The role of entrepreneurial human capital factors on business sustainability in the South African pharmaceutical retail industry

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ABSTRACT

In this research study, the researcher sought to evaluate the role of entrepreneurial human capital factors on business sustainability in the South African pharmaceutical retail industry. In South Africa the selling of medicine is regulated in terms of pricing, which results in low profits margins for entrepreneurs. Thirty entrepreneurs in the pharmaceutical industry were respondents in this qualitative research study. The pertinent findings of the study included that the higher the level of entrepreneurial human capital, the higher the entrepreneur’s performance, hence ensuring that ventures are sustainable in both the long- and short-term. This research study supports that the higher the level of entrepreneurial human capital, the more the entrepreneur’s gains create a competitive advantage in the sustainability of the respective entrepreneur’s businesses.

DECLARATION

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

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Signed at 447 Meyersig Estate, Brackendowns, Alberton 1448

On the 17 day of February 2015.

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CHAPTER 1: INTRODUCTION

1.1 Purpose of the study

The purpose of this research is to determine and assess the influence of entrepreneurial human capital factors on the sustainability of retail pharmacy businesses in South Africa. There is no sufficient knowledge available about entrepreneurs that go through different challenges at different stages of entrepreneurial activity within South Africa's pharmaceutical industry.

The business environment is very dynamic and diverse and requires entrepreneurs to be creative and innovative in order to gain superior competitive advantage. Innovation and creativity of entrepreneurs rely on their cognitive abilities to make decisions, exploit opportunities and run a success business venture (Maran et al, 2009)

Government has come to accept the value that entrepreneurship in the management of the economic growth. At the same time, several governments have created initiatives that create awareness about entrepreneurship. Volery, Muller,Oser, Naepflin(2013) has cited that there is limited evidence to demonstrate the benefits of entrepreneurship programmes, despite the increase in government resources for entrepreneurship education and training. (Volery, Müller, Oser, Naepflin, & Rey, 2013).

The pharmaceutical industry plays an important role in ensuring accessible and affordable medication to communities and also has a social responsibility to ensure that people live better and healthier lives. The industry's entrepreneurs constantly are confronted with the requirement to determine methods that will successfully attract their target market, provide cost effective products, while simultaneously meeting the desired financial goals. For this to be achieved, entrepreneurs of both large and small firms need to readily take initiatives, ascertain methods to remain competitive and sustain the development of their companies and the economy. The study sought to determine whether entrepreneurial human capital plays a role in the sustainability of the retail pharmacy business of South Africa.

1.2 Context of the study

South Africa is a developing country characterised by labour division between the upper and lower class in the formal and informal sectors. South Africa has undergone rapid socio economic and political change since the end of the anti-apartheid era The current South African government aims to develop a stronger small business sector and has implemented numerous measures to activate and strengthen entrepreneurship(Preisendörfer, Bitz, & Bezuidenhout, 2012).

Entrepreneurship is related to aspects of wealth creation and value creation. Entrepreneurship education is essential to equip future entrepreneurs with the skills of having the right motivation of turning opportunities into successful ventures.(Volery et al., 2013). In developing countries like South Africa, entrepreneurship is not just an economic phenomenon, it also plays a role in stabilisation of democracy (Tanas & Audretsch, 2011).

Entrepreneurship is major driver of innovation, competitiveness and growth. Due to their presence in the key sectors such as services and professional activities, smaller enterprises and entrepreneurs play a critical role in the economy. A robust correlation between entrepreneurship and economic performance has been found in terms of growth, firm survival, innovation, employment creation, technological change, productivity increases and exports. But entrepreneurship brings more than that to the societies. It is also a vehicle for personal development and can harness social adhesion when the opportunity for creating one’s business is offered to everybody, regardless of the background or location. However, once the business has been created, post start-up performance is of particular importance in the entrepreneurial process, because although, entry is relatively easy, survival and market penetration and extension is not(Arribas & Vila, 2007).

In the past, the means of production constituted a major share of an organisation’s tangible assets. Today, human talent is concerned as capital. In as much as human capital relates and comprises of capital, it is best exhibited by talented individuals who convey important aspects of the means of production through their knowledge and expertise. A firm’s capacity to compete is imbedded in the founder’s capability, education, and experience. The main focus of the human capital theory is the outcome of investments in education and work experience (Sriyani, 2012).

Human capital is thought to have a positive influence on the success of entrepreneurs, and is thought to have a positive influence on the success of starting entrepreneurs. Human capital can be defined as the knowledge, skills, competencies and attributes embodied in an individual that facilitates the creation of personal, social and economic well-being (Organisation of Economic Co-operation and Development, 2001:18; Maran, et al, 2009). Knowledge is an important factor in this respect, which may be acquired through general education or through time. Particular entrepreneurial capabilities are generally not taught in education programmes. Knowledge of the world, knowledge of business and finance, and educational level may also contribute to entrepreneurial success (Van Praag, 1997).

The concept of human capital together with education focuses productive and creative capabilities that are used to achieve higher sustainable levels of human capacity. The knowledge, skills and values acquired through experience and education enhances human capacity for constructive, organised activities that contribute to their own well-being and that of the society (Slaus & Jacobs, 2011).

Van Praag (2006) says that, irrespective of how the performance of entrepreneurs is measured, i.e. in terms of profit, income, growth or survival, entrepreneurs with higher levels of education are associated with better entrepreneurial outcomes (Van Praag, 2006).

The human capital theory suggests that individuals with more or higher-quality human capital are more adept to discovering and exploiting entrepreneurial opportunities. Formal education also assists in the accumulation of explicit knowledge that may be useful to entrepreneurs. The theory of human capital has managed to extend microeconomic analysis to a wide range of human behaviour and suggested that knowledge and competencies can increase cognitive ability and lead to more effective activity. The literature distinguishes between general human capital, which refers to overall education and practical experience, and specific human capital, which refers to education and experience with a scope of application limited to a particular activity or context (Volery et al., 2013).

Human capital has more generally been recognised as a vital success factor in new venture performance. A surprising feature of the human capital literature is that there appears to be no *ex-ante (the* method of predicting which different forms of human capital are commonly employed in entrepreneurship literature), and by investors in new ventures, might be expected to have an effect on performance. Simplistically, no commonly accepted theory is routinely used to categorise human capital factors *ex-ante* as relevant or irrelevant venture performance. Gimmon and Levie (2009) used the instrumental value theory as interpreted by J. F. Foster (Tool 1993a; Ranson 2008) as a tool for *ex-ante* prediction of the effect of different forms of human capital on new venture performance (Gimmon & Levie, 2009). The same tools were adopted in this research study (See Appendix 1).

Grant (1996) has established that knowledge is the preeminent resource of the firm, and that organizational capability involves the integration of multiple knowledge bases. The resulting theory of organizational capability provides a more cogent description of firm competence and analyzes more precisely than hitherto the relationship of organizational capability to competitive advantage in markets where market leadership and power is continually undermined by competition and external change (Grant, 1996).

The South African pharmaceutical industry is highly regulated in terms of medicine pricing. Single Exit Pricing (SEP) was introduced by the South African Minister of Health in 2003. The purpose of SEP is to place a ceiling price on medicine, to ensure that medicines remain affordable to the majority of the population. This price ceiling strategy forces pharmaceutical industry entrepreneurs to re-assess their sustainability strategies in the complex environment of market imperfection and trade regulations. Therefore, performance, skills, experience and education of these entrepreneurs is deemed critical to the survival of their companies.

Unstable market conditions caused by innovation and increasing intensity and diversity of competition have resulted in *organizational capabilities* rather than *served markets* becoming the primary basis upon which firms establish their long-term strategies. If the strategically most important resource of the firm is *knowledge,* and if knowledge resides in specialized form among individual organizational members, then the essence of organizational capability is the integration of individuals' specialized knowledge.(Grant, 1996)

Many people who begin the process of starting a new business fail to achieve their goals, while others are comparatively successful (Davidsson & Honig, 2003).The question is whether the individuals who attempt to start businesses begin with different human capital; and furthermore, do these endowments affect the success rate of the businesses (Davidsson & Honig, 2003).

Success in self-employment has no unique definition or measure and has been measured in business. Performance of businesses has been measured in terms of company size, entrepreneur's income and firm growth, the terms "performance',' growth" and 'success' are often used as synonyms' in the entrepreneurship research(Reijonen & Komppula, 2007).

Laitinen (2002) defines performance as "the ability of an object to produce results in a dimension determined a priori, in relation to a target". Efficiency growth like increase in sales, and profits are used as a performance measure of a business. This one sided view has been criticised by some scholars. These scholars believes that business should be measured by its size, which can in turn be examined according to change in turnover, number of employees and the total sum of the balance sheet (Reijonen & Komppula, 2007). This also implies that financial indicators can be used as a measure of business success that is deemed to be necessary for business survival(Powell & Bitner, 1992).

1.3 Problem statement

1.3.1 Main Problem

To determine and analyse entrepreneurial human capital factors involved in the survival and long-term sustainability in the pharmaceutical retail businesses.

1.3.2 Sub-problems

Sub problem 1:

To determine human capital factors that influence performance of entrepreneurs, such as survival, growth and income.

Sub problem 2:

To analyse human capital as a factor of competitive advantage in the retail pharmaceutical industry.

Sub problem 3:

To identify whether the development of entrepreneurial human capital is the critical determinants of long-term business sustainability.

1.4 Significance of the research study

Since the introduction of the Bolton Report (1971), the contribution of entrepreneurs to economic growth, job creation, innovation and promotion of enterprises has been widely recognised. Simultaneously, entrepreneurs are still a rare source of economic development (Širec & Močnik, 2012).

This study attempted to reveal the role of entrepreneurial human capital factors on business sustainability in the South African pharmaceutical retail industry. This information would typically assist in determining the extent of investment in human capital to achieve business sustainability, more especially in this highly regulated pharmaceutical retail industry. Furthermore, the research study sought to assist business development service providers to ascertain how entrepreneurial human capital can be promoted to achieve competitiveness and survival of businesses.

The study further attempted to provide government, academic institutions, as well as private and corporate institutions with information of whether to encourage entrepreneurship education as part of their social contribution to human capital development. Moreover, the study sought to determine whether investments in entrepreneurial training and education would ensure competitiveness and survival of entrepreneurs and businesses.

The study also attempted to determine the human capital factors that are more prominent with entrepreneurs who deal with changing environments and/or market imperfections. It was hoped that this information would assist in decision-making of investors of business ventures.

1.5 Delimitations of the study

- This study did not include social capital and financial capital factors that affects entrepreneurs; it solely analysed human capital factors.
- The pharmaceutical industry has different pharmacy disciplines but the study was specifically focused on the retail sector.
- Pharmacy owners were considered to be the entrepreneurs in the pharmaceutical retail industry.
- The Gauteng region has 1571 pharmacies (http://www.pharmcouncil.co.za/). A convenient sample of 30 retail pharmacies was used to approach the study. Contact details were obtained from the pharmacy council websites.

The initial contact with the potential participants was either telephonic or via email to gain permission to conduct the study. This was followed by a face-to-face interview that commenced with an explanation of the nature of the study and the questionnaire process, after which the study methodology was followed.

1.6 Definition of terms

Entrepreneurship: The Organisation of Economic Co-operation and Development (OECD), Entrepreneurship Indicator Programme (OECD, 2009:6) defined entrepreneurship as “an enterprising human activity in pursuit of the generation of value through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets”(Ajewole et al.,2013).

Human capital: The knowledge, skills, competencies and attributes embodied in an individual that facilitates the creation of personal, social and economic well-being (OECD, 2001:18; Maran et al., 2009).

Human capital factors are tools used to measure the instrumental value of human capital, e.g. academic title, age, entrepreneurial mind-set, etc. (Gimmon & Levie, 2009).

1.7 Assumptions

The retail pharmacy industry is in a growing phase. Pharmaceutical services will still be part of the retailing industry with the implementation of the National Health Insurance. Research has shown a considerable amount of growth in the health industry with good health expenditures (42million in 2013) and improvement in life expectancy (55years for males, and 58years for females in 2013) (Consumer Health in South Africa 2014).

It was assumed that respondents would answer truthfully and would reflect normal perspectives and experience. Anonymity and confidentiality were preserved. Participants were regarded as volunteers who were allowed to withdraw from their participation at any time and with no penalties.

The sample selected was a fair representation to make suggestive conclusions about the findings.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Knowledge plays a critical role in intellectual performance. It assists integrating and accumulating new knowledge and adapting to new situations and environments. Knowledge can be defined as being either explicit or tacit. Tacit knowledge refers to know-how, the often non-codified components of activity. Know -what consists of explicit type of information usually conveyed in the form of procedures, processes, formal written documents and educational institutions (Davidsson & Honig, 2003)

Knowledge can be acquired through experience, informal or formal education. The general literature teaches us that people with higher level of education has higher propensity to be self-employed (Preisendörfer et al., 2012). This informs us that the level of human capacity can influence an individual’s desire to be an entrepreneur.

Formal education is one component of human capital that may assist with accumulation of explicit knowledge that may provide skills useful for entrepreneurs. Empirical research has demonstrated a range of results regarding the relationship between education, entrepreneurship and success, with education frequently producing non-linear effects in supporting the probability of becoming an entrepreneur , or in -achieving success (Davidsson & Honig, 2003).

Informal education includes 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. Thus, broad labour market experience, as well as specific vocationally orientated experience, is theoretically predicted to increase human capital. Although empirical results has been mixed, there are studies that show labour market experience, and previous entrepreneurial experience is significantly related to entrepreneurial activity, particularly when controlling for factors such as industry and gender (Davidsson & Honig, 2003).

Human capital theory maintains that knowledge provides individuals with increased cognitive abilities, leading to more productive and efficient potential activity. Therefore in terms of entrepreneurial capabilities, if profitable opportunities of new economic activity exist, individuals with more or higher quality human capital should be better at perceiving them. Once engaged in entrepreneurial activity ,such individuals should have superior ability to exploit opportunities(Davidsson & Honig, 2003).

Human capital theory assumes that people attempts to receive a compensation for their investment in human capital (Becker, 1964). Thus, individuals try to maximise their economic benefits given their human capital. As a consequence, highly educated people may choose to be entrepreneurs because entrepreneurship may very well lead to reduced income compared to other employment opportunities (Cassar, 2006; Evans and Lieghton 1989). However, once the individuals have entered entrepreneurship, those who have invested in human capital are likely to strive for more growth and profits in the businesses compared to those individuals who have invested less in human capital (Cassar, 2006), simply because they want to receive higher compensation for their human capital investments. Otherwise, highly educated entrepreneurs will dissolve their firms and seek other more lucrative employment opportunities. (Gimeno et al,1997). The argument suggest that according to human capital theory, human capital leads to entrepreneurial success (Unger, Rauch, Frese, & Rosenbusch, 2011) .

Being a successful entrepreneur often involves solving of complex problems and making entrepreneurial decisions. This mental activity takes place on a daily basis for an entrepreneur and it utilises an interaction of both explicit and tacit knowledge, as well as social structures and believes. This means that increased knowledge, whether attained formally(university education) and/or informally(work experience, adult education) will better advantage the entrepreneur for the day to day needs- of operating a successful business venture.(Davidsson & Honig, 2003). The ability to ensure that a venture is successful and sustainable relies on the entrepreneur's cognitive abilities.

Entrepreneurial cognitions are the knowledge structures that people use to make assessments, judgments, or decisions involving opportunity evaluation, venture creation, and growth. In other words, research in entrepreneurial cognition is about understanding how entrepreneurs use their mental capabilities in overcoming the unstable and challenging business environment (Mitchell et al., 2002).

According to Starr and Bygrave (1992), the skills and knowledge relevant to managing and operating a business are experiential in nature. One explanation for the importance of this kind of specific human capital is that it influences how individuals seek information (Copper et al., 1995) and create or identify entrepreneurial opportunities. Individuals with managerial experience are more likely to have developed the necessary skills to pursue the market opportunities and organise new businesses (Amaral, Baptista, & Lima, 2011).

Prior research fairly consistently indicates that human capital plays a role in the profitability and growth of entrepreneurial ventures. Profitability measures the firm's ability to generate revenues in excess of expenses, an accomplishment that is necessary if the firm is to be considered a "going concern." Further, as small firms are typically privately held, they do not pay dividends. Thus, profits flow directly to the firm owners, thereby increasing their personal wealth.

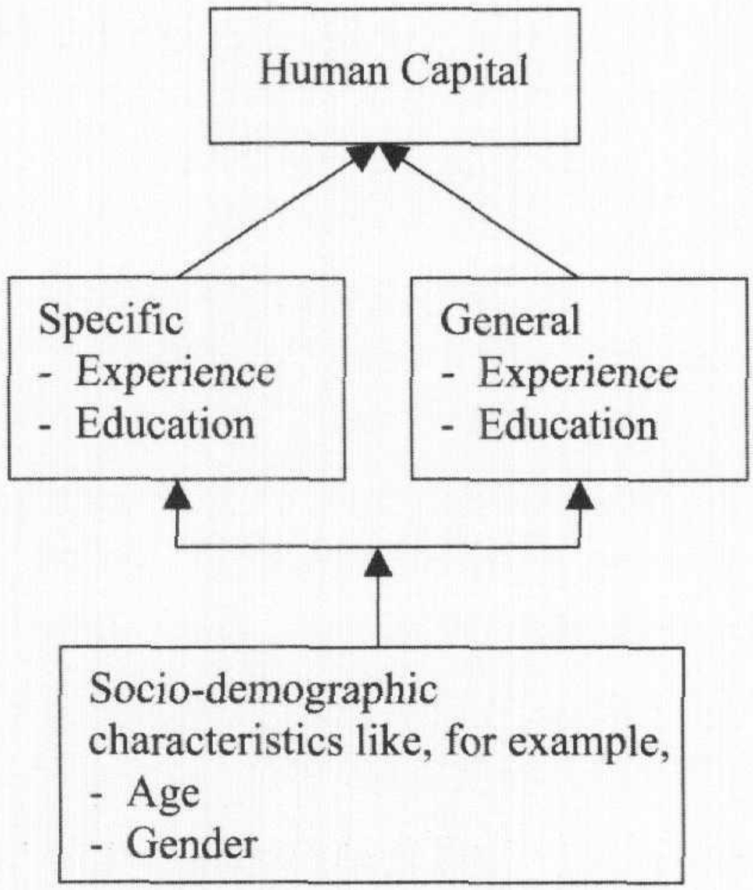
Because of this, a number of prior studies cite the firm's ability to generate profits as an important indicator of success. Firm growth has also been cited as a key measure of performance in prior research. Larger firms have the potential to generate higher earnings and employ a greater number of individuals, thus providing economic benefits to employees as well as to the firm owners. Larger firms also have the potential to serve customers in a more extensive geographical territory while providing a greater number of products and services.(Coleman, 2007).

From the modern empirical knowledge base about the person-specific determinants of small business success, several hypotheses result concerning person-oriented drivers of entrepreneurial success: Relevant previous experience (in self-employment, the same industry or occupation) affects success as a business founder. The younger the business founder is, the better his performance will be, given the level of relevant experience. The more own capital is available, the more successful will the small business owner be. Small business owners that have been pulled into the job, rather than pushed, have higher chances to be successful. In other words, a positive motivation at the start affects performance positively, whereas individuals who consider self-employment as their last resort will be less successful. Higher educated business founders perform better (Van Praag, 2003)

Business performance relates to the performance of a company. Company performance can evaluate as qualitative or quantitative performance. Qualitative performance indicators can relate to customer satisfaction, service quality, and ethical aspects of a company's operation, learning perspective measures like skills development and market innovation. On the other hand, a more objective measure is financial performance. The key standard measures are profitability, growth, and sales amongst others.(Ismail & Mahfodz, 2009). Many studies has theorised that human capital of entrepreneurs leads to economic growth. In addition, the new ventures established have been found to be established through an individual's capacity, education, business experience, skills. The type and length of education , as well as the business experience, generally characterised as human capital and are important factors that which influence how an entrepreneur handles the founding and growth a the new venture.(Madsen, Neergaard, & Ulhøi, 2003)

Human capital can be divided into two categories: Specific and general human capital. These are defined in different ways by different authors. For an example, Cressy (1999) refers to entrepreneurs educational and professional experiences as specific human capital and defines general human capital as socio-demographic characteristics such as age, gender, marital status and previous personal experiences. Becker (1975) however regards experience and education as general human capital if they are not specifically related to the business sector and the entrepreneurial activity. Experience and education can thus be general or related to a specific industry (Madsen et al., 2003). Becker's categorisation of human capital is shown on the diagram below.

Figure 1 Factors contributing to the creation of human capital



Source:(Madsen et al., 2003)

2.2 Definition of research topic

What you know affects what you do in business.(Kolstad & Wiig, 2013).

In the study completed by Davidsson and Honig (2003), it was demonstrated that the effects of both tacit and explicit knowledge on human capital were used primarily during the entrepreneurial discovery. Individuals with greater levels of human capital were more prone to discover opportunities perceived to be attractive enough to activate steps towards starting their own businesses. Even the most specific type of explicit human capital, formal education as provided by business classes, only succeeded in increasing the pace of gestation activities, and did not affect the critical outcomes. Both tacit and explicit human capital clearly facilitates the entrepreneurial discovery and to some extent the ability to commence with the exploration process. However, human capital *per se* is not enough to ensure its successful completion. As the process unfolds, more specific human capital appears to increase in importance. The reason for this is speculated to be that the nascent process moves from discovery to exploitation; increasing newer combinations of activities occur that are based on progressively more tacit forms of human capital. Human capital facilitates success only in conjunction with adequate levels of social capital. There is a possibility that individuals with higher levels of human capital pursue higher potential opportunities that take longer periods to achieve the levels of market success (Davidsson & Honig, 2003).

Three specific types of human capital appear most beneficial:

1. Prior knowledge of ways to serve the market
2. Prior knowledge of customer problems
3. Prior knowledge of start-ups.

Knowledge of ways to serve the markets is how technology or technologies can be developed or packaged as a product or service offering that satisfies customers' needs. A person who has knowledge or experience of how to create a particular product or service offering is more likely to do so again (Marvel, 2013).

Human capital leads to higher performance only if it is applied and successfully transferred to the specific tasks that need to be performed**.** The transfer process should be easier if human capital is related to the current tasks of the business owner. Generally, the transfer of schooling to real life works best if old and new activities share common situation-response elements (Unger et al., 2011).

2.3 Human capital factors that influence performance of entrepreneurs

The research study evaluated human capital factors that affect performance of entrepreneurs such as survival, growth and income in the pharmaceutical industry. According to the study done by Gimmon and Levie (2009), 12 different human capital factors of entrepreneurs have been proposed, and are listed below:

- Academic title
- Age
- Education
- Entrepreneurial mind-set: This is commonly used in literature for a wide range of entrepreneurial personality, culture and sense of factor constructs.
- Ethnicity
- Entrepreneur's team compatibility
- Gender
- General management experience
- Industry related experience
- Learning ability

- Parent(s) were entrepreneurs
- Start-up experience

These factors denote relevant skills, knowledge or experience and have been found to affect the entrepreneur's performance (Gimmon & Levie, 2009). In this study, a measure of performance was conducted in terms of profitability, growth and income and the human capital factors were adopted as proposed above.

2.3.1 Research Question 1

Human capital factors have a positive and significant impact on entrepreneur's performance.

2.4 Human capital as a factor of competitive advantage in the retail pharmaceutical industry

The research study analysed whether human capital is a factor of competitive advantage in the retail pharmaceutical industry. The pharmaceutical industry is highly regulated in terms of medicine pricing. These regulations force entrepreneurs in the industry to find innovative and strategic ways to survive. This study was specific to the retail industry and analysed whether the prominent entrepreneurs possess some degree of human capital to be sustainable and whether this factor is a competitive advantage.

2.4.1 Research Question 2

Human capital is a competitive advantage in the sustainability of retail pharmaceutical business.

2.5 Entrepreneurial human capital is the critical determinants of long-term business sustainability

The study sought to identify whether development of entrepreneurial human capital is the critical determinant of long-term business sustainability. Entrepreneurship is not confined to new business creation, nor is it a single-action event (Amaral et al., 2011). A sustainable business meets the needs of its current stakeholder without compromising the company's ability to meet the needs of the future stakeholder as well (Halkias & Thurman, 2012; Unger et al., 2011). This study determined whether entrepreneurial human capital has a significant effect on long-term sustainability of the business. Sustainability was a measure of the ability to produce value creation and profitability for the business.

2.5.1 Research Question 3

There is a positive relationship between entrepreneurial human capital and long-term sustainability of the business.

2.6 Conclusion of Literature Review

Explicit human capital and tacit human capital appears to be a good investment for the entrepreneur and the economy. It increases confidence of the entrepreneur and the probability of someone in the population entering a business venture process. This includes experience and practical learning that takes place on the job, as well as non-formal education, such as specific training courses that are not traditional formal educational structures. (Davidsson & Honig, 2003).Many studies have suggested that future research should pursue moderate approaches to study the effects of human capital on success. Outcomes should be measured in human capital investments and at what degree it impacts on success (Unger et al., 2011).

CHAPTER 3: RESEARCH METHODOLOGY

The section describes the methodology the research study employed. The chapter provides a description in the research design, population used for sampling, the research tool, data collection and data interpretation methods.

3.1 Research methodology /paradigm

Research methods in education and other social science are often divided into two main types: quantitative and qualitative. This study utilised qualitative methodology to collect the required data. Qualitative research studies are tools that are used to understand and describe the world of human experience (Bashir, Afzal, & Azeem, 2008). This method attempts to make sense of participants' perspectives. All qualitative research is characterised by the search of meaning and understanding; the researcher is the primary instrument of data collection and analysis that culminates in an investigative strategy and a richly descriptive end-product (Merriam, 2002).

The selected method was best suited to analyse the research study's hypothesis. The method allows for testing emerging concepts, themes, and categories against subsequent data.

3.2 Research Design

The study was based on a randomly selected sample of 30 retail pharmacy owners. A structured questionnaire was used to delve into the depth of the topic. This approach was suitable for collecting the required data and for testing the hypothesis.

The data collected helped to provide connections between human capital and entrepreneurship. However, this approach has serious shortcomings.

Firstly failed entrepreneurs were not studied, even though it would assist in making a contrast on the human capital factors that are prominent to the successful and the unsuccessful entrepreneurs. This study does not provide any knowledge about entrepreneurs who have started and dropped out of the venture.

Secondly, the research investigates established cases and questions the entrepreneurs' history, which creates the opportunity for the results to be influenced by potential memory decay and hindsight, or rationalisation after the fact. This means that the entrepreneurs may unknowingly risk the validity of the outcomes that may be attributed to the factors that were not truly present at the relevant time

.

3.3 Population and sample

3.3.1 Population

An individual was considered an entrepreneur if he or she initiated at least twenty gestation activity for a current, independent start-up by the time that the interview took place. Gestation activities were considered as any on the 20 different behaviours that were demonstrative of actively beginning the business creation process (See Appendix 1). A business was regarded as already started if six or more months before the study either money was invested, or income exceeded expenses from the firm and the firm was already a legal entity (Davidsson & Honig, 2003).

3.3.2 Sample and sampling method

The study only focused on retail pharmaceutical sector entrepreneurs. The list and contact numbers of retail pharmacies in Gauteng Province were sourced from the

South African Pharmacy Council website (http://www.pharmcouncil.co.za/). Data was based on convenient sampling of 30 pharmacy owners in the Gauteng region. These individuals should be aged between 24 and 70 years. Every individual was initially requested to complete a screening telephonic interview (to ascertaining the agreement in participation in the research and to ensure that the correct entrepreneur was chosen). The following interview was face-to-face that explained the research process, where the researcher conducted the research interview that followed a qualitative method of a structured questionnaire. The first 40 questions determined the number of gestation activities the entrepreneur had been involved in for the business and the remaining questions were targeted to gain more information about the human capital factors. If the entrepreneur invested in 20 or more gestation activities at the time of the research study's interview, the respondent was permitted to continue with the study. If the entrepreneur had invested in less than 20 gestation activities, the entrepreneur was requested to abandon their participation in the study since these individuals did not qualify with the identified requirements.

3.4 The research instrument

A structured questionnaire was used as the research instrument. A structured questionnaire represents the respondent with a set of possible answers from which to select the best option (See Appendix 2 for the questionnaire).

3.4.1 Sampling Method

The questionnaire was provided in a printed format and the respondents used an appropriate answer ticking method. The researcher facilitated the interview and observed the nature of the interview. Once the respondent answered all the questions, the participant was unable to access the questionnaire or make adjustments to the answers. Once all the data from the questionnaire was captured, an analysis was made regarding the content, theme and/or categories that emerged.

3.5 Procedure for data collection

The researcher conducts the interviews and recorded the respondents' answers on the provided questionnaire. All the collected data was consolidated and captured in the Microsoft Excel programme to formulate an analytical dataset.

3.6 Data analysis and interpretation

Content analysis was used as an analytical tool. Content analysis is one of the important research techniques in the social science; it seeks to analyse data within a specific context (Krippendorff, 2012) The table below lists the human capital factors that were analysed.

Age	Ethnicity	Profitability	Sales
Personal income	Number of owned pharmacies	Academic title	Highest qualification passed
Entrepreneurial mind-set	Entrepreneurial team compatibility	General management experience	Industry related experience
Pharmacy start-up experience	Learning ability	Parents were entrepreneurs	

Table 2: Human Capital Factors

3.7 Limitations of the study

- The sample was limited to South Africans with a specific pharmaceutical background.
- The sample size did not represent the entire population; therefore it can only give suggestive conclusions.
- The study was limited to human capital; other factors like social capital and financial capital were not investigated.

- Initial access to companies may have been denied, as companies may have felt the nature of the questionnaire is sensitive material.
- Time frame for data collection was delimited to a three month period (1 Nov 2014 to 31January 2015). This places a limit to an overall magnitude of the study.
- The use of structured questionnaires may alter the likelihood of truthfully answering the questionnaire if the information was deemed to be of a sensitive nature.

3.8 Validity and reliability

Qualitative research attempts to produce findings that are not based on statistical principles and formulae, as quantification is not involved in qualitative research (Bashir et al., 2008).

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are (Golafashani, 2003).

“The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable” (Bashir et al., 2008).

3.8.1 External validity

The study method is valid, because a simple method of data analysis was used and there were no limitations in analysing the data.

3.8.2 Internal validity

The research study measured the correct indicators as proposed by authors of the previous research.

3.8.3 Reliability

The sampling used in the research study cannot be used as a representative of the entire population. Only suggestive conclusions can be made from the research study. If the same method of the study is used on the same participants, the same results should be yielded.

CHAPTER 4: PRESENTATION OF RESULTS

Content analysis is a research technique for making replicable and valid inferences from data to their context (Krippendorff, 2012). This was the adopted method of data analysis for this research study.

4.1 Introduction

A qualitative approach was used to evaluate the results. The results for each hypothesis is tabulated and tested below.

4.2 Profile of the Respondents

All the entrepreneurs in this study were pharmacists and pharmacy owners based in the Gauteng region. The pharmacies were in local areas and suburbs. All the pharmacies passed business gestation level of 39 activities. Table 3 below shows the respondents' company profile.

Source of capital	Not disclosed	All
Nature of business	Retail pharmacy	All
Company Status	Limited Company	All
Start up capital	Not disclosed	All

Table 3: Respondents company profile

4.3 Results pertaining to Research Question 1

Tables in this section (indicated as Respondents Human Capital profile) will indicate the relationship between human capital factors and entrepreneur's performance.

Age	**% Total Respondents**	**Gender**	**% Total Respondents**	**Parents were Entrepreneurs**	**% Total Respondents**
26-35	6.67	Female	40	Yes	36.67
36-45	**66.66**	Male	**60**	No	**66.33**
46-55	26.67				

Respondents Human Capital profile 1

The table above indicates that more males than females participated in study. Most respondents were between 36years and 45 years and only 36.67% of participant's parents were entrepreneurs. The pharmaceutical retail industry is a very experience intensive industry. This reason could explain why the majority of the entrepreneurs are between 36-45 years of age. Even though the results show that there are more males than female entrepreneurs. We cannot conclusively say that it is indicative of the entire country since the study took the approach of convenient sampling. Whether parents were entrepreneurs or not, seemed to have no significant weight in the performance of the entrepreneurs.

In the study done by Coleman (2007), results indicated that there were both similarities and differences in terms of the impact of human and financial capital on the performance of women- and men-owned firms. There appeared that human capital played a more important role in determining the profitability of their ventures and to a lesser extent for men. The importance of these findings is that they highlighted the role played by both human and financial capital in the performance and success of small firms. Further, as human capital variables including education and experience had a positive impact on women-owned firms in particular, these findings emphasize the need to ensure that women entrepreneurs have access to educational opportunities and management experience and training as well as access to financial capital. (Coleman, 2007)

Highest Qualification Passes	**% Total Respondents**	**Industry Experience(yrs)**	**% Total Respondents**	**Management Experience(yrs)**	**% Total Respondents**
Masters	**60**	3-5	10	<5	10
Degree	40	10-15	**50**	5-10	**50**
		15-20	40	10-15	40

Respondents Human Capital profile 2

The above table indicates that 60% of participants have masters' degree and 90% of participants have more than 5 years management experience and 10 years industry experience. These results indicate that education and experience plays a greater role in the performance of the entrepreneur and the sustainability of the business in the pharmaceutical industry.

Bruderl.et.al(1992) argued that greater experience(both in the specific and general management), enhances the productivity of the founder which results to lower probability of early failure and therefore, in the longer survival time for the new venture.(Arribas & Vila, 2007)Arribas and Villa(2007) hypothesised that an entrepreneurs" previous work experience is a determinant of the survival of their company. The study supported the hypothesis and also added to say that previous work experience provides entrepreneur with higher earnings, status and social capital that allow them to raise higher initial capital.(Arribas & Vila, 2007)

On the other hand, activity and ownership experience have a positive impact over most levels of the company's post-entry performance. For instance, founders with experience in the same activity are likely to bring specific knowledge to a wide range of new issues to the new firm, including technical knowledge, knowledge of suppliers and competitors and profitable market opportunities.(Arribas & Vila, 2007)

Sales(Rands)	**Profitability(Rands)**	**Personal Income(Rands)**	**%Total Respondents**
>4,000,000	>1,000,000	60,000-80,000	6.67
>4,000,000	>1,000,000	80,000-100,000	3.33
1,000,000-2,000,000	>1,000,000	40,000-60,000	3.33
2,000,000-4,000,000	50,000-1,000,000	60,000-80,000	20

2,000,000-4,000,000	50,000-1,000,000	80,000-100,000	6.67
1,000,000-2,000,000	200,000-500,000	80,000-100,000	3.33
1,000,000-2,000,000	200,000-500,000	60,000-80,000	16.67
1,000,000-2,000,000	200,000-500,000	40,000-60,000	20
<500,000	100,000-200,000	<40,000	**13.33**
<500,000	<100,000	<40,000	**6.67**

Respondents Human Capital profile 3

The above table indicates that 20% of participants are earning less in terms of profitability, sales and income i.e. more or less than R500, 000, R100, 000 and R40000 of monthly sales, profitability and income respectively. 80% of participants were performing better in terms of sales, profitability and income. From the above table it can be concluded that entrepreneurs with the highest level of education seem to perform at a high level of profitability when compared to other respondents.

Courses attended	% Total Respondents	Startup Experience(years)	% Total Respondents	Number of Pharmacies Owned	% Total Respondents
Short course and diplomas	**100**	5-10	**86.66**	2-6	43.33
		2-5	6.67	>5	3.33
		1	6.67	1	**53.34**

Respondents Human Capital profile 4

The table above indicates that all the participants had attended some short courses or diploma courses. 86% of participants have more than 5 years business start up experience and 53.34% and 43.33% had an average of 1 and 3 pharmacies respectively.

A study by Dyke (1992) indicates that the number of start-up experience is positively related to performance of the company. This type of experience depends on the entrepreneurs' skills. The entrepreneur has a final say in the activities of the company i.e. matters of personnel, finance, marketing and operations. The entrepreneur becomes the dominant feature of influence in the company, and he/she is seen as an extension of oneself in the management of the business. This decisions taken affects the performance of the company(Dyer & Ross, 2008).

In the study by Diochon, Menzies and Gasee (2008) on Canadian entrepreneurs, indicated that start- up education and experience related to financial management capability will have a better impact on the entrepreneurs success i.e. starting and staying in business. This means that entrepreneurs that have knowledge of financials will perform at a better level than those who do not have (Diochon, Menzies, & Gasse, 2008).

On the contratry, Arrabis and Villa (2007) hypothesised that firms whose founder has attended training activities on entrepreneurship and management have longer survival time. The study rejected the hypothesis and also added that experience is not the only way to improve entrepreneurial and management skills, experience may be complemented by or even substituted by appropriate training activities.

Our study differs with the above rejected hypothesis by Arrabis and Villa(2007), the pharmaceutical industry requires intensive years of training starting from tertiary education to work experience. Management skills are attained through years of intensive on the job training. Therefore in the pharmaceutical industry, experience may not be complemented by or not even substituted by appropriate training activities. This means that our study supports the hypothesis that firms whose founder has attended training activities on entrepreneurship and management have longer survival time.

4.4 Results pertaining to Research Question 2

The above tables of human capital profiles (1,2,3) confirms that entrepreneurs with the highest level of education have more sustainable businesses, as they possess higher levels of personal income and company sales. Business sustainability is measured in terms of sales, profitability and personal income.

4.5 Results pertaining to Research Question 3

Human Capital profile 4 below indicates the relationship between human capital and long-term sustainability of the business. It is evident that the entrepreneurs with more years of experience in the industry, such as management and start-ups, reap more profits, gain more pharmacies and have been in operation for a longer period. Long term sustainability is measured in terms of the number of pharmacies owned and entrepreneurial experience.

4.6 Summary of the results

From the deduced results, it can be concluded that human capital factors have a positive influence on the success of the entrepreneurs in the pharmaceutical industry. It clearly demonstrates that individuals with higher levels of education and experience produce higher levels of profitability and thus ensure that their companies remain profitable and sustainable in both the short-term and long-term. Entrepreneurs who indicated that they are involved in continuous education development in terms of business studies and in the pharmaceutical industry denoted signs of agility and resilience in their ventures. Human capital (tacit and explicit) plays an important role in ensuring that the entrepreneur performs well in his/her venture and in ensuring that the exploitation of opportunities reaches its point of success.

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

This research study examined the role of entrepreneurial human capital factors on business sustainability in the South African pharmaceutical retail industry. Tacit and explicit human capital factors of the selected entrepreneurs were examined to determine their respective companies' sustainability and performance (profitability, sales and personal income, venture success and experience).

5.2 Discussion pertaining to Research Question 1

Respondents with the highest level of education seem to be performing at an enhanced level of profitability, sales and personal income. This can be seen from respondents 5, 13, 14, 16, 20, 21, 26, 27 (See Appendix 2 for full results). All these entrepreneurs are in the same age range with different years of experience in the industry. They all possess Masters' degrees in varying categories (MBA, pharmacology, public health, etc). From these results it can be inferred that explicit and tacit knowledge plays a critical role in the performance of the entrepreneur. This supports the hypothesis that human capital factors have a positive impact on entrepreneur's success. This study cannot conclusively confirm the extent to which tacit and explicit knowledge contribute to the performance of the entrepreneur, but it can confirm that a higher level of education contributes to the success of the entrepreneur.

5.3 Discussion pertaining to Research Question 2

Respondents with the highest level of education seem to be performing at better level of profitability, sales and personal income. This was evident from the responses gathered from respondents 5, 13, 14, 16, 20, 21, 26, and 27. All these entrepreneurs get higher levels of personal income from above R40, 000 per month when compared to the other participants in this research study. These entrepreneurs are able to reap superior income and are still be able to maintain higher profitability in their ventures. These are the same individuals who have the highest level of education when compared to other entrepreneurs in the study, as discussed in Research Question 1. This supports the hypothesis that the higher the levels of human capital factors create a competitive advantage in the sustainability of the retail pharmaceutical business.

5.4 Discussion pertaining to Research Question 3

Respondents with the highest number of successful ventures are the same individuals with the highest level of education and profitability, sales and personal income. This was evident from the responses from respondents 5, 13, 14, 16, 20, 21, 26, and 27. All these entrepreneurs have more than one successful venture. This means that these individuals create more value in their ventures and thus ensure both short-term and long-term sustainably of their businesses. From these results it can be concluded that there is a positive relationship between human capital and long-term sustainability of businesses. Therefore it can be inferred that the higher the level of human capital of the entrepreneur the greater the probability of ensuring that the business is sustainable in the long-term. The above analysis supports the hypothesis that there is a positive relationship between entrepreneurial human capital and long-term sustainability of the business.

5.5 Conclusion

This research study contributes to the investigation of the importance of human capital on entrepreneurship. It was found that human capital plays a positive role in the sustainability of the retail pharmaceutical industry. The results confirm and extend the findings of earlier work of Davidsson and Honing (2003) concerning human capital. The findings identify that human capital (explicit and tacit) plays a critical factor in the success of the entrepreneur and his/her business. Despite the study's limitations, the entire proposed hypotheses were fully supported by the findings.

Regarding human capital components, it is widely recognised that formal education positively impacts entrepreneur's decision making process increasing firm's growth opportunities (Dunkelberg and Cooper, 1982; Kinsella et al., 1993; Cooper et al., 1994; Gimeno et al., 1997 and Peña, 1994). These results could indicate that more educated entrepreneurs have the necessary skills, discipline, motivation, information and self-confidence to attain higher growth rates in their businesses; hence, they are more likely to perceive and exploit business opportunities (Cooper et al., 1994 and Ucbasaran et al., 2007). In addition, education provides knowledge that may help in overcoming financial constraints (Evans and Leighton, 1989) and foster business growth (Honjo, 2004). Moreover, Westhead and Cowling (1995) and Almus (2002) concluded that those firms that show higher employment growth rates are statistically linked to founders with university studies.(Lafuente & Rabetino, 2011)

CHAPTER 6: CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

This section provides the final conclusion on the findings of the study, provides recommendations and suggests further future research.

6.2 Conclusions of the study

Davidsson and Honig (2003) found the effects of both tacit and explicit knowledge primarily during entrepreneurial activity, i.e. in differentiating the nascent population from the general population. They concluded that those with greater levels of human capital were more prone to discover opportunities perceived to be attractive enough to activate steps towards starting their own businesses (Davidsson & Honig, 2003).

It may be said that individuals with more knowledge objectively discover more and/or better business opportunities, but this is not the only possible interpretation. Perhaps individuals with higher amounts of human capital have greater self-confidence, enabling them to select the opportunities that independent entrepreneurship provides. Alternatively, these entrepreneurs may feel the risks are lower for them, as they are more easily re-absorbed by the labour market if their ventures fail (Davidsson & Honig, 2003).

The primary purpose of this study was to determine the role of entrepreneurial human capital factors on business sustainability. The study draws implications for the South African context, specifically in the retail pharmaceutical industry. The retail pharmaceutical industry is a low mark-up industry, since single exit pricing regulates the pricing of medicine .Entrepreneurs in the retail pharmaceutical industry require high levels of human capital that can positively influence some human-capital assets and that assist the entrepreneur to determine methods of maintaining innovation to ensure that the businesses are sustainable in both the short- and long- term. Human capital factors seem to improve entrepreneurial skills. This increases confidence that varied experience leads not just to an increased tendency to engage or persist in entrepreneurial endeavours, but also to perform better at these activities (Stuetzer, Obschonka, Davidsson, & Schmitt-Rodermund, 2013).

This study extends the understanding of human capital and pharmaceutical retail business sustainability. Previous research called for the analysis of human capital in other industries that were not price regulated. It is known that entrepreneurs play an important role in stimulating economic growth and hence the ability to remain sustainable is of paramount importance.

This study provides further evidence that human capital appears to be a good investment by increasing performance of both short and long-term business sustainability.

6.3 Recommendations

Entrepreneurs, educators, government, investors, academic institutions, private and corporate institutions should use the findings of this research to realise the importance of human capital in entrepreneurial success. The study findings can be used to influence all stakeholders to support the development of standards to improve educational outcomes in entrepreneurship. Thus, governments or local administrations could introduce specific policies to improve the individual’s skills through the entrepreneurial process. These policies should target the educational system, training as well as technical assistance programs. A more active involvement of universities is necessary to increase the knowledge related to entrepreneurship and business, as well as the skills and motivations of individuals. Training and technical assistance programs should stimulate the interaction between established enterprises and individuals in order to provide potential entrepreneurs with experience which can be critical for the development of more successful new ventures.(Lafuente & Rabetino, 2011)

6.4 Suggestions for further research

The present research study suggests many promising avenues for further research. Future research teams could explore human capital change-over time, and the extent or degree that human capital (tacit and explicit) influences the entrepreneur success. More research studies using qualitative research methods would be interesting to investigate and those findings could be compared to previous studies that used quantitative research methods. In this study, only human capital factors were considered and other factors like social and financial factors were not considered. Further research could address these limitations.

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APPENDIX 1

Twenty Gestation behaviours and 46 gestation sequences:

1.Business Plan	Have you prepared a business plan?
1.Business Plan	Is your plan written (includes informally for internal use)?
1.Business Plan	Is your plan written formally for external use?
2.Development of product service/product	At what stage of development is the product or service that will be provided to your customers?
3.Development of product / service	Idea or concept.
3.Development of product/service	Tested on customers.
3.Development of product / service	Ready for sale or delivery or delivery.
4.Marketing	Have you started any marketing or promotional efforts?
4.Patent/ copyright	Have you applied for patent, copyright or trademark?
4.Patent/ copyright	Has the patent, copyright or trademark been granted?
5.Raw Material	Have you purchased any raw materials, inventory, supplies or components?
6.Equipment	Have you purchased, leased or rented any major items like equipment, facilities or property?
7.Gathering Information	Have you gathered any information to estimate potential sales and revenues, such as sales forecasts or information to on competition, customers and pricing?
7.Gathering Information	Have you discussed the company's product or service with any potential customers yet?
8.Finance	Have you asked others or financial institutions for funds?
8.Finance	Have you developed projected financial statements such as income and cash flow statements, breakeven analysis?
9.Saved money	Have you saved money in order to start business?
10.Credit with Supplier	Have you established credit with suppliers?
11.Household help	Have you arranged childcare or household help to allow yourself time to work in the business?
12.Work force	Are you presently devoting full time to the business, 35 or more hours per week?
12.Workforce	Do you have any part time employees working for the new company?
12.Workforce	How many employees are working full time for the new company? One?
12.Workforce	How many employees are working full time for the new company? Two?
12.Workforce	How many employees are working full time for the new company? Three or more?
13.Non-owners hired	Have you hired any employees or managers for pay, those that would not share ownership?
14.Education	Have you taken any classes or workshops on

	starting a business?
14.Education	How many classes or workshops have you taken part in? One only.
14.Education	How many classes or workshops have you taken part in? Two only.
14.Education	How many classes or workshops have you taken part in? Three or more.
15.Contact Information	Does your company have its own phone number?
15.Contact Information	Does your company its own mail address?
15.Contact Information	Does anyone in the team have a mobile mainly used for the business?
15.Contact Information	Does your company have its own visiting address?
15.Contact Information	Does your company have its own fax number?
15.Contact Information	Is there an e-mail or internet address for this business?
15.Contact Information	Has a web page or homepage been established for this business?
16.Gestation Marketing	Have you started any marketing of promotional efforts?
17.Gestation Income	Do the monthly expenses include owner/ manager salary in the computation of monthly expenses?
18.Obtained Licences	Has the new business obtained any business licence or operating permits from any local, county or state government agencies?
19.Legal Form	Has the new business paid any federal social security taxes?
19.Legal Form	Has the company received a company tax certificate?
20.National Specific	Have you applied for start-up benefits?
20.National Specific	Has the application (the answer) regarding start-up benefits been completed?
20.National Specific	Has the new company received a company tax certificate?

Source: (Davidsson & Honig, 2003)

APPENDIX 2

Human Capital Questions	**1**	**2**	**3**	**4**	**5**
Profitability (per month)	<R100,000	R100,000-R200,000	R200,000-R500,000	R500,000-R1,000,000	>R1,000,000
Sales (per month)	<R500,000	R500,000-R1,000,000	R1,000,000-R2,000,000	R2,0000,000-R4,000,000	>R4,000,000
Personal income (gross income per month)	<R40,000	R40,000-R60,000	R60,000-R80,000	R80,000-R100,000	>R100,000
Gender	Female	Male			
Age	<26	26-35	35-45	45-55	>55
Ethnicity	Black	Coloured	Indian	White	
Academic title	Mr	Ms	Doctor	Professor	
Education	High School Graduate	Diploma	Degree	Masters	Doctorate/ Phd
Entrepreneurial Mind-set	Risk Averse	Thrives on taking risks	Takes calculated risks only	Driven to succeed	Prefers predictable outcomes
Entrepreneur's team compatibility	Reaches consensus with the team	Self-directed	Compatible with diverse teams	Able to resolve team conflicts	None of the Above
General management experience (years)	<5 years	5-10 years	10-15 years	15-20 years	>20 years
Industry related experience (years)	3-5years	5-10 years	10-15 years	15-20 years	<20 years
Learning ability	Prefers following operating guidelines	Prefers training (Formal/Informal)	Prefers Brainstorming and exercises sessions	Prefers team feedback sessions	Prefers learning and accepting mistakes
Parent(s) were entrepreneurs	Yes	No			
Start-up experience (successful ventures)	1	2-5	5-10	10-15	>15

APPENDIX 3

Consistency matrix

Table 1: Consistency matrix

Research problem stated here					
Sub-problem	**Literature Review**	**Hypotheses or Propositions or Research questions**	**Source of data**	**Type of data**	**Analysis**
To determine human capital factors that affect performance of entrepreneurs such as survival, growth and income.	(Davidsson & Honig, 2003) (Amaral et al., 2011) (Kolstad & Wiig, 2013)	Human capital factors have a positive and significant impact on entrepreneur's performance.	Human capital factors	Qualitative	Content analysis
To analyse human capital as a factor of competitive advantage to survive in the retail pharmaceutical industry.	(Davidsson & Honig, 2003) (Van der Sluis, Van Praag, & Vijverberg, 2005) (Volery et al., 2013)	Human capital is a competitive advantage in the sustainability of retail pharmaceutical business.	Dependent variables and independent variables	Categorical	Correlation and linear regression
To identify whether development of entrepreneurial human capital is the critical determinants of long-term business sustainability.	(Davidsson & Honig, 2003) (Volery et al., 2013)	There is a positive relationship between entrepreneurial human capital and long-term sustainability of the business.	Human capital factors	Qualitative	Content analysis

APPENDIX 4: Questionnaire answers

Human Capital factors	Q41	Q42	Q43
ResponseID	Gender	Ethnicity	Age in years
Respondant 1	Male	Black	36-45
Respondant 2	Female	Black	36-45
Respondant 3	Female	Black	46-55
Respondant 4	Male	Coloured	36-45
Respondant 5	Female	Indian	36-45
Respondant 6	Female	Black	46-55
Respondant 7	Female	Black	36-45
Respondant 8	Male	White	26-35
Respondant 9	Female	White	36-45
Respondant 10	Female	Black	26-35
Respondant 11	Female	Black	36-45
Respondant 12	Male	Indian	36-45
Respondant 13	Female	Black	26-35
Respondant 14	Male	Black	36-45
Respondant 15	Male	White	36-45
Respondant 16	Male	Indian	36-45
Respondant 17	Male	Black	36-45
Respondant 18	Female	Black	26-35
Respondant 19	Male	Black	36-45
Respondant 20	Male	White	36-45
Respondant 21	Male	White	26-35
Respondant 22	Male	Black	26-35
Respondant 23	Male	White	26-35
Respondant 24	Male	White	26-45
Respondant 25	Female	Black	36-45

Respondant 26	Male	Black	36-45
Respondant 27	Male	Black	36-45
Respondant 28	Female	Black	36-45
Respondant 29	Male	Black	36-45
Respondant 30	Male	Black	36-45

Human Capital factors	Q44	Q45	Q46
ResponseID	Profitability(per month in Rands)	Sales(per month in Rands)	Personal gross income(per month in Rands)
Respondant 1	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 2	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 3	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 4	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 5	500,0000-1,000,000	2,000,000-4,000,000	60,000-80,000
Respondant 6	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 7	<100,000	<500,000	60,000-80,000
Respondant 8	<100,000	<500,000	60,000-80,000
Respondant 9	100,000-200,000	<500,000	60,000-80,000
Respondant 10	<100,000	<500,000	60,000-80,000
Respondant 11	>1,000,000	1,000,000-2,000,000	60,000-80,000
Respondant 12	>1,000,000	>4,000,000	60,000-80,000
Respondant 13	500,000-1,000,000	2,000,000-4,000,000	60,000-80,000
Respondant 14	500,000-1,000,000	2,000,000-4,000,000	60,000-80,000
Respondant 15	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 16	500,000-1,000,000	2,000,000-4,000,000	60,000-80,000
Respondant 17	>1,000,000	>4,000,000	60,000-80,000
Respondant 18	>1,000,000	>4,000,000	60,000-80,000
Respondant 19	100,000-200,000	<500,000	60,000-80,000
Respondant 20	500,000-1,000,000	2,000,000-4,000,000	60,000-80,000

Respondant 21	500,000-1,000,000	2,000,000-4,000,000	60,000-80,000
Respondant 22	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 23	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 24	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 25	<100,000	<500,000	60,000-80,000
Respondant 26	500,000-1,000,000	2,000,000-4,000,000	60,000-80,000
Respondant 27	500,0000-1,000,000	2,000,000-4,000,000	60,000-80,000
Respondant 28	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 29	200,000-500,000	1,000,000-2,000,000	60,000-80,000
Respondant 30	200,000-500,000	1,000,000-2,000,000	60,000-80,000
	PERFOMANCE	**PERFOMANCE**	**PERFOMANCE**

Human Capital factors	Q47	Q48	Q49	Q50
ResponseID	Number of owned pharmacy	Academic Title	Highest Qualifaction passed	Courses Attended
Respondant 1	1	Mr	Masters	Short courses
Respondant 2	2	Mrs	Masters	PDM
Respondant 3	1	Miss	B.Pharm	PDM
Respondant 4	1	Mr	Masters	Short courses
Respondant 5	3	Miss	Masters	Short courses
Respondant 6	2	Miss	Masters	Short courses
Respondant 7	1	Mrs	B.Pharm	Short courses
Respondant 8	1	Mr	B.Pharm	PDM
Respondant 9	1	Mrs	B.Pharm	Short courses
Respondant 10	1	Miss	B.Pharm	Short courses
Respondant 11	1	Mrs	B.Pharm	Short courses
Respondant 12	4	Mr	B.Pharm	MAP, short courses

Respondant 13	2	Mrs	Masters	MAP
Respondant 14	2	Mr	Masters	PDM
Respondant 15	1	Mr	Masters	Short courses
Respondant 16	2	Mr	Masters	PDM
Respondant 17	6	Mr	Masters	Short courses
Respondant 18	3	Mrs	B.Pharm	Short courses
Respondant 19	1	Mr	B.Pharm	Short courses
Respondant 20	2	Mr	Masters	MAP
Respondant 21	2	Mr	Masters	PDM
Respondant 22	1	Mr	Masters	Short courses
Respondant 23	2	Mr	Masters	Short courses
Respondant 24	1	Mr	B.Pharm	Short courses
Respondant 25	1	Mrs	B.Pharm	Short courses
Respondant 26	2	Mr	Masters	MAP
Respondant 27	3	Miss	Masters	MAP
Respondant 28	1	Mr	Masters	Short courses
Respondant 29	2	Miss	Masters	Short courses
Respondant 30	1	Mr	Masters	MAP
	PERFOMANCE		**HUMAN CAPITAL**	**HUMAN CAPITAL**

Human Capital factors	Q51	Q52
ResponseID	Entreprenurial Mindset	Entrepreneur's team compability
Respondant 1	Takes calculated risks only	Compatable with diverse team
Respondant 2	Takes calculated risks only	Compatable with diverse team
Respondant 3	Thrives on taking risks	Self directed
Respondant 4	Takes calculated risks only	To resolve team conflict
Respondant 5	Driven to suceed	Able to resolve conflict
Respondant 6	Driven to suceed	Compatable with diverse team
Respondant 7	Thrives on taking risks	Self directed
Respondant 8	Driven to suceed	Reaches concesus with team
Respondant 9	Thrives on taking risks	Compatable with diverse team
Respondant 10	Thrives on taking risks	Able to resolve conflict
Respondant 11	Takes calculated risks only	Self directed
Respondant 12	Takes calculated risks only	Compatable with diverse team
Respondant 13	Driven to suceed	Reaches concesus with team
Respondant 14	Takes calculated risks only	Self directed
Respondant 15	Takes calculated risks only	Compatable with diverse team
Respondant 16	Thrives on taking risks	Compatable with diverse team
Respondant 17	Thrives on taking risks	Compatable with diverse team
Respondant 18	Thrives on taking risks	Compatable with diverse team
Respondant 19	Thrives on taking risks	Self directed
Respondant 20	Thrives on taking risks	Compatable with diverse team
Respondant 21	Takes calculated risks only	Compatable with diverse team
Respondant 22	Takes calculated risks only	Compatable with diverse team
Respondant 23	Takes calculated risks only	Compatable with diverse team
Respondant 24	Takes calculated risks only	Self directed
Respondant 25	Thrives on taking risks	Self directed
Respondant 26	Thrives on taking risks	Compatable with diverse team
Respondant 27	Driven to suceed	Able to resolve conflict
Respondant 28	Takes calculated risks only	Compatable with diverse team
Respondant 29	Driven to suceed	Compatable with diverse team

Respondant 30	Takes calculated risks only	Compatable with diverse team
	HUMAN CAPITAL	**HUMAN CAPITAL**

Human Capital factors	Q53	Q54	Q55
Respondent ID	General Management Experience(in years)	Industry related experience(in years)	Pharmacy start-up experience
Respondant 1	5-10	10-15	5-10
Respondant 2	5-10	10-15	5-10
Respondant 3	10-15	15-20	2-5
Respondant 4	5-10	10-15	2-5
Respondant 5	5-10	10-15	5-10
Respondant 6	10-15	15-20	5-10
Respondant 7	5-10	10-15	5-10
Respondant 8	<5	3-5	1
Respondant 9	5-10	10-15	5-10
Respondant 10	<5	3-5	1
Respondant 11	<5	3-5	1
Respondant 12	10-15	15-20	5-10
Respondant 13	5-10	10-15	5-10
Respondant 14	10-15	20-15	5-10
Respondant 15	10-15	15-20	5-10
Respondant 16	10-15	15-20	5-10
Respondant 17	10-15	15-20	5-10
Respondant 18	5-10	10-15	5-10

Respondant 19	10-15	15-20	5-10
Respondant 20	10-15	15-20	5-10
Respondant 21	5-10	10-15	5-10
Respondant 22	5-10	10-15	5-10
Respondant 23	5-10	10-15	5-10
Respondant 24	5-10	10-15	5-10
Respondant 25	5-10	10-15	5-10
Respondant 26	10-15	15-20	5-10
Respondant 27	5-10	10-15	5-10
Respondant 28	10-15	15-20	5-10
Respondant 29	10-15	15-20	5-10
Respondant 30	5-10	10-15	5-10
	HUMAN CAPITAL	**HUMAN CAPITAL**	**HUMAN CAPITAL**

Human Capital factors	Q56	Q57
ResponseID	Learning ability	Parents were entreprenuers
Respondant 1	Prefers Brainstorming	Yes
Respondant 2	Learning and accepting mistakes	No
Respondant 3	Prefers training	No
Respondant 4	Prefers team feedback sessions	Yes
Respondant 5	Prefers team feedback sessions	Yes
Respondant 6	Prefers team feedback sessions	No
Respondant 7	Learning and accepting mistakes	No
Respondant 8	Prefers training	No
Respondant 9	Prefers Brainstorming	No
Respondant 10	Prefers Brainstorming	No

Respondant 11	Prefers training	No
Respondant 12	Prefers team feedback sessions	Yes
Respondant 13	Prefers training	No
Respondant 14	Prefers training	No
Respondant 15	Prefers training	No
Respondant 16	Prefers training	Yes
Respondant 17	Prefers training	No
Respondant 18	Prefers team feedback sessions	No
Respondant 19	Prefers Brainstorming	No
Respondant 20	Prefers Brainstorming	Yes
Respondant 21	Prefers training	Yes
Respondant 22	Prefers training	No
Respondant 23	Prefers training	No
Respondant 24	Prefers	Yes
Respondant 25	Learning and accepting mistakes	No
Respondant 26	Prefers Brainstorming	Yes
Respondant 27	Prefers team feedback sessions	Yes
Respondant 28	Prefers training	No
Respondant 29	Prefers team feedback sessions	No
Respondant 30	Prefers Brainstorming	Yes
	HUMAN CAPITAL	**HUMAN CAPITAL**