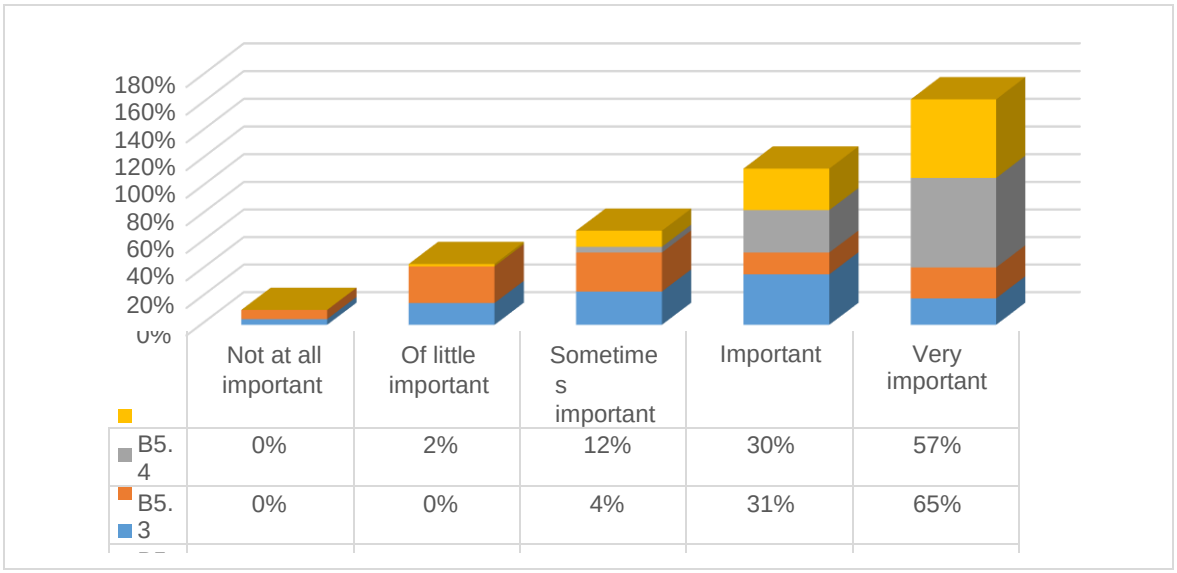
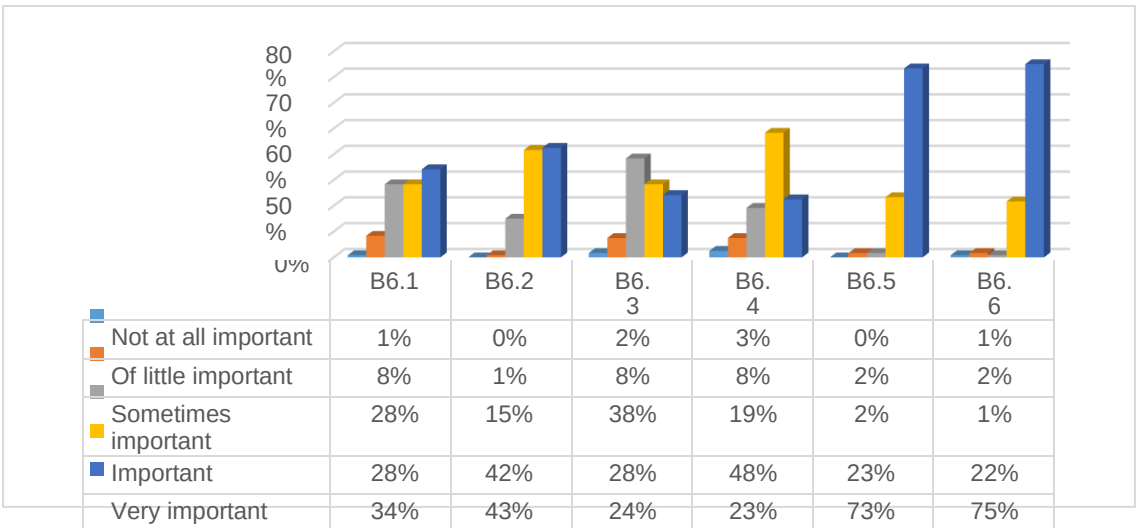


Figure 18: Where respondents learned the skills to run a business



	Not at all important	Of little important	Sometimes important	Important	Very important
B5.4	0%	2%	12%	30%	57%
B5.3	0%	0%	4%	31%	65%

Figure 19: Response (%) of items on education related (N =120)



	B6.1	B6.2	B6.3	B6.4	B6.5	B6.6
Not at all important	1%	0%	2%	3%	0%	1%
Of little important	8%	1%	8%	8%	2%	2%
Sometimes important	28%	15%	38%	19%	2%	1%
Important	28%	42%	28%	48%	23%	22%
Very important	34%	43%	24%	23%	73%	75%

Figure 20: Response (%) of items on work experience (N = 120)

Business Knowledge

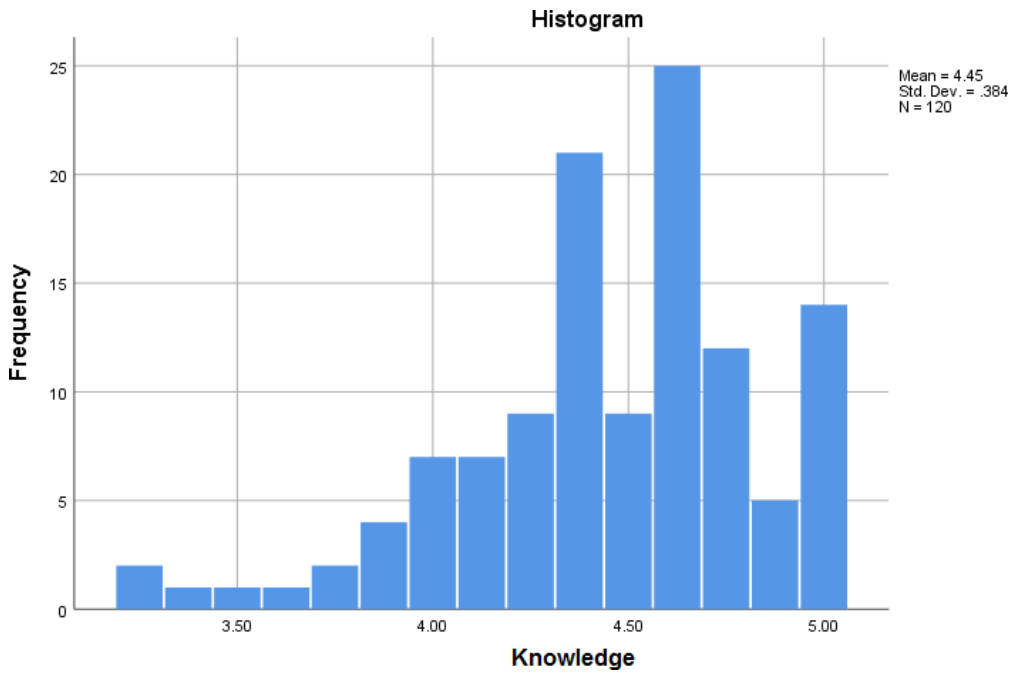


Figure 21: Histogram on Business Knowledge

Education related

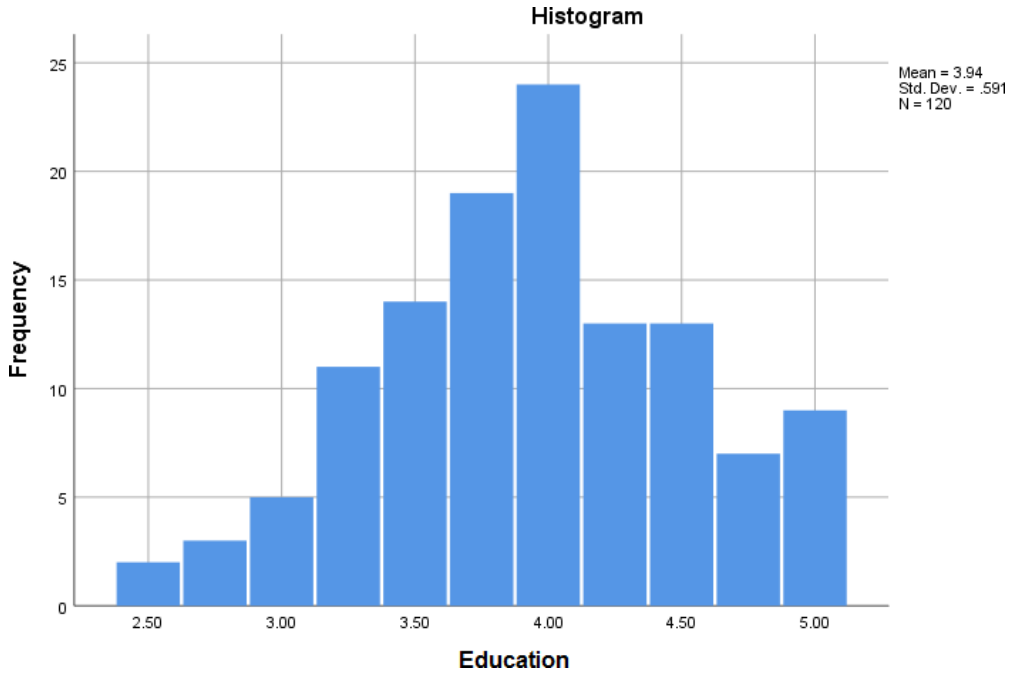


Figure 22: Histogram on education related

Work experience

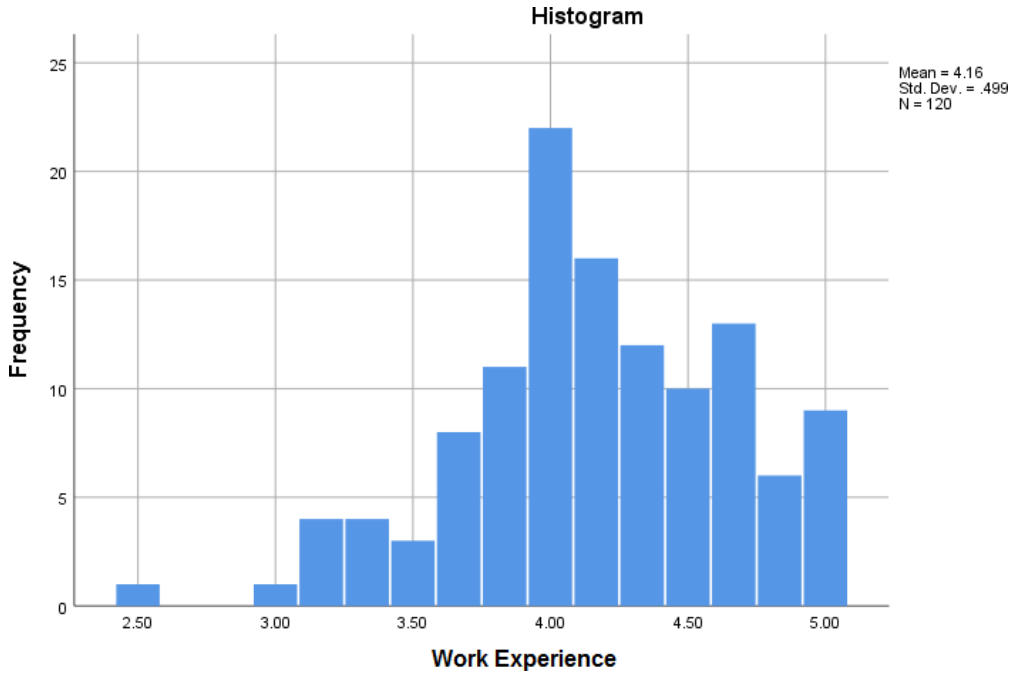
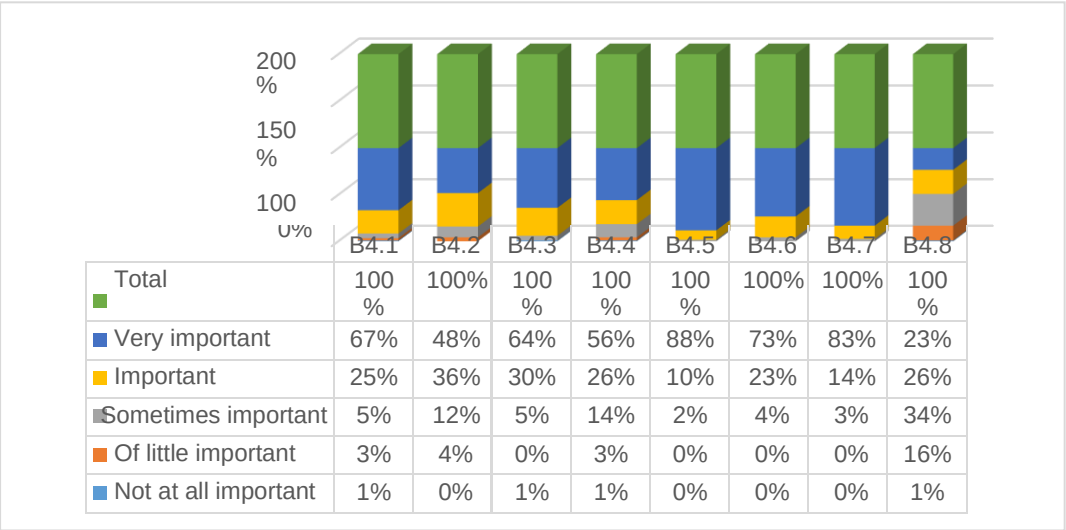


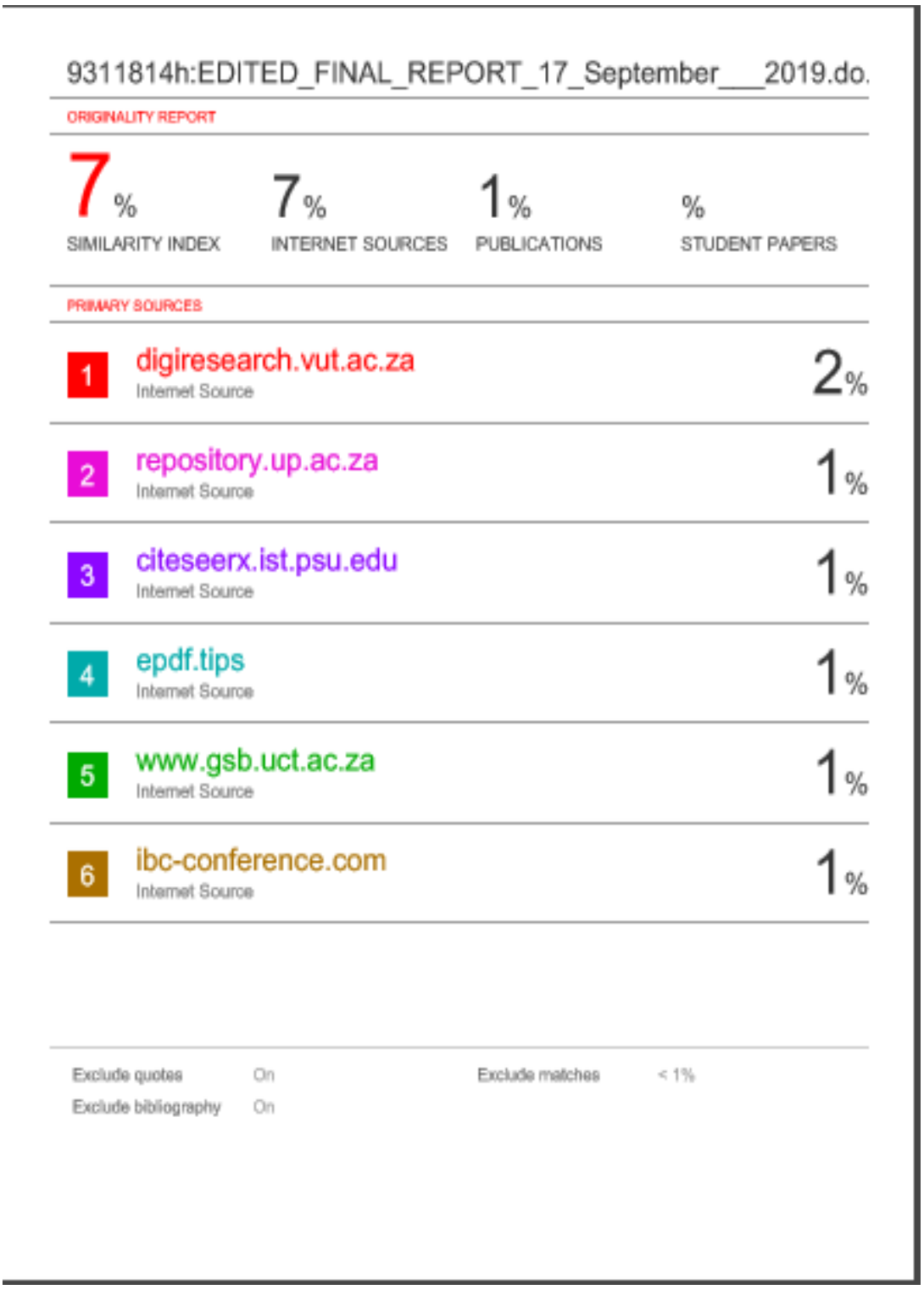
Figure 23: Histogram on work experience



	B4.1	B4.2	B4.3	B4.4	B4.5	B4.6	B4.7	B4.8
Total	100 %	100%	100 %	100 %	100 %	100%	100%	100 %
Very important	67%	48%	64%	56%	88%	73%	83%	23%
Important	25%	36%	30%	26%	10%	23%	14%	26%
Sometimes important	5%	12%	5%	14%	2%	4%	3%	34%
Of little important	3%	4%	0%	3%	0%	0%	0%	16%
Not at all important	1%	0%	1%	1%	0%	0%	0%	1%

Figure 24: Response (%) of items on business knowledge (n =120)

APPENDIX E: TURN-IT-IN REPORT



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