

**The relationship between entrepreneurial intensity,  
entrepreneurial capability, the environment, and  
multinational performance - among multinational grocery  
firms in South Africa**

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## **ABSTRACT**

The role of multinational enterprises (MNEs) has changed, especially in emerging economies like South Africa and retailers are taking advantage of this and expanding globally. In South Africa, multinationals play an important role in the economy. This study aims to contribute to multinational enterprise literature by analysing the relationship between entrepreneurial intensity, capabilities – namely technology -, environmental hostility and dynamism, and their effect on multinational performance.

The primary data was collected from 145 managers employed in South Africa grocery firms who already have international presence, using an on-line based questionnaire.

From the findings of the study, it was established that entrepreneurial intensity (frequency of entrepreneurship and proactiveness) and technology capabilities were positively related to multinational performance. The results also suggest that multinational grocery firms in service in foreign markets should have robust advantages in order to participate in markets abroad with which they not unfamiliar if they are not strong on innovation, proactiveness, and taking risks. Technology factors encourage inventiveness and flexibility among managers to gain influence over vital resources, though the challenge for the firms in emerging markets is to adopt technology and act entrepreneurially.

**Key words:** Entrepreneurial intensity, entrepreneurial capabilities, environmental dynamism and hostility, multinational enterprises

## DECLARATION

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

Signed at .....

On the ..... day of ..... 20.....

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# CHAPTER 1: INTRODUCTION

## 1.1 Background

The rapid globalisation of world markets has encouraged companies of all sizes and nationalities to expand internationally (Zahra, Hayton, Marcel, & O'Neill, 2001). The international spread of retail activity is now a global phenomenon, and major retail chains around the world are spreading their wings to the most obscure parts of the world. Dakora and Bytheway (2014) agree that retailing has become a global phenomenon and retailers can no longer rely solely on their home country markets for survival because they run the risk of having to compete with global contenders even in their own backyards. Dakora and Bytheway (2014) also acknowledged that this phenomenon is normally driven by three main energies, namely, rapid growth of developing markets, shrinking domestic markets in the developed world and the emergence of new economic groupings like BRICS (Brazil, Russia, Indian, China and South Africa). BRICS are countries that are classified as the fastest-growing group of economies (Sousa & Lengler, 2009).

South Africa's large retail firms, in particular, have been at the forefront of expansion into other African countries. According to the Global Agriculture Information Industry (2017), the South African grocery sector is highly competitive, hence retailers are fighting to maintain market share even though international retailers are entering the South African and African market. Moreover, the South African grocery market is concentrated in the top seven companies, namely, Shoprite, Pick n Pay, Cambridge Food, Spar, Woolworths and Choppies, accounting for about 80% of all retail sales. The majority of the food retailers have started expanding internationally with Shoprite leading the pack across Africa and the Indian Ocean Islands. After years of being restricted to local and culturally consistent markets, international retail development has turned into a reality for retailers (Vodlan & Vida, 2008).

Leading firms in different industries have found the effect of entrepreneurship behaviour as a competitive advantage and also as a path to better financial and non-financial performance (Ireland, Kuratko, & Morris, 2006). A firm's performance from the viewpoint of entrepreneurship at a point in time can be presented by its entrepreneurial intensity score (Ireland et al., 2006). In this study, we use the concept

of entrepreneurial intensity to empirically assess the level of entrepreneurship among multinational firms and its relationship to performance in their attempt to exploit opportunities in foreign markets.

Entrepreneurial capabilities are viewed as competences that can assist with identifying new opportunities and cultivating the resource base required to follow that new opportunity to performance (Arthurs & Busenitz, 2006). At same time, Zahra et al. (2000) have claimed that technological capabilities are critical for the firm's successful internationalisation. Therefore, this paper suggested that firms should hold a portfolio of entrepreneurial capabilities in their effort to promote expansion internationally. Based on literature, one entrepreneurial capability was identified, which was technology, and this was investigated.

Environmental conditions are the most dynamic element of any firm. Lindelöf and Löfsten (2006) claimed that the market environment suggests that traditional and entrepreneurial firms establish quite distinct characteristics in managing their environments. Hence, Agyapong, Zamore, and Mensah (2019) argued that it is vital that firms develop their strategies to follow the dynamic forces of the external environment. This study therefore examines the effect of the environment in the relationship between environmental hostility and dynamism and multinational performance, as well as entrepreneurial capabilities and firm performance. The two aspects of the environment under study are: environmental hostility and dynamism.

## **1.2 Context of the study**

Trade Intelligence (2016) estimates that the South African grocery industry (edibles) has an estimated value of R 485 bn. It has been established that the South African grocery sector is highly sophisticated, with advanced support from local producers and well-developed supply chains. A majority of South Africa retailers are aggressively expanding, with solid growing footprints, into other African countries, while most have entered the Sub-Saharan African market successfully, exceeding projections and expectations of income. An example is Shoprite Holdings as Africa's largest food retailer. It currently operates 2,843 supermarkets in 16 countries serving 35 million customers across Africa and the Indian Ocean Islands, with Pick n Pay is considered the second largest supermarket chain store in South Africa. Pick n Pay

stores can also be found in other regions of South Africa, such as Botswana, Mozambique, Zambia, Zimbabwe, Lesotho, Namibia, and Mauritius.

Dakora and Bytheway (2014) point out that the recent increase in international retail activity within Africa has pushed the continent into a retail revolution. At the forefront of this revolution are major retail chains from South Africa, as South African retailers have led retail expansion across the continent (Dakora & Bytheway, 2014). The experience of South African companies in the rest of Africa provides an important focus to highlight both the problems and challenges of these markets, as well as the potential solutions (Games, 2004).

This expansion has been driven by a saturated, highly competitive and shrinking domestic market, at a time when political reforms in African countries have led to rising economic development, urbanisation and middle class incomes that demand first world retail services (Weatherspoon & Reardon, 2003). These factors encourage expansion into new markets that present strategic opportunities for growth, especially by those South Africa retailers that are feeling the pressure at home. Therefore, understanding the drivers of international performance in the South African retail food industry has become critical. Whilst there has been research in relation to entrepreneurial intensity and entrepreneurial capabilities in different contexts, there has been minimal work done in relation to multinationals.

### **1.3 Motivation for the study**

A new breed of ambitious multinational is rising on the world stage, presenting both challenges and opportunities for established global players. These new contenders hail from seemingly unlikely places such as Brazil, China, Russia, Egypt and even South Africa (Aulakh, 2007). They are shaking up entire industries, from farm equipment and refrigerators to aircraft and telecommunication services, and changing the rules of global competition. The South African retail food industry has intensified, resulting in big retailers having to focus on capturing the shopper and remaining competitive, which has forced many retailers to look across the border for new opportunities.

According to the Wholesale and Retail SETA, the retail market in South Africa is huge in comparison to the rest of Africa, as well as being ranked 20th globally. At the

moment, the continent is seeing South African firms develop into markets further afield, especially the greater Southern and East African region, and more recently into West Africa. Hence, traditional ways of firms gaining success have started losing relevance on performance. Dimitratos, Liouka, and Young (2014) claimed that there is need for firms to integrate innovation, proactiveness and risk-taking into their competencies as firms are looking towards internationalisation. The concept 'multinational enterprises' refers to international entrepreneurship as a combination of innovativeness, proactiveness and risk-seeking behaviour that crosses national borders and is intended to create value in organisations (Phillips & Oviatt, 2000). This suggests that entrepreneurship within the multinational enterprise (MNE) is driven by actors in a wide range of geographic locations, moreover MNEs tend to have deep pockets with which to pursue various modes of entrepreneurship (Narula & Dunning, 2010).

#### **1.4 Research purpose, research question and the aims of the study**

The purpose of this study was to investigate the relationship between entrepreneurial intensity, entrepreneurial capabilities and market environment on multinational performance among South African multinational grocery firms that engage in business outside South Africa.

The study accordingly investigates the relationship between entrepreneurial intensity, entrepreneurial capabilities, and environment influences on multinational performance among the multinational grocery firms in South Africa. This research provides useful insights for multinational firms in predicting the international success of the organisation.

The study objectives are the following:

Aim 1 - Examine the relationship between entrepreneurial intensity and multinational performance.

Aim 2 - Examine the relationship between technology capabilities and multinational performance.

Aim 3 - Examine the relationship between environmental dynamism, hostility and multinational performance.

## **1.5 Conceptual definition of terms**

### ***1.5.1 The Grocery Industry***

Trade Intelligence (2016) defines the grocery industry as food retailers (supermarkets) that are places where consumers can buy food and take it off-site, compared to restaurants where food is consumed on-site. There are different types of food retailer formats namely: convenience stores, discounters, hypermarkets, supermarkets, traditional grocery retailers, independent small grocers and grocery retailers.

### ***1.5.2 Entrepreneurial Intensity (EI)***

EI reflects both how often the company engages in such events (frequency) and how innovative, risky, and proactive those events are (degree). An entrepreneurial grid is presented with degree and frequency of entrepreneurship on the axes (Morris & Sexton, 1996).

### ***1.5.3 Entrepreneurial capabilities (EC)***

Capability is considered to be the ability to identify a new opportunity and develop the resource base needed to pursue that new opportunity. Capabilities can be classified into social capital, and human capital (Arthurs & Busenitz, 2006).

### ***1.5.4 International Entrepreneurship***

International entrepreneurship (IE) is a behaviour that is an amalgamation of being proactive, risk-taking and innovative that goes across borders and is anticipated to create significant benefits for the firm (Phillips & Oviatt, 2000).

### ***1.5.5 Multinational Enterprise (MNE)***

Williams and Lee (2011) defined Multinational enterprise (MNE) as the size and international presence made available in a multitude of ways for identifying, valuing and capturing opportunities. Firstly, Williams and Lee (2011) reported that entrepreneurship within the MNE might be focused by actors in a broad range of geographic locations (i.e., home country vs. overseas).

### ***1.5.6 Environmental hostility***

Environment hostility is defined as risky, stressful and dominating (Khandwalla, 2001). Anderson, Covin, and Slevin (2009) emphasised that environmental hostility is recognised as places of extreme danger where one's life or business is at risk due to lack of resources and competition.

### ***1.5.7 Environmental dynamism***

Environmental dynamism is a multi-dimensional construct and is defined as the amount and unpredictability of change in customer tastes, production or service technologies, and the modes of competition in the firm's principal industries (Eroglu & Hofer, 2014; Miller, 1983)

## **1.6 Contribution of the study**

The importance of entrepreneurial behaviour in developing countries, such as South Africa, is emphasised by intensified competition in the global economy (Erasmus & Scheepers, 2008). Despite advances in entrepreneurial intensity (EI), there is still limited research. Regardless of the increasing number of studies focusing on the contingent relationship between entrepreneurial behaviour and firm performance, few of the studies focused on the entrepreneurial intensity construct (Sefalafala, 2012). Therefore the literature on entrepreneurial intensity is still in the infancy stage. Zahra, Dharwadkar, and George (2000a) claim that even though there are possible changes in entrepreneurial intensity among multinational subsidiaries, limited research has been observed from the international management perspective. Several authors have reported that there have been a few studies on entrepreneurial intensity that have been conducted within an international entrepreneurship context (Scheepers, Hough, & Bloom, 2007; Urban, 2010; Zahra & Bogner, 2000). Hence, this paper contributes to a better understanding of entrepreneurial intensity in a multinational context, therefore advancing the understanding and benefits of entrepreneurial intensity and multinationals.

Academic studies in multinationals have recognised the part of entrepreneurial capabilities, such as social capital, human capital, and technology in international entrepreneurship, and have examined the relationship between these concepts and

multinational performance (Sefalafala, 2012). Chang (1996) points out that firms with advanced technological capabilities have a higher inclination to develop into international markets earlier and to enjoy better performance. Zahra and Bogner (2000) agreed and further added that the firm's technological capability is critical to successful international performance. Little accord has developed as to the relationship between technological capability and performance. Although studies in international entrepreneurship have recognised the part of entrepreneurial capabilities, a limited number of the studies have studied these concepts together or individually.

Furthermore, this paper examines the relationship between environmental characteristics. Games (2004) acknowledges that one of the key challenge for Africa in the 21st century is to develop an aiding business environment. Agyapong, Zamore, and Mensah (2019) somewhat agree that it is critical that firms cultivate their strategies to follow the dynamic forces of the external environment. Essential changes in the multinational corporate environment are taking place, raising approaches to multinational environmental surveillance and multinational strategic management. This study contributes to theories surrounding environmental characteristics.

Additionally, this research contributes to government policy as the GAIN report (2019) states that government's policy and weak political will by regulators contributes to trade barriers and delays in resolving access issues. Current policy discourages firms from expanding internationally, however, Lessard, Teece, and Leih (2016) report that governments are increasingly trying to balance the institutional and public policy environments in numerous countries.

Previous literature has a habit of limiting research designs when examining entrepreneurial phenomena involving MNEs (Williams & Lee, 2011). Zahra et al. (2000a) mentioned that limited research has examined the factors that determine multinationals' entrepreneurship, while Boojihawon, Dimitratos, and Young (2007) observed that a study of MNEs and their subsidiaries in the international entrepreneurship field has received limited consideration. This paper contributes by examining large multinational enterprises, in order to advance research into the field of MNEs.

Lastly, the research extends the current literature by examining multinationals from emerging markets. Scheepers et al. (2007) agree that there is limited research in emerging countries. Robertson and Chetty (2000) added to this by stating that a majority of literature is conducted in first world countries, like the United States of America, Canada and some European countries. Therefore, Urban (2010) suggested that there is a danger that firms in Africa are lagging behind and consequently, a study of this nature aids in understanding these imperatives. The participating firms of the study are South Africa firms and is carried out on South Africa MNEs.

This study expands entrepreneurial intensity and international entrepreneurship literature and provides global managers with more insight concerning entrepreneurial capabilities that enable firms to perform well in interpreting the importance of entrepreneurship within multinational organisations.

## **1.7 Resource Based Theory**

Resources are the cornerstone of the resource based view (referred to as RBV from now on) (Alvarez & Busenitz, 2007). The entrepreneurial function plays a critical role in economic development. Without novelty in creation and the use of resources and capabilities, superior profitability yielding strategic opportunities does not exist. According to resource based theories, entrepreneurial firms venture into foreign markets in search of critical resources. Barney (2000) provides evidence that the capacity of the firm's competitive advantage depends on their specific set of resources. Schendel (1994) suggested that the success or failure of firms is not completely reliant on industry structure, however a function of the resources and capabilities controlled by the firm, deployed by managers and developed and extended by the organisation is the basis of success.

Entrepreneurial firms with more resources have more likelihood to engage in international activities (Ibrahim, 2004). RBV espouses that the availability of resources, or lack of them, can contribute to a firm's decision to go international. The resource based view is a valid framework that can be used to illuminate the international activities of international new ventures (Young, Dimitratos, & Dana, 2003). On the other hand, other authors have found that firm-specific resources, such

as global vision and foreign work experience of the management team are likely to render competitive advantage in the international marketplace (McDougall & Oviatt, 1996; Oviatt, McDougall, & Marvin, 1995; Young et al., 2003).

The resource based theory advanced two views as motives for internationalisation: firstly, that entrepreneurs venture into foreign markets in search of critical resources and secondly, that the more resources an entrepreneurial firm has, the more likely it will engage in international activities (Ibrahim, 2004). International entrepreneurship is linked to the unique and idiosyncratic assets and capabilities of international new ventures, while the possession and nurturing of IE firms' assets and capabilities may be able to explain the successful growth of firms abroad (Young et al., 2003).

## **1.8 Delimitation of the study**

Delimitations refer to those characteristics that limit the range and outline the restrictions of the study (Simon, 2011). The study focused on entrepreneurial capabilities as there are three sub-dimensions, however this study only focused on one dimension: technology capabilities. Further, the market environment has three sub-dimensions, nonetheless this study only focused on environmental hostility and dynamism. Additionally, this study further focused on the grocery industry in South Africa which has been categorised into edible groceries which has sub-categories, namely, commodities, perishables, and (hot and cold) beverages. Lastly, this study focused on EI and EC and their relation to multinational performance. It did not consider non-financial indicators, such as employee satisfaction.

## **1.9 Assumptions**

The following assumptions were made in this study that could have influenced the outcome of this research.

- The respondents would certainly comprehend the items in the research instrument.
- It assumed that all respondents would have sufficient knowledge of internationalisation of the company and all responses were truthful representations of the firm.

- The respondents would supply the appropriate facts to estimate the proposed hypotheses of the research study.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

This literature review section critically examines the existing theories that relate to the problem under study, the review begins by defining internationalisation and measures of multinational performance. The main constructs are discussed, namely, entrepreneurial intensity and the sub-dimensions, innovativeness, proactiveness and risk-taking. This is followed by entrepreneurial capabilities; this study focuses on the technological capabilities and lastly, the market environment. The literature review concludes with the development of hypotheses and the conceptual framework of the study that was developed through arguments presented in the literature review.

### **2.2 Background of the study**

Due to rapid globalisation of world markets, firms of all sizes have been persuaded to develop internationally (Sefalafala, 2012). Similarly, Cheptea (2016) agrees and further added that over the last ten years, a large number of retailers have internationalised or increased their presence in foreign markets, as recently many countries have opened their retail sectors to foreign competition. Cheptea (2016) suggested that multinational retailers (MRs) have taken advantage of this and are becoming key actors of the global economy. Stiglitz (2007) agrees that an overwhelming number of businesses within each country is conducted by firms that are owned and controlled from outside the country's borders and often conduct business in other countries.

According to the GAIN Report (2019), the South African food retail industry had an estimated \$52.2 billion in sales in the year 2018, which indicates that the industry is well-developed and looking to aggressively expand. Moreover, the South African retail industry is considered the biggest market for food products in the Southern African region and thus serves as a gateway to other Sub-Saharan African countries. Food retailing plays a critical role in the country's economic, social, and cultural activity and a successful retail sector is a critical part of local communities. (Grimmer, 2019). Several retailers have increase their investments or are in the process of

entering in a foreign markets in the past decade (Cheptea, 2016; Teece & Al-Aali, 2014).

### **2.3 Multinational enterprises (MNE) overview**

Hennart (2012) reported that in the past 20 years, multinational firms established in emerging markets, like Brazil, Russia, India, China, Vietnam, Indonesia, South Africa, Turkey, and Argentina, as well as Mexico and Thailand, have started to invest in a foreign country in competition with established multinational enterprises (MNEs), based in wealthy countries. The global business environment has been transformed by faster innovation and virtual integration (Teece & Al-Aali, 2014). In today's climate, the competitive advantage of firms seems to rest on the timely development and placement of intangible assets, inter-firm relationship, and human capital, placing a premium on the capability of firms to develop and continue being entrepreneurial and responsive at home and overseas (Teece & Al-Aali, 2014).

Corporate entrepreneurship has long been recognised as critical to multinational enterprises (Ahsan & Fernhaber, 2019; Dimitratos, Liouka, & Young, 2014). In order to accomplish growth and competitive advantage, multinational enterprises (MNEs) depend heavily on corporate entrepreneurship (Ahsan & Fernhaber, 2019; Artz, Norman, Hatfield, & Cardinal, 2010). Yet, despite the global context in which an MNE functions, a review of the corporate entrepreneurship literature reveals an uncertain, and sometimes restricted, focus on prospects that are international in nature—which is the essence of international entrepreneurship (Phillips & Oviatt, 2000). The study of MNEs in the international entrepreneurship field has received limited consideration (Young et al., 2003, Boojihawon et al., 2007).

Research on international entrepreneurship emerged in the late 1980s (Dimitratos, Liouka, & Young, 2014). In fact international entrepreneurship is essentially captured in the documentation and exploitation of prospects for international exchange (Ellis, 2011). International entrepreneurship is the term that has come to be used in the international business literature to describe firms that are pursuing innovative activities across borders, regardless of age or size (Oviatt & McDougall, 2005). Whereas Johanson and Vahlne (1977) emphasised that internationalisation is the

process by which firms increase their international presence. Calof and Beamish (1995); Prashantham (2005) elucidated that development of adjusting operations to the international environment is necessary, while the concept 'multinational' emerges from the international entrepreneurship theory. The concept 'multinational enterprises' refers to an international entrepreneurship as a combination of innovativeness, proactiveness and risk-seeking behaviour that crosses national borders and is intended to create value in organisations (Phillips & Oviatt, 2000). Teece (2015) says that multinational enterprises (MNE) are firms that set approaches and accomplishes processes for the development and use of income-creating assets in more than one country in the pursuit of profits over time.

Zahra, Abdelgawad, and Tsang (2011) indicated that emergent multinationals develop internationally to exploit their assets in pursuit of growth and profitability. Luo (2002) stated that multinationals need to build capabilities that give them a benefit in selected foreign markets. A number of these capabilities are efficient in nature and require developing and sensibly exercising entrepreneurial capability (Zahra, Abdelgawad, & Tsang, 2011). Often multinationals have a number of challenges such as laws, regulations, information disclosure, governmental agencies, specialised professions, and financial press. (Zahra, Abdelgawad, & Tsang, 2011). Furthermore Porta, Lopez de Silanes, Shleifer, and Vishny (1998) point out that MNEs also have highly unstable environments that display great uncertainty, significant government interference, unstable political and economic conditions, and significant dependence on informal institutions. Therefore, firms require a detailed understanding of their own capabilities, particularly their EC (Zahra, Abdelgawad, & Tsang, 2011).

Brouthers and Hennart (2007) explained MNEs are firms which own value-adding activities outside their own country. Growth through foreign market enlargement has become an increasingly popular strategy, as previously closed foreign markets open as economies around the world globalise (Rasheed, 2005). The significance of cross-border entrepreneurial activity in the MNE is that it generates markets both at home and abroad by creating demand, launching new products, balancing resources everywhere they may be located, and handling a global supply chain (Pitelis & Teece, 2010). McCarthy, Puffer, and Simmonds (1993) found that MNEs frequently

appear to be on a "roller coaster" in these economies. Nonetheless, MNEs are vital to foreign direct investment (FDI) and have the capability to bring the largest source of external finance to the host country. Multinational growth of firms and the development of technological innovation are determining factors in the rapid transformation of the world markets (Petit & Sanna-Randaccio, 1998)

The traditional theories of multinational companies are depicted by the Eclectic OLI model which is the most popular among scholars. Dunning (1988); Dunning and Lundan (2008) point out that the OLI model states that firms expand across countries when the taking advantage of their firms' particular advantages in a host country is most resourcefully done in conjunction with host country resource endowments, such as natural resources, labour, market size, and institutions. Hennart (2012) disagrees with this theory, stating that most authors argue that most country specific advantages CSAs are not freely available to foreign investors. Many resources, such as land, natural resources, labour, and distribution assets, are sold in imperfect markets, giving their local owners significant market power, whereas the network theory talks about the presence of alliances. P. P. Li (2007) further added that the problems with the OLI Model are intensified by the trends of globalisation and association in the sense that the model is misplacing its external validity in the new period. Teece and Al-Aali (2014) Posited that international ventures would have numerous resource limitations, and consequently would need alliances to launch themselves across borders. However, Teece and Al-Aali (2014) propose that entrepreneurship is normally left out of the theories.

## **2.4 Multinational Enterprises Performance (MNE)**

Over the past era, entrepreneurship scholars have shown a strong interest in understanding the patterns and effects of multinationals (Zahra & Hayton, 2008). Entrepreneurship has long been recognised as vital to MNEs (Birkinshaw, 1998; Hoenen, Nell, & Ambos, 2014; Zahra & Hayton, 2008) and contended to aid as a vital approach to maintain competitiveness. Thus, the challenge of successfully dealing with corporate entrepreneurship is intensified in the geographically dispersed multinational enterprise (MNE), as these organisations' firm-specific advantages often lie in the identification, withdrawal, and distribution of knowledge and innovation through locations and units (Doz, Santos, & Williamson, 2001; Kogut & Zander, 1992;

Alan M Rugman & Verbeke, 2001). Dimitratos, Liouka, and Young (2014) proposed that multinational enterprises' competitive advantage lies in their ability to influence distinctive competencies of internationally dispersed subsidiaries, indicated that multinational retailers are major players in the global economy. Lee and Williams (2007) added that the importance of entrepreneurship to multinationals and economies is well recognised. Nevertheless multinational enterprises (MNE) have been branded either champions or the villains of the global economy (Navaretti, Venables, & Barry, 2006).

For large firms, corporate entrepreneurship has been shown to be positively associated with higher performance over the long-term (Covin & Slevin, 1991; Zahra & Covin, 1995; Zahra & Garvis, 2000). Birkinshaw's (1997) findings suggest that international corporate entrepreneurship is where we discover that even in multinational businesses, entrepreneurship can enrich a firm's local responsiveness, global learning and global integration. Hoenen, Nell, and Ambos (2014) suggested that MNE literature proposes that entrepreneurial associations succeed in MNEs as much as they do in small and family business networks. Meyer (2004) highlighted that a solid understanding of the role of MNEs in developing economies is critical for governments and for MNEs themselves. Government influences the regulatory system under which both MNEs and local business partners operate. Furthermore, it was noted that the role of MNEs in emerging economies is a key aspect of contemporary disputes over the merits of globalisation (Bhagwati, 2004; Meyer, 2004).

The field remains divided as to the nature of the relationship between geographic scope and firm economic performance (Goerzen, 2005; Li, 2007; Nguyen & Kim, 2020). Nevertheless, a significant amount of research has provided observed support for a positive, linear relationship between multinationals and firm performance. Chan Kim, Hwang, and Burgers (1989) findings indicated firms expanding their international holdings, will acquire benefits in the form of improved returns on sales; these findings are based on 62 multinationals. While Mayer, Stadler, and Hautz (2015) found that United States of America (USA) and European firms, find a positive relationship between growth in product and international scope for firms. On the other

hand a considerable amount of literature has found that the relationship between multinationals and economic performance is negative (Denis, Denis, & Yost, 2002; Goerzen & Beamish, 2003). Others findings suggest that firms have decided that an organisation's increased emphasis on international venturing does not always improve a firm's performance (Hastings, 1999; Peek, Rosengren, & Kasirye, 1999; Serapio Jr & Cascio, 1996; Zahra & Hayton, 2008). Grimmer (2019) enhances on the above and states that the dominance of large retailers in the market makes it extremely difficult for small, independent stores to operate. Previous investigations have presented how entrepreneurial activities involving MNEs differ according to geographic and organisational scope (Hoenen, Nell, & Ambos, 2014).

The literature has recommended an observed link between entrepreneurial behaviour, the role of entrepreneurial capabilities, and international performance among firms. Performance is viewed as a critical element of the business venture's overall procedures without which the firm will not survive (Sefalafala, 2012) Richard, Devinney, Yip, and Johnson (2009) put forward that firm performance features in management fields however there is restricted attention paid by scholars to what performance is and how it is measured. Some scholars have suggested that multinational enterprises (MNEs) are often considered the key drivers of globalisation, as they foster increased economic interdependence among national markets (Alan M. Rugman & Verbeke, 2004).

Knight (2001) measured international performance in terms of traditional measures of the money-making activities of the firm, including market share, sales growth, and return on investment (Knight, 2001). International sales as a percentage of total sales is the most commonly used measure to capture the effectiveness of international performance (Javalgi & Todd, 2011; Yli-Renko, Autio, & Sapienza, 2001). Headquarter (HQ) dependence on accounting performance measures (APMs) is studied in a European multinational firms (Hassel, 1991). However (Xi, 2011) argues that old-fashioned performance metrics are dedicated only on financial measures that were resultant from accounting principles and data, embryonic approaches have highlighted nonfinancial measures. The measurement of international performance adopted in this study is a traditional measures of economic performance. Richard,

Devinney, Yip, and Johnson (2009) add that when gauging the performance of the multinational enterprises (MNE), there may be no impartial accounting or financial market data obtainable publicly and, in its place, one must depend on subjective managerial estimates. The measurement of international performance adopted in this study is a traditional measure of financial performance.

These measures are summarised as follows: Financial performance

Financial performance

- Foreign profitability
- overall profitability
- foreign market share

The relationship between a firm's international activities and company performance has been the subject of much discussion in the literature. Literature has found multinationals to have a linear relationship with firm performance (Zahra et al., 2000a), at the same time, some literature has discovered this association to be non-linear where increasing scope harvests benefits only until some point of inflection is reached, however, others have proposed that increasing geographic scope is a detriment to firm performance (Zahra et al., 2000a).

## **2.5 Entrepreneurial Intensity (EI)**

The turbulent, rapidly changing knowledge economy has forced enterprises to become more entrepreneurial in order to capitalise on new opportunities and to create value (Scheepers et al., 2007). The literature on Corporate Entrepreneurship (CE) has developed in the last 10 years (Ergun, Bulut, Alpkın, & Cakar, 2004). Ireland et al. (2006) posit that corporate entrepreneurship plays a critical role so that firms can make it likely for employees to participate in entrepreneurial behaviour, utilising knowledge as the foundation for continuous and successful innovations as they do so.

Corporate Entrepreneurship strategies (CE) are often referred to as objective-directed, firm-focused dependence on entrepreneurial behaviour that persistently and always restores the firm, and outlines the scope of its procedures by identifying and taking advantage of an entrepreneurial environment that is leaning towards

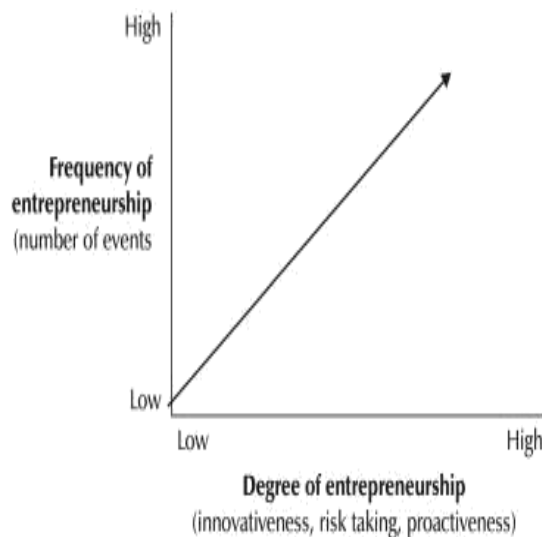
innovation (Ireland et al., 2006). Shohaieb, Genedy, and Hammad (2015) described that there is a difference between CE and EI; CE is broader in its meaning than EI. Therefore, the term entrepreneurial intensity refers to a variable of entrepreneurship within an established firm enterprise (Erasmus & Scheepers, 2008).

### ***2.5.1 Concept of entrepreneurial intensity***

Entrepreneurial intensity refers to the degree and frequency of entrepreneurship taking place within a firm (Ireland et al., 2006). Morris and Sexton (1996) referred to entrepreneurial intensity as a function of the degree, which is the level to which any one event is innovative, risky, and proactive, and the frequency of entrepreneurship, Frequency of entrepreneurship refers to the number of events (new products, service, processes) in which a firm becomes involved in entrepreneurial activities (Morris & Sexton, 1996). As stated by Morris and Sexton (1996), a given organisation is capable of producing a number of entrepreneurial events over time, suggesting that entrepreneurship is also associated with multiple events. To assess the level of entrepreneurship in any given organisation, the concepts of degree and frequency must be considered together.

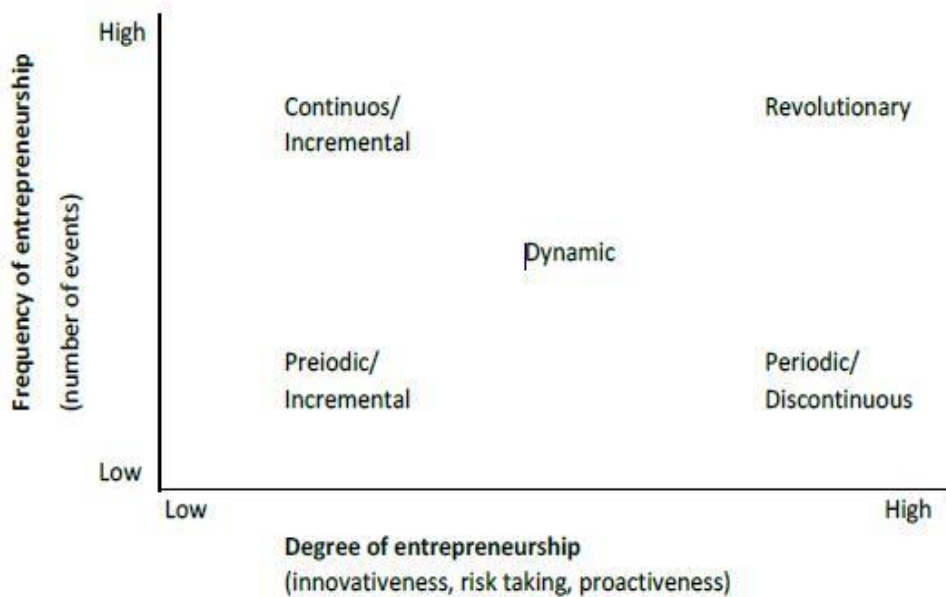
The popular view among entrepreneurship scholars is entrepreneurial orientation (Sefalafala, 2012). However, Morris and Sexton (1996) argued the entrepreneurial orientation is a one-dimensional view of entrepreneurship. Liao and Welsch (2004) observed that it is obvious that entrepreneurial orientation is mostly associated with, or is the inclination for, someone to lead a new entity. Literature has proposed building onto the entrepreneurial orientation construct which is derived from the assumption that entrepreneurial behaviour varies in terms of its level of innovativeness, proactiveness and risk taking characteristics (Scheepers et al., 2007). Morris, Kuratko, and Covin (2010a) further stated that the concept 'entrepreneurial intensity' was developed to assess the overall level of entrepreneurship in a company with degree and frequency considered together. A number of authors (Kuratko, Hornsby, & Goldsby, 2007; Scheepers et al., 2007); Morris et al. (2010a) have followed (Morris & Sexton, 1996). There seems to be consensus that EI is a two-dimensional construct consisting of both degree and frequency of entrepreneurship (Sefalafala, 2012).

Figure 2.1 represents entrepreneurial intensity, with the vertical axis capturing the “how often” aspects or frequency, and the horizontal axis capturing the “how much” or degree (Morris & Sexton, 1996). A two-dimensional matrix has been created that we shall refer to as the entrepreneurial grid. As presented in figure 2.1, numerous positions of EI are likely, since different scores can be achieved on the frequency axis and degree of entrepreneurship axis (Morris, Kuratko, & Covin, 2010b). This grid is illustrated in Figure 2.2 which presents five possible scenarios which have been highlighted. The scenarios, which have been labelled periodic/incremental, continuous/incremental, periodic/discontinuous, dynamic, and revolutionary, reflect the variable nature of entrepreneurial intensity.



**Figure 2.1: The variable nature of entrepreneurship**

Source :Morris and Sexton (1996)



**Figure 2.2: Entrepreneurial grid**

Source: Morris and Sexton (1996)

### **2.5.2 Dimensions of Entrepreneurial Intensity (EI)**

Based on the definition of EI, as stated by Shohaieb et al. (2015), EI can be broken down into three entrepreneurial practices, which are product/service and/or process innovativeness, proactiveness, and risk taking behaviour of the firm. Morris and Sexton (1996) established the EI construct as a two-dimensional construct that consists of the degree and frequency of entrepreneurship. The degree of entrepreneurship is similar to entrepreneurial orientation and is measured by three sub-dimensions: innovativeness, risk taking, and proactiveness (Sefalafala, 2012). Prakash, Jain, and Chauhan (2015) later indicated that EI captures the combined effects of frequency of entrepreneurship which is considered as the number of times the entrepreneurial act is repeated in a firm (innovative, risky, and proactive). The degree of entrepreneurship replicates how an firm functions rather than what it actually does, additionally it is measured in terms of innovativeness, risk taking and proactiveness of a firm (Prakash et al., 2015). Below is the discussion of the constructs (innovativeness, risk-taking and proactiveness) in greater detail.

### **2.5.2.1 Innovativeness**

The first sub-dimension of degree of entrepreneurship is innovativeness which refers to the firm's ability to look for creative, unconventional solutions to problems and need usually. (Ergun et al., 2004) defined innovativeness as the firm's capability to generate new products and effectively introduce them to the market, whereas Ireland et al. (2006) suggested that innovativeness refers to pursuing imaginative uncommon or unique answers to issues and needs. Lisboa, Skarmeas, and Lages (2011) proposed that innovation is commonly viewed as a key source of competitive advantage, organisational renewal, and growth. Sohail and Ayadurai (2007) maintain that, based on the entrepreneurial model, innovation is considered as a critical and essential part of a firm's strategy.

Venturing into countries that differ significantly from a firm's home country and potentially from other countries already entered may require a firm to modify its products to meet the unique needs of new markets (Louter, Ouwerkerk, & Bakker, 1991). For this reason, innovativeness is commonly thought to influence a firm's ability to internationalise (Miller, Friesen, & Mintzberg, 1984; Steensma, Marino, Weaver, & Dickson, 2000). Internationalisation and innovation of firms has been determined as the two key critical elements of determining business success over the past decade (Filipescu, Criado, & Josep, 2009). While innovativeness is contributing to a strong international presence, there are also considerable costs linked with innovating (Hornsby, Kuratko, Shepherd, & Bott, 2009). The extent of trial and error that underlies innovation has the potential to limit the ability of organisations to meet short-term financial obligations (Kreiser, Marino, Dickson, & Weaver, 2010) and in turn, drains resources from other value-creating activities critical to venturing abroad.

### **2.5.2.2 Risk-Taking**

The second sub-dimension is risk-taking; it considers the readiness to commit as an important asset to opportunities that are not guaranteed having a 50% of failure or success. Ireland et al. (2006) suggested that risk taking includes the readiness to commit important resources to prospects where firms have realistic chance of failure as well as victory. Morris and Sexton (1996) stated that risk-taking encompasses the willingness to commit significant resources to opportunities having a reasonable

chance of costly failures, however these risks are normally planned and manageable. Later, Prakash et al. (2015) point out that risk-taking involves the determination and guts to make resources available for assignments that have uncertain outcomes.

However, Ireland et al. (2006) claim that such risks have to be planned in advanced, in order to produce a forceful understanding of possible gain and possible failure that could potentially be connected with a decision to participate in entrepreneurship.

### **2.5.2.3 Proactiveness**

Proactiveness refers to forecasting and acting in the recognition of entrepreneurial opportunity (Morris & Sexton, 1996). Proactiveness has been defined as a specific attitude towards opportunities and confidence in pursuing enhanced competitiveness (Prakash et al., 2015). While indicating that proactiveness is concerned with doing whatever is needed to bring an entrepreneurial concept to realisation, Kuratko et al. (2007) also suggested that proactiveness is concerned with implementation, with taking responsibility and doing whatever is required to bring an entrepreneurial concept to realisation. It generally includes significant perseverance, adaptability, and a readiness to assume responsibility for failure. Proactiveness reflects a willingness to engage in bold moves, such as introducing new products or services ahead of competitors and acting in anticipation of future demands to create, change, and shape the environment (Keh, Nguyen, & Ng, 2007).

In order to establish and maintain their presence in multiple foreign markets, firms must proactively identify opportunities in each successive market (Knight & Cavusgil, 2004). However, there are costs associated with the time and resources needed to be proactive, particularly in the international context (Zahra et al., 2000a)

### **2.5.3 Entrepreneurial Intensity and performance**

The linkage between entrepreneurial intensity and performance has been demonstrated as the relationship between entrepreneurial intensity and firm performance ( Ireland et al., 2006; Morris, 2015a; Scheepers et al., 2007); Urban and Sefalafala (2015) results indicate that entrepreneurial intensity is positively related to internationalisation and firm performance, whereas Shohaieb et al. (2015) reported that the degree and frequency of corporate entrepreneurship will have a substantial effect on the competitive advantage of firms. However, according to Ireland et al. (2006), entrepreneurial intensity can indicate a firm's performance from the viewpoint of the entrepreneur.

Erasmus and Scheepers (2008) observed that data obtained from firms listed on the Johannesburg Stock Exchange for the period 2003–2005 strongly propose that the relationship between EI and financial performance should be viewed longitudinally; they further added that it appears that firms with higher degrees of entrepreneurship generate more economic value added over the extended term. Moreover, Ireland et al. (2006) argued that higher levels of entrepreneurial intensity are not always desirable and that ever-increasing amounts of entrepreneurial intensity will always result in superior firm performance. Morris and Kuratko (2002) argue that different standards of EI should occur between industries. EI is anticipated to vary among departments, divisions, units and geographical areas within the same firms. Therefore, this study expects that entrepreneurial intensity influences a firm's global performance and financial performance positively.

**Hypothesis 1: Entrepreneurial intensity is positively related to multinational performance.**

## **2.6 Entrepreneurial Capability**

Entrepreneurial Capabilities takes its roots from the resource based theory, which states that a firm's performance is largely determined by unique resources and capabilities (Urban & Sefalafala, 2015). Arthurs and Busenitz (2006) reported that capability is considered to be the ability to identify new opportunities and develop the

resource base needed to pursue that new opportunity performance, which this study has adopted. Kyrgidou and Spyropoulou (2013) explained organisation entrepreneurial capability as the propensity to spot new ideas and constantly pursue new opportunities. In spite of the fact that firms from emerging economies are commonly depicted as having inadequate tangible assets and capabilities, evidence is developing that firms in these markets must retain entrepreneurial capabilities in order to gain greater competitive advantages over existing or potential competitors in the foreign markets (Pangarkar, 2008).

There are three forms of entrepreneurial capabilities that have been identified as distinct competencies which are relevant to developing EI for firms in the international arena, these are; human capabilities, namely, foreign institutional knowledge, foreign business knowledge, and internationalisation knowledge;(2) social capabilities, namely, social interaction, relationship quality, and network ties (3) technology capabilities. In this study, entrepreneurial capabilities is focusing on the technology capabilities as technological capabilities have been shown to play a crucial role in internationalisation (Filippetti & Peyrache, 2011).

### **2.6.1 Technology**

In the new globalised economy, the managing of technology innovation and information has developed as a significant requirement for success in the 21st century (Scheepers, Hough, & Bloom, 2008). Technological innovation is considered a key element for global growth and monetary development (Sefalafala, 2012). Erensal, Oncan, and Demircan (2006) claim that with the speedy and vigorous shifts in markets, the unrestricted increase in new technologies, and consequently the shortened product life cycles, firms have to regularly advance new products if they are to improve or uphold a competitive edge.

Yli-Renko et al. (2001) referred to a firm's technology as the firm's technological expertise and understanding; on top of that, the firm's product offering, services and procedures based on these expertise and knowledge. Similarly, Filippetti and Peyrache (2011) proposed that technological capabilities are the firm's ability to make effective use of technological understanding in efforts to integrate, use, adapt, and change existing technology. Moreover, Teece, Pisano, and Shuen (1997)

claimed that technological capability is the capacity to complete any applicable technical function or volume activity within a firm, involving the capabilities to innovate new product offerings and procedures and to manage facilities successfully.

Over the past decade, firms' technological capability has been an important strategic resource, enabling them to achieve competitive advantage within their industry, particularly in high-technology industries. Filipescu et al. (2009) acknowledge that technological innovation leads to a firm's competitive advantage that allows a firm the opportunity to compete in an active way in different markets. Recent studies have indicated that not only does technology and firm innovation create value, but it can aid in the international expansion process which many firms in emerging countries are now undertaking.

This study views technology capability from two perspectives. The first perspective is technology as a firm's skill or competence necessary to bring about innovative processes; and the second perspective examines technology as a resource acquired and available to the firm from which innovative products or processes can be produced. Accordingly, this study refers to two dimensions of technology: technology distinctiveness and technology acquisition.

Knight (2001) refers to technology acquisition as the efforts by management to obtain technologies that will enhance the firm's ability to participate in international markets, via the establishment of superior products and/or processes. Enhanced technology is extensively observed as a critical, fundamental lever for allowing firms to innovate and respond to changing conditions in their external environment. added that firms need to participate more meritoriously, increase operational competence, or promote new products that enhance and satisfy customer desires that can have a favourable effect on market share and overall performance, and technology acquisition permits that.

Multinationals are assumed to have a firm-specific asset, such as know-how, technology, etc., which may be transferred easily across borders from the parent to subsidiaries abroad (Markusen & Maskus, 2002). This allows them to be more productive than domestic firms. Zahra and Bogner (2000) claimed that the firm's technological capability is critical to successful internationalisation, while others

stated that technological capabilities assist to demonstrate international relationships and allow the firm to incorporate advanced technologies which play a significant role in the internationalisation process (Urban, 2010).

#### ***2.6.1.1 Technology and performance***

Entrepreneurial firms possessing stronger capabilities will enjoy greater competitive advantage over existing or potential competitors in the foreign markets and hence, better performance (Sefalafala, 2012). Deeds (2001) reported that high technology ventures generate entrepreneurial wealth by capitalising on resources in the improvement of technological competences. Similarly, Filipescu et al. (2009) provided evidence that technology is considered a critical factor in increasing the national and international competitiveness.

However, the large body of literature that analysed the relationship between technological innovation and multinational expansion presents several shortcomings (Petit & Sanna-Randaccio, 1998). Recent literature use research and development (R&D) expenditures, patents or a combination of the two as indicators of firms' technological capabilities, however, the focus was mainly on entrepreneurial orientation (Jantunen, Puumalainen, Saarenketo, & Kyläheiko, 2005).

Urban (2010) states from research that a firm's use of technology and innovation to achieve its objectives such as maximising profits, gaining market share, creating niche markets or adding value to shareholders, can be used as a basis of evaluating firm performance. At the same time, Zahra and Bogner (2000) emphasised that multinational subsidiaries involved in dynamic industries are likely to experience pressures to revise their technological assets and build new capabilities or risk failure. Hence, Pangarkar (2008) proposed that entrepreneurial firms possessing stronger capabilities will enjoy greater competitive advantage over existing or potential competitors in the foreign markets and hence, their performance will be better.

However, Erensal et al. (2006) argued that product and procedure technologies alone will not deliver a competitive advantage, however firms should considered the notion of the management of technology that delivers a stable and integrated approach to deal with multifaceted investment decisions on technology. The concept

of the management of technology is more significant than both the product technology and the process technology. This line of reasoning culminates in the second hypothesis

**Hypothesis 2: Technological capability is positively related to multinational performance**

## **2.7 Market Environment**

The term "environment" is based on the definition by Morris and Jones (1995); they referred to the market environment as all the things out of the firm's control, this comprises technological, economic, legal/regulatory, customer, competitive, supplier, distributor, and social dimensions. The external environments of firms can increasingly be characterised as dynamic, threatening and complex. Scheepers et al. (2007), acknowledged that organisational factors are not the only elements influencing entrepreneurial intensity; environmental factors also play a role in the internationalisation of firms.

Current literature on entrepreneurship and the market environment proposes that traditional and entrepreneurial firms demonstrate quite distinct characteristics in coping with their environments (Lindelöf & Löfsten, 2006). The current study relies on two environmental dimensions, which is consistent with earlier research and theory building in the field of entrepreneurship, namely, dynamism and hostility.

Environmental conditions are the most dynamic aspects of any business organisation. Dzinekou, Arasa, and Muenyae (2017) expressed that entrepreneurial firms are continuously developing, implementing new things and frequently, innovating. Hence, entrepreneurial firms are more in harmony with the environmental dynamism and understand better the need to configure their resource base as the external environment keeps changing (Dzinekou et al., 2017). At the same time, Teece and Al-Aali (2014) proposed that the global business environment has been transformed by more rapid innovation and essential integration. Zahra et al. (2000a) results also underpin the importance of the subsidiary's local environmental context for supporting entrepreneurship.

For this reason, the relationship between the entrepreneur, the firm and the external environment is viewed from a systems perspective and assumes continuous input, process, output and feedback activity over time (Jones & Coviello, 2005). Consequently, for firms investing into transition economies, MNEs evidently need to pay attention to environmental forces (Luo & Peng, 1999). McCarthy et al. (1993) also suggested that MNEs, time and again, give the impression of being on a "roller coaster" in these economies. For this reason, it is vital that firms develop their strategies to follow the dynamic forces of the external environment (Agyapong, Zamore, & Mensah, 2019).

Although some external factors may constrain MNEs during international expansion, MNEs need to pay attention to environmental forces as MNEs often seem to be on a roller coaster in these economies (McCarthy et al., 1993). Multinationals and larger firms absorb environmental changes better due to their diversified organisations, product range and markets. Barringer and Bluedorn (1999) observed that firms which participate in unstable environments are expected to be more entrepreneurial than firms in stable environments. Hence, firms that operate in unstable environments have a habit of being more innovative, risk-taking and proactive (Zahra et al., 2000a).

Below is the discussion of environmental hostility and dynamism in greater detail.

### ***2.7.1 Environmental Hostility***

Environmental hostility is considered as deep prices by competitors, increasing business expenses, small profit margins, harsh legal restrictions, unavailability of labour and/or raw materials, and undesired demographic trends, which offers few prospects to take advantage of (Miller & Friesen, 1983) as cited by Yu and Ramanathan (2012). Khandwalla (1977) posits hostility as the degree of shortage of environmental resources and the extent of rivalry for them. Urban (2010) argued with the above and further added that hostility indicates an unfavourable business climate, such as intense competition for resources or market opportunities.

However, Lindelöf and Löfsten (2006) proposed that hostile environments signify a threat to a firm's objectives and survival over time, due to the high levels of rivalry and ambiguity. International markets in general, have been described as hostile (Hitt, Hoskisson, & Kim, 1997) one reason is that the external environments that firms face

when competing internationally are very different, in that firms must address diverse, inconsistent laws, national cultures and industry forces. Hostile environments intensify challenges to the firm and frequently make difficulties for these challenges (Yu & Ramanathan, 2012).

### ***2.7.2 Environmental Dynamism***

While a number of studies have been done on environmental hostility, very few exist on environmental dynamism (Sefalafala, 2012). Another source of instability is the apparent hostility of the subsidiary's local environment (Zahra et al., 2000a). Environmental dynamism refers to the volatility, uncertainty, instability, unpredictability and rate of change present in a firm's environment (Eroglu & Hofer, 2014). Whereas, Zahra et al. (2000a) indicated that environmental dynamism refers to the developments that take place in a subsidiary's environment because of technological or market shifts, Hassan, Othman, and Ismail (2015) defined environmental dynamism as the degree of rate of change in technology, demand and competition.

Hassan et al. (2015) state that environmental dynamism has three dimensions, specifically, technology changes, customer demands and levels of market competition. Firstly, technology change is classified as the modifications in the supplier-manufacturer association resulting from the technology advancement within the industry, while market competition is the degree of the level the environmental entities facing a channel are dissimilar to one another, and the minimal extent to which these entities are co-ordinated or structured and lastly, customer demand is defined as the extent of unexpected changes in the forecasted volume requirements and the mix of items needed (Hassan et al., 2015)

The external environmental factors, such as dynamism, are capable of determining the failure and success of firms (Ogbor & Ogbor, 2009). Thus, adapting quickly to environmental dynamism is essential for an organisation to develop outsourcing strategies and management in order to sustain a competitive advantage (Hassan et al., 2015). Studies have found that firms that aggressively pursued entrepreneurship behaviour in international environments with higher levels of hostility, experienced higher returns (Zahra & Garvis, 2000).

### **2.7.3 Market environment and performance**

The environment can either have a positive or a negative effect on multinational performance. Foreign opportunities offer threats such as constraints, policy and secondary environments that exist in international environments. The external environment can be positively related to multinational performance.

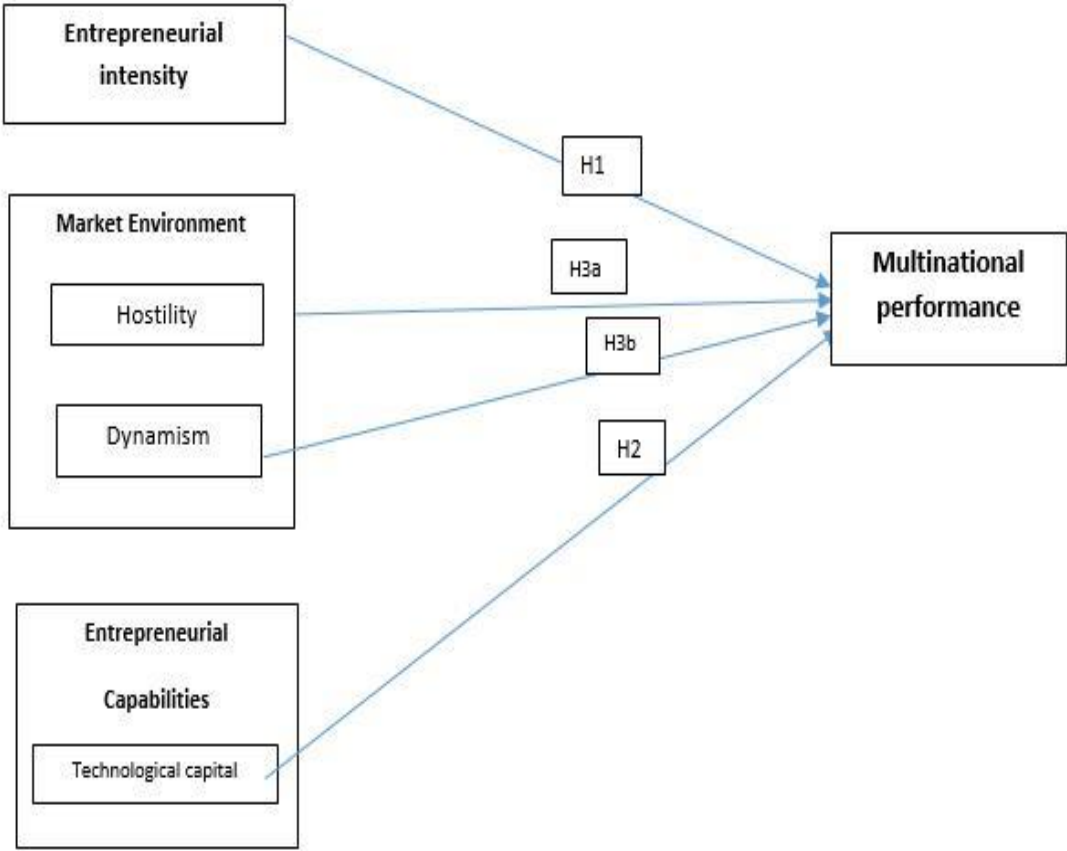
Entrepreneurial intensity is likely to influence the interaction between the firm's external environment (Morris et al., 2010b). Environmental dynamism can have a significant influence on firm performance (Zahra, 1993; Zahra & Covin, 1995). Zahra (1991) added that opportunities develop from the dynamism of an industry where social, political, technological, and economic changes bring about new improvements that enhance a firm's function. (Zahra et al., 2000a) emphasised that dynamism can also create new opportunities that subsidiaries can pursue to achieve profitability and growth, however, Zahra, Dharwadkar, and George (2000b) argue that extreme environmental dynamism has been linked with unpredictable changes in the habits of customers and competitors, and prompt changes in technological conditions.

Thus, hostile environments create threats, which may force a company to respond in innovative ways to minimise threats and create opportunities (Sefalafala, 2012). Zahra (1991) reported that it is anticipated that environmental hostility stimulates the pursuit of corporate entrepreneurship. Sohail and Ayadurai (2007) provided evidence that environmental instability had an influence on the performance of multinational subsidiaries in Malaysia, although not to a large degree. This can be credited mainly to the country of origin, age of subsidiary, and the nature of the industry of the respondent subsidiaries. Further, a hostile domestic environment can acclimatise the entrepreneurial firm to hostile conditions in the foreign country.

**Hypothesis 3 a: Environmental hostility is positively related to multinational performance**

**Hypothesis 3 b: Environmental dynamism is positively related to multinational performance**

## 2.8 Conceptual framework



**Figure 2.3: Conceptual Framework**

Primary Source (Morris & Jones, 1995; Morris & Sexton, 1996; Scheepers et al., 2007; Urban & Sefalafala, 2015)

Figure 2.3 illustrates the theoretical framework model of the study. The model comprises four sets of constructs and is briefly explained as follows. The conceptual model illustrates entrepreneurial intensity, technology capabilities, the market environment – namely hostility and dynamism and their relationship to multinational performance. The framework in figure 2.1 shows the link between the independent variable (multinational performance) and the dependent variables (entrepreneurial intensity, technology capabilities, the market environment-hostility, and dynamism).

1. The entrepreneurial intensity construct includes two dimensions: degree (innovativeness, proactiveness and risk taking) and frequency of entrepreneurship.

2. The market environment construct is a composite of the environmental variables, namely, hostility and dynamism.
3. Entrepreneurial capabilities construct comprises one dimension, technology. The technology dimension is consistent with technology distinctiveness and technology acquisition.
4. Lastly, the outcome variable, multinational performance consists of various measures of economic performance - foreign profitability, overall probability, market share, foreign sales growth, and foreign market share.

## 2.9 Conclusion of Literature Review

The literature reviewed the concept of entrepreneurial intensity which is conceptualised to capture both the degree of entrepreneurship and frequency of entrepreneurship within a given organisation. The degree of entrepreneurship, also known as entrepreneurial orientation (EO), refers to the extent to which events occurring within a firm are innovative, risk-taking, and proactive (Morris & Sexton, 1996). The literature, in addition, looked at specific entrepreneurial capabilities that lead to successful internationalisation. These are classified, among other items, into technology. The literature review pointed out that certain conditions within the environment explain internationalisation. Precisely, the external environment impacts on multinational performance between a firm's technological choices. The following hypotheses were formulated by drawing on the emerging body of knowledge.

**Table 2.1: Consistency table: research questions**

| RQ # | State Research Question   | hyp # | State Hypothesis   |
|------|---|-------|--|
|      | How is the relationship between entrepreneurial intensity and multinational performance | 1     | Entrepreneurial intensity is positively related to multinational performance |

|  |   |    |   |
|--|---|----|---|
|  | How is the relationship between technology capabilities and multinational performance | 2  | Technology capabilities are positively related to multinational performance |
|  | How is the relationship between environmental hostility and multinational performance | 3a | Environmental hostility is positively related to multinational performance  |
|  | How is the relationship between environmental dynamism and multinational performance  | 3b | Environmental dynamism is positively related to multinational performance   |

## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter describes the methodology that was followed to test the hypotheses that were put forward to address the problem statement as presented in the previous chapter. This chapter covers the research design, data collection, and the design of the research instrument.

### **3.2 Research design**

Research design is conceptualised as the plan to extract data or information required to answer the research (Cooper & Schindler, 2014). Thus, the nature of the survey was cross-sectional and not longitudinal. Due to the timeline for the study, a longitudinal design was not possible, whereas a cross-sectional study approach represents looking at a point in time and is grouped within the positivism paradigm (Cooper & Schindler, 2014). The study was primarily a quantitative study. Creswell (2014) defined quantitative research as the interconnected set of variables (constructs) created into hypotheses, that specific relationship between variables, typically examining the direction or the magnitude of the relationship. In quantitative research, a deductive approach is utilised, the objective is to test and verify a theory rather than to develop a new one, the researcher develops current theory, collects data to verify the original data, and the approach either confirms or disconfirms the results (Creswell, 2014).

An on-line based survey was the research strategy utilised for this study, as it is the most effective for collecting data from large samples (Wegner, 2010). The questionnaire was distributed electronically via e-mail, LinkedIn and WhatsApp. This was done after ethics clearance was approved and consent granted by the different firms.

### **3.3 Data collection and sampling**

Population is the general sum of components about which findings or theories can be derived (Cooper & Schindler, 2014; Field, 2009). The research population comprises South African grocery firms, that are involved in internationalisation. Firms that were contacted are grocery firms that operate outside the South African

borders or have opened subsidiaries overseas or have expansions globally (Zahra & Bogner, 2000).

The sampling frame were managers who are employed in South Africa grocery firms that already have an international presence (Jones, Coviello, & Tang, 2011). Managers at the identified firms were targeted as they were deemed to be knowledgeable about the internationalisation and multinational practices within their organisations. Previous findings indicate that managers provide information that is dependable and valid as these are from numerous informants and is unbiased information (H. Li & Zhang, 2007; Miller, Cardinal, & Glick, 1997; Zahra & Covin, 1993). The sample was made up of the population framework which were targeted to participate. The list of grocery firms was selected from South African food retailers who operate outside South Africa namely, Pick n Pay, Shoprite, Chappies and Massmart, etc.

Grocery firms in South Africa were approached and 250 questionnaires were sent through official channels. One hundred and forty-six completed questionnaires were received, which represents an estimated 58,4% responses rate. The respondents of the survey included all levels of management and all divisions from merchandising, finance, operations and legal. For biographical reasons the survey included the following.

**Table 3.1: Profile of respondents**

| <b>Biographical</b> | <b>Details</b>                           |
|---------------------|--|
| Age                 | 25-65 years                              |
| Gender              | Males & Females                          |
| Geographical survey | South Africa                             |
| Management level    | Any management level and all departments |
| Sources of data     | Cambridge Foods, Pick n Pay, Shoprite    |

### **3.4 Measuring instruments**

The primary data was collected using a survey questionnaire. The survey instrument was developed from past theory and empirical findings, which concur with the main constructs under investigation, these are: (1) EI, (2) EC, (3) environmental influences and (4) multinational performance. The instrument was piloted to a smaller group, before it was disseminated to a larger, to detect, identify, and alleviate replies which might not be primarily predicted (Cooper & Schindler, 2014).

The respondents answered a set of questions on a 7-point Likert scale questionnaire (e.g. 1 = strongly disagree-7 =strongly agree); this made it easier for participates to respond. Primary data was gathered through a formal questionnaire. Similarly, the respondents were asked to rate their satisfaction with the three measuring items on growth (employee growth, foreign sales growth, and market share growth) over the past three years. The measure was obtained for each item on a seven-point scale, ranging from 1 = very dissatisfied, to 7 = very satisfied (Zhou, 2007).

The questionnaires were built utilising the Qualtrics survey tool; afterwards it was distributed to managers via e-mail and social media with a Qualtrics link. The human resource department was contacted in the different retail firms to seek permission to send out the questionnaires to employees. The goal was to have data collected during November 2019 – January 2020. The data cleaning process started in December to ensure sufficient time for analysing and interpreting the data.

The following table summarises different sections of the research instrument

**Table 3.2: Measures used in the study**

| Construct                         | Literature sources   | Dimensions   | Comment on Instrument   |
|-----------------------------------|--|--|---|
| Demographic Information           |  | Mixed with demography questions, control variables, and internationalisation performance | Respondent categorized by job positions Supervisor (1) Junior Manager (2) Middle Manager (3)Senior Manager (4) Executive Manager (5) General Employee (6) |
| Entrepreneurial intensity (IV)    | Scheepers et al. (2007) Urban et al.(2015)(Erasmus & Scheepers, 2008; Morris et al., 2010a; Morris & Sexton, 1996) | Degree of entrepreneurship<br>Frequency of entrepreneurship                              | 7 Point Likert scale<br>Measured on 7-point Likert scale: 1= Strongly Agree 7 = 'Strongly Disagree  |
| Entrepreneurial Capabilities (IV) | (Knight & Cavusgil, 2004), Yli-Renko et al. (2001)(Kyrgidou & Spyropoulou, 2013; Teece, 2015)                      | Technology Capital   | 7 Point Likert scale<br>Measured on 7-point Likert scale: 1= Strongly Agree 7 = 'Strongly Disagree  |
| Environment (IV)                  | Urban (2010), Zahra and Bogner (2000), Urban (2010) (Dzinekou et al., 2017)  | Environmental Hostility<br>Environmental Dynamism  | 7 Point Likert scale<br>Measured on 7-point Likert scale: 1= Strongly Agree 7 = 'Strongly Disagree  |
| Multinational Performance         | (Knight & Cavusgil, 2004; Narula & Dunning, 2010; Phillips & Oviatt, 2000; Zahra et al., 2000a)                    | Economic Performance   | Seven-point scale, ranging from 1 = very dissatisfied, to 7 = very satisfied  |

### **3.5 Data Collection Procedures**

The primary data used for this study was collected by means of a completed survey as the research instrument. The questionnaires were sent to managers who are employed in South Africa grocery firms that already have an international presence. The questionnaires were distributed using e-mail and social media. The results were completed through Qualtrics, an online survey portal, and collected from October 2019. The data was captured in Excel and then imported into IBM Statistical Package for the Social Sciences (SPSS) Statistics 25 data tool; the software assisted the researcher in statistically examining the survey which was used for this study before it was cleaned and analysed for interpretation and findings.

### **3.6 Data analysis and interpretation**

Marshall and Rossman (2011) referred to data analysis as the development of bringing order, structure and significance to the mass of collected data. The primary data collected, using questionnaires, was analysed using the Statistical Package for the Social Sciences (SPSS) software. SPSS is a computer software used for manipulating, analysing and presenting data. This software helped the researcher in statistically analysing the questionnaires which were used for this study. Demographic data were presented using descriptive analyses, bar charts, and statistical tables. The measures used were selected from past studies where, in most cases, instrument validity and reliability has already been established (Urban & Sefalafala, 2015).

#### **3.6.1 Data screening and validation**

Data screening and validation was conducted in order to reduce the risk of invalid assumptions. Lawan (2011) stated that data screening and cleaning was accomplished in order to satisfy the requirement of performing multivariate analysis. Therefore, in order to reduce the risk of void conclusions, the following steps were taken to validate the data.

### **3.6.1.1 Missing values**

Missing values are a common occurrence in research data. Cheema (2014) detailed that the way missing values are controlled can strongly affect the results of analyses based on such data. Kang (2013) added that the main issue with missing data is fairly shared in practically all research and can have an important consequence on the conclusions that can be drawn from the data. Hair, Black, Babin, and Anderson (2010) highlighted that missing data are an annoyance to researchers and mainly result from blunders in data collection or data entry or from the oversight of responses by respondents. Therefore, this study removed data set with missing data and modified into a complete data set to diminish the possibility of being inappropriate for a statistical procedure or violating the assumptions.

### **3.6.1.2 Regression assumptions**

When these assumptions are not met, the results may not be trustworthy, resulting in a Type I or Type II error, or over- or under-estimation of significance or effect size(s) (Osborne & Waters, 2002). The underlying statistical assumptions are normality, linearity and multicollinearity. Chatterjee and Simonoff (2013) indicated that any violation of assumptions can potentially lead to misleading results, which is a fundamental part of any regression analysis is to check them using various plots, test and diagnostics. Normality and other assumptions should be taken seriously, for when these assumptions do not hold, it is difficult to draw precise and consistent deductions about reality (Field, 2009).

A sample that displays **normal distribution** is considered to be a better representation of the larger population and so any conclusions drawn from studying that sample are more likely to be generalisable to the larger population (Field, 2009). Regression assumes that variables have normal distributions. Non-normally distributed variables (highly skewed or kurtotic variables, or variables with substantial outliers) can misrepresent relationships and significance tests. Before conducting analysis, the data must be tested to confirm that it is normally distributed. The normality tests are an addition to the graphical test of normality. The tests of normality used in this study is the Kolmogorov-Smirnov test and the Shapiro-Wilk test.

**Linearity** refers to a standard multiple regression that can only accurately estimate the relationship between dependent and independent variables if the relationships are linear in nature (Williams, Grajales, & Kurkiewicz, 2013).

**Multicollinearity** refers to the linear relationship between two or more variables, which also means lack of orthogonality among them (Alin, 2010). Anderson et al. (2009) described that in order to test for regression assumptions multi-collinearity needs to be above 0.70. Therefore the cut for this study is 0.70. Otherwise it will generate complications when one builds a regression model between response variable  $y$  and explanatory variable  $X$  (Alin, 2010). Yoo et al. (2014) reported that when the covariates in the model are not independent one another, collinearity/multicollinearity difficulties appear in the analysis, which indicates biased estimation.

The above described regression assumptions were tested and remedial steps carried out where essential to prevent faulty analysis. The details are examined in of Chapter four.

### **3.6.2 Exploratory data analysis**

#### **3.6.2.1 Outliers**

Outliers refer to as a detected value that is aloof from other observations values (Sangaiah, Gao, & Abraham, 2016). The presence of outliers in the data may overly impact the consequence of any multivariate analysis (Hair et al., 2010). The researcher scrutinized the data for possible outliers and decisions on their deletion or retention are discussed in Chapter four.

### **3.7 Validity and Reliability**

All data collected was analysed and organised with the Statistical Package for the Social Science SPSS statistical tool. Correlation analyses and regression was utilised to measure the relationship between the different variables. Zamanzadeh et al. (2015) refer to validity as the ability of an instrument to measure the properties of the construct under study, which is a vital factor in selecting or applying an instrument. The second measure of quality in a quantitative study is reliability or the correctness of an instrument (Heale & Twycross, 2015). In other words, the capability of an instrument to yield reliable results (Cooper & Schindler,

2014). The next sections will examine the practical ways in which the measuring tool was established for validity and reliability.

### **3.7.1 External Validity**

External validity of the research design deals with the degree to which findings are able to be generalised to other groups or populations (Steckler & McLeroy, 2008). The study achieved external validity by sampling respondents from a variety of food retailers in South Africa. As a prerequisite for statistical inferences, the study also tried to get a high number of respondents ( $n > 100$ ). The high number of respondents are all professionals employed within the food retail industry, allowing the make-up for the respondents to form a homogenous group.

### **3.7.2 Internal Validity**

Internal validity refers to whether the findings of the study relate to and are caused by the phenomena under investigation and other unaccounted for influences (Winter, 2000). Pannucci and Wilkins (2010) emphasised that internal validity discusses the reliability or correctness of the study results, an internal validity from a study echoes the author's and reviewer's self-confidence on the study design; implementation, and data analysis have minimised or eliminated bias and that the discoveries are a true representation of the relationship between exposure and outcome.

To improve the internal validity of the research instrument, the following measures were taken. The variables that were used (entrepreneurial intensity, technology capabilities, and lastly, environmental hostility and dynamism) are popular concepts and have been used previously. A pilot survey was conducted, and the data collected during the pilot was used to evaluate the validity of the questionnaire.

### **3.7.3 Reliability**

Reliability is concerned with estimates of the degree to which a measurement is free from random error. Reliability is a contributor in finishing an instrument meant to measure motivation should have roughly about the same replies each time the test is completed (Heale & Twycross, 2015). A measure is said to be reliable to the degree that it produces consistent results (Cooper & Schindler, 2008). A measure of internal

consistency predominately used to provide a measure of the internal consistency of a test or scale. Reliability analysis is conducted for internal consistency of the scales of this research, using Cronbach alpha.

### **3.7.3.1 Cronbach Alpha**

Cronbach alpha is the most widely applied index of internal consistency reliability (Spiliotopoulou, 2009). Bonett and Wright (2015) approximate that internal consistency describes the extent to which all the items in a test measure the same concept or construct and hence it is connected to the inter-relatedness of the items within the test. Internal consistency is determined before a test can be employed for research or examination purposes to ensure validity. Heale and Twycross (2015) suggested that the cronbach's  $\alpha$  outcome should be a value between 0 and an adequate reliability score is one that is 0.7 and higher.

### **3.7.4 Exploratory Factor Analysis (EFA)**

Child (2006) indicates that EFA is about a multifaceted patterns by discovering the dataset and testing estimates. EFA is used when a researcher wants to determine the number of factors influencing variables and to analyse which variables 'go together' (DeCoster, 1998)..An exploratory factor analysis (EFA) is conducted to test whether common method prejudice of the data followed (Marnburg & Luo, 2014). Exploratory factor analysis (EFA) was used to assess the factorial validity of the constructs for the study.

EFA analysis was used to identify the two variables, EI and TC, and tested the relationship between these variables and the level of the highest association between the two variables. The variables were than tested against the independent variables, and whether there is an association between each of the three variables and competitive advantage.

## **3.8 Correlation Analysis**

Correlation is a bivariate analysis that measures the strength of association between two variables and the direction of the relationship. In terms of the strength of relationship, the value of the correlation coefficient varies between +1 and -1 (Field, 2009). A value of  $\pm 1$  indicates a perfect degree of association between the two variables. Pearson r correlation is the most widely used correlation statistic to measure the degree of the relationship between linearly

related variable. Therefore, tests need to be conducted to check the correlation between all variables, whether positive or negative which will be presented in are Chapter four.

### **3.9 Regression Analyses**

Regression analyses is mainly used for three purposes, firstly to model the association between x and y, secondly predication of the target variables and lastly testing of hypothesis (Chatterjee & Simonoff, 2013). To test the hypothesised relationship, two multiple regression analyses were utilised to test for significance between the variables. Multiple regression analysis is a multivariate statistical technique used to analyse the relationship between a single dependent variable and several independent variables (Hair et al., 2010).

### **3.10 Limitations**

Limitations of a study are the possible weaknesses in the study that are out of your control (Simon, 2011). For this study, there were several limitations:

- Not all grocery firms agreed to distribute the questionnaire to their employees, and therefore the sample may be biased towards those industry that received the questionnaires from their firm, rather than directly from the researcher
- Respondents might have been biased in responding to the questionnaire
- Majority of the literature reviewed for the study was based on first world countries, with a few exceptions from India and China.

### **3.11 Ethical considerations**

Erlen, Sauder, and Mellors (1999) indicated that studies involving human subjects needs the investigator to acquire informed consent. Hence the responses were provided with an option of consenting or not consenting to the questionnaire. The ethical concern for confidentiality and anonymity were considered by the researcher in order to respect dignity and fidelity, suggesting that anonymity is protected when the subject's identity could not be linked with personal responses. The survey was conducted on a voluntary basis and the privacy of the participants guaranteed. All respondents' identification information is confidential and will be kept and not made available to any third party

The researcher took the following steps and actions to ensure that ethics was maintained in this study: Each questionnaire request was accompanied by a letter from Wits Business School and an ethics clearance letter (WBS/BA 1671395/517) from the University. Therefore, this study conforms to the University of the Witwatersrand's Ethics Policy for non-medical research and ethical considerations as prescribed by the School's Ethics Committee. The guidance and procedures for conduct were followed to receive an ethical clearance. Additionally, respondents were not forced to participate in the study.

## CHAPTER 4: PRESENTATION OF RESULTS

### 4.1 Introduction

The following chapter illustrates the results from the findings derived from the questionnaire, built on the methodology that has been discussed in chapter 3. The data was analysed, utilising Statistical Package for the Social Sciences (SPSS) software for the statistical analysis. The first part of the chapter discusses the quality of the data and demographic profiles of the respondents, while the second part presents the exploratory factor analysis, the reliability of the data and how factors were created. The final part of this chapter presents the correlation analysis and multiple regression analysis of the hypothesised relationships.

### 4.2 Sample Characteristics

#### 4.2.1 Management positions and industry experience

All the respondents were in management positions with a breakdown of 45% in senior management positions and 39% in middle managers, while 15% were in junior management and 8% in supervisory positions. The results are presented below.

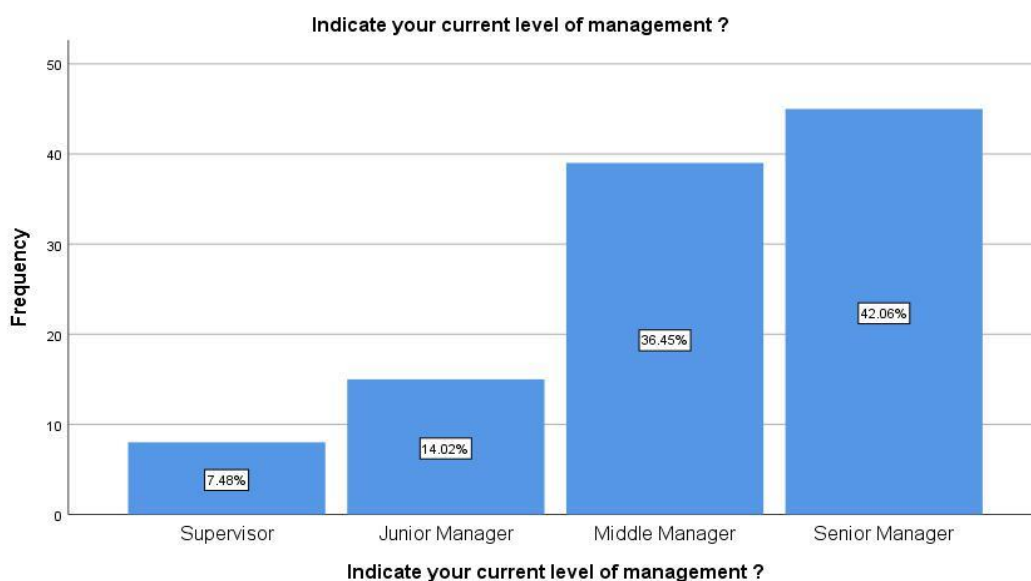
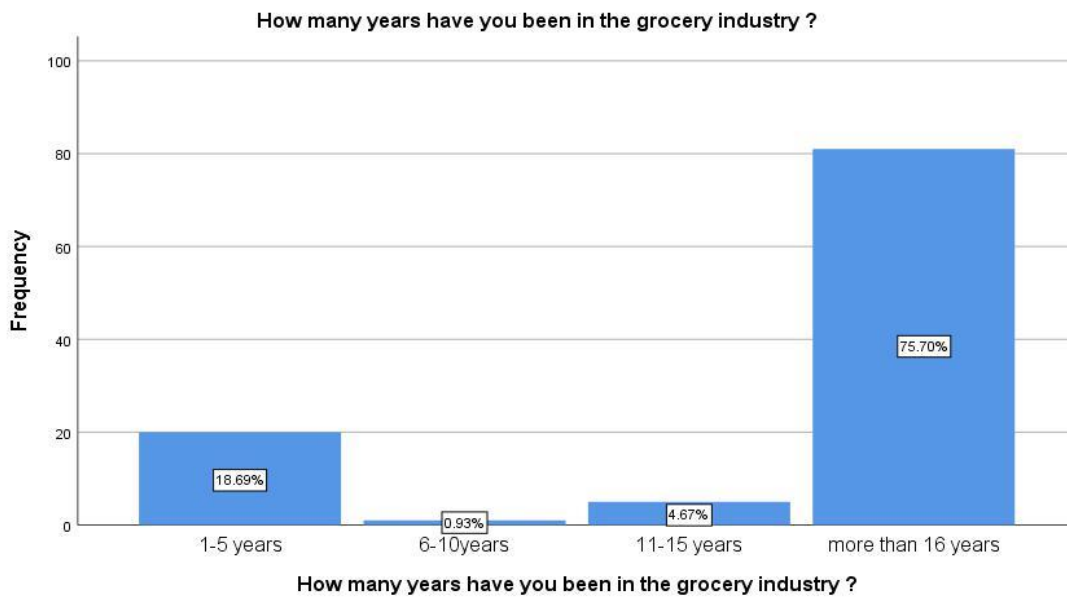


Figure 4.1: Current levels of management

Source: Primary Data

Approximately 75% of the respondents have been working in the grocery industry for more than 16 years, while 18% of them have been working in the grocery industry for at least one year, and 4% have been working in the retail industry for at least 11 years. The results indicate a much higher representation of respondents who have worked for longer than 16 years in the grocery industry. The results are presented in figure 4.2.

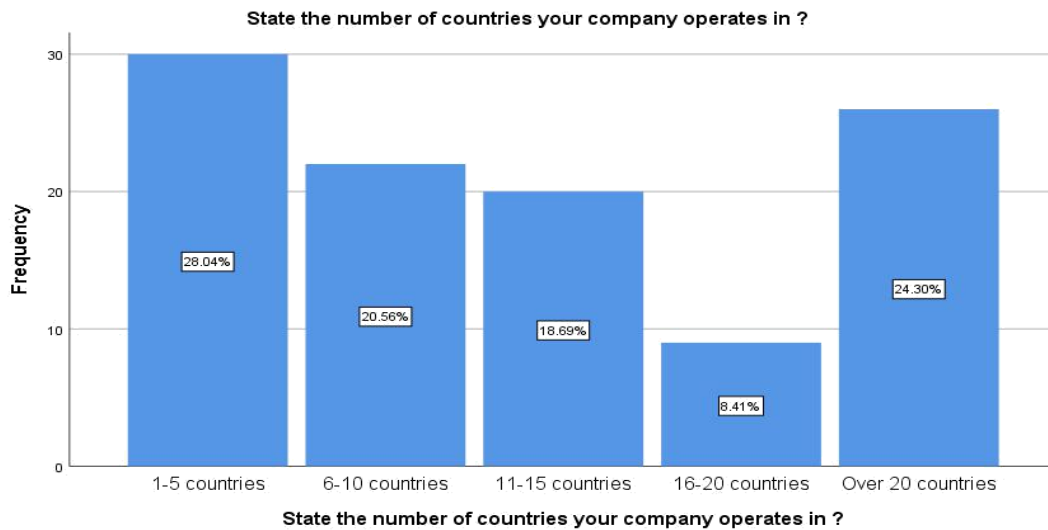


**Figure 4.2: Years employed in the grocery industry**

Source: Primary Data

#### **4.2.2 Scope of internationalisation**

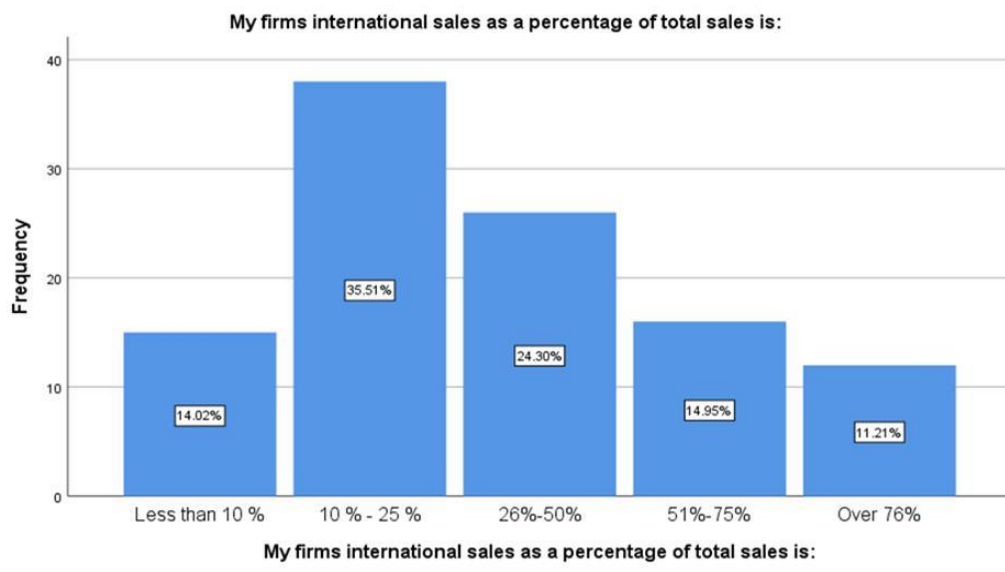
The respondents estimated how many countries each firm operates in and almost 28% of the firms operate in 1-5 countries, while 20.6% operate in 6-10 countries. About a quarter of the firms operate in 11-15 countries with 18.7 % operating in 16 – 20 countries. Only 11.2% of the firms had international sales contributing over 76% of total sales. Almost 35.5% of the firms had international sales contributing at least 10% of their sales.



**Figure 4.3: Number of countries firm operates in**

Source: Primary Data

While only 24.3 % of the firms had international sales contributing at least 26% of their sales, almost 14.95% of the firms had international sales contribute at least 51% and lastly, 14.02 % of the firms had international sales contribute less than 10% of total sales.



**Figure 4.4: International sales**

Source: Primary Data

### 4.2.3 Technology intensity

Respondents were asked to indicate technology intensity within their industry and almost half of the respondents indicated that the industry operates between a middle–tech to low tech environment (48.6%), while 29.9% indicated that the industry operates in a high –tech environment, whereas, only 21.3% stated that the industry operates in a low-tech environment.

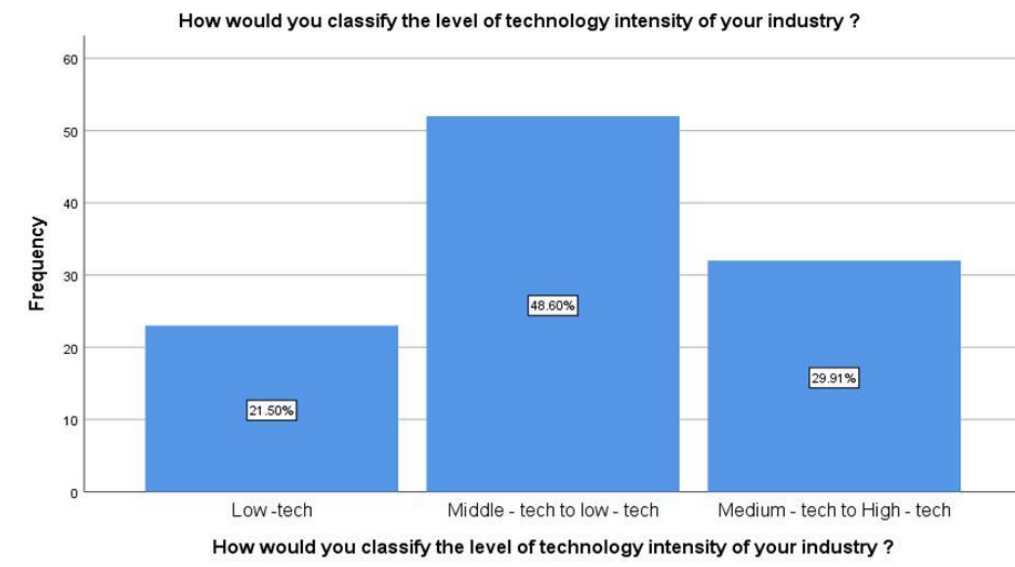


Figure 4.5: Technology intensity

Source: Primary Data

## 4.3 Validity of constructs

Price, Jhangiani, and Chiang (2015) suggest that validity is the extent to which the scores from a measure represent the variable they are intended to, while Heale and Twycross (2015) stated that validity is the degree to which a thought is accurately measured in a quantitative study. To assess the validity of the scales and sub-scales, this study uses exploratory factor analysis (EFA). The dependent and independent constructs were separated before running the Exploratory Factor Analysis (EFA). The section below examines the Exploratory Factor Analysis

(EFA) for the following constructs, innovativeness, proactiveness, risk-taking, frequency, environmental hostility and dynamism. Thereafter, the validity of the dependent variable follows.

**4.3.1 Validity of Independent variables**

The Kaiser-Meyer-Olkin (KMO) was tested on the following constructs: innovativeness, proactiveness, risk-taking, frequency, environmental hostility and dynamism and was used to determine the data sample size adequacy. The item that was tested was whether the sample size was sufficient. From the KMO test, the results show the value is .762, indicating the sample size was sufficient, as illustrated in table 4.1 below. While the Bartlett’s Test of Sphericity is significant, significance should be at  $p < 0.05$ . The factor analysis was allowed to proceed in table 4.1.

**Table 4.1: KMO test on independent variables**

**KMO and Bartlett's Test**

|  |                    |         |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .762               |         |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 660.207 |
|  | df                 | 171     |
|  | Sig.               | .000    |

Source: Primary Data

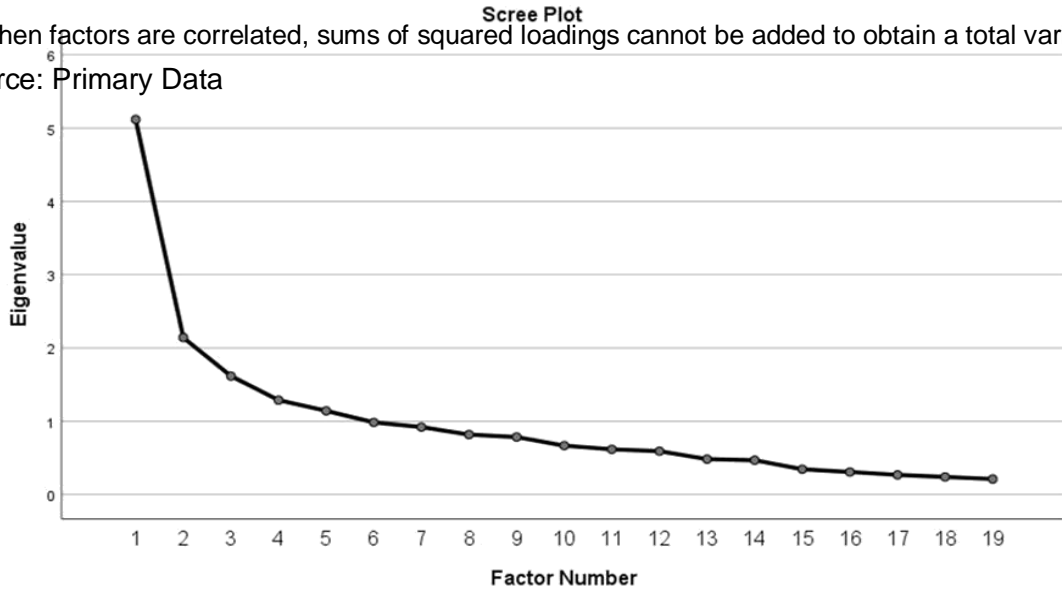
The results were presented in the form of a pattern matrix. The eigenvalue summary for the independent variables (Table 4.2) illustrates that a five factor solution is suitable for determining the factor structure of the scales. Using the Principal Axis Factor Analysis, it was found that there were five factors with an eigenvalue greater than one, meaning these new factors can explain at least 59% of the variance, these factors have a greater eigenvalue than one as indicated by the table below and the scree plot (Table 4.2 and Figure 4.6).The number of factors from the scree plot (Figure 4.6) were then compared to the variance table (Table 4.2) to determine how much of the data variance they explained.

**Table 4.2: Total Variance Explained on independent variables**

| Total Variance Explained |                     |               |              |                                     |               |              |  |
|--------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|--|
| Factor                   | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              | Rotation Sums of Squared Loadings <sup>a</sup> |
|                          | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % | Total  |
| 1                        | 5.118               | 26.936        | 26.936       | 4.684                               | 24.654        | 24.654       | 3.688  |
| 2                        | 2.142               | 11.272        | 38.208       | 1.664                               | 8.758         | 33.412       | 3.458  |
| 3                        | 1.616               | 8.505         | 46.712       | 1.085                               | 5.710         | 39.122       | 3.329  |
| 4                        | 1.287               | 6.776         | 53.488       | .764                                | 4.020         | 43.143       | 1.637  |
| 5                        | 1.142               | 6.008         | 59.496       | .529                                | 2.782         | 45.925       | 1.420  |
| 6                        | .984                | 5.177         | 64.673       |                                     |               |              |  |
| 7                        | .920                | 4.842         | 69.515       |                                     |               |              |  |
| 8                        | .817                | 4.301         | 73.816       |                                     |               |              |  |
| 9                        | .783                | 4.123         | 77.940       |                                     |               |              |  |
| 10                       | .666                | 3.507         | 81.446       |                                     |               |              |  |
| 11                       | .616                | 3.240         | 84.686       |                                     |               |              |  |
| 12                       | .591                | 3.112         | 87.798       |                                     |               |              |  |
| 13                       | .483                | 2.540         | 90.339       |                                     |               |              |  |
| 14                       | .467                | 2.460         | 92.799       |                                     |               |              |  |
| 15                       | .344                | 1.813         | 94.612       |                                     |               |              |  |
| 16                       | .307                | 1.616         | 96.228       |                                     |               |              |  |
| 17                       | .267                | 1.407         | 97.635       |                                     |               |              |  |
| 18                       | .239                | 1.257         | 98.892       |                                     |               |              |  |
| 19                       | .210                | 1.108         | 100.000      |                                     |               |              |  |

Extraction Method: Principal Axis Factoring.

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



**Figure 4.6: Scree Plot on independent variables**

Source: Primary Data

The results of the explanatory factor analysis are presented in the table below. Principal Axis Factoring was used as an extraction method and Promax with Kaiser Normalisations as the rotation method.

All items that were a negative loading, had cross-loadings and items that just did not load anywhere were removed. Risk-taking items had one item load and the rest did not load anywhere, innovativeness had items that cross loaded and one item that double loaded and all were removed. While, proactiveness had three items load in factor three, frequency of entrepreneurship had three items load in factor one, technology capabilities had five items load in factor two and lastly, environmental dynamism had three items load in factor four.

The EFA suggested the presence of three factors – entrepreneurial intensity, environmental dynamism and technological capabilities. The EFA results indicate that items within entrepreneurial intensity, environmental dynamism and

technological capabilities could be reduced into one factor as initially hypothesised

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**Table 4.3: Pattern Matrix on independent variables**

| Pattern Matrix   | Factor |      |      |      |   |   |   |   |   |
|--|--------|------|------|------|---|---|---|---|---|
|  | 1      | 2    | 3    | 4    | 5 | 6 | 7 | 8 | 9 |
| Frequency - Rate of levels of innovation activity within your firm regarding: - Product              | .915   |      |      |      |   |   |   |   |   |
| Frequency - Rate of levels of innovation activity within your firm regarding: - Service              | .603   |      |      |      |   |   |   |   |   |
| Frequency - Rate of levels of innovation activity within your firm regarding: - Process              | .606   |      |      |      |   |   |   |   |   |
| Technology- Our competitive advantage is based on our technology                                     |        | .758 |      |      |   |   |   |   |   |
| Technology - We invest very heavily in R&D   |        | .736 |      |      |   |   |   |   |   |
| Technology - Assimilation of product development technology  |        | .746 |      |      |   |   |   |   |   |
| Technology - Assimilation of process technology  |        | .665 |      |      |   |   |   |   |   |
| Technology- Assimilation of logistics planning of applications                                       |        | .716 |      |      |   |   |   |   |   |
| Proactiveness - Management actively seeks contact with suppliers or clients in international markets |        |      | .536 |      |   |   |   |   |   |
| Proactiveness - Our top management regularly monitors the trends of international markets            |        |      | .744 |      |   |   |   |   |   |
| Proactiveness - Management actively explores business opportunities abroad                           |        |      | .842 |      |   |   |   |   |   |
| Environment Dynamism - The set of competitors is relatively constant                                 |        |      |      | .486 |   |   |   |   |   |
| Environment Dynamism - Product demand is easy to forecast  |        |      |      | .798 |   |   |   |   |   |
| Environment Dynamism - Customer requirements are easy to forecast                                    |        |      |      | .573 |   |   |   |   |   |
| Extraction Method: Principal Axis Factoring.   |        |      |      |      |   |   |   |   |   |
| Rotation Method: Promax with Kaiser Normalisation. <sup>a</sup>                                      |        |      |      |      |   |   |   |   |   |
| a. Rotation converged in 11 iterations.  |        |      |      |      |   |   |   |   |   |

Source: Primary Data

### 4.3.2 Validity of dependent variable

The KMO was tested on the multinational performance construct. KMO was conducted to determine if the data sample size was adequate to perform EFA, so the constructs for multinational performance were run. The KMO test results revealed that the value is .743, indicating sample size was sufficient. While the Bartlett's Test of Sphericity is significant at 0.000, significance should be at  $p < 0.05$ . The factor analysis was allowed to proceed as illustrated by table 4.4 below.

**Table 4.4: KMO on dependent variable**

#### **KMO and Bartlett's Test**

|  |                    |         |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .743    |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 128.528 |
|  | df                 | 15      |
|  | Sig.               | .000    |

Source: Primary Data

The eigenvalue summary for the dependent variables (Table 4.5) illustrates that a two factor solution is suitable for determining the factor structure of the scales. Using the Principal Axis Factor Analysis, it was found that there were two factors with an eigenvalue greater than one, meaning these new factors can explain at least 61% of the variance, these factors have a greater eigenvalue than one, as indicated in the table below and the scree plot (Table 4.5 and Figure 4.7). The number of factors from the scree plot (Figure 4.7) were then compared to the variance table (Table 4.5) to determine how much of the data variance they explained.

**Table 4.5: Total Variance Explained on dependent variable**

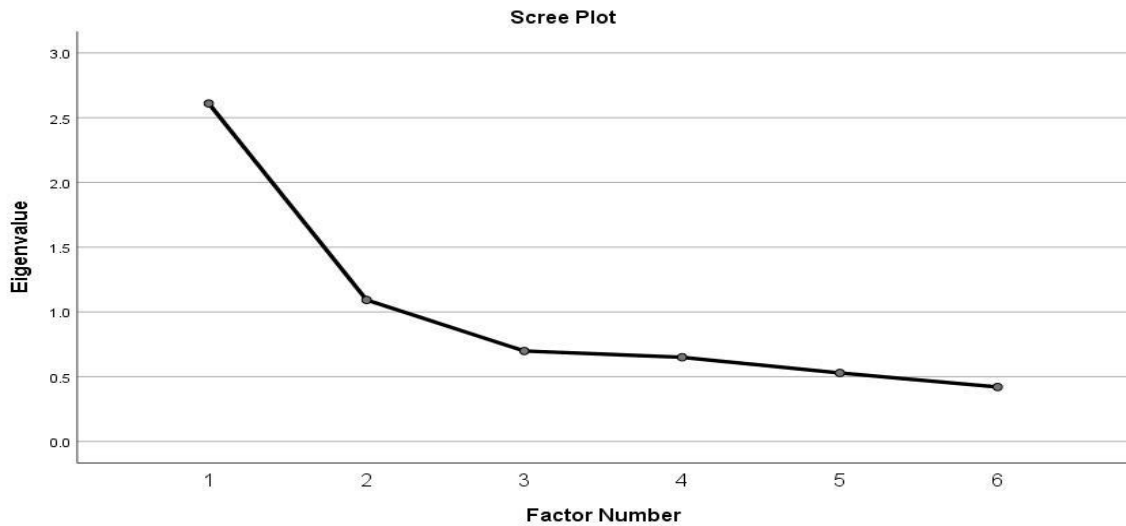
**Total Variance Explained**

| Factor | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              | Rotation Sums of Squared Loadings <sup>a</sup> |
|--------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|--|
|        | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % | Total  |
| 1      | 2.610               | 43.501        | 43.501       | 2.060                               | 34.326        | 34.326       | 1.801  |
| 2      | 1.093               | 18.209        | 61.709       | .611                                | 10.181        | 44.507       | 1.551  |
| 3      | .698                | 11.639        | 73.348       |                                     |               |              |  |
| 4      | .650                | 10.832        | 84.181       |                                     |               |              |  |
| 5      | .529                | 8.812         | 92.993       |                                     |               |              |  |
| 6      | .420                | 7.007         | 100.000      |                                     |               |              |  |

Extraction Method: Principal Axis Factoring.

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

Source: Primary Data



**Figure 4.7: Scree Plot dependent variables**

Source: Primary Data

#### 4.4 Reliability of scales

Reliability testing was completed on the scales designed to measure the underlying constructs. The reliability testing is done by calculating the Cronbach Alpha and the minimum recommended cut off is .7 (Field, 2009). Tavakol and Dennick (2011) note the different reports about the acceptable values of alpha, ranging from 0.70 to 0.95.

Reliability testing was done on three scales, namely, entrepreneurial intensity (frequency of entrepreneurship and proactiveness), environmental dynamism and multinational performance using Cronbach's Alpha. It was concluded that all the constructs were acceptably reliable as seen below in table 4.6.

The Alpha value greater than .7 indicates an acceptable data reliability. Frequency of entrepreneurship had a value of 0.775, while proactiveness measured at 0.782. Whereas technology capabilities had moderately high value of .833, however environmental dynamism had low value of 0.664 and did not meet the 0.70 requirement (Spiliotopoulou, 2009), therefore indicating that all the questions in environmental dynamism do not produce a significantly level of consistency and reliability and fell away. Lastly, multinational performance had value of 0.734 as illustrated by table 4.6.

**Table 4.6: Cronbach's Alpha**

| Constructs                 | Reliability Statistics |  |            |
|----------------------------|------------------------|--|------------|
|                            | Cronbach's Alpha       | Cronbach's Alpha Based on Standardised Items | N of Items |
| Frequency                  | .775                   | .775   | 3          |
| Proactiveness              | .782                   | .784   | 3          |
| Technological Capabilities | .833                   | .834   | 5          |
| Environmental Dynamism     | .664                   | .665   | 3          |
| Multinational Performance  | .734                   | .736   | 6          |

Source: Primary Data

## 4.5 Correlation Results

The previous sections have established the measurement adequacy of the scales; and provided satisfactory evidence of their construct validity and reliability. The next phase tested the hypotheses, with the primary aim to analyse the predictive power of the independent variables, as represented in the model.

The Pearson correlation coefficient measures the strength of the linear relationship between two variables, therefore, supporting the generalisation of all the mentioned hypotheses of the study as the correlation matrix was computed, based on all the variables in the data set. The dependent variable was considered to be multinational performance throughout the study. The table below indicates multinational performance is significantly correlated to proactiveness (0.359\*\*) as its corresponding significant value is less than the standard measure of 0.05. Additional multinational performance was significantly linearly related to frequency of entrepreneurship and technological capabilities (0.317\*\* and 0.412\*\*). All of the suggested constructs of the study proved to be related to multinational performance. The established relationships were further investigated by the linear regression analysis.

**Table 4.7: Correlation table**

**Correlations**

|                               |                     | Proactiveness      | Frequency of Entrepreneurship | Technology capabilities | Performance        |
|-------------------------------|---------------------|--------------------|-------------------------------|-------------------------|--------------------|
| Proactiveness                 | Pearson Correlation | 1                  | .560 <sup>**</sup>            | .472 <sup>**</sup>      | .359 <sup>**</sup> |
|                               | Sig. (2-tailed)     |                    | .000                          | .000                    | .000               |
|                               | N                   | 107                | 107                           | 107                     | 107                |
| Frequency of Entrepreneurship | Pearson Correlation | .560 <sup>**</sup> | 1                             | .505 <sup>**</sup>      | .317 <sup>**</sup> |
|                               | Sig. (2-tailed)     | .000               |                               | .000                    | .001               |
|                               | N                   | 107                | 107                           | 107                     | 107                |
| Technology capabilities       | Pearson Correlation | .472 <sup>**</sup> | .505 <sup>**</sup>            | 1                       | .412 <sup>**</sup> |
|                               | Sig. (2-tailed)     | .000               | .000                          |                         | .000               |
|                               | N                   | 107                | 107                           | 107                     | 107                |
| Performance                   | Pearson Correlation | .359 <sup>**</sup> | .317 <sup>**</sup>            | .412 <sup>**</sup>      | 1                  |
|                               | Sig. (2-tailed)     | .000               | .001                          | .000                    |                    |
|                               | N                   | 107                | 107                           | 107                     | 107                |

<sup>\*\*</sup>Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

## 4.6 Multiple linear Regression

The final phase to test for regression analysis was performed using multiple regression in order to test Hypothesis 1 and 2, however all regression assumptions need to be interpreted first. Therefore, all regression assumption testing (normality, linearity and multicollinearity) are presented with the analysis below, followed by the tested hypothesis. Regression checked for significance using the null hypothesis. The results of the regression analysis are presented on Table 4.8 and are interpreted below according to each hypothesis.

**Table 4.8: Model summary**

| <b>Model Summary<sup>b</sup></b>   |                   |          |                   |                            |               |
|--|-------------------|----------|-------------------|----------------------------|---------------|
| Model  | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
| 1  | .455 <sup>a</sup> | .207     | .184              | .89502                     | 2.012         |
| a. Predictors: (Constant), Technology capabilities, Proactiveness, Frequency of Entrepreneurship |                   |          |                   |                            |               |
| b. Dependent Variable: Multinational_Performance   |                   |          |                   |                            |               |

Source: Primary Data

Table 4.8 shows that the Durbin-Watson statistic is 2.012 which is between 1.5 and 2.5 and therefore the data is not autocorrelated. The R<sup>2</sup> coefficient of determination, is a measure of the predicative capacity of the model and it measures how well the model fits the data. In this instance, R<sup>2</sup> value of .207 indicates that 20.7% of the variance is seen on performance and can be explained by technology capabilities, proactiveness and frequency of entrepreneurship: this model is significant according to the ANOVA table 4.9, as explained below.

**Table 4.9: ANOVA**

### **ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df  | Mean Square | F     | Sig.              |
|-------|------------|----------------|-----|-------------|-------|-------------------|
| 1     | Regression | 21.587         | 3   | 7.196       | 8.983 | .000 <sup>b</sup> |
|       | Residual   | 82.510         | 103 | .801        |       |                   |
|       | Total      | 104.097        | 106 |             |       |                   |

a. Dependent Variable: Multinational\_Performance

b. Predictors: (Constant), Technology capabilities, Proactiveness, Frequency of Entrepreneurship

Source: Primary Data

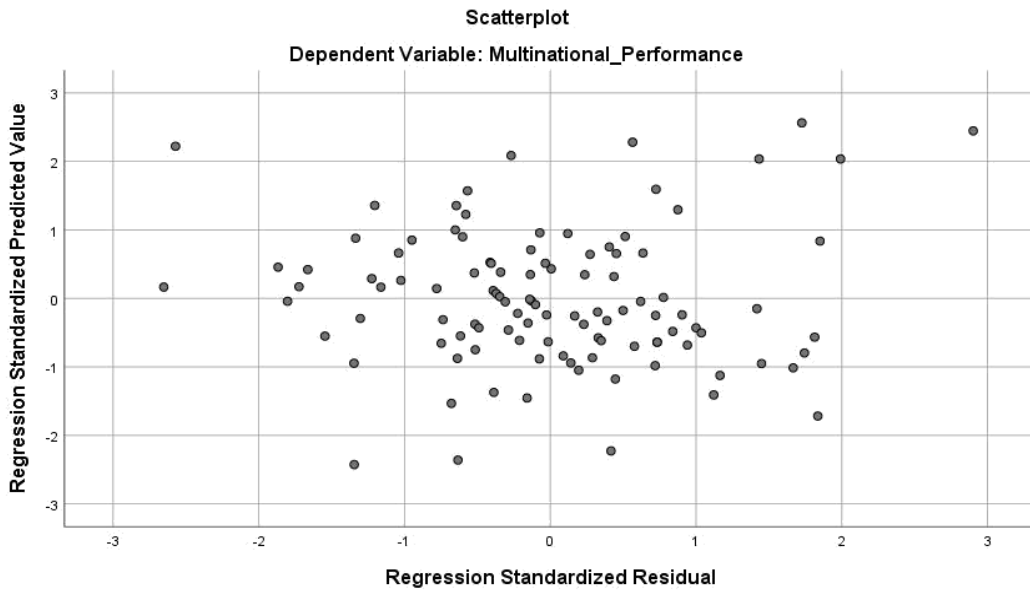
Table 4.9 shows that the model is statistically significant for hypothesis 1 and 3. That indicates that entrepreneurial intensity (frequency of entrepreneurship and proactiveness) and technology is positively related to business performance. Thus, the data is in support of hypothesis 1 and 3, which point to the fact that entrepreneurial intensity (frequency of entrepreneurship and proactiveness) and technology is positively related to multinational performance.

**Table 4.10: Regression coefficients**

| Coefficients                                    |                               |                             |            |                           |       |      |                         |       |
|---|-------------------------------|-----------------------------|------------|---------------------------|-------|------|-------------------------|-------|
| Model   |                               | Unstandardised Coefficients |            | Standardised Coefficients | t     | Sig. | Collinearity Statistics |       |
|   |                               | B                           | Std. Error | Beta                      |       |      | Tolerance               | VIF   |
| 1   | (Constant)                    | 1.499                       | .378       |                           | 3.964 | .000 |                         |       |
|   | Proactiveness                 | .158                        | .094       | .185                      | 1.681 | .096 | .639                    | 1.566 |
|   | Frequency of Entrepreneurship | .050                        | .084       | .066                      | .590  | .557 | .612                    | 1.633 |
|   | Technology capabilities       | .238                        | .086       | .292                      | 2.768 | .007 | .693                    | 1.443 |
| a Dependent Variable: Multinational_Performance |                               |                             |            |                           |       |      |                         |       |

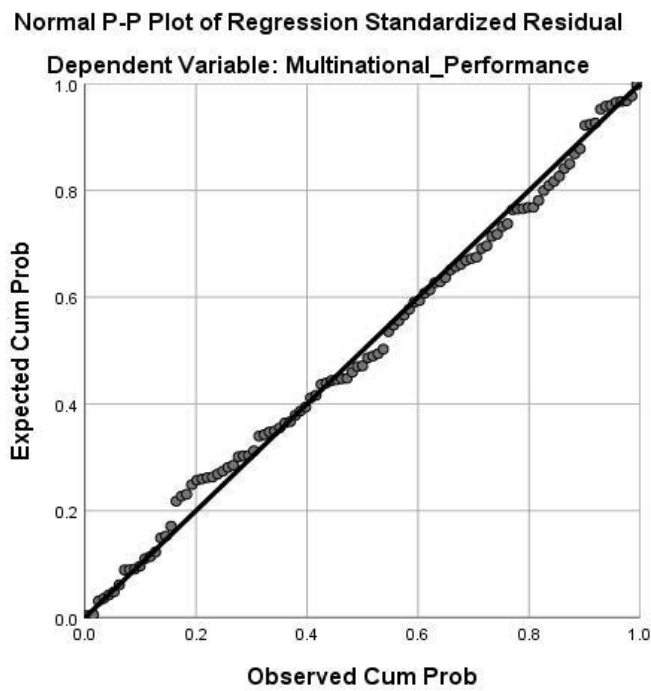
Source: Primary Data

In order to perform regression analysis, the data was first tested for regression assumptions which includes, normality, linearity and multi-collinearity. To check for absence of multicollinearity, the tolerance value is analysed. Table 4.10 shows a correlation coefficient of the different variables and none of them has a coefficient ( $r > 0.8$ ), therefore there is no problem of multicollinearity. Therefore, the assumption has been met as the tolerance value is 0.639, .612 and .693. This is further confirmed by the scatterplot below in figure 4.9, the scatterplot below illustrates that the data is homoscedastic and the assumption has been met. The P-P plot shows that the errors are normally distributed as most points lie on the diagonal line. Therefore, major assumptions of the model were not violated as the residuals were approximately normal.



**Figure 4.8: Scatterplot**

Source: Primary Data



**Figure 4.9: Residual error scatter plot**

Source: Primary Data

#### ***4.6.1 Hypothesis 1: Entrepreneurial intensity is positively related to multinational performance***

The split of the entrepreneurial intensity variable – frequency of entrepreneurship, proactiveness, risk taking and innovativeness. Validity removed risk-taking and innovativeness, both constructs fell away and only two constructs remained, namely, proactiveness and frequency of entrepreneurship. However, entrepreneurial intensity (frequency of entrepreneurship and proactiveness) results suggest that EI is significantly related to multinational performance with  $\beta=0.185$ ,  $p<.05$ , though not large, however it is still significant.

#### ***4.6.2 Hypothesis 2: Technology capabilities is positively related to multinational performance***

The results in table 4.9 indicate that technology capabilities is significantly related to multinational performance with  $\beta=0.292$ ,  $p<.05$ , though not large, however it is still significant. Nonetheless, this was in agreement with the alternative hypothesis that technology capabilities is significantly related to multinational performance.

#### ***4.6.3 Hypothesis 3a: Environmental hostility is positively related to multinational performance***

Hypothesis 3a was not tested as it did not measure what it was meant to measure - it was eliminated at the validity stage. EFA with Promax rotation was performed, and all items that were a negative loading or had cross-loadings were removed. Thus, environmental hostility had cross loading and was removed.

#### ***4.6.4 Hypothesis 3b: Environmental dynamism is positively related to multinational performance***

Hypothesis 3a was not tested as it did not measure what it was meant to measure - it was eliminated at the reliability testing stage The suggested hypothesis was rejected as the results suggested that environmental dynamism had a low value of 0.664 and did not meet the 0.70 requirement, therefore signifying that all the questions in

environmental dynamism do not produce a significantly level of consistency and reliability and fell away.

## 4.7 Summary of the results

In this chapter, the results of the data collected from 145 employees of multinational grocery firms were presented. Tests were performed to determine the validity and reliability of the research instrument used to investigate the relationship between entrepreneurial intensity, entrepreneurial capabilities, and environmental characteristics on multinational performance among South African multinational grocery firms who engage in business outside South African. The chapter closed off with a report on the multiple linear regression analysis.

**Table 4.11: Summary of hypothesis testing outcomes**

|     | <b>Hypothesis Testing outcome</b>  | <b>Hypothesis Testing outcome</b> |
|-----|--|-----------------------------------|
| H1  | Entrepreneurial intensity is positively related to multinational performance | Supported and Significant         |
| H2  | Technology capabilities is positively related to multinational performance   | Supported and Significant         |
| H3a | Environmental hostility is positively related to multinational performance   | Not supported                     |
| H3b | Environmental dynamism is positively related to multinational performance    | Not supported                     |

Source: Primary Data

## **CHAPTER 5: DISCUSSION OF THE RESULTS**

### **5.1 Introduction**

This chapter discuss the results with reference to the literature review. Additionally, this chapter identifies the relationship between entrepreneurial intensity and multinational performance. Secondly, it examines the relationship between technology capabilities and multinational performance. The findings are based on the empirical study initiated in chapter four that looked at statistically analysed results from the survey. Moreover, this chapter is broken into a brief discussion on existing demographics. Lastly, this is followed by discussions pertaining to the entrepreneurial intensity and in-depth discussion on the findings on technological capabilities and its relationship with multinational success.

The findings of the study are incorporated with the literature review in order to produce significant insights in response to the problem, to investigate the relationship between entrepreneurial intensity, entrepreneurial capabilities and market environment on multinational performance among South African multinational grocery firms who engage in business outside South Africa.

### **5.2 Demographics of firms**

A better understanding of the demographic profile of the firms can provide more insights in the interpretation of the results. This section discusses the findings relating to the demographics of the sample.

#### ***5.2.1 Management positions and industry experience***

The majority of the respondents are in senior positions and this is in line with the anticipations of the researcher, that the respondents should have sufficient knowledge of multinational practices and performance within their firms. An overwhelming number of the respondents have been working in the grocery industry for more than 10 years as presented in the previous chapter. Kor (2003) found that a bundle of managerial experience composed of the interaction of firm-specific managerial experience with industry-specific managerial experience was associated with managerial competence.

Such bundles of experience may better explain firm performance than any one specific experience. In this environment, MNE sub-units with a higher intensity of experience are likely to have superior performance, because of their willingness to spend more time to cultivate local relationships (Luo & Peng, 1999).

### **5.2.2 Scope of internationalisation**

This variable examines the firm's global geographic diversity. About a quarter of the firms operate in 11-15 countries. Rasheed (2005) proposed that growth through foreign market enlargement has become an increasingly popular strategy, as previously closed foreign markets open in economies around the world. The concept of multinational enterprises refers to an international entrepreneurship as a combination of innovative, proactive and risk-seeking behaviour that crosses national borders and is intended to create value in organisations (Phillips & Oviatt, 2000).

### **5.2.3 Technology intensity**

Han, Chang, and Hahn (2011) suggested that recent literature has indicated that there is significant variation in technology intensity across industries, and that the level of technology intensity can impact an industry's economic performance. This variable examines a firm's technology intensity within their industry. Recent studies have indicated that not only does technology and firm innovation create value but can aid in the international expansion process which many firms in emerging countries are now undertaking (Urban, 2010). However, virtually half of the respondents indicated that the industry operates between a middle-tech to low-tech environment (48.6%).

## **5.3 How the relationship between entrepreneurial intensity, capabilities, and environment influences multinational performance?**

These findings are consistent with the findings of Scheepers et al. (2007), that EI influences multinationals' performance. Shohaieb et al. (2015) agree and added that entrepreneurial intensity will have a substantial effect on the competitive advantage of firms. Moreover, the study findings suggested that EI dimensions, namely proactiveness and frequency of entrepreneurship, have a positive

relationship with multinational performance. Furthermore, numerous scholars have recognised that entrepreneurial intensity has been found to lead to improved performance (Morris, 2015a; Scheepers et al., 2007).

While Sefalafala's (2012) findings suggested that entrepreneurial firms that have stronger capabilities are highly likely to have a competitive advantage over potential competitors in the foreign markets thus performance better than competitors, there is evidence, as acknowledged by Filipescu et al. (2009) that, in order for firms to increase national and international competitiveness, technology should be the main focus. Zahra and Bogner (2000) emphasised that the firm's technological capability is critical to successful internationalisation. Most of Africa is still lagging the rest of the world in technology. The report suggests that South African multinational grocery firms incorporate advanced technologies when engaging in business overseas; it also illustrates that South African multinational grocery firms invest in technology innovation when expanding internationally. Moreover, through technology capabilities, firms will have a performance advantage over other grocery firms.

Firms that pursue innovative activities across borders, and engage in entrepreneurial intensity – namely proactiveness, frequency of entrepreneurship and technology capabilities, gain a competitive advantage over their counterparts and superior resources. Moreover, multinationals that participate in entrepreneurial intensity have a higher frequency of developing new products or processes that improve performance. The following hypotheses were tested, based on the above.

### ***5.3.1 Hypothesis 1 Entrepreneurial intensity is positively related to multinational performance***

It was expected that the entrepreneurial intensity and multinational performance among South African grocery firms will be significantly associated with each other. However, there was no support for innovativeness and risk-taking in enhancing multinational performance, as items with small loadings or items that double-loaded were typically discarded during scale development (Bonett & Wright, 2015). In line with previous research (Patel & D'Souza, 2009), the study found that not all three dimensions of entrepreneurial orientation seemed to play a role

in enhancing performance. However, there was support for proactiveness and frequency of entrepreneurship as a factor.

The literature suggested that multinational firms need to adopt EI to remain competitive and this is supported by several scholars (Ireland et al., 2006; Knight & Cavusgil, 2004; Morris & Sexton, 1996; Scheepers et al., 2007). As stated by Morris and Sexton (1996), to measure the level of entrepreneurship in any given firm, the concepts of degree (innovativeness, risk-taking and proactiveness) and frequency must be considered together.

The result indicates that, despite not engaging in advance innovations and risk taking that create new markets and industry redefinition (Morris et al., 2008), multinational firms engage in frequent product, process, and service enhancement activities. Moreover, multinational firms are at the forefront in pursuing and enhancing competitiveness in foreign markets. Knight and Cavusgil (2004) indicated that to inaugurate and sustain their presence in multiple foreign markets, firms must proactively identify opportunities in each successive market.

### ***5.3.2 Hypothesis 2: Technological capabilities is positively related to multinational performance***

In support of hypothesis 2, technology capabilities is positively related to multinational performance. This hypothesis is supported by numerous scholars ((Filippetti & Peyrache, 2011; Kyrgidou & Spyropoulou, 2013; Zahra et al., 2000a). Entrepreneurial firms possessing stronger capabilities will enjoy greater competitive advantage over existing or potential competitors in the foreign markets and hence, the better performance (Sefalafala, 2012). Zahra and Bogner (2000) claimed that the firm's technological capability is critical to successful internationalisation. Morris and Sexton (1996) acknowledged a stronger relationship when more weight is placed on degree versus the frequency of entrepreneurship demonstrated by a firm (Morris & Sexton, 1996).

### ***5.3.3 Hypothesis 3a: Environmental hostility is positively related to multinational performance***

Hypothesis 3a was not tested as it did not measure what it was meant to measure and was eliminated at the validity stage. The hypothesis that was meant to be tested is that the relationship between environmental hostility is positively related to multinational performance.

A possible reason for the lack of support for this hypothesis may be that certain respondents, irrespective of different types of market environment, give the impression of misinterpreting market environment as one type, however the respondents did manage to distinguish their viability of business and competition intensity. The researcher concludes that this suggests that when grocery firms expand across borders they do not separate the market environment acquired as environmental hostility or dynamism; they all viewed this as the market environment to be managed and valued.

However, previous literature supports environmental hostility and performance (Eroglu & Hofer, 2014; Rasheed, 2005; Urban & Sefalafala, 2015; Zahra & Garvis, 2000). Sohail, Ayadurai, Jaya, and Ehsan (2007) added that environmental instability had an impact on the performance of multinational companies.

#### ***5.3.4 Hypothesis 3b Environmental dynamism is positively related to multinational performance***

Hypothesis 3b was also not established as it did not measure what it was meant to measure it, due to it being eliminated at the during the reliability testing stage. However, the hypothesis was meant to test that environmental dynamism is positively related to multinational performance. Tavakol and Dennick (2011) suggested that a low value of alpha could be due to a low number of questions, poor inter-relatedness between items or heterogeneous constructs. This has resulted in environment dynamism not measuring environment dynamism but something else.

Existing literature supports environmental hostility and performance (Eroglu & Hofer, 2014; Rasheed, 2005; Urban & Sefalafala, 2015; Zahra & Garvis, 2000). Similarly, Zahra (1991) added that opportunities develop from the dynamism of an industry where social, political, technological, and economic changes brings about new improvements that enhance a firm's function.

# **CHAPTER 6: CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS**

## **6.1 Introduction**

The purpose of this chapter is to draw conclusions that were inferred in the study and discuss the theoretical and practical implications of the study's findings and make recommendations. The contribution of the study and future research implications are included.

## **6.2 Key Findings**

The purpose of this study was to investigate the relationship between entrepreneurial intensity, entrepreneurial capabilities, and market environment on multinational performance among South African multinational grocery firms that engage in business outside South Africa. The information gathered in this research could benefit multinationals and governments on its approach to EI and TC. In light of the recent surge in international retail activity within Africa that has pushed the continent into a retail revolution (Dakora & Bytheway, 2014) due to rapid globalisation of world markets, companies of all sizes have been encouraged to expand internationally. Thus, encouraging South African firms that have been taking advantage of this and expanding to different parts of the world. However, it is critical to note the challenges that MNEs deal with, hence the need for MNEs to implement EI strategies and the necessary TC approaches.

The study found that entrepreneurial intensity among South African grocery firms is positively related to multinational performance. As discussed in chapter 2 entrepreneurial intensity can indicate a firm's performance from the viewpoint of the entrepreneur Ireland et al. (2006) . It is highlighted in literature that the degree and frequency of corporate entrepreneurship will substantially affect the competitive advantage of the firm (Shohaieb, Genedy, & Hammad, 2015) . This is in line with previous research on entrepreneurial intensity (Morris & Sexton, 1996; Scheepers et al., 2007; Urban & Sefalafala, 2015). Furthermore is it highlighted that EI requires organisational members to participate in proactive activities such as spending time abroad and be present in foreign trade faires (Jones, Coviello, & Tang, 2011). Therefore, it is worth noting these results confirm that EI has positive performance implications and may assist firms in seeking out new opportunities

internationally. Recognising these opportunities through which a firm can expand are likely to be found in the global market rather than in its domestic environment, firms from South Africa should seek to develop a position that is consistent with higher levels of EI in order to pursue such opportunities abroad, as such related findings indicate that entrepreneurial initiatives (innovativeness, proactiveness and risk-taking) are particularly important when an MNC subsidiary lacks manufacturing competence or experiential knowledge in the foreign market (Lee & Chen, 2003). These findings are relevant and seem to support the view that entrepreneurial intensity is positively related to multinational performance. South African multinational grocery firms should put into effect different aspect of entrepreneurial intensity, depending on the intended performance target they want to reach. Multinational firms should adopt entrepreneurial intensity by proactively innovating new products for the international markets to boost foreign sales. The development of entrepreneurial intensity would entail managers and employees to engage in proactive actions such as acquisitions or joint ventures. Nevertheless, firms should be careful to avoid taking risks in these locations to avoid losses that could affect their international sales revenue.

Based on the discussion in Chapter 2 that MNE activities are determined by the prospect to influence capabilities and generate and capture value from innovation on a global scale (Teece, 2014). While Bartlett and Ghoshal (2002) noted that a firm's ability to link and leverage capabilities is ultimately the factor that distinguishes the winners from the losers and survivors. In line with existing literature in multinational enterprises, the study confirms that technological capabilities are important for successful international expansion and that multinational firms use technology capabilities to gain a competitive advantage (Dzinekou et al., 2017; Filipescu et al., 2009). This is in accordance with research that argues that technological innovation is of fundamental importance as a driver for global growth and economic development concept of the multinational company. This point is further emphasised by Zahra and Bogner (2000) that a firm's technological skills are vital to that successful internationalisation expansion. Consistent with other research, performance is mainly determined by its unique resource and capabilities (Deeds, 2001), and that multinational enterprises' competitive advantage rest in their capability to influence distinctive skills of internationally dispersed subsidiaries (Dimitratos et al., 2014). In

conclusion, the research indicates that for multinationals in a foreign market environment, management found that technology capabilities were more significant predictors of performance than entrepreneurial intensity

When examining the relationship between environmental dynamism, hostility and multinational performance in the study, this hypothesis was not tested due to having been removed during validity and reliability testing. A possible reason for the lack of support for this hypothesis may be that certain respondents might have misinterpreting market environment as one type. However previous research has indicated that environmental dynamism, hostility are related to multinational performance (Lindelöf & Löfsten, 2006; Sohail et al., 2007; Urban & Sefalafala, 2015). Dzinekou et al. (2017) admitted that environmental conditions are the most dynamic aspects of any business organisation. This, therefore plays a critical role in the internationalisation process (Zahra et al., 2000a). It's vital to note that Andersson (2002) argues that environmental influences are relevant, with industry maturity and structure.

### **6.3 Implications and Recommendations**

The findings of this study provide guidelines to assist both executives, academics and government to better understand the significance of entrepreneurial intensity, technology and how to use it to improve multinational performance. The study found that entrepreneurial intensity dimensions of proactiveness, frequency of entrepreneurship and technological capabilities have positively correlated with multinational performance.

Multinational enterprises (MNEs) play a fundamental part in the growth of many developing economies (Meyer, 2004). Aforementioned literature has indicated that a direct relationship exists between the degree to which firms participate in innovative, risk-taking, and proactive behaviours and firm performance (Covin & Slevin, 1991; Davis, Morris, & Allen, 1991) as cited in Morris and Jones (1995). Moreover, the findings established in this study, add more knowledge to the multinationals from emerging markets literature as previous literature has mainly focused on western firms such as Canada (Montreal), France, Germany, the Netherlands, the United States (Florida), the United Kingdom, as well as Australia,

Japan and Korea (Zahra et al., 2000). Multinationals from emerging market countries should be encouraged to embrace entrepreneurship.

Entrepreneurial intensity has limited studies within the context of multinational enterprises and therefore is still in the early stages. It further confirms the role of entrepreneurship in firms. Zahra and Bogner (2000) claimed that the firm's technological capability is critical to successful internationalisation. The linkage between entrepreneurial intensity and performance has been found to lead to improved performance by several authors (2019; Morris, 2015b; Morris & Sexton, 1996; Scheepers et al., 2007).

The study, through its findings, can contribute to an understanding of technology capabilities. Filippetti and Peyrache (2011) findings suggest that technology experiences have been shown to play a critical role in internationalisation. Multinational firms should obtain the necessary technological capabilities in order to succeed in different markets. South African multinational firms need to improve their international competitiveness by directing funds in the direction of entrepreneurial competencies, such as human and social capital and technology acquisition.

South African businesses face challenges of international competitiveness, trade deficit, as well as job creation. The Department of Trade and Industry aims to play a role in promoting the economic development and significant involvement in the global economic and trade environment. Therefore, government should create public policy that makes it easier for multinationals to conduct business across the borders. The findings of the study indicate that technology and entrepreneurship intensity are linked, hence policy makers in business, government and educational institutions should put more emphasis on programmes that foster the development of technology development.

These findings have important implications for research in international entrepreneurship. The findings of the study show that entrepreneurial intensity and technology capabilities are two of the elements that can bring the success in every grocery multinational firms that has started doing business overseas or is planning to start. Grocery firms that internationalise should be involved in entrepreneurship intensity, namely, proactiveness, frequency of entrepreneurship and technology capabilities which will enrich their multinational performance.

Furthermore, environmental characteristics should be taken into consideration as they have been established to have an influence on entrepreneurial behaviour and the performance of firms. It is also suggested that multinational grocery firms should prioritise technology as it plays an essential role in the internationalisation of firms.

#### **6.4 Limitations of the study**

It should be noted that this study has made contributions in understanding entrepreneurship intensity, technology capabilities and the impact this has on the performance of multinationals, but there are some limitations which lay the foundation for future research. The limitations of this study relate to the method by which the data were collected. The study was limited to a snapshot of what is occurring within the grocery industry in South Africa as far as entrepreneurial intensity and technology capabilities. The scope of this study was national; as such, it may have been prudent to first determine the various EI levels in each province and access multinational grocery firms in that manner. Additionally, the process undertaken to motivate participation from grocery firms could have been done more diligently. Grocery firms that were approached were very tentative to allow their employees to participate in the questionnaires. Some of the questions on the survey could have been reviewed to taken out any uncertainty.

The following points are considered as limitations of this study:

- There was a lack of interest among some grocery firms and managers in partaking in the questionnaires. It was extremely difficult to gain access to a total population sample of firms operating within the South Africa grocery firms because of privacy. Time constraints and privacy were presented as reasons not to participate in the questionnaires.
- The amount of time available for the research was a limiting factor.
- Some respondents may not have given accurate information
- An independent or moderating variable might have been a valuable inclusion

The above-mentioned limitations may have affected the outcome of this study had they been considered beforehand.

## **6.5 Suggestions for Further Research**

The purpose of this study was to investigate the relationship between entrepreneurial intensity, entrepreneurial capabilities and market environment on multinational performance among South African multinational grocery firms who engage in business outside South Africa. Therefore, several suggestions for future research have been developed

The data for the study was collected in South Africa, however for future research, a comparative study on multinationals in different provinces might be worth pursuing. As the different regions in South Africa each have their own unique challenges; therefore, investigating whether there are region-specific opportunities that enable South African firms to becoming multinationals and flourish.

The data for this study had an industry-specific focus, focusing on South African grocery firms, consequently it is suggested that future research should not be industry-specific and should include all multinational companies.

It is also suggested that for future studies to identify a moderating variable like environmental characteristics of hostility, dynamism and heterogeneity and the dependent variable multinational performance. Finally, this study examined a relationship between technology capabilities and multinational performance, therefore future studies could examine the multiple set of entrepreneurial capabilities dimensions instead of one dimension.

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# APPENDIX A: QUESTIONNAIRES

## Entrepreneurial intensity

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Start of Block: SECTION 1

Dear Madam/ Sir

My name is Anathi Thumana, I am a student at the University of the Witwatersrand (Wits Business School) in Johannesburg, studying towards a Master of Management in Entrepreneurship and New Venture Creation.

You are herewith invited to participate in my research by completing the accompanying questionnaire.

The main objective of the study is the relationship between entrepreneurial intensity, capabilities and performance in the South African grocery industry. The main purpose of this research is to perform an investigation on three main constructs, entrepreneurial intensity, capabilities in the international environment among South African multinational food retailer and the relationship of these factors with international performance.

What will happen if you choose to participate in the research.

1. Your responses to all questions are greatly appreciated and there are no wrong or right answers
2. The research does not present any risk/harm to you if you participate
3. This research is for academic purposes only and the results from the study will be reported only in my thesis and journal articles. Your responses remain confidential and will not be shared with anyone else.

The questionnaire is made up of 17 questions and will take 15-20 minutes to complete.

The questionnaire is made of five sections

- 1) Demographics Scale
- 2) Entrepreneurial Intensity Scale
- 3) Entrepreneurial Capabilities - Technology
- 4) Environment
- 5) Performance

Your participation in this research is voluntary. If you would like to contact the supervisor/ lecturer in the study to further discuss this research please e-mail Dr Jabulile Galawe at [Jabulile.Galawe@wits.ac.za](mailto:Jabulile.Galawe@wits.ac.za)

Anathi Thumana

Kind Regards

- I consent to begin the study (1)
- I do not consent to begin the study (2)

*Skip To: End of Survey If = I do not consent to begin the study*

*Skip To: End of Survey If = I do not consent to begin the study*

End of Block: SECTION 1

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Start of Block: SECTION A

## Demographics

This section consistent of demographic questions , please indicate by ticking (X) in the appropriate.

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Q1 What gender do you identify as ?

- Male (1)
  - Female (2)
  - Other (3)
- 

Q2 How many years have you been in the grocery industry ?

- 1 - 5 Years (4)
  - 6 - 10 Years (5)
  - 11 - 15 Years (6)
  - more than 16 Years (7)
- 

Q3 Indicate which grocery company you currently work for ?

- Massmart (1)
  - Pick n Pay Group (2)
  - Shoprite Holdings (3)
  - Spar Holdings (4)
  - Woolworths Food (5)
-

Q4 Indicate your current level of management ?

- Supervisor (1)
  - Junior Manager (2)
  - Middle Manager (3)
  - Senior Manager (4)
  - Executive Manager (5)
  - General Employee (6)
- 

Q5 In which Province are you located ?

- Free State (1)
  - Gauteng (2)
  - Limpopo (3)
  - Northern Cape (4)
  - Western Cape (5)
  - KwaZulu Natal (6)
  - Mpumalanga (7)
  - Eastern Cape (8)
  - North West (9)
-

Q6 Highest level of education

- Below Matric (1)
  - Matric (2)
  - Certificate/Diploma (3)
  - Undergraduate degree (4)
  - Postgraduate (5)
- 

Q7 State the number of countries your company operates in ?

- 1-5 countries (1)
  - 6-10 countries (2)
  - 11-15 countries (3)
  - 16-20 countries (4)
  - Over 20 countries (5)
- 

Q8 How would you classify the level of technology intensity of your industry ?

- Low-tech (1)
- Medium-tech to Low-tech (2)
- Medium-tech to High-tech (3)

End of Block: SECTION A

Start of Block: SECTION B

Measurement Scales

The following questions are related to the management style of your company's decision makers. Please select which response is most appropriate.

Please indicate the extent to which you agree or disagree with the below statement by ticking the corresponding number on the 7-point scale.

Q9 Entrepreneurial Intensity – Innovativeness

|  | Strongly Disagree (1) | Disagree (2)          | Somewhat Disagree (3) | Neutral (4)           | Somewhat Agree (5)    | Agree (6)             | Strongly Agree (7)    |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Our top management encourages new product ideas for international markets (1)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Our top management receptive to innovative ways of exploiting international market opportunities (2)                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Our top management believes that the opportunity for international markets is greater than the opportunity for domestic market (3) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Our top management continuously searches for international markets (4)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Our top management is willing to consider new suppliers/clients abroad (5)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Q10 Risk - Taking

|  | Strongly Disagree (1) | Disagree (2)          | Somewhat disagree (3) | Neutral (4)           | Somewhat agree (5)    | Agree (6)             | Strongly agree (7)    |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Management focuses abroad more on opportunities than on risks (1)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| When confronted with decision about international operations , our top management is tolerant of potential risks (2) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management have shared vision of the risks of foreign markets (3)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management values risk taking opportunities abroad (4)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Q11 Proactiveness

|  | Strongly Disagree (1) | Disagree (2)          | Somewhat disagree (3) | Neutral (4)           | Somewhat agree (5)    | Agree (6)             | Strongly agree (7)    |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Management have usually spent time abroad (1)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management actively seeks contact with suppliers or clients in international markets (2) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Our top management regularly monitors the trends of international markets (3)            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Management actively explores business opportunities abroad (5)                           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Q12 Rate the levels of innovation activity within your company regarding :

|                          | Very inactive (1)     | Moderately inactive (2) | Slightly inactive (3) | Neutral (4)           | Slightly active (5)   | Moderately active (6) | Very active (7)       |
|--------------------------|-----------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Products (1)             | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Services (5)             | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Process (6)              | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Business Development (7) | <input type="radio"/> | <input type="radio"/>   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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Q14 Rate your firm relative to main competitors

|   | Much worse (1)        | Somewhat worse (2)    | Slightly worse (3)    | About the same (4)    | Slightly better (5)   | Somewhat better (6)   | Much better (7)       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Our top managers' knowledge about foreign language and norms (1)            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Our top managers' knowledge about foreign business laws and regulations (2) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Our top managers' knowledge about host government agencies (3)              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Our top managers' knowledge about foreign competitors (4)                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Our top managers' knowledge about foreign clients/customers (5)             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Our top managers' knowledge about foreign distribution channels (6)



End of

Block: SECTION B

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Start of Block: Section C - Technology

Q15 Please indicate the extent to which you agree or disagree with the below statement by ticking the corresponding number on the

|  | Strongly disagree (1) | Disagree (2)          | Somewhat disagree (3) | Neutral (4)           | Somewhat agree (5)    | Agree (6)             | Strongly agree (7)    |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Our technology is better than our competitors (1)        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Our competitive advantage is based on our technology (2) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| We invest very heavily in R&D (4)                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Assimilation of product development technology (5)       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Assimilation of process technology (6)                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Assimilation of logistics planning of applications (7)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

End of Block: Section C - Technology

Start of Block: Section D - Environment

Q16  
Please place a tick in the box that best suits your response (1 = strongly disagree; 7 = strongly agree)

|   | Strongly disagree (1) | Disagree (2)          | Somewhat disagree (3) | Neither agree nor disagree (4) | Somewhat agree (5)    | Agree (6)             | Strongly agree (7)    |
|---|-----------------------|-----------------------|-----------------------|--------------------------------|-----------------------|-----------------------|-----------------------|
| The failure rate of firms in my industry is high (1)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| My industry is very risky-one bad decision could easily threaten the viability of my business (2) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Competition intensity is high in my industry (3)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Competition intensity is low in my industry (4)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Severe price wars are characteristics of my industry (5)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Low profit margins are characteristic of my industry (6)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Actions of competitors are easy to predict (7)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| The set of competitors is relatively constant (8)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Product demand is easy to forecast (9)  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Customer requirements are easy to forecast (10)   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

My industry is very stable with very little change (11)

Q17 Performance

Q17 Performance

|  | Very dissatisfied (1) | Moderately dissatisfied (2) | Slightly dissatisfied (3) | Neutral (4)           | Slightly satisfied (5) | Moderately satisfied (6) | Very satisfied (7)    |
|--|-----------------------|-----------------------------|---------------------------|-----------------------|------------------------|--------------------------|-----------------------|
| My firm's satisfaction with external store profitability over the past three years (1) | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/>    | <input type="radio"/> |
| My firm's satisfaction with profitability over the past three years (2)                | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/>    | <input type="radio"/> |
| My firm's satisfaction with employee growth over the past three years (3)              | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/>    | <input type="radio"/> |
| My firm's foreign sales growth over the past three year (4)                            | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/>    | <input type="radio"/> |
| My firm's satisfaction with market share over the past three years (6)                 | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/>    | <input type="radio"/> |
| My firm's satisfaction with growth in external   | <input type="radio"/> | <input type="radio"/>       | <input type="radio"/>     | <input type="radio"/> | <input type="radio"/>  | <input type="radio"/>    | <input type="radio"/> |

store in  
market  
share over  
the past  
three years  
(7)

## APPENDIX B: CONSISTENCY MATRIX

| To investigating the relationship between - entrepreneurial intensity , entrepreneurial capabilities ( technology) and the environment - on multinational performance among the multination grocery firms in South African |   |   |   |  |   |              |  |
|--|---|---|---|--|---|--------------|--|
| Sub-problem/Aims   | Literature Review   | Hypotheses  | Research question   | Variables(Independent & Dependent)   | Source of data  | Type of data | Analysis   |
| Examine the relationship between entrepreneurial intensity and multinational performance   | Morris and Sexton (1996)<br>Morris, Ireland & Kurato (2006) ( Urban(Morris, 2015a; Scheepers et al., 2007)  | <b>Hypotheses 1:</b> Entrepreneurial Intensity is positively related to multinational performance                   | What is the nature of the relationship between entrepreneurial intensity and multinational performance      | IV1=Entrepreneurial Intensity<br><br>DV1= Multinational performance        | Survey Questionnaires<br><br>7 Likert Scale<br>Section B &E<br>Section D & E  | Ordinal data | Correlation matrix<br><br>Multiple regression analysis |
| Examine the relationship between entrepreneurial capabilities and multinational performance  | Morris and Sexton (1996)<br>Morris, Ireland & Kurato (2006) )( Urban & Sefalafala, (2014)(Filipescu et al., 2009; Filippetti & Peyrache, 2011; Scheepers et | <b>Hypotheses 2:</b><br>Entrepreneurial capability ( technology) is positively related to multinational performance | What is the nature of the relationship between entrepreneurial capabilities and multinational performance , | IV2 =Entrepreneurial Capabilities<br>Multinational performance<br><br>DV 2 | Survey Questionnaires<br><br>7 Likert Scale<br>Section C & E<br>Section D & E | Ordinal data | Correlation matrix<br><br>Multiple regression analysis |

|  |  |   |  |  |   |  |
|--|--|---|--|--|---|--|
|  | al., 2007;<br>Urban, 2010)   |   |  |  |   |  |
| Examine the relationship between environmental dynamism and multinational performance  | (Agyapong et al., 2019; Dzinekou et al., 2017; Frank, Güttel, & Kessler, 2017; Hassan et al., 2015; Zahra, 1993) | <b>Hypotheses 3a:</b><br>environmental dynamism is positively related to multinational performance  | What is the nature of the relationship between environmental dynamism and multinational performance  | IV3a=environmental dynamism DV3a= Multinational performance  | Survey Questionnaires<br><br>7 Likert Scale<br><br>Section B & E<br>Section D & E | Correlation matrix<br><br>Ordinal data<br><br>Multiple regression analysis |
| Examine the relationship between environmental hostility and multinational performance | (Dzinekou et al., 2017; Frank et al., 2017; Lindelöf & Löfsten, 2006; Zahra, 1993)                               | <b>Hypotheses 3b:</b><br>environmental hostility is positively related to multinational performance | What is the nature of the relationship between environmental hostility and multinational performance | IV3b=environmental hostility DV3b= Multinational performance | Survey Questionnaires<br><br>7 Likert Scale<br><br>Section B & E<br>Section D & E | Correlation matrix<br><br>Ordinal data<br><br>Multiple regression analysis |

# APPENDIX C: ETHICS CLEARANCE

Graduate School of Business Administration  
University of the Witwatersrand, Johannesburg



**Wits Business School Ethics Committee**  
Constituted under the University Human Research Ethics Committee (Non-Medical)

## Ethics Clearance Certificate

Ethics protocol number: WBS/BA1671395/S17

*This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).*

This certificate is only valid if accompanied by formal permission from the relevant stakeholder(s).

|                                  |  |
|----------------------------------|--|
| <b>Project title</b>             | The relationship between entrepreneurial intensity, entrepreneurial capabilities, market environment and multinational performance among multinational grocery firms in South Africa |
| <b>Investigator / Researcher</b> | Miss Anathi Thumana  |
| <b>Nature of Project</b>         | MM (Entrepr & New Venture Creation)  |
| <b>Decision of the Committee</b> | Approved unconditionally   |
| <b>Issue Date of Certificate</b> | 2019/11/20   |
| <b>Expiry date</b>               | Date of submission of the project report   |
| <b>Chairperson</b>               | Prof Anthony Stacey<br>☎ +27 11 717 3587<br>☎ +27 82 880 4531<br>✉ anthony.stacey@wits.ac.za   |

### Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

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

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date: