

SOCIAL CAPITAL AND INNOVATION OF SME'S IN HARARE PROVINCE ZIMBABWE

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

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ABSTRACT

The objective of this paper was to determine whether the relationship between social capital and organisational innovation is positively moderated by environmental hostility and dynamism. The literature reviewed supports the assertion that non-traditional explanatory variables for innovation are needed as human and social capital are under-researched knowledge resources. As such, three separate sources of social capital were examined: reputational capital, alliance ties and political capital. Organisational innovation as a form of innovation also forms a valuable output variable that deserves greater study. Its use here with social capital advances a challenge found in literature to better understand the elements that contribute to organisational advantage. The question of how these variables manifest in an emerging economy context such as Zimbabwe was unanswered in literature. Adopting dynamism and hostility as moderating variables allowed the empirical assessment of the conditions under which firms in this environment operate. Based on survey data collected and analysed between November and December 2018 in Harare province, support was found for the positive influence of alliance capital on organisational innovation when moderated by hostility and dynamism. Findings did not support the same proposition for political capital and reputational capital.

Key words: Social capital, organisational innovation, environmental hostility, environmental dynamism, SME's, Harare province, emerging markets

DECLARATION

I, **Kudzanai Mutendadzamera**, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the Field of Entrepreneurship at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

(Kudzanai Mutendadzamera)

Signed at

On the day of 2019.

DEDICATION

This research is dedicated to all the Zimbabwean entrepreneurs and business people who continue to work tirelessly to ensure the revival of Zimbabwe's economy.

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I would like to acknowledge the staff of the Wits Business School, in particular the valuable contribution of my supervisor Prof. Boris Urban whose thoughts and ideas were instrumental in the completion of this paper. Thanks also to Prof. Galawe; Dr Murambika and Dr Diran Soumonni, your insights during the course of the year provoked me to re-think my intellectual and emotional investment into this continent.

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Thanks also to my statistical analyst Lovemore Chipundu for the time taken to work through the research. Notable mention must be made of Tendie Ngaza, my lead research assistant, whose expedient (and physical!) data collection salvaged my research process.

Finally, this paper serves as a testament of the goodness of God in my life.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

This research explores the value generation of various forms of social capital (SC) on the innovative ability of small and medium enterprises (SME's), which operate in environments that are characterised as hostile or dynamic. As such, it will evaluate if there is a relationship between SC and OI in SME's, while also investigating positively moderating effects of perceived market hostility and dynamism between the two variables. In this chapter the theoretical background, purpose of this study, its context, main problem and sub-problems as well as the aim of the study will be identified, and main concepts operationalized.

1.2 Theoretical background to the study

Beginning with the work of Schumpeter (1934; 1942), innovation studies in entrepreneurship focus on innovation as a key source of competitiveness which results in greater firm performance (Drucker, 2015; Kuratko, Hornsby, & Hayton, 2015; Uzokurt, Kumar, Kimzan, & Sert, 2012). This has seen the study of OI emerging as its own distinct field of study, with early conceptualisations by Damanpour (1991) emphasising the multi-dimensional nature of OI. While no single theory has emerged since then, this paper builds on Damanpour's (1991) multi-dimensional approach, while also following the example of Read (2000) who adopted process theory to explain how it occurs.

Since Peter Drucker (1974) introduced the idea of the 'knowledge worker' to business literature, the value of the information (or intangible assets) that employees carry has been of growing interest in literature as 'knowledge economies' increasingly characterise global markets (Malhortra, 2003). Knowledge economies are built on 'smart infrastructure' which is the intersection of actors' knowledge (human capital), intellectual property (innovative output) and actors' social networks, making the study of exactly how

knowledge contributes to economic development increasingly important (Stough, Johansson, & Karlsson, 2012). This research is concerned with these knowledge resources and is grounded in innovation and social network theories, specifically the role of social networks in the innovative performance of firms in hostile and dynamic environments.

Recognition of entrepreneurship as a socially situated phenomenon has led to an increase in literature which focuses on the role of social relationships (network theory) and how it impacts firm performance. Notable contributions to this literature include the work of Nahapiet and Ghoshal (1998), who argued for the ability of SC to generate intellectual capital. Taking advantage of the renewed interest in the relationship between network theory and firm performance (in this case innovation), this paper adopts SC as a predictor variable. There is support in network theory literature that SC is well suited to explain a major aspect of OI, which is how to align internal firm capabilities with those of the external environment (Kearney, Hisrich, & Antoncic, 2013; Gedajlovic et al., 2013; Nahapiet & Ghoshal, 1998). In line with this, the research will assess how the SC impacts innovative abilities of SME's.

Researchers such as Uzokurt et al. (2012) have looked into the relationship between innovativeness and environmental uncertainty, but more research needs to be done in this area. Little has been done by way of empirical research into firm performance, particularly innovation in such environments (Adomako & Danso, 2014; Zoogah, Peng, & Woldu, 2015). Finally, the research is conducted in an emerging market, and joins a growing body of management scholarship that seeks to create context-specific research to speak to the African context and broader literature (Kolk & Rivera-Santos, 2018; Zoogah et al., 2015).

1.3 Context of Study

1.3.1 Zimbabwe

Zimbabwe is a Sub-Saharan African nation that has been characterised by decades of economic instability. The country's economy experienced a cumulative decline of -51% between the years 2000-2008, which culminated in the nation achieving record hyperinflation in 2008 (United Nations Economic Commission for Africa, 2015). Since then, the economy has registered both periods of growth and decline largely due to political instability, as well as the effects of regional drought and alienation with the international community (United Nations Economic Commission for Africa, 2015; The World Bank, 2017). The World Bank (2017) notes that while the country experienced 3.7% GDP growth in 2017 (up from 0.7% in 2016), these growth rates remain almost 2% below the regional average. Figure 1 shows that not only has the country's GDP fallen by 30% in the last two decades, but it also goes against the regional growth trend, and is characterised by sharp increases and decreases.

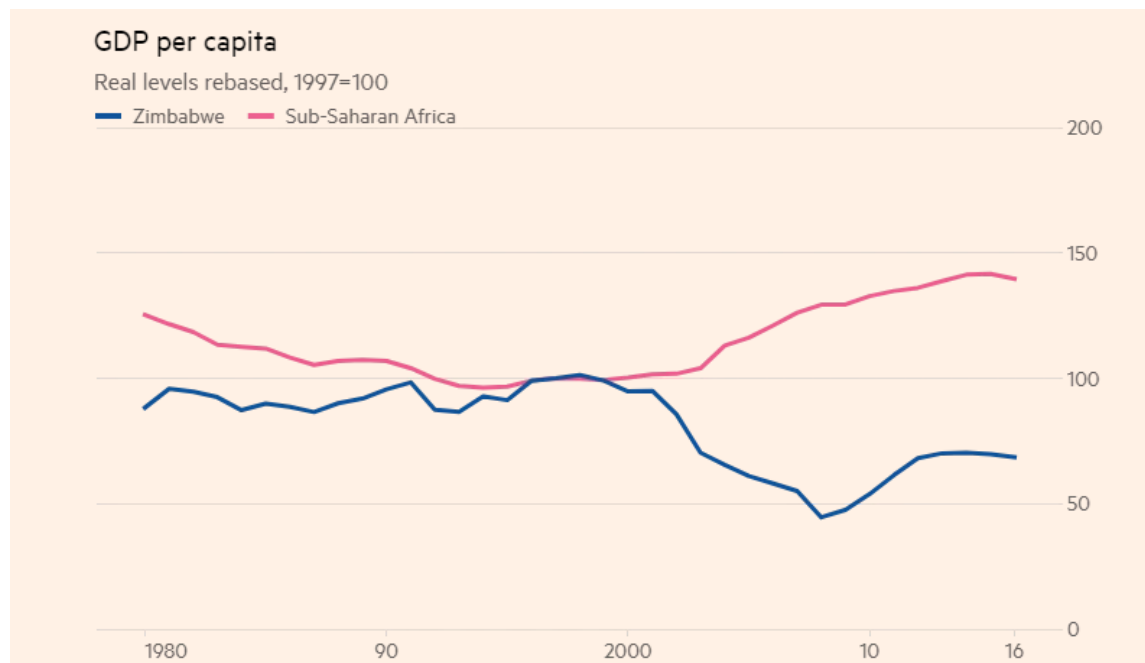


Figure 1: Zimbabwe GDP 1980-2017

(Source: Hawkins and Pilling (2017, p. 1))

While GDP is not a sufficient diagnostic measure for the state of an economy, it does give insight into the size of the economy that businesses operate in, revised annually. In the case of Zimbabwe, the economic growth and flux can be seen to reflect the turbulence in markets and industries, which create the perception of uncertainty that characterises dynamic markets (Kearney et al., 2013). Aside from mere perception, reports such as The World Bank's 'Doing Business' report (2018) indict the business ecosystem, which they rank at 159 out of 190 countries. Complex dynamic business environments such as the one that exists in Zimbabwe present a challenge for business, as the mechanisms through which firms survive, and in some cases thrive, is not well researched (Zoogah et al., 2015). Research will be conducted in Harare, which is the richest province of Zimbabwe as well as its most populous province (Parliament Research Department, 2011).

1.3.2 *The SME in Zimbabwe*

In a country such as Zimbabwe, survival rates as low as 15% after three years have been registered for small and medium enterprises (Muchabaiwa, Bindu, & Chigusiwa, 2011). The importance of SME's in Zimbabwe in particular arises out of the fact that the country's economic instability has led to a structural shift away from large firms as the main source of employment. SME's now represent 78% of the Zimbabwean workforce, contributing 60% of the country's GDP (Reserve Bank of Zimbabwe, 2017).

There is no universal definition of SME's, with countries and regions choosing either firm size, number of employees, fixed assets, and annual turnover as categories; Zimbabwe displays similar variance in classification (Nyoni & Bonga, 2018). Revenue, immovable assets and annual turnover are used as classifications by both the Small and Medium Enterprises Act of Zimbabwe (2011), and Zimbabwe's Revenue Authority (ZIMRA). This research made use of the number of employees as a means of classification owing to the sensitivity

of information such as annual turnover which may have deterred respondents from participating. This is combined with uncertainty over which currency values The Act (2011) refers to; at the time this research was conducted Zimbabwe was using both the United States Dollar as well as a local Dollar equivalent for local transaction purposes. Small enterprises are considered to have a maximum of 40 employee's, while medium have a maximum of 75 employee's (Small Enterprises Development Corporation Act , 2011).

1.3.3 *Continental Economic Development Objectives*

Contemporary political discourse in many African nation's has been around increasing the rate of entrepreneurship on the continent, and as a result developing and sustaining SME's is recognised as an urgent development objective (AfDB/OECD/UNDP, 2017). This is due to entrepreneurship being seen as key to economic growth and wealth creation on the continent. Increasingly however, it is understood that not everything that is referred to as entrepreneurship has equal potential to create wealth or even jobs (Alvarez & Barney, 2014; Sautet, 2013).

With swelling a population, not only must SME development be prioritised, but also ensure that SME's remain competitive. Literature around OI adopts an inherently multi-dimensional view of entrepreneurship, and is well placed for the nuanced discussion that needs to occur as to the aspects of entrepreneurship needed to support economic development objectives in Africa (Bosma, et al., 2012).

There is a need to understand the anatomy of business and management success in navigating the uncertainty of the Africa context (Zoogah et al., 2015). In such environments the value of knowlegde that provides competitive advantage in that particular context is at a premium (Di Gregio, 2005). A key characteristic of dynamic African economies is the emergence of strong informal institutions that serve to close gaps caused by volitivity and uncertainty (Zoogah et al., 2015). The research question therefore asks how SC serves as a vehicle of this valuable information which leads to OI. Additionally, it is acknowledged that innovation must be understood in the context of the

particular environment and region in which it takes place (Cozzens & Kaplinsky, 2009).

1.4 Problem statement

1.4.1 Main problem

This research seeks to evaluate the relationship between three forms of SC and the OI of an SME, and to determine if environmental hostility and market dynamism in Zimbabwe positively moderates this relationship.

1.4.1 Sub-Problems

1.4.2.1 The first sub-problem will analyse and evaluate the relationship between political capital and organisational innovation and determine if it is positively moderated by environmental hostility and dynamism

1.4.2.2 The second sub-problem will analyse and evaluate the relationship between alliance capital and organisational innovation and determine if it is positively moderated by environmental hostility and dynamism

1.4.2.3 The third sub-problem will analyse and evaluate the relationship between reputational capital and organisational innovation and determine if it is positively moderated by environmental hostility and dynamism

1.5 Research purpose, research question and aims of the study

1.5.1 Research Purpose

The concept of OI has gained prominence in corporate discourse, to the extent that it is now in danger of being seen as just another overused 'buzzword' (Morris & Kuratko, 2018). Despite this, the implementation of innovative ideas

within the organisation or the marketplace is an integral part of a firm's competitive capability (Morris & Kuratko, 2018; Sarooghi, Libaers, & Burkemper, 2015), with some going as far as to argue that it is the most important driver of economic growth and competition (Uzkurt et al., 2012). With prevailing uncertainty in global markets, there is need for research that speaks to enhancing innovative ability of firms in uncertain environments (Uzkurt et al., 2012), as the entrepreneurial firm is more concerned with maximising upside risk in uncertain markets rather than avoiding them (Di Gregio, 2005).

While literature has recognised the value of knowledge drawn from formal and informal institutions on innovation, more needs to be done to empirically test these assertions (Landry, Amara, & Lamari, 2002; Parra-Requena, Ruiz-Ortega, & Garcia-Villaverde, 2013). The purpose of this research is to address gaps in literature concerning the relationship between social networks and OI in emerging markets which often present dynamic and hostile business environments (Marcotte, 2014; McFadzean, O'Loughlin, & Shaw, 2005; Naudé, Szirmai, & Goedhuys, 2011). This research will explore this relationship in SME's in Zimbabwe.

1.5.2 Research Question

The question that this research seeks to answer is:

How does social capital affect organisational innovation in SME's in Zimbabwe, while accounting for environmental hostility and dynamism?

1.5.3 Research Aim

The aim of this research is to empirically assess, through the use of survey data obtained from Zimbabwean SME's, if there is a relationship between three forms of SC and an organisations internal innovation, and how is that relationship is positively moderated by dynamism and hostility. In doing so, the research adds quantitative data that speaks to the innovative actions of entrepreneurial firms, in market conditions that have been overlooked in the past.

1.6 Conceptual/theoretical definition of terms

Entrepreneurship: "The study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them" (Shane & Venkataraman, 2000, p. 218)

Environmental Risk: The impact that a 'known unknown' event or circumstance will have on the business (Carayannis, Grigoroudis, Sindakis, & Walter, 2014; Sadgrove, 2016). In this paper it is operationalized to refer to the combination of dynamism and hostility.

Environmental Dynamism: The "degree of environmental predictability; it is manifested in the variance in the rate of market and industry change and the level of uncertainty about forces that are beyond the control of individual businesses." (Kearney, Hisrich, & Antoncic, 2013, p. s333).

Environmental Hostility: Hostility refers to an unfavourable business climate for firms as a whole, which displays characteristics such as too many competitors, as well as poor economic and regulatory conditions (Urban, 2010). Hostile environments are characterised by their resource poor nature which supports fewer firms (Dess & Beard, 1984).

Entrepreneurial orientation (EO): The processes, practices and decision making styles of firms, as seen in its levels of risk taking, pro-activeness and innovativeness (Covin & Slevin, 1989; Dess & Lumpkin, 2005; Urban B, 2012)

Innovation: The process by which value is added, with a degree of novelty, to an organization's processes, products, services and solutions (McFadzean, O'Loughlin, & Shaw, 2005).

Organisational innovation (OI): The proclivity of a firm towards the initiation or/and implementation of different types of innovations, in both business and public organisations (Damanpour, 2017; Salavou, Baltas, & Lioukas, 2004)

Organisational strategy: "A vision-directed, organization-wide reliance on entrepreneurial behaviour that purposefully and continuously rejuvenates the

organization and shapes the scope of its operations through the recognition and exploitation of entrepreneurial opportunity” (Ireland, Covin, & Kuratko, 2009, p. 21).

Social Capital (SC): The “sum of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by individuals or social units.” (Nahapiet & Ghoshal, 1998, p. 243)

Small Enterprise: The Small and Medium Enterprises Act of Zimbabwe (2011) classifies a small enterprise as one with a maximum of 40 employees.

Medium Enterprise: The Small and Medium Enterprises Act of Zimbabwe (2011) classifies a medium enterprise as one with a maximum of 75 employees.

1.7 Contribution of the study

The contribution of this study is seen to add value for three groups: for the SME, for policy and for academia.

With regards to the value of this research to the SME, contemporary work models increasingly involve remote working, and present a noted reduction in staff retention (McKinsey & Co, 2018; Prusak & Cohen, 2001). There is need for research such as this that places emphasis on social connection, and determines the value that can be extracted from it. The implication of positive correlations in this study is that organisations should look into generating or preserving SC as an additional capital source, a knowledge asset. This research looks into three possible sources of SC, and is one of only a few studies that attempt to specifically determine the sources of SC. This allows firms to determine with precision the specific forms of SC that should be invested in.

In terms of policy, the innovating firm has been identified as an engine of growth for emerging economies, and is seen to be best positioned to meet continental job creation goals (Adomako & Danso, 2014; AfDB/OECD/UNDP , 2017). This

study aims to research the elements that allow a firm to be innovative in emerging economic environments, in order to add heterogeneity to research into what allows a firm to remain competitive and ultimately inform policy makers on what interventions would actually be useful (Shaker, Zahra, & Fayolle, 2013). Research in SME competitiveness is well placed for the contemporary policy conversation around economic development in Africa. Like many African nations, Zimbabwe has placed entrepreneurship on its development agenda (AfDB/OECD/UNDP, 2017), often recognising a very narrow set of dependent variables to assess entrepreneurship, rarely OI. By measuring OI, the value of this research to policy makers and academics alike is to expand the scope of what are considered valuable entrepreneurship measures, and outcome variables for research, going beyond general firm performance, new venture creation and ownership (Marcotte, 2014).

Policy development frameworks and SME management knowledge alike benefit from social and human process studies (in this case SC) which are notably missing from socio-economic development frameworks. This is despite the recognised value that knowledge assets generated by them have (Gelauff, 2003; Gubbins & Dooley, 2014; Malhortra, 2003; Marcotte, 2014; Subramaniam & Youndt, 2005). This places such frameworks at a disadvantage in a world that increasingly values 'knowledge economies', in which knowledge is seen as the strongest "engine of production" (Stough et al., 2012, p. 160). As will be discussed in the literature review, SC has been considered a precondition in developing durable and representative institutions, as well as prosperous economies (Putnam, 1993).

As African business and management research continues to grow, there is a need for concepts developed in different contexts to be tested in the various different contexts that exist on the African continent. Africa is notorious for its poor contribution to global academic research, and is estimated to produce just over 1% of the global research output, despite boasting 12.5% of the world's population (Duermeijer, Amir, & Schoombee, 2018). The need for research generated from Africa is noted, especially research that tests the applicability of 'western' research principles in specific African contexts. The empirical research

conducted in this study is adapted from a study by Yiu et al. (2008). By testing existing research in Zimbabwe, the study adds value by generating 'context bound knowledge', which applies theory or models across various contexts, as opposed to assuming these theories or models to have universal applicability (Kolk & Rivera-Santos, 2018; Marcotte, 2014).

Academically this research contributes to filling a noted gap in literature: generating empirical evidence of the sources of SC that are not based on personal or institutional trust which forms the bulk of SC literature (Doh & Zolnik, 2012; Westlund H , 2006). This study assesses value of *information* derived from SC. Many empirical studies linking SC to positive outcomes focus on countries and regions as units of analysis (Doh & Zolnik, 2012; Westlund & Adam, 2010), this will serve as a useful addition to academic literature as it focuses on the firm as a unit of analysis. Implications are however still drawn from the results which can be useful in other contexts, as the study of the various forms of SC sources provides insight into what forms are valuable.

1.8 Conclusion

The objective of the research is to determine how three forms of SC affect the OI of an SME, as moderated by environmental hostility and market dynamism in Zimbabwe. This chapter located this research within contemporary conversations around entrepreneurship in Africa, as well as OI and SC literature. It is believed that this research will make a valuable contribution to academia, policy and business management literature.

CHAPTER 2: LITERATURE REVIEW

The focus of this study was identified in Chapter 1 as determining the relationship between SC and OI within SME's located in hostile and dynamic contexts, and if this context positively moderates the relationship. Areas that need to be examined include the literature around: innovation and particularly OI, SC, the relationship between OI and SC as well as the role of environmental hostility and dynamism. The section will operationalize these concepts, as well as analyse extant literature pertaining to them. In addition, the conceptual framework of the study will be included as a visual representation of the assertions made in this research.

2.1 Introduction

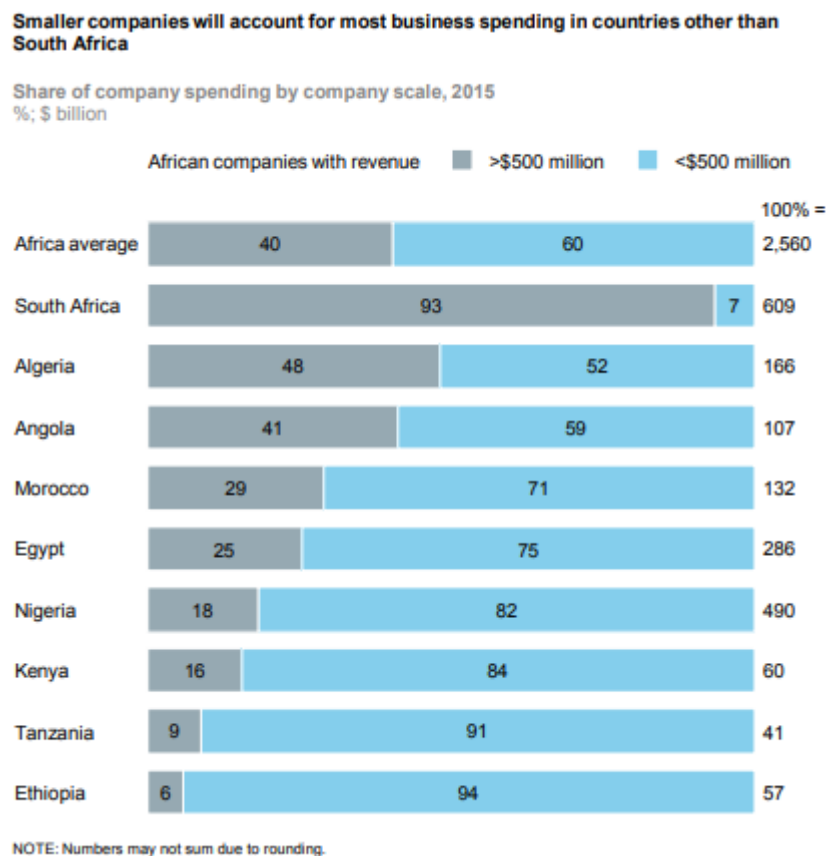
Private enterprise in many Asian countries has contributed to growth rates in the order of 6% per annum, giving rise to the "Asian miracle." The conditions facing private entrepreneurs in many African countries, however, make simply surviving a miracle. The challenge before us is to turn the miracle of survival into the miracle of growth... (Steel, 1995, p. 12)

While the quote above is over two decades old, the issues it raises are still relevant in many African countries today. Survival of SME's in the African context largely depends on their ability to innovate in order to grow in environments that may not always be favourable to business; environments that can be described as dynamic or hostile. In defining the study of entrepreneurship Shane and Venkataraman (2000, p. 218) refer to it as: "the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them". Implicit in this definition is the ability of entrepreneurial individuals or businesses to innovatively identify and organise resources into combinations that add value.

The survival and growth of SME's is directly linked to development policy objectives across the continent, which have modelled SME development as a way of ensuring poverty reduction (AfDB/OECD/UNDP, 2017). The business case for SME survival and growth has been well argued in literature. Firstly

SME's provide the bulk of employment in Africa, with estimates saying that they account for as much as 80% of employment in the region (dos Santos, 2015). By 2063 it is estimated that Africa's workforce will have grown from 620 million in 2013 to 2 billion in 2063 (Africa Development Bank, 2018), which requires a major increase in employers. Secondly, as noted by McKinsey and Company (Bughin et al., 2016) in their seminal report 'Lions on the Move', while increased consumer spending in Africa is often celebrated for its impact on economic growth, business to business (B2B) spending was significantly larger than consumer spending in Africa yet less celebrated, in spite of its equal (if not greater) significance. Majority of this spending (60%) was done by small businesses, and they argue this as a reason to develop a greater understanding of the SME in Africa.

Figure 2: B2B Spending in Africa



(Bughin et al., 2016, p. 13)

Not only does Africa need to rapidly ensure an increase in the productivity and quality of its enterprises, but it also needs to invest in research and data that speaks to how the actual SME *organisation* can survive; in other words how an organisation's systems and processes can innovate in order survive environmental risk.

Originally seen as a discrete event that resulted from individual efforts of inventors and researchers, innovation is now recognised as a multistage process which involves various actors, sources and interdependent relationships (Landry, Amara, & Lamari, 2002). As will be discussed below, innovation research has gone beyond examining tangible forms of capital (human and financial), to looking at the importance of 'social ingredients', or intangible forms of capital such as SC that contribute to innovation (Landry et al., 2002).

The value of unpacking SC in an African context is not merely academic; literature has decried the lack of models that adequately engage the African business landscape (Adomako & Danso, 2014; Acquaaah & Eshun, 2012; Zoogah et al., 2015). SC is poised to make a promising contribution to models that engage Africa's particular way of doing business. Hyden (2012) notably described the dynamic nature of social exchange in Africa as creating an 'economy of affection'. He argued that any attempt to understand the African landscape would be incomplete without an acknowledgement of the 'social logic' that undergirds all transactions. Scholars, he argued, fall short of robust analysis in their attempt to standardise models and concepts; the very nature of social exchanges makes them hard to subject to universal norms. The uniqueness of the 'economy of affection' is that it coexists alongside economic systems such as capitalism and socialism, providing an informal institution he argued is as valuable as money.

This research therefore speaks to one of the quintessential tensions of entrepreneurship: the ability of the entrepreneurial organisation to both explore (in this case through SC) and at the same time exploit opportunities (seen here in the outcome of OI). This is the 'edge of chaos' on which the innovating organisation must live (Schindehutte & Morris, 2009; Urban, 2012). This

literature review will start by exploring the literature around SC and innovation in organisations. Literature around environmental dynamism and hostility will then be revised in order to give context to their adoption as moderating variables. Finally, the three hypotheses that form the basis of this research and the literature that supports them will be reviewed.

2.2 Organisational Innovation

This sub-section will begin by introducing the history of entrepreneurship innovation literature, in order to give context to the discussion on contemporary OI literature that follows. The intangible nature of OI will be discussed and its value in the emerging market context outlined, briefly highlighting how it benefits from knowledge capital such as SC. Theories that ground OI will be unpacked, culminating in a discussion of OI as useful outcome variable in studying the SME.

2.2.1 Innovation in Literature: Background and Definitions

Definition and Schema of Innovation

As a construct, innovation is complex and the research surrounding it diverse. Innovation has been studied across disciplines in a range of fields such as education, health sciences, social sciences and engineering; it has been measured at different levels assessing organisational, regional and even national application; and it has led to a multiplicity of understandings of innovation and what it entails (Damanpour, 2017; Read, 2000). While no single definition prevails, a review of the entrepreneurship literature reveals that innovation definitions include the concepts of *novelty*, *commercialization* and/or *implementation* (Choo & Popaduik, 2006; Read, 2000). The use of the concept of novelty does not mean innovation must be totally new to the market to be considered innovative; rather literature recognises the innovation need only be new to the organisation (Damanpour, 1991). Urabe (1988) conceptualizes innovation as the ability to perceive new customer needs, or methods of production. It is generated in the cumulative process of information-gathering,

coupled with an ever-challenging entrepreneurial vision". Damanpour's (1991) seminal work on innovation simply defines innovation as the identification, generation, development and implementation of new products, services, or processes. This research adopts a definition of innovation that embodies all three elements mentioned: novelty, commercialisation and implementation. The definition used in this paper is provided by McFadzean et al. (2005) who define innovation as the process by which value is added, with a degree of novelty, to an organization's processes, products, services and solutions.

Literature presents that innovation exists in many forms. Tseng, Kuo and Chou (2015) present a schema for innovation shown in Table 1 by delineating its intensity, types and manifestations. Innovation intensity is measured on a spectrum between incremental innovation (which occurs gradually) and radical innovation (which is novel innovation that disrupts the status quo) (Drucker, 2015; Tseng et al., 2008). The types of innovation that will be found in a firm will be characterised by the needs of each; they fall into three basic models of innovation: technology based functional innovation, strategic reflexive innovation, or value based entrepreneurial innovation (Fuglsang & Sundbo, 2005). They argue that innovation is a social system with unique ways of recruiting actors in order to innovate. The model a firm will choose is a reflection of its ability to motivate actors to innovate. The technology based model indicates that technology drives innovation according to technology development trends (Breschi, Malerba, & Luigi, 2000). The strategic reflexive model says that innovative strategy is in response to the external environment and how actors within the firm perceive the internal resources as being able to cope with the external changes. The value based entrepreneurial model states that innovation is driven by the ability of the individual to identify opportunity to innovate; in other words innovation is determined by the individuals' drive to create business (Drucker, 2015; Kirzner, 1997; Sarasvathy, 2001). Fuglsang and Sundbo (2005) further posit that these basic models are executed via four manifestations of innovation, namely: product innovation, process innovation, position innovation, and paradigm innovation.

The intensity of the innovation is not material to this work, but this research envisages that the type of OI under consideration is classified as strategic reflexive innovation, which can be executed through either process or paradigm innovation.

Table 1: Schema's of Innovation

Configuration of innovation	Taxonomic standard	Scholar
1. Two categories of innovation: (1) Radical innovation (2) Incremental innovation	Based on the level or intensity of innovation, these scholars identify two diverse sorts of innovation	Deward and Dutton (1986), Ettlie et al. (1984)
2. Three kinds of innovation: (1) Value-based entrepreneurial mode of innovation (2) Technology-based functional mode of innovation (3) Strategic reflexive mode of innovation	Based on the management of environment that fits with a firm's purpose, these scholars distinguish three distinct kinds of innovation	Fuglsang and Sundbo (2005)
3. Innovation in four ways: 4Ps (1) Innovation in product (2) Innovation in process (3) Innovation in position (4) Innovation in paradigm	Based on two other areas where innovation is possible-market position and business models, these scholars recognise four different kinds of innovation	Francis and Bessant (2005)

(Source: Tseng et al. (2008, p. 1017))

The Economics of Innovation

The centrality of entrepreneurial innovation in economic literature was cemented by one of entrepreneurship literatures' most prominent figures, Joseph Schumpeter (1934). According to Schumpeter (1934), sustained and 'dynamic' economic development, as opposed to the economic 'circular flows' described by traditional economic theories, can only be predicted and explained by a multidimensional process, which is characterised by spontaneous, endogenous, structural, dynamic and discontinuous transformation (Lima, 1996), driven by entrepreneurial activity. At the heart of this activity is the firm which is responsible for constantly innovating. For Schumpeter (1934) innovation in the firm occurs in five categories: new goods (products or

services), new methods or processes, new markets, new organizations, or new sources of raw materials or supply chains; what he terms 'new combinations' (Hagedoorn, 1996; Lazzarotti, Dalfovo, & Hoffmann, 2011; Lima, 1996). These innovative 'new combinations' are what cause the dynamic consequences which result in productive revolutions, that act as the *prime movers* of capitalist development (Lima, 1996). In his early work, Schumpeter (1934) positioned the individual entrepreneur as the innovator who actively sought new combinations (Urban, 2015); the widely accepted definition of an entrepreneur as a 'creative disruptor' emanates from this understanding of entrepreneurship embodying innovation. Later Schumpeter (1942) acknowledged the ability of firms as important innovators in the later stages of capitalism (Hagedoorn, 1996). It is from this theoretical base that the argument for SME development for African economic growth is made.

Organisational Innovation

Damanpour (2017) puts forward a definition of innovation in relation to OI as the study "of innovation in organizations, including both business and public organizations" (Damanpour, 2017, p. 3). This builds on his earlier assertion that, innovation is a means of changing an organization, in response to the internal or external environment, or as a pre-emptive measure meant to influence an environment (Damanpour, 1991). While succinct, it doesn't reflect the tendency of contemporary definitions of OI to distinguish themselves by encompassing the identification, generation, development and implementation of new products, services, or processes (Read, 2000). In this research OI is defined as: the proclivity of a firm towards the initiation or/and implementation of different types of innovations, in both business and public organisations (Damanpour, 2017; Salavou, Baltas, & Lioukas, 2004). This is operationalized to include internal products, processes and services geared toward improving the productivity and efficiency of a firm's operations. It also includes management innovation, which encompasses principles, processes, and practices that impact the work of management, or change how managers do what they do; in essence constituting rules and routines by which work gets done within the organisation (Damanpour, 2017).

With the role of innovation in business being identified as, one of the most important drivers of competition, as well as economic growth in recent years (Uzkurt et al., 2012), studies of OI have increased in order to provide recommendations for businesses competitiveness (Drucker, 2015; Porter, 1985; Uzkurt et al., 2012). An organisation's level of innovativeness is a key element in what distinguishes it as an entrepreneurial firm. It is a dimension of what is known as the entrepreneurial orientation (EO) of a firm, which involves the processes, practices and decision making styles of firms (Dess & Lumpkin, 2005; Urban, 2012). Firms are considered entrepreneurial if they present the characteristics of EO, which consists of three dimensions as identified in literature (Covin & Slevin, 1989; Covin & Lumpkin, 2011; Lumpkin & Dess, 2001; Urban, 2012):

- 1) Risk taking: how easily a firm can commit resources in order to pursue an opportunity
- 2) Innovativeness: this involves novelty- how willing an organisation is to add new products, processes or services on that add value
- 3) Pro-activeness: this speaks to the active implementation of initiatives, as well as the willingness to fail and adapt

Early literature on innovation only explained the innovative outcome, while overlooking the process through which this occurred, leaving a gap in understanding the antecedents of innovation in an organisational context (Schumpeter, 1934; Schumpeter, 1942). In order to remedy this, there was a noted shift in literature to exploring the antecedent factors of OI, taking into account cognitive and managerial processes that lead to discovery, evaluation and exploitation of opportunities (Kirzner, 1997; Marcotte, 2014; Shane & Venkataraman, 2000). The significance of this shift in literature is important for OI research, as the outcome of innovation (innovating) must be distinguished from the processes of innovation (innovativeness) (Damanpour, 2017). Literature has further clarified the construct to move it away from conceptual ambiguity which conflates it with concepts such as organisational change and creativity.

Organisational innovation must be distinguished from corporate entrepreneurship literature; while both look at the innovative ability of the organisation, corporate entrepreneurship is devoted to the study of mid to large firms (Kuratko et al., 2015). While concepts under review such as EO may be similar, firm size distinguishes the discussion as larger firms are thought to innovate differently from smaller organisations. This difference is largely attributed to the ability of smaller firms to foster innovation cultures easier than larger firms owing to their small size, and the differences in resources allocation for R & D with larger firms presumed to be able to allocate more (Urban, 2012).

Empirical studies related to OI in small firms have previously found that internal management processes were essential to OI (Damanpour, Sanchez-Henriquez, & Chiu, 2018).

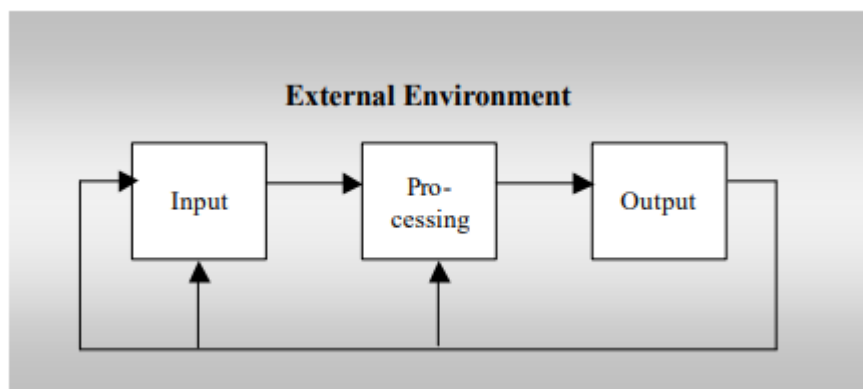
2.2.2 Theories of Organisational Innovation

Innovation research as a whole, and OI research in particular, has not reached a point of a single unified “umbrella theory”, and continues to reflect the variances in disciplines and dimensions of analysis (Read, 2000). Research into innovation in the OI context has largely explored definitional aspects, antecedents, links between creativity and implementation, processes, dimensions types and measures of innovation (Damanpour, 1991; Drucker, 2015; Marcotte, 2014; Sarooghi et al., 2015; Subramaniam & Youndt, 2005; Tzeng, 2009). There remains no unified understanding of how it works; it is a multidimensional concept that is often modelled as a process because in its simplest form it consists of inputs and outputs (Urban, 2012). Without a generally acceptable process model, Read (2000) suggests the use of systems framework for dealing with the complexity of innovation. He finds support for this in the work of Amabile (1988) who posits that the OI process occurs at the level of a system; that is, a large number of individuals in various units, working together in the general problem of implementing a new idea. Systems theory allows for analysis of a firm’s inputs, processes and outputs. The Open Systems Model below is a framework based on the a stage model, which is well suited to research of the nature being undertaken in this paper as it takes into account

the ‘super-system’, that is, how the external environment (in this case social networks) would feed into an organisations innovation process.

The assumption in this research is that SC is the input, which is processed in a dynamic and hostile environment, to produce OI outputs. This is in line with literature which acknowledges the shift of innovation research from a single or ‘discrete’ event developed by sole inventors and researchers, to a recognised result of processes made up of interactions and knowledge exchanges of knowledge in an interdependent manner and involving a range of actors (Landry et al., 2002; Marcotte, 2014).

Figure 2: Open Systems Model



(Source: Read (2000))

Accepting that OI can be seen as the output of a process, the major contributions to OI theory are assessed below to determine their contribution to the conceptualisation of OI, as well as what their finding deem valuable inputs into OI.

Table 2: Summary of OI Research

Author	Findings
Schumpeter (1942)	In these seminal works, Schumpeter put forward that the entrepreneurial organisation is at its core innovating, creating ‘new combinations’ that allow survival and ultimately changes in the economy. This refers to entrepreneurs, of their own initiative, creating new companies which maintain capitalist economies (Lazzarotti, Dalfovo, & Hoffmann, 2011). Though acknowledged as a seminal work, it merely introduced the concept of OI in vague terms,

	and did not suggest a solid theory. The entrepreneur is seen as the crucial input into the OI capability.
Damanpour (1991)	He shed doubt on Downs and Mohr's (1976) assertion that there was no stability related to literature researching determinants of OI, finding that there was support among researchers, indicating the ability to cumulatively build research and theory and supported by other researchers. He argued strongly that inputs into OI must be seen as multidimensional and focus on an examination of the whole organisation as opposed to isolated innovations within the organisation.
Wolfe (1994)	He called for research into OI to be more comparative and for all dimensions of innovation to be recognised as important 'contingency' variables . In a clear endorsement of the process theory of innovation, he proposes researchers clearly address: (a) identify streams of innovation research, (b) the stage(s) of the innovation process, (c) organisations types, (d) outcome variable's in studies and how they are conceptualised, (e) attributes of innovation under investigation, in order to minimise ambiguity while developing a cumulative base of information
Fiol (1996)	He adopts the analogy of a sponge suggesting that, like a sponge, an organisation is only able to 'squeeze out' (generate innovation) what it absorbs; innovation thus depends on absorption and diffusion of knowledge . The inputs that they recommended future research should focus on were the broader institutional/market context , as they posit that it is the knowledge source from which innovation is drawn from .
Gopalakrishnan & Damanpour (1997)	They looked at research on innovation in economics, sociology and technology management. They compared it in three dimensions of innovation: stage of adoption, the level of analysis, as well as the type of innovation. This was done in order to display that with the complexity of innovation, inputs should reflect a 'cross-fertilisation of research' across various disciplines is required as was mentioned earlier, in order to de-fragment the research.
Tang (1998)	Their goal was to obtain a 'panoramic' view of OI by looking at different disciplines and perspectives. Inputs could not be seen to originate from one source . They put forward a model of innovation consisting of six constructs of innovation based on the work they had reviewed: information and communication, behaviour and integration, knowledge and skills, project raising and doing, guidance and support, and external environment. Their conclusion was innovations' complexity must be realised, and managers need to be aware of their specific contexts.
Damanpour et al. (2018)	Their focus was on inputs that involve the adoption of innovation in organisations from internal and external sources; this is necessitated by what they call a lack of research on internally sourced knowledge sources. It examined the role of internal and external sources of knowledge and how they contribute to the adoption of managerial innovations- which is an area of non-technological innovations that is under-researched Their research contributed to understanding innovation adoption as a process rather than 'dichotomous choice'.

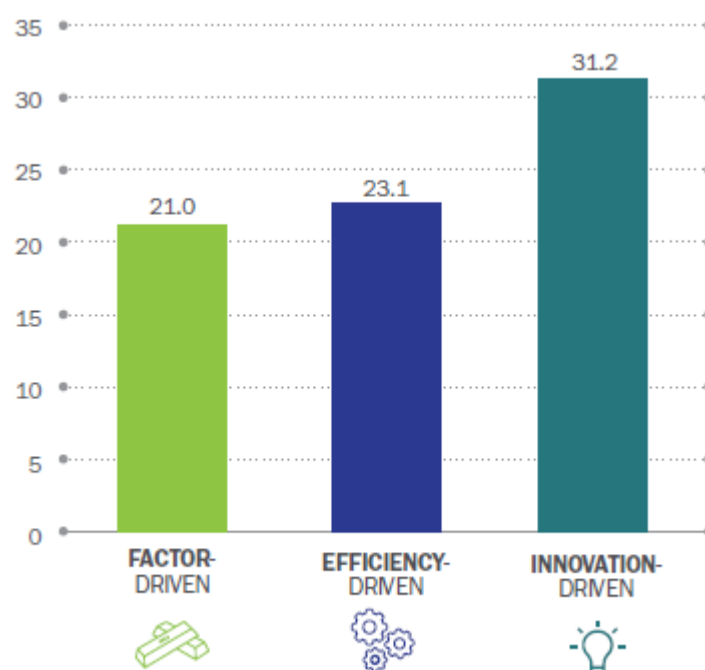
(Source: Adapted from Read (2000, p. 101))

The literature is unified in its observation of the importance of a multi-dimensional approach to understanding inputs in OI research, as well as the need to pay attention to individual variables and how they interact to produce varied levels of OI. They identify OI as a process that involves knowledge absorption from internal and external sources, and across disciplinary lines. This paper builds on the recommendations given above, particularly in the work of Foil (1996) and Damanpour et al. (2018) who acknowledge the process nature of innovation as well as the importance of broader external contextual factors to OI. The hypotheses below argue for a view of innovation that is fuelled by non-traditional, non-technological inputs from the market.

2.2.3 *Biases in Innovation Literature*

As discussed above, literature is increasingly dedicated to understanding the non-traditional inputs that result in innovative outcomes. Damanpour et al. (2018) have noted the bias in literature towards technology centred views of innovation, with a scarcity of research that speaks to the antecedents and outcomes of innovation in non-technological contexts, such as organisational processes. This is driven by a tendency toward ‘factual’ outcome measures of entrepreneurship (mostly new venture creation, patent registries and ownership) as outcome variables, because of their ability to be easily compared, at the expense of measuring variables such as innovation (Marcotte, 2014). For example Marcotte (2014) criticises the Global Entrepreneurial Consortium (GEM) annual reports, which are seen as authoritative indicators of entrepreneurship at country level, for focusing on new venture creation and ownership as variables that indicate the presence or absence of entrepreneurial activity in a country (GEM Consortium, 2018). The latest reports including GEM 2018 report state that innovation in factor driven economies (many emerging economies such as Zimbabwe would fall in this range) stands at about 21%, the lowest of all categories (GEM Consortium, 2018). It should be noted that their focus falls on *product* innovation that is either new to the company or to the country, with few or no competitors (Global Entrepreneurship Monitor Consortium, 2018).

Table 3: Total Entrepreneurship Activity Entrepreneurial Innovation Levels by Region



(Source: GEM Consortium (2018))

Marcotte (2014) points to the potentially broad impact such methodology has on academics and policy makers alike; the use of factual measures of innovation also speaks to why innovation is registered as insignificant in emerging economies. Reports such as GEM indict emerging markets as having low levels of innovation; a position which would inform perceptions of firms in those countries. Additionally policy and research which builds on research such as this which employs a limited number of indices to measure innovation may not be well placed to create the broad based impact it intends (Marcotte, 2014).

An additional factor which gives the impression that emerging economies lag in innovation, is that innovation in emerging economies is not necessarily new to the world (radical), but rather slightly improves existing technology or fully imitates it, this much of the innovation we see is 'path dependent' (Marcotte, 2014; Naudé, Szirmai, & Goedhuys, 2011). This is despite the strong argument that can be made about the benefits of imitation technology as shown by the examples of Chile, China, Korea and Taiwan that absorbed and imitated

existing technology and achieves accelerated growth (Naudé et al., 2011). It can therefore be argued that this in itself is innovative behaviour (Naudé et al., 2011). The selection of OI as a dependent variable thus affirms the idea that there are several ways to be innovative not just a single version, and sub-systems of entrepreneurship are worth investigating (Marcotte, 2014). Added to this, the use of SC as an independent variable advances the view that non-technological pathways to innovation need to be better represented in literature (Damanpour et al., & Chiu, 2018).

Prior empirical studies that examined non-technological sources of innovation looked at the multiplicity of sources of SC and their effects on innovation and how radical that innovation would be (Landry et al., 2002), corporate entrepreneurship strategies mediate SC and innovation (Yiu & Lau, 2008), the positive relationship between SC and innovation in a national context (Doh & Zolnik, 2012).

2.2.4 Innovation and the Small Business

The SME is the target population for this research, and as the outcome variable focuses on innovation, the literature around the assumptions regarding innovation and small businesses is worth discussing as it is polarized around the ability of the SME to innovate. One view emphasises the important ability that new firms and small businesses founded by entrepreneurs have to innovate swifter than their larger counterparts through agile management and decision making. This finds its roots in the earlier work of Schumpeter (1934), a body of work that has been classified as 'Schumpeter Mark I', where he suggested that new and small firms were better placed to innovate and drive entrepreneurship (Freel, 2018; Schumpeter, 1934). Previous research that supports this view points to the greater flexibility, versatility, adaptability to environment, and increased ability to coordinate between employers attributed to smaller firm size (Freel, 2018; Leal-Rodríguez et al., 2015; Mintzberg, 1979). This ability to innovate products and processes allows the SME to carve out niches in the market and monopolise them before larger incumbents (Urban, 2012). The result on a macro or national scale is that this activity allows for *creative*

destruction, which produces a pattern of innovation known as ‘widening’ in the marketplace; that is, the source, activities and innovators are constantly changing and new entrants are commonplace (Breschi, Malerba, & Luigi, 2000; Freel, 2018). This line of thinking advances that the innovative SME is imperative for macro-economic growth, as the incremental advances in innovation around products and processes increases the competitiveness of a region (Kaufmann et al., 2012).

An alternative view, inspired by ‘Schumpeter Mark II’ argues that larger firms are better placed to innovate, due to their ability to invest their larger pool of resources into R&D and innovation; a resource pool unavailable to the SME (Leal-Rodríguez et al., 2015; Schumpeter, 1934). This view argues that for smaller firms, innovation is a riskier activity as this allows for *creative accumulation*, an innovative pattern known as ‘deepening’, where innovative activities are concentrated to a few firms with economic resources to overcome barriers to innovative entry (usually financial) (Breschi et al., 2000; Freel, 2018).

These positions have not found substantive empirical support in literature, with weak or even contradictory findings (Leal-Rodríguez, 2015), which is an important consideration in balancing out political rhetoric that the SME will solely be responsible for economic growth and innovative capacity as mentioned above. Galbraith (1956) even refers to the perception of small firms’ innovative advantage as a ‘pleasant fiction’. The two views can be reconciled by adopting a less static or narrow view of innovative processes (Freel, 2018). Both small and large firms produce innovation that allows for a ‘dynamic complementarity’ in an economy (Freel, 2018; Rothwell, 1983), depending on the age of the industry in question. While the SME cannot be viewed as inherently more innovative, empirically understanding their innovative processes remains important. Work has been done to understand the complexities of innovation in within organisational processes, such as the research done around corporate innovation (Kuratko, Hornsby, & Hayton, 2015; McFadzean et al., 2005; Schindehutte & Morris, 2009), there is still a notable paucity of research specific to emerging economies and in particular dynamic

environments (Marcotte, 2014; Schindehutte & Morris, 2009; Sirmon, Hitt, & Ireland, 2007).

2.3 Social Capital

The main thesis explored by this paper is the effect of SC derived from the SME's social networks relates to OI. This sub-section introduces and defines SC, before contextualising what is meant (or in this case not meant by the construct of SC) in the emerging market context. Contemporary understanding of SC as a knowledge asset with economic benefit is described from literature, which undergirds the final part of the sub-section which examines the relationship in literature between SC (the independent variables of the study) and OI (the dependant variable of the study).

2.3.1 Background and Definitions

The idea of 'capital' or economically valuable relationships in network theory is a symptom of capitalist logic which converts all manner of social exchange into a form of mercantile exchange (Bourdieu, 1986). For better or for worse, this enables the analysis of non-tangible relationships in order to determine the value that can be extracted from them. Entrepreneurs are 'socially situated', which presents the need to simultaneously interrogate individual/organisational entrepreneurial activities and the environmental activity in which they exist (Gedajlovic et al., 2013). Social capital is a valuable assessment tool for entrepreneurship scholars in that it is 'uniquely situated' to address the theoretical gaps in entrepreneurship scholarship owing to its ability to explain processes and outcomes of social interactions on multiple levels of analysis, and do so across a diverse range of contexts (Gedajlovic et al., 2013).

Similar to innovation, SC has seen research and has seen application across a variety of disciplines; its conceptualization is therefore broad and has been used to account for a multitude of social phenomena which has allowed various interpretations of the concept (Haynes, 2009). While no single definition exists for SC, the central premise of SC is that networks of relationships merge to

create a valuable resource that affords members of the network a valuable resource from which to draw support (Nahapiet & Ghoshal, 1998). Part of the difficulty in reaching definitional clarity is distinguishing the dimensions of the concept: does the term SC refer to the structural element of the network, the relational strength of the network, the cognitive or perception of the individual in the network relationship, or even the resources that would be made available through the network? (Gedajlovic et al., 2013; Nahapiet & Ghoshal, 1998). A widely accepted definition of SC is offered by Bourdieu (1986, p. 248), he posits that SC is “the aggregate of the actual or potential resources which are linked to the possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition”. This definition incorporates the resources available through the network, the structure as well as the strength of the network. Nahapiet and Ghoshal (1998, p. 243) placed less emphasis on the strength of relationships in the network when they defined SC (as it pertains to entrepreneurship) as the “sum of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by individuals or social units.” The implication being that SC can be extracted from even impersonal linkages between units or people, and that is the definition adopted by this paper.

When applied to organisations, SC provides what is known as an ‘organisational advantage’, and is operationalized as the value added to an organization by the relationships formed by its members with the goal of collective benefit (Dakhli & De Clercq, 2004; Nahapiet & Ghoshal, 2000). SC acts as a means of market organization, through a network of structured relationships which reduce coordination costs and allow for flexibility in the connections between people and firms (Parra-Requena et al., 2013).

The concept is not without criticism, with some contributions going as far as to say it’s ‘revisionist grounding’ expressed in different sociological traditions puts it at risk of trying to explain too much with too little (Woolcock, 1998). Definitionally it has been criticised as having loose and often imprecise conceptualizations and constructs (Gedajlovic et al., 2013); as well as imprecise distinctions between the sources of social capital (relationships, networks), and

its consequences (individual or collective social capital) (Gedajlovic et al., 2013; Nahapiet & Ghoshal, 2000). One of the most frequent criticisms against SC originated with Bourdieu (1986, p. 242) who asserted that, "...priceless things have their price, and the extreme difficulty of converting certain practices and certain objects into money is only due to the fact that this conversion is fused with the very intention that produces them." In other words measurement of SC has proven difficult in literature, making assessment related to the amount, or variances in the type and quantity of SC impossible to determine (Haynes, 2009). For some, this means that SC cannot be seen as a form of capital at all, but rather a metaphor as it fails to capture three crucial aspects of capital: an asset that envisages extension in time; a resource that is intended as a sacrifice for deferred benefit; and alienability (Arrow, 1999; Haynes, 2009).

In defence of SC as a valuable asset, Rhys (2010) argues that knowledge-based theories of the firm support the idea that organisations present social communities which specialize in perfecting the speed and efficiency of the creation and transfer of knowledge (Kogut & Zander, 1996). The intangibility of the capital is not unique to SC, and Landry et al. (2014) argue that although the capital is found in the bonds between people, it is still productive as without it certain processes would not be able to occur. By inference, the SC within the organisation may not be precisely quantifiable, but it does act as a critical asset in reducing transaction costs, and obtaining the maximum organizational advantage for the firm.

2.3.2 Exclusionary Practices and SC: Bonding versus Bridging

An immediate concern with the concept of SC is that it serves as a euphemism for closed networks of people who promote rent seeking behaviour and enable exclusionary and corrupt practices. Studies have noted examples of this in countries where political affiliation is necessary for private business success (Akcigit, Baslandze, & Lotti, 2018; Du & Girma, 2010; Li, Meng, Wang, & Zhou, 2008), and where monopolies form around certain industries to the intentional exclusion of new entrants (Banda, Robb, Roberts, & Vilakazi, 2015). It can be acknowledged that SC can be used for either positive or negative ends; but the

distinction between productive and non-productive SC can be understood by unpacking the nuance in original SC literature. Authors are distinguished by those who see the mechanism through which SC was extracted to be either bonding (Coleman, 1990; Gedajlovic et al., 2013) or bridging (Burt, 1982). Bonding holds that SC results from closed networks of people with strong ties that exist over a long time, and are characterised by reciprocal and shared relationships with actors who are aware of each other's behaviour and reputation (Gelauff, 2003). The bridging perspective sees SC as made up of weaker links which are less committal. This facilitates easy connection with outsiders, thus allowing individual actors or corporations to actively fill knowledge gaps and create usable resources as information is accessible without allegiance to a homogenous community (Gelauff, 2003). It is this second perspective that is most commonly applied to entrepreneurs, as it refers to the most literal interpretation of the word 'entrepreneur', that is, a person who generates profit from going between others (Burt, 1982). Theoretical underpinnings of this are seen in the distinction made by Lin (1999; 2017) between two schools of thought propagated by original SC theorists.

Table 4: Lin's Theories of Capital

	Bridging	Bonding
Theorist	Marsden, Flap, Coleman, Lin Burt	Bourdieu, Coleman, Putnam
Explanation	Ability to access and use resources embedded in social networks	Solidarity and reproduction of group
Capital	Investment in social networks	Investment in mutual recognition and acknowledgement
Level of analysis	Individual	Group/Individual

Source: Adapted from Lin (2017) and Lin (1999)

When understood from a bonding perspective, SC becomes a group asset, effectively serving as an exclusionary mechanism, especially when it comes to capital extracted from political affiliation. Du and Girma (2010), in their research titled 'Red Capitalists' empirically assessed the value of affiliation with the Chinese Communist Party for private companies. The motivation behind 'wearing the red

hat' was identified as easier access to resources in the form of land, credit, exclusive information on regulations and new policies, as well as affording them protection from competition. They found that growth, productivity and survival of firms were positively influenced by party association. Akcigit et al. (2018) conducted research which also found similar findings for Italian businesses that were politically affiliated. This points to politically backed institutional discrimination that only allows members of a certain network access to privileged information. Gedajlovic et al. (2013) refer to this excess of network bonding as 'closure' of networks. Furthermore, evidence is found in research by Gelauff (2003) that closure actually hampers innovation as it only allows access to already established knowledge *within* the network, whilst innovation flows from knowledge obtained *between* networks (bridging).

This paper understands SC a quintessentially entrepreneurial resource, where entrepreneurs actively seek out information that is embedded in social networks to gain competitive advantage; a bridging mechanism. These networks are not exclusive or hidden but available to the entrepreneurial firm to seek out and take advantage of. In a context that prioritises social networks (as many African and Asian communities have been said to be), SC is vital a form of currency in an economy of affection as mentioned above (Hyden, 2012).

2.3.3 Social Capital as a Knowledge Asset

As mentioned above, though not easily quantifiable, literature does lend support to the value that a social network can provide, particularly in affording people privy to the network access to privileged intellectual and market information (Bourdieu, 1986; Rhys, 2010; Urban, 2008). On a global level, there has been a noted shift toward a knowledge-intensive approach in markets and economic activity, causing an increase in academic interest into how knowledge is created and transferred (Dakhli & De Clercq, 2004). It forms what is referred to as 'soft infrastructure' that forms the basis of innovation (Stough et al., 2012). Knowledge is a key driver of innovation, and emerges from varied sources of knowledge as opposed to single sources brought together and configured within the organisation (Gubbins & Dooley, 2014).

While there is no real consensus on what defines knowledge assets (also referred to as intellectual capital), it is operationalized in this research as: the information and expertise drawn from the social networks, human capital, R&D and patents (structural capital) of a firm, which increases the firm's understanding and allows for more innovative strategy and decision making (Bontis, 2001; García & Bounfour, 2014; Kulkarni & Freeze, 2007). Acquaaah and Eshun (2010) conducted a longitudinal empirical study of the moderating effects of social networking and found support for the merits of networking among high level management and officials in Ghana. Countries in Africa, the Middle East and Asia have been found to register higher prevalence of social networking ties, and this is thought to be because of the emphasis on collectivist culture in those regions (Acquaah & Eshun, 2012; Hyden, 2012). The value of SC seems magnified in emerging economies, which have also joined in the increased drive to identify, measure and capitalize on knowledge resources, which institutions such as The World Bank argue to be important than tangible resources in determining standard of living for the current knowledge revolution (Malhortra, 2003). In emerging economies where institutions tend to be weak, networks play a big role in filling the gaps that are left by dysfunctional institutions (Adomako & Danso, 2014; Zoogah et al., 2015).

The Economics of Social Capital

Studies confirming the value of SC as a knowledge asset that could valuably contribute to economic development were ignited by Putnam (1993). He asserted that regions with good economic systems and well integrated political systems were a sign of successfully accumulating SC. While intuitively appealing, SC has not been adequately recognised as an economic good due to the difficulty in measurement as well as the paucity of the empirical data around it (Dasgupta, 2005). Westlund and Adam (2010) in a meta-analysis of SC research note that the majority of the studies that attempt to attribute economic benefit to SC do so through the measurement 'trust' (institutional and personal). Doh and Acs (2010) put forward there are at least two elements of SC outside of trust that need exploration such as associations and civic norms.

Despite this, research into the effects of SC has recorded some definite economic benefits such as: reduction in transaction costs where there is insufficient institutional support (Adomako & Danso, 2014; Zoogah et al., 2015); development of innovation agglomerations such as Silicon Valley (Fukuyama, 1995); increased likelihood of an individual's self-employment or entrepreneurial activity as a result of increased SC (Doh & Zolnik, 2012); as well as the contribution of SC to value that is captured in knowledge economies (Westlund, 2006).

2.3.4 *Social Capital and Innovation*

As discussed above, Schumpeter (1942) considered the heart of innovation to be the creation of new combinations; this implies heterogeneity of sources of capital in which to draw new configurations to innovate (Westlund, 2006). Social capital is not traditionally considered as an 'innovation inducing' variable, as opposed to factors such as structural dimensions of organisations, management attitudes, technical capabilities and communication (Landry et al., 2002; Zheng, 2010). The shift in focus can be attributed to the fact that the locus of innovation is no longer seen as just the firm or the individual as early entrepreneurial conceptualisations suggested (Schumpeter, 1934). Increasingly it includes the network in which the firm and individual is embedded which is now seen to induce innovation; this makes the discussion around SC and OI poignant (Cantner, Conti, & Meder, 2010; Gubbins & Dooley, 2014; Landry et al., 2002; Westlund, 2006; Zheng, 2010). Firm growth theories such as the resource based theory recognise firm growth and innovative processes are a result of the ability of a firm to identify and exploit the heterogeneity of resources available to them, these include knowledge resources (Alvarez & Busenitz, 2001).

Landry et al. (2002) note that the distinct body of work that comprises 'social network theories of innovation' has shifted the focus of innovation literature toward the strategic importance of relational rather than just technical tools; that is emphasis is placed on knowledge networks as opposed to just technological networks as useful intangible factors for innovation, in line with the growing recognition of knowledge as a key factor of production as mentioned above.

Empirical studies examining the link between SC and OI have explored the value of intention engage cooperation for innovation, and the threshold at which it ceases being valuable (Cantner et al., 2010); the stages of SC knowledge management for OI and how the intricate process can be managed (Gubbins & Dooley, 2014); the ability of SC to not only motivate the innovation (product and process) of firms, but also to influence the radicalness of the innovation positively (Landry et al., 2002).

The acquisition of knowledge resources is done both formally and informally, with social networks acting as informal means through which firms can glean external knowledge, and therefore aids in accessing heterogeneous information flows (Parra-Requena et al., 2013; Zheng, 2010; Zoogah et al., 2015). The heterogeneity of the information is referred to as the 'network range' in literature (Burt R, 1992; Zheng, 2010). Landry et al. (2002) go as far as to argue that acquisition of knowledge that leads to innovation is no longer reliant on incumbency or hierarchy but rather on the ability of the firm to accumulate knowledge through their networks. The 'causality' of SC for innovation has been disputed in literature with some pointing out that SC could be a correlate of OI not a cause, as innovation in itself could *attract* large networks of people (Zheng, 2010). Arguments such as this highlight the need for more empirical examination into the relationship between the two, especially in SME's (Parra-Requena et al., 2013; Zheng, 2010).

While the value of knowledge assets secured by social networks is acknowledged, the point is made in literature that SC is not automatically good or bad for innovation, rather it will depend on its quality and intensity; ultimately the assessment and determination of its role is a question that needs empirical assessment, which so far has yielded mixed results (Cantner et al., 2010). In segregating the potential quality of sources of SC generated knowledge, Yiu and Lau (2008) examined how three categories of social capital related to firms. The three sources that they examined were: political capital, social/alliance capital and reputational capital. These will be discussed below in the hypothesis section.

Previous empirical studies that looked at the relationship of SC on innovation include Yiu and Lau (2008), Doh and Acs (2012) who found a positive relationship between SC and innovation but on a national level, and Parra-Requena *et al.* (2013) found that SC positively influences innovation when moderated by location (inside business districts of Spain) and when the firm possesses combinative capacity.

2.4 Environmental Risk: Hostility and Dynamism

This sub-section defines and contextualises the discussion around hostility and dynamism. As a moderating variable, understanding their origins and manifestations from the perspective of human behaviour and management literature was deemed necessary. Literature on the moderating effects of the risk they present on SC and OI concludes the sub-section.

2.4.1 Background and Definitions

Knight's (2012) dissertation *Risk, Uncertainty and Profit* highlighted the distinction between risk and mere uncertainty. Uncertainty is the basic unpredictability that cannot be calculated while, risk speaks to quantifiable 'disagreeable events' that can be analysed using past events (Wennekers, Thurik, van Stel, & Noorderhaven, 2007). Risk posed by potential hazards or even potential opportunities in a given environment is a necessary part of enterprise; risk is seen as a precursor for innovation as: if an enterprise attempts to eliminate every possible risk area it cannot create value (Di Gregio, 2005; Sadgrove, 2016). It has even been argued that risk and uncertainty are so closely joined with entrepreneurship, that we cannot have entrepreneurship without risk (Wennekers *et al.*, 2007). Environmental risk as a distinct field of study emerged with strategic management literatures' attempts to understand the appropriate managerial interventions needed in the contemporary global environment (Sirmon *et al.*, 2007; Uzokurt *et al.*, 2012). Business literature often categorises risk as 'known unknowns', that is, the existence of variables that we know but that we cannot determine precisely. Environmental risk for businesses means the impact that a currently unknown event or circumstance will have on

the business (Carayannis et al., 2014). Literature notes that conceptualisations of exactly what constitutes environment risk tend to build on Dess and Beard's (1984) three classifications of environmental munificence, complexity, and dynamism; this study will look at dynamism and hostility (the opposite of munificence) and they will often be referred to as environmental risk. The operationalization of hostility and dynamism under the umbrella of a single term (in this case environmental risk) has been seen before in research by Nandakumar, Ghobadian, and O'Regan (2010), and is motivated by ease of reference although this research will explore both concepts as they have different implications.

The terms hostility and dynamism are often used interchangeably but a distinction should be made between them.

Dynamism

Kearney et al. (2013, p. s333) define dynamism as the “degree of environmental predictability; it is manifested in the variance in the rate of market and industry change and the level of uncertainty about forces that are beyond the control of individual businesses.” Dess and Beard (1984) put forward that dynamism refers to unpredictable and rapid change which has the potential to cause uncertainty for firms and those who operate them. The origin of dynamism is therefore seen to be the broader business environment, and the dynamism refers to the manifestation of market and industry uncertainty.

Hostility

Urban (2010) posits that hostility refers to an unfavourable business climate for firms as a whole, which displays characteristics such as too many competitors, as well as poor economic and regulatory conditions. This definition incorporates characteristics of hostility that have been highlighted in the previous definitions mentioned below, such as aggressive competition, harsh business climates and uncertainty. Covin and Slevin (1989) define hostile environments as those that are characterised by harsh competition and business climates that do not allow for exploitation of opportunity. Dess and Beard (1984) describe hostility as the change that occurs within industries and refer mainly to the changing nature of

competitors, customer appetite and technological shifts; they are resource poor and support fewer firms. Hostility is distinguished from dynamism through its focus on actions of other actors in the industry and customers.

Hostility and Dynamism in Business literature

Previous research by Miller (1983) into how hostility impacts on businesses has found that there is a significantly ($r=0.26$, $p<0.10$) positive correlation between a firm's EO (which consists of innovation, risk taking and pro-activeness) and environmental hostility; while Miller and Friesen (1983) found that innovation (product, technology as well as top management risk taking and pro-activeness) specifically decreased as environmental hostility increased. Covin and Slevin (1989) found evidence that suggests that small firms that adopt an EO based posture perform better in hostile environments. Adomako and Danso (2014) found dynamism to be a crucial positive moderator in an emerging market context as they found it vital in explaining variation in general firm performance where institutions were weak and often underdeveloped. Other studies point to environmental risk acting as a source of information or as 'stock of resources' (Lumpkin & Dess, 2001). This is particularly true for smaller firms that are short of physical resources; information acts as a valuable resource and the value of available information increases or decreases based on the external environment which can change at any moment (Katila & Shane, 2005; Urban, 2010). This change in value is attributed to the individuals' perception of the environment and their ability to implement firm strategy to innovate (Di Gregio, 2005) as will be discussed below.

2.4.2 Human Behaviour Theory of Dynamism and Hostility

The value of understanding the environmental context is the ability to predict, or at the very least understand the behaviour, or innovative ability for purposes of this research, of actors who operate in those environments. Prior research has sought to use human and cultural behavioural science to explain why some countries innovate more than others, with one of the most popular offerings being made by Hofstede (1980). The framework he developed to explain what he called 'cultural dimensions' of national behaviours is called the Framework

for Dimensions of National Culture. This research identified four dimensions of national culture orientations that affected national wealth and economic growth of countries: collectivism versus individualism, masculinity versus femininity, power distance and uncertainty avoidance (Hofstede, 1980; Urban, 2008). Uncertainty avoidance was described as the degree to which alternative means or institutions are adopted to avoid uncertain futures as opposed to embrace them (Hofstede, 1980; Urban, 2008).

Literature has supported the notion that in countries that register a lower level of uncertainty avoidance, innovation will be higher (Dakhli & De Clercq, 2004; Shane, 1995) as they are willing to engage risk and uncertainty. Shane (1995) suggests that this is because champions of innovation in such environments are given roles of prominence or legitimacy than in countries that avoid uncertainty. Other authors suggest that such environments are suited for those with an entrepreneurial disposition to thrive as they are essentially wired to look for opportunities to maximise upside risk, co-creating opportunities with their environments (Di Gregio, 2005; Sarasvathy, 2001).

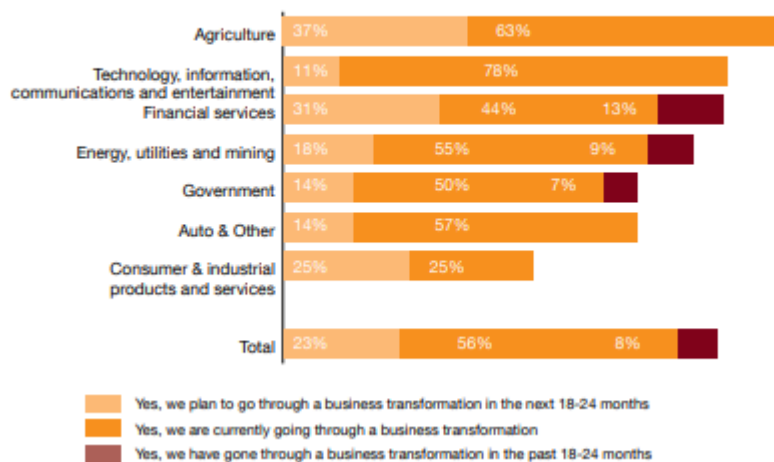
The topic of uncertainty or risk avoidance also incorporates the human behavioural science debate about whether entrepreneurs are risk averse or have a higher tolerance for risk than the average person. McClelland (1961) asserted that those who have high achievement needs (entrepreneurs would be counted among this group) actually only have moderate risk propensity. In his book *Originals* Grant (2016) details his experience with founders of the billion dollar ecommerce platform Warby Parker and other entrepreneurs, explaining his findings that the entrepreneurs were more risk averse than he had previously expected, choosing to take only 'calculated risk'. Evidence from research by Baron (1998) suggests that the issue is not risk aversion or risk propensity, but rather the fact that entrepreneurs actually perceive risk differently due to various heuristic differences. For the entrepreneur, Baron (1998) concludes risk perception is reduced; in other words, entrepreneurs are more optimistic and underestimate the risk they are facing (Urban, 2015). It is therefore suggested that entrepreneurs and the organisations that they manage will perform well in dynamic and hostile situations.

2.4.3 Management literature on risk

Contemporary management research notes the very real concern around environmental hostility and dynamism, particularly in the African context. In research specifically conducted around business risk in African environments, PwC Africa (2015) was able to determine that 87% of businesses surveyed (distinction was not made between small medium and large businesses) were undergoing what they referred to as “internally driven business transformation” to counter “powerful shifts in markets” or market risk, which characterise African environments (PwC, 2015, p. 14). While not referring to these internal transformations as OI, they considered innovation in business models and internal management initiatives part of their list of indicators of business transformation.

Figure 3: Organisational Transformation by Sector

Is your organisation transforming its business to respond to market shifts?



(Source: (PwC, 2015, p. 15)

This points to the need to understand the effects of risky environments and how they interact with organisations.

2.4.4 The moderating effect of risk

The value of adding a moderating variable is referred to in literature as 'elaboration', and serves to give insight into the question of 'under what conditions' will a predictor variables' relationship with a dependant variable be expected (Lumpkin & Dess, 2001). There is a dearth of empirical research that has used environmental dynamism and hostility combined as a moderating variable within a developing country context. Environmental conditions have a significant effect on strategy, as strategy is required to align positively with the external environment (Nandakumar, Ghobadian, & O'Regan, 2010; Uz Kurt, Kumar, Kimzan, & Sert, 2012). Empirical studies have looked at the moderating role of hostility and dynamism on entrepreneurial behaviour such as competitiveness and pro-activeness (Lumpkin & Dess, 2001); the moderating role of dynamism and hostility on business strategy and firm performance (Nandakumar, Ghobadian, & O'Regan, 2010); while on the African continent the use of dynamism as a moderator between firm performance and the Nigerian regulatory environment (Adomako & Danso, 2014).

Previous literature has posited that the greater the environmental risk and uncertainty the more likely a firm is to innovate in order to remain competitive (Naudé, Szirmai, & Goedhuys, 2011). So while it can be expected that environments such as the one under consideration here would result in more innovative behaviour, the role of perception must always be considered as mentioned above. The influence that an environment has on firms is perceptual in nature as firm managers' reactions occur in context (Kearney, Hisrich, & Antoncic, 2013; Marcotte, 2014; Plambeck, 2012). Perceptions therefore become an important tool to measure environmental dynamism and hostility, as perception of the environment determines how resources are perceived as well as what strategy would be implemented (Urban B. , 2010). This was an important consideration in selecting the population for research, which in this case of management of SME's who are aware of firm strategy.

Risk, Social Capital and Innovation

In dynamic and hostile markets, much of the risk is a result of information asymmetry which affects the way that a firm would manage its resources or form competitive strategies (Sirmon, Hitt, & Ireland, 2007). Entrepreneurs are thought to do this well and so respond better in risky environments. SC theory compliments this assumption in that it advances that networks' value lie in their ability to help those in the network benefit from information asymmetry (Nahapiet & Ghoshal, 1998). Di Gregio (2005) posits that in environments considered uncertain or risky, information becomes a valuable resource that the entrepreneur leverages on to make decisions that amplify their competitive advantage. Largely inspired by Kirznerian theory of the 'alert entrepreneur' who is able to discover opportunities that others do not, much of the research that deals with entrepreneurship in risky environments attributes the ability of the entrepreneur/entrepreneurial team to recognise opportunity that others do not see as the key to innovation (Marcotte, 2014).

Networks provide information that facilitates the distribution of valuable information, and the value of understanding the mechanisms through which it does so, is a form of intellectual capital. Social capital appears to be well suited for use in risky environments, because unlike organisational intellectual capital as it is not codified and institutionalised, and unlike human capital it exists outside of individual actors (Subramaniam & Youndt, 2005). Its main benefit in such contexts is that it is a 'flexible conduit' for transferring knowledge, and is able to accrue to the organisation as well as the individual (Subramaniam & Youndt, 2005). While the assumption that the effect of environmental risk will be positively correlated to innovation is commonly made in literature as noted above, more empirical evidence is required to substantiate that claim when it comes to emerging contexts (Nandakumar et al., 2010; Uzokurt et al., 2012).

2.5 Political capital and Innovation

Political capital refers to the benefits such as social legitimacy and political leverage that accrue to a firm after the long term cultivation of political relationships (Yiu & Lau, 2008). These social networks are identified to be used

as key channels to access information, as well as provide connections to expedite transactions that require government approval (Adomako & Danso, 2014; Yiu & Lau, 2008; Zoogah et al., 2015). Literature notes that in countries with institutional inadequacies and regulatory weaknesses, political networks play a large role in ensuring security of private businesses (Adomako & Danso, 2014). In developing economies with a legacy of command culture such as Zimbabwe, market institutions remain underdeveloped leaving the state in control of key resources and information (Li et al., 2008). Even in economies such as the United States of America, political connection can ease the burden of regulatory constraints and ease access to crucial lifelines such as government bailouts (Boubakri, Guedhami, Mishra, & Saffar, 2012). The value of political ties has been identified as having a positive influence on firm performance as they serve to overcome structural weaknesses, by reducing the transaction costs of doing business (Adomako & Danso, 2014; Zoogah et al., 2015).

As mentioned above, political capital should not be equated with institutionalised discrimination. Akcigit et al. (2018) distinguish between political capital that is merely used as a way to reduce the burden on bureaucracy without disadvantaging the welfare of the population, what they refer to as information that '*greases the wheel*' (Kaufmann & Shang-Jin, 1999). They contrast this with rent seeking behaviour that carries a high social cost, what they term as the '*grabbing hand hypothesis*' (Shleifer & Vishny, 1994).

While the literature would suggest a positive relationship between OI and political capital, research of a similar kind has not been done which speaks directly to the effect of political capital on OI. Existing studies have emerged from China, where a positive relationship was found between political connections a firms performance (Du & Girma, 2010; Li et al., 2008; Yiu & Lau, 2008), Italy which found benefit between political capital and firms growth and survival (Akcigit et al., 2018), and Nigeria (Adomako & Danso, 2014).

Ademako and Danso (2014) note the paucity of research that empirically assesses the ability of political ties to improve firm performance, in particular innovation, within the African context. While Ademako and Danso (2014) looked

at the moderating effect of dynamism, their study did not include hostility as done here. As such, this research will explore this hypothesis.

Hypothesis 1 (H1): The relationship between political capital and organisational innovation will be positively moderated by environmental hostility and dynamism

2.6 Alliance Capital and Innovation

This is most commonly assessed aspect of source of social capital (Yiu & Lau, 2008). Landry et al. (2002) recognise that these networks are formed and nurtured within the course of doing business and fall into three categories: business, information and research networks. Business networks draw information from suppliers, their clients, competitors, venture capitalists, private equity networks and those who they engage for consultancy services. Information networks offer information from trade fairs and exhibitions, professional conferences, meetings as well as publications, and patent documents. Finally research networks cover research laboratories, technology transfer organizations in their industry, as well as universities, and community colleges.

Landry et al. (2002) argue that when looking at SC that is derived from these networks, looking at one source will not suffice and different sources must be singled out and measured independently. As such alliance capital/alliance ties in this research refers to the ties that exist with a firms business partners, suppliers, customers, and other business networks such as interlocking directorates (Landry, Amara, & Lamari, 2002).

Literature puts forward that these networks are strongly linked to the ability of the firm to increase its innovative ability. The ability of these networks to not only supply information but also directly provide access to resource capital such as venture capital was found to be positive by Mitchell and Singh (1992), while

Oliver (1997) argued alliance ties were found to give access to assets, competencies, or capabilities which are not accessible for firms outside of the network in competitive factor markets, and they were shown to mitigate time compression diseconomies and tap into 'history-dependent competencies' that are not easily available in competitive markets (Yiu & Lau, 2008). While literature has shown the ability of the firm to increase a firms' innovative ability, more research is needed in an African context.

Hypothesis 2 (H2): The relationship between alliance capital and organisational innovation will be positively moderated by environmental hostility and dynamism

2.7 Reputational Capital and Innovation

Reputational capital is a term that is used to refer to the intangible and imitable asset that arises from the situation whereby firms or entrepreneurs attain legitimacy through association with or by obtaining formal certification from well-regarded individuals and organizations within their networks (Hoang & Yi, 2015). Examples of this form of SC are recognition in terms of awards, as well as innovative collaborations and relationships with universities (Yiu & Lau, 2008). Reputational capital is said to ease information asymmetry by conferring legitimacy on a firm in the absence of established objective quality measures, such as in dynamic and hostile environments. This is because certain relationships or associations can create a form of 'signalling' from the perspective of other people in network and even those outside it (Hoang & Yi, 2015). This endorsement confers what is known as a 'status hierarchy' which affords firms or entrepreneurs a premium on the perception afforded the firm, in terms of quality of performance (Hoang & Yi, 2015). This allows information and access to resources to be afforded to a firm on the strength of the firm's reputation.

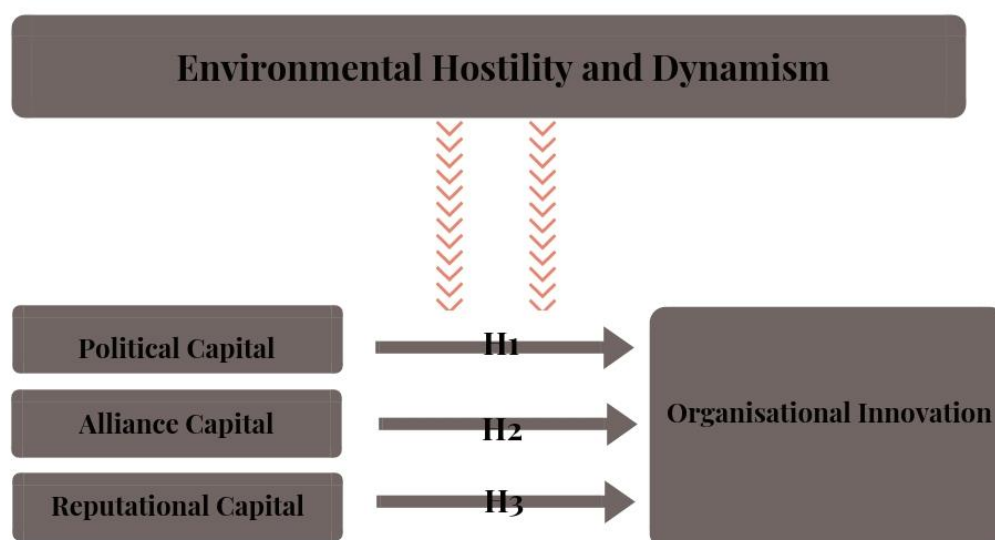
It has also been suggested in literature that the appetite to innovate may be reduced by firms who want to avoid reputational risk by avoiding unsuccessful innovations thereby maintaining the reputation they had built, that is maintaining

its ‘reputational resilience’ (Yiu & Lau, 2008). Alternatively, can also be argued that because the conferral of awards can be seen to indicate market endorsement of the quality of innovation as well as the firms’ research activities; the assumption is a firm can be emboldened to continue to innovate in order to validate this assumption (Soh, Mahmood, & Mitchell, 2004). The example is given of big firms such as technology company Apple who actively invest in their brand reputation. Apple has built its reputation on innovative design, or Google which has built a reputation on innovative ways of working within their organisation; innovation is spurred by their reputation (Skroupa, 2017). It can therefore be inferred that reputational capital is a driver of OI.

Hypothesis 3 (H3): The relationship between reputational capital and organisational innovation will be positively moderated by environmental hostility and dynamism

2.8 Conceptual framework of hypotheses

Figure 4: Research Conceptual Framework



(Source: Authors Own Work)

2.9 Conclusion of Literature Review

As noted above, innovation research requires a move towards understanding non-technological antecedents of innovation in order to grasp the multidimensional nature of innovation (Cooper 1998; Damanpour et al., 2018; Fiol, 1996). This is particularly needed especially when dealing with innovation in entrepreneurial literature the entrepreneur or the entrepreneurial organisation by nature are understood to be socially situated and able to use multiple resources to gain a competitive advantage (Kirzner, 1997; Marcotte, 2014; Sarasvathy, 2001). In understanding the OI of SME's, prominence is given to an area of research that needs more attention, especially in emerging market contexts.

SC is a variable that fits in with a more knowledge based approach to innovation, and has been noted in literature as having a positive relationship with innovation (Cantner et al., 2010; Gubbins & Dooley, 2014; Landry et al., 2002). While the concept has met with controversy owing to the lack of accurate measures, as well as the negative forms of SC, the concept remains a useful tool for entrepreneurship study, especially in a context which is recognised on placing value on social networks (Gedajlovic et al., 2013). Not all sources of SC are equally useful or valuable, thus this research distinguishes between reputational capital, alliance capital and political capital, in order to obtain a nuanced view of the sources of capital that provide the greatest return value (Yiu & Lau, 2008).

The value of research, however, is how well it fits into the context in which it seeks to be applied (Zoogah et al., 2015). Environmental risk manifests in the form of hostility and dynamism. These characterise many emerging economies. Literature was put forward that argued that these risk elements would positively moderate the effect on OI. The basis of this being individual heuristics, cultural factors as well as empirical studies that argue that information asymmetry is a catalyst for upside risk. The assertion that there is a positive moderating effect must be considered (Adomako & Danso, 2014; Sirmon et al., 2007). This is especially true for a country such as Zimbabwe which has had decades of well publicised dynamism and hostility which pervades every aspect of business;

research into just how these firms respond to these conditions will prove valuable.

CHAPTER 3: RESEARCH METHODOLOGY

Research in business involves more than mere survey administration; it is an intentional process of 'truth-seeking' through the application of scientific methods of collecting, analysing and evaluating data, and reporting its implications (Zikmund, Babin, Carr, & Griffin, 2013). Methodologies are not 'neutral tools', the methodology that a researcher employs speaks to how a researcher imagines the nature of reality and how to examine it (Bryman & Bell, 2011). As such, this section will outline the methodology used to address the research objectives presented in section two. It will discuss the method of data collection, selection of population and sample size, the research instrument, data collection, analysis, and interpretation methods that were adopted for this study. In addition, the reliability and validity of the study will be discussed, as well as the limitations and ethical considerations of this research.

3.1 Research Methodology /Paradigm

Research paradigms reflect the researcher's belief on how the research should be done, and this choice will impact the method adopted for analysis (Bryman & Bell, 2011). Social science research, and as a result business research, has not enforced a dominant research paradigm, which avoids 'absolutist analysis' and allows for variety in research approaches (Hassard, 1991). Burrell and Morgan's (1979) model of paradigms is widely accepted as a useful way to categorise the assumptions researchers make in approaching their research. This research is a correlational study to determine the relationship between three forms of SC (IV) and OI (DV), moderated by hostility and dynamism; a scientific inquiry that requires definitive techniques to isolate probable causes for occurrences (Cohen, Manion, & Morrison, 2013). This requires an objective stance that allows for the scientific interrogation of observations made; as such this research adopted a paradigm grounded in what Burrell and Morgan (1979) refer to as positivist epistemology and realist ontology.

Positivism assumes the existence of an objective truth that is observable and subject to scientific determination of cause and effect (Sekaran & Bougie, 2016). It therefore allows for deductive reasoning to examine the relationship between theory and research; as such hypotheses will be formulated and subjected to empirical analysis (Bryman & Bell, 2011; Sekaran & Bougie, 2016). In keeping with the objective approach, the ontological position of this research is realism which assumes the state of affairs can be reliably determined by observing the fixed external reality, which exists independent of individual cognitions (Bryman & Bell, 2011; Cantner et al., 2010). The strategy adopted for this research is a quantitative analysis.

Quantitative research has gained prominence as theory is increasingly seen as a scientific prediction (Creswell, 2014). As a research strategy it emphasises the quantification of data collection and analysis (Bryman & Bell, 2011). Following a positivist approach which seeks to identify scientific objective truth, this research was collected using a structured questionnaire that adopted a seven point Likert-scale, with statistical methods used to execute data analysis. Quantitative research adopts an interlinked set of variables which form hypothesis that specify the relationship between variables (Creswell, 2014), as seen in the structuring of the research instrument. The hypotheses were formulated using variables identified in extant literature as having a correlation with OI. As an exploratory study, its primary objective is carving out questions for future research (Cooper & Schindler, 2014).

3.2 Research Design

Inadequate research design results in insufficient engagement with a research question (Bryman & Bell, 2011; Cooper & Schindler, 2014); as such a cross-sectional design was selected due to it being seen as the most commonly used design to meet the objectives of business survey research (Bryman & Bell, 2011). The compatibility of cross-sectional design with this research is due to the nature of cross sectional design, which collects data on one or more cases,

at a single point in time to collect quantitative data in order to detect 'patterns of association' between one or more variables (Bryman & Bell, 2011). An additional motivation was the use of the same design in research studies similar to that undertaken here (Adomako & Danso, 2014; Yiu & Lau, 2008).

The usefulness of surveys in this design was seen not only in the fast pace of data collection, but also for the ability to use a section of the population to assess prevalence of a larger population group (Cooper & Schindler, 2014). Additionally, it allows for what Fowler (2009) referred to as versatility in data collection. Owing to the large geographical area that the study covered, survey-questionnaires were efficiently and cost-effectively distributed via Qualtrics software, and by hand, with no need for follow-up at a later stage as the study captures a single period (Cooper & Schindler, 2014).

While this design method will suffice for this study, it is noted that a study on dynamism would benefit from a longitudinal study to determine responses at various stages of stability. A longitudinal study would have given a comparative view of perceptions toward uncertainty as they develop over time (Cooper & Schindler, 2014).

3.3 Population and Sample

3.3.1 Population

It is estimated that SME's comprise 70% of Zimbabwe's workforce of 7.8 billion people (Reserve Bank of Zimbabwe, 2017). While national efforts have been made to accurately assess the number of SME's in Zimbabwe, lack of formalization makes it hard to obtain a figure of SME's at unit level, which is what is under consideration here (The Chronical, 2019). This is true at national level as well in the geographic location under consideration. The researcher made use of the SMEAZ and Zimbabwe YP databases as they were deemed to be up to date. These lists combined boast a total of 135 SME's within the geographical region under research. This research took SME's located within the Harare provincial area as unit of analysis in the population of interest (i.e.

unit of analysis was the firm). Managers (junior, senior and middle) were asked to fill out surveys. The selection of all levels of management to assess OI is motivated by the need to see innovation in organisations as more than a top down process, but one that considers the firm as a whole. The selection of high middle and low managers finds precedence with the work of business management authors Hornsby, Kuratko and Zahra (2002), who measured 'entrepreneurial action' in terms of 'new ideas implemented by the firm' by interviewing managers at all levels. They argue that because the success of managers' roles depends on their ability to execute entrepreneurial ideas, more should be done to understand the perception of managers; as 'perception and position' are important. Furthermore, SubbaNarasimha (2001) argues for a less 'myopic' understanding of strategy implementation and creation when dealing with firm strategy in 'turbulent' environments. This arguments originates in resource based theory, and notes that managers can be viewed as a stock of knowledge who in 'turbulent' environments do not act as mere executors of strategy, but their insight is a valuable source of competitive advantage.

The geographical specification was made as literature recommends population selection consider factors such as expense, time, and accessibility, so as to not compromise on the quality of research (Cohen, Manion, & Morrison, 2013). As mentioned above, due to the sensitivity of information such as annual turnover, as well as concerns over accuracy in revenue reporting owing to currency conversion discrepancies, this paper uses the SEDCA classification of an SME small enterprises having a maximum of 40 employee's, while medium have a maximum of 75 employee's (Small Enterprises Development Corporation Act , 2011). SME's in all sectors of the economy were considered.

Organisations with directories of SME's such as the Small and Medium Enterprise Association of Zimbabwe (SMEAZ) were used to identify suitable firms in the hope of limiting selection bias (Sekaran & Bougie, 2016).

3.3.2 Sample and sampling method

Non-probability sampling, using the convenience sampling method was employed to collect data for this research. Convenience sampling is used when

the researcher has access to a population that is convenient and readily available to provide information (Sekaran & Bougie, 2016). This form of sampling was selected as convenience sampling is understood to be the most suitable form of sampling to leverage any accessibility available to the researcher (Bryman & Bell, 2011). While less desirable than probability sampling in that it cannot be generalised, it is well suited for exploratory research as it allows for the quick and inexpensive acquisition of preliminary information, such as that gleaned in exploratory studies (Sekaran & Bougie, 2016).

Due to the limited availability of accurate data in Zimbabwe, the total size of the target population could not be accurately determined. The sample size was therefore computed using minimum sample size recommended for multiple correlation or regression analysis. Green (1991) recommends that a sample size of $N > 50 + 8m$ (m =independent variables) be used; using that formula $N=90$ ($50+40$). It is however recognised that larger sample sizes are useful especially when effect size is small, so Wilson et al. (2007) recommend using 30 respondents per variable, which would result in $N=150$ for this study. Considering these literary positions, the target size was $N=150$, with $N=90$ an adequate minimum.

Table 5: Summary of Sampling

Variable	Description
Target population	SME's in Zimbabwe
Target sample size	150
Geographical survey	Harare Province
Sampling unit	Organisation
Respondents	Management level

The target number of responses was $N=150$; it was hoped that 300 responses would be sent out electronically to achieve a response rate in the range of 50%. Initially questionnaires were sent via email, but the low response rate on the first

email batch was quickly noted, and physical questionnaires were also employed. In total 150 paper questionnaires were delivered to SME's, with 84 completed questionnaires being collected by research assistants recruited to assist with the process. In addition, research assistant's used their electronic devices to allow respondents to either complete questionnaires on the spot, or to forward the questionnaire via anonymous link. This significantly improved the electronic response rate, addressing the concern of non-response error which was raised in the proposal of this research. In total it is estimated that between 200 and 250 questionnaires were sent out either electronically or through physical questionnaires, and a total of 104 complete responses were collected. This allows for an estimated response rate between 41.6% and 52%.

3.4 The research instrument

Table 6: Measurement instrument

Description of construct/variables	Sourced from	Prior reliability and validity issues	Type of data	Question number
Political capital	Yiu and Lau (2008)	None. Cronbach value $\alpha = 0.84$	Ordinal	1-4
Alliance capital	Landry et al. (2002)	None. Cronbach value $\alpha = 0.90$	Ordinal	5-8
Reputational capital	Yiu and Lau (2008)		Ordinal	9-10
Organisational innovation	Yiu and Lau (2010)	None. Cronbach value $\alpha = 0.85$	Ordinal	11-14
Environmental dynamism	Urban (2010)	None. Cronbach value $\alpha = 0.717$	Ordinal	15-20
Environmental hostility	Urban (2010)	None. Cronbach value $\alpha = 0.742$	Ordinal	21-25

(Source: Authors Own Work)

The research instrument for the study can be found in Appendix A. It is an adaptation of the instrument employed by Landry et al. (2002), Urban (2010),

and Yiu & Lau (2008). The use of scales that have been used before allows for reduced risk of external validity, in that the survey is shown already to measure what it seeks to measure (Cooper & Schindler, 2014). The adaptation involved only testing for OI as a dependant variable, as well as wording the questions in a way that brought clarity for respondents as the pilot study showed that respondent struggled to grasp concepts being asked. Section A measures alliance capital, political capital and reputational capital. Alliance capital was derived from Landry et al. (2002), and two questions were removed reducing the items on the scale from six to two. Reputational capital and political capital were derived from Yiu and Lau (2008). Section B assesses the perceptions of firm innovation as derived from Yiu and Lau (2008). Section C presents questions used to assess perceptions of environmental factors, and is derived from Urban (2010). This section used questions that were reverse coded. The benefits of reverse coding is that it prevents respondents from answering carelessly in that the scale is reversed, thereby correcting agreement bias (Sekaran & Bougie, 2016). The instrument presents closed questions using a 7 point Likert scale, as closed questions allows for quick decisions and a 7-point Likert scale aids in enhancing accuracy of results (Bryman & Bell, 2011). The final instrument consists of 25 questions which were administered via online survey on Qualtrics as well as paper questionnaires.

3.5 Procedure for data collection

Data used in this research consisted of primary data sourced through a survey questionnaire. The procedure for data collection has been summarised into two phases, as described below.

3.5.1 Phase one

Initially, data was to be obtained electronically via email, in order to keep the cost of the research low, and allow for speedy collection over a vast geographic location (Cooper & Schindler, 2014; Sekaran & Bougie, 2016). Identification of SME's was done via searches of available online data bases. Nineteen of the firms contacted were responsive to phone or electronic communication.

Furthermore, five larger corporations that utilize SME's in their supply chains were approached to distribute the survey to these companies. All but one declined to participate; and while the assenting company agreed to distribute the survey to their database via an anonymous Qualtrics link, no responses were received from the assenting corporations' SME's.

In distributing the survey, an email containing the body of the cover letter in appendix C was sent along with a link to the survey which was loaded onto Qualtrics website, after an introductory call was placed to explain the research and determine the best person to assist with distribution. Peoplepulse (2018) notes that personalisation of emails as opposed to anonymous/generalized links can increase response rate by 7%. Additionally, personalised emails allow for accurate calculation of the sampling frame as each questionnaire is accounted for. Despite this, the decision was made by the researcher to use an anonymous Qualtrics link when distributing the survey to make the survey easily shareable by the contact person in each organisation as the benefits exceeded the perceived losses. Motivation for this decision can be identified as:

- A pilot study undertaken by the researcher revealed that since anonymous Qualtrics links are shareable (as opposed to single-use links which attach to an individual's email address), they are more effectively administered within the organisation as employers were reluctant to give out employee email addresses for this research.
- It allows for multiple people in an organisation to be surveyed, as opposed a single respondent to represent an organisation which Bryman and Bell (2011) caution against, as using a single view to represent an organisation may not give an accurate account.

3.5.2 Phase Two

It was clear within the first few days that email responses would prove insufficient due to a lack of responses. Additionally, Zimbabwe suffers from a lack of representative organisations for SME's which group SME's online, as SME's have only recently been urged to formalize (SMEAZ, 2019). This means that while online databases are useful, they do not represent a large population

of SME's. Cognisant of both these issues, the strategy was changed in order to optimise data collection, and lower barriers to participation.

Two research assistants were tasked with physical collection of SME's in Harare Province, from SME's who met the criteria discussed above. Collection was done via paper questionnaires, and if appropriate via use of the researchers' device to complete the link via Qualtrics, as described in section 3.3.2.

The timeline of the data collection process is shown below.

Table 7: Research and Data Collection Timetable

	November 2018	December 2018	January 2019	February 2019
Finalised research proposal				
Gained approval				
Gathered data				
Did data analysis				
Wrote report				
Finalised and submitted report				

(Source: Authors Own Work)

3.6 Data analysis and interpretation

Data analysis was initiated after the completion of data collection. The process taken was as follows.

3.6.1 Data Preparation

Data must be 'cleaned' in order to ensure the integrity of the conclusions reached from the data set. For example missing values and outliers (abnormally

high values) introduce bias to the model (Field, 2013). Data was downloaded from Qualtrics into Excel, and the data obtained in the form of physical questionnaires was added to the document. Cleaning of data was done by removing missing values as, as well as columns of information that were deemed unnecessary for the study such as the IP addresses of respondents. The literary support for the method of removal of missing values used here is discussed below.

Missing Values

Once data was collected, questionnaires with missing data from phase one and phases two of the data collection were noted. Missing data occurs at either unit level or item level: unit level refers to a whole survey not being completed, while the item level refers to incomplete responses obtained from a survey (Dong & Peng, 2013).

Missing item level data must be considered as a certain proportion of missing data could impact on model estimates (Swalin, 2018). While literature presents no hard rule on what to do with missing data at item level, understanding the reason for missing data plays a major role in the decision on inclusion or exclusion of data from analysis; that is, understanding the missing data mechanism. Incomplete values can occur as a result of other observed data (missing at random-MAR); random omission in that a values' omission has nothing to do with it's perceived hypothetical value, or relationship with other variables, by respondents and is unsystematic such as lost questionnaires (missing completely at random-MCAR); or the omission can be as a result of negative perception of the hypothetical value of the questions, or its ambiguous phrasing (missing not at random-MNAR) (Swalin, 2018). Omission of MAR and MACR values does not introduce any bias to the model.

All but one incomplete questionnaire were eliminated (excluding list-wise), which is a recommended route when the sample size is large enough to ensure normality. Using the Central Limit Theorem which assumes normality over a sample size of 30 (Field, 2013), this sample size was deemed large enough to exclude list-wise. 'Phase two' physical and Qualtrics surveys were completed

fully owing to the presence of a research assistant (except one questionnaire, with a 3% missing values which was included). Qualtrics surveys in 'phase one' presented high levels of missing values as seen in the table below, all presenting missing values of over 5%. Literature recommends that responses which present over 5% of missing data be excluded from evaluation (Statistics Solutions, 2018). The electronic responses with missing values were excluded based on this. Furthermore, there was no evidence to suggest MNAR values, so their exclusion would not bias the model. Incomplete electronic responses were largely as a result of unit level non-completion as opposed to weaknesses in particular questions (item level). Additionally, feedback was received that responses were not completed owing to the Qualtrics platform not working well with slower internet speeds which faced many respondents in Zimbabwe.

Table 8: Missing Values Analysis

Case	# Missing	% Missing
17	2	6.7
21	2	6.7
2	6	20.0
32	11	36.7
27	15	50.0
36	19	63.3
24	25	83.3
25	25	83.3
16	25	83.3
37	25	83.3
35	26	86.7
31	30	100.0
22	30	100.0
34	30	100.0
30	30	100.0
23	30	100.0
38	30	100.0
39	30	100.0
29	15	50.0

(Source: Authors Own Work)

3.6.2 Analysis of data

Data was then uploaded to SPSS and data was then coded as shown below:

Table 9: Coded Variables

Section	Variable	Original scale	Coded scale
Section A	Political Capital (P); Alliance Ties (S); Reputational Capital (R)	Not influential – Extremely influential	1: Not influential- 7: extremely influential
Section B	Organisational Innovation (INOV)	1:Never true – 7:always true	1: Never true- 7: always true
Section C	Hostility (H); Dynamism (D)	1:Strongly agree – 7:strongly disagree	1: Strongly agree- 7: strongly disagree

(Source: Authors Own Work)

Demographic Data Analysis

The demographic data statistically outlines the characteristics of a sample population (Cooper & Schindler, 2014), and was assessed here using descriptive analysis of the demographics of the sample. This measured duration of employment, position of respondent, gender as well as the sector of operation; results were visually reported using charts and graphs. Results were cross tabulated for more extensive analysis. Spector and Brannick (2011) warn against the ‘vice’ of concluding that demographic data collected cannot be explored for its effects. This paper acknowledges the role of demographics as control variables, and they are discussed in Chapters 4 and 5.

Descriptive Data analysis

This part of the analysis assists with screening of data, testing of assumptions and determining sampling adequacy (Field, 2013). Assumptions were tested such as normality of distribution, mean and median of distribution, standard deviations, as well as determining the extent of skew and kurtosis in the sample. While small levels of skew and kurtosis were noted across scales as seen in figures 11-14, Field (2013) recommends the Central Limit Theorem be adopted to assume normal distribution in large samples such as this. Sampling adequacy was satisfied for both regression and CFA analyses.

Integrity of Variables

A Pearson correlation analysis (r) using Cronbach alpha was done to determine the relationship between variables. Correlation analysis determines the extent

and direction of the relationship between two variables (Hair, Anderson, Babin, & Black, 2010). A secondary benefit ensures that variables in a questionnaire are not so closely related that they measure the exact same thing (values of -1/+1); or that they have a linear relationship at all (value of 0 means there is no linear relationship) (Field, 2013). The variables were also assessed for validity and reliability. Validity was done through the CFA analysis. As described below

Regression and Moderation Analysis

Moderated Multiple Regression (MMR) analysis was performed once assumptions were met in order to determine how hostility and dynamism moderate the relationship between SC and OI. In line with a large proportion of SC research (Westlund & Adam, 2010), the method of least squares (OLS) was used for the regression analysis. For each hypothesis a base model was built which represented the un-moderated regression between SC and OI, and this was compared to a moderated model included hostility and dynamism. MMR is a useful analysis tool for assessing the interaction effect of a continuous variable as it provides information about different slope values (Aguinis & Stone-Romero, 1997). To determine the effect of the moderating variables, the R^2 values are assessed to determine the change value which is reported as a percentage; a value of 50% change explained by to the moderating variables is considered acceptable for human sciences as human behaviour is difficult to accurately predict (Aguinis, Edwards, & Bradley, 2017). Accepting a value less than 50% means that more than half of the change may be attributed to other factors than what is posited, which is as insufficient statistical argument.

Aguinis et al (1997; 2017) suggest certain precautions be taken when running the MMR in order to avoid unsuccessful or statistically insignificant moderation results when running the MMR. The precautions below were followed in accordance with their recommendations:

- Avoiding the artificial dichotomisation of continuous variables; in this instance hostility and dynamism were analysed in their continuous form
- Ensure uniformity of sample size across scales. All of the scales were fully answered with the exception of the dynamism scale, under which

one respondent did not complete the section as one response was missing, which falls within the acceptable range of missing data (5%) noted above.

- Adequacy of sample size to obtain a statistically powerful result. Recommendations vary and while efforts were made to collect more, a sample size of 104 was obtained, Hair et al. (2010) estimates that with a $p < .05$ significance level this would yield a minimum value of $R^2 = 12\%$.

3.7 Validity and reliability of research

Ensuring the 'goodness of measures' in questionnaires allows for enhanced scientific quality (Bryman & Bell, 2011; Sekaran & Bougie, 2016), particularly in cross-sectional design. Validity and reliability assess the goodness of measure; where validity is concerned with measuring the right concept, reliability concerns itself with stability and consistency of measurement (Sekaran & Bougie, 2016). Validity in quantitative research implies that the researcher can conclude that their interventions affect outcomes, and is not incidental to factors out of the study (Creswell, 2014). Reliability is essentially the question of whether the results are repeatable (Bryman & Bell, 2011). These questions are explored in this section.

3.7.1 External validity

External validity speaks to the generalizability of data (Cooper & Schindler, 2014). Creswell (2014) put forward that inaccurate external validity occurs when a researcher attempts to draw incorrect inferences and apply data obtained to other people, situations and time periods. In essence there are two main threats that exist in terms of external validity: interactive testing effect and selection bias (also specified as sampling bias) (Sekaran & Bougie, 2016). As no pre-test assessment was done there was little concern for the interactive effect of the study on participants. Selection bias for external validity is a concern in non-probability sampling as seen in this study, as it involves discounting sample

subjects for a variety of reasons, with the effect that the final sample grossly misrepresents the population.

The narrow characteristics of participants of this study were noted and the following concerns arose and were remedied:

- SME databases for Harare based SME's were not sufficiently representative of the population. They therefore were not exclusively relied on to select SME's to respond.
- The initial questionnaire was an online questionnaire, as mentioned earlier slow internet speeds prevented a few respondents from being able to respond online. In order not to create a bias toward those with access to faster internet, additional means to respond were provided.
- Physical questionnaires immediately introduce the possibility of geographical bias in that the data collector may be tempted to collect only from places in close proximity to them. To combat this, research assistants were briefed to ensure they cover a broad geographical area.

3.7.2 Internal validity

Internal validity speaks to the extent to which an instrument can measure what it intends to measure (Cooper & Schindler, 2014). It relates to the issue of causality; that is, are the consequences caused by what we are measuring or by something else (Bryman & Bell, 2011). Threats to internal validity are presented by 'confounding factors', which provide alternative explanations of how the outcome variable is obtained (Sekaran & Bougie, 2016). The 'confounding factors' that were identified in this study include compensatory demoralization and selection bias. The former refers to the disinterest people had after noting they receive nothing in exchange for their response, while the latter referred in respect of internal validity can be described as the influence of participants' experience or perceptions that impact the researchers ability to accurately capture insight about the data in the experiment (Creswell, 2014).

To mitigate the risk of internal validity arising from compensatory demoralization, although compensation could not be offered, respondents were

notified that no other participants in the study were paid. Perceptions remained a concern, especially related to how people perceived hostility and dynamism, as will be discussed in chapter 5.

3.7.3 Construct Validity

Also referred to as measurement validity, it is a feature of quantitative social science research, that want to ensure that measures that are selected for constructs actually measure these concepts. To ensure construct validity, tried and tested scales were adopted. To measure SC scales were adopted from Yiu and Lau (2008) as well as Landry et al. (2002); to measure OI scales were taken from Yiu and Lau (2008); and Urban's (2010) study was used to get accurate construct measures for hostility and dynamism.

The CFA was selected to determine the reliability of the scales due to the fact that a good fit of the CFA model ensures that all possible latent-variable structural models are reflected within the analysis (Ho, 2006). This results in minimum loss of information from the instrument (Hair et al., 2010). The analysis was done using the R Core Package (2018). Goodness of fit was determined using the Root Mean Square Error of Approximation (RMSEA) for statistical estimation. The RMSEA was selected because unlike the Chi Square value, it also takes into account the error of approximation in populations, as it is measures the 'discrepancy per degree of freedom' to represent the goodness-of-fit when the model is used in estimation of a population; a range between 0.05 to 0.08 is deemed acceptable (Ho, 2006). Additionally, statistical assessment as done through the Tucker-Lewis Index (TLI), which requires a result of over 0.9 to be statistically significant. The model fit was acceptable, with a TLI of 0.807 indicating that the model fitted was better than the baseline model.

3.7.4 Reliability of Scales

Reliability refers to the ability of the data to *repeatedly* accurately measure what it purports to measure, in terms of concept or construct; in other words it is concerned with the *consistency* of the questionnaire (Bryman & Bell, 2011; Creswell, 2014). This consists of the stability of the questionnaire and its inter-observer consistency (Bryman & Bell, 2011). The test for Cronbach's Alpha was used to determine this as the results are shown in chapter 4.

3.8 Ethics

Ethics are the norms and standards that need to be adhered to so that no-one is harmed or suffers adverse consequences as a result of participating in this research (Cooper & Schindler, 2014). Diener and Crensdall (1978) highlight four of the most recurrent ethics transgressions: harm to participants, lack of informed consent, invasion of privacy and deception. The measures adopted to avoid each of these are outlined below.

Harm to participants and deception

A researcher is required to assess potential sources of harm for their participants and guard against it. Harm can include: physical harm or harm to the respondents bodily integrity, emotional stress or anxiety, or even financial harm or threats to future and current employment prospects (Bryman & Bell, 2011). Potential harm was seen in the effects on current or future employment prospects for employees who give unfavourable responses, as well as risk to business reputation from associating their business with responses given. To guard against this, the strictest confidentiality was guaranteed to companies and their employees. Neither will be identified in this research. Deception involves presenting the research as more than what it is (Bryman & Bell, 2011). No deception was involved as the purpose of the research was fully stated, as shown in the cover letter in Appendix C.

Lack of informed consent and invasion of privacy

The cover letter in Appendix C was presented to each respondent and their companies, the details and benefits of the study were explained upfront, as well as the rights and the protections offered (Cooper & Schindler, 2014). Consent was obtained using a compulsory 'yes/no' question on the questionnaire. This guarded against any information being given in violation of privacy that was not expressly given. In addition the researcher did not seek information beyond the terms of engagement.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

Chapter 3 presented the methodology that was followed in data analysis and this chapter will present the results of that analysis, which was undertaken using IBM SPSS statistical software (version 24), as well as R Core Package (2018) . Results will be statistically reported and the results will be supported by including tables and graphs. This chapter will begin by looking at the demographic profile of respondents, followed by the results of the reliability, correlation, regression and moderation analyses.

4.2 Demographic profile of respondents

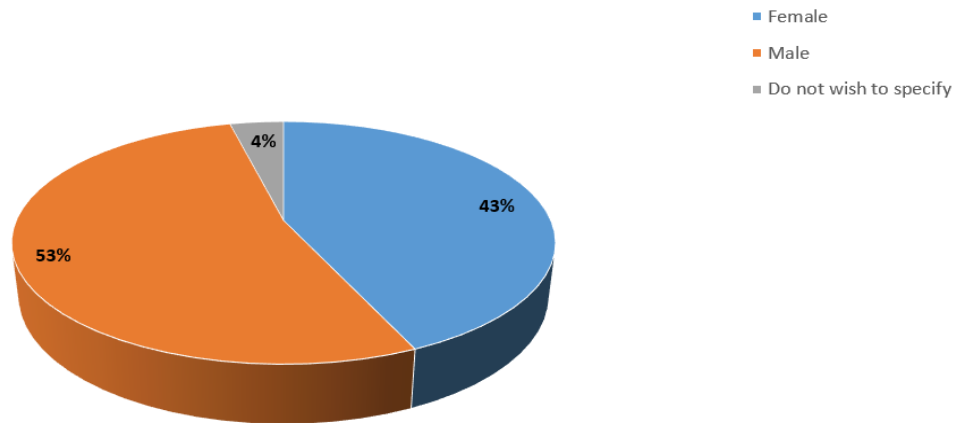
4.2.1. Sample Characteristics

Data collection was outlined in Chapter 3 and resulted in the collection of 104 completed questionnaires. The proposed number was $N=150$, with $N=90$ an adequate minimum (Green, 1991; Wilson et al., 2007). The data collection process resulted in a sample size of $N= 104$ and these were collected exclusively from SME's located in Harare province.

4.2.2 Demographic Profile of Sample

Gender

Figure 5: Gender of respondents

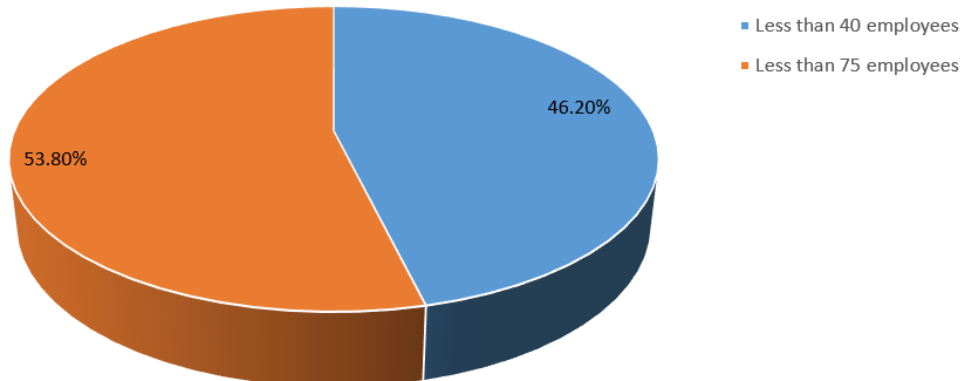


(Source: Authors Own Work)

Analysis revealed that distribution of gender was weighted towards males as they consisted of 53% of the survey, while females represented 43% and 4% of the population did not wish to specify their gender. This is represented in Figure 6 above.

Firm Size

Figure 6: Firm Size

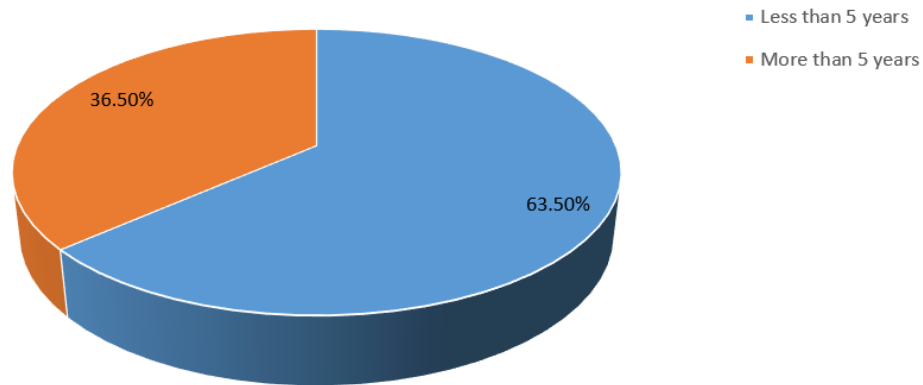


(Source: Authors Own Work)

Majority of responses were obtained from medium sized enterprises (firms with less than 75 employees) which constituted 53.80% of the sample. Small enterprises (firms which constitute less than 40 employees) were represented by 46.20% of the sample. This is seen in Figure 7.

Duration of Employment

Figure 7: Duration of Employment

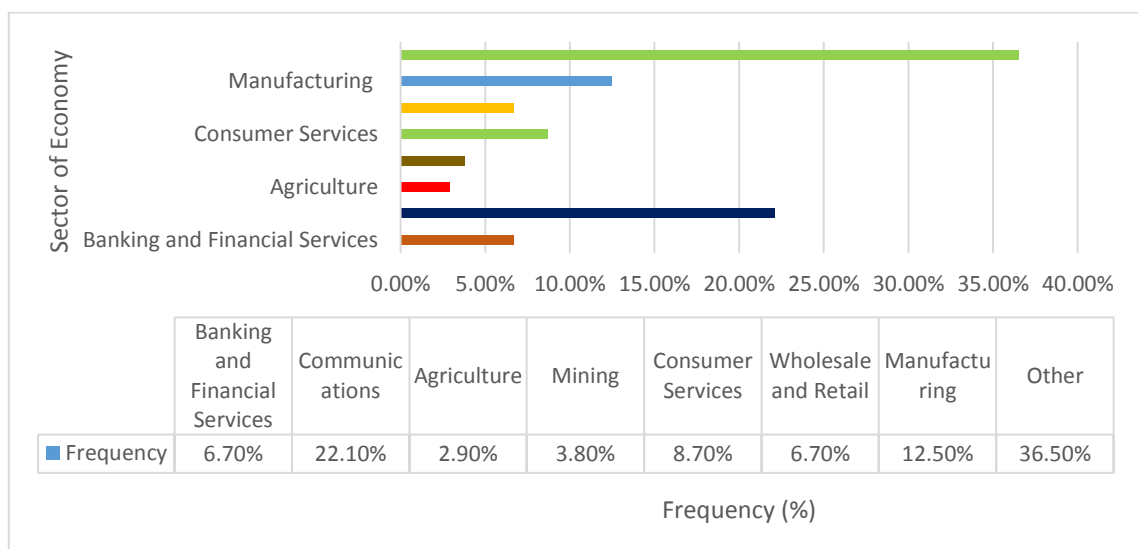


(Source: Authors Own Work)

The sample was comprised of a selection which comprised mainly of people who had been employed in the SME for less than 5 years (63.50%), and a smaller section of people of who have more than 5 years' experience in the firm (36.50%).

Sector of Operation

Figure 8: Sector of Operation

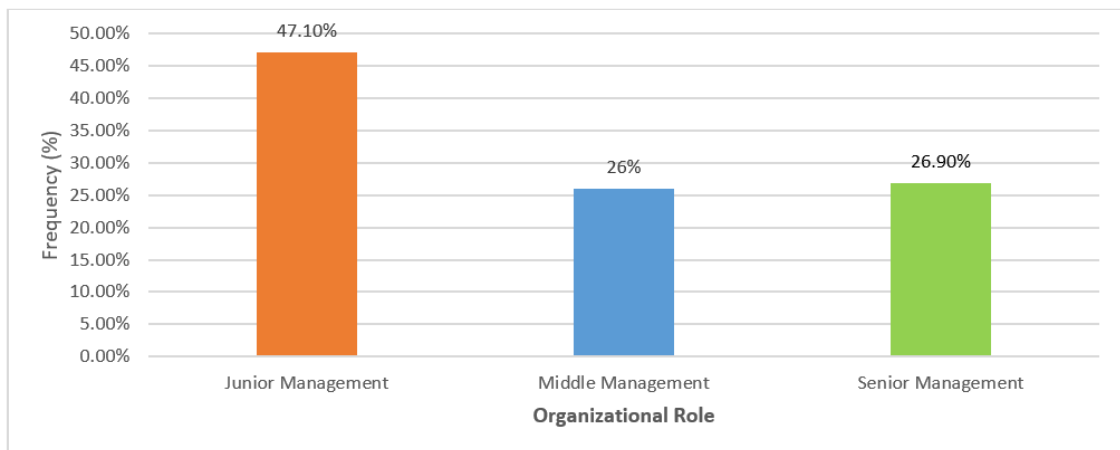


(Source: Authors Own Work)

Figure 9 shows the weighting of sectors in favour of the 'other' classification which accounted for over 36.50% of the population on its own. Communications was the second largest sector represented by 22.10% of the population. Manufacturing, financial services, consumer services and retail comprised of between 5-10% of the sample. Agriculture and mining were represented by 5% of the responses, with the least amount of responses were obtained from the agricultural sector which showed 2.90% of the responses.

Management Level of Respondents

Figure 9: Management Level



(Source: Authors Own Work)

Junior level management comprised the bulk of respondents at 47.1% of responses. Senior and middle management were almost equal in representation with 26.9% and 26% of responses respectively.

Cross Tabulation of Demographic Data

Table 10: Cross Tabulation of Results

		Gender			Duration of Employment	
		Female	Male	Not specified	Less than 5 years	More than 5 years
Role	Junior Management	22	26	1	43	6
	Middle Management	10	15	2	9	18

	Senior Management	13	14	1	14	14
Sector	Banking and Financial Services	5	1	1	3	4
	Communications	13	10	0	18	5
	Agriculture	1	2	0	1	2
	Mining	1	3	0	2	2
	Consumer Services	3	5	1	5	4
	Wholesale and Retail	3	4	0	5	2
	Manufacturing	6	6	1	10	3
	Other	13	24	1	22	16

(Source: Authors Own Work)

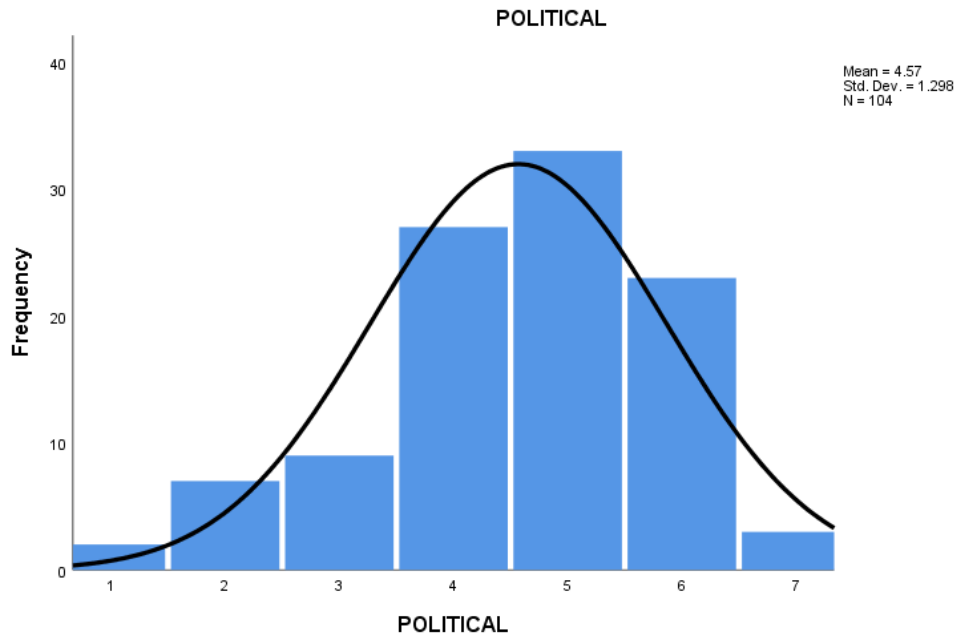
Table 10 above shows a general cross tabulation of demographic factors, gender, duration of employment, role and sector. Junior managers constitute a larger proportion across all gender with the highest representation under males (26). The duration of employment of junior managers is 5 years and below with only 6 having more than 5 years. Gender representation is balanced on all levels of management.

4.3 Descriptive Analysis of Variables

Figures 11-17 graphically represent the distribution of variable frequencies. The variables that were measured were P (political capital), S (alliance capital), R (reputational capital), Inov (organisational innovation), H (hostility) and D (Dynamism).

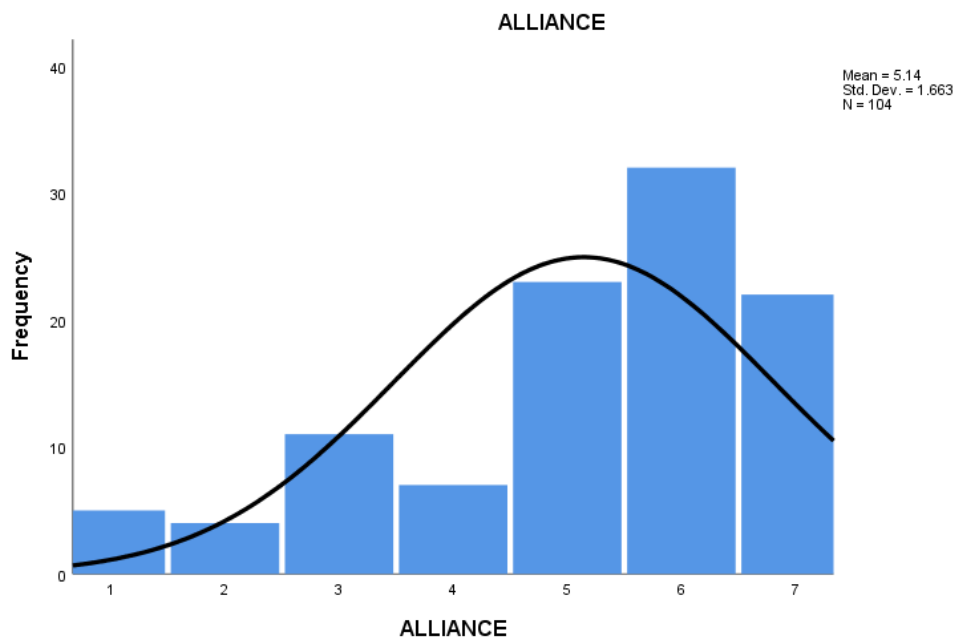
P, S, and R measure the construct of SC, and resulted in an overall normal distribution, the individual variables are shown below. Figure 11 shows the result of the analysis of P which resulted in a normal distribution pattern. Figure 12 represents alliance capital (S) which resulted in a distribution that is negatively skewed. Figure 13 shows the distribution of reputational capital (R) and reveals a slight negative skew in the results. Figure 14 shows that despite slight skew in two of the variables, the resultant distribution of SC as a construct was still normally distributed.

Figure 10: Frequency Distribution of Political Capital



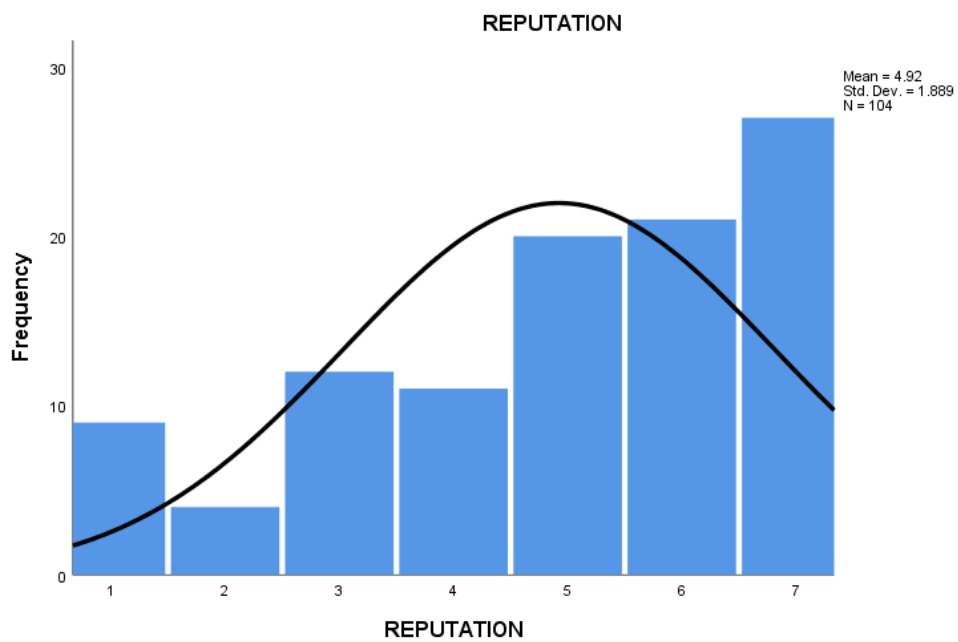
(Source: Authors Own Work)

Figure 11: Frequency Distribution of Alliance Ties



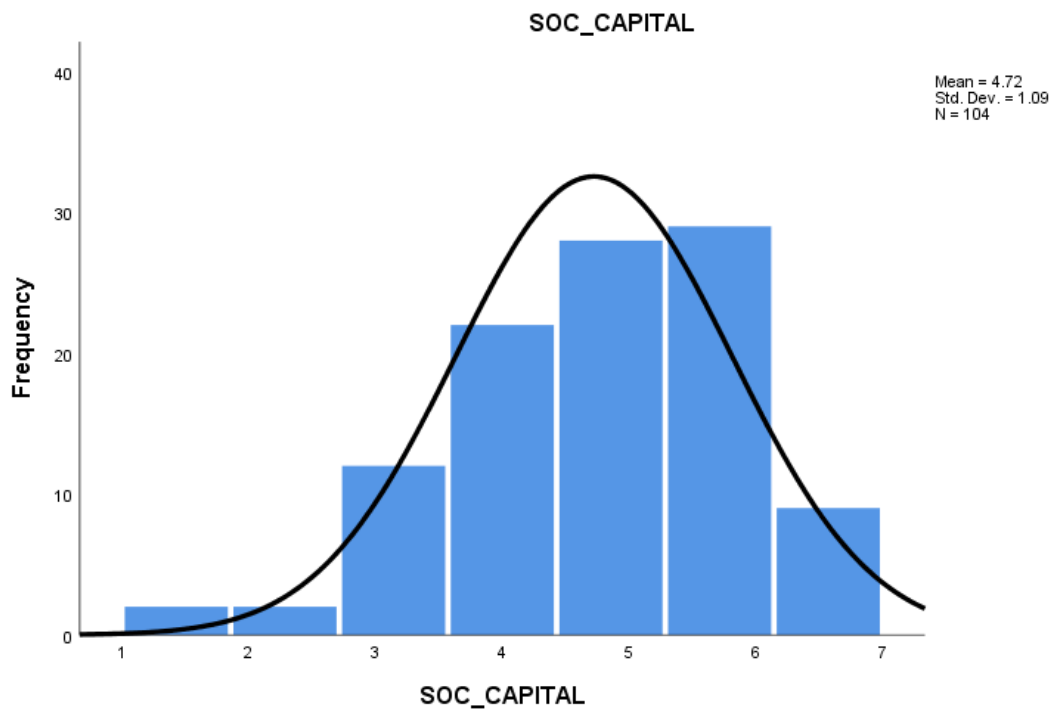
(Source: Authors Own Work)

Figure 12: Frequency Distribution of Reputational Capital



(Source: Authors Own Work)

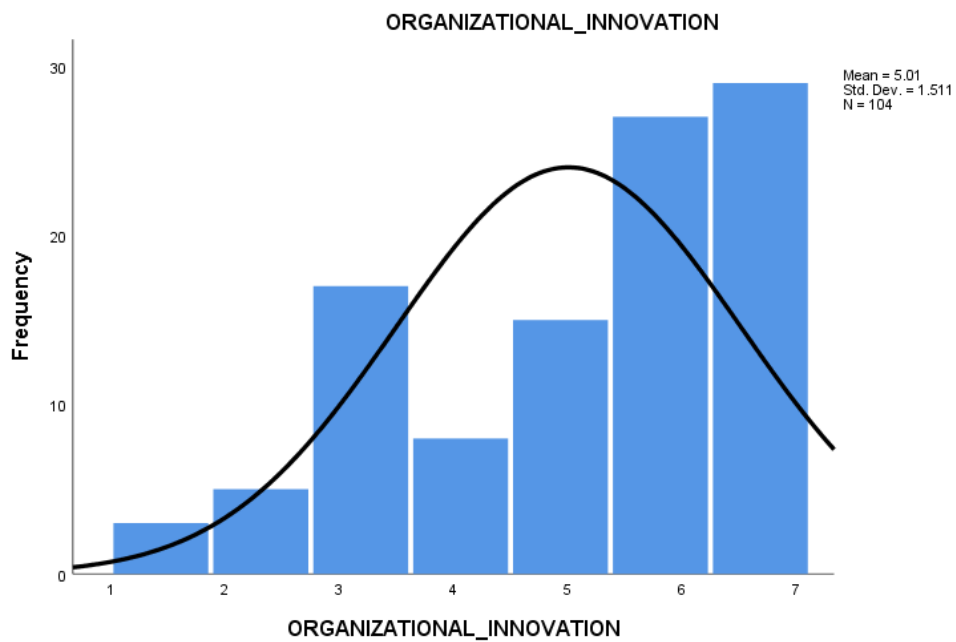
Figure 13: Overall distribution of SC



(Source: Authors Own Work)

Figure 15 shows the distribution of the dependant variable in the study, OI (Inov). The results showed that results reveal an almost bimodal distribution of responses, but an overall normal distribution of responses.

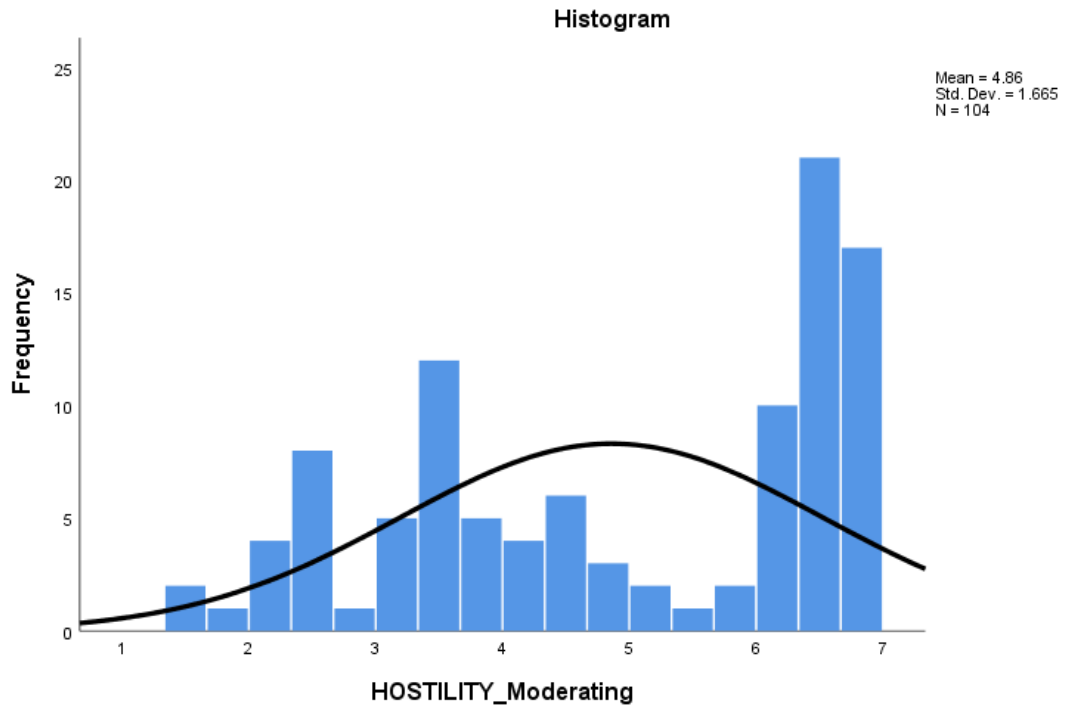
Figure 14: Frequency Distribution of Organisational Innovation



(Source: Authors Own Work)

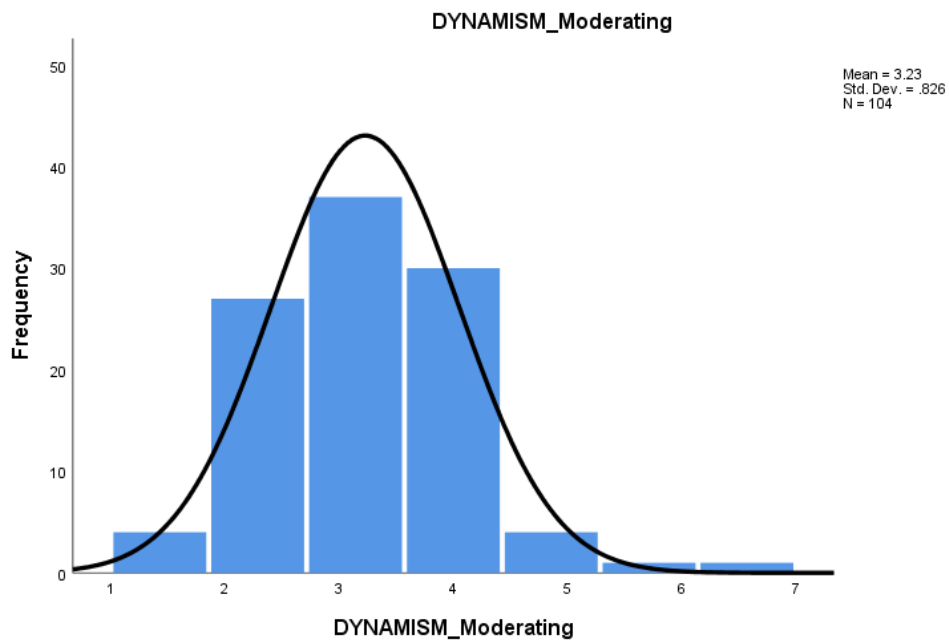
The moderating variable of hostility (H) and dynamism (D) are represented in figures 16 and 17 below. Hostility was normally distributed while dynamism was positively skewed.

Figure 15: Hostility Frequency Distribution



(Source: Authors Own Work)

Figure 16: Dynamism Frequency Distribution



(Source: Authors Own Work)

Table 11 represents the central tendency of the scales, as well as skewness and kurtosis. The overall influence of the SC construct was neutral to moderate ($M=4.72$, $SD=1.09$). On average, there was barely moderate agreement with the influence of political capital ($M=4.57$, $SD=1.3$), with a stronger assessment of the influence of alliance ties ($M=5.14$, $SD=1.67$), and moderate assessment of the influence of reputational capital ($M=4.92$, $SD=1.89$). The mean response to the level of OI was also relatively strong ($M=5.01$, $SD=1.51$) in support of OI. Perception of reverse coded environment scales reflected moderate perception of dynamism ($M=3.23$, $SD=0.83$), and a lower mean of hostility ($M=4.86$, $SD=1.67$).

Hostility presented the highest value for kurtosis due to a build-up of high responses (-1.313), but was not significant. All values of kurtosis fell below the value of 3 making them acceptable (Field, 2013). None of the variables deviated significantly from 0 which represents no skew at all.

Table 11 : Descriptive Statistics of Scales

Construct	Variable	Variable Type	Number of Items	Mean	Median	Std. Deviation	Skewness	Kurtosis
Social Capital			10	4.72	4.90	1.090	-0.629	0.012
	P	Independent Variable	4	4.57	5.00	1.298	-0.613	0.131
	S	Independent Variable	4	5.14	6.00	1.663	-0.944	0.125
	R	Independent Variable	2	4.92	6.00	1.889	-0.689	-0.560
Organisational Innovation	Inov	Dependent Variable	4	5.01	5.50	1.511	-0.689	-0.681
Hostility	H	Moderating	6	4.86	5.08	1.665	-0.374	-1.313
Dynamism	D	Moderating	6	3.23	3.20	0.826	0.482	0.974

(Source: Authors Own Work)

4.4 Correlation Analysis

Table 12 below represents the correlation coefficients between variables. The Pearson correlation shows the relationship between the three variables of SC, hostility, dynamism and OI. There was a non-significant correlation of $r=.09$ ($p=n.s$) between OI and political capital; as well as a non-significant correlation of $r=.102$ ($p=n.s$) between OI and dynamism. The remaining SC variables presented large correlations: alliance ties and OI were significantly correlated $r=0.685$, $p<5$; reputational capital was significantly correlated $r=0.675$, $p<.05$ to OI. The moderating variables of hostility and dynamism resulting in only hostility being significantly correlated to OI at $r=.647$, $p<.05$; while there was a non-significant correlation between dynamism and OI $r=.037$, $p<n.s$ which was not statistically significant.

Table 12: Overall Correlation Analysis

		Political capital	Alliance ties	Reputational capital	Innovation	Hostility	Dynamism
Political capital	Pearson Correlation	1					
	Sig. (2-tailed)						
Alliance ties	Pearson Correlation	-0.017	1				
	Sig. (2-tailed)	0.865					
Reputational capital	Pearson Correlation	0.084	.804**	1			
	Sig. (2-tailed)	0.397	0				
Innovation	Pearson Correlation	-0.092	.685**	.675**	1		
	Sig. (2-tailed)	0.353	0	0			
Hostility	Pearson Correlation	-0.163	.654**	.703**	.647**	1	
	Sig. (2-tailed)	0.099	0	0	0		
Dynamism	Pearson Correlation	-0.108	-0.102	-0.092	0.034	-0.127	1
	Sig. (2-tailed)	0.277	0.301	0.352	0.734	0.199	
** Correlation is significant at the 0.01 level (2-tailed).							

(Source: Authors Own Work)

4.5 Validity and Reliability of Scales

Sufficiency of sampling adequacy was determined using KMO and Bartlett's which yielded a KMO value of 0.84 which is above the 0.80 adequacy mark. The 0.000 significant value of the Bartlett's test confirms the same as it is less than 0.05.

Table 13: Overall Cronbach Alpha

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.897	0.875	25

(Source: Authors Own Work)

Table 14 shows the overall reliability of the measurement instrument ($N=25$), calculated using the Cronbach's Alpha based on standardized and unstandardized items; $\alpha=.897$ which is excellent. If Cronbach's alpha is less than .6, the internal consistency reliability is poor, between .6 and .7 is considered acceptable, with greater than .7 being good (Hair et al., 2010).

Table 14 below shows the individual results of the variables: political capital subscale consisted of 4 items ($\alpha=.813$); the alliance ties subscale consisted of 4 items ($\alpha=.889$); reputation capital consisted of 2 items ($\alpha=.908$). Cronbach's alpha for the 6 Hostility and 5 dynamism items was .925 and .664 respectively. Reliability was high for the outcome variable OI (4 items: $\alpha=.893$)

Table 14: Individual Cronbach Alpha

	P	S	R	Inov	H	D
N of Items	4	4	2	4	6	5
Cronbach's Alpha	0.813	0.889	0.908	0.893	0.925	0.664

(Source: Authors Own Work)

4.5.1 CFA Analysis

The sample was deemed sufficient for CFA validity testing owing to the normality of distribution established above, which is a requirement for parametric tests. The table below (15) shows the dimensions of SC: political capital (A1-A4), alliance ties (A5-A8), and reputational capital (A9-A10), as well as OI (B11-B14), hostility (C15-C20) and dynamism (C21-C25). These represent the model equations used for this analysis.

Table 15: Model Equations for CFA

CFA Model Equations	
Political Capital	$=\sim A1+A2+A3+A4$
Alliance Ties	$=\sim A5+A6+A7+A8$
Reputational Capital	$=\sim A9+A10$
Organizational innovation	$=\sim B11+B12+B13+B14$
Hostility	$=\sim C15+C16+C17+C18+19+C20$
Dynamism	$=\sim C21+C22+C23+C24+C25$

(Source: Authors Own Work)

Table 16: Lavaan Iterations

Lavaan 0.6-3 ended normally after 59 iterations	
Optimization method	NLMINB
Number of free parameters	65.00
Number of observations	104.00
Estimator	ML
Model Fit Test Statistic	573.90
Degrees of freedom	260.00
P-value (Chi-square)	0.00
Model test baseline model	
Minimum Function Test Statistic	2171.98
Degrees of freedom	300.00
P-value	0.00
User model versus baseline model	
Comparative Fit Index (CFI)	0.832
Tucker-Lewis Index (TLI)	0.807
Log likelihood and Information Criteria	
Log likelihood user model (H0)	-4203.338
Log likelihood unrestricted model (H1)	-3916.389

Number of free parameters	65
Akaike (AIC)	8536.675
Bayesian (BIC)	8708.561
Sample-size adjusted Bayesian (BIC)	8503.225
Root Mean Square Error of Approximation	
RMSEA	0.108
90 Percent Confidence Interval	0.096 0.120
P-value RMSEA <= 0.05	0.000
Standardized Root Mean Square Residual	
SRMR	0.121
Parameter Estimates	
Information	Expected
Information saturated (h1) model	Structured
Standard Errors	Standard

(Source: Authors Own Work)

The Lavaan (0.6-3) converged normally after 59 iterations, as seen in the above table. The model was fitted using the optimization procedure with 65 numbers of free parameters and 104 observations. The model fit statistic was 573 with 260 degrees of freedom; the corresponding p-value to the model fit statistic is less than 0.05 which signifies the goodness of fit of the model. The model fit was acceptable, with a TLI of 0.807 indicating that the model fitted was better than the baseline model. The RMSEA tested the hypothesis that RMSEA is less than or equal to .05. This study's RMSEA was slightly greater than .05 (0.108, with a 90 per cent CI from 0.096 0.120), therefore the p-value was significant, which meant that RMSEA is greater than or equal to .05. Log likelihood and Information Criteria was assessed through the hypothesis Log likelihood user model (H0) versus Log likelihood unrestricted model (H1) and the major computed statistics were the Bayesian information criteria and the Akaike information criteria, the lower the values the better the model.

4.3 Analysis of Hypotheses

Null Hypothesis Testing

The table below allows a rejection of each null hypothesis as the T-Values all present results of below the recommended value of $p < 0.05$ (Field, 2013). This

analysis presented significant effects for political capital ($t(103) = 37.55, p < .01$), alliance ties ($t(103) = 31.62, p < .01$), reputational capital ($t(103) = 26.00, p < .01$), OI ($t(103) = 33.78, p < .01$), hostility ($t(103) = 29.77, p < .01$), and dynamism ($t(103) = 39.85, p < .01$).

Table 17: T Test Based on Aggregated Scores

Test Value = 0	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Political capital	37.55	103	0.00	17.83	16.89	18.77
Alliance ties	31.62	103	0.00	19.89	18.65	21.14
Reputational capital	26.00	103	0.00	9.50	8.78	10.22
Innovation	33.78	103	0.00	20.03	18.85	21.20
Hostility	29.77	103	0.00	29.26	27.31	31.21
Dynamism	39.85	103	0.00	16.13	15.33	16.94

(Source: Authors Own Work)

Models used for analysis: Overall Regression

Table 18: R Squared Values

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate	Durbin-Watson
a	.760a	0.58	0.56		4.04	2.03
b	.726a	0.53	0.51		4.22	1.84
c	.664a	0.44	0.43		4.58	2.08
a Predictors: (Constant), dynamism, reputational capital, political capital, hostility, alliance ties						
b Predictors: (Constant), reputational capital, political capital, alliance ties						
c Predictors: (Constant), dynamism, hostility						

(Source: Authors Own Work)

Table 19: Model ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
a	Regression	2174.62	5	434.93	26.598	.000a
	Residual	1586.13	98	16.35		
	Total	3760.76	103			
b	Regression	1981.97	3	660.66	37.054	.000b
	Residual	1782.94	100	17.83		
	Total	3764.91	103			

c	Regression	1659.61	2	829.81	39.493	.000c
	Residual	2101.15	101	21.01		
	Total	3760.76	103			

(Source: Authors Own Work)

Table 19 above shows results of the multiple regression analysis used to test if computed IV's significantly predicted OI, while table 20 shows ANOVA results. Model 'a' was built with a combination of all SC and the moderating variables (hostility and dynamism), results showed this explained 58% of variance ($R^2 = .58$, $F(5, 97) = 26.6$, $p < 0.05$). Model 'b' was built based on SC (reputational capital, political capital and alliance ties) and explained 53% of variance ($R^2 = .53$, $F(3, 100) = 37.05$, $p < 0.05$). Model 'c' computed the moderating variables (dynamism and hostility), explaining 44% of variance ($R^2 = .44$, $F(2, 100) = 39.5$, $p < 0.05$).

Table 20 shows a breakdown of the individual variables showing that in all models, political capital (a: .54, $p = n.s$; b: .09, $p = n.s$) and dynamism (a: .07, $p = n.s$; c: .11, $p = n.s$) fail to attain significant regression values below 0.05.

Table 20: ANOVA of Individual Variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
a	(Constant)	3.23	2.99		1.08	0.08
	political capital	-0.05	0.09	-0.04	-0.62	0.54
	alliance ties	0.29	0.11	0.31	2.69	0.01
	reputational capital	0.41	0.21	0.25	2.02	0.05
	hostility	0.18	0.06	0.29	2.93	0.00
	dynamism	0.18	0.10	0.12	1.81	0.07
b	(Constant)	9.71	2.07		4.69	0.00
	political capital	-0.15	0.09	-0.12	-1.69	0.09
	alliance ties	0.35	0.11	0.38	3.22	0.00
	reputational capital	0.62	0.19	0.38	3.27	0.00
c	(Constant)	5.28	2.41		2.19	0.03
	hostility	0.41	0.05	0.67	8.88	0.00
	dynamism	0.18	0.11	0.12	1.60	0.11

(Source: Authors Own Work)

4.3.1 Hypothesis 1

H₁: The relationship between political capital and organisational innovation will be positively moderated by environmental hostility and dynamism

A Pearson correlation of 0.092 was established above for the relationship between political capital and OI which is statistically insignificant ($p > .05$), and an ANOVA significance value of 0.05 as presented in Table 19.

Table 21: Hypothesis 1 Moderation Model Table

Model		Base		Moderated			
		(Constant)	political capital	(Constant)	hostility	dynamism	political capital
Unstandardized Coefficients	B	22.08	-0.12	4.20	0.41	0.18	0.05
	Std. Error	2.27	0.12	3.28	0.05	0.11	0.10
Standardized Coefficients	Beta		-0.09		0.68	0.13	0.04
t		9.71	-0.93	1.28	8.77	1.65	0.49
Sig.		0.00	0.35	0.20	0.00	0.10	0.63
F		0.87		26.21			
R		.092a		.665a			
R Square		0.01		0.44			
R Square Change		1%		44%			

(Source: Authors Own Work)

Table 21 above compares the base model and the moderated model, constructed to provide a comparison of R^2 values as these allow us to assess effects of moderation (Hair et al., 2010). This follows the MMR approach described in chapter 3. In the base model political capital failed to significantly explain the change in OI, $R^2 = .01$, $F = 0.87$, $p = \text{n.s.}$ In the moderated model the addition of the moderating variable improved the effect change in OI, $R^2 = .44$, $F = 26.21$. While hostility was significant at $p < .01$, hostility and political capital were not significant, $p = \text{n.s.}$ At a 44% R^2 , the moderated model explained an insufficient amount of change.

This indicates that the moderation model did not adequately positively moderate the relationship between OI and political capital so hypothesis 1 cannot be supported.

4.3.2 Hypothesis 2

H₂: The relationship between alliance capital and organisational innovation will be positively moderated by environmental hostility and dynamism

An overall Pearson correlation of 0.685 was established between OI and alliance capital. Regression analysis produced an ANOVA value of 0.01 which is statistically significant ($p < .05$) as seen in Table 19.

Table 22: Hypothesis Two Moderation Model Table

Model		Base		Moderated			
		(Constant)	Alliance Ties	(Constant)	Hostility	Dynamism	Alliance Ties
Unstandardized Coefficients	B	7.19	0.65	1.75	0.23	0.19	0.43
	Std. Error	1.42	0.07	2.25	0.05	0.10	0.08
Standardized Coefficients	Beta		0.67		0.37	0.13	0.46
t		5.06	8.88	0.78	4.24	1.92	5.18
Sig.		0.00	0.00	0.44	0.00	0.06	0.00
F		90.24		42.09			
R		.685a		.749a			
R Square		.47		.56			
R Square Change		47%		56%			

(Source: Authors Own Work)

In the base model political capital significantly explained the change in OI, $R^2 = .47$, $F = 90.24$, $p < .01$. In the moderated model the addition of the moderating variable improved the effect change in OI, $R^2 = .56$, $F = 42.09$. Hostility and alliance ties were significant at $p < .01$, while dynamism was not significant, $p = \text{n.s.}$ At 56% R^2 , the moderated model explained a sufficient amount of change.

This indicates in a context positively moderated by hostility and dynamism, there is still a positive relationship between alliance capital and OI so hypothesis 2 is supported.

4.3.2 Hypothesis 3

H₃: The relationship between reputational capital and organisational innovation will be positively moderated by environmental hostility and dynamism

An ANOVA value of 0.05 was obtained in the regression analysis between OI and reputational capital which is not significant ($p < 0.05$). A moderate correlation established between the two variables in table 12 was .675.

Table 23: Hypothesis 3 Moderating Model Table

Model		Base		Moderation			
		(Constant)	Reputational Capital	(Constant)	Hostility	Dynamism	Reputational Capital
Unstandardized Coefficients	B	9.63	1.10	3.66	0.22	0.18	0.73
	Std. Error	1.21	0.12	2.21	0.06	0.10	0.16
Standardized Coefficients	Beta		0.68		0.36	0.12	0.44
t		2.19	8.88	1.65	3.86	1.79	4.72
Sig.		0.00	0.00	0.10	0.00	0.08	0.00
F		85.23		39.33			
R Square		.46		.44			
R Square Change		46%		44%			

(Source: Authors Own Work)

In the base model reputational capital significantly explained the change in OI, $R^2 = .46$, $F = 85.23$, $p < .01$. In the moderated model the addition of the moderating variable had a negative impact on the effect change in OI, $R^2 = .44$, $F = 39.33$. While hostility and reputational capital were significant at $p < .01$, dynamism was not significant, $p = \text{n.s.}$ At 44% R^2 , the moderated model explained an insufficient amount of change.

This indicates that the moderation model did not allow for a sufficient positive relationship between OI and political capital, as environmental variables in fact negatively moderated it, and the effect remained below so hypothesis 3 cannot be supported.

4.5 Summary of the results

From a total of 104 complete and adequately complete responses, a normally distributed data sample was analysed using the CFA to extract a total of six factors; (P, S, R, Inov, and H) which were all deemed excellent as they loaded over 0.7, while dynamism presented an acceptable value of 0.664.

Moderated multiple regression analysis was adopted in order to test the hypothesis. The results of the tests are found below, and expanded upon in Chapter 5.

Table 24: Results of Hypothesis Testing

	Hypothesis	Result
H1	The relationship between political capital and organisational innovation will be positively moderated by environmental hostility and dynamism	Not supported
H2	The relationship between alliance capital and organisational innovation will be positively moderated by environmental hostility and dynamism	Supported
H3	The relationship between reputational capital and organisational innovation will be positively moderated by environmental hostility and dynamism	Not supported

(Source: Authors Own Work)

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

Chapter 4 set out the result of the data analysis, this chapter will discuss and explain the results in reference to literature outlined in Chapter 2, and interpret the results according to patterns noticed in the data analysis. The first section will relate to the demographic information discussed in the literature review.

5.2 Demographic profile of respondents

A total of 104 adequately completed surveys ($N=104$) were collected from respondents who identified themselves either as junior, middle or senior management, in SME's that operate within the Harare provincial region. This figure is lower than expected as discussed above, but is in line with literature that information disclosure in for profit organisations is often low owing to the perception that information disclosure costs may exceed benefits (Elliott & Jacobson, 1994). Respondents identified their sector of operation, which were classified as: banking and financial services, communications, agriculture, mining, consumer services, wholesale and retail, manufacturing and 'other'. These classifications were made by adapting information on Zimbabwe's active economic sectors from the Zimbabwe Stock Exchange website (ZSE, 2018). It was expected that, as these are the main sectors in the economy, more respondents would present within these classifications. The largest proportion of respondents (36.5%) however, identified as being outside of these classifications. This is an important consideration in light of the noted push on the African continent for SME's in agriculture, industrials and manufacturing (AfDB/OECD/UNDP, 2017).

As noted in the limitations of this research, predictions are compromised and cannot be reliably drawn about how this information represents the broader population, as the sampling method was not random and the assessment did

not include measure SME's as a unit. The points to note from the analysed data are discussed below.

5.2.1 Duration of Employment in SME and Economic Sector

The result of analysis showed that majority of responses (63.5%) received came from people employed for less than 5 years in their firms. It was hoped to achieve a sample with a larger representation of long term employees, as the perception of managers who have been in a firm longer would suggest they possess greater insight.

This result is also interesting in terms of SME business discontinuation. Africa boasts the highest business discontinuation rates in the GEM assessment (Global Entrepreneurship Monitor Consortium, 2018), with SME's in Zimbabwe in particular recording a 15% survival rate past the 3 year mark (Muchabaiwa, Bindu, & Chigusiwa, 2011). This study had a 38% representation of respondents who are employed in an SME longer than 5 years. This represents a higher than expected representation considering it is more than double what literature suggests. Cross tabulation of the results in Appendix E showed that the sectors which had the highest post 5 year representation was the 'other' segment of the economy ($n=16$), followed not very closely by the communications segment ($n=5$). This suggests that a large proportion of SME's which survive in that environment do so only outside of the key sectors of Zimbabwe's economy.

5.2.2 Gender and Economic Sector

The top three most significant sectors in Zimbabwe according to KPMG are mining, agriculture and manufacturing (KPMG, 2017). In terms of economic participation in the mainstream economy, literature suggests that women are often excluded from the main economic sectors; or due to a lower risk tolerance (Chen, 2018) and lifestyle considerations such as childcare exclude themselves (ILO & Gallup, 2017). Zimbabwe follows this pattern with literature noting that women work largely in the informal sector but it is noted this trend is being

reversed by middle-class women entering more productive sectors of the economy (Gibbon, 1995).

The sample shows that women are congregated in the 'other' sector and communications, which would back literature except that the exact same pattern is followed by the men in the sample (dominant sectors were $n=24$ in 'other', and $n=10$ in communications). The data suggests that both men and women in SME's operate outside of are considered mainstream sectors.

This break from literature suggests that in the Zimbabwean context more may need to be done to understand the break from well researched gendered work patterns.

5.2.3 Gender and Leadership

This sample presented an almost 50% split between men ($n=14$) and women ($n=13$) for respondents in senior management. Global trends show that the number of women represented in senior leadership remains low globally, with Grant Thornton (2017) pegging the global average at 25% of women in leadership in medium and large companies. However, the inclusion of small enterprises can be considered as an intervening factor for this outcome. Table 25 below shows that the GEM report (Global Entrepreneurship Monitor Consortium, 2018) has found that in factor driven economies, the ratio of total entrepreneurship activity (TEA) (including necessity) is 1:1 between men and women. By implication, the senior leadership of the SME's being almost equally split along gender lines is in line with expectations in this kind of economy.

Table 25: Development phase averages for TEA by gender

Stage of economic development	Male TEA (% of adult male population)	Female TEA (% of adult female population)	Ratio of female/ male TEA	Male TEA necessity (% of male TEA)	Female TEA necessity (% of female TEA)	Ratio of female/ male TEA necessity
Factor-driven	16.6	16.2	1.00	23.8	23.2	1.00
Efficiency-driven	16.9	12.8	0.80	23.2	30.9	1.30
Innovation-driven	11.3	7.1	0.60	16.1	19.1	1.20

Source: GEM (Global Entrepreneurship Monitor Consortium, 2018)

5.3 Discussion of Scales

The results of this sub-section are discussed in reference to Appendix F as well as figures 11-17 in chapter 4.

5.3.1 *Social Capital*

The construct of SC was measured using the three variables of political capital, alliance capital and reputational capital, as was previously done in a study carried out by Yiu and Lau (2008). These were represented by items 1-10 on the questionnaire in appendix B, and the descriptive charts showing the results discussed here are in Chapter 4, figures 11-14.

Political Capital

The descriptive analyses of the political capital variable are found in figure 11, and table 11. The results showed that on average, respondents had a slightly above neutral perception of the influence of political capital on their business ($M = 4.57$). As shown in Appendix F, respondents perceived technical training as the most important form of information; followed by information that enhanced managerial decisions and information services, which were perceived as “moderately influential” (Likert 5). Respondents only considered information that concerned human resources to be “very influential” (Likert 6).

Chapter 2 explored studies on political capital from emerging economies in Asia (Du & Girma, 2010; Li et al., 2008), Africa (Adomako & Danso, 2014), as well as Italy (Akcigit et al., 2018; Putnam, 1993), which spoke to the benefits of SC

derived from political connections. As such, it was expected that this study would also find strong perceptions of the benefits of political capital for reducing business transaction costs. As the literature stated, in countries that are considered 'command economies' there is a weak institutional culture outside of government. Government therefore becomes an important distributor of information as well a key controller of resources (Li et al., 2008). It was expected that this particular source of SC would on average also be perceived as a valuable resource (Likert value between very (6) and extremely (7) influential).

Alliance Capital

Figure 12 shows that the alliance capital variable was more positively perceived on average by respondents ($M= 5.14$, $SD= 1.66$). As shown on Appendix F, the largest percentage of respondents perceived business networks; professional associations; and inter-firm information flows as very influential (Likert 6) sources of SC, with events such as conferences and trade fairs being seen by the majority as extremely influential (Likert 7). The high level of influence is consistent with the discussion in the literature review which found that because these networks are cultivated in the course of normal business, they are more readily perceived and valued (Landry et al., 2002).

Reputational Capital

Reputational capital was perceived on average to be "moderately influential" ($M=4.92$, $SD=1.89$) as represented by figure 13. As discussed above, it is assumed that larger firms have more resources to invest into brand building in order to build reputations to leverage. The expectation was that this scale would be considerably less as the sample population consisted of SME's. In terms of how the reputation of the firm has allowed the firm to receive contracts, grants, and awards, the highest percentage of responses felt that firm reputation was very influential (Likert 6), as shown in Appendix F.

5.3.2 Organisational Innovation

The respondents on average perceived a moderate level of OI in their firms ($M=5.01$, $SD=1.51$). In response to items Inov 1-4 (see Appendix F), the largest percentage of respondents felt that it was “usually true” (Likert 6) that their firm would be the first in industry to develop new management systems; introduce new business concepts; change structure to promote innovation; and introduce human resource programs to spur creativity and innovation. The debate in literature around whether firms in risky environments are by nature more innovative was discussed in the literature review above (subsections 2.4.3 and 2.4.4), and the position was taken in line with literature that the more risky the environment, the more likely a firm is to innovate (Naudé et al., 2011). The expectation was for an average value slightly higher than the one presented here.

Additionally, the literature review engaged the debate around whether smaller firms or bigger firms are better placed to innovate (see subsection 2.2.4). While it is noted that the debate in literature is between large corporates versus smaller firms such as SME's, the cross tabulation in Appendix E between firm size and OI is worth highlighting. On average, the highest percentage of responses in both small and medium sized firms stated that it was “usually true” that their firms are innovative, but the value was higher for medium firms (85.6%) than for smaller firms (46.2%). While the position was taken above that there was not enough empirical evidence to confidently dismiss either position, this result suggests that in this context at least there is a reason to suggest that innovation may increase with firm size.

5.3.3 Moderating Scales: Hostility and Dynamism

These scales (H: 15-20; D: 21-25) represented the moderating environmental risk variables. Chapter 1 gave a synopsis of the well documented dynamism that Zimbabwe has experienced over the years (see sub-section 1.3). In light of this, literature was reviewed that spoke to dynamic environments, assuming that the perception of dynamism would be confirmed (see subsection 2.4.1)

(Adomako & Danso, 2014). Interestingly, as will be discussed below, that is not the case.

Dynamism

As explained above, dynamism refers to the rate and unpredictability of industry change (Urban, 2010). The descriptive analysis showed that on average there was mild agreement (“somewhat agree”) with the dynamic nature of the business environment ($H=3.32$, $SD=0.826$). As seen in Appendix F, the highest percentage of responses reflected a mild agreement with the predictability of competitors’ actions; the ability to forecast customer preferences; the stability of the industry from external change; and the constant presence of the same set of competitors. A higher level of agreement was seen in the ability to predict demand. The literature review did however consider a potential aspect that could explain the departure from expected results. Sub-section 2.4.4 spoke to the subjective nature of individual perception and cautioned its use as a measurement tool (Hofstede, 1980; Urban, 2010). Furthermore human behaviour theory and the effect of management perceptions were discussed (see section 2.4.2), and it was argued that entrepreneurs perceive risk differently from the ordinary person, so they are able to see upside risk easier than those without EO. These heuristic differences allow them to perceive risk more optimistically (Baron, 1998). In this case, where others would opt to “disagree” to the item scales under consideration (forecasting demand and customer preferences, predicting competitor behaviour and perceiving change), the sample population may not “disagree”. The literature above assumes that those who have the appetite to start business possess a strong EO and entrepreneurial staff, who may not perceive the risk of dynamism in the same way.

Support for this may be seen when the results are controlled for ‘role in the organisation’ (see Appendix E) which found that senior managers had lower perceptions of environmental risk factors than the middle and junior staff; junior staff presented the highest perception. If we assume that the management of

the SME has higher entrepreneurial qualities this would support the argument that perception of risk in entrepreneurs and those who possess the appetite to start businesses differs from that of ordinary people as argued in Chapter 2.

Additionally, the national cultural tolerance for risk may also be a consideration as countries with lower uncertainty avoidance may not understand risk in the same way as another culture would (Hofstede, 1980); although this is not measured here.

Hostility

The hostility scale presented no consensus in agreement over the effect of hostility, presenting an average slightly above neutral ($M=4.86$, $SD=1.67$). Responses to the items on the questionnaire show that on average, respondents “disagreed” (Likert scale 6) that firm failure rate was high; that their industry was risky; that there was low customer loyalty; that price wars were characteristic of industry; and that low profit margins characterised their industry. They “strongly disagreed” that competitive intensity was high. Figure 16 shows responses peaked highly around scale items 5 and 6; this indicates the impact of the control variables in this research. Cross tabulation of the responses to this section with the industry they were obtained from (Appendix G), reveals that the weighting toward these responses was due to high percentage of responses from two of the biggest industry categories: communications and ‘other’. Inference can be drawn from this that in these particular sectors hostility may not manifest as strongly, but owing to their ratio in the sample size they weighted the scale negatively.

5.4 Discussion pertaining to Hypothesis 1

H₁: The relationship between political capital and organisational innovation will be positively moderated by environmental hostility and dynamism

The results reported in Chapter 4 indicate that the hypothesised relationship between the positive influence of SC in hostile and dynamic environments cannot be supported. A regression analysis was performed to compare a base model (political capital and OI) with a moderated model that was built to measure the R^2 change interaction effect. The dependent variable OI was measured on a 7 point Likert scale, as was the independent variable political capital as well as the moderating variables of hostility and dynamism. Preliminary data screening did not suggest problems with assumptions of normality and linearity. While the null hypothesis was rejected with a significant T value, the moderated model revealed that dynamism and hostility did not explain an adequate amount of the change. While the model's R^2 change value increased the result to 44%, it was below the 50% mark which is considered an acceptable percentage of change attributed to a model (Aguinis et al., 2017)

The model suggests that in the Zimbabwean environment, political capital does not adequately account for any change in an organisation's OI levels. Based on the literature that was reviewed above, there was an expectation that this hypothesis would be supported. Previous studies such as Li et al. (2008, p. 291) found that on average, firms with political connections performed better in terms of sales ($M=7.47$, $SD= 2.53$) which were significant at $p<.01$. Akcigit et al. (2018) found evidence for greater firm survival probability as political connectedness increased. While the studies were similar, this research distinguishes itself by using a unique outcome variable (OI) and considering the moderating effect of the environment on the result.

As was mentioned above, while studies of political capital (connections) have determined positive links with outcome variables such as market share (Du & Girma, 2010), dominance created by favourable regulations (lobbying) (Boubakri, Guedhami, Mishra, & Saffar, 2012), overall firm performance in terms of employment and revenue (Li, Meng, Wang, & Zhou, 2008), and reduced transaction costs which allows for the competitive advantage of faster turnover times (Adomako & Danso, 2014). Few have specifically assessed the impact of political capital on innovation; Yiu and Lau (2008) researched this relationship but moderated the effect with corporate entrepreneurship.

The distinction between the studies above and the results here can be explained by looking at a few arguments found in the literature reviewed above. The discrepancies between SC indicators was discussed and it was noted that not many studies have researched SC using indicators beyond generalized trust determined by use of secondary data. Primary data was used here using information drawn from social networks, and so a divergence from the norm is to be expected.

Furthermore research by Gelauff (2003) found that although political capital has many benefits, productivity and innovation may actually be hampered political networks (if closed), as they only allow already established knowledge to circulate within the network. In line with this, an explanation for the unsupported result of the MMR analysis was identified in the findings of a study reviewed in Chapter 2 by Akcigit et al. (2018). They found that companies that positioned themselves as market leaders were the most politician-intensive, but they were also the least innovation-intensive, relative to their competitors. As this study was not assessing firm performance in general as previous studies did, the distinguishing factor was that political capital appears to not enhance the productivity or creativity necessary to drive innovation. This deficit was not overcome by the positive moderation that the environmental conditions provided, as the change effect could still not be adequately attributed to the model.

5.5 Discussion pertaining to Hypothesis 2

H₂ The relationship between alliance capital and organisational innovation will be positively moderated by environmental hostility and dynamism

The results of the analysis in Chapter 4 showed that the hypothesised relationship between the positive influence of alliance capital on OI in hostile and dynamic environments was supported. The regression analysis compared the base model (alliance ties and OI) with a moderated model that was built to measure the R^2 change interaction effect. The dependent variable OI was measured on a 7 point Likert scale, as was the independent variable and the

moderating variables of hostility and dynamism. Preliminary data screening did not suggest problems with assumptions of normality and linearity. The null hypothesis was rejected with a significant T value, the moderated model revealed that dynamism and hostility explained an adequate amount of the change. The model's R^2 change value increased the result to 56%, a change of 9% which it was above the 50% mark considered an acceptable percentage of change attributed to a model dealing with human behaviour (Aguinis et al., 2017)

The model suggests that in the Zimbabwean environment, alliance capital positively moderated by hostility and dynamism can explain an adequate amount of change in an organisation's OI levels. Based on the literature that was reviewed above, there was an expectation that this hypothesis would be supported. Literature reviewed found that the relationship between alliance ties and innovation would be a positive one as it allows access to resource capital (Mitchell & Singh, 1992), additionally they allow assets, competencies and capabilities that enhance competitive value (Oliver, 1997). This supports the assumption in literature that it is a valuable source of SC as organisations encounter it most, both in the course of doing business (information from suppliers and competitors), from regular intentional investment by organisations (conferences and consultancies) (Landry et al., 2002).

5.6 Discussion pertaining to Hypothesis 3

H₃ The relationship between reputational capital and organisational innovation will be positively moderated by environmental hostility and dynamism

The literature review spoke to the noted trend of firms crafting their brands around the image of being 'innovation leaders' and brands. It is posited that this reputation allows for firms to bridge information asymmetry gaps and reduce time spent in information search because their very reputation creates networks around it (Yiu & Lau, 2008). Empirical studies that speak to the African context were not identified. The results of the analysis were that hypothesis 3 was not

supported by the MMR as the relationship between the positive influence of reputational capital on OI in hostile and dynamic environments was not statistically adequate. The regression analysis compared the base model (reputational capital and OI) with a moderated model that included hostility and dynamism to measure the R^2 change interaction effect. The dependent variable OI was measured on a 7 point Likert scale, as was reputational capital and the moderating variables of hostility and dynamism. The null hypothesis was rejected with a significant T value reputational capital. The results showed that the moderated model explained an inadequate amount of the change. The model's R^2 change value decreased the result from 46% in the base model, to 44%, a change of -2% which was below the 50% mark considered an unacceptable percentage of change attributed to a model dealing with human behaviour (Aguinis et al., 2017)

Literature was presented which argued *for* a firm's reputation enhancing innovation (Hoang & Yi, 2015; Yiu & Lau, 2008), as well as evidence *against* a firm's reputation being beneficial for innovation (Soh et al., 2004) (see subsection 2.7). Inadequate studies referenced African markets and the relationship that customers and firms have with an organisations reputation in an emerging market context. The base model which assessed the relationship between IO and reputational capital presented an inadequate R^2 value, which was worsened by the moderation model. The results indicate that reputation is not a consideration, and literature has inadequate explanations as to why this would be the case.

5.7 Conclusion

This chapter contextualised the results that were obtained from analyses in Chapter 4. The discussion of results was guided by the assumptions formed from literature in Chapter 2, which were engaged to assess the hypotheses under assessment. In discussing the response tendencies received for the individual scales in the questionnaire, this chapter intentionally engaged the demographic characteristics of the sample of respondents (treated as control variables) through cross tabulation, in order to understand their impact on

responses. The implications of which shall be discussed in Chapter 6. The process of cross tabulation was also instrumental in identify the overweighting on a higher Likert value that communications and the 'other' sectors of the economy caused in the hostility scale.

Overall, as discussed in Chapter 3, the use of an MMR analysis to determine the power of a moderating effect is also affected by the sample size of the responses as well as the variables under assessment. Hair et al. (2010) estimate that a sample size of $N=100$ respondents with 2 or 3 independent variables could create an effect size as small as 12%. In light of this small effect sizes were anticipated. The only hypothesis that this research failed to reject was H_2 which posited that in hostile and dynamic environments, alliance networks have a positive influence on the innovative output of a firm. The hypothesis found strong support in the literature that was reviewed for this assertion, and so the results were expected. Though H_1 was not supported, the result was considered possible after reviewing a small stream of literature that found innovation and political capital may not have a positive relationship. While positive moderation was seen and expected it was not enough to result in significant change values. Hypothesis 3 was also not supported by the analysis owing to a low base model and inadequate interaction effect.

CHAPTER 6: CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

6.1 Introduction

As the concluding section, this chapter will discuss the conclusions reached from the hypothesis under consideration and state research conclusions. It will highlight the recommendations that are put forward for academia, SME's and policy. The chapter will conclude by providing recommendations for future research directions.

6.2 Conclusions of the study

6.2.1 *Research Objectives*

In conceptualizing the research topic, the value of understanding the keys to SME growth and survival on the African context was clear in policy, academic literature and business management literature (AfDB/OECD/UNDP, 2017; Banda et al., 2015; Covin & Slevin, 1989; Kuratko et al., 2015; Steel, 1995). Consistent themes in conceptualizations and definitions of entrepreneurship are the ability of the entrepreneur to 'create' 'identify new combinations' and 'exploit opportunities' (Schumpeter, 1934; Shane & Venkataraman, 2000); in other words the ability to innovate is central to the function of the entrepreneur/entrepreneurial organisation. Innovation within the firm (OI) was therefore selected as an outcome variable which spoke directly to firm survival. The use of moderating variables (hostility and dynamism) was done in order to generate research that was 'context bound' and applicable to the environment that it was conducted in (Kolk & Rivera-Santos, 2018). A review of innovation literature provided insight into the lack of literature that speaks to non-technical research of innovation; in essence despite being a 'socially situated phenomenon', innovation literature has not given enough attention to how network resources (knowledge assets) are able to influence the innovative

process (Cantner et al., 2010; Gubbins & Dooley, 2014; Landry et al., 2002; Westlund, 2006). This combined with the growing recognition that social networks serve as an under-researched resource on the African continent (some go as far as to term social networks as a ‘form of currency’) (Hyden, 2012; Zoogah et al., 2015) motivated the use of SC as an independent variable. In light of the above, the objective of this research was identified as seeking to evaluate if a positive relationship existed between various forms of SC, and the firms OI in light of moderation from environmental hostility and market dynamism.

With a stated research aim of empirically evaluating Zimbabwean SME’s, in order to establish the relationship between three forms of SC and OI, a quantitative survey based study was carried out. This was done through a 25 item questionnaire that employed a 7 point Likert scale. The scales that measured the dependant and independent variables were adapted from previous studies by Yiu and Lau (2008) (political capital, reputational capital and OI) and Landry et al. (2002) (alliance capital). The moderating variable scales were adapted from a study by Urban (2010). A CFA deemed the 6 factors sufficient with all items were retained. The data collection process received 104 responses from SME’s in Harare province.

6.2.2 Research Findings

Of the three hypotheses under assessment in this research, only one was supported. The construct of SC was assessed as three different forms of capital (reputational, alliance and political) as has been previously done by Yiu and Lau (2008). This adds nuance to the conversation on SC which is in need of identifying clear inputs that lead to the outcomes that have been studied so extensively over the years (Dasgupta, 2005). The results of the MMR analysis are restated and the conclusions drawn from the results discussed below.

Table 26: Results of Hypothesis Testing

	Hypothesis	Result
H1	The relationship between political capital and organisational	Not supported

	innovation will be positively moderated by environmental hostility and dynamism	
H2	The relationship between alliance capital and organisational innovation will be positively moderated by environmental hostility and dynamism	Supported
H3	The relationship between reputational capital and organisational innovation will be positively moderated by environmental hostility and dynamism	Not supported

(Source: Authors Own Work)

The moderating effect of hostility and dynamism

This study explored the construct of environmental risk, through the variables of hostility and dynamism of market, in a country considered a high risk business environment (KPMG, 2017; World Bank Group, 2018). Treatment of the variables as separate is in line with previous studies that used hostility and dynamism as moderators (Adomako & Danso, 2014; Covin & Slevin, 1989; Miller, 1983). The correlation between OI and hostility was significant ($r = .647$, $p < .01$). This is in contrast to findings by Miller and Friesen (1983) who found negative correlation between innovation and hostility. Dynamism failed to record significant correlation with OI.

With well documented economic instability, it was expected that the responses to questions around the moderating variables would reflect a level of support for the dynamism and hostility. As discussed, respondents registered a slight disagreement with their environment being hostile, and only a weak agreement that it was dynamic. The resultant MMR analysis of hostility and dynamism as moderators failed to account for an adequate R^2 change value (44%). Conclusions drawn from the results of the analysis of the moderating variables were identified from the literature reviewed as possibly emanating from: heuristic biases of the employees that perceive risk more optimistically (McClelland, 1961), national culture tolerant of uncertainty (Hofstede, 1980), or are evidence of the inability of managers to adequately assess their environment (Urban, 2010). The original study by Urban (2010) from which the scales were derived from also reported moderate agreement, which was attributed to the limited accuracy of human perception.

Hypothesis One

The correlation between OI and political capital was insignificant ($r = -0.092$, $p = n.s$). This represents a departure from the original scale conducted in a Chinese context which found a significant positive relationship between OI and political capital $\gamma = 0.29$ (Yiu & Lau, 2008). The implication of this is a direct vindication of the stated objective of the research: generating context bound research in order to test whether concepts have universal applicability (Kolk & Rivera-Santos, 2018). The MMR analysis revealed that as a result of low correlation, political capital only explained 1% in the model change; the environmental moderators improved this figure but not enough to give the model an adequate change value. This result is admittedly the most counterintuitive given the quantity of literature which has posited the value of political connections in environments with poor institutions or command economies (Putnam, 1993; Welter & Smallbone, 2011; Zoogah et al., 2015). As mentioned above, the use of information as an indicator distinguishes this study. What this result does is it gives support to less prominent literature (Akcigit, Baslandze, & Lotti, 2018; Gelauff, 2003) that questions the *quality* of information that these networks have to offer, in terms of the productive value that they add to processes which require a level of technical understanding.

Hypothesis Two

This hypothesis was supported by the overall MMR model; correlation between OI and alliance ties was strong ($r = .685$, $p < .01$) and the moderation model accounted for 56% of the effect. Landry et al. (2002) used this scale in order to determine the SC effect on firm innovation; their study found that firms were more likely to innovate in the presence of SC. This finding is in line with that research and affirms social network innovation theory that posits the value of investment into non-tangible resources as a way to innovate. A causal inference cannot be made when dealing with research of this nature as it is non-experimental, but these findings allow for deeper consideration into a knowledge asset African society may be more attuned to. African and Asian countries are considered collectivist in nature, with networks being perceived with greater value valuable (Acquaah & Eshun, 2012; Hyden, 2012); this

research adds empirical evidence for the business case for companies to invest in, and maintain alliance ties.

Hypothesis Three

The final hypothesis was not supported by the research; in this case the moderating effect was actually a negative one. Reputational capital correlated well with innovation ($r = 0.675$, $p < .01$). Not much empirical research exists around reputational capital in general, but in the emerging context studies are scarce. Hoang and Yi (2015) recognise reputational capital as a form of SC that is conferred; firms or entrepreneurs attain legitimacy through association with or by obtaining formal certification from well-regarded individuals and organizations within their networks. This research looked at awards and government as the 'well regarded' institutions that confer reputational legitimacy.

6.3 Implications and Recommendations

It was stated in Chapter 1 that this research was conducted with the intention of adding valuable research for policy makers, SME's, as well as academically. The implications and recommendations are grouped according to the value that each of these groups can glean from the results of the analysis.

Academic Value

The argument for a multidimensional, multi-disciplinary approach to innovation was made in Chapter 2. Damanpour et al. (2018) point to the need to move beyond 'industrialised' understandings of innovation and embrace the study of non-technological forms of innovation, where roles of various types of innovation on organizational conduct and outcomes are explored and explained (Damanpour et al., 2018). This research brings to the fore OI, a form of innovation research that is noted as receiving insufficient attention in literature, despite its integral role to organisational effectiveness (Damanpour et al., 2018; Marcotte, 2014; Read, 2000).

The primary benefit of empirical research related to SC is aligned to an assertion by Westlund and Adam (2010), who propose that since SC research is still in its infancy, similar to human capital research in the 1960's, empirical evidence is needed to legitimise many of the claims made by SC literature. Regarding the scales used in this study, research by Westlund and Adam (2010), Doh and Acs (2012) and Dasgupta (2005) point to the frequent use of trust as an indicator of SC in empirical research. Doh and Acs (2012) argue that SC consists of at least two other elements: associations and civic norms. This research explores information drawn from one of these underexplored elements (associations) and adds heterogeneity to SC research.

In addition to exploring additional indicators of SC, Dasgupta (2005) and Landry at al. (2002) propose that SC literature would be enriched not only by assessing outcomes, but by segregating and exploring alternative *sources* of SC. This research serves as an empirical assessment of three SC sources previously explored in the Chinese context by Yiu and Lau (2008). By adopting previously tested scales, an additional benefit of contextualising research is realised.

SME's

The debate of whether firms can remain competitive and innovative without harnessing knowledge resources has been intensified by increasing focus on participation in knowledge economies. Chapter 2 argued for SME's to take an approach to innovation which takes advantage of information embedded social networks. While only one hypothesis was supported, there is an argument to be made for individual businesses to consider that investments into innovation are not only made through traditional investment into R & D. Hypothesis 2 which put forward that alliance ties are positively related to OI in hostile and dynamic environments was supported by this research. The recommendation is therefore that SME's in such environments consider stronger investments into their 'social infrastructure'. Based upon the items measured these investments should be in professional associations, business networks (clients, suppliers and consultancy firms), trade fairs, exhibitions, professional conferences and the active observation of other firms' strategies.

As mentioned in the literature review, while SC has been embraced by social science research due to its 'intuitive appeal', business and economic research has struggled to embrace a concept without clear ways to value SC or understanding of how it is sourced. This research has made an argument for the positive effect of SC on a firm's OI which is the intellectual capital of the firm and a driver of its competitiveness. This link is in line with established research by Nahapiet and Ghoshal (1998). They argue that the non-imitable nature of the OI that results from SC gathered from networks is a sufficient indicator of economic value, and studies such as this one provide empirical support for this.

Policy Makers

The anticipation that African SME's will stimulate national and regional development has been clearly articulated. While these results cannot be said to directly translate into what would happen on a national or regional level, it is possible to infer the actions that are to be taken, as a result of the hypothesis that was supported. The research makes a case for alliance ties to be promoted, and it is recommended that policy makers actively facilitate the connections between businesses, investors, consultants and suppliers through social networking events such as trade fairs (local and international), professional conferences, and exhibitions. Furthermore, policy makers are encouraged to take advantage of these findings as they indicate how they can support individual SME's effectively. SC is seen as a key 'value factor' which contributes to the formation of employment creating technology agglomerations such as Silicon Valley. This is because it facilitates the formal or informal cooperation between SME's and external networks of venture capitalists, research institutions, while supporting an innovative environment (Fukuyama, 1995; Putnam, 1993; Stough et al., 2012). The supported hypothesis lends itself to those thinking through the formation and support of similar national and regional hubs.

The unsupported political capital hypothesis also implies that there is a recommendation to be made *against* relying on government information and associations for reasons beyond the 'signalling effect' that the association provides. While literature established that political capital was a valuable

resource in emerging economies to compensate for institutional failings (Yiu & Lau, 2008; Zoogah et al., 2015), this research implies that the quality of information received may not be as important as the mere association and the signal it sends. With many African countries developing policy to stimulate growth in SME's support, it can be recommended that government efforts redirect themselves from disseminating technical information as the market appears best suited to provide that.

6.4 Limitations of the study

The interpretation of the findings of this research must be understood in light of the findings discussed below.

Methodology and Sampling

The first limitation of the study is seen in the use of questionnaires. While questionnaires are easily distributed and cost effective, they also carry the risk of nonresponse, especially when considering the impersonal nature of electronically administered surveys (Sekaran & Bougie, 2016). Additionally clarification of concepts could not be sought and complex feeling had to be captured by simple questions (Cooper & Schindler, 2014). The impact of use of a quantitative questionnaire is that the researcher is deprived of follow-up questions (Cooper & Schindler, 2014).

Use of cross sectional analysis as opposed to a longitudinal study meant result presented a time bound understanding of the environment. Dynamism and hostility present environmental conditions that are arguably better measured over a period of time to record feelings in different stages, so the cross sectional design presents robs the study of comparative value as mentioned above (Bryman & Bell, 2011; Sekaran & Bougie, 2016).

A further limitation of the study is the inability to determine a sample size, which has prevented calculation of response rate. The use of non-probability sampling reduced the generalizability of the sample (Bryman & Bell, 2011), as opposed to if a probability sample had been used.

Discussion and Analysis

The first limitation of the study relates to the indicator used to measure SC. Doh and Acs (2012) assert that the construct of SC is made up of trust (generalized and institutional), associations (passive and active) as well as civic norms. The indicators adopted here analyse the associations element of SC; while this adds nuance to an element of SC it does not explore the breadth of SC as a construct.

A major limitation of the study was the impact of the sample size obtained. The particular analysis used (MMR) required a larger size in order to create a larger effect change. While time and resource constraints did not allow for this, the potential effects are noted. As a non-experimental study the causal effect cannot be determined, so conclusions are limited to recommendations implied from the results. Finally, the use of subjective managerial perception affected the perception on the environmental factors.

6.5 Suggestions for further research

The results of this study related to a firm level analysis of the relationship between SC and OI in a hostile and dynamic environment. Though valuable, only tenuous inferences can be drawn regarding the applicability of these results on a regional and national level. The value of SC for OI must be further researched on a national and regional level to determine with accuracy the relationship for markets such as Zimbabwe's.

As the process model in Chapter 2 showed, the innovative process that this research envisaged consisted of external environmental conditions and external sources of innovation. It was stated by Read (2000) that innovation in a firm is ultimately a function of management, which is a combination of various internal processes. Therefore additional consideration must be given to the internal organisational processes of SME's, in order to understand how they are enabling or restricting innovation when faced with external circumstances or resources.

The only research question supported by this research was the hypothesised relationship between alliance ties and OI. As an exploratory study the causal relationship cannot be determined from these results. Further experimental research is recommended to give stronger validation to the relationship. Chapter 2 outlined the process model that OI is thought to follow, the mechanics of just how SC and is converted into OI is less understood and is recommended for further study.

The nature of Zimbabwean economic fluctuations is well documented; owing to the stated issues with controlling for individual perceptions to accurately determine environmental conditions it is recommended that future studies employ secondary data in order to determine the effect on the findings. Additionally, owing to the cross sectional nature of the research, only a snapshot of the environment was captured. It is recommended that any future research which seeks to provide an explanation for the long term survival and innovativeness of SME's in that context do so through longitudinal studies. This will allow a better understanding of the environment as a moderating variable.

The control variables in this research were argued to have influenced a few of the key findings above. They were however not the main focus of the research and only inference can be drawn from how they affected the data. Instead of merely controlling for their effects, it is recommended that each variable and the effects be further studied as results could provide useful information for policy makers. For example, why senior management registered a lower mean perception of environmental risk; why communications and 'other' sectors perceived the environment to be less risky than other sectors; or why Harare's SME's seem to have broken with perceived the trend of having fewer women in senior management.

The results of the political capital analysis provoked more questions than answers. Many of the studies that dealt with the benefits of political capital on firm performance recognised trust as the benefit that was to be extracted from the network; however trust is not the only benefit that can be expected from social networks yet it features heavily in SC literature (Westlund & Adam, 2010). This study was intentional in recognising information, trust and support benefits

that are extracted from social networks. Future research is suggested that uses additional indicators for SC outside generalized trust.

The study and findings for reputational capital revealed that there is a dearth of literature that explores reputational capital. Researchers are challenged to explore the influence of this variable on the African continent further; as consumers on the continent become more discerning such information will prove relevant.

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APPENDIX A

Research Instrument

Gender	Male:		Female:	
Firm size:	<100 employees:		>100 employees:	
How would you describe your role in the organisation?	Junior Management:	Middle Management:		Senior Management:
Duration of employment:	<5 years		>5 years	
What sector of economy do you operate in:	Banking and Financial Services :		Communications (incl. Telecommunications) :	
	Agriculture:		Mining:	
	Consumer Services (incl. tourism, hospitality) :		Wholesale and Retail :	
	Manufacturing (incl. 'Industrials') :		Other:	

Research Instrument (Landry et al., 2002; Plambeck, 2012; Urban B, 2010; Yiu & Lau, 2008)

Place a cross in box “1- not at all influential” if it does not influence your organization at all. You would cross box “7- extremely influential” if it has a significant influence in your organization. The boxes between ‘not at all influential’ to ‘extremely influential’ give you an opportunity to make your response at an intermediate level. **Place a clear “X” on the value you want to select.**

Section A: Social Capital (Landry et al., 2002; Yiu & Lau, 2008)								
Network-based Resource Capital Measures								
Political Capital (Government Support)								
To what extent have you received help from government agencies OR the information they or their representatives have made available, in the following areas (1: not at all influential–7: extremely influential scale):								
1. They have provided technical	1	2	3	4	5	6	7	

training which has assisted us in our firm							
2. This support or information has given managers insight and increased our firms management knowledge	1	2	3	4	5	6	7
3. Government support or information has helped with our information services (i.e. it has increased the quality of information you can give your clients, the public or your industry)	1	2	3	4	5	6	7
4. Information or support from government has assisted our human resource services	1	2	3	4	5	6	7
Social Capital (Alliance Ties): To what extent has network and alliance information or support in the following five areas assisted in your firms' innovative strategies? (1: not at all influential–7: extremely influential scale):							
5. Our business networks (clients, suppliers, suppliers of equipment, material and components, or consultancy firms) give us information which assists us with firm strategy	1	2	3	4	5	6	7
6. The professional associations we are a part of have contributed to our firms' strategy (an example would be Zimbabwe Farmers Union)	1	2	3	4	5	6	7
7. Information that we receive/observe from other firms is valuable when we make strategy	1	2	3	4	5	6	7
8. Trade fairs and exhibitions, professional conferences, meetings and publications, internet- or computer-based information networks, or patent documents help guide our strategy	1	2	3	4	5	6	7

Reputational Capital (Recognition and Awards): To what extent has the reputation of your firm assisted in your firm getting information? (1: not at all influential–7: extremely influential scale):							
9. Our firm's reputation has allowed us to receive government contracts and government sponsored research grants	1	2	3	4	5	6	7
10. Our firm's reputation has allowed us to receive awards for innovativeness	1	2	3	4	5	6	7

Section B

Place a cross in box “1- never true” if it does not hold true in your organization at all. You would cross box “7- always true” if it does hold true for your organization. The boxes between never true and always true give you an opportunity to make your response at an intermediate level. **Place a clear “X” on the value you want to select.**

Section B: Innovation (Yiu & Lau, 2008)							
Organizational innovation (1: never true–7: always true):							
11. Our company is often first in the industry to develop innovative management systems	1	2	3	4	5	6	7
12. Our company is often first in the industry to introduce new business concepts and practices	1	2	3	4	5	6	7
13. Our company changes the organizational structure in significant ways to promote innovation	1	2	3	4	5	6	7
14. We introduce innovative human resource programs to spur creativity and innovation	1	2	3	4	5	6	7

Section C

Place a cross in box “1- strongly agree” if it does not hold true in your organization at all. You would cross box “7- strongly disagree” if it does hold true for your organization. The boxes between strongly agree and strongly disagree give you an opportunity to make your response at an intermediate level. Place a clear “X” on the value you want to select.

Section C: Hostility and Dynamism (Urban, 2010)							
Hostility							
(1:strongly agree–7: strongly disagree):							
15.The failure rate of firms in my industry is high.	1	2	3	4	5	6	7
16.My industry is very risky, such that one bad decision could easily threaten the viability of my business unit.	1	2	3	4	5	6	7
17.Competitive intensity is high in my industry.	1	2	3	4	5	6	7
18.Customer loyalty is low in my industry.	1	2	3	4	5	6	7
19. Severe price wars are characteristic of my industry.	1	2	3	4	5	6	7
20.Low profit margins are characteristic of my industry.	1	2	3	4	5	6	7
Dynamism (Note: All items are reverse-coded.)							
(1:strongly agree–7: strongly disagree):							
21.Actions of competitors are generally quite easy to predict.	1	2	3	4	5	6	7
22.The set of competitors in my industry has remained relatively constant over the last 3 years.	1	2	3	4	5	6	7
23.Product demand is easy to forecast.	1	2	3	4	5	6	7
24. Customer requirements / preferences are easy to forecast.	1	2	3	4	5	6	7
25. My industry is very stable with	1	2	3	4	5	6	7

very little change resulting from major economic, technological, social, or political forces.							
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APPENDIX B

Consistency Matrix

INNOVATION IN DYNAMIC MARKETS: SOCIAL CAPITAL AS A RESOURCE IN ZSE LISTED FIRMS IN ZIMBABWE					
Aims of research	Literature Review	Hypotheses or Propositions or Research questions	Source of data	Type of data	Analysis
Determine the OI of firms in Zimbabwe	(Plambeck, 2012)	Evaluate the level of organisational innovation of SME's in a hostile and dynamic market (Zimbabwe),	Questions 12-15	Ordinal Data	Moderated Multiple Regression analysis (MMR)
Analyse and evaluate the influence of political capital on organizational innovation	(Yiu & Lau, 2008) (Landry, Amara, & Lamari, 2002)	H1: The relationship between political capital and organisational innovation will be positively moderated by environmental hostility and dynamism	Questions 1-4	Ordinal Data	MMR
Analyse and evaluate the influence of social capital (industry networks and alliances) on organizational innovation		H2: The relationship between alliance capital and organisational innovation will be positively moderated by environmental hostility and dynamism	Questions 5-9	Ordinal Data	MMR

INNOVATION IN DYNAMIC MARKETS: SOCIAL CAPITAL AS A RESOURCE IN ZSE LISTED FIRMS IN ZIMBABWE					
Aims of research	Literature Review	Hypotheses or Propositions or Research questions	Source of data	Type of data	Analysis
Analyse and evaluate the influence of reputational capital on organizational innovation		H3: The relationship between reputational capital and organisational innovation will be positively moderated by environmental hostility and dynamism	Questions 10 -11	Ordinal Data	MMR
Analyse and evaluate environmental factors	(Urban B. , 2010)	Evaluate perceptions of hostility and dynamism in firm managers	Questions 16-26	Ordinal Data	Mean Analysis

Appendix C

Consent Form



To Whom It May Concern:

RE: MM RESEARCH INFORMATION SHEET AND CONSENT FORM

My name is Kudzanai Mutendadzamera. I am conducting data collection to satisfy the research component of my Masters in Entrepreneurship and Venture Creation at Wits Business School. I am conducting research on the practice of organisational innovation in the private sector. The research is aimed at establishing the main factors that contribute to innovation in firms such as yours, in economic instability.

Your participation

I am asking you to complete a questionnaire that has 25 questions and it will take you 7-10 minutes to complete. I have provided the link to the electronically administered survey. Should you experience any difficulty please contact me so I can administer the survey manually. Your participation in this study will not subject you to any prejudice.

Please understand that **your participation is voluntary** and you are not being forced to take part in this study. You may withdraw consent once given and are free to leave the study at any point you feel you need to.

Confidentiality

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including my

academic supervisor/s. (All of these people are required to keep your identity confidential.)

All study records will be destroyed after the completion and marking of my thesis. I will refer to you by a code number or pseudonym (another name) in the thesis and any further publication.

Benefits

There are no immediate benefits to you from participating in this study. However, this study will be extremely helpful to us in understanding the level of innovation in your organization, and help weave Zimbabwe into a conversation about organisational innovation that is occurring globally.

If you would like to receive feedback on the study, I can send you the results of the study when it is completed sometime after June 2019

Who to contact if you have been harmed or have any concerns

This research has been approved by the Wits Business School. If you have any complaints about ethical aspects of the research or feel that you have been harmed in any way by participating in this study, please contact the Research Office Manager at the Wits Business School, Mmabatho Leeuw. Mmabatho.leeuw@wits.ac.za

If you have concerns or questions about the research you may email my academic research supervisor Prof Boris Urban at boris.urban@wits.ac.za.

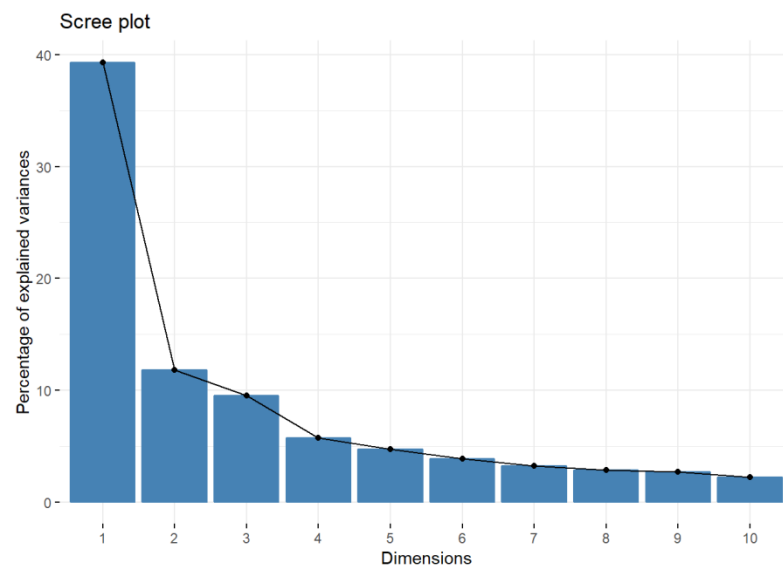
Appendix D

KMO Barlett's Test and Scree Plot Results

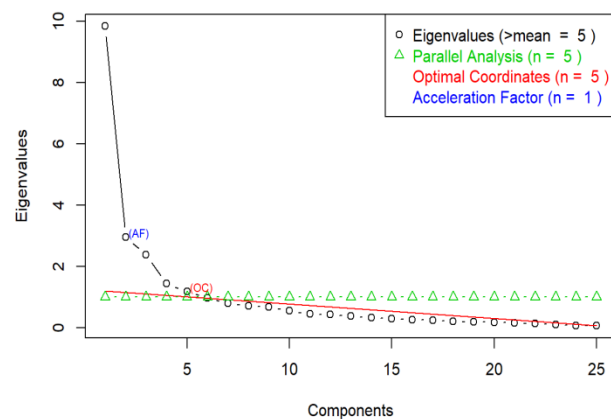
KMO and Barlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.84
Bartlett's Test of Sphericity	Approx. Chi-Square	1959.00
	df	300.00
	Sig.	0.00

Scree Plot



Non Graphical Solutions to Scree Plot



Appendix E

Cross Tabulation of Firm Size and OI

Firm size and OI Cross tabulation										
			Likert Scale Value							Total
			Never True	Rarely True	Infrequently True	Neutral	Sometimes true	Usually True	Always True	
Firm Size	< 40 employees	Count	17	31	28	18	31	48	19	48
		% of Total	16.3%	29.8%	26.9%	17.3%	29.8%	46.2%	18.3%	46.2%
	< 75 employees	Count	3	5	3	20	46	89	58	56
		% of Total	2.9%	4.8%	2.9%	19.2%	44.2%	85.6%	55.8%	53.8%
Total		Count	20	36	31	38	77	137	77	103
		% of Total	19.2%	34.6%	29.8%	36.5%	74.0%	131.7%	74.0%	100.0%
Percentages and totals are based on respondents.										
a. Group										

Cross tabulation of organizational role and environmental perception

Organizational Role		N	Minimum	Maximum	Mean		Std. Deviation
					Statistic	Std. Error	
Junior Management	Hostility	49	11	41	34.3265	1.15226	8.06584
	Dynamism	49	6	23	15.449	0.49664	3.47648
Middle Management	Hostility	27	8	41	30.037	1.86929	9.71312
	Dynamism	27	8	23	15.4444	0.77594	4.03192
Senior Management	Hostility	27	9	30	19.2963	0.93798	4.87391
	Dynamism	28	9	31	18	0.9056	4.79197

Appendix F

Variable Frequency Tables

Political Capital Alliance Ties and Reputational Capital Frequency Tables

Item	Not At All Influential	Low Influential	Slightly Influential	Neutral	Moderately Influential	Very Influential	Extremely Influential
P1	3.85%	5.77%	11.54%	16.35%	32.69%	23.08%	6.73%
P2	6.73%	9.62%	15.38%	20.19%	24.04%	20.19%	3.85%
P3	1.92%	2.88%	17.31%	22.12%	26.92%	18.27%	10.58%
P4	5.77%	6.73%	21.15%	16.35%	21.15%	25.00%	3.85%
S1	7.69%	3.85%	5.77%	9.62%	19.23%	46.15%	7.69%
S2	8.65%	3.85%	3.85%	16.35%	14.42%	34.62%	18.27%
S3	14.42%	3.85%	4.81%	7.69%	16.35%	32.69%	20.19%
S4	9.62%	4.81%	7.69%	9.62%	14.42%	25.96%	27.88%
R1	10.58%	2.88%	10.58%	11.54%	16.35%	26.92%	21.15%
R2	12.50%	4.81%	12.50%	9.62%	16.35%	25.00%	19.23%

Key

P1	They have provided technical training which has assisted us in our firm
P2	This support or information has given managers insight and increased our firms management knowledge
P3	Government support or information has helped with our information services (i.e. it has increased the quality of information you can give your clients, the public or your industry)
P4	Information or support from government has assisted our human resource services
S1	Our business networks (clients, suppliers, suppliers of equipment, material and components, or consultancy firms) give us information which assists us with firm strategy
S2	The professional associations we are a part of have contributed to our firms' strategy (an example would be Zimbabwe Farmers Union)
S3	Information that we receive/observe from other firms is valuable when we make strategy
S4	Trade fairs and exhibitions, professional conferences, meetings and publications, internet- or computer-based information networks, or patent documents help guide our strategy
R1	Our firms reputation has allowed us to receive government contracts and government sponsored research grants
R2	Our firm's reputation has allowed us to receiving awards for innovativeness

Organizational Innovation Frequency Table

	Never True	Rarely True	Infrequently True	Neutral	Sometimes true	Usually True	Always True
Inov 1	7.69%	10.58%	3.85%	11.54%	17.31%	33.65%	15.38%

Inov 2	4.81%	9.62%	5.77%	8.65%	20.19%	31.73%	19.23%
Inov 3	1.92%	7.69%	9.62%	8.65%	17.31%	30.77%	24.04%
Inov 4	4.81%	6.73%	10.58%	7.69%	19.23%	35.58%	15.38%

Key

Inov1	Our company is often first in the industry to develop innovative management systems
Inov2	Our company is often first in the industry to introduce new business concepts and practices
Inov3	Our company changes the organizational structure in significant ways to promote innovation
Inov4	We introduce innovative human resource programs to spur creativity and innovation

Hostility and Dynamism Frequency Table

	Strongly Agree	Agree	Somewhat Agree	Neither Agree Nor Disagree	Somewhat Disagree	Disagree	Strongly Disagree
H1	3.85%	13.46%	13.46%	11.54%	2.88%	36.54%	18.27%
H2	8.65%	14.42%	12.50%	5.77%	9.62%	30.77%	18.27%
H3	8.65%	20.19%	12.50%	2.88%	2.88%	25.00%	27.88%
H4	4.81%	7.69%	10.58%	2.88%	10.58%	37.50%	25.96%
H5	3.85%	11.54%	15.38%	6.73%	7.69%	29.81%	25.00%
H6	1.92%	12.50%	11.54%	4.81%	9.62%	37.50%	22.12%
D1	5.77%	14.42%	45.19%	15.38%	9.62%	7.69%	1.92%
D2	6.73%	22.12%	33.65%	25.00%	6.73%	5.77%	0.00%
D3	4.81%	33.65%	33.65%	17.31%	4.81%	5.77%	0.00%
D4	4.81%	28.85%	40.38%	18.27%	4.81%	1.92%	0.96%
D5	1.92%	25.00%	33.65%	11.54%	14.42%	11.54%	1.92%

Key

H1	The failure rate of firms in my industry is high.
H2	My industry is very risky, such that one bad decision could easily threaten the viability of my business unit.
H3	Competitive intensity is high in my industry.
H4	Customer loyalty is low in my industry.
H5	Severe price wars are characteristic of my industry.
H6	Low profit margins are characteristic of my industry.
D1	Actions of competitors are generally quite easy to predict.
D2	The set of competitors in my industry has remained relatively constant over the last 3 years.
D3	Product demand is easy to forecast.
D4	Customer requirements / preferences are easy to forecast.
D5	My industry is very stable with very little change resulting from major economic, technological, social, or political forces.

Appendix G

Sector of Economy and Hostility Cross tabulation										
			Host_ch5 ^a							Total
			Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree	
What sector of economy do you operate in	Banking and Financial Services	Count	2	5	9	5	6	9	6	42
		% within Sector of economy	4.8%	11.9%	21.4%	11.9%	14.3%	21.4%	14.3%	
		% within Hostility	6.1%	6.0%	11.4%	13.9%	13.3%	4.4%	4.2%	
	Communications (incl. Telecommunications)	Count	6	11	10	2	12	52	44	137
		% within Sector of economy	4.4%	8.0%	7.3%	1.5%	8.8%	38.0%	32.1%	
		% within Hostility	18.2%	13.3%	12.7%	5.6%	26.7%	25.4%	31.0%	
	Agriculture	Count	4	2	1	1	1	5	4	18
		% within Sector of economy	22.2%	11.1%	5.6%	5.6%	5.6%	27.8%	22.2%	
		% within Hostility	12.1%	2.4%	1.3%	2.8%	2.2%	2.4%	2.8%	
	Mining	Count	1	1	1	0	0	10	11	24
		% within Sector of economy	4.2%	4.2%	4.2%	0.0%	0.0%	41.7%	45.8%	
		% within Hostility	3.0%	1.2%	1.3%	0.0%	0.0%	4.9%	7.7%	
	Consumer Services (incl. tourism, hospitality)	Count	0	3	7	8	4	21	11	54
		% within Sector of economy	0.0%	5.6%	13.0%	14.8%	7.4%	38.9%	20.4%	
		% within Hostility	0.0%	3.6%	8.9%	22.2%	8.9%	10.2%	7.7%	
	Wholesale and Retail	Count	5	4	7	2	2	14	8	42
		% within Sector of economy	11.9%	9.5%	16.7%	4.8%	4.8%	33.3%	19.0%	
		% within Hostility	15.2%	4.8%	8.9%	5.6%	4.4%	6.8%	5.6%	
	Manufacturing (incl. 'Industrials')	Count	2	14	14	4	4	33	7	78
		% within Sector of economy	2.6%	17.9%	17.9%	5.1%	5.1%	42.3%	9.0%	
		% within Hostility	6.1%	16.9%	17.7%	11.1%	8.9%	16.1%	4.9%	
	Other	Count	13	43	30	14	16	61	51	228
		% within Sector of economy	5.7%	18.9%	13.2%	6.1%	7.0%	26.8%	22.4%	
		% within Hostility	39.4%	51.8%	38.0%	38.9%	35.6%	29.8%	35.9%	

Total	Count	33	83	79	36	45	205	142	623
Percentages and totals are based on responses.									
a. Group									

Appendix H: Plagiarism Declaration



Student details	
Student Number: 1775019	Student name: Kudzanai Mutendadzamera
Email address: kudzanaimutendadzamera@gmail.com	

Assignment details	
Course Code: Busa 7388A	Course Name: Research Report
Assignment no.	Due date: 28/02/2019
Assignment topic (as given in the coursepack): Research Report	
Student Declaration	
I am aware that plagiarism (the use of someone else's work without their permission and/or without adequately acknowledging the original source) is wrong and is a violation of both the General Rules for Student Conduct and the Plagiarism Policy of the University of the Witwatersrand. I am aware that it is wrong and is a violation of both the General Rules for Student Conduct and the rules of the Wits Business School for a student to submit for a course, unit, or programme of study, without the written approval of the course instructor or the programme director, all or a substantial portion of any work for which credit has previously been obtained by the student or which has been or is being submitted by the student in another course, unit, or programme of study in the University or elsewhere. I confirm that this assignment my own unaided work except where I have explicitly indicated otherwise. I confirm that this assignment has not been nor will be submitted in whole or in substantial part in another course, unit, or programme of study in the University or elsewhere without the written approval of the course or unit instructor or the programme coordinator. I confirm that I have followed the required conventions in referencing the words and ideas of others in this assignment. I confirm that I understand that this assignment may at any time be submitted to an electronic plagiarism detection system, and may be stored electronically for that purpose. I confirm that I have received a copy of the University's Plagiarism Policy S2003/351B and a copy of the General Rules for Student Conduct and Code of Conduct C2010/27. I confirm that I understand that any and all applicable policies, procedures, and rules of the University and of the School may be applied if there is a belief that this assignment is not my own new and unaided work, or that have failed to follow the required conventions in referencing the words and ideas of others, and I understand that application of the policies, procedures, and rules may lead to the University taking disciplinary action against me. Note: The attachment of this statement on any electronically submitted assignments will be deemed to have the same authority as a signed statement.	
Student Signature:	Date: 27/02/2019

