Comparative study of EO in incubated and non-incubated SMME's in South Africa

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A dissertation submitted to the Faculty of Commerce, Law and Management, University of Witwatersrand, in fulfillment for the requirement of the degree of Masters in Management in Entrepreneurship and New Venture Creation submitted March 2018

ABSTRACT

South Africa is a standout amongst the world with regards to inequality. Small Medium and Micro-Sized Enterprises (SMMEs) are aimed at alleviating the inequality problem through job creation. Proactive individuals such as the unemployed, look for entrepreneurial opportunities as a means of generating income. SMME's have gained tremendous attention since the dawn of democracy for a number of reasons. The underlying reason is that small businesses are a big driver for any economy. However, their failure rates are very high. It is thus necessary for government and the private sector to work together to ensure the success of start-ups. Incubations globally have been brought into the picture to remedy the appalling failure rates of these enterprises. Business incubators (BI) have succeeded in some part to remedy the failures of these SMME's by providing a tailored and generic solutions. Studies on entrepreneurial orientation (EO) previously focused on performance. However previous work has failed to address the extent in which incubators affect the (EO) of a small business in relation to growth.

The challenges faced in South Africa as a result of these failing SMME's could be remedied by improving the level of entrepreneurship in the country, the reason the topic justifies research in the first place. A qualitative method was adopted to investigate whether EO and its dimensions can be analysed as a performance variable between incubated and non-incubated companies. 180 respondents completed they questionnaire.

The study subsequently inferred that higher levels Pro-activeness in a non-incubated firm leads to growth while higher Risk-taking leads to a decline and Innovativeness had no impact on business growth in non-incubated businesses. Business incubators in South Africa play more of a sustainability role than a growth role for SMME's.

DECLARATION

I, Lerato Marokoane, 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 specialising 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.

Lerato Marokoane

Signed at ……

On the …… day of …… 2018

ACKNOWLEDGEMENTS

As a spiritual man I would like to thank the Lord almighty for giving me life and the ability to identify opportunities that could prolong my livelihood. A special thanks by loving family and loved ones for the unconditional support and always believing in me. Dr. Jabulile Galawe, I would like to thank you for you're the instrumental role you have played in my journey, you have influenced my character and passion for entrepreneurship. I would also like to thank my friends who have supported me with advice and guidance.

Thanks to ABSA Capital for funding my studies and providing me with the support to pursue my dreams. Special acknowledgement goes to the Wits Business School faculty, the lecturers and support staff.

Acknowledgements are also extended to the friends and classmates who spent late nights and early mornings with me at the Wits Business School. I hope the friendships we have built over the year will continue into the greater future.

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Abbreviated Words

CE – Corporate Entrepreneurship

EO – Entrepreneurial Orientation

GEM – Global Entrepreneurship Monitor

SEDA- Small Enterprise Development agency

GDP – Gross Domestic Product

NDP – National Development Plan

SMME – Small Medium and Micro sized Enterprise's

CHAPTER 1

1.1 INTRODUCTION

Entrepreneurship is defined differently by many scholars. Knight (1921) definition, relates to the ability of the individual handling uncertainty (risk) and exploration or opportunities (pro-activeness). However, Schumpeter (1934) extended the definition to include innovativeness. An entrepreneur with the ability to produce solutions in new and unfamiliar situations is considered innovative (Schumpeter, 1934). The entrepreneur makes use of their implicit and tacit knowledge to achieve the tasks at hand (Venter & Urban, 2015). Management literature, stipulates that successful entrepreneurs possess the following characteristics; risk-taking ability, acceptance for frequent change, knowledge of the market, marketing skills and business management skills (Littunen, 2000; Venter & Urban, 2015). These are all dimensions initially mentioned by Miller (1983) in his definition of entrepreneurial orientation (Covin & Slevin, 1989; Urban, 2011).

Lumpkin and Dess (1996) expanded the EO definition to incorporate two other dimensions; autonomy and competitive aggressiveness. Some EO scholars viewed the two dimensions as already existing within the traditional dimensions. Lechner and Gudmundsson (2014), Avlonitis and Salavou (2007) are among some of the authors who provide evidence that EO positively contributes to the success of an organisation.

Entrepreneurship is not only limited to the establishment of new ventures or small firms. The theory exists within large corporations, referred to as intrapreneurship or corporate entrepreneurship (CE) (Venter & Urban, 2015). This form of entrepreneurship is a process of stimulating innovative processes and ideas to contribute positively or improve the organisations performance (Kenny & Mujtaba, 2007). There are four types of CE described by Venter and Urban (2015), namely Corporate venturing, which involves starting a new company within the company, Intrapreneuring which is a deliberate attempt by a company to stimulate an entrepreneurial culture, Organisational transformation according to Birkenshaw (2003) is the adoption of the changing business environment, culture, and structures that encourage entrepreneurship in a company

(Venter & Urban, 2013) and finally Industry rule-bending is the changing rules of competitive engagement (Venter & Urban, 2015). The EO construct determines the perceived success of a business, by measuring the growth through financial performance.

1.2 THEMATIC FOCUS AND CONTEXT OF THE STUDY

The National Business Incubation Association (2016) of the United States of America (hereinafter the US), defines business incubation as; a practice designed to support the early-stage firms with the development and scaling of growth. The course provides entrepreneurs with an enabling environment at the start-up stage to enable sound development of the firm overtime. The cost of launching the enterprise should be reduced in this environment, the confidence and capacity of the entrepreneur should as well increase. Lastly, the entrepreneur must be linked with the resources required to start and scale a competitive enterprise.

The phenomenon of business incubation has been in existence since the late 50's, with the aim of revitalizing the industrial revolution (Miettinen, 2016). However, the role of incubators has evolved substantially since then (Miettinen, 2016). Incubation programmes aim to improve the rate of survival start-ups in the marketplace by addressing their challenges through different types of interventions. International research concerning business incubation is still limited and remains in its infancy (Masutha, 2013). The business incubation movement did not gain much recognition until 1980's (Masutha, 2013). Incubators around the world fulfil challenges in the SMME ecosystem. However incubations have grown in popularity as a tool for addressing political and economic agenda globally; this is clear in South African (Hackett & Dilts, 2004).

Jamil et al. (2015) considered business incubators in Asian developing countries and found that business incubations' contribute towards achieving commercialization

targets, creating new startups, promoting the entrepreneurial culture, innovation and generating revenue. The South African business incubator ecosystem consists of hybrid institutions that provide bespoke services such as the arrangement of resources, and business improvement services (Chandra & Silva, 2012; Buys and Mbewana, 2007; Rauch et al. 2009; Messersmith & Guthrie, 2010; Lechner & Vidar, 2012). A failure to promote dimensions of entrepreneurial orientation, may hurt organisational performance (Victor & Francisco, 2006). Lalkaka (2012) studied the best practices in business incubation and how civil society interests call for the participation of all stakeholders to address the broader concerns of empowering disadvantaged groups through employment and facilitated access to capital (human, knowledge, social and financial).

1.2.1 FIRM GROWTH

As small firms follow the S curve of growth, the business needs to experience various transitions to maintain the unique growth paths. These transitions are distinguished from increasing the number of employees (achieving adequate capacity) to change the management style (Dess & Lumpkin, 2005, Urban, 2011; Venter & Urban, 2015). Growth is positively associated with an increase in revenue (profitability) from either an increase in customer base or margins. Traditional studies of growth study the relationship between financial markets and growth (King & Levine, 1993). A growing firm requires different financing structures to advance and remain a going concern, as the complexity of managing it intensifies. There are different methods of financing available for a growing firm which includes, bank financing, venture capital, private equity as well as family and friends. Chen (2002) studied the relationship between income and long run growth and identified an inverted U relationship. However there is a positive relationship between growth and income (Lundgerg & Squire, 1999). This means that an economy that is growing rapidly can decrease the inequality gap of the country (Masutha, 2013, Chen, 2002).

1.2.2 SMALL MEDIUM AND MICRO SIZED BUSINESS

Today SMME’s are still faced with significant structural issues (Abor & Quartey, 2010; Cant & Wiid, 2013). Mahmood (2008) and Harvie (2004) are among some of the

researchers who describe the challenges faced by SMME's in developed and developing countries (Scaramuzzi, 2002; Mian, 1997; Brush & Vanderwerf, 1992; Chandler & Hanks, 1993). Notable among these challenges is a lack of entrepreneurial skills, coaching, venture capital, reduced growth rate, productivity falling behind and aging (Buys & Mbewana; 2007). Economists, industry experts, the private sector and public sector, emphasized the role SMMEs play given their capacity to create employment and stimulate growth in the economy (Masutha & Rogerson 2014). Development and growth measure the performance of businesses (Lechner and Vidar, 2012). Amoako (2016), states that growth is the most critical measure of a business's success. Three significant benefits of achieving growth are; market share, organizational capabilities, strategies and partnerships; which coincidentally incubators enable (Lechner and Vidar, 2012; Chen, 2002).

Job creation remains a contentious issue in South Africa (Urban, 2011; Venter & Urban, 2015). The National Development Plan (herein after the NDP) (2010) tabled by former president, Jacob Zuma, highlights job creation as one of the leading issues in need of resolution by 2030. The NDP's vision aims to address job creation by improving South Africa's overall quality of education and entrepreneurial environment (Pretorius & Van Vuuren, 2003). South Africa's 2018 fiscal budget has made room for free university education for first years who come from a household with an income of less than R350 000 is made possible (Budget, 2018). The budget does this in line with the vision elucidated by the NDP earlier stipulated, specifically within the realm of improving the quality of education. Economists like Van der Berg (2012), Kuznets (2012) and the World Bank Report (2018) argue that inequality is a result of poor education and low human capital in a country. Masutha (2013), explains why this is true for South Africa linking those sentiments to South Africa's untenable history of racial exclusion apartheid was fostered along racial bounds and that as a result of that the quality of education would never be the same across all racial lines. However governments' 2030 vision, as stated in the NDP (2010) attempts to have 90 percent of all new jobs to be created by the SMMEs (Masutha, 2013; GEM, 2017; NDP, 2010).

1.3 PROBLEM STATEMENT

Statistics reveal that 80% of start-ups in SA fail within the first three years of operation due to lack of support (Masuta, 2013; SEDA, 2016). Kalitanyi & Visser (2010) states that SMME's face three common challenges, namely (1) the inability to access potential markets, (2) financial institutions do not easily fund the small business given that they lack financial transparency an acumen and (3) the lack of access to mentoring in the form of coaching and training. Numerous studies have established that the practical adoption of EO as a strategy in a firm, improves the firm's performance (Lumpkin & Dess, 1996; Covin & Slevin, 2006). Firms wishing to improve performance by adopting higher EO face two challenging decisions, one involving risk and the other allocation of limited resources (Covin & Slevin, 2006). A possibility exists that a firm allocates resources to the implementation of the incorrect dimension, resulting in a lack of gain of performance. Incubation programmes have managed to increase the success rate of firms, by addressing challenges faced by small firms within two to three years (Aerts, Matthyssensb, Koen & Vandenbemptb; 2007, SEDA, 2016).

Below are the sub problems that emerge from the topic:

- Determine whether EO has been adopted within the corporate strategy to improve incubated firm's performance.
- Determine if the adoption of EO as part of their corporate strategy improves an incubated firm's performance.
- Determine which EO dimension enables firms to grow, incubated or not.
- Observe how the intervention of incubation programmes influence the growth of SMME's through entrepreneurial orientation.
- Understand, through a comparative analysis, how business incubator influence EO of the firm and how it compares to the EO a non-incubated firm and the impact on growth.
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1.4 THE SIGNIFICANCE OF THE STUDY

Although many studies have tested the relationship between EO and business growth, comparative research is limited (Messersmith & Guthrie, 2010; Lechner & Vidar, 2012). Rauch et al. (2009) suggest that examining potential moderators such as strategy and environmental hostility might improve the estimate of the actual correlation between EO and business growth. The first perceptions of success lie in solving their funding, network and skills gap. Incubators could then gear their frameworks more towards increasing the entrepreneurs EO as a priority instead of focusing on the conventional approach. Jamil et al. (2015) considered business incubators in Asian developing countries and found that business incubations' contribute towards achieving commercialization targets, creating new start-ups, promoting the entrepreneurial culture, innovation and generating revenue. Buys and Mbewana (2007) talks about how business incubators provide protected environments for business start-ups to prosper. Rogerson (2014) conducted a study on the impact of the South African government's SMME programmes. Masutha and Rogerson (2014) studied the role of business incubators in South Africa. Lalkaka (2001) highlighted the characteristics and performances of small business.

The knowledge gathered from the research on the impact of moderating factors like incubations on EO and business growth should to public policy decision-makers. The government would be able to subsidize programs based on their ability to increase the entrepreneurs EO. Secondly contributing to the EO knowledge, a comprehension of the scene of incubation programmes and how they can influence EO of an incubatee to derive value (Venter & Urban, 2015; Urban, 2011; Lumpkin & Dess, 1996; Miller, 1983). This study could guide government officials and incubators to explore the possibility of framing incubation programmes directed to increase the firms EO. This study contributes to improving the understanding of business incubator's strategies, functionalities, and outcome in South Africa. Additionally, this study provides useful information to policymakers, government, academics, and practitioners about the Business Incubators (BIs) and their impact on small business.

1.5 OBJECTIVES

The aim behind this contribution is to assess whether South Africa's Business Incubator incorporates EO within their strategy. Another issue explored is whether a difference exists between the EO dimensions when comparing incubated firms with non-incubated firms. The study will review the EO dimension and performance.

1. Measure the degree of occurrence in EO subcategories in, SMME that go through incubation and that do not go through incubation.
2. Measure the probability of success of SMME that go through incubation and those that have not been.

1.6 RESEARCH QUESTION

1.6.1 Main Question

When entrepreneurs have been within an incubation environment, how does the SMME' relationship between entrepreneurial orientation and business growth get affected?

1.6.2 Sub Questions

1. Does a firm that goes through incubators have a higher degree of occurrence of EO than a firm that has not gone through the incubator program?
2. Does the degree of occurrence of EO lead to growth in SMMEs?

1.7 LIMITATIONS OF THE STUDY

Due to the challenges facing the population and convenience sampling, there are limitations on the general ability of the findings of this study. The population selected was not necessarily representative of the general population of SMME's who have been through incubation and those who have not been through incubation in South Africa. It might also be true that the same types of entrepreneurs are active on social media.

Social media limits the number of daily posts, broadcasts or direct messaging to only 20 before the profile is blocked or prohibited. Once the same message was distributed multiple times, the social media platforms read those messages as spam.

The literature on small business incubation suggests that there is a need for future research to conduct comparisons across different types of incubation programmes that include, profit, not for profit, industry-specific and female-focused incubation programmes. The inability of this research to fulfil such comparisons is a limitation to the study. The literature does not compare SMME's in the same industry which means the sample becomes too broad to have a concise view.

Scaramuzzi (2002) put forward a recommendation that incubator evaluations in developing countries should preferably be pursued by integrating layers of information, which look at the performance of both the incubator itself and of the companies incubated in it. This study does not engage with enough depth to analyse the performance of the incubator itself as an organisation that needs to sustain itself. Not all participants can construct sentences in English or can understand the English language. This survey was only available in English.

In South Africa, the majority of the population does not have English as their first language. The majority of the internet users and social media are the youth. Therefore, this study has a bias towards the youth. The education levels of the youth in South Africa are generally low. This study also fails to assess the magnitude that EO dimensions of incubated firms add to outperform firms that have not been part of incubation. The empirical analysis was gathered using survey data gathered from a self-administered research instrument that was electronically sent, through email and social media platforms like WhatsApp, Facebook, Twitter, LinkedIn, Telegram and Instagram. The study might lead to a generalization of SMME's on social media platforms than population generalization. The respondents will be entrepreneurs/owner-managers or senior level managers of the sampled small medium and micro enterprises.

1.8 ASSUMPTIONS

The factors mentioned below have been assumed due to the considerations put forward in the delimitations and the context of the study discussed above. We assume that previous research on EO and performance is valid. The entrepreneurial intentions of SMMEs relate to growth. Even the family type businesses who traditionally don't want to grow.

1. All small businesses are entrepreneurial.
2. All entrepreneurs encompass the McClelland need for achievement.
3. All SMME operate to generate profit.
4. All incubators add value to the entrepreneur.
5. SMME's operate in a free market, therefore opportunities are accessible.

1.9 ETHICAL

This research protects the interests and rights of all those that participated in the study, affected either directly or indirectly by the study. The researcher had to provide consent forms, and the participants were given a free choice to accept or decline the interview offer. Annexures A and B contain documents, which inform the respondents of their confidentiality. Individuals and SMME's that participated in the survey, in any form maintained their confidentiality. Hence no names or identities were mentioned in the research.

1.10 OUTLINE AND STRUCTURE OF THE REPORT

This research will consist of six (6) chapters that will aid in exploring further the topic that this study focuses on and how it will relate to the overall body of entrepreneurial orientation.

Chapter one serves as an introduction to this research and seeks to set the context of the study and highlight the objectives and research questions that will seek to explore the gaps found in the literature review.

In chapter 2, the literature review located in this chapter which will seek to capture the contribution of scholars to the more considerable body of knowledge on entrepreneurial orientation and growth for incubated and non-incubated SMMEs. From this chapter gaps in the literature will be highlighted and used to form a conceptual framework model that will help guide the methodological needs and research tasks of this study.

Chapter 3 describes steps and procedures used to collate the data. This chapter follows logical framework backed by the relevant statistical studies to describe why the methodology followed is correct and appropriate for this topic.

Chapter 4 provides the results that unpack the conceptual framework by providing a landscape of the survey participants and the testing hypothesis that aims to answer the research question. The empirical evidence provides statistical results on EO, its measures, growth and the relative comparisons of the constructs between SMMEs who have been through incubation and those that have not, in South Africa.

Chapter 5 provides an understanding of the research results and how they have answered from the research questions.

Chapter 6 will conclude the findings of the study by outlining the findings, how they have contributed to the study and why this was ~~it~~ important. Recommendations for future research will be provided to address any further questions that might have resulted from the study. After engaging with this study researchers should also understand the role that business incubators play in the EO construct and how it affects growth relative to those SMME’s who do not form part of any incubation.

CHAPTER 2

2.1 LITERATURE REVIEW

The literature review aims to demonstrate an understanding of the underlying entrepreneurial orientation concepts, small medium and micro-sized enterprises (SMME's) notwithstanding a comparison between firms who have experienced the business incubation phenomenon and those that have not (O'leary, 2004). This section is the anchor of the report and thus attempts to unfold concepts relevant to our comprehension of the comparative analysis through entrepreneurial orientation and firm growth. An attempt will be made to define EO and its constructs followed by the background of small medium and micro enterprises, and incubations as a business enabler. The literature review gives us the opportunity to understand, how ~~the~~ risk-taking, proactiveness, and innovation of SMME changes in conditions where a firm has been through an incubation program and one that has not been through such a program. Lenchner & Vidar (2014), Boling, Pieper & Covin (2015), Lumpkin & Dess (2006) and Covin, Green & Slevin (2006) are among the scholars who explain entrepreneurial orientation, how firms with different degrees of EO perform from a growth point.

2.2 ENTREPRENEURIAL ORIENTATION

Firms of all forms and size need entrepreneurial attitudes and behaviours to prosper and flourish in a competitive setting (Urban, Wood, 2015; Wales, 2015; Morris, Kuratko & Covin, 2011). This paper aims to unpack the construct of entrepreneurial orientation (EO) and how the incubator phenomenon influences its variables. Lumpkin and Dess (1996) describe entrepreneurial orientation (EO) as a firm's competitive strategic orientation that consist of methods, practices, and decision-making styles used by managers ~~use~~ to act entrepreneurially. This contribution draws its basis from previous work concentrating on three yardsticks of entrepreneurial orientation mainly, risk-taking, proactiveness, and innovation (Lumpkin and Dess 1996; Urban 2011). Miller (1983) and MacMillan (1987) are among the first to review EO in entrepreneurial literature. Drawing

from previous literature and definitions, several scholars have used EO to describe a reasonably consistent set of related activities (Lumpkin and Dess 2001).

Miller's (1983) definition contains three dimensions—innovativeness, risk-taking, and proactiveness—some researchers particularly Lumpkin & Dess (1996) have used Miller's definition to test a fourth and fifth dimension of EO: competitive aggressiveness and autonomy (Lumpkin and Dess 1996; Dean 1993). In some EO scholarly literature, the two dimensions have been viewed as already existing within the traditional dimensions or are transparent within the three primary dimensions; however recent studies contend that these two dimensions are discrete (Lumpkin and Dess, 2001, 1996). Previous work on EO did by Lumpkin & Dess (1996) emphasized two more variables (Competitive aggressiveness and autonomy) within the EO construct, where the measurement of the constructs is separate. Given that the theory is still relatively new, it might distort the findings. Lumpkin and Dess (2001) suggested that the academic development and practical research is essential for the EO theory. This view by Lumpkin and Dess (2001) is supported in this paper. Prior work on the topic will assist the reasonable validation for exploring the three variables and answering the related questions being; whether business incubators add value beyond access to finance, markets and mentoring through the alteration of the firms EO, to achieve success.

2.2.1 INNOVATION

Schumpeter (1934, 1942) was one of the first academic to highlight the importance of the function of innovation in the course of entrepreneurship. Wealth is created by the innovative destruction of existing market practices through the introduction of new products and services, which shifts resources from the current market players. This paper, however, will not be discussing wealth creation. Innovativeness mirrors a company's propensity to partake in and bolster new thoughts, curiosity, experimentation and innovative procedures that may bring about new items, administrations, or mechanical procedures (Venter & Urban, 2015; Urban, 2011; Crant, 2000; Lumpkin & Dess, 1996; Miller & Friesen 1982). Innovativeness embraces and supports creativity, experimentation, technological leadership, and research and development in the

development of products, services, and processes to generate original business solutions that cater to customer needs and problems (Miller & Friesen 1982). Innovate change alters the way firms approach the marketplace and in most instances, can form better insights into what is needed to solve the market (SEDA, 2016). Innovativeness in activities could bear variable costs especially if the expected return on investment does not materialize (Venter & Urban, 2015).

New insight and perspective established from innovativeness will likely contribute to business performance (Covin, 2011; Avlonitis& Salavou, 2007). Innovation has been proven to be highly beneficial for firms, as a result, the question remains whether incubators are a source of encourage for the incubatee to be more innovative and what type of innovation do they promote? In a highly competitive and dynamic environment, ideologically every organization would like to be geared for success, be willing and able to adapt to the needs and wants of the consumers (Poon, Ainuddin, & Junit, 2006; Hornsby et al., 2013; Murimbika & Urban, 2014). The entrepreneurial strategy enables the organization to seek competitive advantage through continuous innovation to exploit identified opportunities efficiently to maintain market share/turnover and grow (Hornsby et al., 2013). Kuratko, Hornsby, & Hayton (2015) support this standpoint and append that citizens perceive innovation and corporate entrepreneurship as a critical enabler to stimulate growth and development in the company and environment (Morris, Kuratko, & Covin, 2011).

2.2.2 RISK TAKING

One of the characteristics of firms with EO is risk-taking behaviour. Risk is often viewed by incurring massive debt or making significant resource commitments, with the anticipation of obtaining high returns by seizing opportunities in the marketplace (Venter & Urban, 2015; Lumpkin & Dess, 1996; Miller, 1983). Miller's (1983) approach to EO measures risk-taking at the firm level by asking managers taking part in risky ventures and the managers inclinations for strong versus careful acts to accomplish stationary targets (Venter & Urban, 2015; Urban, 2011; Lumpkin & Dess, 1996; Miller, 1983). Sharma and Dave (2011) elaborate on the discovery that risk-taking being a dimension of EO impacts on the success of business the most as compared to innovativeness and

pro-activeness. Urban (2011) explains that without the willingness to take risk innovation and opportunities are limited. The risk is Inherent in the managers and owners daily decision making of business operations (Venter & Urban, 2015). The risk is often an opportunity not yet recognized (Caruana et al., 2002).

The most suitable concession in the attempt to define entrepreneurial orientation would be to acknowledge that the act of risk-taking is the degree to which managers and entrepreneurs are willing to make substantial and risky resource commitments (Lumpkin & Dess: 1996). The term risk is defined by Dewett (2006), as the extent to which there is uncertainty about the outcome of a decision. New product development involves decisions, and these decisions involve risks. Organisations can establish a framework to assess risks and to identify opportunities that can lead to the significant success of the business.

2.2.3 PROACTIVENESS

Proactiveness represents a forward-looking perspective where firms actively seek new opportunities to develop and introduce new or improved products, instigate changes to current strategies and tactics, and detect future trends in the market (Lumpkin & Dess, 1996). It is crucial for a small business to be dynamic and agile so that it is quick to adapt to alterations the marketplace presents, either from consumers or competitors. Proactive firms, through implicit learning, knowledge, and experience gained over a period, tend to be more familiar with the dynamics of the marketplace (Hamel & Prahalad, 1991). Firms are thus able to take advantage of opportunities to meet consumer expressed and latent needs ahead of competitors (Hamel & Prahalad, 1990). The risk of complacency is lessened in an organization and enabled to serve markets throughout their business cycle better. The emphasis on anticipating and acting on future needs prepares the firm to grab initiatives and act opportunistically in the marketplace (Crant, 2000). Customer-centricity is a framework that is centred on knowing the customer and can rip valuable reward if applied proactively. Crant, (2000) says by being part of a valuable network like the business incubator the proactive firms can potentially secure valuable rewards.

Small businesses play a significant role in more developed economies (GEM, 2017). The contribution of SMME's in emerging markets and underdeveloped markets differ. However, what is clear is that from a developmental approach growing the SMMEs would significantly drive up the economy to the first-class terrain (Ladzani & Van Vuuren, 2007). The following session will expand on the relevance of SMME in more detail.

2.3 SMALL MEDIUM AND MICRO ENTERPRISES

SME (Small Medium Enterprise) is referred to as SMME's the South Africa context (Al-Dajani & Marlow, 2013; Reji, 2013; Jayawarna, Oswald, Wing& Sabrina, 2014). Particular specialists have typically given different definitions to this class of business, with some undertaking to use capital assets while others use mastery of work and turnover level to classify the SMME's (Al-Dajani & Marlow, 2013; Reji, 2013). However because SMME's development and growth is essential to the country's economy, the government has adopted an intervention program to strong arm businesses with great conceptual ideas, knowledge but lack the human, financial and social capital (Venter & Urban 2015; Urban 2011).

The South African government created the Department of Small Business Development to breed an environment that will help encourage, develop and grow the SMME sector through the provision of enhanced financial, non-financial support services and leveraging on public and private partnerships (Seda, 2016; Masutha, 2013, Abor & Quartey, 2010). SMMEs contribute a fair portion of GDP to the economy, quoted by the Deputy Minister of Trade and Industry Thabethe (2015). The NDP (2010) projections indicated that about 90 percent of new jobs would come from small and expanding firms by 2030. Incubators have proven to increase the survival rates of SMME's by 80%.For most of the SMMEs to compete or survive in their respective environments, they have to be versatile, innovative, proactive and risk-taking (Venter & Urban 2015; Urban 2011).

Technical reports highlight the enormous dissatisfaction rates and likelihood to fail by small medium and micro-sized business (SEDA, 2016; OECD, 2016; GEM 2017; NDP, 2010). Kenskin et al. (2010) contend that the venture, advancement, and development of the Small Medium and Micro-Size Enterprises (SMMEs) are imperative to a developing economy (Masutha & Rogerson, 2014; Kalitanyi & Visser, 2010). The Helen Suzman Foundation (2014) is of the opinion that South Africa is a standout amongst the world with regards to inequality (SEDA, 2016; NDP, 2010). The unemployment levels in the nation are high (25%), especially for the untalented and youth (Statistics South Africa, 2016). Proactive individuals such as the unemployed, look for entrepreneurial opportunities as a means of generating income (Kalitanyi & Visser, 2010). The entrepreneurial spirit is high in South Africa among the employed and unemployed, however, only a few people initiate action in the spirit of entrepreneurialism (GEM Report, 2017). Entrepreneurial achievement in the economy is loaded with uneducated, incompetent, semi-talented individuals coupled by the fact that South Africa cost of labour is high for a developing country (OECD, 2016). Small, Medium and Micro-sized Enterprises (SMMEs) play and can keep playing an essential part in the formative excursion of South Africa (Masutha, 2014, Masutha, 2013). The contribution to GDP for SMME's is 36% in South Africa according to The GEM Report (2017), with 56% of jobs coming from SMMEs (SEDA, 2016).

Malusi Gigaba indicated (Budget Speech 2018) that growth is expected to increase to 1.7% in 2018 which is relatively low for a developing economy. African countries like Kenya, Nigeria, and Tanzania are growing at a much rapid rate. Although in the past, the country has adopted expansionary monetary and fiscal policies, sluggish growth outcomes have been registered mainly relating to some structural issues in the South African economy (Groepe, 2015). Constrained electricity supply, limited skills and labour market and specific infrastructure bottlenecks are among the contributing factors for the low growth levels (Groepe, 2015). More recently the political landscape has also contributed to the disinvestment in the country, facing a possible downgrade by Moody's twice. However, with the new leadership, the new dawn sentiment in South Africa has increased the positive sentiment for the country. This is the case although international markets anticipate structural changes and fiscal consolidations to bring more capital into

the country. The government of South Africa has put in place policies and frameworks to drive Small, Medium and Micro-sized Enterprises (SMME) as a catalyst to economic development. South Africa's National Small Business Act, passed in 1996, describes a microenterprise as an entity that has less than five employees, the small firm has between 6 and 20 employees, small businesses ~~to~~ have between 21 to 50 employees and medium businesses ~~to~~ have fewer than 200 employees (Groepe 2015).

According to SEDA (2016), there have been a lot of SMME's registered as businesses however most of them struggle for years to hit the ground running immediately after inception. Incapacitation of these businesses to succeed is a result of a failure to implement ideas from the stage to market entry and even the early adoption stage (Venter & Urban 2015; Urban 2011). The disparity between a successful SMME and a failed one is so vast that new entrants must have someone within the team that can manoeuvre through the market, using intuition and business acumen (Venter & Urban 2015; Urban 2011). Kenskin et al. (2010) contend that the venture, advancement, and development of the Small Micro and Medium-Size Enterprises (SMMEs) is imperative for a developing economy (Masutha & Rogerson, 2014; Kalitanyi & Visser, 2010). Incubation is a global phenomenon which has however become increasingly important to developing economies (Bruneel et al. 2012; Miller & Friesen, 1982). The study will focus on SMME's rather than large enterprises given that large organizations have big balance sheets and access to better skills. Throughout the developing world, business incubation is a progressive instrument for creating and developing an economy (SEDA, 2016; Venter & Urban, 2015; The Helen Suzman Foundation, 2014; GEM, 2017). Although business incubation was introduced in the 1960s and took off in the late 1990s, it is of late that the phenomenon is taking a footing in South Africa (Masutha & Rogerson, 2014; Kalitanyi & Visser, 2010). Globally business incubators are perceived as an essential mechanical assembly for the upgrading of SMMEs given that considerable amounts of resources are invested in them today.

Incubation is a worldwide marvel which has turned out to be progressively critical to the creation of economies (Bruneel et al. 2012; Miller & Friesen, 1982). Throughout the developing world, business incubation is an inventive instrument for making and

building up an organization's businesses (SEDA, 2016; Venter & Urban, 2015; The Helen Suzan Foundation, 2014; GEM, 2012; Zoltan, 1999). Despite the fact that business incubation was introduced in the 1960s and took off in the late 1990s, it is of late that the phenomenon is picking up footing in South Africa (Masutha & Rogerson, 2014; Kalitanyi & Visser, 2010). Internationally business incubators are seen as a fundamental mechanical assembly for the execution to redesign SMMEs. Investment and support for business incubation are quite considerable today. Business incubation is support for new businesses that require guidance and investment to get their thoughts off the ground (Lesakova, 2012). In South Africa, business incubation is an incipient and quick advancing phenomenon, which has pulled in critical consideration post-apartheid (SEDA, 2016, NDP, 2010).

2.4 BUSINESS INCUBATORS

In many developed countries, business incubators act as a catalyst for start-ups to help them compete in big industries that have been traditionally dominated by big players (Gozali et al. 2015). Mancuso (2001) states that New York created the first incubator in 1957, by 1959 the United States Government wanted to develop SMME's, to decrease unemployment and reverse the effects of the recession (Gozali, 2015). The deploying of both academics and individuals to SMME's assisted with the development of the sector. The incubation concept aims at achieving some fundamental objectives which include but are not limited to the creation of new jobs and businesses, fostering a climate of entrepreneurship and commercializing the technological space. When a firm is experiencing slower growth than the industry average, incubators revitalize and accelerate the growth, reduce company mortality rate, increase university interaction and foster technological developments (Bizzotto, 2003; Mutambi et al. 2010; Al-Mubaraki & Busler, 2011). Throughout the world, governments have been the leaders in developing incubators, through university partnerships and public-private partnerships. However, for the success of the enterprise development and growth remain that of the entrepreneur to create a sustainable business. Levakova (2012) mentions that some entrepreneurs suffer from what he terms the 'incubator syndrome,' hoping that the incubator will do everything. Campbell et al. (1985), Smilor (1987) and Hackett and Dilts

(2004) models of the incubation process provide a comprehensive perspective of the incubation process. Incubator's best practice is perhaps the most crucial determinant of the SMME's success. Such understanding and exposition, therefore, informs the decision made by emerging markets to adopt this approach. Business Incubation is defined in the same breath globally, with differences in functionality that will be highlighted later in the chapter.

The study is not concerned with the functionality of various incubation support programmes. Economic development anchored by business incubation is gaining an importance in Canada (Irshad, 2014). Incubation in North America has nearly doubled in less than ten years (1998 – 2007), with 94% operating as nonprofits. Most of the business incubators (+7000) are located in North America, followed by Europe, Asia and the rest of the world. The United States (US) experienced a recession in the 1980's, due to the decline in the manufacturing industry. In response, the government established additional incubators to revitalize the industry (Miettinen, 2016; Masutha, 2013). Today the United States is seen as a leader in the incubation space. However, the United States sees the future of business incubation programmes providing more tailored service offerings (National Business Incubation Association, 2014). Unlike the US, when Europe faced an economic crisis, there was a decline in the number of newly established incubators. Mortality rates for start-ups remain high, with one in three falling within the first two years. The European Union however still sees SMME's as one of the leading drivers for the economy.

China, India, Malaysia, and Pakistan are among the top beneficiaries of the businesses incubation phenomenon in Asia. China adopted business incubations around the same time as Europe in the late 1980's as a solution for growth in the environment for research and development, innovation and commercialization of research. Business incubation has assisted the country to transition from a socialist economy to a market economy. China places specific emphasis on innovation of technology incubators. The aim was to move China into a high tech economy from the traditional mainstream economy in which it was operating. Today China is one of the dominant leaders in the technology space; this is because of the successful results of the Chinese incubation.

The incubation phenomenon is, therefore, considered an enabling technology that capacitates the functionality of critical and possibly strategic technologies (Hackett & Dilts, 2004). Entrusted with developing SMMEs; often incubators in developing markets such as South Africa do not have the necessary aptitudes to contribute entirely to the advancement of SMMEs (SEDA, 2016; Masutha & Rogerson 2014; Vanderstaeten et al., 2012). Given that the more significant part of the administrat~~ion~~ administrative staff in business incubators may not originate from an entrepreneurial foundation, they are rarely able to meet the aptitude prerequisite of their customers (SEDA, 2016; OECD 2016; Kalitanyi & Visser 2010; Wiklund; 1999). Previous researchers mentioned that business incubators in developing countries confront various challenges concerning advancement and imagination (Scaramuzzi, 2002; Mian, 1997; Brown 1996; Brush & Vanderwerf, 1992; Chandler & Hanks, 1993). Notable among these challenges are lack of entrepreneurial skills, lack of venture capital, reduced growth rate, productivity falling behind and aging. South African business incubators sometimes find it difficult to uphold their mandates as development agents and in, some cases, their long-term survival becomes threatened. Of course, this may negatively affect SMMEs who depend on them for survival. Despite the numerous resources invested in incubator programmes by the government and private organizations, their impact on SMMEs is not well documented, especially in the context of South Africa. Studies on incubator–incubated challenges are quite limited, in the sense that there is no standard measure to measure the success of incubators. Lose & Tengeh (2015) state the recent increase in incubation literature. However, the narrative needs a shift towards challenges faced by business incubators in their resolutions, given the support they provide to small firms (Miettinen, 2016; Chandra & Silva, 2012, Masutha, 2013; Lose & Tengeh, 2015). This is the case even though we unconditionally expect the best results from the former. Incubators play a different growth role depending on the stage that the small firms ~~at~~ finds itself (Masutha, 2013).

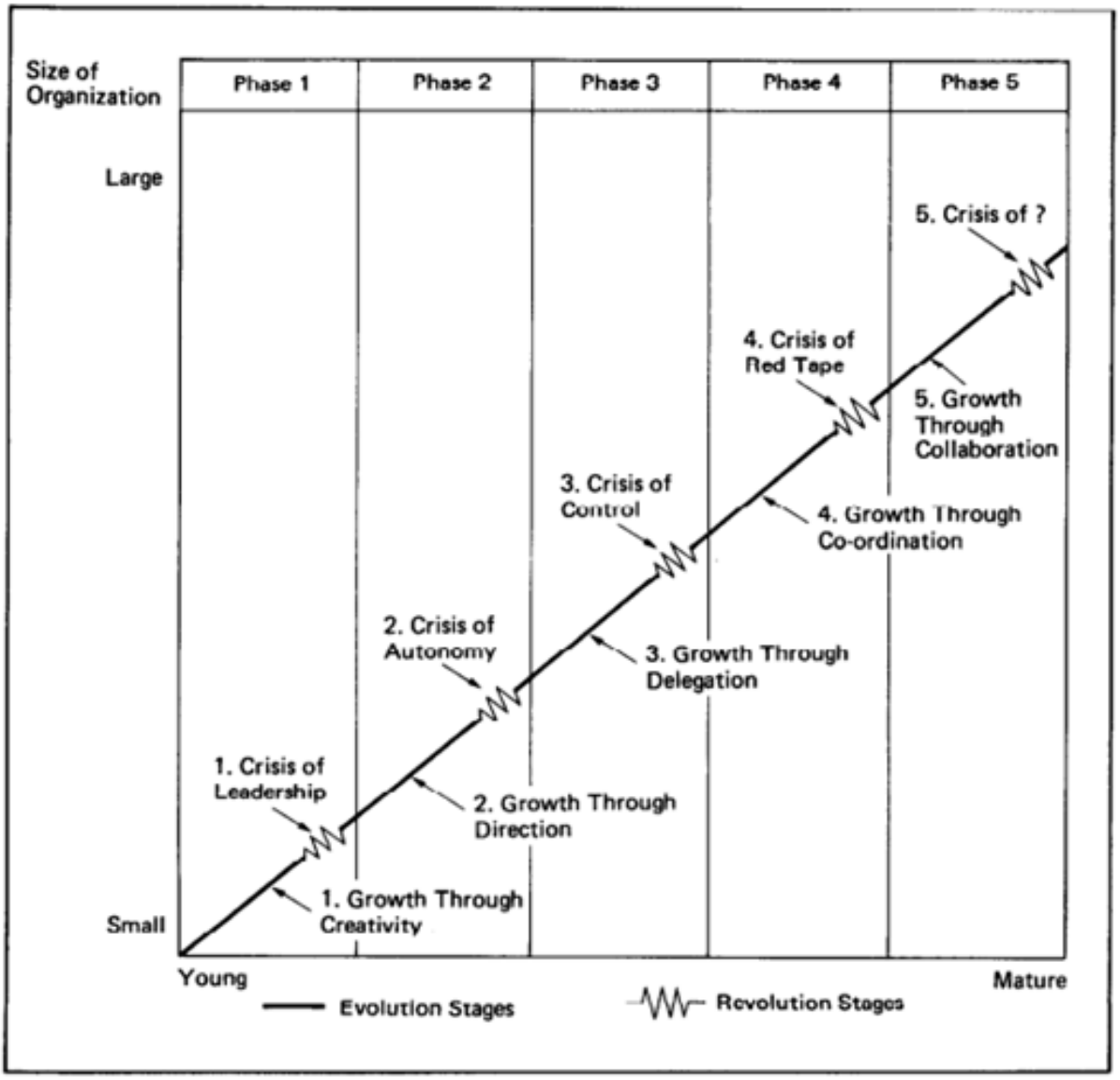
2.5 PERFORMANCE GROWTH

The concept of firm performance and its measurement derives its bases from the fields of economics, management and accounting (Tangen, 2004). Performance

measurement objective is to determine how well an organization is functioning and managed with regard to specific standards and criteria (Covin, 2011; Avlonitis& Salavou, 2007). A more enlightened perspective of the idea guarantees that the enthusiasm of the association's public interest is considered with adequacy and productivity (Moullin, 2003; Khan et al. 2011). Neely, Gregory, and Platts (2005) define a performance measurement system as the process of quantifying the effectiveness and efficiency of an organization. To Khan et al. (2011), performance measurement is the process of allocating a monetary value to objects or events. Traditionally performance measure was based on financial attributes with specific dimensions such as annual sales, annual profit, number of clients, and market share growth (Wiklund & Shephered, 2015). Contemporary performance measurement systems have therefore been expanded to include both financial and non-financial criteria (Laitinen & Chong, 2006) making it multidimensional. Performance measurement in incubation literature is also multidimensional. Performance is a universal measure used to measure SMME's. However, the measure is a factor of two components, business development, and business growth. Measure for business development are hard to measure, i.e., the number of jobs created. They are also often misleading given that jobs created could be a very low-level job or a job that does not aid to the means of production for a company. The job creation measure tends to influence business to create jobs without first focusing on revenue generation. Not all industries need to create new jobs for them to grow, especially in the high tech space. This variable within the performance measure will be left out. Ravallion & Chen (1999) define a growth incidence curve (the growth S curve), in their paper, showing how the growth rate for a given stage varies.

A start-up goes through different growth stages in the business cycle with each stage requiring a different form of support. Incubations exist or instead support firms differently depending on the growth stage. This paper does not aim to describe the factors of the different growth stages. Venter and Urban (2015) describe the different business stages very well in their book. Greinier (1978) paper also unpacks the stages very well. The stages are meant to illustrate the different skill sets needed to enable grow and show how much growth or change in revenue or profit is likely to come from the change.

Figure 1: The Greiner Model of the Five Stages of Growth



Source: Greiner (1978)

The straight line and the speed at which the firm moves through each stage will vary for different kinds of business. Greiner (1978) model does not forecast, the velocity or direction at which the alteration of phases happens but instead aims to illustrate phases where divine intervention is needed (Scott & Bruce, 1987). As shown in the model, the business may fail at any point. However, it is most likely to happen at one of the crisis points. These crises are fundamental to the entrepreneur regarding both his business

and personal life (Scott & Bruce, 1987). Phases are typically referred to as stages in management literature. Thus phase and stage will be used interchangeably. Start-ups are concerned with stages 1 - 3, elaborated below.

Stage l –Inception: The reasons for starting the business vary. However, vision and values of the founder(s) drive the business to fruition. The necessary skills of the founder also determine the functional emphasis (for example if he is an engineer we can expect the first concentration of effort to be on production rather than on sales) and management will be by direct supervision. The primary efforts will hinge on developing a commercially acceptable product and establishing a place for it in the market-place. Working capital facilities are standard at this stage. The product line usually is still single or at least limited with growth coming from market expansion. Generating positive cash flow to survive and the push for profits and the increased business activity is essential at this stage. At this stage, the business could either decide to curb growth which will mean that the firm stays in the survival stage .i.e. most family businesses, survival business. However, if the firm decides to continue growing, this growth will need to be controlled. The drive for sales growth is positively related to increases in customers. A firm adapts practices to succeed, given industries and markets differentiation.

Stage 2-Survival: To succeed, the management style will need to adapt accordingly. This stage places greater emphasis on price at the expense of differentiation. When pursuing a price path economies of scale become essential, referred to as scalability in modern day literature. Apart from further stretching spans of control, and the need for new skills, financing will be required. Price competition will demand cost control.

Stage 3-Growth: At this stage the firm should be profitable but is unlikely to generate cash for the owner. Cash is retained in the business to help finance the increased working capital demands. Small-scale research and development due to financial constraints might be essential for this stage. In the differentiation stage (3) firms prefer margin over volume.

Stage 4-Expansion and stage five: Most small businesses analysed do not operate in the stages. It is important to note that profit and revenue are essential in the early growth stages as stated above.

2.6 ENTREPRENEURIAL ORIENTATION AND BUSINESS GROWTH

Although there is an implicit relationship between EO and performance, there is no clear framework that establishes a suitable measure of incubator performance (Wiklund, 1999). There have been some studies that argue the existence of a positive relationship between EO and performance. Zahra and Covin (1995) is among one of the several empirical studies that show that EO does not lead to improved firm performance. There are inevitable adverse consequences of EO entrepreneurial and entrepreneurial strategy-making modes that are likely to lead to lower rather than higher performance between the roles of top management and organizational members (Wiklund 1999; Hart, 1992). This paper will also seek to determine if the imbalances that exist between what a firm wants and what the incubator believe the firm should do could potentially decrease or increase the EO in a firm. Although there is an implicit relationship between EO and performance, there is no clear framework that establishes a suitable measure of incubator performance (Wiklund, 1999). There have been some studies that argue that there is a positive relationship between EO and performance. The challenge for developing adequate quantifiable performance measures for business incubation continues to exist for experts and researchers (Masutha & Rogerson 2014; SEDA, 2016; Vanderstraetena & Matthyssens; 2012).

EO measures of incubation affecting business growth are popular and have gained attention not only in South Africa but the world over. Research has put considerable emphasis on measuring the success or failure stories through economic measures that include jobs created, sales growth and contributions to tax (OECD 2015; Kalitanyi & Visser 2010; Wiklund 1999). These studies include but are not limited to Brown (1996), Brush & Vanderwerf (1992), Chandler & Hanks (1993). Business development can be accomplished either by boosting the top line or income of the business with more noteworthy item deals or administration wage (Dee et al., 2011; Buys & Mbewana, 2007; Lumpkin & Dess, 1996; Masutha & Rogerson, 2014). This could also be done by

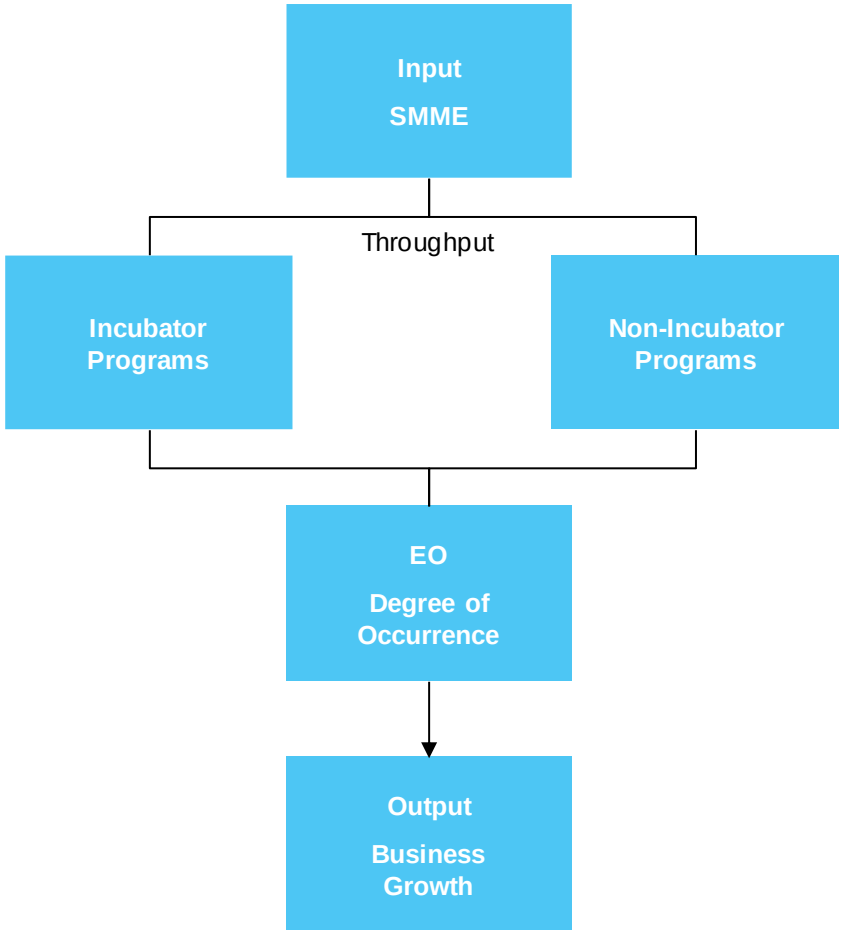
expanding the primary concern or gainfulness of the operation by limiting expenses (Dee et al., 2011; Buys & Mbewana, 2007; Lumpkin & Dess, 1996; Masutha & Rogerson, 2014). Numerous studies conducted on the success of business after incubation or the performance of SMME in incubation are limited in scope. Nevertheless, there is a limited scope on how the state of entrepreneurial orientation of a business owner is affected by the business incubator. This research topic will help give a different perspective too. The research will be both quantitative and qualitative.

The challenge for developing adequate quantifiable performance measures for business incubation continues to exist for experts and researchers (Masutha & Rogerson 2014; SEDA, 2016; Vanderstraetena, & Matthyssens, 2012). EO measures of incubation affecting performance are popular and have gained attention not only in South Africa but worldwide. A large number of researchers have put considerable significance on measuring the success or failure through economic measures that include jobs created, sales growth and contributions to tax (OECD 2015; Kalitanyi & Visser 2010; Wiklund, 1999). These studies include but are not limited to Brown (1996), Brush & Vanderwerf (1992), Chandler & Hanks (1993). An understanding of how the state and private sector companies view business incubation as a viable platform for transforming the SMME and entrepreneurs' entrepreneurial spirit, perspective, and cognition (Urban 2011). Existing literature and studies on the subject will help understand the effect incubators have on the entrepreneurial orientation irrespective of the fact that they success o fail.

2.7 CONCEPTUAL FRAMEWORK

This study conceptualizes the framework below (Figure 1) to illustrate the relationships between SMME's EO on business growth.

Figure 2: Conceptual Framework Model

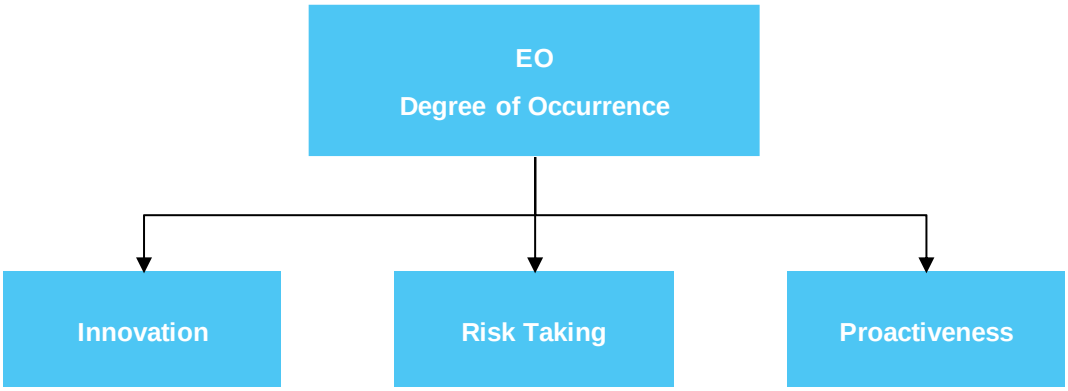


Source: (, Miller 1983, Lerato Marokoane author)

The conceptual framework is the researchers own position on the problem and gives direction to the study. It may be an adaptation used in previous research with modifications to suit the inquiry needed to put the references ~~you~~ adopted from. The researcher can show the relationship of the different constructs that he wants to study. A conceptual framework does not have to be limited to just independent and dependent variables; incorporation of other types of variables is not prohibited reference. Depending on the research, additional facets of a cause-effect relationship like moderator variables and control variables are incorporated. The setting of the analysis happens in small firms. The SMME input aims to highlight this in the construct; this is a control variable. The two variables below the SMME input also control variables,

(incubator programs and non-incubator programs). The aim is to highlight the two different setting SMME's adopt in this analysis. The two primary constructs in the conceptual framework are Entrepreneurial Orientation and Business Growth with EO being the independent variable and business growth the dependent. SMME incubation programmes and non-incubation programmes are control variables. Within the EO construct, Covin and Slevins (1989) measurements for three main variables of, innovation, risk-taking, and proactiveness where adopted. The construct excludes Lumpkin and Dess (2001) recommendations for two extra variables. These variables were discussed in detail above and are used to measure EO.

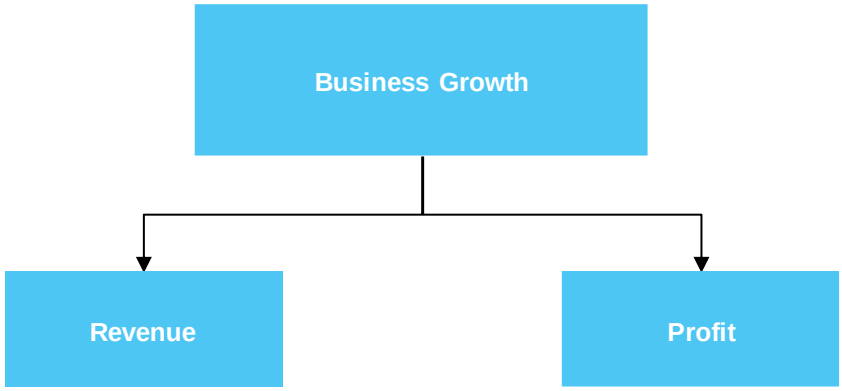
Figure 3.2 Conceptual Framework Model Extended – EO



Source: Miller 1983

The research aims to measure the relationship between EO and Business Growth. However, the business growth construct comprises two measures, revenue, and profit. Removed was the cash flow measure because respondents from SMMEs who were not part of an incubation program did not understand it in the survey as highlighted in chapter 4. Therefore it was removed.

Figure 2.2 Conceptual Framework Model Extended – Business Growth



Source: (Author Lerato Marokoane).

2.8 HYPOTHESIS

H1. Incubated SMME's have high a degree of occurrence in EO than non-incubated SMME's.

H1a: The innovation of an incubated firm is higher than that of a non-incubated firm.

H1b: Risk-taking of an incubated firm is higher than that of a non-incubated firm.

H1c: Proactiveness of an incubated firm is higher than that of a non-incubated firm.

H2: SMME's with high degrees of occurrence in EO have a higher probability of growth (Revenue)

H2a: EO in an incubated firm leads to growth.

H2b: EO in a non-incubated firm leads to growth.

2.9 CONCLUSION

There have been various reviews on the accomplishment of business after incubation or the execution of SMME in incubation. However, there is a constrained degree of the impact the incubator has on the entrepreneurial orientation of an entrepreneur/firm. This exploration theme will help give an alternate point of view to the level of EO needed to prevail during or post an incubation program. The writing pondered diary articles, distributions from the state, different sources, and research books to give guidance and direction to the account in the South African setting. Incubators must correctly impact EO to animate action; this will help in the attainment of SMME as a driving force for the country's growth. Chapter 3 will unpack the methodologies used in the study and why quantitative, and cross-sectional were used to analyse the data.

CHAPTER 3

3.1 INTRODUCTION TO RESEARCH METHODOLOGY

This chapter will discuss the research methodology. In particular, the chapter will explain the research paradigm and design, population and sampling frame, methods of data collection and analysis. Discussed in the below sections is the research instrument utilized to assemble information. The area likewise examines the legitimacy and consistent quality of the research, impediments of the review and moral contemplations. The study will discuss the comparative analysis between firms that have been through an incubation program and those that have not. Literature and studies about the research were reviewed and discussed in chapters one and two which then informed the research problem of the study.

The quantitative study, which uses the positivism paradigm approach included the discovery, verification of the findings and knowledge through direct observations and measurements of SMMEs that have endured the incubation phenomenon and those that have not in South Africa (Bryman, 2012). Bryman (2012) defines positivism as an epistemological arrangement that applies natural science methodologies to understand the social setting. In the study, the purpose of theory and the literature review was to generate testable hypotheses, allowing knowledge accumulation through an objective gathering of facts (Bryman, 2012). The study was cross-sectional, utilizing quantitative techniques in observing the data collected from research participants, at a particular point in time. The cross-sectional approach enabled the description of the reality of small business incubation programmes as they are presently, but limited inferences about the reality neither of incubation services in the future, nor at particular points in times in the past. The study is known as cross-sectional because the information about the studied phenomenon represents what is happening at only a particular point in time (Olsen & George, 2004). Abduh et al. (2007) investigate the satisfaction or dissatisfaction of tenants with incubation services regarding the mean difference between the importance of the identified business services and the perceived effectiveness of the incubation programme to provide the incubation service.

A principal factor analysis was performed to establish the least number of factors, which account for the shared variance between a set of variables. Creswell (2017) defines a principal component analysis as a variable reduction technique, used when variables are highly correlated. This exercise sought to reduce the number of observed variables to a smaller number of principal components. These components adequately account for the variance of the observed variables (Creswell, 2017). To understand the dynamics associated with the interactions between SMME's that participated in incubated programs and those that have not, the study empirically tests and compares the degree of EO and how it impacts on growth. The empirical study addresses the two central questions primary problem identified in this research, which is concerned with unpacking the difference of EO degrees between firms that go through incubators and those that have not gone through an incubator program and how these different degrees lead to growth in SMME's. The empirical study employed, adapted and modified the questionnaire that was developed by Lotz and Van der Merwe (2013) and Covin (2011) EO scale.

3.2 RESEARCH METHODOLOGY/PARADIGM

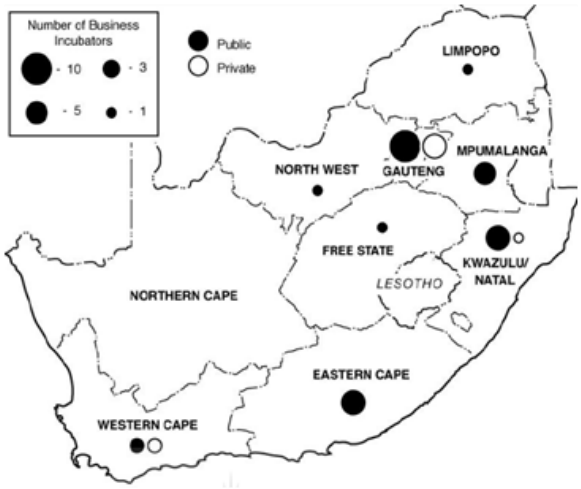
What the paradigmatic (alternatively conceptual) area of this exploration thinks about is positivism. The positivist worldview adopts a deductive strategy to research and uses quantitative research strategies to test speculations and hypothesis (Creswell, 2017). Primary data will be collected using an unstructured research instrument, administered by owner/managers of small, medium and micro-sized enterprises in South Africa. The research instrument designed for the collection of information regarding SMME's entrepreneurial orientation on growth for those that are part of business incubation and those that have not been part of an incubation program. Environment is a control variable, demographics, industry, market growth and enterprise are related variables).

This method helps in the deduction of the data scientifically by testing theory behind the data. A quantitative approach also assumes the nature of human behaviour is predictable therefore patterns are formed to help in the prediction of the outcome under controlled conditions. The adopted approach is a positivist paradigm. The quantitative study included the discovery and verification of the findings and knowledge, through

direct observations and measurements of the incubation phenomenon in South Africa (Creswell, 2017). The positivist worldview adopts a deductive strategy to research and uses quantitative research strategies to test speculations and hypothesis (Creswell, 2017).

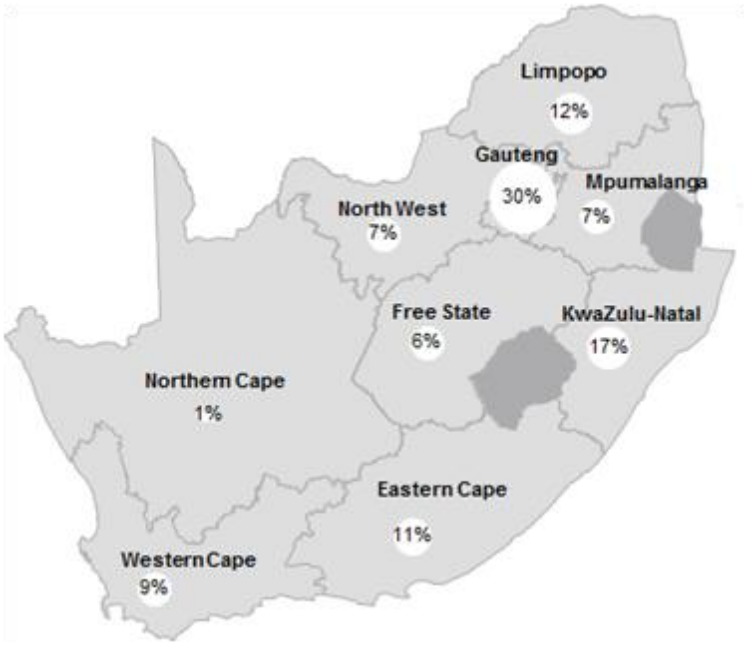
3.3 DESCRIPTION OF THE RESEARCH SITE

Figure 4: Local Distribution of Business Incubators in South Africa



Source: (Masutha, 2013).

Figure 5: Percentage of SMMEs in Each Province



Source: (Author Lerato Marokoane).

Figure 3 indicated the distribution of the 57 business incubation sites in South Africa (Masutha, 2013). Figure 4 indicated the total numbers of SMME (c.2,5mn) and their distribution around the country. It is important to note that there are c.R1.3mn informal SMMEs for the total population. The survey completed by people across South Africa.

3.4 RESEARCH DESIGN

The research design outlines the structure or framework used to indicate the following variables (a) time frame used to collect data, (b) what was implemented and when same was implemented (or not), and (c) the number of different groups involved (Edmonds & Kennedy, 2012, Creswell, 2017).

This examination study was established on the quantitative research arrangement using the cross-sectional research approach to collect information for the survey (Cooper & Schindler, 2014; Creswell, 2017). Essential overview information was used to discover and test relations between estimations of entrepreneurial orientation firm control factors of entrepreneurs in a business incubation environment and those that are not in one (Creswell, 2017). The extensive use of quantitative research in entrepreneurial

orientation studies provides comfort for adopting the same methodology (Urban, & Wood, 2015; Wales, 2015; Kuratko, Hornsby, & Hayton, 2015; Covin, & Miller, 2014; Hornsby, Kuratko, Holt, & Wales, 2013). Prior research on entrepreneurial orientation adopted a scale measure for innovation, risk-taking, proactiveness, and growth. Scale items from ~~the~~ prior research were adapted where possible to ensure the better reliability of the research instrument (Urban, & Wood, 2015; Wales, 2015; Kuratko, Hornsby, & Hayton, 2015; Covin, & Miller, 2014; Hornsby, Kuratko, Holt, & Wales, 2013). A Likert scale with five-point ranging from 1 = strongly agree to 5 = strongly disagree was used to measure items and respondents were asked to rate each of the items. The information was examined, through the use of cross-sectional analysis. The analysis is a comprehensive statistical approach to testing hypotheses about relations among observed and latent variables (Creswell, 2017; Cooper and Schindler, 2014). It is a methodology for representing, estimating, and testing a logical network of (mostly) linear relations between variables tests hypothesized patterns of directional and non-directional relationships among a set of observed (measured) and unobserved (latent) variables (Creswell, 2017; Cooper and Schindler, 2014).

To understand the demographics of the sample group descriptive statistical analyses information for both firms that have been part of an incubation program and firms that have not been part of an incubation program formed part of the analysis. Measures of central tendency (means, medians, and other percentiles) and dispersion (standard deviations, ranges) were computed. Factor analysis and exploratory factor analysis were used to check if the questioner was valid. The bivariate correlational analysis was conducted to assess the strength of direction of the relationship between EO and growth for both firms who have been part of an incubation program and those that have not been part of such a program.

3.5 TARGET POPULATION AND SAMPLING PROCEDURE

The total population and sampling frame for this research study are for all the small medium and micro size business that are both in incubation programs in South Africa. Those that are SEDA (2016) supported ISP incubators and private sector incubators and SMME's not in any incubation program. The study was non-racial. This study relied

on both a purposive and convenience sample; subjects (incubated and non- incubated firms) that were available to participate in the study. In purposive sampling, samples are chosen based on their accessibility (Creswell, 2005). Sampling entails selecting representative elements of a population from an empirical analysis conducted and make inferences about the whole population. Legitimacy test assesses how much the analyst measures what he means to quantify (Creswell, 2017; Cooper and Schindler, 2014). Given that the number of identified enterprises is big enough the sampling technique adopted for this study is non-probability sampling. A target estimated sample of 200, with a 95% confidence interval will complete research questionnaires and expected to be accumulated and utilized for examinations (Creswell, 2017; Cooper and Schindler, 2014). The sampling frame is drawn from a complete listing of all elements (Cooper & Schindler, 2014). Sampling entails selecting representative elements of a population from which empirical analysis can be conducted and making inferences about the whole population. Legitimacy test assesses how much the analyst measures what he means to quantify (Creswell, 2017; Cooper and Schindler, 2014).

Given that the number of identified enterprises is big enough the sampling technique adopted for this study is non-probability sampling. A target estimated sample of 200, with a 95% confidence interval will complete the research. Purposive sampling defined as a selection of non-probability sampling technique for subjects because of their convenient accessibility to the researcher (Castillo, 2009). Purposive sampling targets a specific group where responses obtained from that particular group have the specific intent of addressing the objectives of the study (Teddlie & Yu, 2007). The study is cognisant of the exclusion of a considerable portion of the business incubation population, both incubated and non-incubated firm. Therefore, this purposive sample may provide limited generalisation about the EO and growth of small business in South Africa and across different sectors. Buglear (2005) argues against the use of purposive sampling for estimating population parameters as it lacks statistical validity. To enhance limited generalisation inherent in the purposive approach adopted in the study, the sample of SMME's/individuals were sent direct links through WhatsApp, Twitter, Facebook, and Instagram. This approach was adopted to seek SMMEs that have been through private and public incubation programs, firms that are managed and operated

by women and men. This mix of Small businesses was deliberately addressing the problems that inform this study. Samples are only estimates. The sampling error is the difference between the sample estimate and the actual population.

3.6 DATA COLLECTION TOOLS

Primary data was collected using a social media instrument aimed particularly at entrepreneurs, i.e., posting on a wall, posting on a group page and direct messaging administered to owner/managers of small, medium enterprises in South Africa. The data in this research did not exist and was collected solely to solve the hypothesis.

3.7 PROCEDURE FOR DATA COLLECTION

There are various ways to collect information for start-up firms. The questionnaire adopted in this research asked business owners of incubated firms to rate the level of value they had obtained regarding each of the business incubation services identified by Grigorian et al. (2010). Incubated firms rated the ability of the incubating organisation to add value across the different incubation.

- Incubators contacted and asked to distribute the survey
- Attendance of seminars for small businesses could, where contacts could be built and allow for distribution of the survey
- Seda has an enormous pull of SMME's; they could be contacted to distribute the survey
- Contact business working groups
- Municipalities and provincial governments could be contacted to distribute the survey, especially in places like Gauteng where they play an active role in building the SMME sector
- Email the survey to SMMEs
- The survey could be distributed on social media platforms using a link.

3.8 DATA ANALYSIS

The unit of analysis for this study indicates who or what should provide the data at what level of aggression (Creswell, 2017). The unit of analysis adopted for the purpose of this study was individual words, which were used to define the dimensions of EO. Recent studies support this unit of analysis. Content analysis is a prominent methodology used in the evaluation of content and style within the psychological sphere. There are two types of content analysis; conceptual and relational (Palmquist, Carley, & Dale, 1997). Both analyses identify research questions and choose a sample or samples. The conceptual analysis then codes the text into manageable content categories. The process of coding is one of selective reduction. By reducing the text to categories consisting of a word, set of words or phrases, the researcher can focus on, and code for, specific words or patterns that are indicative of the research question. Relational analysis seeks to go beyond presence by exploring the relationships between the concepts identified. (Palmquist, Carley, & Dale, 1997). The strategies are psychological on reflecting a close relation~~ship~~ with socio- and psycholinguistics and the integral role in the development of artificial intelligence. (Smith, 1975; Berelson, 1952; Palmquist, Carley, & Dale 1997; Smith 1992).

3.9 VALIDITY

Because the validity of a study refers to the degree to which a study answers the question it was intended to, the validity of this study can be compromised or enhanced by the nature of the study (Creswell, 2017). One of the main critiques of incubators is the tendency to over-report the successes and under report failure (Hackett & Dilts, 2004) within the incubation programme and the incubated small businesses. Perceptual studies also present challenges in studying the efficacy with which incubated firms have received incubation services, as perceptions may be profoundly subjective, failing to provide an accurate picture of the incubation programme's value-add. For a successful collection of appropriate data for a quantitative survey, it was essential to test the questionnaire before using it to collect data for the final study. Pre-testing and piloting the survey helped to identify questions formulated in a manner that did not make sense to the SMME owner or were not apparent in the South African context as well as,

questions that did not provide the required responses for analysis. The online platforms administered the pre-testing of the questionnaire.

Twenty respondents answered the online pilot questionnaire over a period of two weeks, in November 2017. The pre-test omitted respondents from the distribution of the final survey. Amendment to the questionnaire was made based on the feedback from the pilot responses, which included changes to the phrasing of some questions, and the elimination of questions deemed irrelevant to the study.

3.10 RELIABILITY

Reliability test evaluates the precision and accuracy of estimation scales (Cooper & Schindler, 2014). The satisfactory coefficients extend will be resolved however, if the scales are observed not to be dependable, it will be essential to alter the scales by expelling the things that will bring about issues. In establishing the reliability of the scale and the components extracted, the Cronbach alpha for each extracted component was tested. The Cronbach alphas are outlined in Chapter 4.

3.11 METHODOLOGICAL REFLECTIONS

The primary limitation of the study was the non-disclosure agreement incubators signed with SMME's. Therefore the distribution of data was not an option to explore for most of them. Limitation of such a study is that the researcher cannot ask follow-up probing questions to unpack the reasoning behind the results of the survey given that this is not a qualitative study (Creswell, 2017; Cooper and Schindler, 2014). This limitation can be addressed through a complementary qualitative survey with selected respondents from the sample to gather some of the reasoning behind findings from the quantitative survey. The various research tools were considered however after much consideration social media was considered to be the preferred method of contact.

Initially, incubation hubs where contacted via email and telephone to assist in the distribution of surveys to the firms that participate in their programmes. Most of them where no responses were given and some said they could not assist because of the confidentiality agreement they have with the firms that are assisted by them. Only three incubation houses offered assistance, one in Bloemfontein which is a SEDA branch office for all firms in the Free State that would like to be assisted by SEDA. Two were in Johannesburg. However, the number of firms under them was very small relative to the more prominent players. Therefore the second methodology was opted for collecting data due to the poor and non-responsiveness form the incubation hubs.

Social media sites (alternatively platforms) like Facebook, Instagram, and Twitter were visited. Initially, the group administrator was asked to broadcast the surveys on their page and distribute to their databases. In this regard only three groups with a small

population were willing to assist. Then pages of groups for entrepreneurs and incubators were visited to understand what type of people followed them. Most of these groups had individuals who own companies or companies that have social media pages followed the groups. The link was then sent to these individuals or companies in link type questionnaires for completion. The link initial page had a consent form where individuals are asked to agree to the terms and conditions of the consent form before proceeding. The survey was only conducted in English which assumes that all participants are English literate and can compute information in English. The questionnaire gives the participant as much time to complete it. Based on the social media groups the author of this paper visited the pages with the highest number of participants which had 45 000 firms. The initial contacts of SMME's in incubation programs would be obtained from 57 business incubators. However, contacts were gathered from distributing the survey link on social media platforms South Africans use mostly the young up and coming between the ages of 18 -29, however, anyone of any age above 18 could have decided to participate.

3.12 CONCLUSION

In this chapter, guidelines to be followed in chapters five and six were outlined. A quantitative method was followed to determine if SMME's that have been part of an incubation program have higher EO levels than those that do not. It was then discovered ~~on~~ how they would impact growth.

CHAPTER 4

4.1 INTRODUCTION TO RESEARCH FINDING

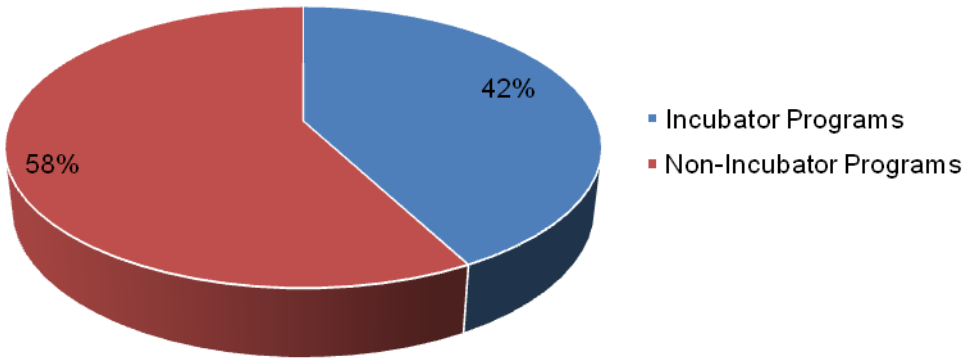
The purpose of this chapter is to present the finding of the study in agreement with the hypothesis. These findings will be briefly discussed to develop a better understanding and answer the research questions presented in chapter 1. The prevalent emphasis of the study aims to analyse dimensions of EO prevalent in an incubated firm and a non-incubated firm. Furthermore, it is intended to determine whether EO and all its dimensions bear a direct relationship to business growth and how this compares to incubated SMMEs and non-incubated SMMEs. In the analysis, there are two SMME categories, incubated and non-incubated. The demographic profile of the responding small businesses and a brief profile of the types of industry in which they operate is described. Inferential statistics will be applied to test the two central hypothesis.

4.2 DEMOGRAPHICS OF RESPONDENTS

Kaplan & Haenlein (2010) describes social media as a group of Internet-based applications buildt on Web 2.0 foundations to allow the creation and exchange of user-generated Content (Davis & Mintz, 2009). Social media platforms, such as Facebook, Twitter, Instagram, Youtube enable users to create online communities to connect people and to share information. As of January 2016, the online social networking application Facebook registered more than 1.5 billion active users (Brailovskaia Margra, 2016; Kaplan & Haenlein, 2010). There are different forms of social media applications (Davis & Mintz; 2009; O'Reilly 2007), namely (1) User-generated content; enables site visitors to submit content that others can access. (2) Social networking; Users of social media join together in online groups and relationships, which allows them to see profile information about the people to whom they are connected and to share information. (3) Collaboration provides a digital space for meeting and exchanging ideas, products, and information with others. Users engage in conversations. (4) Cross-platform data sharing. This study adopted all social media forms to get respondents. A total of 1436 social media links were distributed on social media platforms through, direct messaging and posts entrepreneurship on a group page. These were sent to entrepreneurship

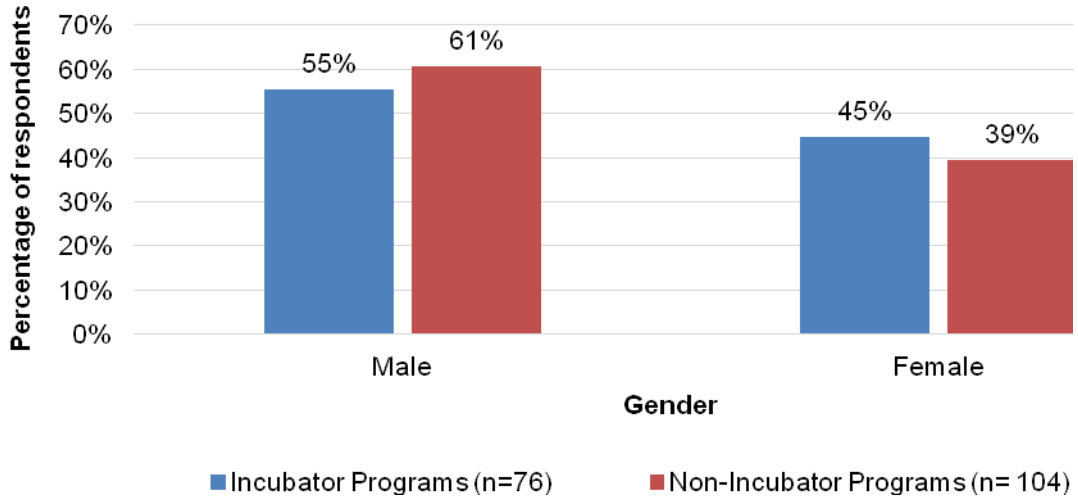
groups or entrepreneurs as stated in chapter 3. Of the returned, 43 were not completed and therefore could not be analysed. A myriad of reasons exist regarding why people do not complete surveys are, for instance, the reward is not worth it, or too long (Bell, 2010). Note that the missing values were not replaced with predictive values given that each row of that had a missing value had multiple missing values. The sample was made up of 180 respondents. Of the 180 respondents, the distribution was whether they were part of an incubation program or not is summarised in figure 5.

Figure 6: SMMEs that were Incubated and Non Incubated



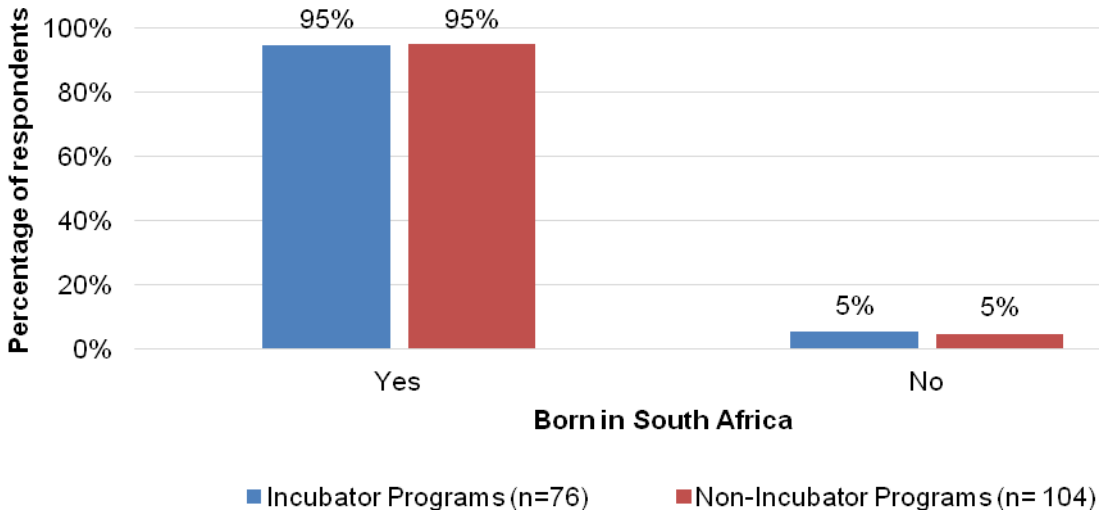
More than half of the businesses represented in the sample did not go through an incubation program (58%, 104 businesses) and the other 48% (76 businesses) went through the incubation program. This might have been the case given the survey link was not distributed equally amongst gender type. About the demographic profile figure 6 below highlights the gender distribution.

Figure 7: Gender Distribution of Respondent who completed the Survey



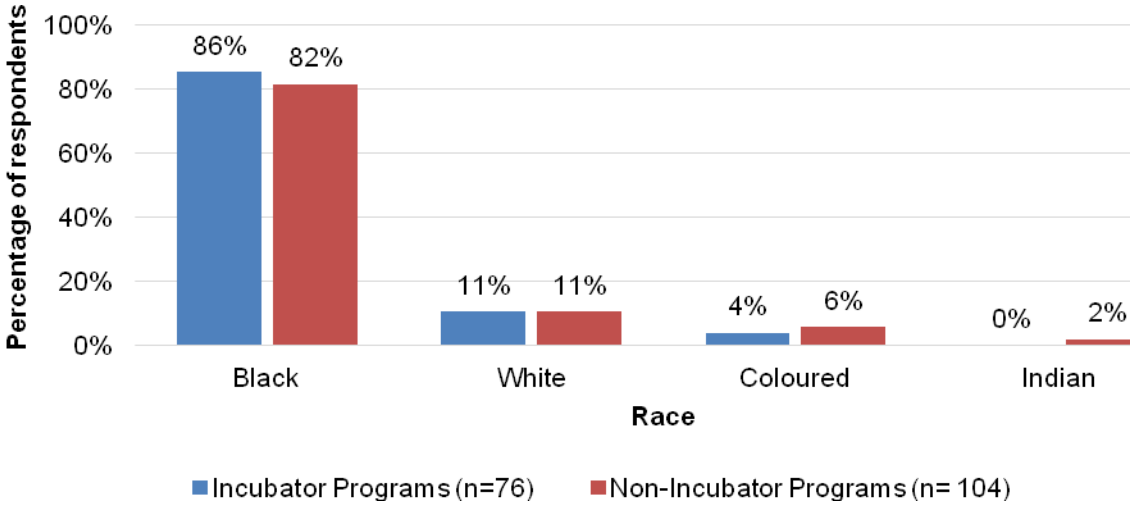
A proportion 61% of the Non-incubator program representatives were male compared to 55% male among the respondents representing incubator program businesses. The difference was not significant at 5% significance level since the p-value was greater than 0.05 (p-value = 0.539). The place of birth of the respondents is presented in Figure 7

Figure 8: Respondents Born in South Africa



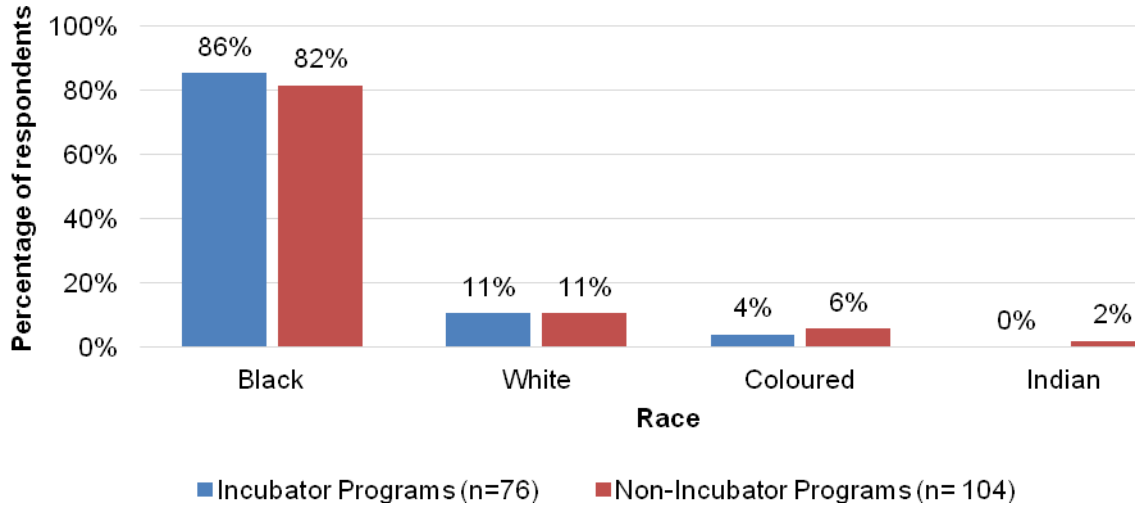
A proportion of 95% a piece for both the incubator and non-incubator program respondents were born in South Africa. The race distribution by the respondent group is summarised in Figure 8.

Figure 9: Race of respondents



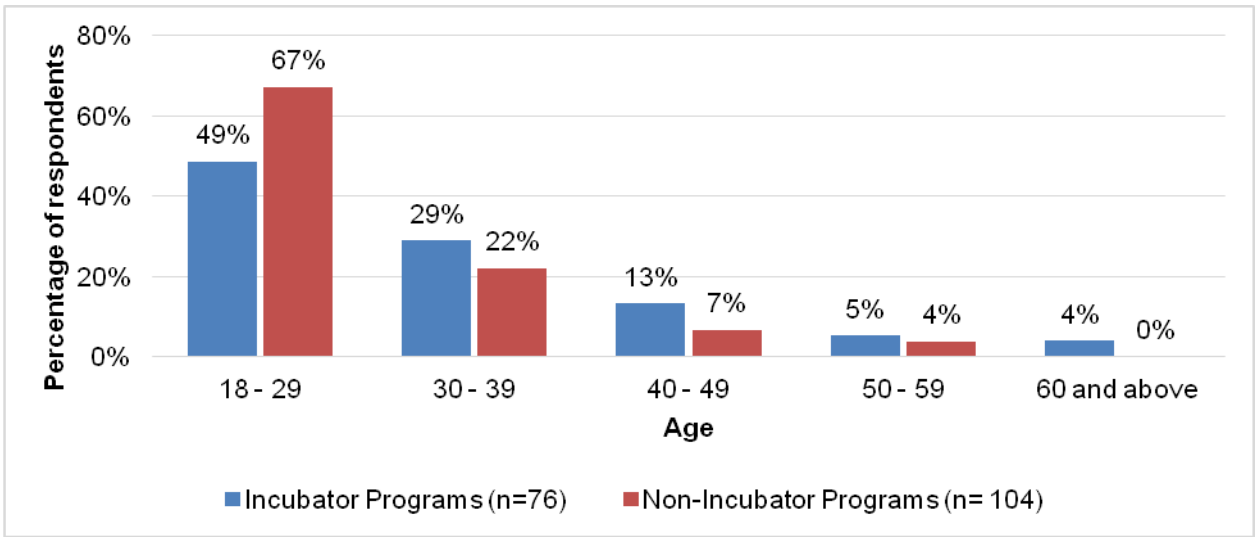
Most of the respondents in both groups were Black, 86% among the Incubator program group and 82% among the non-incubator program group. The differences by the group were not significant (p-value = 0.609).The respondents were asked if they were doing business in South Africa and the results are shown in Figure 9.

Figure 10: Local business vs Non Local



It can be noted from the results that 96% of the businesses represented in the incubator program were doing business in South Africa compared to 84% businesses that were doing business in South Africa among the non-incubator program businesses. The differences between two groups are statistically significant (p-value = 0.009).

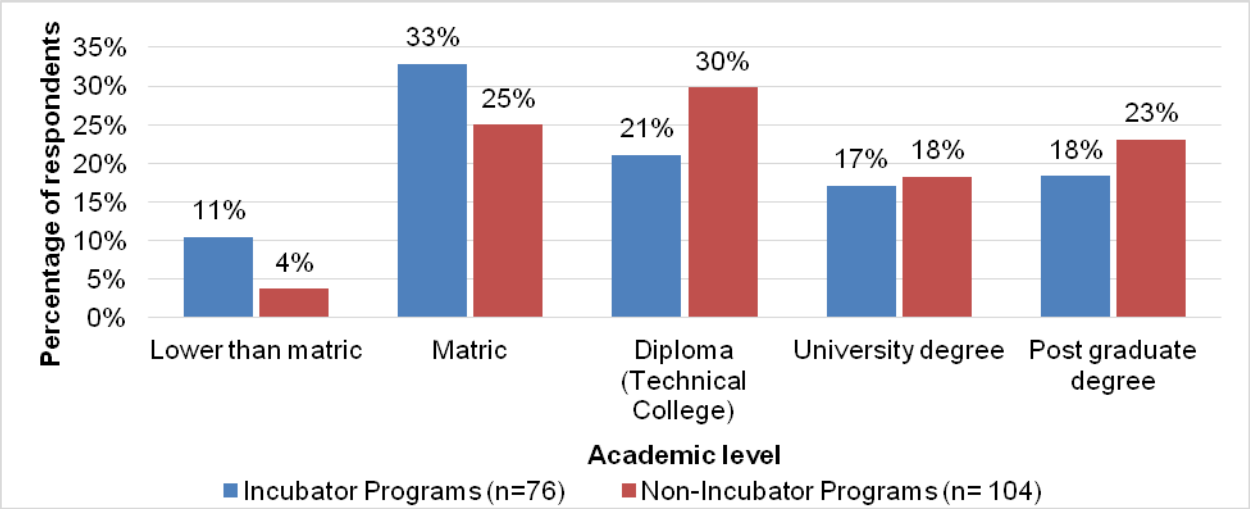
Figure 11: Respondent age



The non-incubator group had more respondents in the 18 – 29 age group (67%) compared to 49% in the same age group for the incubator program. The proportion of respondents from the incubator program was higher in the 30 and above age band

(51%) compared to the non-incubator group (33%). The difference in age across the two programs was statistically significant (p-value = 0.045 < 0.05). Figure 10 shows the highest attained academic qualification for the respondents in the sample.

Figure 12: Highest attained the academic qualification



Although there were slight differences in the highest attained academic qualification, the differences were not statistically significant at 5% significance level (p-value = 0.224 > 0.05). Table 1 shows information on the business represented in the sample.

Table 1: Other Business Statistics

Variable	Option	Been part of an incubation program		Total (n= 180)	Chi-square P-value
		Incubator Programs (n=76)	Non-Incubator Programs (n= 104)		
Number of Permanent employees	1 - 4	50.0%	60.6%	56.1%	0.225
	5 - 10	19.7%	17.3%	18.3%	
	11 - 25	14.5%	10.6%	12.2%	
	26 - 50	6.6%	9.6%	8.3%	
	51 - 100	6.6%	1.0%	3.3%	
	101 - 200	2.6%	1.0%	1.7%	
Industry	Services	22.4%	18.3%	20.0%	0.572
	Food	11.8%	16.3%	14.4%	
	Retail	10.5%	13.5%	12.2%	

	Construction	13.2%	9.6%	11.1%	
	Manufacturing	6.6%	6.7%	6.7%	
	Automotive	5.3%	1.9%	3.3%	
	Agriculture	3.9%	2.9%	3.3%	
	Textiles	5.3%	1.0%	2.8%	
	Real Estate	1.3%	1.9%	1.7%	
	Other	19.7%	27.9%	24.4%	
Business Age	1 - 3 years	52.6%	73.1%	64.4%	0.009
	4 - 5 years	32.9%	12.5%	21.1%	
	6 - 10 years	6.6%	7.7%	7.2%	
	More than 10 years	7.9%	6.7%	7.2%	
Legal status of the business	Proprietorship	2.6%	6.7%	5.0%	0.293
	Partnership	18.4%	12.5%	15.0%	
	Company (private) PTY Ltd	68.4%	70.2%	69.4%	
	Company (public)	3.9%	3.8%	3.9%	
	Close Corporation	1.3%	3.8%	2.8%	
	Co-operative	2.6%	0.0%	1.1%	
	Business Trust	2.6%	1.0%	1.7%	
	Franchise	0.0%	1.9%	1.1%	
Time spent in the incubation program	Less than 6 months	25.0%		25.0%	-
	6 months - 1 year	35.5%		35.5%	
	More than 1 year	39.5%		39.5%	

The number of permanent employees was mainly between 1 and 10 for both groups, that is 80% for the incubator group and 78% for the non-incubator group. The differences in a number of employees by throughput group were not statistically significant (p-value = 0.225).Incubated and non-incubated firms in the sample seem to have very few employees. As a result, measuring job creation would have had a minimal impact. Distribution of the companies in each segment by industry did not differ significantly since the p-value was higher than 0.05 (p-value = 0.572. A proportion of 20% of the business across both groups was in services, 14.4% in food and 12.2% were in retail. The non-incubator program had 73.1% of the business since the 1 – 3 years age category compared to 52.3% of the business that age category within the incubator program group. On the other hand, the incubator program had a higher proportion of businesses in the 4 – 5 years age category, that is 32,9% compared to

12.5% within the non-incubator program. The differences in business age by throughput was statistically significant at 5% significance level since the p-value was less than 0.05 (p-value = 0.009).

Legal status of the businesses did not differ significantly by throughput (p-value = 0.293 > 0.05). Most business were Company (private) PTY Ltd (69.4%) and 15% were partnerships. The results show that of the business that were in the incubator group, 25% spent less than 6 months in incubation program while 35.5% spent 6 months - 1 year in the program and 39.5% spent more than 1 year in the incubation program. South African incubation programs are generally less than a year as per the sample.

4.3 VALIDITY

Factor analysis is commonly used in the fields of psychology and education and is considered the method of choice for interpreting self-reporting questionnaires. Factor analysis is a multivariate statistical procedure (Creswell, 2017; Cooper and Schindler, 2014). (1) The large number of variables decreased to smaller set of variables (Creswell, 2017). (2) The formation and refinement of theory is formed from the underlying dimensions between measured variables and latent constructs (Creswell, 2017). (3) Construct validity evidence of self-reporting scales is provided (Nunnally; 1978; Creswell, 2017). Exploratory factor analysis was conducted for each construct, and the results are presented in Tables 2 and Table 3. Table 2 shows the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity.

Table 2: KMO and Bartlett's Test

Innovativeness		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.613
Bartlett's Test of Sphericity	Approx. Chi-Square	161.520
	Df	3
	Sig.	.000
Risk-taking		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.591
Bartlett's Test of Sphericity	Approx. Chi-Square	102.346
	Df	3

	Sig.	.000
Pro-activeness		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.625
Bartlett's Test of Sphericity	Approx. Chi-Square	82.290
	Df	3
	Sig.	.000
Business Growth		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.500
Bartlett's Test of Sphericity	Approx. Chi-Square	246.283
	Df	1
	Sig.	.000

The Bartlett's test compares the observed correlation matrix to the identity matrix. In other words, it checks if there is a certain redundancy between the variables that we can summarize with a few number of factors (Creswell, 2017; Cooper and Schindler, 2014). If the variables are perfectly correlated, only one factor is sufficient. If they are orthogonal, we need as many factors as variables. In this last case, the correlation matrix is the same as the identity matrix. If the values outside the main diagonal are often high (in absolute value), some variables are correlated.

The KMO index checks the original variables are factorize efficiently (Creswell, 2017; Cooper and Schindler, 2014). The correlation matrix is always the starting point. We know that the variables are more or less correlated, but the correlation between two variables can be influenced by the others. So, we use the partial correlation in order to measure the relation between two variables by removing the effect of the remaining variables4. The KMO index compares the values of correlations between variables and those of the partial correlations. All the KMO values satisfied the minimum requirement of a value of at least 0.5. This implies that the sample was adequate to conduct factor analysis. The Bartlett's Test of Sphericity had significant p-values as required (p-value < 0.05). This implies that the items within each construct were correlated as required for factor analysis. The results in Table 3 show the final construct composition, factor loadings for the items within each factor and the total variance explained.

Table 3: Construct composition, total variance explained and factor loadings

Construct	Code	Items	Factor Loading	Total Variance Explained
Innovativeness	Q13	Our business regularly introduces new services/products/processes	.889	67%
	Q14	Our business places a strong emphasis on new and innovative products/services	.877	
	Q15	Changes in our processes, services and product lines have been quite dramatic in the past	.669	
Risk-taking	Q17	Owing to the environment, our business believes that bold, wide-ranging acts are necessary to achieve the business‟ objectives	.867	61%
	Q16	In general, our business has a strong inclination towards high-risk projects	.815	
	Q18	Employees are often encouraged to take calculated risks concerning new ideas	.645	
Pro-activeness	Q19	Our business is very often the first to introduce new products/services	.827	60%
	Q20	Our business typically initiates actions that competitors respond to	.802	
	Q21	Our business continuously monitors market trends and identifies future needs of customers	.679	
Business Growth	Q22	Our business has experienced growth in turnover over the past few years	.966	93%
	Q23	Our business has experienced growth in Gross profit over the past few years	.966	

The Innovativeness, Risk-taking and Pro-activeness each retained one factor which explained 67%, 61% and 60% respectively. The Business Growth construct had two items included in the construct while one item was excluded as it was measured for the respondents in the incubator program only. The retained construct explained 93% of variation in the two items in the construct. All the items loaded high onto their respective factors, with a minimum factor loading of 0.645 and factor loading as high as 0.966. Since all the items had factor loadings of more than the minim required value of at least 0.4, the constructs were valid.

4.4 RELIABILITY

Cronbach's alpha is most commonly used when you want to assess the internal consistency of a multiple Likert-type scales questionnaire (Creswell, 2017; Cooper and Schindler, 2014). The reliability of the scale for the various constructs / sub-constructs was assessed using Cronbach's Alpha. The following table shows how the reliability can be classified based on the Cronbach's Alpha value.

Table 4: Cronbach's Alpha Classification

Cronbach's Alpha Value	Reliability
>0.9	Excellent
>0.8	Good
>0.7	Acceptable
>0.6	Questionable
>0.5	Poor
<0.5	Unacceptable

The reliability for the constructs is summarised in the table below.

Table 5: Reliability

Construct	Number of Items	Cronbach's Alpha	Reliability Level
Innovativeness	3	.751	Acceptable
Risk-taking	3	.675	Questionable
Pro-activeness	3	.659	Questionable
Business Growth	2	.928	Excellent

Put the detailed results in Appendix and refer the reader there

It can be noted from the results that Business Growth had an excellent reliability (2 items, $\alpha = 0.928$), Innovativeness scale had acceptable reliability (3 items, $\alpha = 0.751$) while Risk-taking (3 items, $\alpha = 0.675$) and Pro-activeness (3 items, $\alpha = 0.659$) had a questionable reliability. Since all the Cronbach's Alpha values were all greater than 0.5, the minimum value below which the reliability becomes unacceptable, the items within each of constructs can be combined together to form a summated scale for each scale.

The summated scale was computed by calculating the average of the items within the scale.

Comparison of Construct Rating by Throughput

The Mann-Whitney U test is a non-parametric test that can be used in place of an unpaired t-test. It is used to test the null hypothesis that two samples come from the same population (i.e. have the same median) or, alternatively, whether observations in one sample tend to be larger than observations in the other (Creswell, 2017; Cooper and Schindler, 2014). Although it is a non-parametric test it does assume that the two distributions are similar in shape. Mann-Whitney U test was conducted to reassess the difference between the rating of constructs and length of service at IDC. The results are shown below;

Table 6: Mann-Whitney Test

Ranks				
	Throughput	N	Mean Rank	Sum of Ranks
Innovativeness	Incubator Programs	76	97.03	7374.50
	Non-Incubator Programs	104	85.73	8915.50
	Total	180		
Risk-taking	Incubator Programs	76	111.03	8438.50
	Non-Incubator Programs	104	75.50	7851.50
	Total	180		
Pro-activeness	Incubator Programs	76	115.66	8790.00
	Non-Incubator Programs	104	72.12	7500.00
	Total	180		

Test Statistics[a]			
	Innovativeness	Risk-taking	Pro-activeness
Mann-Whitney U	3455.500	2391.500	2040.000
Wilcoxon W	8915.500	7851.500	7500.000
Z	-1.455	-4.568	-5.596
Asymp. Sig. (2-tailed)	.146	.000	.000

4.5 HYPOTHESIS

H1. Incubated SMME's have high a degree of occurrence in EO than non-incubated SMME's.

H1a: The innovation of an incubated firm is higher than that of a non-incubated firm.

H1b: Risk-taking of an incubated firm is higher than that of a non-incubated firm.

H1c: Proactiveness of an incubated firm is higher than that of a non-incubated firm.

H2: SMME's with high degrees of occurrence in EO have a higher probability of growth (Revenue)

H2a: EO in an incubated firm leads to growth.

H2b: EO in a non-incubated firm leads to growth.

4.6 HYPOTHESIS RESULTS

H1: Results pertaining to hypothesis 1 (H1): Incubated SMME's have high a degree of occurrence in EO than non-incubated SMME's. The hypothesis was split into three hypotheses since there were three components of EO.

H1a: Innovation of an incubated firm is higher than that of a non-incubated firm. The results revealed that there was no significant difference in the mean rating of Innovativeness of businesses that went through the incubator Programs (mean rank = 97.03) compared to the non-incubator program business (mean rank =85.73) since the p-value was greater than0.05.

H1b: Risk Taking of an incubated firm is higher than that of a non-incubated firm The results revealed that the Risk-Taking of an incubated firm was higher (mean rank = 111.03) than that of a non-incubated firm (mean rank = 75.50). The difference is significant since the p-value was less than 0.05 (p-value = 0.000).

H1c: Proactiveness of an incubated firm is higher than that of a non-incubated firm The results revealed that the Pro-activeness of an incubated firm was higher (mean rank = 115.66) than that of a non-incubated firm (mean rank = 72.12). The difference was significant since the p-value was less than 0.05 (p-value = 0.000).

Results pertaining to hypothesis 2 (H2): SMME's with high degrees of occurrence in EO have a higher probability of growth (Revenue).

Multiple linear regression was conducted with Business growth as the dependent variable and each of Innovativeness, Risk-taking and Pro-activeness as the independent variables. The results are shown below.

4.6.1 Results of H2a: Higher levels EO in an incubated firm leads to growth.

Table 7: Model Summary - Incubator Program group

Model Summary[a,c]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.166[b]	.028	-.013	1.11089	2.167
a. Throughput = Incubator Programs					
b. Predictors: (Constant), Pro-activeness, Innovativeness, Risk-taking					
c. Dependent Variable: Business Growth					

The results presented in the model summary table shows that Innovativeness, Risk-taking, and Pro-activeness explain only 2.8% of the variation in Business growth among the incubated businesses. Results shown in the ANOVA table tests the null hypothesis that none of the independent variables Innovativeness, Risk-taking and Pro-activeness is significant in predicting business growth against the alternative hypotheses that at least one variable is significant in predicting business growth.

Table 8: ANOVA - Incubated businesses

ANOVA[a,b]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.528	3	.843	.683	.565[c]
	Residual	88.854	72	1.234		
	Total	91.382	75			
a. Been part of an incubation program = Yes						
b. Dependent Variable: Business Growth						
c. Predictors: (Constant), Pro-activeness, Innovativeness, Risk-taking						

The p-value in the ANOVA tables 0.565 > 005. This implies that the null hypotheses cannot be rejected, and it is concluded that none of the Innovativeness, Risk-taking, and Pro-activeness is significant in predicting business growth. This is confirmed by p-values greater than 0.05 for each individual independent variable as shown in the coefficients table.

Table 9: Coefficients - Incubated Businesses

Coefficients[a,b]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.382	1.448		3.025	.003		
	Innovativeness	.086	.115	.090	.749	.456	.944	1.059
	Risk-taking	.070	.230	.037	.306	.760	.940	1.064
	Pro-activeness	-.245	.223	-.128	-1.098	.276	.995	1.005
a. Throughput = Incubator Programs								
b. Dependent Variable: Business Growth								

Testing of Validity of the model.

The null hypotheses, is that all the coefficients of the independent variables are equal to zero:

That is, $H_0: B_1 = B_2 = B_3 = 0$

The alternative hypothesis is that at least one coefficients is not equal to zero:

That is, H_1: $At\ least\ one\ B_i \neq 0, for\ i = 1, 2, 3$

The model is said to be invalid if the null hypothesis is true. The results show that the p-value of the F test in the ANOVA table was 0.565, which shows an invalid model. Thus, none of the independent variables was significant in predicting business growth.

Testing the Coefficients

For each of the independent variables, we test for (i = 1, 2, 3).

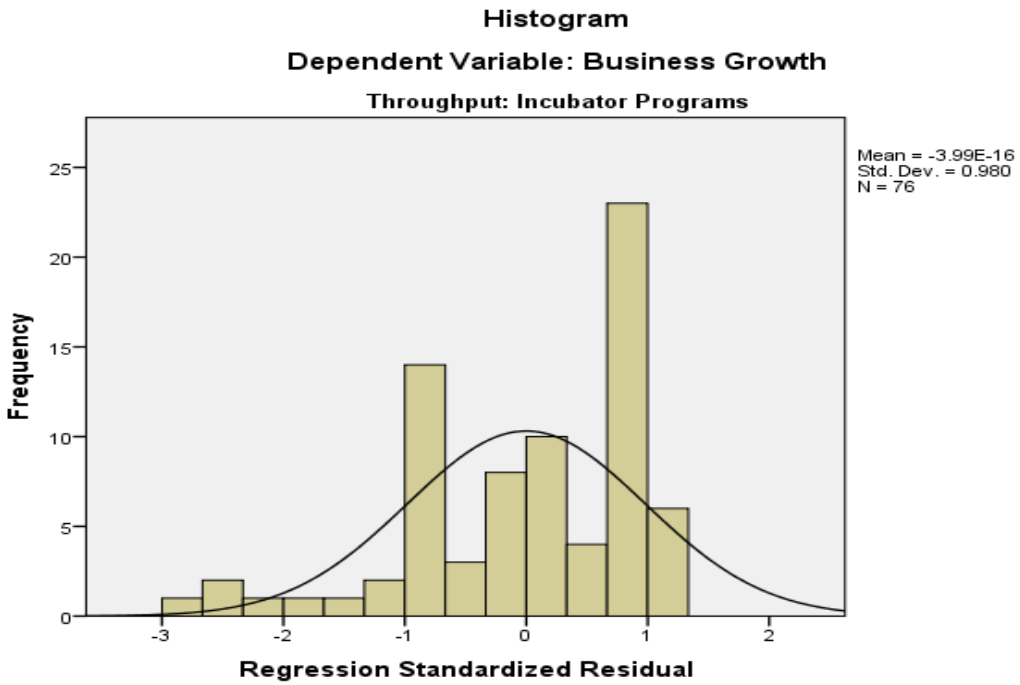
$H_0: B_i = 0$

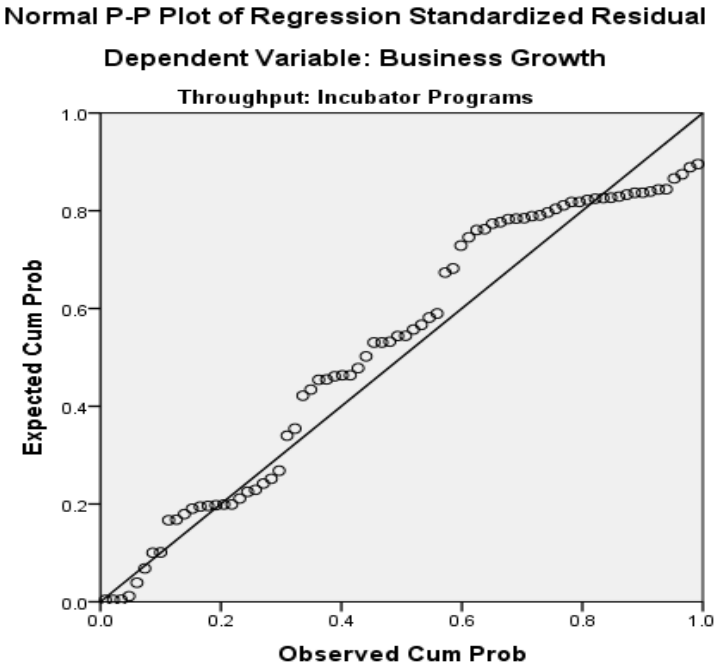
$H_1: B_i \neq 0$

The results show that there is no sufficient evidence to suggest that Innovativeness (p-value =0.456), Risk-taking (p-value =0.760) and Pro-activeness (p-value = 0.276) were linearly related to Business Growth since the p-values were all greater than 0.05.

Testing for violation of error term conditions

The histogram and the normal P-P plots below were drawn to assess whether the error terms were normally distributed as required for regression analysis.





The histogram is bell shaped, which suggests that the residuals were indeed normally distributed as required for regression. The Normal P-P plot of standardised residuals

also shows values very close to the diagonal line, this suggests that the residuals are normally distributed.

Heteroscedasticity

The error terms were plotted against the fitted values to assess whether there was any pattern in the error terms. The requirement is that the error terms should not show any pattern as they should be constant, a condition called homoscedasticity.

The error terms were scattered all over, which shows that there was no pattern. This indicates that there was no Heteroscedasticity.

Violations of independence

The Durbin-Watson statistic which provides a test for significant residual autocorrelation was computed. The Durbin-Watson value was 2.167, as shown in the Model Summary table. This value was within the acceptable range of between 1.4 and 2.6. This means that the error terms were independent.

Test for Multicollinearity

The VIF values were all less than 10, Innovativeness (VIF = 1.059), Risk-taking (VIF = 1.064) and Pro-activeness (VIF = 1.005). This implies that there was no problem of Multicollinearity.

There was no violation of any of the conditions required for fitting a regression model. The regression model in this case is

$$\hat{y} = 4.382 + 0.086\, x_1 + 0.070\, x_2 - 0.245\, x_3$$

Where, $\hat{y}$ is the predicted value for Business Growth performance, x_1 is Innovativeness, x_2 is Risk-taking and x_3 is Pro-activeness

The coefficients were all insignificant, this implies that there is relationship between the occurrence in EO and probability of Business growth.

4.6.2 Results H2b: Higher levels of EO in a non-incubated firm leads to growth

Multiple linear regression was conducted with Business growth as the dependent variable and each of Innovativeness, Risk-taking and Pro-activeness as the independent variables among the non-incubated firms. The results are shown below.

Table 10: Model Summary - Non-incubated businesses

Model Summary[a,c]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.645[b]	.416	.398	.84350	1.909
a. Throughput = Non-Incubator Programs					
b. Predictors: (Constant), Pro-activeness, Innovativeness, Risk-taking					
c. Dependent Variable: Business Growth					

The results presented in the model summary table shows that Innovativeness, Risk-taking and Pro-activeness explained 41.6% of variation in Business growth among the non-incubated businesses.

Results shown in the ANOVA table tests the null hypothesis that none of the independent variables Innovativeness, Risk-taking and Pro-activeness is significant in predicting business growth against the alternative hypotheses that at least one variable is significant in predicting business growth.

Table 11: ANOVA - Non-incubated businesses

ANOVA[a,b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.610	3	16.870	23.711	.000[c]
	Residual	71.149	100	.711		
	Total	121.760	103			
a. Been part of an incubation program = No						
b. Dependent Variable: Business Growth						
c. Predictors: (Constant), Pro-activeness, Innovativeness, Risk-taking						

The p-value in the ANOVA table was 0.000 < 005. This implies that the null hypothesis was rejected in favour of the alternative hypothesis. This means that at least one of the

variables Innovativeness, Risk-taking and Pro-activeness is significant in predicting business growth.

The coefficients table below shows results on which specific independent variables were significant in predicting Business growth.

Table 12: Coefficients - Non-incubated business

Coefficients[a,b]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.034	.487		2.123	.036		
	Innovativeness	.110	.118	.091	.934	.353	.616	1.623
	Risk-taking	-.362	.129	-.290	-2.808	.006	.549	1.820
	Pro-activeness	.986	.120	.706	8.232	.000	.795	1.257
a. Throughput = Non-Incubator Programs								
b. Dependent Variable: Business Growth								

Testing of Validity of the model.

The null hypotheses, is that all the coefficients of the independent variables are equal to zero:

That is, $H_0: B_1 = B_2 = B_3 = 0$

The alternative hypothesis is that at least one coefficients is not equal to zero:

That is, $H_1: \ At\ least\ one\ B_i \neq 0, for\ i = 1, 2, 3$

The model is said to be invalid if the null hypothesis is true. The results show that the p-value of the F test in the ANOVA table was 0.000. Thus, the null hypothesis is rejected at 5% significance level. It is concluded that the model is valid since at least one of the $B_i s$ is is not equal to zero.

Testing the Coefficients

For each of the independent variables, we test for (i = 1, 2, 3).

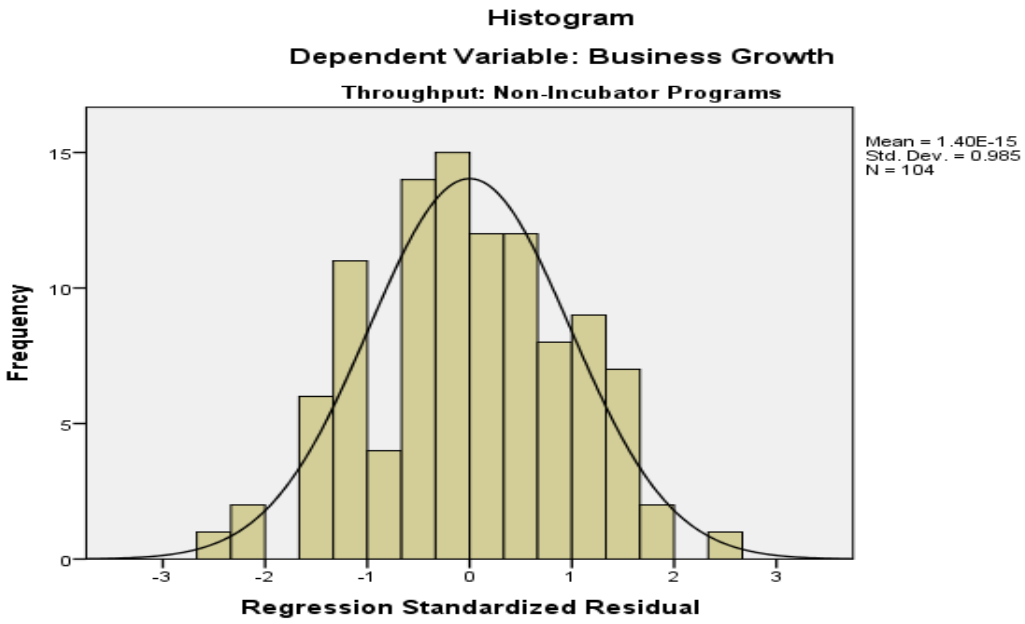
$H_0: B_i = 0$

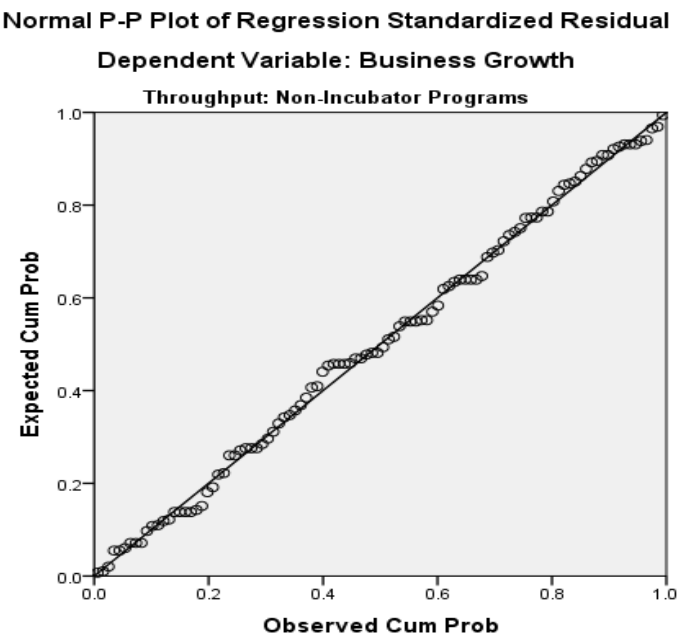
$H_1: B_i \neq 0$

The results show that there is sufficient evidence to suggest that Risk-taking (p-value =0.006) and Pro-activeness (p-value = 0.000) were linearly related to Business Growth since the p-values were less than 0.05. Innovativeness (p-value =0.353) was however not linearly related to Business growth since the p-value was greater than 0.05.

Testing for violation of error term conditions

The histogram and the normal P-P plots below were drawn to assess whether the error terms were normally distributed as required for regression analysis.

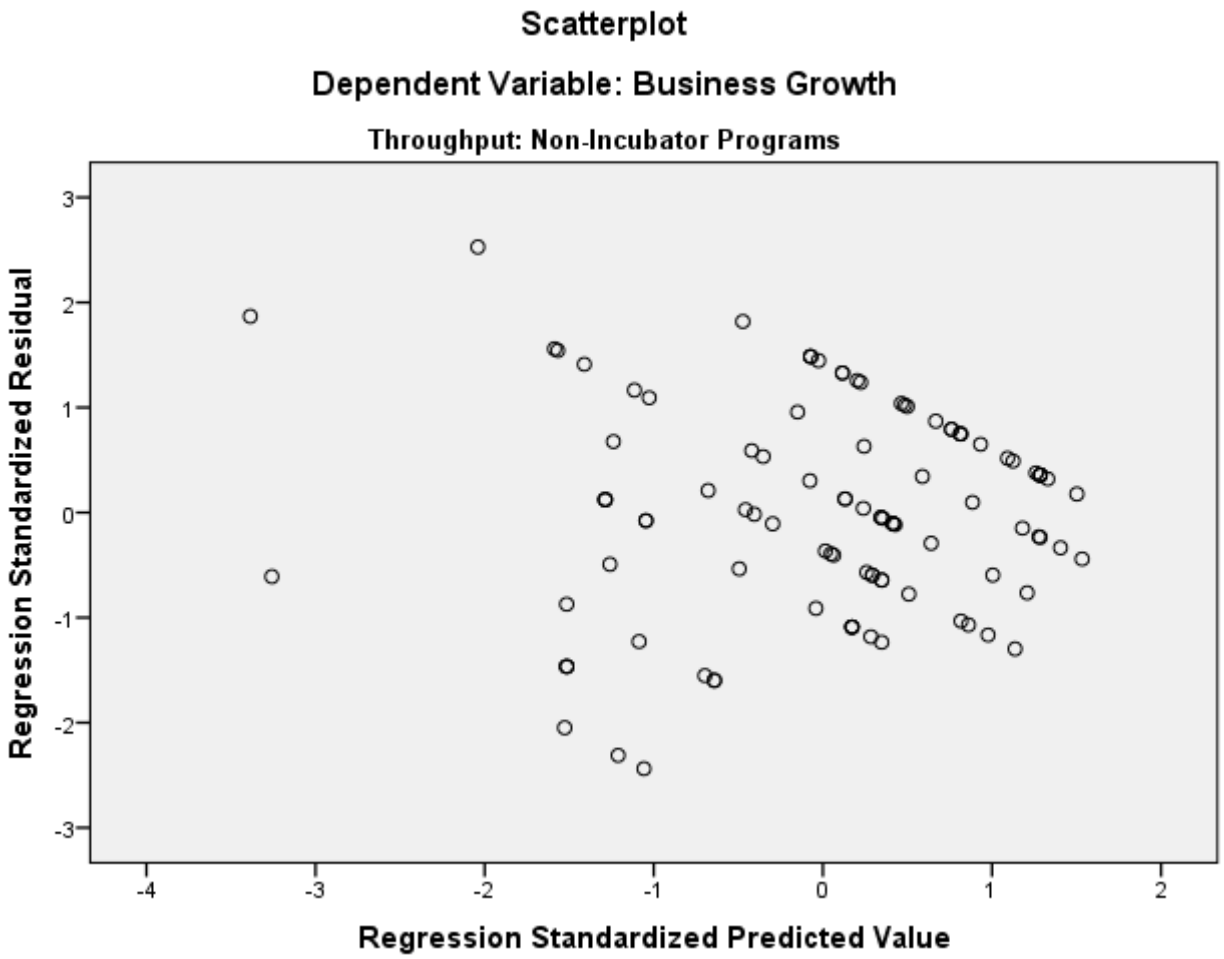




The histogram is bell shaped, which suggests that the residuals were indeed normally distributed as required for regression. The Normal P-P plot of standardised residuals also shows values very close to the diagonal line, this suggests that the residuals are normally distributed.

Heteroscedasticity

The error terms were plotted against the fitted values to assess whether there was any pattern in the error terms. The requirement is that the error terms should not show any pattern as they should be constant, a condition called homoscedasticity.



The error terms were scattered all over, which shows that there was no pattern. This indicates that there was no Heteroscedasticity.

Violations of independence

The Durbin-Watson statistic which provides a test for significant residual autocorrelation was computed. The Durbin-Watson value was 1.909, as shown in the Model Summary table. This value was within the acceptable range of between 1.4 and 2.6. This means that the error terms were independent.

Test for Multicollinearity

The VIF values were all less than 10, Innovativeness (VIF = 1.623), Risk-taking (VIF = 1.820) and Pro-activeness (VIF = 1.257). This implies that there was no problem of Multicollinearity.

There was no violation of any of the conditions required for fitting a regression model. The regression model in this case is

$$\hat{y} = 1.034 + 0.110\ x_1 - 0.362\ x_2 + 0.986\ x_3$$

Where, $\hat{y}$ is the predicted value for Business Growth performance, x_1 is Innovativeness, x_2 is Risk-taking and x_3 is Pro-activeness

It is this concluded that higher levels Pro-activeness in a non-incubated firm leads to growth while higher risk-taking leads to a decline and Innovativeness had no impact on business growth in non-incubated businesses.

Test of normality

Normality of the constructs was tested using the Kolmogorov-Smirnov test and the Shapiro-Wilk test. The results are shown in Table 13.

Table 13: Tests of Normality

Tests of Normality							
Been part of an incubation program		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Incubator Programs	Innovativeness	.256	76	.000	.805	76	.000
	Risk-taking	.200	76	.000	.880	76	.000
	Pro-activeness	.200	76	.000	.880	76	.000
	Business Growth	.222	76	.000	.832	76	.000
Non-Incubator Programs	Innovativeness	.190	104	.000	.885	104	.000
	Risk-taking	.114	104	.002	.943	104	.000
	Pro-activeness	.128	104	.000	.949	104	.001
	Business Growth	.141	104	.000	.887	104	.000
a. Lilliefors Significance Correction							

The test for normality results shows that all the constructs were not normally distributed since the p-values for both the Kolmogorov-Smirnov and the Shapiro-Wilk tests were less than 0.05. Since the constructs were not normally distributed, non-parametric tests were used to assess the differences in the rating of the constructs by throughput group.

4.7 CONCLUSION

This chapter presents the various results from the study. Various statistical tools and methods where clarified.

CHAPTER 5

5.1 INTRODUCTION TO RESULTS ANALYSIS

The primary purpose of this chapter is to assess how well the research questions highlighted in chapter one where answered. The two research problems highlighted in chapter one relates to the perceptions of small businesses owners and managers who have received support from business incubation programs whether private or public in the recent past. Discussing the results in chapter 4, adding further to the context where possible will help in the understanding of the facts and constructs highlighted in chapter 2, the literature review. The narrative provided in this chapter on the results and methodology used should remain consistent with the constructs that were analysed in this study, which are entrepreneurial orientation and business growth (Short et al., 2009).

The central question of the study relates to the examination of entrepreneurs/firms that have been through incubation environment and how the relationship between entrepreneurial orientation and business growth is affected? The study relied on insights into incubated/ non-incubated small businesses to assess the entrepreneurial orientation of small business and how this relates to their business growth. Guidelines to the methodology adopted discussed in chapter three. Given the results presented in the previous chapter this chapter discusses and explains the results making use of the literature reviewed and the hypotheses formulated. The chapter starts by discussing the demographic profile of the surveyed respondents. It then continues to discuss the principal factor analysis conducted and the resultant observations. The conducted t-tests and regression analysis which effectively lead to the discussion of the findings from the initial hypotheses. The chapter closes with a conclusion of results observed before outlining the possible implications. These findings hold for the audience (policymakers, and scholars, business affiliates, and business incubation).

5.2 THE DEMOGRAPHIC PROFILE OF RESPONDENTS

In the design of this study a range of business incubation programs were identified with the deliberate purpose of adding complexity and depth to results of the study. Hence the purposive sampling strategy adopted. Initially, 1430 respondents were asked to participate with the intention of improving the representativeness of the study given that there are more than 2 million SMMEs in South Africa. The high sample would have provided more balanced predictive results regarding the EO space in the South African context. However, during the field research it became apparent that a majority of business incubators were unwilling to distribute the survey to their participants. There could be many reasons for this state of affairs however the general response ~~is~~ was that a confidentiality agreement existed between entrepreneurs and the incubators.

A total of 223 responses were from the social media link. This survey populated through the Qualtrics software programme was distributed in January and March 2018 using the link provided by the program, as stated in chapter 3. From 223 questionnaires returned, 180 were satisfactorily populated and adequate for use in the analysis of the results. No hard copies of the survey were distributed. The study focused solely on SMME's those affiliated with incubation programs of different typologies (private and public) as well as those that have never been part of an incubation program and small firms representing different demographic groups (black-owned or non-black-owned, and female-owned and non-female-owned). Unfortunately, a comprehensive range of SMME typologies could not be assessed, i.e., family businesses, and for convenience. The study limited the typology break down to firms that have been through an incubation program and those that have not. Had the study been able to draw observations from the different typologies this would have provided further meaning to the audience and their work.

More than half of the businesses represented in the sample did not go through an incubation program (58%, 104 businesses) and the other 48% (76 businesses) went through the incubation program. A proportion 61% of the Non-incubator program representatives were male compared to 55% male among the respondents representing incubator program businesses. The difference was not significant at 5% significance level since the p-value was more significant than 0.05 (p-value = 0.539). A proportion of

95% apiece for both the incubator and non-incubator program respondents were born in South Africa. Most of the respondents in both groups were Black, 86% among the Incubator program group and 82% among the non-incubator program group. The differences by the group were not significant (p-value = 0.609).It can be noted from the results that 96% of the businesses represented in the incubator program were doing business in South Africa compared to 84% businesses that were doing business in South Africa among the non-incubator program businesses. The differences between the two groups are statistically significant (p-value = 0.009). The non-incubator group had more respondents in the 18 – 29 age group (67%) compared to 49% in the same age group for the incubator program. The proportion of respondents from the incubator program was higher in the 30 and above age band (51%) compared to the non-incubator group (33%). The difference in age across the two programs was statistically significant (p-value = 0.045 < 0.05).

5.3 ENTREPRENEURIAL ORIENTATION DEGREE OF OCCURRENCE

Chapter 2 discusses the support of multidimensionality of the entrepreneurial orientation phenomenon. It is still essential to determine whether the EO concept can be tested using business incubation as a moderating variable and how this compares to firms that have not been under such an environment

5.4 RESEARCH QUESTION 1

Does a firm that goes through incubators have a higher degree of occurrence of EO than a firm that has not gone through the incubator program? The individual dimensions of EO were tested, with two of the dimensions results being significant. In the discussion to follow three hypothesis will be considered to assist in formulating a view of the central question.

5.4.1 Hypothesis 1a: Innovation of an incubated firm is higher than that of a non-incubated firm

The results demonstrated that there was no significant difference in the mean rating of innovativeness for businesses that went through incubator programs (mean rank = 97.03) compared to the non-incubator program business (mean rank = 85.73) since the p-value was greater than 0.05. The results are in line with Schumpeter's (1934) entrepreneurship' definition where he describes an entrepreneur as someone with the ability to produce solutions in new and unfamiliar situations rendering same innovative. Ladzani and Van Vuuren (2002) mention in their paper that small business has the propensity to introduce new products and services into the market. The results indicate that SMMEs are innovative regardless of the additional support they might or might not receive from the external environment like incubators. The results also confirm Lumpkin and Dess (1996) and Miller (1984) definitions that innovation is one of the critical components of entrepreneurial orientation. China places specific emphasis on innovation and technology incubators. However finding indicates that this is not the case in South Africa, given that the difference in innovation levels is immaterial.

5.4.2 Hypothesis 1b: Risk Taking of an incubated firm is higher than that of a non-incubated firm

The results revealed that the Risk-Taking of an incubated firm was higher (mean rank = 111.03) than that of a non-incubated firm (mean rank = 75.50). The difference is significant since the p-value was less than 0.05 (p-value = 0.000). The results do not deny Sharma and Dave's (2011) notion that risk-taking as a dimension of EO impacts the success of business the most as compared to innovativeness and pro-activeness. The Mann Whitney test mean ranks the EO variables for both incubated and non-incubated and in both scenarios risk-taking is ranked second. Further, Urban (2011) mentions that without the willingness to take ~~a~~ risk innovation and opportunities are limited. This explains the higher mean rank for incubated firms given that business incubators enable a better operating environment. As Caruana et al. (2002) state that in a supported environment it is easier to see risk as an opportunity not yet recognized. The uncertainty of outcome is easily dealt with when a firm has or is cognisant of how to access the resource as defined by Dewett (2004).

5.4.3 Hypothesis 1c: Proactiveness of an incubated firm is higher than that of a non-incubated firm

The results revealed that the Pro-activeness of an incubated firm was higher (mean rank = 115.66) than that of a non-incubated firm (mean rank = 72.12). The difference was significant since the p-value was less than 0.05 (p-value = 0.000). Firms that have been through an incubation program seem to be more proactive than those that have not. One of the main challenges for SMMEs is access to markets and resources which business incubators provide making it easier to be proactive. The findings also confirm Crant's (2000) notion that by being part of a valuable network the business incubators proactive firms can potentially secure valuable rewards.

5.4.4 CONCLUDING REMARKS

The output from this study indicated that business incubators contribute to the critical themes tested on this research question. The key themes were innovation, Risk- Taking and Proactiveness. The researcher has as a result concluded that based on the respondents' feedback for this research business incubators increase the entrepreneurial orientation of a small firm. Incubation programmes aim to improve the degree of survival start-ups in the marketplace by addressing their challenges through different types of interventions. Masutha and Rogerson (2014) studied the role of business incubators in South Africa. Lalkaka (2001) highlighted the characteristics and performances of business.

5.5 RESEARCH QUESTION 2

Does the degree of occurrence of EO lead to growth in SMME's?

Multiple linear regression was conducted with Business growth as the dependent variable and Innovativeness, Risk-taking and Pro-activeness as the independent variables. The results are not in line with the literature that high levels of entrepreneurial orientation lead to growth (performance). Lumpkin and Dess (1996), state that higher levels of entrepreneurial orientation lead to an increase in performance. The findings,

however, confirm Zahra and Covin (1995) study that EO does not lead to improved firm performance. Presented below are the results of the two hypothesis.

5.5.1 Hypothesis 2a: Higher levels of EO in an incubated firm leads to growth

The p-value in the ANOVA tables 0.565 > 005. This implies that the null hypotheses cannot be rejected, and it is concluded that none of the Innovativeness, Risk-taking, and Pro-activeness is significant in predicting business growth. This is confirmed by p-values greater than 0.05 for each independent variable as shown in the coefficients table.

Test for Multicollinearity

The VIF values were all less than 10, Innovativeness (VIF = 1.059), Risk-taking (VIF = 1.064) and Pro-activeness (VIF = 1.005). This implies that there was no problem of Multicollinearity. There was no violation of any of the conditions required for fitting a regression model. The regression model in this case is

$$\hat{y} = 4.382 + 0.086\, x_1 + 0.070\, x_2 - 0.245\, x_3$$

Where, $\hat{y}$ is the predicted value for Business Growth performance, x_1 is Innovativeness, x_2 is Risk-taking and x_3 is Pro-activeness

The test for coefficients results shows that there is no sufficient evidence to suggest that Innovativeness (p-value =0.456), Risk-taking (p-value =0.760) and Pro-activeness (p-value = 0.276) were linearly related to Business Growth since the p-values were all greater than 0.05.

5.5.2 Hypothesis 2b: Higher levels of EO in a non-incubated firm leads to growth

The results presented in the model summary table shows that Innovativeness, Risk-taking, and Pro-activeness explained 41.6% of the variation in Business growth among the non-incubated businesses. Results shown in the ANOVA table tests the null

hypothesis that none of the independent variables Innovativeness, Risk-taking and Pro-activeness are significant in predicting business growth against the alternative hypotheses that at least one variable is significant in predicting business growth.

Test for Multicollinearity

The VIF values were all less than 10, Innovativeness (VIF = 1.623), Risk-taking (VIF = 1.820) and Pro-activeness (VIF = 1.257). This implies that there was no problem of Multicollinearity.

There was no violation of any of the conditions required for fitting a regression model. The regression model in this case is

$$\hat{y} = 1.034 + 0.110\, x_1 - 0.362\, x_2 + 0.986\, x_3$$

Where, $\hat{y}$ is the predicted value for Business Growth performance, x_1 is Innovativeness, x_2 is Risk-taking and x_3 is Pro-activeness.

Concluding remarks

It is as a result concluded that higher levels Pro-activeness in a non-incubated firm leads to growth while higher risk-taking leads to a decline and Innovativeness had no impact on business growth in non-incubated businesses.

The incubation phenomenon is therefore considered an enabling technology that capacitates the functionality of critical and possibly strategic technologies. However incubated firms do not lead to growth (Hackett & Dilts, 2004). Given that most incubated firms survive for more than two years after incubation. This might suggest that incubation firms in South Africa play more of a sustainability role than a growth role.

5.6 CONCLUSION

The chapter discussed findings from Chapter 4 which were analysed and linked with the research questions and hypotheses. The discussion of Chapter 5 was also conducted in context with the literature reviewed in Chapter 2 of this research report. Findings were also discussed and linked to the key themes associated with the two constructs for this study. The findings presented contribute to the gaps identified in the literature and highlighted in Chapter 1.

CHAPTER 6

6.1 CONCULSION

This research referenced academic literature and research methodologies relating to areas of entrepreneurship, entrepreneurial orientation, small medium and micro-sized businesses and business incubation. Literature was used to provide a theoretical basis for the study and the formulation of testable hypotheses. The central theory being entrepreneurial orientation. Other theories relating to performance, statistics, small business and incubation were used to express the researcher's viewpoint. The drafting of specific research problems and hypotheses enabled the researcher to conduct a comparison between incubated firms and non-incubated. The results of the study revealed essential findings regarding the EO and growth. This chapter presents the conclusions of the study. A presentation regarding the finding synopsis is followed by recommendations and suggestions for further research on the subject matter.

6.2 OVERVIEW OF LITERATURE REVIEW

A comprehensive review of the study allowed the researcher to use statistical tests and results discussed in the study to test the hypothesis relating to the research questions. Miller (1934), Lumpkin and Dess (1996) explained EO in the traditional and expanded form. This study focuses on one of the most interesting topics affecting South Africa today. The research is aimed at improving small business participation in the economy through the incubation and the creation of an entrepreneurial enabling environment. Small medium and micro enterprises contribute substantially to the economic development of a country. However, challenges faced by small businesses lead to high failure rates in the adolescent years of operation. Abor and Quartery, (2010) highlight the issues in SME development in Ghana and South Africa. Small firms have a high degree of entrepreneurial orientation. Venter and Urban (2015) confirm this in their academic literature. This fact brings about concern given that empirical studies regarding EO and performance indicate that higher levels of EO and its related

dimensions lead to growth. This notion indicates that SMMEs with higher EO than large corporate should be more likely to grow. However, it is evident that small businesses are more likely to fail than large corporate bodies irrespective. This study does not discuss large corporations. Wiklund and Sherpherd (2005) in their discussion of EO and small business performance confirm the positive relationship between higher EO and a firm's better performance. Business incubation as a new phenomenon is encouraged because of the better odds of survival by firms that have been through incubation. Business incubation has become one of the key areas of focus to enable growth SMMEs. Business Incubation is defined in the same breath globally with differences in functionality. Business incubation is defined by Lesakova, (2012) as the support for new businesses that require guidance and investment to get their thoughts off the ground. South Africa has a growing demand to better SMMEs and the government together with the private sector have strategically agreed to use business incubators to facilitate this process. This study aims to discover the distinction in EO for a firm that has been through business incubation and one that has not been through such a program and how the~~re~~ EO relates to their growth.

6.3 SUMMARY OF RESULTS

Two central hypothesis w~~h~~ere tested to address the two main problems of the study. Conclusion were drawn in chapter 5 from the results presented in chapter 4.

The first hypothesis revealed that innovation is the same for incubated and non-incubated firms. Risk-taking was higher for firms that have been through an incubation program. The proactiveness of an incubated firm was also higher. The results reveal that the general EO level of an incubated firm is higher than that of a non-incubated firm.

The second hypothesis split into two for ease of interpretation. H2a measured EO on growth for a firm that has been through an incubation program. H2b measured the EO on growth for a firm that has been not through an incubation program. H2a: The null hypothesis was not rejected which implies that innovativeness, risk-taking, and pro-

activeness are significant in predicting business growth for a firm that has been through an incubation program. H2b: The null hypothesis was rejected. The results show that there is sufficient evidence to suggest that risk-taking and pro-activeness were linearly related to Business Growth. Innovativeness was however not linearly related to Business growth.

6.4 ASSESSMENT OF THE PROBLEM STATEMENT

Main problem restated for convenience.

There is no universal measure for business incubators. The researcher observed how the intervention of incubation programmes influences the business growth of SMME's through entrepreneurial orientation. Findings measured how well the hypothesis answered the problem statement and research question. An increase in EO in an incubated SMME does not lead to growth. Business incubators might be playing more of an organisational stability role than a grow growth role. It might be more critical for a firm in the early stage to be stable than for it to grow. As stated by Griener (1978) growth model in stage one when a firm is experiencing positive cash flows the business could decide to curb growth which will mean that the firm stays in the survival stage.

6.5 RESEARCH IMPLICATIONS

This section provides recommendations for stakeholders like entrepreneurs, business incubation hubs, business leaders, corporations and governmental entities. The output of the study may be useful to scholars of entrepreneurship, policymakers, and business incubation practitioners, as critical insights into the findings of the study may inform future practice and programs geared towards increasing growth. As the government considers what its role should be in the implementation of small business incubation, it should bear in mind that incubators cannot grow small firms through programmes purely focused on increasing EO meaningful and alternative intervention is needed.

6.6 LIMITATIONS OF THE RESEARCH

Given that surveys conducted using social media are not common it is very difficult to conduct such a survey. Conducting a survey during the beginning of the year is also challenging. The researcher was limited to the sample size on social media platforms therefore, respondents were approached with the assumption that they represented a fair amount of SMMEs in South Africa. The research did not differentiate respondents based on the type of support received from Business Incubators.

6.7 RECOMMENDATIONS FOR FUTURE RESEARCH

In light of the limitations to the study future research can expand on the EO dimension by including Lumkin, and Dess (1996) extended ~~the~~ model. The same study could also be conducted for a specific industry which government is driving or looking at developing further. The model could also be expanded by solely focusing on the effect incubation firms have on SMME's as a strategy moderator. Finally studying incubations through the various business incubators would be fruitful. Business incubation solutions should evolve to achieve business growth. Although it might be necessary for a developing economy to sustain businesses, in the long term growth becomes more critical. Because it is through growth that GDP is affected. Generally companies that look for sustainability are taken out by their more innovative counterparts.

Further studies could look to determine economic development outputs of small business incubators as it is becoming increasingly crucial for incubation programs to attract and provide support to small businesses that exhibit the greatest growth potential. Policy makers and government should consider channelling more incubation hubs towards sectors that have high returns or growth potential where innovation is involved. These industries include high tech firms and service industries.

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APPENDIX A

Research Instrument

The Graduate School of Business Administration

2 St David's Place, Parktown,
Johannesburg, 2193,
South Africa
PO Box 98, WITS, 2050
Website: www.wbs.ac.za

MM RESEARCH QUESTIONNAIRE

Greetings Sir/Madam

I am a Master of Management (MM) student at the Wits Business School (WBS), specializing in Entrepreneurship and New Venture Creation. I am currently conducting research that will be reported in a dissertation in attainment of this degree.

This is a voluntary survey and participants may withdraw at any stage of the process. The survey takes approximately 15 minutes to complete, and it would be highly appreciated if you participate. This survey is anonymous, and confidentiality and ethics will be maintained in strict accordance to the WBS Code of Ethics. Collected data will be used for data analysis purposes only, with results reported as statistical averages.

If you would like to receive a summary of the results, please send me an email on 319257@students@wits.ac.za Queries, additional comments and recommendations can be forwarded as well.

Thank you

Regards

APPENDIX B

Comparative study of EO in incubated and non-incubated SMME's in South Africa

Who I am

Hello, I am Lerato Marokoane. I am conducting research for the purpose of completing my MM at Wits Business School.

What I am doing

I am conducting research on the Entrepreneurial Orientation on SMME business growth: A. I am conducting a comparative study between SMME's in incubation and SMME's not in an incubation program to measure the impact incubation has on business growth performance.

Please understand that your participation is voluntary and you are not being forced to take part in this study. The choice of whether to participate or not, is yours alone. If you choose not take part, you will not be affected in any way whatsoever. If you agree to participate, you may stop participating in the research at any time and tell me that you don't want to go continue. If you do this there will also be no penalties and you will NOT be prejudiced in ANY way.

Confidentiality

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including my academic supervisor/s. (All of these people are required to keep your identity confidential.) All study records will be destroyed after the completion and marking of my thesis. I will refer to you by a code number or pseudonym (another name) in the thesis and any further publication. Risks/discomforts at the present time, I do not see any risks in your participation. The

risks associated with participation in this study are no greater than those encountered in daily life.

Agree

I do not Agree

Q1 Indicate your gender ?

- Male (1)
- Female (2)

Q2 Are you doing business in South Africa ?

- Yes (1)
- No (2)

Q3 Where you born in South Africa ?

- Yes (1)
- No (2)

Q4 Indicate your age group.

- ○ 18 - 29 (1)
- ○ 30 - 39 (2)
- ○ 40 - 49 (3)
- ○ 50 -59 (4)
- ○ 60 Above (5)

Q5 Indicate your race group classification.

- ○ Black (1)
- ○ White (2)
- ○ Coloured (3)
- ○ Indian (4)
- ○ Other (5)

Q6 Indicate your highest academic qualification.

- ○ Lower than matric (1)
- ○ Matric (2)
- ○ Diploma (Technical College) (3)
- ○ University degree (4)
- ○ Post graduate degree (5)

Q7 How many permanent employees are employed by the business?

- ○ 1-4 (1)
- ○ 5-10 (2)
- ○ 11-25 (3)
- ○ 26-50 (4)
- ○ 51-100 (5)
- ○ 101-200 (6)
- ○ 200+ (7)

Q8 In which industry does the business operate?

- ○ Automotive (1)
- ○ Agriculture (2)
- ○ Construction (3)
- ○ Food (4)
- ○ Real estate (5)
- ○ Retail (6)
- ○ Textiles (7)
- ○ Manufacturing (8)
- ○ Services (9)
- ○ Other (10)

Q9 What is the age of the business (years)?

- 1 -3 (1)
- 4-5 (2)
- 6-10 (3)
- 10 + (4)

Q10 What is the legal status of the business?

- Proprietorship (1)
- Partnership (2)
- Company (private) PTY Ltd (3)
- Company (public) (4)
- Close Corporation (5)
- Co-operative (6)
- Business Trust (7)
- Franchise (8)

Q11Have you been part of an incubation program ?

- ○ Yes (1)
- ○ No (2)

Q12 If yes how long ?

- ○ Less than 6 months (1)
- ○ 6 months - 1 year (2)
- ○ more than 1 year (3)

Q13 Our business regularly introduces new services/products/processes.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q14 Our business places a strong emphasis on new and innovative products/services.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q15 Changes in our processes, services and product lines have been quite dramatic in the past

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q16 In general, our business has a strong inclination towards high-risk projects.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q17 Owing to the environment, our business believes that bold, wide-ranging acts are necessary to achieve the business‟ objectives.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q18 Employees are often encouraged to take calculated risks concerning new ideas.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q19 Our business is very often the first to introduce new products/services.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q20 Our business typically initiates actions that competitors respond to.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q21 Our business continuously monitors market trends and identifies future needs of customers.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q22 Our business has experienced growth in turnover over the past few years.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Q23 Our business has experienced growth in Gross profit over the past few years.

- ○ Strongly agree (1)
- ○ Somewhat agree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat disagree (4)
- ○ Strongly disagree (5)

Thank you for taking the survey

Take care

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