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A FOCUS ON HUMAN CAPITAL IN COMMERCIAL AND SOCIAL ENTREPRENEURSHIP

A research proposal 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

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ABSTRACT

Orientation: Critical reading on the aspects of human capital literature receives limited contributions to truly comprehend their effect on entrepreneurship activity, especially in a developing country, like South Africa. Although human capital theory is a key theme in entrepreneurship research, it has been acknowledged that the domain requires more attention to fully understand it.

Research purpose: The purpose of this study is to establish the influence of human capital across various occupational preferences.

Motivation for the study: Many from individual level to firm level in developing countries do not understand the effect of human capital aspects on entrepreneurship activity.

Research design, approach and method: The empirical analysis of the study is cross-sectional, based on the data from the primary survey. Correlation and regression analysis was used for hypothesis testing.

Main findings: The results indicated that human capital aspects have no significant relationship with entrepreneurial activity.

Implication of the study: This empirical study extends the current knowledge on the effect of human capital aspects on entrepreneurship activities in a unique, culturally diverse country. like South Africa.

Key words: Entrepreneurship, Social entrepreneurship, Human capital, Gauteng Province

DECLARATION

I, Matthews Jan Chauke, declare that this study report is my own work except were indicated in the acknowledgements and references. I submit this report in partial fulfilment of the degree of Master of Management in Entrepreneurship and New Venture Creation requirements in the University of Wits Business School, Johannesburg. This is the first submission of its kind to the university, it has never been submitted anywhere before.

MJ CHAUKE

.....

Signed at On the day of 2019

DEDICATION

To my wonderful wife, for believing in me, and both my boys for source of inspiration.

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I would like to appreciate the support received in making sure that this research report is developed and acknowledge the following:

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CHAPTER 1: BACKGROUND OF THE STUDY

1.1 Introduction

Currently, the economy's competitive advantage and modernisation possibilities are greatly determined by the collected and effective human capital, also experience gained from different fields. Human capital appears to be a complex and diverse productive factor that has a great influence on the economic development, labour force, society, innovation system, professional information systems, and high performance, quality of life, intellectual and organisational instruments (Nevretdinova, 2015). However, human capital has been considered to be one of the important factors in the economic development by the economic growth theories; as a result, it contributes to the growth of the economy, not entirely because it increases labour productivity, but also through the implementation and generation of innovative ways of doing things and new concepts, moreover it increases the speed of their distribution and perception (Davin, Gente, & Noury, 2015).

Human capital is very important for all entrepreneurs in creating occupational choices in the labour market between paid work and new venture creation (Parker, 2009). With information given that entrepreneurship is greatly dependent on the attributes of human capital of entrepreneurs, the influence of the former on the growth of economy is most likely to be intermediated endowments of the country in terms of experience, education and skills (Marvel, Davis, & Sproul, 2016). The empirical simplification of the human capital concept has generated much criticism, and ultimately to the development of diverse labels to identify the knowledge that is perceived to be the knowledge that matters. General human capital which can be used in different industries and occupations and specific human capital whose value is contextually specific, for example, to a job, occupation or sector are well explained by (Becker, 1964).

The concept of general human capital has been almost close to be impossible to quantify, since the contribution of Becker (1964). It has been operationalised as formal education and mostly measured by duration of school attendance as a proxy. When making a decision to become an entrepreneur, it is very important to consider how general and specific human capital is intertwined, which becomes our argument. The study propose that their contribution will differ between commercial and social

entrepreneurship due to the fact that these two occupations have different objectives that require different activities. Commercial and social entrepreneurship both appear to rely on specific entrepreneurial knowledge and skills. However, it is important to note that various and additional abilities may be required in pursuing social entrepreneurship, specifically for opportunity identification and exploitation that can realise external value.

The study further argue that general human capital that happens to be related to diverse cognitive perspectives may relatively have greater importance for social entrepreneurship. This is with regard with the broader scope of the associated objectives and activities that are more complex, while undertaking strategies that are market based, and at the same time, trying to create value that is not embedded within the market transactions directly. Thus, they are required to undertake and attend at the same time potentially conflicting economic and social logics in their business (Battilana & Lee, 2014) and to develop abilities required to relate with an open set of stakeholders. According to Stephan, Patterson, Kelly and Mair (2016), the social entrepreneur's actions need to be strongly rooted in the local communities to co-ordinate resources and stimulate a significant social impact.

However, social enterprises and social entrepreneurs are increasingly receiving more scholarly attention and this is frequently observed in organisations and individuals who execute business logic in an entrepreneurial and novel way to enhance the condition of parts of the excluded population, who are marginalised and not capable of improving conditions (Seelos & Mair, 2005).

1.2 Context of the study

The study has been conducted in a country which is under-researched, South Africa (Gauteng Province) a non-western context where the economic growth is more and more dependent on Small Medium Enterprises (SMEs), by implication also the creators of employment (Kongolo, 2010) and where social problems are exacerbated

as a result of a social context which is more characterised by significant inequalities in housing, the HIV and AIDS pandemic, education, high rate of unemployment and poverty (Rwigema, Urban, & Venter, 2010; Urban & Gaffurini, 2017). The old bifurcated perspective of social versus economic has become a reality where there is no reconciliation of high monetary returns with social, cultural, environmental and ethical impacts (Urban & Kujinga, 2017)

These are contextual challenges that require examination beyond businesses as Schumpeterian purpose or resulting in an economic component, entrepreneurs are still facing a challenge of driving innovation and activating economic structural changes and at the same time, recognising the social component (Ziegler, 2010; Urba, 2015) For example, Porter and Kramer (2011) suggest the shared value principle which is more concerned with operating practices and policies that increase competitiveness of a business, while at the same time, advancing the social and economic conditions in the communities in which the operation take place. South Africa is faced with unequivocal application where government's traditional initiatives are unable to satisfy the whole social deficit, where problems of social enterprises' accountability are acute and where many social enterprises face a survival challenge (Urban & Kujinga, 2017)

Although the social entrepreneurship notion has been around since the 1950s (Bowen,1953), it is only within the past decades that social entrepreneurship has gained attention in South Africa. For instance, it has been identified as one of the most powerful mechanisms to minimise the impact of poverty (Tasavori & Zaefarian, 2014). There are three possible reasons for the lack of social entrepreneurship in South Africa; the first reason is the general lack of understanding of the concept of social entrepreneurship, the second reason is the under-representation by the enterprises that are working for social benefit and the third reason is that commercial enterprises exclude themselves from the social entrepreneurship domain (Herrington, Kew & Kew, 2009). There are constraints to the government of South Africa's capacity to address these varied challenges, while there may also be a variable of insufficient profit earning potential or a lack of the requisite working market institutions to motivate and encourage engagement with this issue by traditional enterprises (Littlewood & Holt, 2015).

The need to consider environmental influence on social entrepreneurship is mostly recognised in the available body of work (Littlewood & Holt, 2015). For South Africa's development and transformation, business has to assume a key role; this view is not focused only on capturing the residual value but also through participation in corporate social responsibility programmes and social enterprises that mix commercial and social objectives, with the latter incorporated into the business operating model, moving in line with global trends and development in Africa at large. However, there is growing interest to engage in social entrepreneurship in South Africa (Littlewood & Holt, 2015).The study is one of the few in the African context to empirically investigate the heterogeneity among entrepreneurs and their objectives from a human capital perspective.

1.3 PROBLEM STATEMENT

The problem prompting this study is that there is a lack of acknowledgement on heterogeneity among entrepreneurs and their objectives that they seek to achieve, particularly in developing countries. Estrin, Mickkiewicz and Stephan (2016) found that commercial and social entrepreneurship compete for the same pool of talent to a certain extent. Commercial entrepreneurs create value but not the same way as social entrepreneurs. Various aspects of the new venture creation process, such as the necessity to take risk, co-ordinate resources and innovate (Schumpeter, 1934) will be common to commercial and social entrepreneurs. In this regard, the two subjects may draw from the same entrepreneurial pool of talent. However, the way of creating value and achieving a set of objectives differs for commercial and social entrepreneurship and they may require different sets of skills and abilities which implies that these two kinds of entrepreneurship are not necessarily drawn exactly from the similar pool of talent. This is the gap that the study trying to fill since this matter has not been dealt with systematically in the review of literature.

1.4 Purpose, research question and aim of the study

The purpose of this study is to establish the influence of human capital across various occupational preferences.

1.4.1 Research question

To what extent does general human capital influence social entrepreneurship activity when compared to commercial entrepreneurship?

To what degree does specific human capital influence commercial entrepreneurship activity when compared to social entrepreneurship?

1.4.2 Research aim

The aim of this research is to investigate whether human capital theory can aid in explaining heterogeneity among entrepreneurs in the context of a developing country like South Africa.

1.5 Definition of terms

1.5.1 Commercial entrepreneurship

Commercial entrepreneurship refers to activity into business activities which rely heavily on exchange structures of the market with the objective of maximising profit and put more focus on the economic function of entrepreneurship. Thus, commercial entrepreneurs capture the residual value created privately within their business (Mair & Marti, 2006; Estrin et al., 2016).

1.5.2 Social entrepreneurship

Social entrepreneurship refers to attacking social challenges as a result of shortcomings in the existing market and systems of social welfare and looks to create sustainable improvements and systemic changes (Bacq & Janssen, 2011; Urban & Gaffurini, 2017).

1.5.3 General human capital

General human capital refers to knowledge and skills gained as a result of completing a tertiary qualification (Estrin et al., 2016).

1.5.4 Specific human capital

Specific human capital refers to experience gained as a result of doing the actual job or the behaviour in question (Estrin et al., 2016).

1.6 Contribution of the study

The study contributes to the body of work that is available and focuses on both human capital and entrepreneurship, particularly social entrepreneurship. It also highlights the importance of the context. This study will help individuals attracted to entrepreneurship to differentiate between types of entrepreneurship and related activities. Practitioners and researchers will benefit from this study by gaining a broader understanding of the socialisation effects that come with general human capital. More importantly, it will guide policy makers to consider different types of entrepreneurship when implementing policies.

1.7 Summary of the chapter

This chapter is made to give a broad background of the research project and it entails the introduction of the study, problem statement of the study, questions and the aim of the project, context of the project, the importance of the project and definitions of the main variables that are being studied in this study, however the main variables for this project are general human capital, specific human capital, social entrepreneurship and commercial entrepreneurship.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter is a review of the body of work that is present in relation to human capital in commercial and social entrepreneurs. The review of literature is based on the research questions in Chapter 1. However, a theoretical insight is provided to give a much broader background of the study. The theory of human capital is used as the theoretical framework for this study which predicts that groups or individuals who possess significant levels of skills, knowledge and other competencies will attain significant performance outcomes and moreover, it is important that one considers aspects of motivation when it comes to education that exceed boundaries of rational calculations of human capital theory. Human capital characteristics that are responsible for enhancing the individual's capacity to realise externalities which are positive, may also be those that motivate individuals to search for those opportunities. Hypotheses are also highlighted in this chapter.

2.2 Commercial entrepreneurship

The worldwide increasing recognition of entrepreneurship as the main engine of technological, economic and social development has drawn much attention to what is known as ideological foundations. The increasing number of studies suggests that entrepreneurial functions are grounded to the culture in that they are constrained as well as determined by national cultures (Hayton, George & Zhra, 2002). The variety of entrepreneurial activities in a society is shaped by norms, values and practices that is the setting of their institution (Bruton, Ahlstrom & Li, 2010). Entrepreneurship is promoted widely as a powerful force when it comes to independence and social mobility and the motivating key for high achievement individuals (Bruton, Zahra & Cei, 2018). Therefore, entrepreneurship serves as a primary means of job creation and gives one control over one's future. However, the role and the definition of opportunities in entrepreneurship is an ongoing subject and lively debated (Alvarez, Barney, McBride & Wuebker, 2017; Davidsson, 2015), drawing an understanding of the processes associated with developing, prospecting and exploiting opportunities is an on-going primary concern of scholarship-entrepreneurship, however opportunities come in different formats, for example, including information asymmetries, new

technology and environmental shifts and most of the time, are typically looked at as industry specific (Alvarez et al., 2017).

However, there are three main streams of research considered to be the main stream when it comes to entrepreneurship, which focus mainly of the results of entrepreneurship, the entrepreneurial management and causes of entrepreneurship (Stevenson & Jarillo, 1991; Austin, Stevenson & Wei-Skillem, 2012). Economists have explored the results and impacts of entrepreneurship in the first research stream, for instance, Schumpeter (1934) examined entrepreneurship as a very important key process in which the totality of the economy is advanced. The focus has been put on the entrepreneurs themselves which is the stream; in this stream, research looks at entrepreneurs from the sociological and psychological perspective, for instance, McClelland (1961); Collins and Moore (1964). The final stream which is the third puts a focus on the management process of entrepreneurship. There is an inclusion of how to foster innovation within corporations in this diverse body of work (Burgelman, 1984). From venture capitals and start-up (Timmons & Bygrave, 1986) life cycles of an organisation (Quinn & Cameron, 1983) entrepreneurial success predictors (Cooper & Bruno, 1975), it is clear that from this research stream, the earlier entrepreneurship conceptualisation puts much focus on either the nature of the entrepreneur or the function of the economy of entrepreneurship whereas in recent years, most of the significant research has put their attention on the search on the “how” of entrepreneurship (Austin et al., 2012).

Stevenson (1983) made a statement by saying the definition of entrepreneurship is more of the pursuit of opportunities that are beyond tangible resources that one can currently control. Taking this definition, one can see that the emphasis is based on how the opportunity can be recognised, which is often known as the process of opportunity commitment, having control over the resources, the rewarding of participants and managing diverse hierarchical networks (Stevenson & Jarillo, 1991). The organisation of entrepreneurship put much emphasis on opportunity as compared to resources. There is a need for entrepreneurs to quickly commit but tentatively, to open a room for readjustment as new information arises (Austin et al., 2012). The commitment process has become multi-staged, not leaving room for the commitment of resources from stage to stage to a sufficient amount to produce new information and success before commitment of more resources. The entrepreneurial organisation

makes use of the resources that are based on the total hierarchical control of others and therefore is required to manage the hierarchy and the network (Austin et al., 2012). In this research study the definition of commercial entrepreneurship refers to activity into business activities which rely heavily on exchange structures of the market with the objective of maximising profit and put more focus on the economic function of entrepreneurship. Thus, commercial entrepreneurs capture the residual value created privately within their business (Mair & Marti, 2006; Estrin et al., 2016).

2.3 Social entrepreneurship

Society expectation is increasing towards firms to account for their social and environmental value, as they are not separated from the society and its environment (Baker, 2011; Byerly, 2015). The traditional view for social vs commercial value has come to reality where significant monetary returns are not reconciled with ethical, environmental, cultural and social impacts (Bozesan, 2013; Fortune et al., 2016; Urban & Kujinga, 2017). However, social entrepreneurs are facing a non-distributive restriction on surplus or resources which in turn, limits them to tap into the same capital market as commercial entrepreneurs and also the economics of social entrepreneurship which often make it difficult for staff to be compensated competitively (Austin, et al., 2012). However, performance measurement, resource mobilisation, mission and the market failure, remain to be the most consistent differentiator between commercial and social entrepreneurship; with that being said, in this study, the study focus on the components of human capital and the influence of the two types of entrepreneurship. Research has shown a number of studies that document types of action associated with commercial and social entrepreneurship goals and the need to simultaneously consider them both, which can lead to a trade-off for social entrepreneurs and increase the challenge of decision making (Battilana & Lee, 2014; Mair et al., 2015), for example, to gain resources and legitimacy from funders, social entrepreneurs are required to appeal to commercial requirements, showing their capabilities of management and maybe offering dividends to the respective industry organisations. Yet for them to be credible to their beneficiaries, there may be an expectation to operate closely with local stakeholders, so that the social impact can be measured, to ensure that profits are reinvested in social impact creating activities and to put themselves in partnership with cross-sector networks (Austin, Stevenson, Wei-Skillern, 2006; Pache & Santos, 2013). Entrepreneurship (Gartner, 1989) results

from a person's choice of occupation to work on his or her own account (Hebert & Link, 1988). Commercial entrepreneurship refers to the start of business activities that rely heavily on market exchange structures with the sole objective of maximising the profit, thus, capturing the residual value created by their enterprises.

Social entrepreneurship refers to the organisational activities that focus on addressing social needs rather than commercial needs and aims to create social wealth (Mair & Mati, 2006). According to Santos (2012), activities of social entrepreneurs can be further conceptualised as the generation of positive benefits that are made by the venture primary and that accrue to society in general; it aims not to be contained by the market in which the venture is partaking. On the other side, commercial entrepreneurs do generate positive results through the creation of employment but sometimes also generate negative results, such as pollution, however, positive results can be seen as the main objective of social entrepreneurs rather than of commercial entrepreneurs which contain potential side effects. Previous studies have mentioned how positive externalities and social objectives pursued by social entrepreneurs increase the complexity of their set of activities, as compared to commercial entrepreneurs (Estrin et al., 2016). In contrast, social enterprises co-ordinate for bottom-up changes in a society through empowerment processes (Santos, 2012; Stephan et al., 2016; Estrin et al., 2016). In short, this increases the scope of activities to be carried beyond the normal boundaries of the enterprise. It entails that the enterprise allows different stakeholders to have influence, is rooted in local communities, and it creates a relational approach by making networks in various sectors (non-profit, commercial and government) to stimulate social impact and leverage resources (Stephan et al., 2016). This is similar to commercial enterprise transactions that are stereotyped and address a few sets of stakeholder suppliers, employees and financiers, who are significantly in line with the top objective of capturing the residual value within the organisation. Currently social entrepreneurship is viewed as an attractive field as there are many social problems that require solutions (Seelos & Mair, 2005). Commercial entrepreneurs view a social problem as an opportunity to capture a residual value while social entrepreneurs see it as a need to correct market failure or create social value (Estrin et al., 2016).

2.4 Human capital

Human capital has sparked much interest within the entrepreneurship space in the past and this has grown recently. The origin of human capital was developed to study the value that comes with education (Becker, 1964; Schultz, 1961) and it demonstrates that people have varying skills and knowledge that holds economic benefit. Mincer (1958) discussed the human capital concept as an explanation for inequality of income. Shcultz (1961) observed that a growing national output was disproportionate relative to labour hours, land or physical capital, and concluded that investment in human capital was the major explanation. Becker (1964) extended this, and came up with the theory of investment in human capital which is based on a large amount of evidence that more highly skilled and educated individuals always tend to earn above the others. Human capital emerged in the early 1960s, when Schultz (1961) postulated that human capital is a combination of knowledge, abilities and skills of the individuals employed in an organisation. After some time Schultz (1981) revamped the definition of human capital as all human abilities to either innate or acquired and all attributes which are valuable and can be augmented by appropriate investment will be human capital. After more than a decade, Becker (1993) coined a definition of human capital as the knowledge, information, health and skills of an individual. Schultz's definition, Becker's definition is somewhat limited. However interest has been observed on Becker's definition due to the addition of an extra dimension 'health of an individual'. It is true, the well-being and health of individuals is a crucial factor in contemporary research which is associated to the contextual development of human capital within the organisation. Bontis et al (1999) defined human capital as the human factors in the organisation, the mixed intelligence, expertise and skills that gives the organisation its distinctive character. The human elements of the organisation include those that are capable of changing, learning, innovating and providing the creative thrust which if properly mortivated can ensure a sustainable organisation. Bontis et al (1999) emphasised the importance of innovation, creativity and change and its role in human capital. The definition take in to consideration the importance of distinctive character and finally alludes to the outcome of organisation's long-term survival. Thomas et al (2013) defined human capital as individuals, their potential and performance in the organisation. The inclusion of the term potential is crucial as it indicates that individuals can develop their abilities and skills over time. However this definition indicate to be in

line with Dess and Picken (1999) who defined human capital as the capabilities of an individual , knowledge, experience and skills through individual learning.

The twenty-first century has witnessed a shift from economy of production to the knowledge economy and there has been a paradigm in the way, assets are viewed within the organisations. Traditionally, the long-held view was that an organisation's physical assets create a way to economic success, however as explained by Becker (1964) physical explain only a relatively tiny part of the growth of income in most countries. Taking from strategic management perspective, tangible resources confer small advantage to organisations because they can be bought and sold on the open market with ease (Rothaermel, 2012). Knowledge economy recognisee skills and intangible abilities of the workforce and the knowledge inherent within the organisation's structure, systems, routines, and process which can contribute towards the knowledge capital of the firm (Grant, 1996, Mahoney and Kor, 2015). Knowledge capital in most of the time is referred to as an organisation's intellectual capital. The organisation's intellectual capital consists of human, social and structural capital (Edvinsson and Malone, 1997). Human capital can be argued that it represents the foundational level of intellectual capital. Human capital not only hold an important role in developing and creating new knowledge and new ideas; it also facilitates social capital and the sharing of knowledge and ideas through internal relationships (Han et al, 2014). Human capital compliments an organisation's structural and innovation capital, developing unique and new knowledge (Mahoney and Kor, 2015). The problem with human capital is that unlike organisational capital that the organisation owns (patents, database, and so on), human capital can simply walk out the door and never come back (Coff and Raffie, 2015). Hence, one can begin to understand the reason behind measurement and management of human capital is very important and why human capital is becoming a crucial strategic matter within the firms (Boudreau and Ramstad, 2007, Thomas et al, 2013). Furthermore, there is growing and large body of evidence that indicates a positive linkage between the development of human capital and performance of both organisation and individual levels (Crocker and Eckardt, 2014). In can be argued that retaining and recruiting the best individuals becomes a key objective of human capital management. However management of talent is only part of the equation. The firm also has to leverage the capabilities and

skills of individuals by encouraging individual and organisational learning as well as providing a conduce environment for knowledge creation, sharing and application.

However the human capital theory has been applied within the entrepreneurship space and constantly links human capital constructs to entrepreneurial success (Unger, Rauch, Frese, & Rosenbusch, 2011). The early human capital studies focused on the main construct of the theory that includes skills and knowledge (Schultz, 1961) and what is regarded as the higher order constructs which include general and specific human capital (Becker, 1964, Marvel, Davis & Sproul, 2016). When applied to the entrepreneurship research domain, different human capital constructs have been theorised as very important (Marvel et al,, 2016). Specific human capital is regarded as the most important construct of human capital, followed by general human capital, consistent with prior research findings. Investment in experience and education were clearly the pervasive kinds of constructs employed (Reuber & Fischer, 1994). For instance, the method considered typical in measuring education, includes the completion of a tertiary degree or years of education, and experience is typically measured on the basis of prior work experience in an industry, or how many times one has held management positions, and the third common measure is the entrepreneurial experience, for example, having past business ownership which is often considered a specific kind of human capital in the context of entrepreneurship (Marvel et al., 2016). The theory of human capital has been found to be associated with success in entrepreneurship (Unger et al., 2011).

However, literature has shown that the economic analysis of a person's choice to select entrepreneurship focuses on alternative occupations in the labour market: entrepreneurship against paid employment (Lucas, 1978; Estrin et al., 2016). Rational utility maximising people select entrepreneurship if the expected return from it is more than the one from paid employment. A significant expected utility from selecting entrepreneurship may be as a result of differences in ability created by variation in human capital (van Prag, 2005; Estrin et al., 2016) in utility functions, for instance, putting a significant emphasis on non-pecuniary gains such as job satisfaction and independence (van Prag & Versloot, 2008) or in risk-taking appetite (Khilstrom & Laffont, 1979). There is a lack of application of this framework to the subject of social entrepreneurship; a life cycle model was developed by Parker (2008) in which variations in time preferences resulted in individuals selecting social entrepreneurship

at different stages in their lives. The approach followed in this study draws a distinction between specific and general human capital (Becker, 1964) with specific skills typically acquired by experience and general human capital through formal education (Unger et al, 2011). As an alignment to the extant literature, consideration is given to determinants of choice of entrepreneurial occupation to be the gain from specific and general human capital in comparison with their opportunity costs (Parker, 2008; Davidsson & Hoing, 2003; Unger et al., 2011; Estrin et al., 2016).

Relative to commercial entrepreneurship, social entrepreneurship includes broader activities and objectives which may change the balance of advantage of specific versus general human capital. Estrin et al. (2016) argue that the main difference will be via the general human capital effects, the broader scope of activities and objectives of social entrepreneurs will put more emphasis on general as compared to specific human capital. The objectives of commercial and social entrepreneurship differ more than one might expect and each activity will attract individuals characterised by significantly different values and motivations. Taking in to account motivation, this cannot be the only differentiator between commercial and social entrepreneurship, for instance, other values may also be realised by those in purely commercial entrepreneurship and those in salaried employment, outside their occupation, for instance by giving and charitable activities. It is also more on the ability to realise gains from the joint supply of commercial services, products and positive outcomes which persuades an individual to initiate a social enterprise. Both values and abilities are defined by the individual's human capital characteristics (Estrin et al., 2016) which brings us to a sense of looking to understand the components of human capital which as a result, drives the choice of social and commercial entrepreneurship.

2.4.1 General human capital

Investment in human capital has been found to have positive effects on both performance and activity of entrepreneurs; as a result, it leads to a broad knowledge base and enables individuals to adapt to new situations and integrate new knowledge more easily (Lazer, 2005), in particular, it is responsible for the improvement in the individual's ability to easily discover and exploit opportunities (Unger et al., 2011). However, studies have linked education to the activity into commercial entrepreneurship which has seen mixed patterns (Le, 1999) with some studies

advocating that education is more positively associated with commercial entrepreneurship (Parker, 2011; Block, Hoogerheide, & Thurik, 2013). Other studies found that there is no relationship (Van der Sluis et al., 2005, 2008). Some studies suggest that it is equally important to consider the type of education beyond secondary education, higher education may not have an extended positive effect on selecting a commercial entrepreneurship (Parker & Belghitar, 2006; Estrin et al., 2016). This may be possibly due to opportunity costs; as a result, most of the more highly educated individuals are offered managerial activities in wage employment that, like entrepreneurship, includes considerable variable incentives and decision latitude, yet include minimal risk bearing. More interesting is that there is limited analysis of the influence of education on social entrepreneurship, however available findings through the Global Entrepreneurship Monitor suggests that there is a positive relationship (Bosma & Levie, 2010).

Nonetheless, studies that explore the relationship between social entrepreneurship and education, controlling for an alternative narrative and making use of inference statistics are quite rare. With its broader scope on the table, higher educational phases may be quite important in the process of identifying and exploiting opportunities, particularly for social entrepreneurship. While investing in higher education is likely to enhance commercial entrepreneurship gains relative to alternative occupations, these gains may be even quite high in social entrepreneurship (Estrin et al., 2016). It is very important to note that in order to conform to social welfare maximisation goals for social entrepreneurship, gains must be defined at a broader scope to incorporate the whole value generated by the business, whether the residual is privately captured or not. Approaches used in psychology stress that education and particularly, higher education, has a two-fold socialising effect. It increases flexibility, independent thinking and openness (Kohn & Scooler, 1983; Schwatz, 2006). Economic approaches emphasised actions such as political activism and volunteering (Abramson & Inglehart, 1994; Schofer & Fourcade Gorinchas, 2001, Schwartz, 2006, 2010; Estrin et al., 2016). Higher education instills motivation and preferences, consistent with the major aspiration of social entrepreneurship to bring together the welfare of others and societal wealth (Lukes & Stephan, 2012; Noseleit, 2010). Estrin et al. (2016) argue that higher phases of education may have a significant pronounced influence on social entrepreneurship as against commercial entrepreneurship. This is as a result of the

socialisation factor of education that may favour both a better understanding of the wider nature of social entrepreneurship opportunities and social welfare maximisation goals rather than profit maximisation and introducing what is known as a pro-social bias (Nga & Shamuganathan, 2010). Taken together, the human capital theory and the socialising effects of education lead us to have an expectation of relatively significant influence from education (general human capital) on social as compared to commercial entrepreneurship. Social entrepreneurship has put the adoption of other-regarding value as a necessary condition and it also require a wide set of conducive skills to identify opportunities in creating positive external effects. In this study, general human capital is our independent variable and social entrepreneurship activity is the dependent variable. With the above literature that has been observed about general human capital, the study hypothesise the following:

Hypothesis 1

General human capital in terms of entrepreneurship has a positive influence on social entrepreneurship activity and a negative influence to commercial entrepreneurship.

2.4.2 Specific human capital

Commercial and social entrepreneurship have much in common, particularly when it comes to specific human capital entrepreneurship. Different aspects of new venture creation steps are similar for both, notably the importance of necessity for the individual to be able to identify opportunities, organise resources, and bear the risk associated with the creation of a new venture for its success (Reynolds, 2010; Meyskens et al., 2010). All these undertakings require the specific know-how associated with initiating and running a venture (entrepreneurial skills), often accumulated from past start-up experience (Unger et al., 2011). Such sets of skills include being able to craft business models and exploit them, being sensitive to opportunities, finding solutions to different challenges and proactive in a way of new venture creation. This set of skills are not especially valued in salaried employment where the quadrant of labour gives development to organisational hierarchies and processes that typically need some form of compliance as well as strong subject matter expertise (Lazear, 2005; Estrin et al., 2016). This would in turn, suggest that

some other individuals with specific skills of entrepreneurship would choose to set up commercial and social enterprises as opposed to accepting paid work.

In economic models of occupational preferences of entrepreneurship, certain individuals look for careers that will maximise their gains from their human capital. Individuals with entrepreneurial know-how prefer entrepreneurship over paid work when the gains from the former are more than the market employment wage (Estrin et al., 2016). In this regard, unlike general human capital, lower opportunity costs are mostly likely to be entailed in the specific entrepreneurial human capital vis-a-vis paid work. There may be variation in the relative productivity of entrepreneurial know-how (skills) when deployed in commercial as against social entrepreneurship. In contrast, this means that the study is required to consider not only the heterogeneity in terms of opportunity cost of both kinds of entrepreneurship against salaried employment, but also the opportunity costs of one kind of entrepreneurship against the other. This paves the way to differences in the likelihood of selecting social versus commercial entrepreneurship for those with entrepreneurial know-how (Estrin et al., 2016). Most of the time, entrepreneurial competence may weigh more in the set of social entrepreneurial know-how, this is likely to be one of the most vital elements alongside other sets of skills necessary in making positive externalities and which most of the time, are found in general human capital. Social entrepreneurship will need certain skills, especially in association with the generation of social impact (Stephan et al., 2016).

Taking into consideration the emphasis on social objectives, it is more likely that purely entrepreneurial know-how will weigh less in individual's considerations to initiate a social venture (Estrin et al., 2016). Are these individuals concerned about social impact know-how and indeed may self-choose to initiate a new venture if they perceive they lack that know-how, regardless of their entrepreneurial know-how? The more complex know-how basis appropriate for social entrepreneurship links with commercial entrepreneurship where specific entrepreneurial know-how generally produces a stronger impact than education (general human capital) (Unger et al., 2011). That in turn, means maximum opportunity costs of the former commercial entrepreneurship.

Bruederl, Preisendoerfer and Ziegler (1992) postulate that specific human capital is linear to the stream of a small-scale business and specific human capital indicators are prior self-employment experience, industry specific employment, having self-employed parents, management experience and industry-specific experience. Essentially, specific human capital is not easily transferred from one context to another (Shepherd & Wilklund, 2006). Therefore, specific human capital may not be related to expectation of high returns available in different job opportunities. Taking into consideration of low opportunity cost for specific human capital, it may not be related to the growth of the firm. On the reverse side, specific human capital is good for the running of the firm. Specific industry experience includes knowledge about profitable niches and channels to enhance productivity and should aid an entrepreneur to assemble a business successfully. Previous experience in self-employment is essential because knowledge acquired through the experience of previous self-employment gives the individual skills that are required to initiate a new enterprise. Previous management experience aid in directing and managing employees. Furthermore, management experience may come as a source of motivation and aptitude to take the firm to another level (Cooper et al., 1994). Individuals come from entrepreneurial families and most of the time, have access to the skills and knowledge required to manage a business. For instance, there are suggestions from theoretical arguments that both general and specific human capital have a positive effect on firm outcomes, such as failure and growth. A meta-analysis reflected that there is a relationship among general and specific human capital and success (Unger et al., 2011).

Davidson and Honig (2003) argued that specific human capital is essential in young businesses. Start-ups are faced with the liability of newness, which refers to higher chances of failure for start-ups as compared to big organisation or established firms (Wiedenmayer, 1993; Stinchcombe, 1965). Lack of information and lack of skills are the causes of the liability of newness, therefore specific human capital can reduce the liability of newness (Aldrich & Auster, 1986; Unger et al., 2011). Human capital theory proposes that individuals want to be rewarded for their investment in human capital, assuming that they want the highest economic return over their lifetime. Therefore, when this theory is applied to entrepreneurship, it means entrepreneurs seek to accumulate financial gains from undertaking entrepreneurship activities relative to

their specific human capital (Unger et al., 2011; Marvel et al., 2016; Estrin et al., 2016). Research proposes that the effect of specific human capital can be distinguished through the operational and financial performance of entrepreneurial firms (Combs, Crook, & Shook, 2005; Venkatraman & Ramanujam, 1986). Specific human capital is often observed in high technology industries. Individuals with specific human capital have a far better knowledge of products, services, customers and suppliers within their business context (Gimeno, Folta, Cooper, & Woo, 1997; Unger et al., 2011). Entrepreneurship literature indicates that specific human capital should increase success. Specific human capital helps individuals to discover and exploit entrepreneurial opportunities (Shane & Venkatraman, 2000). In this study, specific human capital is an independent variable and commercial entrepreneurship activity is the dependent variable. With the above literature that has been observed about specific human capital, the study hypothesise the following:

Hypothesis 2

Specific human capital in terms of entrepreneurship has a positive influence on commercial entrepreneurship activity and a negative influence on social entrepreneurship.

2.5 Conceptual framework

The literature shows how aspects of human capital influence social and commercial entrepreneurship activity in a developing country context.

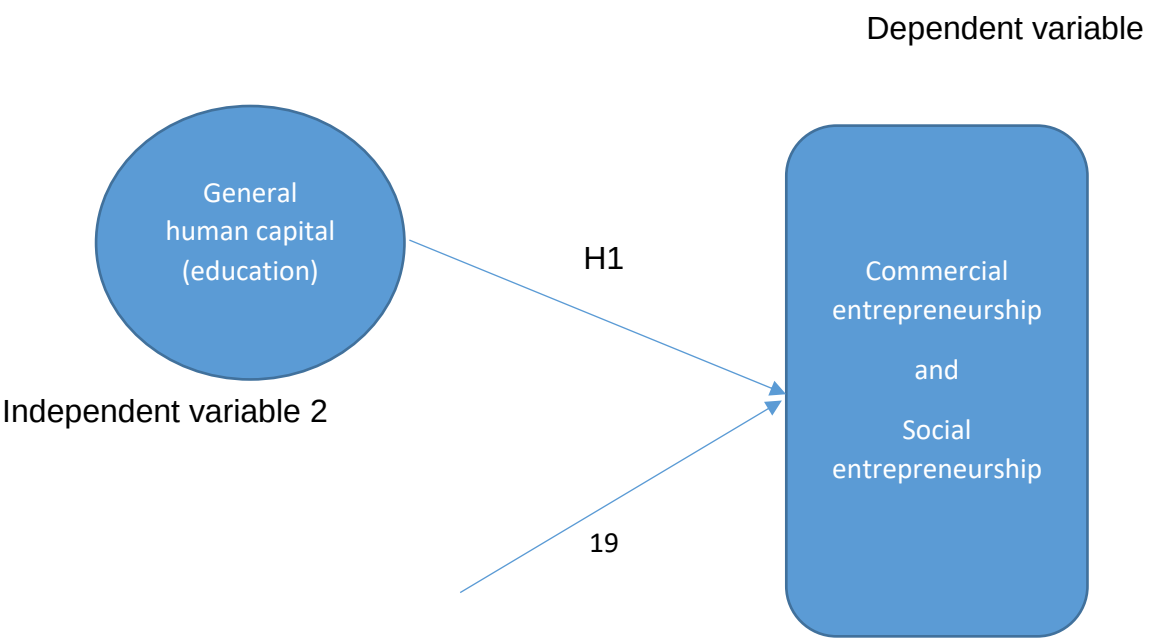



Figure 2.1: Conceptual Framework

2.6 Chapter summary

This chapter provides the body of work which has been produced by different authors about general human capital and specific human capital that influence individuals to select between social and commercial activity. The chapter also provides hypotheses that have been formulated regarding the impact of independent variables towards the dependent variable which reads as follows: general human capital in terms of entrepreneurship has a positive influence on social entrepreneurship activity as compared to commercial and specific human capital in terms of entrepreneurship has a positive influence on commercial entrepreneurship activity as compared to social entrepreneurship. The chapter provides also the framework of the study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The methodology of this study is outlined here. The focus is mainly on the design, research paradigm, sampling and population, analysis and method of collecting data, validity and reliability. The instrument used in this study to collect primary data is discussed. Validity and reliability tests of the study are discussed and also ethical consideration and limitations of the project.

3.2 Research paradigm

The study follows a positivism paradigm, due to the fact that this paradigm uses a quantitative research and deductive approach to test theory and hypotheses (Guba, 1990). The paradigm of positivist research tends to look on modelling the world to be able to control and predict the world, generating causal laws and searching for the known truth (Guba, 1990). The initial purpose of quantitative research is to develop the impact of general human capital and specific human capital on social and commercial entrepreneurship. Realism is the ontology of this study, where the reality of the objective is externally assumed to the observer (Guba, 1990).

3.3 Research design

The focus of the study followed a quantitative research design and also a cross-sectional research approach and a snapshot of a single time period has been presented (Cooper & Schindler, 2014). The choice of cross-sectional study provides the opportunity to the researcher to work with data that could be utilised in current environmental businesses. To collect primary data, a survey was used to test and find the impact of general human capital and specific human capital in social and commercial entrepreneurship. The character of the study is a multiple variable in the imperial plane and the advantage that can be found in this design is that it offers an opportunity to collect other types of data if necessary.

3.4 Population and sampling

3.4.1 Population

A population is known to be the aggregate of components which have been gathered from which a conclusion is made (Cooper & Schindler, 2014). The arrangement of perception which is bigger is the population and the sub-set of the population is called the sample. The targeted population for the study is individuals who have completed a tertiary qualification, experience (exposure to entrepreneurial activities) and are currently working in a social or commercial businesses in Gauteng province and the researcher was able to be in contact with Five Thousand Seven Hundred and Thirty Five (5735) participants from the clients of listed companies on SAIPA's database.

3.4.2 Sampling design

3.4.2.1 Sampling frame

A list of all components from the drawn sample is known as the sampling frame (Cooper & Schindler, 2014). In this study, the sampling frame is made up of all individuals who are currently in social and commercial enterprise and who have experience and completed a tertiary qualification. One of the reasons why is because they already have some form of human capital or they have gone through the process of human capital investment which is categorised by knowledge, skills and experience and the specific human entrepreneurial capital. Austin et al (2006) alludes that social value is created by individuals who work day to day in a social enterprise. Bontis et al (1999) argued that this individuals are those that are capable of changing, learning, innovating and providing the creative thrust which if receive proper motivation can ensure a sustainable enterprise.

3.4.2.2 Sampling technique

This is a sampling selection mode. Sample usage has been known for its feasibility for maximum overall precision in a project (Saunders, Lewis, & Thornhill, 2012). Stratified random sampling approach was used for the representation of different subgroups in the population (Mugenda & Mugenda, 2003). It improves the statistical efficiency of the sample and provides analysis of data for different subgroups. This form of sampling provides a guaranteed representation which is adequate of the population from all four strata that represent the whole population. Bryman and Bell (2011)

mentioned that any subset found in the components of the attained population for investigation reasons and process of selection is known as sampling.

3.4.2.3 Sample size

Cooper and Schindler (2014) mentioned that the sample is the size of the smaller portion of the bigger portion which is called population and the sample is chosen circumspectly as the population agent that makes sure that the utilised subdivisions are accommodated as part of the review (Cooper & Schindler, 2008). Yamane's (2001) equation has been used to decide measures of example from the population of individuals with experience, tertiary qualification and currently working in a social or commercial organisation in the Province of Gauteng. 95% standard error has been considered for the examination of the estimate.

Yamanes's equation

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n = Sample size.

N = Population size.

e = confidence level

$$n = \frac{5735}{1+(5735)(0.05)(0.05)}$$

$$\frac{5735}{1 + 14{,}33}$$

=374

Table 3.1: Summary of the survey

VARIABLE	DESCRIPTION
Collection method	survey
Targeted population	Individuals with tertiary qualifications, experience, working in a social enterprise and commercial enterprise.
Population size	374 individuals with tertiary qualification, specific experience, working in a social enterprise and commercial enterprise.
Geographical survey	Gauteng Province
Target sample size	374 respondents
Final sample size	316 respondents
Sampling error (confidence level)	95%

3.4.3 Data collection method and procedure for data collection

Cooper and Schindler (2014) mentioned that research procedures include a clear and detailed explanation of all the procedures and steps undertaken in the study for explicability purposes. In the process of questionnaire design and testing the research, the supervisor reviewed and advised on the commencement of the data collection. Data collection was done from a number of individuals who have tertiary qualifications, experience and are currently working in a social or commercial enterprise. These individuals were identified randomly from different clients of companies in Gauteng province and these companies were accessed from the database of the South African Institution of Professional Accountants (SAIPA, 2018) registered accounting firms, the researcher is a member of SAIPA. The researcher used a self- administered questionnaire as a primary data collection tool which was distributed through emails and manually. However, during the collection period, some of respondents advised the researcher to make use of Qualtrics or Google Forms as they mentioned that it was not going to take much of their time since they can access it at any given time. The method of sending emails and manually distributing the questionnaire proved to

be working as the researcher was able to receive Three Hundred and sixteen (316) responses close to the targeted sample size of Three Hundred and Seventy Four (374), which means the final sample that was used for empirical analysis consisted of 84% response rate.

3.5 Instrument

The interview questionnaire, consisting of three different sections, showing the constructs under study, was the research survey design. Special attention was given to ensuring clarity in terminology and items in the questionnaire relate to the hypotheses. Scrutiny was performed on existing instruments for suitability and the operationalisation of the survey with the theoretical constructs reviewed in the literature. A seven-point Likert scale was employed to measure all items. The Likert scale was ranging from totally disagree = (1) to totally agree = (7). Section one of the instrument consisted of the demographics of the respondents (Kuratko et al., 1997; Robichaud et al., 2001; Urban et al, 2011, Venter et al, 2012; Venter, 2014). Section two consisted of the aspects of human capital as (independent variables) with 15 items (Unger et al., 2011; Marvel et al., 2016; Marvel, 2013, 2007; Rauch & Rijsdijk, 2016) and section three consisted of entrepreneurship activities as (dependent variables) with eight items (Urban et al., 2017; Venter, 2014; Parker, 2008, 2011; Mickiewicz et al., 2016; Mair & Marti, 2006). Data was cleaned using Excel, after cleaning it was imported to SPSS.

Table 3.2: Research instrument section summary

Section	Description	Source of question	Type of question
Section: 1 Demographic data	Section 1 consisted of questions aimed to collect data on demographic information. For instance, Age, Gender, Education level and Years of experience of individuals with tertiary qualifications and currently employed in social or commercial organisation in Gauteng Province.	(Kuratko et al., 1997; Robichaud et al., 2001; Urban et al., 2011, Venter et al., 2012; Venter, 2014).	Dichotomous, open ended, single response, multiple choice
Section: 2 Human capital (Independent variable)	Section 2 collects data on human capital (question 2.1 to 2.15) the human capital scale was adapted from Rauch and Rijsdijc (2016).	(Unger et al., 2011; Marvel et al., 2016; Marvel, 2013, 2007; Rauch & Rijsdijk, 2016)	7-point Likert-scale
Section: 3 Entrepreneurial activities (Dependent variable)	Section 3 is concerned with data collection of entrepreneurial activities (question 3.1 to 3.8) that were adapted from different sources making sure that they address the hypotheses as discussed in chapter 2 of the study.	(Urban et al., 2017; Venter, 2014; Parker, 2008, 2011; Mickiewicz et al., 2016; Mair & Marti, 2006)	7-point Likert-scale

3.6 ETHICS

Ethical consideration was taken in to account by making sure that the instrument employed created no risk or harm to respondents. Benefits, rights and participants' protection were explicitly made and explained to the respondents at the beginning of data collection. There was no use of misrepresentation for information extraction from participants and their confidentiality and privacy was strictly respected at all times

3.7 Data analysis

According to Denscombe (2006), graphic measurements include some kind of procedure for converting huge crude information, into tables, diagrams, rates and recurrence which is basic for understanding the information. Descriptive analysis was employed as part of quantitative tools, which includes central tendency measures, such as standard deviation, means, and median, cross tabulations, percentages and frequencies. Exploratory factor and multiple linear regression was used. These analysis tools have been used to describe the impact of independent variables and determine divergent views.

3.7.1 Correlation analysis

The association between human capital and social and commercial entrepreneurship was analysed through correlation analysis before doing the estimation model. There are two main correlation tests which are the Pearson correlation and Spearman correlation. Pearson correlation is used to test the relationship between variables that are continuous, and Spearman is used test the relationship between ordinal values (Lee, 2016). The relationship between independent and dependent variables was tested using these correlation tests.

3.7.2 Exploratory factor analysis

Human capital and social and commercial entrepreneurship were analysed by making use of Exploratory Factor Analysis (EFA) to reduce the number of variables, as applied in various studies (Benzing & Chu, 2009). The EFA also allows the researcher to interpret the results on human capital variables (Barba-Sanchez & Atienza-Sahuquillo, 2012) with the use of Principle Axis Factoring method to see whether different variables in human capital and social and commercial entrepreneurship can be allocated in the same group into specific factors. The PAF approach for factor calculation was applied as it is commonly used for EFA (Lee, 2016). Promax rotation was selected for the production of a clean pattern matrix. The scree plot, in conjunction with the eigenvalue rule of more than one was applied in the first iteration and the item could not converge in clean clear factors. There were items which cross loaded and some had negative loadings and the extracted number of factors was five while the researcher expected two. The EFA was run for the second time restricting the number of factors to be extracted and the decision was based on the output of the scree plot

of the first run. The final run produced a clean pattern matrix after the factors to be extracted was restricted to two. The dependent variable was conducted separately from the independent variable on EFA as the pattern matrix was becoming unclear when combined together.

3.8 Validity and reliability of research design

3.8.1 External validity

The validity test estimates were applied as a measurement in the study (Cooper & Schindler, 2014). Validity test is made of external, internal, construct and criterion validity. This study used external and internal validity. External validity focused on how an impact can be generalised across time, setting, persons and construct (Cooper & Schindler, 2014).

3.8.2 Internal validity

The causal relationship was examined between constructs using internal validity and to find whether the study does not have any confounding factors (Cooper & Schindler, 2014). Internal validity is influenced by a number of factors such as maturation, history, selection, statistical regression, selection, and experimental mortality (Cooper & Schindler, 2014). However, when conducting the validity for the independent variable, the total variance was 66% which is an acceptable percentage even though the eigenvalue rule still suggested three factors. The scree plot confirmed two and we took a decision to go ahead and accepted the results of the scree plot. The factor loading cut-off was ≥0.4 and was accepted. However, the validity test for the dependent variable showed a factor loading cut-off of ≤0.4 and there were no other items to form a factor at 0.4.

3.8.3 Reliability

The precision of measurement scales and accuracy are estimated using reliability tests (Cooper & Schindler, 2014). The Cronbach's alpha was used to test the scales and the coefficient ranges of acceptability. The alpha for the independent variable were >0.7 which showed to be reliable, however commercial entrepreneurship showed a weak alpha of ≤0.7 which can be relied on according to Nunnally (1978). Social entrepreneurship showed a ≤0.5 alpha which means it is not a reliable scale; according

to Bland and Altman (1997), alpha values of 0.7 to 0.8 are taken to be acceptable as a rule of thumb. However, rounding off to 0.5, it becomes a reliable scale according to Scheepers (2007). The research application is also in determining values that are acceptable, for example 0.9 alpha is clinical (Bland & Altman, 1997). See tables below.

Table 3.3: Cronbach's alpha table

VARIABLE	CRONBACH'S ALPHA	STANDERDISED CRONBACH'S ALPHA	NUMBER OF ITEMS
Commercial entrepreneurship	.529	.530	3
Social entrepreneurship	.490	.490	3
Specific human capital	.780	.774	4
General human capital	.909	.912	5

3.9 Limitations of the study

The focus is on general education rather than looking at the specific subjects studied and on acquiring a qualification rather than the duration of studying. It has been found that the industry of business is difficult to establish prior to start-up, however intentions can still exist without any new venture idea as a base to differentiate between types of business (Bhave, 1994). There are no causality inferences to be made due to the cross-sectional nature of the study.

3.10 Summary of the chapter

This chapter shows all research methods that were executed. Quantitative research methods were the basis of the study which are based on a positivist research paradigm. A self-administered survey was used as a research instrument to collect data to estimate relationships between human capital variables and social and commercial entrepreneurship in Gauteng province. Interpretation and data analysis were based on the descriptive analysis, multiple regression analysis, exploratory analysis and correlation analysis. Descriptive analysis, exploratory factor analysis and correlation analysis were used to clean and summarise data for multiple regression analysis. The data was captured in Excel and exported to IBM- SPSS v25. The data

on the empirical analysis of human capital variables and social and commercial entrepreneurship in Gauteng province is presented in chapter 4. Findings which relate to the relationships depicted in the conceptual framework found in chapter 2, are presented in chapter 4 also factoring a preliminary discussion of the output.

CHAPTER 4: PRESENTATION OF THE RESULTS

4.1 Introduction

This chapter provides the empirical findings from the study. Data was collected by the use of a survey, IBM-SPSSv25 was used to clean and analyse the data. Data analysis was conducted using methods outlined in chapter 3. Descriptive analysis is in the first part of the chapter, followed by the reliability results and exploratory factor analysis of the human capital variables and social and commercial entrepreneurship. The last part is the presentation of the multiple linear regression analysis of various relationships hypothesised in chapter 2's conceptual framework.

4.2 Data screening and quality

The empirical analysis used primary data that was based on responses from a primary survey questionnaire. Data collection method for this study ranges from sending emails and distributing questionnaires to respondents for them to complete. The total number of targeted respondents was 375 and the final sample from the survey that were successful was 316, with respondent number 315 having two missing values and respondent number 314 having one missing value, and this was addressed by using the average of the variable for each missing value as this was data missing at random. After data cleaning, the number of respondents remained at 316. The final sample for empirical analysis is represented by 84% response rate.

4.3 The sample characteristics of the study

This section of the study presents the sample characteristics of the respondents which includes gender, age, education levels and years of experience.

4.3.1 Gender distribution

The respondents' results on gender is shown in Table 4-1 below. Fifty five percent of respondents were male, Forty-three percent were female, and three percent were others.

Table 4.1: Gender distribution

	FREQUENCY	PERCENT
Female	135	42.7
Male	174	55.1
Other	7	2.2
Total	316	100

4.3.2 The age profile

Table 4.2 shows that the respondents between the age of 18 to 25 were 83 in numbers and made 26,3 percent of the sample, between the age of 25 to 30 were 70 in numbers and made 22,2 percent, between the age of 30 to 35 were 135 in numbers and made 42,7 percent, between 40 to 45 were 27 in numbers which made 8.5 percent and between age 45 to 50 was 1 in numbers and made 3 percent.

Table 4.2: Age

	FREQUENCY	PERCENT
18-25	83	26.3
25-30	70	22.2
30-35	135	42,7
35-40	0	0
40-45	27	8.5

45-50	1	3
TOTAL	316	100

4.3.3 Education levels

The education levels are shown in Table 4.3. Respondents with diplomas carry a large percent of the sample which totals 35.4 percent followed by those who have attended the MMENVC course which totals 17.4 percent, those with MBA, Masters and BA strategic totals to 3 percent of sample which is the lowest percent respectively.

Table 4.3: Education level

	FREQUENCY	PERCENT
B-TECH	36	11.4
BA STRATEGY	1	.3
BCOM HON	12	3.8
BSC	27	8.5
BSC F&T	3	.9
CTA	3	.9
DIP	112	35.4
HONS	40	12.7
MASTERS	1	.3
MBA	1	.3
MMENVC	55	17.4
PDM	7	2.2
PGD	18	5.7
TOTAL	316	100

4.3.4 Years of experience profile

Table 4.4 shows years of experience of the respondents. Respondents with 9 years of experience make a large percentage of 19.3 of the sample and those with 16 and 20 years of experience make a very small percent of the sample 0.6 percent.

Table 4.4: Years of experience

YEARS	FREQUENCY	PERCENT
1	12	3.8
2	70	22.2
3	14	4.4
4	25	7.9
5	37	11.7
6	18	5.7
7	40	12.7
8	3	9
9	61	19.3
10	3	.9
11	7	2.2
12	12	3.8
13	3	.9
15	7	2.2
16	2	.6
20	2	.6

4.4 Exploratory factor analysis

Exploratory factor analysis was performed to reduce the dimensions of the items into fewer constructs since the measurement scales used were multi-item scales with a seven-point Likert scale. The principal axis factoring was used to extract the number of factors from 23 items. This method was used because the researcher expected the factors to be correlated as per literature reviewed in chapter 2. Promax rotation was applied to produce a clean pattern matrix. The scree plot in conjunction with the eigenvalue rule of more than one was used in the iteration, and the items could not converge into two clean clear factors as expected. Some factors cross-loaded and some had negative loadings and the extracted number of factors was five while the

researcher expected two. The exploratory factor analysis was run for the second time restricting the factors to be extracted and the decision was based on the output of the scree plot of the first run. The final run produced a clean pattern matrix after the factors to be extracted were restricted to two. The Bartlett's Test of Sphericity (Bartlett, 1954) showed that the correlation between the items of the scale were large enough to conduct a factor analysis. The data is presented in two subsections, 1 - the independent variable exploratory factor analysis and 2 - the dependent variable factor analysis and each section focuses mainly on sampling adequacy, sphericity, Kaizer criterion, scree plot, variance explained and pattern matrix.

4.4.1 Independent Variables

Sampling Adequacy: The Kaiser–Meyer-Olkin measure of sampling adequacy (KMO=0.758, overall) shows that the size of the sample and the set of variables were adequate for factor analysis since it was greater than the cut-off of 0.5. The Bartlett's test of sphericity was used to find if the original correlation matrix is an identity matrix and good for factor analysis (Hair et al, 2010). Looking on Bartlett's test results of approx. Chi-Square =2085260, DF=45, $p<0.05$, the correlation between items shows that is significant and sufficient for the exploratory factor analysis. See table 4.5.

Table 4.5: Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity

KAISER-MEYER-OLKIN MEASURE OF SAMPLING ADEQUACY		.758
BARTLETT'S TEST OF SPHERICITY	APPROX CHI-QUARE	2085.260
	DF	45
	SIG.	.000

Factor Extraction: The scree plot in figure 4.1 below shows that two to three factors were extracted, depending on whether the point of inflexion is included or not. After analysing the results of the pattern matrix, it was evident that the two-factor structure is the ideal one which produces a cleaner matrix, though the eigenvalue suggests three factors by the pattern matrix to avoid cross loading.

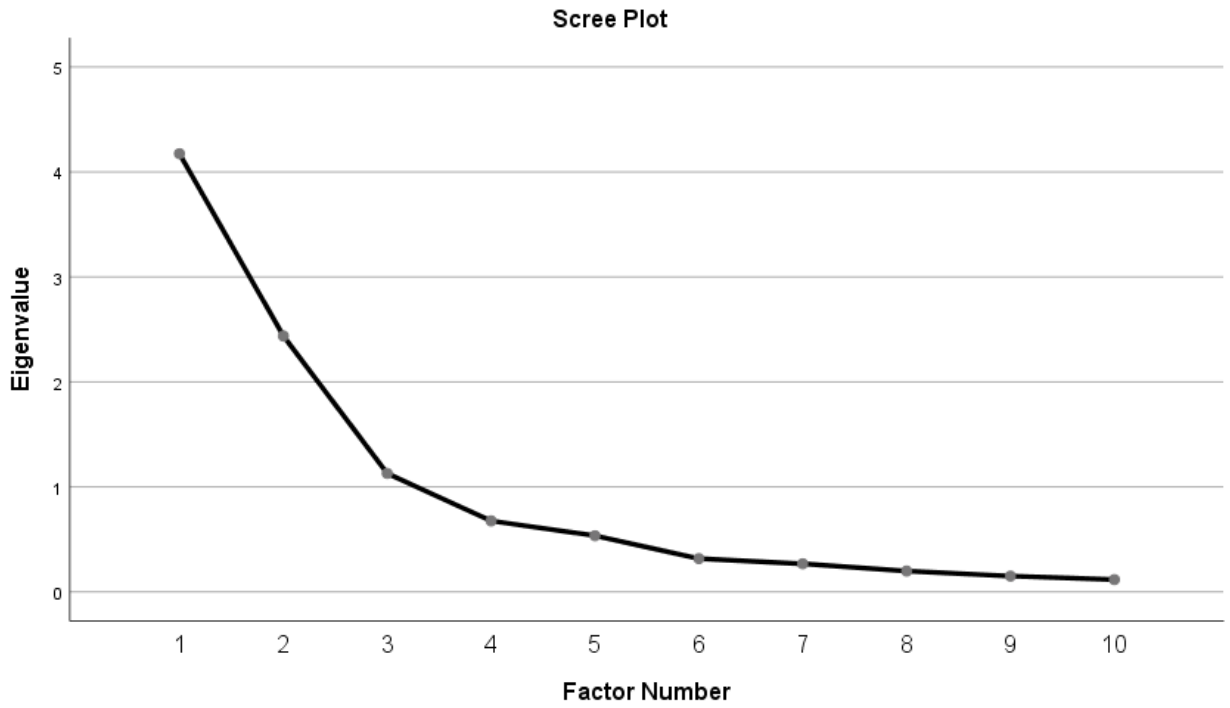

Figure 4.1: Scree plot for factor extraction

Table 4.6 below shows that the extracted two factors explained a total of 58.74% of the variance with (factor 1 =38.23%, factor 2=20.51%) after extraction. Though the 3rd factor had an eigenvalue greater than one, it was excluded because of low and cross loadings. The commonalities show that after extraction, the amount of variance in each variable that can be explained by the factors retained was greater than 30% for all the variables. Exploratory factor analysis provided good output that is within acceptable range.

Table 4.6: Extracted factors

Factors	Initial Eigenvalues			Extracted sum of squared loadings			Rotation sums of squared
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total
1	4.174	41.742	41.742	3.823	38.234	38.234	3.777
2	2.438	24.378	66.121	2.051	20.513	58.747	2.204
3	1.128	11.284	77.405				
4	.675	6.757	84.162				
5	.535	5.351	89.513				
6	.315	3.165	92.678				
7	.267	2.672	95.349				
8	.198	1.980	97.329				
9	.150	1.501	98.830				
10	.117	1.170	100.00				

Extraction Method: Principal Axis Factoring.

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

Factor Rotation: A principal axis factoring approach was carried out on 10 independent variables items with oblique rotation (Promax). Table 4.7 shows two factors were extracted with the first factor with six items and second factor with four items. The first factor shows that all factor loadings are above the acceptable limit of .5 from (.534 to .834) and second factor shows that from four factor loading there is only one factor loading that is below the acceptable limit of .5 from (.428 to .890). The factor structure in Table 4.8 indicates correlation between variables observed, however it agrees with the pattern oblique rotation on acceptable limit with factor one carrying items that are above the acceptable limit and factor two showing that only one item is less than the limit of five. According to Thompson and Daniel (1996), it is appropriate to invoke both pattern and structure matrices. There was a convergence between the Kaiser Criterion of eigenvalue greater than one and scree plot. Taking into account of the sample size (n=316) and factor loading greater than .4 it was concluded that the factor loadings are significant at p=0.01 and variables are also substantially important. The two factors

therefore were labelled as General human capital and Specific human capital respectively.

Table 4.7: Pattern Matrix

Pattern Matrix[a]

	Factor	
	1	2
SHCCE4	.894	
GHCSE3	.839	
GHCCE4	.825	
SHCSE2	.793	
GHCSE1	.775	
GHCCE3	.534	
SHCCE2		.890
SHCSE4		.845
SHCCE1		.574
SHCSE1		.428

Extraction Method: Principal Axis Factoring.

Rotation Method: Promax with Kaiser Normalisation.[a]

a. Rotation converged in 3 iterations.

Table 4.8: Structure Matrix

Structure Matrix

	Factor	
	1	2
SHCCE4	.891	
GHCSE3	.822	
GHCCE4	.818	
SHCSE2	.803	
GHCSE1	.767	
GHCCE3	.575	
SHCCE2		.884
SHCSE4		.840
SHCCE1		.597
SHCSE1		.415

Extraction Method: Principal Axis Factoring.

Rotation Method: Promax with Kaiser Normalisation.

4.5 Dependent Variable

Sampling Adequacy: The Kaiser–Meyer-Olkin measure of sampling adequacy (KMO=0.527, overall) shows that the size of the sample and the set of variables were adequate for factor analysis since it was greater than the cut-off of 0.5. The Bartlett's test of sphericity was used to find out if the original correlation matrix is an identity matrix and good for factor analysis (Hair et al, 2010). Looking at Bartlett's test results of Approx. Chi-Square =273.619, DF=28, $p<0.05$, the correlation between items shows that it is significant and sufficient for the exploratory factor analysis. See table 4.9.

Table 4.9: Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity

KAISER-MEYER-OLKIN MEASURE OF SAMPLING ADEQUUACY		.527
BARTLETT'S TEST OF SPHERICITY	APPROX CHI-QUARE	273.619
	DF	28
	SIG.	.000

Extraction: The scree plot below shows that only two factors were extracted which are high above the eigenvalue of one and the rest which are below the eigenvalue of one are potential factors which were not extracted.

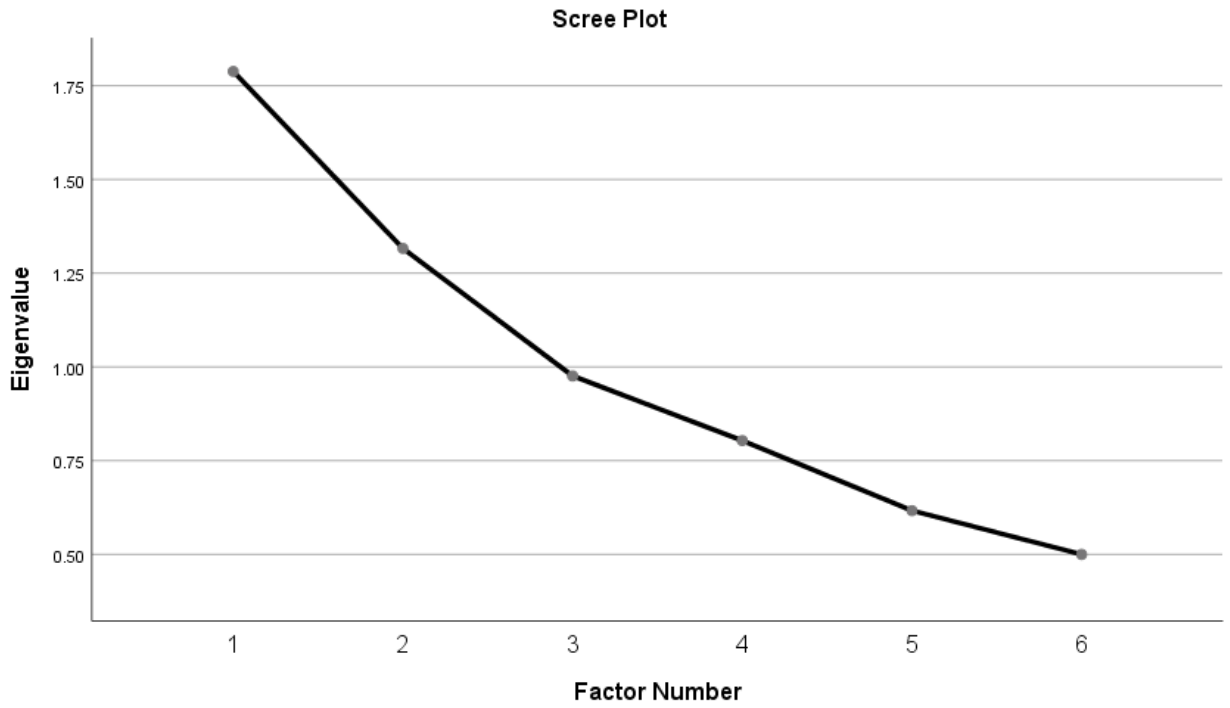

Figure 4.2: Scree Plot for factor extraction

The results shown from Table 4.10 are that two factors extracted explained a total of 51.74% of the variance with the eigenvalue total of 3.10 and was deemed adequate because it is 50%.

Table 4.10: Factors extracted

Factors	Initial Eigenvalues			Extracted sum of squared loadings			Rotation sums of squared
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total
1	1.788	29.803	29.803	1.307	21.787	21.787	1.198
2	1.316	21.934	51.737	.811	13.522	35.310	1.010
3	.976	16.264	68.002				
4	.804	13.392	81.393				
5	.617	10.277	91.670				
6	.500	8.330	100.000				

Factor Rotation: A principal axis factoring approach was carried out on six dependent variables with oblique rotation (Promax). Table 4.11 shows two factors were extracted

with first factor with three items and second factor with three items. The cut off was 0.3 as the loadings were generally weaker compared to the independent variables, however, were still enough to form a valid factor especially since the sample size is approximately 300. Table 4.12, structure matrix below, indicates that there is a weak correlation between variables observed. CE1 and SE3 were excluded because of cross loading. For Social and Commercial entrepreneurship; CE4 and SE4 were reversed coded because of negative loading.

Table 4.11: Pattern Matrix

Pattern Matrix[a]

	Factor	
	1	2
CE2	.928	
CE4_Rev	.362	
SE1	.355	
SE2		.822
CE3		.370
SE4_Rev		.350

Extraction Method: Principal Axis Factoring.

Rotation Method: Promax with Kaiser Normalisation.[a]

a. Rotation converged in 3 iterations.

Table 4.12: Structure Matrix

Structure Matrix

	Factor	
	1	2
CE2	.933	
CE4_Rev	.385	
SE1	.336	
SE2		.806
SE4_Rev		.382
CE3		.370

Extraction Method: Principal Axis Factoring.

Rotation Method: Promax with Kaiser Normalisation.

4.6 Reliability analysis

Table 4.13 presents a summary of all the results from the reliability test of scale of all the constructs, showing each construct measured by number of items, the Cronbach alpha of each construct, the total number of items that were deleted to improve the reliability of the scale and the first alpha before items were deleted for the improvement of reliability. The precision of measurement scales and accuracy are estimated using reliability test (Cooper & Schindler, 2014). The Cronbach's alpha was used to test the scales and the coefficient ranges of acceptability. The alpha for the independent variable were >0.7 which showed to be reliable, however commercial entrepreneurship showed a weak alpha of ≤0.7 which can be relied on, according to Nunnally (1978). Social entrepreneurship showed a ≤0.5 alpha which means it is not a reliable scale according to Bland and Altman (1997); alpha values of 0.7 to 0.8 are taken to be acceptable as a rule of thumb. However, rounding off to 0.5, it becomes a reliable scale according to Scheepers (2007). The research application is also in determining values that are acceptable, for example 0.9 alpha is clinical (Bland & Altman, 1997).

Table 4.13: Cronbach's alpha table

VARIABLE	CRONBACH'S ALPHA	STANDERDISED CRONBACH'S ALPHA	NUMBER OF ITEMS
Commercial entrepreneurship	.529	.530	3
Social entrepreneurship	.490	.490	3
Specific human capital	.780	.774	4
			5
General human capital	.909	.912	

4.7 Social Entrepreneurship

Table 4.14, social entrepreneurship, displays that the scale is not highly reliable and the correlation of the corrected item-total are not all greater than 0.3 for all three items. However, rounding off to the nearest value, all items will be equal or greater than 0.3 which will make the scale fairly reliable since the standard Cronbach alpha it is not greater than 0.5.

Table 4.14: Item-total statistics

	SOCIAL ENTREPRENEURSHIP				
	SCALE MEAN IF ITEM DELETED	SCALE VARIENCE IF ITEM DELETED	CORRECTED ITEM TOTOAL CORRELATION	SQUARED MULTIPLE CORRELATION	CRONBACH ALFA IF ITEM DELETED
SE2	7.9304	9.735	.394	.155	.250
SE4	9.3513	10.610	.259	.084	.472
CE3	8.0158	9.889	.280	.100	.442

Table 4.15 display that one inter-item correlations are >0.3 and two (SE2/SE4_Rev)/ (SE4_Rev/CE3) are <0.3 and this is not a good inter-item correlation and the scale

does not look stable and reliable. However, it was retained since the standard Cronbach alpha is approximately 0.5 (Scheepers, 2007).

Table 4.15: Inter- item correlation matrix

	SE2	SE4_Rev	CE3
SE2	1.000	.284	.310
SE4_Rev	.284	1.000	.143
CE3	.310	.143	1.000

4.8 Commercial Entrepreneurship

Table 4.16 displays that the scale is reliable, corrected item total correlation are >0.3 however one item shows a low item total correlation which is ≤0.3. However, it needs three items for the scale to be reliable and even deleting the item will not improve the Cronbach's alpha thus retained. The scale has indicated to be reliable.

Table 4.16: Item-total statistics

	Scale mean if item deleted	Scale variance if item deleted	Corrected item total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
SE1	8.5475	12.001	.278	.102	.524
CE2	8.8639	9.743	.445	.198	.255
CE4-REV	9.6013	10.450	.313	.128	.480

Table 4.17 displays that two inter-item correlations are >0.3 and one (SE1/CE4_Rev) <0.3 and this is not a good inter-item correlation and the scale does not look stable and reliable.

Table 4.17: Inter- item correlation matrix

	SE1	CE2	CE4_Rev
SE1	1.000	.316	.147

CE2	.316	1.000	.356
CE4_Rev	.147	.356	1.000

4.9 General human capital

Table 4.18 displays that the scale is good, highly reliable; there is no substantial change when some of the items are deleted, all corrected item total correlation are >0.3. Therefore, the scale is accepted as reliable and consistent.

Table 4.18: Item-total statistics

	Scale mean if item deleted	Scale variance if item deleted	Corrected item total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
SHCSE2	16.68	57.278	.748	.586	.895
SHCCE4	17.19	48.969	.824	.748	.878
GHCSE3	17.72	6.919	.772	.612	.891
GHCCE4	17.28	50,353	.794	.700	.885
GHCSE1	17.42	53.559	.741	.595	.895

Table 4.19 displays the assessment of the inter-item correlations that provides the results of general human capital. All inter-item correlations are >0.3, which shows that there is a good correlation between all item within the scales, which means all the scales indicate convergent validity.

Table 4.19: Inter- item correlation matrix

	SHCSE2	SHCCE4	GHCSE3	GHCCE4	GHCSE1
SHCSE2	1.000	.661	.642	.614	.702
SHCCE4	.661	1.000	.729	.818	.616
GHCSE3	.642	.729	1000	.654	.659
GHCCE4	.614	.818	.654	1000	.640
GHCSE1	.702	.616	.659	.640	1000

4.10 Specific Human Capital

Table 4.20 displays that the scale is good, highly reliable; there is no substantial change when some of the items are deleted, all corrected item total correlation are >0.3. Therefore, the scale is accepted to be reliable and consistent.

Table 4.20: Item total statistics

	Scale mean if item deleted	Scale variance if item deleted	Corrected item total correlation	Squared multiple correlation	Cronbach's alpha if item deleted
SHCCE1	17.38	11.475	.540	.310	.749
SHCCE2	17.42	8.923	.705	.633	.658
SHCSE1	17.49	12.752	.413	.203	.802
SHCSE4	17.38	8.611	.709	.625	.655

Table 4.21 displays a very good inter-item correlation except for SHCSE1/SHCCE2 which shows values lower than 0.3, but all four items were retained irrespective of displaying a low inter-item correlation because when deleted, it will decrease the reliability of the scale.

Table 4.21: Inter- item correlation matrix

	SHCCE1	SHCCE2	SHCSE1	SHCSE4
SHCCE1	1.000	.492	.393	.436
SHCCE2	.492	1.000	.297	.776
SHCSE1	.393	.297	1000	.373
SHCSE4	.436	.776	.373	1000

4.11 Regression assumptions

Before conducting regression analysis certain assumptions had to be tested to ensure the reliability and validity of the results. The sub-sections below are the regression analysis assumption test results to ensure none are violated.

4.11.1 Normality test

Parametric statistical approaches such as Pearson correlation, F-test and linear regression require that the results of the variable be normally distributed on each category. Thus, normality tests are carried out for this study and kurtosis data and

skewness data are represented by the table below, also with descriptive statistics (Urban, 2015; Shapiro & Wilk, 1965).

The skewness of -.366 (Std error of 137) and the kurtosis of -1.160 (Std error of 273) for the General Human Capital is used by Doane and Seward (2011). Specific Human Capital is characterised by the skewness of -.766(Std error of 137) and the kurtosis of -.305 (Std error of 273). Social Entrepreneurship is characterised by the skewness of -.384 (Std error of 137) and Kurtosis of -.769 (Std error of 273). Commercial Entrepreneurship shows a skewness of -.211 (Std error of 137) and the Kurtosis of -.842 (Std error of 273). A negative kurtosis means that the distribution is flatter than a normal curve with the same mean and standard deviation. The negative skewness has its tail extended towards the left which indicates that both the mean and the median are less than the mode. All the skewness is less than 3 and kurtosis less than 7, thus normality can be assumed. The visual inspection of figures 3 and 4 histogram and figures 5 and 6 of normal P-P Plots shows that the score distributed are approximately normal which supports the descriptive statistics tests of normality.

Table 4.22: Descriptive statistics

	General Human capital	Specific Human Capital	Social Entrepreneurship	Commercial Entrepreneurship
N	316	316	316	316
Mean	4.3	5.8	4.2	4.5
Std deviation	1.6	1.0	1.4	1.4
Skewness	-.366	-.766	-.384	-.211
Std error of skewness	137	137	137	137
Kurtosis	-1.160	-.305	-.769	-.842
Std error of Kurtosis	273	273	273	273

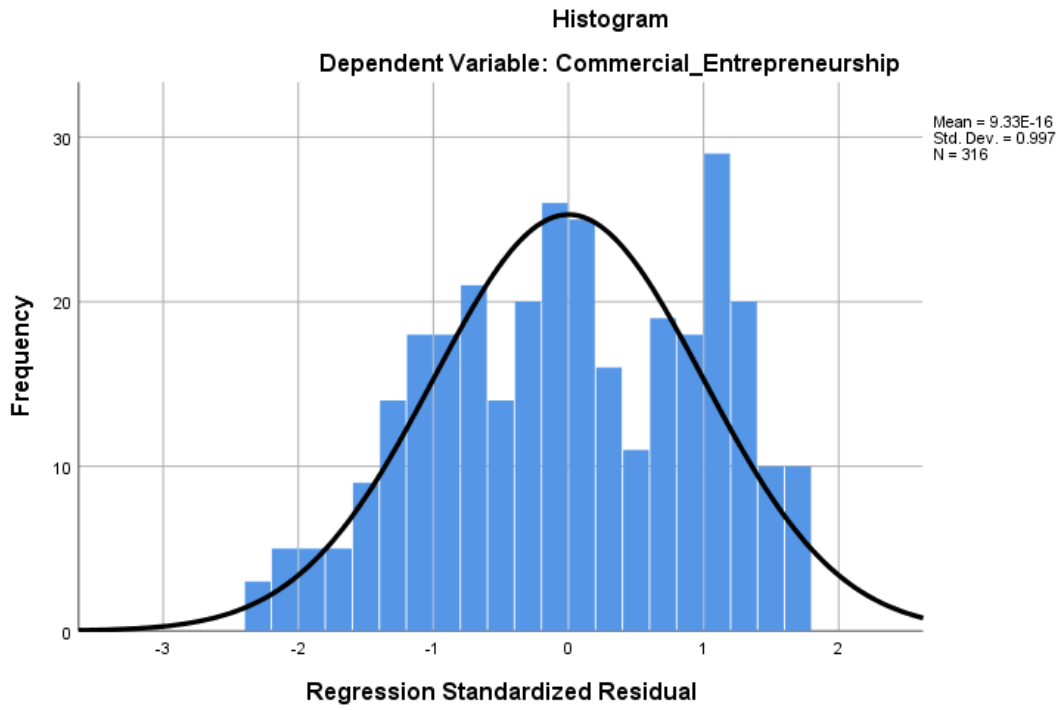

Figure 4.3: Histogram

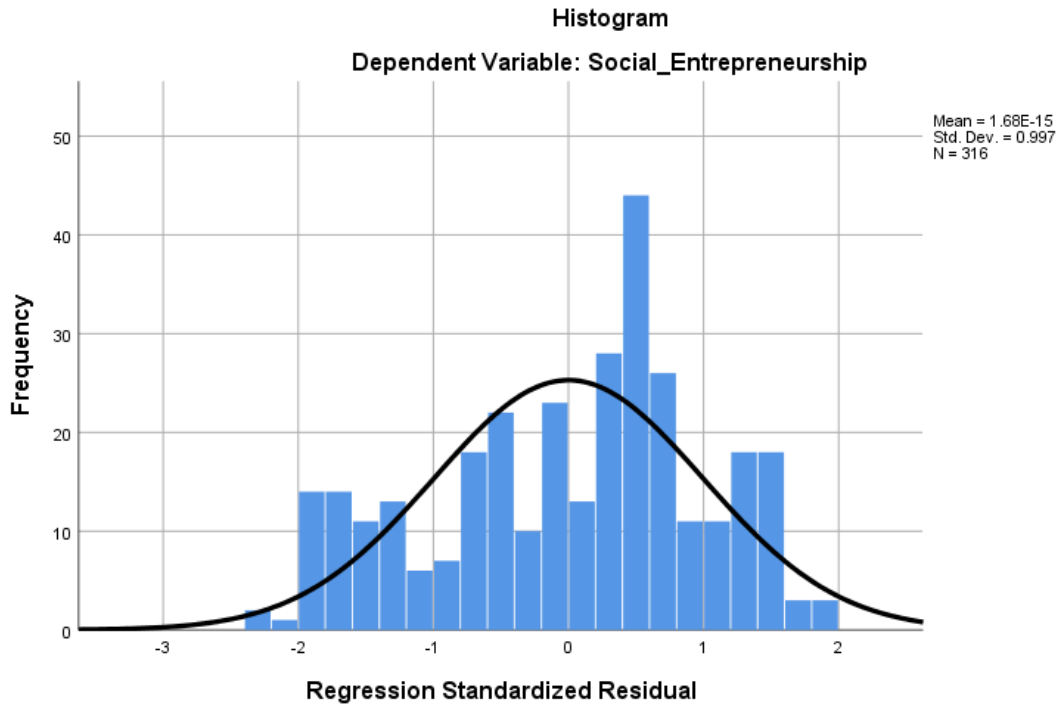

Figure 4.4: Histogram

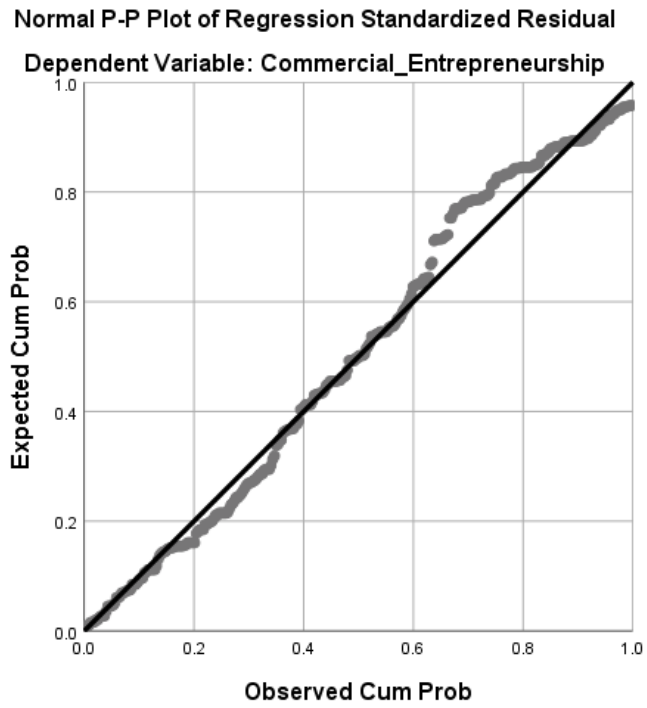

Figure 4.5: Normal P-Plot

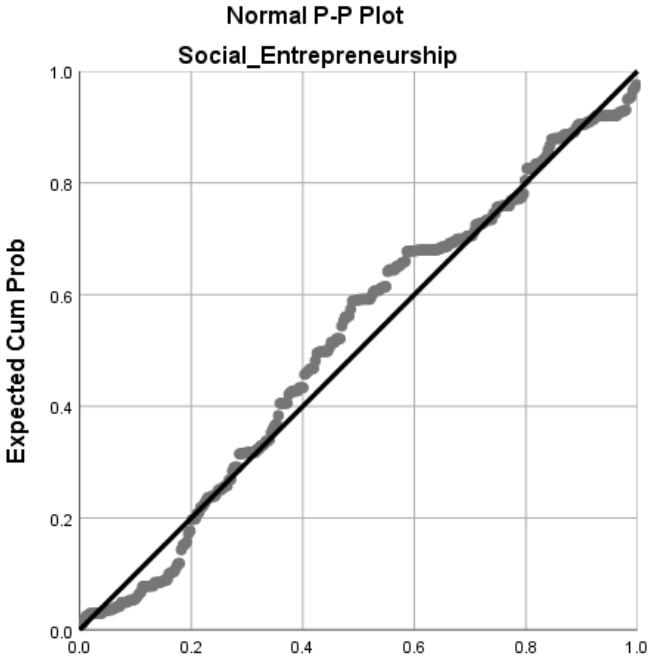

Figure 4.6: Normal P-Plot

4.11.2 Outliers

The box plots have no extreme values, none of the data points were marked with an asterik (*) so there is no evidence of outliers.

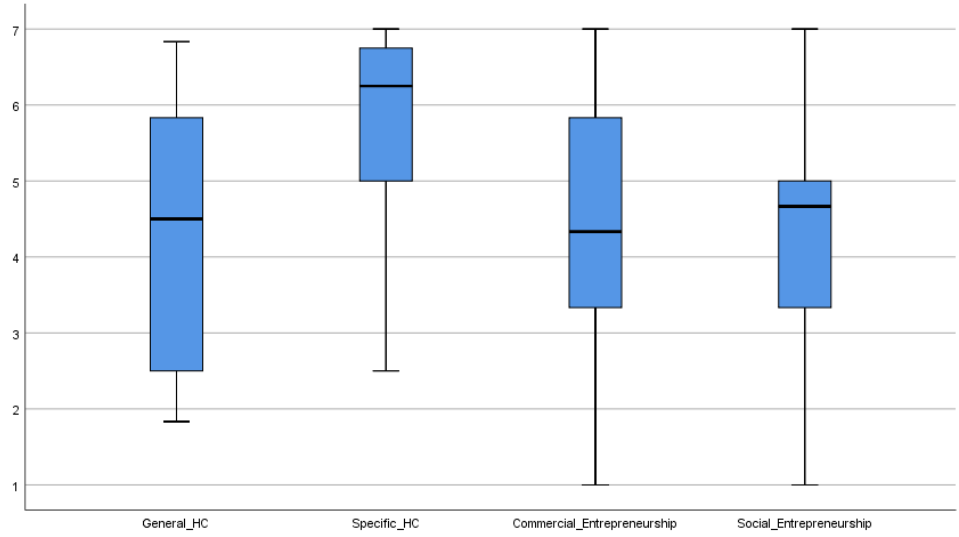

Figure 4.7: Box Plot

4.11.3 Independent Errors

Independent errors have been tested with ZRESID and ZPRED shows that the errors are independent (Homoscedasticity) as indicated in table 4.6. The Durbin-Watson statistics generally need to be between 0 and 4 and in this case, table 4.6 shows that it is close to 2 which suggests that there is no issue of observations being correlated.

4.11.4 Multicollinearity

None of the independent variable have a problem of multicollinearity, no correlation co-efficient is >0.8 and the collinearity diagnostics support these results in table 4.21

Table 4.23: Collinearity Diagnostics

Collinearity Diagnostics[a]						
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	General_HC	Specific_HC
1	1	2.885	1.000	.00	.01	.00
	2	.101	5.346	.02	.84	.08
	3	.014	14.580	.98	.15	.92

a. Dependent Variable: Social_Entrepreneurship

4.11.5 Linearity

The correlation matrix in table 4.24 shows that there is linearity though some with weak correlation coefficients which allow us to continue since it is not violating the linearity assumption.

4.12 Hypothesis testing

A multiple regression was the statistical approach used to test the study's hypotheses. In the beginning of the process, the researcher started with the correlational analysis where the size, strength, direction and the significance of the relationships between human capital and social and commercial entrepreneurship was analysed. The test was immediately followed by selection process of variables that are significant to be used in the regression model.

4.12.1 Correlation results

The correlation matrix is the first to be computed before the regression analysis and the results of the human capital variables were analysed which are the independent variables. Social and commercial entrepreneurship was included in the analysis as dependent variables. Table 4.24 consolidates the coefficients of the correlation. The significance, strength and direction of each of the variables are interpreted. However, the general human capital variable significantly does not correlate with commercial entrepreneurship showing a positive weak relationship (.026, P<.05) and also shows that there is no significant correlation with social entrepreneurship, showing a weak negative relationship (-.017, P< .05). General human capital has a significant weak negative relationship with specific human capital (-.125, P>.05). Specific human capital is significantly not correlated with commercial entrepreneurship showing a

weak positive relationship (.047, P<.05) and is also significantly not correlated with social entrepreneurship showing a weak positive relationship (.085, P<.05). However, commercial and social entrepreneurship shows that they are significantly correlated, showing a weak positive relationship (.158, P>.05).

Table 4.24: Correlations summary

N=316		General h c	Specific hc	Commercial entrepreneurship	Social entrepreneurship
General HC	Person Correlation	1	-.125*	0.26	-.017
	Sig (2-tailed)		.026	.648	.763
Specific HC	Person Correlation	-.125*	1	.047	.085
	Sig (2-tailed)	.026			
Commercial entrepreneurship	Person Correlation	.026	.47	1	158**
	Sig (2-tailed)	.648	.402		.005
Social entrepreneurship	Person Correlation	-.017	0.85	.158**	1
	Sig (2-tailed)	.763	.132	.005	

4.13 Regression

This part of the report is concerned with showing the results associated with hypotheses of the study. The testing of hypotheses was carried using Pearson's correlation output as can be seen in Table 4.24 and then the linear regression approach was followed. The correlation analysis shows the strength, direction and significance of the relationship of the variance, but not its predictive capacity. Regression analysis had one objective which is to assess the predictive capacity of the different predictor variables from the human capital construct.

4.13.1 Human Capital and Commercial Entrepreneurship

Hypothesis 2: *Specific human capital in terms of entrepreneurship has a positive influence on commercial entrepreneurship activity and a negative influence on social entrepreneurship*.

Table 4.26 shows the linear regression model focused on the predictors of commercial entrepreneurship. The fit of the overall regression model is very weak with the R2=.003, adjusted R2=-.003 and F=512, P<.05 which is statistically not significant. Therefore, the independent variables do not predict the dependent variable. The Durbin-Watson statistics of 1.725 display a low autocorrelation. The results of the regression analysis display that there is weak to no association between the independent variable and dependent variable. The multicollinearity absence is explained by VIF=1.016 and .984 collinearity tolerance.

Table 4.25: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.057	.003	-.003	1.47598	1.725

a. Predictors: (Constant), Specific HC, General HC
b. Dependent Variable: Commercial Entrepreneurship

Table 4.26: Model Summary

Model		B	Std Error	Std Coefficient Beta	t	Sg	Lower bound	Upper bound
1	(Constant)	3.957	.546		7.243	.000	2.882	5.032
	General HC	0.28	.050	.032	.566	.571	-.070	.126
	Specific HC	.073	.081	.051	.903	.367	-.086	.231

4.13.2 Human Capital and Social Entrepreneurship

Hypothesis 1: *General human capital in terms of entrepreneurship has a positive influence on social entrepreneurship activity and a negative influence to commercial entrepreneurship*

Table 4.29 shows the linear regression model focused on the predictors of commercial entrepreneurship. The fit of the overall regression model is very weak with the R2=.007, adjusted R2=.001 and F=1144, P<.05 which is statistically not significant. Therefore, the independent variables do not predict the dependent variable. The Durbin-Watson statistics of 1.725 is good. The results of the regression analysis display that there is weak to no association between the independent variable and dependent variable. The multicollinearity absence is explained by VIF=1.016 and .984 collinearity tolerance.

Table 4.27: Model Summary

model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.085	.007	.001	1.41631	1.758

a. Predictors: (Constant), Specific HC, General HC
b. Dependent Variable: Social Entrepreneurship

Table 4.28: Model Summary

Model		B	Std Error	Std Coefficient Beta	t	Sg	Lower bound	Upper bound
1	(Constant)	3.576	.524		6.819	.000	2.543	4.606
	General HC	-.006	.048	-.007	-.115	.908	-.100	.089
	Specific HC	.115	.077	.084	1.482	.139	-.038	.267

The following conclusions were made as follows on the study's hypothesis

H1 *General human capital in terms of entrepreneurship has a positive influence on social entrepreneurship activity and a negative influence to commercial entrepreneurship*

Hypothesis one has been rejected as the predictor variable did not predict the dependent variable, which suggests that there is no relationship.

H2 *Specific human capital in terms of entrepreneurship has a positive influence on commercial entrepreneurship activity and a negative influence on social entrepreneurship*.

It was concluded that hypothesis two is not supported as the predictor variable did not predict the dependent variable.

4.14 Chapter summary

The study shows a sample size of 316 respondents who are mostly between the age of 25 and 50. Multiple regression and correlational analysis were carried out and a

step-by-step record of the statistical process undertaken and the output of each step is detailed. Construct reliability and validity of the scale was tested to establish a reliable structure of the factor. The structure of the factor which consisted of the two factors of independent variables and two factors of dependent variables with its components was established. The accuracy, direction, size, strength and significance of the relationship was carried out. The two independent variables were confirmed not to have any influence on the dependent variables.

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

Chapter 5 explains and discusses the empirical results of the research presented in chapter 4. The first section of the chapter discusses the descriptive statistics of the sample. The second section of the discussion is mainly focusing on the reliability test of human capital and social and commercial entrepreneurship scale. Results from the exploratory factor analysis are then explained and discussed. The last section, which is the third section, explains and discusses the empirical results of the regression analyses conducted to put together a test of hypothesised conceptual framework of the research. The explanation and discussions covered in this research are compared to the literature findings.

5.2 Descriptive profile of the sample of the study

A survey questionnaire was used to gather data for the empirical analysis for this research. The researcher used emails and hand delivery as the method for questionnaire distribution. All the respondents were based in Gauteng Province. One of the challenges was that most respondents took their time to respond from their emails. So, the researcher had to send follow-up emails and called some of respondents to check their emails and participate in the study. A few respondents suggested that the researcher could use the Qualtrics system, however the researcher did not go with the suggestion as most of the respondents have already responded by that time. Most of the hand-delivered questionnaires were answered on the day of the delivery which made it easy for the researcher to collect the data. A target to deliver 35 questionnaire on day was set. The total overall number of 316 respondents was achieved. The researcher found that respondent number 315 had two missing values and number 314 had one missing value; this was addressed by using the average of the variable for each missing value. The targeted sample size was 375 and the researcher got 316 responses which totals to a response rate of 84%. The response rate was shown to be comparable with other studies in the entrepreneurship space such as Benzing, Chu and Kara (2009) who conducted an entrepreneurship study in Turkey with a response rate of 79% from a sample size of 139 respondents. Jayawarna, Rouse and Kitching (2013) conducted a research study in the entrepreneurship space achieving a response rate of 49%.

5.2.1 Gender profile of the respondents

The research sample included more male (55.1 %) and fewer female (42,7%) respondents. The above findings are in accordance with the research on entrepreneurship in other developing countries that showed a sample that is male dominated, for instance Kenya (65%) male, Ghana (64%) male and Nigeria (69%) male (Chu, Benzing & McGee, 2007). In Indonesia, the study found 86% male (Machmud & Sidharta, 2016), however it is difficult to argue that more males are involved in entrepreneurship than females; findings from the Global Entrepreneurship Monitor (GEM) report shows a higher Total Early Stage Entrepreneurial Activity (TEA) among males when compared to females (Herrington and Kew, 2016).

5.2.2 Age of the respondents

The age distribution of the respondents showed that the proportion of the respondents is high between the age of 20-35 and very few in the 45-50 age group. Findings of other studies showed relatively similar averages of the respondents in studying entrepreneurship, for instance in Ghana, it was found that the average age was 35 years and Kenya found the average age to be 33 years (Chu et al., 2007); the results show similarities with the results of the GEM reports that indicate low entrepreneurial activity in the ages between 18-25 with a high entrepreneurial activity between the age of 30-35 and the entrepreneurial activity goes low again after the age of 30-35 (Herrington & Kew, 2016). The age of 30-35 exhibits high entrepreneurial activity which is also supported by fact that most of them have completed a formal tertiary qualification. The lack of social entrepreneurship in the Gauteng Province relates to the lack of total Entrepreneurial activity among the youth in the whole country (Herrington & Kew, 2016).

5.2.3 Education level profile of respondents

The output of the education level profile shows that 35.4% of the respondents had a diploma qualification and is the higher percentage of the education level distribution. Respondents who enrolled for the MMENVC accounts for 17.1% of the distribution following those with diplomas, and those who had an MBA accounted for 0.3% of the education level distribution. South African GEM report 2015/2016 indicates that 67% have obtained at least an activity level qualification (Herrington & Kew, 2016). Respondents with high tertiary qualifications involved in social entrepreneurship might

indicate the ability to identify an opportunity to address challenges faced by the community or an opportunity to make an impact. Lack of Entrepreneurial Activity that is visible among the youth described above, is a call for a broader intervention aimed at enhancing entrepreneurial skills among youth in formal education. The GEM report indicates that there is a strong relationship between Total Entrepreneurial Activity and perceived skills (Herrington & Kew, 2016). It has been found that there is an increasing number of institutions offering diplomas and degrees in the space of entrepreneurship but what has been found lacking is the practice that can provide the entrepreneurs with prior experience.

5.2.4 Years of experience profile

The years of experience distribution indicates that most respondents had nine years of experience that accounts for 19.3% working in organisations either carrying out social or commercial entrepreneurship activities. The distribution shows that there are few respondents that had 16 to 20 years of experience working either in social or commercial entrepreneurship. Estrin et al. (2016) argued that spending many years in salary paid employment has a negative effect towards social or commercial activity, this suggest that those who are not working have more likelihood of choosing entrepreneurial activity; they further mentioned that those who are detached from the labour market may find entrepreneurship very attractive.

5.3 Reliability Testing

The reliability of the human capital and social and commercial entrepreneurial scales test were conducted using the Cronbach's alpha coefficient (Cronbach, 1951). The empirical study indicates the alpha coefficient 0.53 with standardised variables for the commercial entrepreneurship scale, alpha coefficient 0.49 with standardised variables for the social entrepreneurship scale, alpha coefficient 0.77 with standardised variable for the specific human capital and alpha coefficient 0.91 with standardised variable for the general human capital. The results of the scales were accepted to be reliable for this study, however social entrepreneurship alpha coefficient showed to be very poor and accepted to be unreliable but because there were no items that could be removed to improve the alpha coefficient and the scale requires at least not less than three items to be reliable, there was no necessity to adjust the scales.

5.4 Exploratory factor analysis of the scales

The exploratory factor analysis with a Principal Axis Factoring method was conducted to investigate the factorability of the items of the scale into particular sets of factors. Rotation can be used in an Exploratory Factor Analysis such as Promax (Lee, 2016). Researchers choose the type of the approach they would like to use, depending on the objective of whether they want factors to correlate or not. In this research, the rotation approach mentioned above was used, taking into account that in business, there is an expectation of underlying factors to correlate (Lee, 2016). This research showed the output of the Exploratory Factor Analysis using the Promax rotation approach. Correlation analysis for the factor loadings showed that they were not highly correlated which might show challenges of multicollinearity. The grouping of factors together required that the correlation analysis to be used. The correlation matrices results for both human capital variables and entrepreneurship variables were mostly above 0.3 and statistically significant. Furthermore, the Bartlett's tests of Sphericity for both scales showed that they are statistically significant and factor analysis was conducted because the correlations between the scale items for each scale were big enough. The test of the fit of the model and individual factors was conducted by using the KMO scores. The KMO scores for the human capital variables was 0.758 and that of entrepreneurship variables was 0.572. The KMO scores for both scales showed to be above the cut-off of 0.5 score (Kaiser, 1970; 1974).

5.4.1 Exploratory Factor Analysis for Human Capital Variables

The analysis of the Exploratory Factor Analysis output for deciding on the appropriateness of the number of factors was based on two approaches: the Eigenvlaues and the Cattell's scree plot test (Cattell, 1966). The scree plot indicates that two to three factors were extracted, depending on whether the point of inflexion is included or not. After analysing the results of the pattern matrix, it was evident that the two-factor structure is the ideal one which produces a cleaner matrix for the human capital variables. Though the eigenvalue suggests three factors, the researcher decided to go with the two-factor structure as suggested by the pattern matrix to avoid cross loading.

5.4.2 Exploratory Factor Analysis for Entrepreneurship variables

The scree plot shows that only two factors were extracted which are high above the eigenvalue of 1 and the rest which are below the eigenvalue of one are potential factors which were not extracted. As noted in chapter two, in the review of the literature, social entrepreneurs are highly driven by social objectives as motivations for carrying on entrepreneurial activities and there is no other reward beyond satisfaction of achieving the social objective (Carsrud & Brannback, 2011). The need for financial security and independence factor focuses mainly on financial rewards generated from entrepreneurial activities (Benzing & Chu, 2009;, Jayawarna et al., 2013; Robichaud, McGraw & Alain, 2001; Stefanovic, Prokic & Rankovic, 2010; Stephan, Hart, Mickiewicz, & Drews, 2015).

5.5 Testing of the hypotheses

This part of the study discusses the output of the multiple regression models conducted to verify the effect of human capital on social and commercial entrepreneurship. The output of the aggregated social and commercial entrepreneurship scale was presented to capture the diverse factors for entrepreneurial activity. Two separate tests were conducted, testing the effect of human capital on social entrepreneurship and also testing the effect of human capital on commercial entrepreneurship. The regression run was conducted after the data was tested for problems that might potentially exist of multicollinearity via correlation analysis.

The output of the models indicated that there was no multicollinearity in the data. Furthermore, the Variance Inflation Factors were investigated and all indicated to be below ten, as a confirmation that there is no multicollinearity challenges in the regression. A test for the fit of the models in a linear regression analysis was conducted using the residual normality plots and Variance F statistic. The output of this tests conducted showed that the models fitted very well the linear regression estimations and residuals approximated the distribution to be normal. Furthermore, outliers were investigated and the box plot indicated that there were no extreme values and there are no values checked with an asterisk which indicates that there are no outliers. While the perspective of human capital is receiving more attention, being appreciated and

used in the entrepreneurship research, the researcher has the responsibility to identify patterns of causality for the theory to be useful.

Entrepreneurship literature from previous review called for testing of hypothesis and regression of analyses to establish among factors associated to new firm survival (Low & MacMillan, 1988; Marvel et al., 2016). What has become the norm in human capital entrepreneurship research is formal hypotheses and regression analyses. Consequently, research may gain from distinguishing causal linkages between variables via the use of longitudinal studies. In addition, researchers must triangulate *post hoc* approaches with the use of real time techniques, with protocol analysis included (eg, Saravathy, 2001) and also including conjoint analysis (eg, Shepherd, 1999) will advance comprehension of underlying knowledge structure. With the complex and varied domain of entrepreneurship, as a field, different methods need to be encouraged to get a deeper comprehension of the phenomenon under study.

Contingency relationship between human capital and entrepreneurship outcomes appears to be a field that is ripe for investigation. Many empirical studies focused mainly on the direct relationship without the consideration of a moderating construct. While human capital affects entrepreneurial outcomes, it is important to acquire appropriate human capital and the environmental turbulence consideration. For instance, the ability to recognise, assimilate, value and knowledge is referred to as the absorptive capacity that is needed to achieve commercial ends (Cohen & Levinthal, 1990). A lack of knowledge in a field may preclude a firm or an individual from effectively getting subsequent knowledge in that field. In such instance, acquisition of knowledge may not be achieved without the help from others who can effectively translate the knowledge to the state that is comprehensible to them (Reagans & McEvily, 2003).

The source of the new knowledge acquired may also affect the association among human capital and entrepreneurial outcomes. As firms and entrepreneurs focus their actions to acquire human capital, they may pursue (eg, internally generated) acquisition of knowledge alone, such as learning that is self-directed, experimentation, internal R&D and problem-solving or achieve knowledge acquisition from the external environment through their network ties (Kaish & Gilad, 1991; Marvel et al., 2016). A

number of variances have been recognised in the knowledge acquired or possessed, such as the quality, accuracy and interpretability. For instance, in the start-up phase, normally autonomous acquisition of knowledge may be of limited value in terms of helping in the development of the venture, particularly new firms which often, are characterised as deficient in knowledge (Collinson & Gregson, 2003). Just as human capital quality may vary, the same can also go for environmental dynamism (Dess & Beard, 1984). However, the relationship between human capital (Independent variable) and social and commercial entrepreneurship (dependent variable) are discussed in the next section.

5.5.1 Exploring the relationship between general human capital and social entrepreneurship

H1 *General human capital in terms of entrepreneurship has a positive influence on social entrepreneurship activity and a negative influence to commercial entrepreneurship*

The linear regression model focused on general human capital predicting social entrepreneurship. The fit of the overall regression model indicated (R^2=.007) which accounts for 0.7% of variation of social entrepreneurship. This output shows that there is weak to no association between general human capital and social entrepreneurship. This means H1 is rejected.

5.5.2 Exploring the relationship between human capital variables and commercial entrepreneurship

H2 *Specific human capital in terms of entrepreneurship has a positive influence on commercial entrepreneurship activity and a negative influence on social entrepreneurship*

The linear regression model focused on the predictors of commercial entrepreneurship. The fit of the overall regression model is very weak with the (R^2=.003) which accounts for 0.3% of the total variation of the commercial entrepreneurship. This result indicates that there is weak to no association between social human capital and commercial entrepreneurship.

5.5.3 Explaining and discussing the results of hypotheses testing

This study takes stock of human capital variables, namely, general and specific human capital as drivers of social and commercial entrepreneurship activity. The study found out that general human capital is not relatively important to social entrepreneurship and also specific human capital is not relatively important for commercial entrepreneurship activity. This study contributes by indicating that there is no relationship of human capital and entrepreneurship and can be used as a basis to look closer at the constructs of human capital that have effect on entrepreneurship.

Past studies have put an emphasis on human capital for firm performance (Rauch & Rijsdik, 2013; Unger et al., 2011, Van Praag et al. 2008; Van der Sluis et al., 2005, 2008), while the human capital effect on entrepreneurship activity is not well understood. Previous studies have generated mixed findings for entrepreneurship activity (Block et al., 2013; Parker, 2009; Le, 1999).Through the use of a human capital lens to social and commercial entrepreneurship analysis and the conceptualisation of the effect of human capital which the study found that there is no effect to entrepreneurial activity. Particularly, the study is putting the ability to enhancing effects of human capital according to the economic theory and the overlooked effects of socialising of education in association to pro-social preferences.

According to the analysis conducted, human capital and social entrepreneurship indicates that there is a need for a broader view of returns for occupational preferences. Literature shows that general human capital is very relevant when it comes to external rewards of occupational preferences that are more satisfying and add on pure private returns as normally occurs with social entrepreneurship. The implications add beyond social entrepreneurship analysis hence the general human capital is not a predictor of social entrepreneurship. Literature shows a lot of possible motives for entrepreneurship that normally go beyond accumulation of monetary rewards. However, it is important to take into account that the study was conducted in an under-researched developing market context, South Africa, which adds onto knowledge base of human capital and entrepreneurship activity.

The emerging economies make available the unique environment which provides the ability to get fresh insights and to expand theory and the way it is understood by including more contextualised considerations. In this essence, it is acknowledged that entrepreneurial activity in Africa is highly influenced by international, local and bilateral economic and political decisions that often challenge the success of entrepreneurship. In sub-Saharan Africa, the survival of many social enterprises is seen to be dubious (Gugerty, 2010). The premise of human capital and entrepreneurship research is that human capital substantially affects entrepreneurship. It is easy to possibly understand how human capital aspects affect the process without consideration of the circumstances and conditions that are relevant to the situation or event, thus indicating the importance of the context of the study.

The theory of human capital and the seminal work of Becker focus mainly on the general human capital in a particular vocation (Becker, 1993). This studies were to determine the general human capital and the wage associated with it. However (Peteraf, 1993, Amit & Schoemaker, 1991) indicated in their work that the resources that are valuable, specific and also very difficult to replicate potentially provide the foundation of entrepreneurial activity. Thus, general human capital is not the best predictor of entrepreneurial activity.

However, there is an ignorance factor due to simplification, the possibility that the formal university degree may be on entrepreneurship or the work experience is within the enterprising organisation. These instances display a grey area when it comes to previous start-up experience that the dichotomous method is unable to capture.

Most of the early reports within the human capital entrepreneurship studies emphasised educational investments and made an assumption that it directly translates to outcomes that are useful (for instance, skills of economic value). However, this indicates a clear need of exploration of measures of the outcome base of human capital (Hayton & Zahra, 2005). While experience investment may translate to higher task performance, this method is unable to capture entrepreneurial activity of human capital outcomes which has been proven by this study.

However, studies have linked education to commercial entrepreneurship activity which saw mixed patterns (Le, 1999) with some studies advocating that education is more positively associated with commercial entrepreneurship (Parker, 2011; Block, Hoogerheide, & Thurik, 2013). Other studies found that there is no relationship (Van der Sluis et al., 2005, 2008). In the study by Van der Sluis, Van Praag and Vijverberg (2008), four conclusions were drawn, based on a meta-analysis of at least more than 100 studies about the relationship between education and entrepreneurship, and one of the conclusions was that the relationship between education and entrepreneurship was insignificant.

CONCLUSION OF THE CHAPTER

The study follow a systematic approach to review human capital entrepreneurship's research domain which identifies progress to date, the path for future research and promising research gaps. The study found that this domain has grown considerably, and it indicates promising fields for future exploration across contexts, multi-theoretical perspectives, multilevel approaches and methods. The study call for a special attention for more precise conceptualisations to be specific and believe that much can be benefited from measures of human capital that are more sophisticated. The study encourage researchers to fully explore human capital, together with other theories. The study indicates that the development and pursuit of this domain indicates fertile ground for contributions that are meaningful to entrepreneurship theory and practice. There is hope that this endeavour to human capital effects spurs scholarship and promotes future human capital entrepreneurship research.

CHAPTER 6: CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

6.1 Introduction

The chapter indicates conclusions, implications and recommendations of the study. The empirical estimations, conclusion and core findings are summarised. The research contribution is also outlined, recommendations and future research in this stream of human capital entrepreneurship is outlined. The conclusions are very important as they provide practitioners with guidance, limitations and generalisability of the findings. Findings of this study will benefit practitioners in the corporate world to

review their investment in human capital and try to invest in human capital that indicates a perfect fit for the organisations.

6.2 Conclusions of the study

Human capital (independent variable) has indicated that it is not associated with different types of entrepreneurship activity (dependent variable) in the South African context. In a previous study, Van der Sluis (2008) found that human capital has no influence on entrepreneurship. Human capital aspects affect the transition from one stage to another stage of the entrepreneurial process. However, a certain type of human capital may be very important to attain a certain milestone, while the same human capital can prove to be less essential or even disadvantageous to other milestones in the process. For instance, in the employment of general versus specific human capital, research has indicated that specific human capital is more profitable to venture development and nascent entrepreneurs, and on the other hand, general human capital did not have an impact (Davidson & Honig, 2003). Conversely, other studies have indicated general human capital is more helpful for the achievement of the first public offerings but specific human capital has little to no value in this instance (Dimov & Shepherd, 2005). This evidence reflects a lack of equal value from human capital aspects, considering different phases of entrepreneurship. Although most studies found that human capital is better universally, some study findings suggest that some human capital aspects may hinder venture milestones such as product innovation and opportunity discovery (Marvel, 2013; Marvel & Lumpkin, 2007). This is a clear call for a carefully constructed research that will investigate dimensions of human capital fully, specific to milestones during the entrepreneurship process. The following are the hypotheses of the study and neither hypothesis was supported.

H1- *General human capital in terms of entrepreneurship has a positive influence on social entrepreneurship activity and a negative influence to commercial entrepreneurship.*

H2- *Specific human capital in terms of entrepreneurship has a positive influence on commercial entrepreneurship activity and a negative influence on social entrepreneurship.*

6.3 Recommendations and implications

The study has contributed by providing findings that are empirical on the human capital aspects and their effect on the preference of entrepreneurship activity in a context of a developing country. This study serves as an encouragement to practitioners to undertake different theoretical methods to enhance and complement the understanding of implications of human capital to entrepreneurship. Aspects of human capital focus mainly on the element of investment, which is indicated by the level of education or years of experience. A more robust and wider research instrument putting together major human capital theory variables is important for further research. The study findings among human capital and entrepreneurial activity relationship provides the basis for enhanced targeting of the policies of the business and also education related policies, including higher education.

Our findings suggest that those with high levels of education are more likely to distance themselves from social entrepreneurship, this suggests that support and greater awareness for social entrepreneurial activities require more attention. The study found that specific human capital has no effect on commercial entrepreneurship, this indicates the need for programmes that focus mainly on developing entrepreneurial skills for multiple kinds of students and also emphasises the importance of entrepreneurial skills for the realisation of different objectives. Our findings are very important for policies of business support, highlighting that more support is needed to these entrepreneurship domains so that appropriate human capital may be used. This study indicates the importance of the context, which will aid when considering human capital entrepreneurship research. The results of this study can be interpreted as a road map for predictions about preference on the type of entrepreneurship in a different context.

Findings of our study call for attention from government to create policies that support different types of entrepreneurship, especially those on a small-scale level. Findings of our study have implications to researchers and business practitioners in similar fields, investment in human capital alone is not enough, as demonstrated that this human capital does not correlate with entrepreneurship activity. Our study broadens and advances the human capital effects' conceptualisation.

More broadly on human capital, this study highlights essentials of considering heterogeneity in the influence of general human capital on individuals' preferences and skills, which aid in explaining why different aspects of human capital may guide to different activity modes. The analysis conducted for human capital and social entrepreneurship also indicates where the external gains of occupational preferences are greater and also adds to returns that are purely private as occurs with social entrepreneurship. The implication goes beyond social entrepreneurship analysis.

Literature indicates a broad and wide variety for entrepreneurship possible motives that goes beyond the objective of monetary returns' accumulation. For instance, high-tech entrepreneurs, open source, migrant and ethnic entrepreneurship, for those entering entrepreneurship to achieve opportunities for more and greater independence, that are personal and family businesses. The need for greater consideration of these different benefits to entrepreneurship can aid future studies to establish a deeper understanding of how human capital is associated with entrepreneurship activity and entrepreneurship.

This study advances research on the absence of effect among human capital and entrepreneurship activity by indicating essential contingencies of this relationship, associated with variety among entrepreneurs and across a developing country context. Prior studies of human capital indicated the impact of human capital for organisation performance (Rauch & Rijsdijk, 2013; Unger et al., 2011) while human capital and entrepreneurship activity receives less attention and the effects of human capital are not well comprehended, with prior research getting mixed findings for activity. This study will serve as a guide to practitioners when doing small business evaluation and may clear some of the challenges when it comes to investment decisions and criteria for human capital. Investors are advised to select carefully from the pool available of indicators of human capital.

6.4 Suggestion for future research

The study on human capital could be extended by conducting a nationwide study to better comprehend its effect on social and commercial entrepreneurship activity and this could also be extended to regional or continental levels. Further studies need to

explore the relative importance of human capital aspects in entrepreneurship and entrepreneurship activity, taking into account the environmental conditions. Beyond understanding aspects of the human capital effect on entrepreneurship activity, further studies should consider analysing the effects of human capital moderators in more depth. Research practitioners need to consider human capital outcomes construct, observing the specific knowledge variables as an outcome of years of experience and also investigate skills as an outcome of years of schooling. Future research needs to try and consider task relatedness of human capital. Investigation of human capital's direct outcomes and activity relatedness on firms could also be more essential, as a move to contribute to a view of the resource base of the organisation. Future research needs to look at the importance of human capital at the firm level and individual level to better understand the unequal value of human capital aspects. Value can be gained by using a multilevel lens to understand the link between individual human capital and firm competences in the entrepreneurship activity domain. Future studies could extend the distinction made by the study about human capital in order to investigate incremental validities of multiple types of human capital aspects.

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QUESTIONNAIR

General Information (**Section 1)**

Age group of despondence 18-25( ) 25-30( ) 30-35( ) 35 -40 ( ) 40-45( ) 45-50( ) 50-60 ( )

Gender: Male ( ) Female ( ) Other ( )

Type of a Degree ( )

Years of work experience ( )

Answer the following questions using the scale of 1 to 7

(1) Strongly disagree (2) Disagree (3) Somewhat disagree (4) Neutral (5) Somewhat agree (6) Agree (7) Strongly agree

	1	2	3	4	5	6	7
Section 2							
General human capital (education) and social entrepreneurship							
1 A tertiary qualification is very important for social entrepreneurship							
3 I do not need a qualification to be a social entrepreneur							
4 a tertiary qualification is key to any form of entrepreneurship							
Specific Human Capital (experience) and social entrepreneurship							
5 I need my experience to be a social entrepreneur							

6 Experience alone is not enough for social entrepreneurship entry							
7 I don't require an experience to be a social entrepreneur							
4 I consider experience to be important to any form of entrepreneurship							
General human capital on commercial entrepreneurship							
8 Tertiary qualifications are very important for commercial entrepreneurship entry							
9. I don't need a qualification to be a commercial entrepreneur							
10. Qualifications are the reason behind successful commercial entrepreneurs							
11. qualification alone is not enough in commercial entrepreneurship							
Specific human capital on commercial entrepreneurship							
12. experience is very important when it comes to commercial entrepreneurship							
13. experience helps to run a successful commercial entrepreneurship							
14. I don't need experience to be a commercial entrepreneur							
15 experience alone is not enough for commercial entrepreneurship entry							
Section 3							
Social Entrepreneurship							
1 I like making an impact in other people's life							

2. I often have tender, concerned feelings for people less fortunate than me.							
3. People should be willing to help others who are less fortunate							
4. Those in need have to learn to take care of themselves and not depend on others.							
Commercial entrepreneurship							
5. I need money to take care of my family.							
6. Business is the only way to accumulate riches.							
7. I need to be financial independent.							
8. Commercial entrepreneurship offers financial security.							

A FOCUS ON HUMAN CAPITAL ON COMMERCIAL AND SOCIAL ENTREPRENEURSHIP

Dear respondent

I am Matthews Jan Chauke a Masters of Management in Entrepreneurship and New Venture Creation candidate at Wits Business School, Parktown. The purpose of the study is to determine the impact of human capital in appreciating heterogeneity between social and commercial entrepreneurship.

In order for me to complete the study relevant information must be collected from you, therefore I request a permission to gather and use relevant information through the survey presented to you. The study is under permission of Wits Business School and for any queries you can contact my lecturer Dr McEdward Murimbika on 083 613 6530 or Email: murimbikam@ftt580.com and my Supervisor Prof Urban Boris boris.urban@wits.ac.za.

Please note that information provided will be confidential and will not be used for any other purpose except for academic purposes. Your participation is fully appreciated.

I am looking forward for your participation

Kind Regards

MJ CHAUKE