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2015

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The efficacy of SMME incubation as a strategy for enterprise development in South Africa

Tshepo Ntlamelle

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

Johannesburg, 2015

ABSTRACT

Since the promulgation of the enterprise development pillar of broad-based black economic empowerment, small business incubation has gained in prominence and popularity as a strategy to achieve the policy's objectives. In the midst of continued popularity and investment in incubation programmes by both private and public organisations, the opportunity was taken to reflect on the efficacy with which incubation was adopted as a broad-based black economic empowerment strategy. A quantitative study was conducted, gauging the perceptions of incubated firms in South Africa, and assessing the efficacy of incubation across three important aspects, namely the efficacy of private incubation programmes as opposed to public incubation programmes and the perceived value add of incubation support services to black-owned businesses and female-owned businesses. The study revealed that an effective administration of incubation programmes is not dependent on whether an incubation programme is privately or publicly administered. The impact of incubation, framed within the broad-based black economic empowerment framework, for non-black owned businesses was examined. The findings echo the exclusionary effects of race-based affirmative action programmes, such as many of South Africa's incubation programmes, on white-owned businesses. Lastly the perceived value add of business incubation support services for female-owned businesses was compared with male-owned businesses, and found that both groups derive similar value from incubation programmes. Assessing these three facets of incubation, the implications and insights for policy makers and practitioners of business incubation was provided as they seek to adopt business incubation as a strategy to achieve broad-based black economic empowerment.

DECLARATION

I, Tshepo Ntlamelle, 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.

Tshepo Ntlamelle

Signed at ……

On the …… day of …… 2015

DEDICATION

This thesis is dedicated to my family, for their endless love, support and belief in me, I love you. Special dedication to my sisters, Khanyisile and Nokukhanya, our inspiring conversations have fuelled me to challenge myself continuously, I truly hope you will always give your best in all that you do and remain humble through the many achievements that await you. Deepest gratitude to my mother, Katleho, I am eternally indebted to the countless sacrifices and lessons shared, may your wisdom and beautiful soul continue to shine on, for your kids to see and follow. To my father, Sipho, I am humbled everyday by your values of hard work and humility, may they continue to define your influence on your kids, and the blessings that wait ahead.

To, my friends, may we continue to inspire one another and hold each other accountable to our dreams. I am blessed to have each of you as friends; unfortunately, I cannot mention you all.

ACKNOWLEDGEMENTS

Special acknowledgement goes to the Wits Business School faculty, the lecturers and support staff. Special mention goes to my supervisor Dr Rob Venter, with me you have set alight a passion for enterprise development that will shine on for many to experience and benefit from.

To my class mates, thank your for both the good and difficult times, many lessons were learnt throughout, all of which have been valuable. Acknowledgements to my previous employers at Khanya (African Institute of Community Driven Development), for allowing me to pursue my studies. Acknowledgement to my current employers at Edge Growth, for providing me an opportunity to practice enterprise development and impact entrepreneurs in South Africa.

A special thanks to Charmaine Smith of uMamaWothando Trust, for providing me with the support and funding to complete my studies.

Acknowledgements to the friends and classmates who spent late nights and early mornings with me at Wits Business School.

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CHAPTER 1: INTRODUCTION

Throughout the developing world, small business incubation has increasingly been considered as an innovative instrument for developing and growing businesses. The concept of nurturing small and early-stage businesses at either managed workspaces, or virtually, is widely accepted but less understood around the world (Ndabeni, 2008). In South Africa, business incubation is a nascent and fast-evolving phenomenon, which has attracted significant attention especially during the post-1994 democratic dispensation as a central aspect of economic policy. This increased attention to incubation has been spurred on by the promulgation of the economic transformation policy of Broad-based Black Economic Empowerment (B-BBEE). For scholars of entrepreneurship, the increased prominence of incubation programmes signals two facts, first the reality that efforts are being made towards creating an appropriate and suitable environment for entrepreneurs, and second the role it can play in effecting the black economic empowerment agenda has been realised. In this study the need to measure the efficacy with which small business incubation initiatives help in achieving the broader economic agenda of B-BBEE, and the objectives that underpin it, especially race- and gender-based transformation was recognised.

Across the world, the efficacy with which business incubation offers services to small businesses is yet to be understood or comprehensively measured as the discourse lacks comprehensive study and frameworks to measure its efficacy (Dee, Livesey, Gill & Minshall, 2012). This study explored the notion of small business incubation as a vehicle for enterprise development with the broader objective of achieving economic transformation (gender and race) and development. The study examined small business incubation services and measured the efficacy with which they were delivered while attempting to understand their emergence as a popular strategy in effecting B-BBEE and its enterprise development pillar.

This study sought to deepen the understanding of small business incubation and understand the value received by incubated small businesses from incubation

initiatives within the B-BBEE framework. A study of business incubation programmes, across a range of services that are provided to small businesses, was conducted. The study also sought to gauge the perceived value-add that small business and entrepreneurs gain from incubation programs, within the B-BBEE framework, which informs the majority of the incubators in South Africa.

1.1 The emergence of incubation as a vehicle for B-BBEE

This study drew its theoretical roots from theories concerned with the market failure that faces many small businesses around the world. Market failure theory is interested in understanding the challenges that are faced by small businesses, especially within emerging and developing economies (Patton, Marlowe & Hannon, 2000). These challenges are seen to contribute to the countless early and premature failure of small enterprises apparent in the significantly high mortality rate of small businesses. The survival rate of small businesses is relatively low, not only in South Africa, but all around the world. This is despite the small, medium and micro enterprise (SMME) sector being widely regarded as the driving force for economic growth and job creation. It is estimated that the failure rate of SMMEs in South Africa is between 70 and 80 percent. (Brink & Cant, 2003). According to Hackett and Dilts (2004), market failure occurs when the environment for business venturing fails to produce the outcomes for successful business venturing. According to Brink and Cant (2003), unsuccessful business venturing occurs regardless of whether entrepreneurs have good ideas and are competent, hinting at the centrality of the environment in the determination of small business performance.

Critical factors for unsuccessful entrepreneurial venturing may be often attributed to avoidable mistakes and problems faced by entrepreneurs and the businesses they manage (Brink & Cant, 2003). The ability of research to understand the problems and challenges faced by these small businesses should assist incubation and broader enterprise development initiatives in equipping entrepreneurs with the necessary skills and support to survive. Challenges plaguing small business are vast. At the theoretical level, studies have identified

challenges such as a lack of appropriate financing, low productivity levels, a lack of productivity, insufficient managerial capabilities, a lack of access to technologies, and stringent regulatory requirements, to name a few (Rogerson, 2004). This study sought to understand the efficacy of incubation, in addition to understanding the challenges facing SMME's in South Africa.

Incubators are one such platform, assisting the entrepreneurial venture to defy the market failure possibility that threatens many small businesses in South African. Key areas of support necessary to ensure small business in South Africa do not fall victim of the market failure possibility are identified. These include: "access to advice; favourable amendments to legislative and regulatory conditions, access to marketing and procurement, access to finance, access to infrastructure and premises, access to training, access to appropriate technology and encouragement of inter-firm linkages" (Visagie, 1997, p. 661).

In this study, incubation was understood as a process geared towards reducing the transaction costs of small businesses, increasing the confidence and capacity of the entrepreneur, while linking the incubated enterprise to resources and networks required for successful business venturing (Peters Rice & Sundararajan, 2004). In this study, incubation was informed by theoretical underpinnings that help explain how businesses negotiate their survival in the market. Therefore, the study sought to establish the efficacy with which incubation programmes were perceived to address these challenges facing SMMEs. Theories that helped to set a framework for this study included, network, resource, capabilities-based, and economic development theories of entrepreneurship. An appreciation of small business incubation needs to be grounded on these theories, to capture the value of incubators holistically and the ability of the incubation interactions to provide value to the incubated small business.

1.1.1 The social capital perspective

The premise is that when the small business enters the incubation programme, it leverages the networks provided by the incubating organisation, which may

include broader industry linkages or linkages with other incubated firms (Hackett & Dilts, 2004). Central to the entrepreneurial process, is the need to establish networks that are capable of facilitating access to information and other related capitals crucial to the survival of the small firm (Fornoni, Arribas, & Vila, 2012). The utility of any network or relation is often context-dependent, with the need to leverage from an extensive yet appropriate network regarded as highly valuable for small business. Central to the network theory of understanding incubators, is the notion of social capital. Defined as “the goodwill or benefit available to actors within a social network” (Scillitoe & Chakrabarti, 2010, p. 159), social capital is an important construct in studying business incubation. Despite there being limited research on the social capital contributions of business incubation, the ability of the incubator to positively contribute to the social capital of the small business can be identified as an invaluable intangible for the incubated firm.

This section adopts Fadahunsi, Smallbone and Supri’s (2000), understanding of networks, which focuses on “the exploitation of both formal and informal relationships for the business development purposes” (p. 1). This identifies informal and formal networks as important assets for small businesses as they offer potential material benefits to help overcome structural challenges facing small business, and mitigate the challenges of limited internal resource constraints.

Scillitoe and Chakrabarti (2010) suggest that organisational facilitation through paternalistic interactions with incubator management serve as an important source of benefit for the affiliated small business (Scilitoe & Chakrabarti, 2010). With assertions that organisational affiliation is important to the mediation of external relationships for the small business, this study drew on the networked theory of the incubator and assessed the ability of the incubator to add value to the small business.

The starting point, for students of entrepreneurship, when looking at networks is the relation between a given entrepreneur and another individual or collection of individuals or institutions. Incubators serve as a primary contact point and facilitator of social capital for incubated small businesses as they mediate and

offer their network of contacts to small businesses. This study acknowledged that the importance of incubators was not solely in their service and space providing roles, but sought to explore the importance of “social capital avenues that can be exploited within an incubator through networking opportunities, getting contacts, advice and support by other incubatees and role models associated with the incubator” (Adlesic, 2012, p. 202).

Of interest in this study was the effectiveness of the networks, as measured by the meanings attached by the incubated small business managers and owners. The use of networks is broadly measured by the usefulness of accessed networks through the incubator, in giving operational advantages to the incubated small businesses over their counterparts who do not have access to the business incubation service. Given that small business, notably black-owned business, inherently face discrimination and structural challenges, “not only in accessing formal institutional sources of start-up finance and advice, but also in reaching customers and receiving credit from suppliers“ (Mitchell, 2003, p. 51). The study sought to understand, the efficacy of SMME incubation programmes in fulfilling the social capital needs of small businesses.

1.1.2 The resource-based approach

The resource-based view of an organisation is useful in investigating the utility and nature of deployed resources. Penrose (1959) argues that organisations are collections of unique resources and capabilities, which span financial, physical, human, commercial, technological and organisational resources. Resources provided by an incubation programme include facilities, business advice, and service and incubator management. An understanding of the resource-based view provides a basis for conceptualising the development of the entrepreneurial frim within the incubation programme, as the incubator seeks to add to the resources available to the small business without the incubatee incurring significant additional costs.

The ability of the incubator to provide the appropriate and required resources enabling the incubated firm to commence trading, is a key component of which

incubator efficacy is determined. According to McAdam and McAdam (2008) “effective incubator management can ensure that the firms have access to resources of business advice including specialist programmes and seminars” (2008, p. 278). This suggests that resources are broad, and the ability of the incubator to facilitate and directly provide access to resources, largely determines the efficacy of the business incubator. Closely linked to the resources and resourcefulness provided by the incubation program, is the notion of capability building. This study understood the growth of small businesses because of organisational capabilities, among other factors (Knight & Cavusgil, 2004). The premise of the study was, small businesses that survive and achieve remarkable growth invest and nurture key capabilities critical to business performance.

This study defined a capability as anything a small business is able to do well, often comprised of capabilities of the team, and has the potential to lead to meaningful business development (Knight & Cavusgil, 2004). An organisations’ capability was understood as its ability to manage resources and gain advantage over competitors (Ulrich & Lake, 1991).

Capabilities are a strategic priority for small businesses, as businesses that are growing are able to gain competitive advantage by building capabilities. Strategically, the development of capabilities is critical in that small businesses are able to gain advantage in competitive markets and ensure their continued growth. Business incubation programmes seek to enhance the capabilities of the entrepreneur in order to improve the chances of continued and sustainable growth.

1.1.3 Theoretical perspectives

The theoretical perspectives with which this study was understood were mutually dependant and inextricably linked. The identified range of theoretical underpinnings helps the study of incubation and navigates the complexity with which new ventures either grow or seek to ensure their survival within the market place. This study conceptualised the incubation process based on these

theoretical perspectives and acknowledged the incubators role as one in which the incubating organisation transfers knowledge and facilitates access to resources for the growth and sustainability of the incubated firm.

The interaction between incubator and incubated firm is one that sees the incubatees embark on a growth path facilitated by the services provided through the incubation process. Theories concerned with market failure formed a basis for this study and outlined a model of business incubation service provision, within which a set of defining incubation services were identified and studied. These defining business incubation services were used to measure the efficacy with which incubation services were provided to the incubated firms. The role of theory in this study helped to unpack the rationale behind small business incubation and informed the formulation of testable hypotheses, for answering the main research problem.

1.2 Incubation as a response to South Africa's economy

Economies around the world are faced with the challenge of driving an entrepreneurship and innovation agenda, thus a range of interventions have been adapted and implemented. Broadly, these interventions have at their heart the creation of conditions that support entrepreneurship and that the socio-economic wealth of entrepreneurial efforts are realised through the economy (Khalil & Olafsen, 2010). Within South Africa, this challenge is encompassed within the B-BBEE framework, which calls for an economic development agenda driven by economic transformation.

Enterprise development has emerged as a popular vehicle for realising sustainable economic growth and development, more so within developing economies (Scillitoe & Chakrabati, 2010; Tamasy, 2007; Sehitoglu & Ozdemir, 2013). Despite this acknowledgement, in South Africa there has been limited, initiatives by both private and public organisations, aimed at mainstreaming the participation and role of SMMEs within the economy. Such initiatives include the Department of Trade and Industry's (DTI) Incubation Support Programme (ISP)

that is aimed at “developing incubators by providing them with the potential to revitalise entrepreneurship, while strengthening local and national economies” (DTI, 2012, p. 12). The ISP has been put in place to encourage partnerships where big business and government assist SMMEs to become more efficient and sustainable thus enabling economic development at local, regional to national levels (DTI, 2012). The ISP’s objectives signal the recognition that private and public partnerships are strategic in attempts to effect economic development as articulated in B-BBEE, more specifically the enterprise development imperatives of BEE.

It has been argued that the most compelling reason for the implementation of B-BBEE is the promotion of economic growth, as it is understood as a policy aimed at mainstreaming black people’s participation in the economy (Jack & Harris, 2007; Ayra & Bassi 2011; 2013). Defined by the DTI as “an integrated and coherent socio-economic process that directly contributes to the economic transformation of South Africa” (DTI, 2012, p. 15), B-BBEE remains central to South Africa’s economic policy and the determination of the distribution of resources for economic activity (Ayra & Bassi, 2011). The policy articulates codes of good practice, within which are specifications for contributions to various aspects of economic empowerment that include employment equity, skills development, ownership, preferential procurement, enterprise development and social investments directed towards historically disadvantaged communities (Jack & Harris, 2007; DTI, 2012). Of relevance to this study, was the enterprise code of the B-BBEE policy, which effectively spurred on increased attention to initiatives such as small business incubation and the transformational objectives, i.e. race- and gender-based transformation.

Incubation has become particularly interesting for policy makers as it is seen as an effective tool to initiate or revive innovativeness in regions (Dee, 2012). Across the literature, there have been assertions that incubation initiatives are designed to accelerate the development of new technology-based and high growth start-up firms (Mian, 1997). According to the 2013 GEM report (Turton & Herrington, 2013), the pool of potential entrepreneurs in South Africa is 19

percent, the total early stage entrepreneurial activity is 10.6 and the established business rate at 2.9 percent is well below the weighted average of 16 percent for Sub Saharan Africa. The South African government has sought to correct this and in addressing this challenge, there has often been talk of the need to improve the environment, creating an enabling environment for small businesses to develop and thrive. This talk signals the importance and need for an effective incubation industry and practice to help promote entrepreneurial activity and success. Entrepreneurial activity in South Africa ranks below its counterparts, and efforts towards increasing and improving the entrepreneurial landscape would require effective support services (Turton & Herrington, 2012). These efforts are at the core of most incubation programmes, informing the rationale behind the establishment of many of these programmes, across South Africa.

The premise of this study acknowledged that research on business incubation lacked a complete framework for evaluation that allowed for benchmarking and comprehensive assessment (Dee et al., 2012). Often in the process of evaluation, a disregard for broad-based evaluators often include the effect of the incubation services on performance of the business owner and the empowerment of incubated firms (Meru & Struwig, 2011; Mian, 1997; Hackett & Dilts, 2004). This study did not propose exhaustiveness in assessing incubation, but rather studied the perceptions that incubated firms had of the services provided during the incubation process. These perceptions comprised an important facet of a comprehensive evaluative framework, which went towards measuring the efficacy of incubation.

The verdict on the efficacy of incubation in South Africa is still out, along with the challenge of establishing an integrated evaluative framework, one that is cognisant of the dynamic potential of incubation. This study aimed to provide a meaningful contribution to an appropriate and comprehensive evaluative framework for SMME incubation in South Africa and possibly other transitioning economies. The assessment of incubation was based on its ability to contribute to the B-BBEE agendas of transformation. Emphasis was placed on understanding the perceptions incubated firms have of the incubation

programmes they are affiliated to and the ability of the incubator to add value to the small business. (Mian, 1997; Peters, et al., 2004).

1.3 Problem statement

Understanding the efficacy with which incubation contributes to the development of small businesses and subsequent economic development is of critical importance to practice and research on entrepreneurship, within developing economies. Research on the influence of interactions with incubation on the development of the SMME is unclear, and in this study, a step was taken towards providing further understanding of the value presented to small businesses through interactions with the incubating organisation (Scillitoe & Chakrabarti, 2010).

1.3.1 Main problem

To understand how effective small business incubation as a strategy for enterprise development in South Africa is.

1.3.2 Sub-problems

[1] The first sub-problem was concerned with understanding the emergence of incubation as a B-BBEE strategy; and
[2] The second sub-problem, sought to understand the perceived value that small businesses derive from business incubation services.

1.4 Research purpose and the aims of the study

This study set out to assess the efficacy of small business incubation as a strategy for a South African enterprise development. The last decade and more have seen the incubation of small businesses gain in prominence, primarily due to the belief that incubators are able to nurture new firms and mainstream their successful participation in the economy (DTI, 2012). As a result, a number of

incubation programmes have emerged across South Africa, with the aim of facilitating economic gains, which include but are not limited to, the creation of jobs, increased technological innovations and greater returns for the individual businesses, to name a few.

With the promulgation of B-BBEE, greater involvement by both private and public entities can be expected as stipulations to engage in enterprise development encourage more private organisations to participate in small business development. A decade after the introduction of B-BBEE, along with a revision of the codes of good practice in the interim, enterprise and supplier development aspects of B-BBEE have increasingly emerged at the fore of the economic agenda in South Africa. With the likelihood of increased investment in the incubation of small businesses, the study was premised on the belief that an opportunity has presented itself for practitioners and researchers to reflect upon the efficacy with which the incubation of small businesses has been practiced and implemented.

As this research sought a means to capture the dimensionality of incubation programmes, the measuring of the efficacy of incubation as a strategy for achieving a South African enterprise development, one underpinned by the rationale and objectives of B-BBEE was understood. The approach articulated SMME incubation as a tool geared towards enhancing entrepreneurship as a vehicle for economic development. This framework measured the role of business incubation programmes according to their ability to enhance both business development and economic development. Hackett and Dilts (2004), conceptualise business incubation objectives as either being primary or secondary. SMME incubation programmes considered for this study held, as their primary objectives, the creation of new jobs and the creation of a positive statement for entrepreneurial potential (Hackett & Dilts, 2004).

1.5 Conceptual/theoretical definition of terms

- *B-BBEE:* An integrated and coherent socio-economic process that directly contributes to the economic transformation of South Africa. The objective is to bring about significant increases in the number of black people that manage, own, and control the country's economy. The second objectives aims to bring about significant increases in the number of black people that manage, own and control the country's economy (Arya & Bassi, 2011).
- *Incubator:* "A nurturing environment for start-ups that provide business support programmes and networking, including physical infrastructure (in some cases) that enables businesses to develop within a controlled environment" (Meru & Struwig, 2011, p. 113).
- *Incubatees:* The tenant-companies, clients or firms, provided with strategic, value adding intervention system of monitoring and business assistance (Hackett & Dilts, 2004).
- *Incubation:* The process within which a range of business development processes are provided to support the growth and development of SMMEs.
- *Small, Medium and Micro Enterprises (SMME):* The terms SME and SMME are used interchangeably in South Africa, as it is defined according to number of employees per enterprise size category combined with annual turnover categories, the gross assets excluding fixed property, as defined by the South African government (NCR, 2011, p. 23). In this paper SMMEs ae crudely defined as those enterprises with a turnover of R35 million and below.

1.6 Contribution of the study

The study contributed to the development of an appropriate assessment framework for business incubation in South Africa and other transitioning economies.

The study drew on the perceptions of incubated SMMEs, to assess the influence of the incubation process on the SMMEs developmental experience. This study identified and understood the principal factors that determined effective small business incubation, thus allowing practitioners of incubation to effectively and efficiently provide services to incubated firms and structure their incubation programmes appropriately.

The significance of the study rested in its timing, as a comprehensive assessment of the value add of incubation is lacking in South Africa. The enterprise and supplier development codes of good practice become increasingly popular, and the opportunity to reflect on the efficacy with which these services are provided, presented itself. The revised B-BBEE codes were anticipated to grow enterprise development practice in South Africa, the significance of the study was in its ability to give practitioners of small business incubation an opportunity to reflect on the efficacy of incubation as a tool for implementing B-BBEE.

1.7 Chapter outline

Subsequent to introducing the study in Chapter 1, a comprehensive literature review was conducted in the 2nd Chapter by the researcher, which explored existing studies and literature on the subject matter and related topics. In the literature review, the context for the main research problem and sub-problems is provided, which in turn informs the hypotheses generated.

The research methodology is outlined in the 3rd Chapter together with the details of the adopted research design, the population and sample studied, the research instruments utilised and the subsequent data collection procedures and analysis.

The results of the study are presented in Chapter 4 with the discussion of the results detailed in the 5th Chapter. A conclusion to the study together with the implications of the findings and recommendations follow in Chapter 6.

1.8 Conclusion

In assessing the efficacy of SMME incubation, this study followed a structured approach. First, an introduction of the study's purpose, objectives and research problems, together with the main constructs and concepts utilised throughout the study. Subsequent to setting the context for the study, important literature was drawn on to formulate the hypotheses. A review of the literature concerned with small business incubation and understating the ability of the rationale behind the utilisation of incubation as a tool for the achievement of B-BBEE objectives was the focus. The research methodology section, detailing the research approach and statistical methods utilised in the study is outlined, prior to the execution of the statistical tests. Lastly, the researcher was able to analyse the results and make conclusions and recommendations on the efficacy of incubation.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

B-BBEE remains an important and strategic objective within South Africa's economic policy and seeks to drive economic development through entrepreneurship. Small business incubation programmes emerge as a popular strategy and tool for achieving these objectives. The researcher assesses the efficacy with which small business incubation has been adopted as a strategy for enterprise development in South Africa. The efficacy of business incubators is determined by the perceived value-add of business incubation services to incubated businesses.

With the advent of B-BBEE, 'big-business' has increasingly been compelled to invest in the growing of black-owned and female-owned small businesses. This policy presents one such strategic opportunity where both public and private funds are availed to qualifying small businesses.

Significantly, both private and public resources have been committed towards the achievement of enterprise development, with larger contributions still anticipated going forward. However, this study evaluated the extent to which the ongoing support of small businesses through incubation programmes was justified.

It is of critical importance that the study acknowledges the echoes across literature, that there remains a need for a standard and universal performance measurement system of business incubation programmes, one that is appropriate, relevant and comprehensive (Hamdani, 2006; Chirgui, 2012). Insufficient business incubation assessments are nascent, with literature on the subject in developing economies lacking in depth and volume (Hackett & Dilts, 2004; Vanderstraeten, Matthyssens & Witteloostuijn, 2012). The need for assessment systems and frameworks within business incubation research fuelled this study as it aimed to contribute towards the development of an

academically rooted and contextual incubation performance assessment system (Vanderstraeten et al., 2012).

To achieve this, business incubation assessments should first concern themselves with the dynamic range of services provided to incubated firms, together with an appreciation of the objective informing incubation programmes in order to establish a 'universal' set of variable services to measure incubators by. By understanding both the economic development imperatives together with the interaction with incubatees, research on small business incubation has taken a step towards comprehensive and thorough assessment.

Articles focused on incubator performance, impact, assessment, and effectiveness were reviewed, to get to an evaluation of business incubation that is appropriate, consistent and reflective of the dynamic potentials of incubation practice. Attempts in the past have focused solely on tenant satisfaction or on economic outputs of incubation programmes, and more frequently studies have focused on assessing indicators of incubation (Dee et al., 2011).

Approaches to studying incubation need to move towards applying performance measures that consider the economic indicators of incubation performance and the value proposition for the enterprise development of the incubated SMME (Dee et al. , 2011). These two levels of assessing business incubation provided a useful stepping-stone towards a comprehensive assessment framework for SMME incubation programmes. The study deemed these two levels of analysis as being necessary but not sufficient in establishing an assessment framework for the efficacy of business incubation.

Across the literature, there was an emphasis on the criteria for measuring business incubation performance. These studies investigated the economic development imperatives of incubator occupancy, jobs created, graduate SMMEs, tenant revenues, number of patent applications per firm and number of failed SMMEs (Allen & McCluskey 1990; Mian, 1996; M'Chirgui, 2012; OECD, 1997; Phillips, 2002). Other studies examined the interaction between incubator and incubatee, during or post the incubation programme.

Of importance to this study, was the framing of business incubation within the B-BBEE and an understanding of the ability of incubation to affect the objectives espoused by B-BBEE, especially the transformational objectives of race and gender.

In this chapter, the literature that helped inform the direction taken by the researcher, the formulated hypothesis, and the methodology adopted to answer the main research problem, is outlined. A contextualisation of incubation programmes, as a response to B-BBEE objectives, was the starting point. A definition of the topic frames the emergence of business incubation support services as a response to the needs of small businesses in South Africa, and the emergence of the typologies of incubation programmes is provided to understand the rationale informing these programmes.

2.2 South African incubation programmes

In South Africa, the proliferation of business incubators continues, with their establishment increasingly gaining popularity across business sectors and geographies. This surge has resulted in the emergence of a diverse typology of incubation programmes and models available to small business owners and managers seeking leveraged support and input in growing their businesses. Within the South African context, the rise in incubation programmes may be significantly attributed to the promulgation of B-BBEE legislation especially the enterprise and supplier development code of the legislation.

In the South African setting, business incubators are relatively hybrid institutions, which in the most part comprise resources, as well as supporting market and business development services (Chandra & Silva, 2012), most of which are underpinned by the broad objective of transforming the economy as per the B-BBEE objectives.

Historically around the world, business incubators have increasingly been viewed as popular tools for addressing market failure with the accompanying objectives of addressing broader political and economic objectives of transformation in a

transitioning economy (Hackett & Dilts, 2004). In this study, an assessment was conducted of the efficacy with which small business incubation has been able to be a tool for addressing market failure for small businesses through the provision of value-adding business support services. The study aimed assess the efficacy of incubators in effecting the objectives of South Africa's political economy, specifically providing value-added support services to previously disadvantaged economic groups including black-owned and female-owned small businesses.

Incubation support services, which comprise infrastructure, business support and mediation support services, utilise these established categories to assess the ability with which incubation programmes have been able to add value to small businesses and respond to the objectives of B-BBEE (Grigorian, Rathino & Harms, 2012).

Appropriate evaluative systems for SMME incubation should seek to pronounce the widest value to the incubatees and the economy, simultaneously establishing the success factors that lead to effective incubation.

2.3 Business incubation support services in South Africa

Since the origin of business incubators in the 1950s in the United States, there has been a proliferation of practice across the world accompanied by countless adaptations (Al-Mubaraki & Busler, 2012). This proliferation comes with definitional challenges of what business incubation is and what it entails. These differences in business incubation interventions present themselves by the uniqueness of the mandate, the type of sponsorship they have and their focus (e.g. technology- or bio-focused incubation processes) (Chandra, 2007). Any research on the phenomenon should tighten its definition in order to obviate ambiguity in the study (Hackett & Dilts, 2004). In spite of the definitional challenge faced by scholars, incubators are characterised by some general features, which are captured in the following points:

- The provision of a managed workspace providing shared facilities, advisory, training and financial services as a nurturing environment for tenant small companies is created;
- A small management and support team with core competencies; and
- The selection of start-up young enterprises to enter the incubation programme with the aim of graduating (Scaramuzzi, 2002, p. 4).

Much as the case in other parts of the world, South African incubators are typically uncoordinated and individualised initiatives of either public or private entities, with independent mandates and objectives (Hackett and Dilts, 2004). In operationalising business incubators, understanding of what it is they do was sought. In this, our understanding is operationalised by outlining the various services and functionalities provided by the business incubator. For the purposes of this research an adoption of the categorisation of business incubation services into three sets of services, similar to the approach taken in two previous studies (Grigorian et al., 2012; Bergek & Norrman, 2008) was adopted. Bergek and Norrman (2008) categorise the services provided by business incubation programmes along five groups of services. These services include selection, infrastructure, business support services, mediations and graduation. Grigorian et al. (2004) select business incubation services across three important and relevant dimensions, which include the provision of infrastructure, business support and mediation services. For the purpose of this study, business incubation services falling within the three categories were studied to assess the efficacy with which business incubation services are offered to small businesses. These were the provision of infrastructure support, the provision of business support and the provision of a range of mediation services. The notion of incubation was examined and the efficacy with which these business incubation services are afforded to small businesses in South Africa was measured.

2.4 A typology of business incubation

Incubation may be defined as “a range of business development processes that are employed to support the growth of small, new start-up and young business

ventures" (Voisey, Gornall, Jones & Thomas, 2006, p. 455). As Scillitoe and Chakrabarti (2010) note, the term incubator has become an umbrella concept utilised to describe a heterogeneous group of institutions and practices. The phenomenon should be understood as an enterprise development vehicle aimed at improving the performance of an SMME while enhancing the SMME's ability to actively participate and contribute to the economy. Definitions are often broad and give rise to ambiguity and recognition of related yet distinctly different institutions. There are defining services associated with an incubator; within this study categories of services were required in order for an organisation to be defined as an incubator however, they are not necessary for an organisation to be defined an incubator, outside of the study.

An understanding of incubation acknowledges the dynamic nature in which young firms are nurtured to ensure their survival and growth, especially during periods of uncertainty, which usually is at the start-up phase. Therefore, incubation programmes emerge, as a process and place driven by the hope of addressing the market failure challenge facing small businesses. (Cornelius & Bharbra-Remedios, 2003). Grimaldi and Grandi (2005) make note of the fact that incubating organisations is part of a wide range of initiatives aimed at stimulating and supporting entrepreneurship and enterprise development.

Effectively incubation programmes seek to stimulate enterprise development through the reduction of their tenant's transaction costs as resource and information costs are lowered, because of the business incubation services provided through interactions with SMME's (Peters et al., 2004). In essence, incubation programmes seek to reduce the tenant business's transaction costs through the provision of knowledge, resources and networks (Hackett & Dilts, 2004).

Based on their comprehensive review of the literature, this research identified with Hackett and Dilts' (2004) conceptualisation of the 'incubator-incubation' notion and define it as a "facility that seeks to provide its incubatees (portfolio-, client- or tenant-companies) with the strategic, value-adding intervention system (business incubation) of monitoring and business assistance" (Hackett & Dilts,

2004, p. 57). This study sought to understand how the incubation facility provides strategic value to small businesses through the provision of a range of incubation services.

The practice of business incubation varies from one incubation programme to the next, which adds to the definitional challenges of the concept (Hackett & Dilts, 2004). Challenges in defining business incubation, stem from literature and practice as it has been defined as either a process or a place, and sometimes as both. In this study, incubation programmes that provided services as a process and/or a place were considered. Therefore, included in the study was bricks and mortar, as well as virtual programmes geared towards ensuring the sustenance of small businesses. This research did not apply to related and associated terms such as 'research parks' and co-creation spaces, which are both often confused with the notion of business incubation.

2.5 Performance measures of business incubators

There is no clear consensus as to what constitutes an appropriate measure of incubator performance (Dee et al., 2012). Despite a range of organisations falling under the broad category of incubators, nuances remain that must be taken into consideration in order to adopt appropriate performance measures for the broad family of business incubators. (Barbero, Casillas, & Ramos, 2014). Developing adequate performance measures continues to be a challenge for business incubation practitioners and researchers. Central to the challenge of establishing performance measures has been the "alignment of quantifiable measures and the often-unanticipated consequences of quantification business incubators, even those sharing a common setting" (Vanderstaeten et al., 2012, p. 1).

Incubation programme evaluation may be approached from a number of perspectives. While Scaramuzzi (2002) notes the importance of business incubation programmes to be compared with and assessed against other incubation programmes of a similar type and mission, this study found common ground for business incubation programmes geared towards the achievement of

B-BBEE enterprise development objectives. Therefore, SMME incubation programmes need to be evaluated on their ability to contribute to economic development, especially in the context of a developing economy such as South Africa. Al-Mubaraki and Busler (2011) underscore the value of incubation in revitalising the economy within which the incubators are operating in. The approach, centred around economic development, measures the value of incubators according to economic development indicators, which often include number of companies formed with the support of an incubator, number of companies graduated from an incubation program, number of entrepreneurs assisted, and number of jobs created (Colombo & Delmastro, 2000; Lalkaka & Lalkaka, 2003; Adegbite, 2001). Economic development approaches to measuring the efficacy of incubation are largely popular and have gained traction the world over. A significant amount of research has been completed telling the success or failure stories by underlining their conclusions on economic development metrics that include jobs created, sales growth and contributions to tax. These studies include studies based in Italy by Colombo and Delmastro (2000), Brazil by Lalkaka and Lalkaka (2003) and Nigeria by Adegbite (2001).

Barbero et al. (2014) advocate “the execution of empirical studies as a source of business incubation research” (p. 2). Application of empirical studies may include the interpretation of perceptual data from incubated small business owners and managers. Meru and Struwig (2011) adopts a quantitative approach to evaluate the entrepreneur’s perceptions of the business incubation services in Kenya. This empirical approach has been adopted by other studies including: Mian (1996), who assesses the value-added contributions of university technology business incubators to their technology-based tenant firms. Mian (1996) presents empirical data from University of Toronto Business Intelligence (UTBI) according to perceptions by the clients. Similar approaches include the measurement of satisfaction or dissatisfaction of the clients with the provision of business incubation support services, as studied by Abduh, D’Souza, Quazi and Burley (2007). They propose a framework in terms of the mean difference between the importance of the service and the effectiveness of incubating organisation providing the service.

The first sub problem in this study sought to understand the perspectives that view small business incubation as a viable economic development strategy in transitioning economies. To understand this rationale, this study relied on existing literature and studies on the subject, which helped comprehend the role of small business incubation in the drive towards economic development. This rationale is framed and understood within the South African context, as the B-BBEE policy was identified as a key driver of business incubation and broader enterprise development initiatives in South Africa.

Literature on the subject advocates for the use of longitudinal data and analysis, to understand the economic development contributions of business incubation (Voisey, Jones and Thomas, 2013). A longitudinal study can take the form of a correlational research study involving the observation of the same variables over a long period of time (Voisey et al. 2013). Longitudinal studies are useful in that they track the same research subjects, allowing researchers to adopt the methodology to observe the incubation phenomenon effectively over a period. Practical data collection must be considered a priority for understanding the contributions of incubation. Studies that have adopted the longitudinal approach include studies by Voisey et al. (2013), and Dee et al. (2012). However, with the limitations and the nature of this study, practical data collection was not possible due to time constraints; therefore through literature this study explored the role of business incubation programmes in contributing to economic development agendas.

The goal of the second sub-problem in contributing to knowledge, attempted to understand the nature by which entrepreneurs in incubation programmes, experience and derive value from the incubation process. The study sought to measure quantitatively the independent facts about the single apprehensible reality incubation services, as experienced by these incubated businesses. To address the second sub-problem the study adopted a quantitative and cross-sectional approach to understand the perceived value-add of business incubation programmes. Building on previous studies, which analyse the perceptions of business incubation, notably studies by Meru and Struwig (2011)

and Grigorian et al. (2010), this study utilised a quantitative research design to evaluate business incubation services and the efficacy with which they were delivered across a range of incubation programmes in South Africa.

However, the earliest approaches to business incubation research adopted a descriptive approach, which were often "criticized for lacking rigorous conceptual and methodological foundation" (Cheng & Schaeffer, 2011, p. 214), thus this study moved away from this approach. The approach adopted by Sehitoglu and Ozdemir (2013), in their research of the efficacy of incubators, was an extensive study of relevant literature and the use of descriptive and t-test methodology. It is important to note the approaches to business incubation research are often not mutually exclusive but rather a combination of complimentary approaches to best suit the context within which the business incubator is operating is adopted.

With the range of business incubation approaches available, this study comprised an assessment of the perceptions incubated organisations have of the business incubator and the services offered during the programme. The perceptions studied allowed conclusions to be made in terms of the ability of small business incubation as a strategy for realising B-BBEE. The adoption of business incubation as a strategy of B-BBEE was studied.

2.6 Incubation as a strategy for enterprise development and B-BBEE

The role of SMME's in ensuring growth and development in the South African economy is widely recognised, with the need for creating a suitable environment being well articulated in policy and government strategy. In South Africa, government has played a key role in defining policies and implementing programmes to support the development of SMMEs. One such effort is embodied in the B-BBEE policy, within which it has advocated for the support and investment in SMMEs by private corporations (Jack & Harris, 2007). The enterprise development code of B-BBEE has been implemented through a range of initiatives and activities but none more prominent than small business

incubation initiatives. Together with the supplier development code of B-BBEE, incubation programmes have an increasingly strategic role to play in the development of small businesses, the transformation of the economy and the SMME sector in South Africa (Jack & Harris, 2007).

Throughout economic theory, incubation programmes have gained prominence, particularly due to their perceived value to regional and national economic development. The premise of this increasing attention to business incubation rests in the perspective of viewing entrepreneurship as the engine for growing and sustaining transitioning and developing economies (Carayannis & Zedotwitz, 2005). The challenge however, is to ensure that entrepreneurial activity in developing economies is able to evolve and be sustainable in a nurturing environment. In order to face this challenge effective and sustainable support needs to be provided to small businesses, by both private and public institutions.

Measurable assessment of business incubation has been elusive to researchers of business incubation; however, throughout the review there has been an identification of indicators for the economic development contributions of incubators. Al-Mubaraki and Busler (2011) like other authors, investigate key performance indicators of business incubators with regard to economic development. It is through their study of the literature that Al-Mubaraki and Busler (2011) identify outcomes such as the creation of jobs, commercialisation of new technologies, enhanced entrepreneurial activity and resulting regional economic development (Vanderstraeten et al, 2012; Cornelius & Bhabra-Remedios, 2003; Sehitoglu & Ozdemir, 2013; Peters et al., 2004).

As Vanderstraeten et al. (2012) note, employing indicators alone would be insufficient to capture the performance of business incubators; the study does feel it is important for these indicators to be included, in the development of a comprehensive framework for assessing SMME incubation; however this study focused on perceptual data.

It should be acknowledged that the mere survival of a tenant firm cannot be considered as a sufficient criterion for evaluating incubator performance, but

rather a combination of criteria would provide for a better study of business incubation as a strategy for effecting B-BBEE.

This study assessed the efficacy of small business incubation against the political framework within which it had gained prominence. The rise in prominence of business incubation is owed to its perceived effectiveness as an economic development tool.

2.6.1 An effective tool for implementing economic policy

The operations and performance of incubation efforts generate greater interest, primarily because justifications need to be made for continued investment in these programmes. Reflections on the efficacy of small business incubation as an economic development tool are due as both public and private funds are continually employed as a strategy to grow small business in South Africa.

As interest and investment in the incubation of small businesses grows, Allen and Weinberg (1988) suggest that it is appropriate to ask whether incubation programmes are administratively effective and economically efficient components of economic policy. The rationale behind SMME incubation is that enhanced entrepreneurship will yield economic development driven by a thriving SMME sector. (Ramluckan & Thomas, 2011). In South Africa, understanding is sought of the effectiveness with which the strategy has been employed in achieving economic empowerment, transforming the economy and adding value to incubated firms.

Business incubation as a practice owes its prominence to its perceived potential economic development benefits, hence the importance of assessing the efficacy with which they have been operationalised (Hackett & Dilts, 2004). Governments across the developing world have adopted small business incubation as a strategy to ensure the emergence and growth of sustainable small businesses capable of contributing to economic development. SMME incubation is premised on the assumption that SMME development is central to any thriving economy. The specific goals of incubation programmes vary from one programme to the

next; however, the ‘universal” purpose of the business incubators is to reduce small business failure rate. This in turn would promote job creation, economic diversification, economic activity and other economic development outcomes that would not be achieved without the incubation programme (Hackett & Dilts, 2004; Dee et al., 2012). Throughout the literature, metrics for the measurement of small business incubation have been based on the economic contribution and outputs of incubation programmes (Ramluckan & Thomas, 2011). Critical indicators of success in terms of economic development have generally come to include, but are not exclusive to, tenant and graduate firms’ survival and growth, sales, revenues, taxes and export, and employment number or nature (Ramluckan & Thomas, 2011).

As context and imperatives of the economy must inform the metrics used in assessment of the economic development contributions of incubation programmes, the South African context would require a consideration for black economic empowerment and transformation agenda central to its economic policy. B-BBEE is central to the economic development imperative of South Africa, and failure to consider this factor undermines the potential of business incubation as a strategy for implementing enterprise development and B-BBEE within the South African economy, and the very reason for the prominence of incubators. In this research, business incubation performance was measured against the economic development imperatives of the South African economy. Lofsten and Lindelof (2001, cited in Vanderstaeten et al., 2012) recognise the importance of incubator and tenant growth in terms of community-related impacts, as they stress the consideration of job creation, economic impact and financial measures and other potential indicators of incubation performance over a period.

The evaluation approaches that recognise community related impacts and measure economic development metrics is important; however, this adopts an approach that gauges the perceptions of incubated firms on the ability of the provided incubation support services to add value to their businesses.

2.6.2 Perceived value add of business incubation services

The rationale behind the establishment of incubators is underpinned by efforts to mitigate the market-failure reality facing small and growing businesses. Incubators aim to reduce the costs of doing business by offering a diverse set of services to small and vulnerable businesses (Hackett & Dilts, 2004). The services provided by incubation programmes range from the mediation regarding a host of stakeholders, to market access opportunities and technical support regarding the service or product at the core of the entrepreneurs business (Rogerson, 2004). Throughout the literature an objective consensus of what constitutes effective venture incubation is lacking. This study sought to establish the efficacy of venture incubation drawing on the perceptions that incubatees have of the incubating organisation.

Attempts have been made to examine the impact and success of business incubation on incubatees' entrepreneurial projects (Voisey et al., 2006). Efforts such as the one by Voisey et al. (2006), identify generic measures of success for a business incubator based on the experience of incubated firms in Wales. Alternative studies have ascertained the perceptions of the incubatees on the incubation process as they evaluate the influence of incubation on the performance of their ventures (Meru & Struwig, 2011; Xu, 2010). In understanding the efficacy of business incubation on the development of SMMEs, this study wanted to understand and investigate the perceptions of incubated firms across different incubators in South Africa.

The fundamental question of incubation assessment is whether incubation makes a difference in the survival rates of incubated SMMEs. In answering this question, studies that measure items on business incubation impact, include the number or rate of start-ups created and the number or rate of new jobs created, by tabulating simple running counts for each metric over a period. (Hackett & Dilts, 2004). Due to the nature and limitations of this study, it was restricted to understanding the perceptions that incubatees had of the incubation experience.

Incubation may influence various aspects of SMME development together with the entrepreneurial process and journey undertaken by business owners. The incubator influences the SMME by providing “strategic input to the business model, … modifying or accelerating the entrepreneurial process through the provision of access to resource providers, learning from peers, access to customers and markets, and advice on intellectual property rights to improve value capture etc.” (Dee et al., 2011, p. 6). Evaluating the efficacy of incubation as a measure of ‘the distance travelled’ by the incubated enterprise, in other words, the progress made by the SMME because of the incubation intervention, is of importance in the framework of incubator performance (Voisey et al., 2006). In drawing from the perceptions entrepreneurs had of the incubation process, the perceived value-add of a range of incubation services was assessed, to allow an understanding of the efficacy with which small business incubators were able to add value to small businesses in South Africa.

2.6.3 The evaluative-centric approach to assessing incubators

An evaluative-centric approach allows participants to rank the efficacy of incubation giving a perspective on the ability of a range of business incubation aspects such as training, technology transfer, market assistance, business advice, mentoring and information.

Meru and Struwig (2011), assesses entrepreneurs’ perception of business-incubation services in Kenya, and examines any discrepancies between the entrepreneur’s perceptions of the importance of business-incubation services and the manner in which they perceive the services to be rendered. In this study, a similar yet distinct approach to assess a range of rendered business incubation services was adopted. The study assesses the quality with which incubation services are offered and the value held for small businesses. This approach provided a first-hand, insider perspective on the efficacy of the incubation programme execution.

Incubation programmes should be analysed across the full spectrum of the incubation services provided. This presents challenges as previous studies have

utilised ‘generic’ incubator services to analyse the perceived influence on the development of the SMME. Research methodologies on the subject need to be based on the literature in as much as being informed by practice. This study evaluated the value-add of incubation services across the ‘generic’ categories of business incubation service provision. These services were broadly categorised into infrastructure support services, business support services, and mediation services (Grigorian et al., 2012).

2.7 Business incubation support services

The importance of imported expertise and resources in shaping the development of small businesses remains the central reason why incubation programmes are attractive to small businesses. Commonly, business incubators provide knowledge, their networks and relationships, together with resources spanning from finances to working space. These services often vary from one incubator to the next, prompting this study to use a generic set of business incubation support services to measure incubators efficacy. This study assessed the efficacy of the business incubation services to provide value to the incubated small business, across a range of business incubation services. This study determined efficacy of incubation programmes according to the perceived value that the incubated businesses obtained from the incubator.

Scillitoe and Chakrabarti (2010), draw our attention to the role of the incubator in providing an array of support services, which include business planning, tax assistance, personnel recruiting, marketing, management, accounting, general legal expertise, accessing financial capital, and accessing business contacts (Scillitoe & Chakrabati, 2010). Spanning the small business incubation domain, the list of services provided by incubating organisations is potentially lengthy, as practice differs and is adapted from one incubator to another, one region to the next.

This study adopted Grigorian's et al. (2012) categorisation of business incubation services, with a focus on infrastructure support services, business support services and mediation support services provided by business incubators.

2.7.1 Infrastructure support services

Multi-tenant brick and mortar facilities have emerged as a popular business incubation form, along with a second-generation type of business incubator, one that does not provide brick and mortar facilities, commonly known as the virtual incubator (Mian 1996). Both incubator forms have similar objectives, of enhancing the entrepreneurial performance of small businesses for possible economic gains. Grigorian et al. (2012), identify the infrastructure support services provided by business incubators as including the provision of office space, research and development (R&D) facilities and clerical services. The operationalisation of infrastructure support services across these three identified lines of support, are chosen with the understanding that they provide a realistic account of the services provided by business incubators to address infrastructure related challenges faced by small businesses.

Providing infrastructure support services marks an important facet for studying business incubation in the South African context as infrastructure deficiencies often present obstacles for the development of SMME's (Rantseli, 2011). Acquiring appropriate operational space is often a challenge for small businesses, as the expenses are often beyond their financial means (Rogerson, 2004; Mian, 1997). In response to this challenge, incubating facilities and co-creation spaces (sometimes called hubs) have increased in popularity in South Africa. In this study, the role played by incubation programmes in providing infrastructure support to SMME's and the efficacy with which these categories of services are provided, were assessed.

2.7.2 Business support services

Grigorian et al. (2012) list services within this category to include the provision of assistance to SMMEs with leadership training and coaching, business-plan development, innovative problem solving, project management, financial management, legal matters, marketing management, and the management of human resources. This category of incubation support services may be described as the backbone of the incubation process as key advice and mentorship together with decision-making support is provided to the SMME in an interactive manner, to ensure the business development of the SMME is appropriate, efficient and suitable at all times.

The rationale behind the provision of services within this category is that one person with limited knowledge and ability can leverage support from a capable team of founders who often lead the businesses in the earlier stages of its life cycle. As a result, the business incubator is then available to give valuable support to the entrepreneur in terms of key functions within the business, ranging from legal matters to a range of other management functions. In this study the perceptions that incubated small businesses had of the incubating organisation are gauged. The incubator is expected to add value across the business incubation services of “leadership training and coaching, business-plan development, innovative problem solving, project management, financial management, legal matters, marketing management, and the management of human resources” (Griogian et al., 2012, p. 2).

2.7.3 Mediation support services

Smilor and Gill (1986, cited in Cornelius & Bhabra-Remedios, 2003) define business incubation as a place that is characterised by the maintenance and controlled conditions for the development of an SMME. Market failure, is often a consequence of the unpredictability and challenges faced by small businesses in the open market (Patton, Marlowe & Hammon, 2000). The ability of the incubating organisation to mediate the relationships and interactions that small

businesses have with the key stakeholders in the market effectively is central to the development and sustainability of small businesses.

In this light, the incubator may be understood as a meditating agent between the SMME and the harsh realities that create the possibility of market failure. The mediation provided by the business incubator includes dimensions of an SMME's interaction with partners, customers, suppliers, employees, researchers, and financiers and investors (Grigorian et al., 2012). In effect, the incubator serves as a mediator between the SMME and the environment within which it is vulnerable, seeking to mitigate the possibility of market failure.

The assumption is that business incubators take on a paternalistic role in the provision of support to small business, often being called on to provide support in terms of mediating a range of relationships and conditions the small business has or would like to have within their environments.

2.8 Measuring incubation as a tool for B-BBEE

Small business incubators, interact with small businesses through the incubation support services provided. That interaction and its ability to add value to the development of the incubated small business was assessed along with the efficacy with which business incubation support services were able to contribute to the achievement B-BBEE objectives. The efficacy of small business incubation across all three service aspects were evaluated in this study.

First, the administration of small business incubation programmes was considered by comparing the effectiveness of privately administered incubation programmes with publicly administered incubation programmes. This comparison provided an understanding of the government's most effective role, whether it be a catalytic role or an administrative one. Second, the study concerned itself with the influence of a B-BBEE informed incubation programme on transformation objectives regarding race and gender as espoused by the B-BBEE framework.

2.9 Deriving value from business incubation support services

Through the provision of the above listed services, small businesses expect to derive value through the business incubation interactions. The premise of business incubation is that they reduce the transaction costs of conducting business while enhancing the development and performance of small businesses. Much of the claimed success of incubators leverages on entrepreneurial agency, whereas others see incubation as a driver, enhancing the entrepreneurial agency and talent (Sehitoglu & Ozdemir, 2013). Fundamental to the assessment of incubation programmes is the need to understand the nature of the interaction between the incubation programme, the entrepreneur, and the incubated enterprise.

Incubation by its very nature is premised on the notion that, new and small ventures do not always have the necessary requirements for business success, therefore the provision of services by incubators, ensures positive venture performance by incubators. Business development interventions experienced by SMMEs seeks to provide some of the resources and linkages to other resources via networking with various sources beyond the incubator. The competing perspective would argue that incubations provide expertise and resources to small businesses that have the capacity to mobilise the resources outside of the incubation programme. Certain perspectives would claim that incubation success is not a result of incubation programmes adding tangible or intangible value to small businesses, but rather a result of superior selection (Sehitoglu & Ozdemir, 2013).

Therefore, the efficacy of incubation needs to be assessed to ascertain whether the incubation intervention genuinely accelerates the development of the incubated small business or if that business' success was inevitable regardless of the affiliation with the incubation programme.

2.9.1 Private and public administration of incubators

In South Africa, most enterprise development theorists and practitioners have grappled with the question of whether small business incubation administration is a viable role for government or if this responsibility should be left to private organisations.

With the promulgation of the DTI's incubator support programme, launched in 2012, the South African government provides cost-sharing grants to organisations looking to set up incubators (DTI, 2012). This is on the backdrop of the 2011, Small Business Review that was conducted by the DTI, which recommended the establishment of a programme for rolling out more incubators, while creating incentives for other actors to begin incubating small businesses (DTI, 2012). The Global Entrepreneurship Monitor (GEM) report suggests that government should stop trying to run incubators itself, as a study revealed that on average, state run incubators created less than one job per annum (Turton & Herrington, 2012).

State support for incubation is premised on the model of business development that focuses on the role of small businesses in the job creation process (Allen & Weinberg, 1988). According to the GEM report, the state may promote business incubation, but has the option of following either one of two approaches in its efforts. The state may take on either a catalytic approach or a management approach. A catalytic approach would see the state playing the role of an information broker, creating incentives for local action by providing partial financial resources as opposed to a management role where the state is involved in operating the business incubator. (Allen & Weinberg, 1988; Turton & Herrington, 2012).

In the South African context, the private sector has increasingly played an important role in the development of enterprises through the provision of business incubation services, with varying results. In this study, the ability of business incubators, administered through public resources, to add value to small business, according to perceptions of entrepreneurs was assessed.

Comparisons to the perceived abilities of privately administered incubators to add value to small business were made. Hence, in light of the suggestion that government should shy away from operating business incubators the perceived value add of privately administered and financed business incubators, versus the perceived value add of publicly administered and funded business incubators was investigated (Turton & Herrington, 2012).

The first hypothesis responds to the question of whether business incubation should be a private or public affair, based on the ability of the two different typologies to add value to their respective incubated small businesses (Allen & Weinberg, 1988; Turton & Herrington, 2012). Based on suggestions in literature, that business incubation is best suited as a private affair, this study sought to assess the validity of this suggestion.

Hypothesis 1: The perceived value-add of business incubation services to small businesses is greater for private programmes in comparison to public programmes.

Hypothesis 1a: *The perceived value-add of infrastructure support services is greater for private programmes in comparison to public programmes*

Hypothesis 1b: *The perceived value-add of management support services is greater for private programmes in comparison to public programmes*

Hypothesis 1c: *The perceived value-add of mediation support services is greater for private programmes in comparison to public programmes*

2.9.2 Racialising the selection criteria of incubation

South Africa's economic framework is largely informed by the state's transformation strategy, B-BBEE (Jack & Harris, 2007; Sanchez, 2006). It is argued that a positive interaction between the small business and the B-BBEE frameworks of the country can contribute to the empowerment of black entrepreneurs and businesses leading to the much-desired socio-economic transformation of the economy, with black-owned small businesses as engines for economic growth and transformation (DTI, 2012; Sanchez, 2006). There remains a question as to whether the SMME framework, which has encouraged the development of small business incubators across the country, is geared to support the widest range of small businesses, or whether elements of the B-BBEE strategy could potentially obstruct or aid the process of widely developing SMMEs across the board. The implications of the empowerment and transformational agenda of the South African enterprise development landscape and the possibilities of achieving broader enterprise and economic development agendas was the focus of this study. In addition, the implications that these interventions hold for businesses that are not black-owned, participating or seeking to participate in business incubation programmes was uncovered.

With the introduction of the first race-conscious remedies in the 1960s in the United States, there have been outcries from both minority and non-minority constituencies against the exclusionary effects of race-based affirmative action programmes (Ramirez, 1995). This is based on the argument that race-based affirmative programmes place racial groups in a struggle to receive benefits (Ramirez, 1995). With the African National Congress (ANC) clearly embarking on a path that saw its commitment to altering the racial patterns characterising the economy, there is at least within policy, extra attention given to the development of black-owned business (Jack & Harris, 2007; Ayra & Bassi; 2011).

This study investigated whether this race-based enterprise development landscape has necessarily pitted racial groups in a struggle to receive benefits. This study asks whether minority, white owned businesses have been able to derive relatively the same level of value from incubators as compared to their

black counterparts. This study assessed Sanchez's (2006) notion of the exclusionary effects of affirmative action initiatives, and assessed the manner in which these have manifested themselves. With any effort geared towards the realisation of B-BBEE, comes a need for an understanding and explanation of the implications for different demographic groupings. B-BBEE legislation in its very essence seeks to address the needs of a particular section of the population, the black population of South Africa. The deliberate nature with which B-BBEE initiatives seek benefit for the black population, needs to be understood together with the implications for non-black segments of South Africa's population. Incubation is understood as a tool for realising B-BBEE; this understanding needs to extend to the implications the black empowerment agenda has for the practice of incubation in South Africa. Furthermore, the implications for the non-black segment of the population in terms of the potential value add of small business incubation. In terms of the efforts being put towards the incubation of small businesses, how the B-BBEE agenda that underpins it, disadvantages non-black-owned businesses.

2.9.3 Empowering female-owned businesses

In literature and public opinion, there is consensus that female-owned businesses lag behind male-owned businesses (Green, Hart, Gatewood, Brush, & Carter, 2003). Carter (2000) argues that gender differences are apparent in a range of business aspects, between male and female entrepreneurial experiences. Carter (2000) identifies aspects in which these differences manifest themselves. First, there are differences in the level of constraints to accessing resources, in particular financial resources required for developing the business (Carter, 2000). Second, the ability to access networks and manoeuvre within these networks, and third, differences between male and female entrepreneurial experiences are apparent when one studies the performance of the respective businesses (Carter, 2000).

The importance of women as a largely untapped pool of entrepreneurs has long been recognised within the economic policy of South Africa (IFC, 2006). The

impetus to nurture women in business originates from the understanding that women entrepreneurs face particular constraints especially at the start-up phase with the constraints diminishing once trading commences (IFC: 2006 ; Carter, 2000).

Various sources in literature have made suggestions that there exists profound differences in the experiences of women and men business ownership and management, with these differences manifesting themselves in the difference in performance between genders, as female-owned firms are often out performed by their male counterparts (Green et al., 2003). In this study, the gender related differences in the perceived value add of business incubation support was examined.

Due to concerted efforts in the political landscape and the emphasis placed on supporting women entrepreneurs, it was hypothesised that the perceived value add of business incubation support is higher for female-owned businesses than it is for their male counterparts.

Hypothesis 2: *The perceived value-add of business incubation services are greater for female-owned businesses compared with male-owned businesses.*

Hypothesis 2a: *The perceived value-add of infrastructure support services are greater for female-owned businesses compared with male-owned businesses.*

Hypothesis 2b: *The perceived value-add of management support services are greater for female-owned businesses compared with male-owned businesses.*

Hypothesis 2c: *The perceived value-add of mediation support services is greater for female-owned businesses compared with male-owned businesses.*

2.10 Conclusion of literature review

This literature review considered peer-reviewed publications and research to provide direction and guidance to the study. Based on a review of the literature, this study adopted an approach to understanding and evaluating business incubation in the South African context. Through an assessment of the perceptions that entrepreneurs have of the business incubators ability to add value to their respective business, this study was able to draw conclusions on the efficacy of small business incubation.

Through the provision of a range of services, incubation programmes seek to link entrepreneurial potential, networks and resources in order to enhance the development of small businesses, and thus promote economic development (Hackett & Dilts, 2004). Hence, the interaction between the incubating organisation and the incubator is central to this study, as it assessed the efficacy with which the incubator is able to provide services to the affiliated small business.

Attempts at measuring the impact or efficacy of incubation programmes are as challenging as they are important. Measuring the performance of these SMME incubation programmes is critical in that it could give researchers and policy makers an indication of the effectiveness with which private and public resources are being deployed in the name of enterprise development. Comprehensive and appropriate measurement is challenging in that the data required is often difficult to obtain or record.

In as much as this study acknowledged the need for a comprehensive assessment of the efficacy of SMME incubation, the nature of the study did not permit for one due to the constraints and limitations of the research. This study evaluated the efficacy of SMME incubation from a perceptual perspective and assessed the efficacy with which incubation support services were perceived to influence the development of the incubated small business, the entrepreneur and contribute to the overall success of the business. However, it is of critical importance that this study be seen as a snapshot, at a particular point, providing

an opportunity for scholars and practitioners to reflect on the delivery of services and offering guidance to a potential way forward, in terms of business incubation service provision.

Dubbed “the most potent economic development tool to be introduced” (Smilor & Gill, 1986, p. 146), business incubation has generated a great deal of enthusiasm, together with resources and it was the intention of this study to assess the efficacy of SMME incubation as a strategy for achieving the objectives of economic transformation and enterprise development. The study sought to understand interactions between incubator and incubated firm, according to their ability to facilitate support for small business in terms of their infrastructure, business development and mediation support needs and broadly contributing to the B-BBEE objectives (Scillitoe & Chakrabarti, 2010).

The following chapter provides a detailed explanation of the methodology adopted in addressing the main research problem of the study. Subsequent to an outlined of the research methodology, the statistical methods used to gather data is explained.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This study sought to assess the perceived value that small business incubation programmes can add to entrepreneurs and the businesses they operate. Peer-reviewed literature and studies by others scholars were consulted, informing the research problems of the study and the formulation of testable hypotheses.

This study was empirical in nature, designed to address the main problem identified in this research, which is concerned with understanding the efficacy of small business incubation in fostering a South African enterprise development.

Rooted in the 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 (Bryman, 2010). Bryman (2012) defines positivism as “an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality” (p. 28). 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 in nature, utilising 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).

In addressing the second sub-problem, this study adopted a similar approach to that applied by Meru and Struwig (2011) in evaluating entrepreneur’s perceptions of business-incubation services in Kenya. Meru and Struwig’s (2011) business-

incubation services measure perceptions by recording responses to 27 items, based on a Likert scale, where the respondents' opinion is sought on the influence of each incubation service ranging from very important to not applicable. Other studies focused on frameworks that measure the satisfaction of tenants with incubator services. Abduh et al. (2007) investigates the satisfaction or dissatisfaction of tenants with incubation services in terms of the mean difference between the importance of the identified business services and the perceived effectiveness of the incubation programme to provide the incubation service.

Studying the perceived value of business incubation to start-ups in China, Xu (2010) adopts a similar framework to that employed by Abduh et al. (2007) where the effectiveness and the perceived value of business incubators are studied. In this study the perceived value-add of business incubation using an instrument with 19 items, based on a five-point Likert scale, where SMMEs were asked to assess the level with which a range of business incubation support services add value to the development of their enterprise. Grigorian and Harms (2010) categorise the most common business incubation services under three theoretically conceived dimensions. These dimensions comprise infrastructure support services, business support services, and network mediation services. Xu's (2010) choice of focusing on the selected lines of incubation support services by Grigorian et al. (2012) was based purely on literature and an evaluation by an expert panel's opinions on each service's relevancy, and their suggestions for inclusion or exclusion of items.

Grigorian et al. (2012) do not empirically test the dimensionality of the business incubation services, leaving room for this study to establish the factors of business incubation services. The theoretically conceived dimensions of business incubation services by Grigorian et al. (2012) comprises infrastructure support services (office space, R&D facilities, and clerical services), business support services (leadership training and coaching, business-plan development, innovative problem solving techniques, project management, financial management, legal matters, marketing management, and strategic

management); and mediation support services (partners, customers, suppliers, and employees). In this study, no *a priori* assumptions about the relationships between the factors were made. A principal factor analysis was performed to establish the least number of factors, which account for the common variance between a set of variables. Suhr (1999) 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 principle components. These components effectively account for the variance of the observed variables (Suhr, 1999).

To understand the dynamics associated with the interactions between incubation programmes and the incubated small firm, the study empirically tested the perceived value add of the established factors and made conclusions on the efficacy with which business incubation services are provided to SMME's.

The design adopted was outlined in order to address the main research problem and the sub-problems. In the section that follows, the study type and design adopted to address the research problems and hypotheses together with an explanation of the data collection methods is defined.

3.2 Research design

A quantitative approach often is the preferred approach in the study of incubation programmes. Mian (1997) adopts a quantitative approach as he focuses on studying the effectiveness of technology business incubators. Other studies have included perceptual studies that have focused on understanding the value add of business incubation services (Meru & Struwig, 2011; Xu, 2010).

Rooted in the positivist paradigm, the study included the discovery and verification of the findings and knowledge, through direct observations and measurements of the incubation phenomenon in South Africa. Bryman (2012) defines positivism as "an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality" (p. 28). In the study, the purpose of theory and the literature review was to generate testable

hypotheses, therefore arriving at knowledge through an objective gathering of facts (Bryman, 2012).

In line with the primary objective of the study that sought to quantify the value added contributions of business incubation services, the cross sectional study made use of primary data in understanding the efficacy with which business incubation has been employed as an enterprise development and B-BBEE strategy in the South Africa.

3.3 Population and sample

3.3.1 Population

This study relied on both a purposive and convenience sample; subjects (incubators and incubated firms) that were available to participate in the study were approached. In purposive sampling, samples are chosen based on their accessibility (Buglear, 2005). Buglear (2005) argues that purposive sampling should not be used for estimating population parameters as it lacks statistical validity. Due to the unregulated nature of the industry and practice, the specific number of incubators and incubated small businesses was unknown, therefore there was no control over the representativeness of the sample to the broader population of business incubation, and incubated small businesses. The purposive sample was carried out in a non-representative manner with the objective of serving a very specific need of the study. The study was purposive because it deliberately sought to obtain responses that allowed for the meaningful testing of the formulated hypotheses.

To enhance limited generalisability inherent in the purposive approach adopted in the study, the sample of incubation programmes was selected in such a way that the differences among the business incubation programmes brought out the salient features of incubation practice in South Africa. These differences included seeking incubated business within private and publicly administered programmes, a mix of black-owned and non-black-owned incubated firms, and

incubated firms that are managed and operated by women and men. This mix of business incubation was deliberately chosen considering the hypotheses derived from literature and addressing the problems that inform this study.

3.3.2 Sample and sampling method

Purposive sampling is defined as a non-probability sampling technique where subjects are selected because of their convenient accessibility to the researcher (Castillo, 2009). In purposive sampling a specific group is targeted, and 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 incubator and incubated firm. Therefore, this purposive sample may provide limited generalisability about the efficacy of small business incubation programmes in South Africa and across different sectors.

3.4 The research instrument

The instrument was understood as the measurement devices that gauged the perceived value-add of business incubation services. The research instrument employed in this study consisted of a questionnaire that was completed by the research subjects, the incubated small businesses.

The items chosen to evaluate the efficacy of business incubation were informed by previous studies, specifically Grigorian et al. (2010). These items were selected based on their relevance and prominence in incubation practice in Armenia and their applicability to understanding and measuring the efficacy of incubation in the South African incubation landscape.

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

services provided based on a five-point Likert scale ranging from no value at all, to very large value.

The instrument was also used to establish control variables, which are variables that are unchanged or remain the same throughout the study. These included the need to establish whether the incubated firm was a black-owned business or not, whether the business would be classified as a female-owned enterprise or not, and to determine whether the responding firm is affiliated to a privately or publicly administered incubation program.

3.5 Procedure for data collection

Together with an online questionnaire, printed questionnaires were administered to different incubators within the identified convenience sample of incubators. Individuals completed the self-administered questionnaire upon receiving it. Due to the difficulty of obtaining data from incubation programmes, the combination of techniques were adopted.

Data analysis usually involves the reduction of accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques. This study sought to derive various functions and relationships among the variables that comprised business incubation support services.

The existence of variability among the identified business incubation support services was tested as this could potentially lower the number of unobserved variables of business incubation, hereafter to be identified as factors. The theoretically conceived dimensions of business incubation needed to be statistically measured, to determine the dimensionality and factors as no previous studies were found that had done so.

In order to test the hypotheses that underpin this inquiry, statistical hypothesis tests in which comparisons were made of the mean scores between unrelated groups on the same variable, were utilised. In order to test Hypothesis 1 the

mean scores of the perceived value add of incubation services by firms that had received incubation support from private incubation programmes were compared with the mean scores of by businesses that had received support from public incubation programmes. An independent t-test was required for testing this hypothesis. When considering tests designed to assess differences between two population means, in this case the perceived value add of incubation services for businesses in private incubation programs as opposed to businesses in public incubation programs, Buglear (2005) argues that it is better to use an independent samples test. The null hypothesis used in comparing these population means was based on the difference between the means of the two populations (Buglear, 2005).

Independent sample tests were used to study Hypothesis 3, testing the perceived value-add of business incubation services for female-owned businesses compared with male-owned businesses.

In order to conduct these tests, the collected quantitative data was analysed and interpreted using the IBM Statistical Package for Social Sciences (SPSS 21).

Prior to using SPSS, the data collected from the completed questionnaire was captured into an Excel spreadsheet and cleaned. The process of cleaning data included the examination for consistency in responses and the removal of data that did not meet the criteria or assist the research in addressing the problem concerned (Hellerstein, 2008).

Perceptions of the efficacy of incubation and the services provided were deduced from the computed variables. The frequency or number of times a certain answer emerged in the response data was used to determine the mean observation of a response. An examination of the averages and distribution of responses enabled conclusions to be made regarding the efficacy of the incubation.

3.6 Validity and reliability of research design

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 heavily subjective, failing to provide an accurate picture of the incubation programme's value-add.

As 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 (Gravetter & Forzano, 2012). In other words, assessing the efficacy of incubation is limited to the perceptions of the incubated small businesses.

For successful collection of appropriate data for a quantitative survey, it was important to test the questionnaire before using it to collect data for the final study. Pre-testing and piloting helped identify questions that had been formulated in a manner that did not make sense to participants and questions that did not provide the required responses for analysis. The pre-testing of the questionnaire was administered online.

Fourteen respondents answered the online pilot questionnaire over a period of two weeks and these respondents were omitted from the distribution of the final survey. Effectively the pilot was conducted on a group that did not participate in the final research.

Subsequent to receiving the pilot responses, revisions were made to the questionnaire, which included changes to the phrasing of some question, and the elimination of questions deemed irrelevant to the study.

3.6.1 External validity

Gravetter and Forzano (2012) define external validity as the extent to which the results of the study may be generalised to other settings and times. The nature

of this research allowed generalisation on the efficacy of incubation using non-probability sampling criteria and allowed the identification of the key factors to ensure successful incubation across contexts and sectors of business incubation practice. The relationships found on the non-probability sample may not necessarily be generalised to the broader incubation population nor may they be generalised to other contexts.

3.6.2 Construct validity

Construct validity is concerned with the extent to which measures used for a particular test, measure what they claim to be measuring. Construct validity is essential to the perceived validity of the test being conducted.

3.6.3 Internal validity

This is understood to be the degree to which measurement represents characteristics that exist in the phenomena under investigation (Malhotra & Briks, 2007). In any study of incubation, there are threats to the internal validity of the study such as exogenous factors, which effectively include events and experiences to the business, beyond the control of the incubating organisation.

3.6.4 Reliability

By using only recognised journals and scientific peer-reviewed studies and journals as reference, the impact of any potentially ambiguous or poorly constructed scales measurement techniques and procedures was limited Applying a properly constructed research instruments assisted in making the research replicable, ensuring the reliability of the scale and study. The study also relied on the candid responses in the self-administered questionnaire.

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.

3.7 Limitations of the study

Due to the challenges facing the population and convenience sampling, there are limitations on the generalisability of the findings of this study. The population selected is not necessarily representative of the general population of incubators and incubated businesses in South Africa.

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 may be regarded as a limitation to the study. 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 that are 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. This study focused on the efficacy with which incubation support services are provided to small businesses and the efficacy with which incubation has been adopted as an economic development tool.

3.8 Ethics

In this study, the interests and rights of anyone affected by the study were safeguarded. For the purposes of the study, the informed consent of the subjects was obtained. Annexures A and B contain documents, which inform the respondents of their confidentiality.

The confidentiality of the incubation programmes that the incubated firms are affiliated to had to be maintained, hence no incubation programmes are mentioned, but rather their typology (private or public is noted).

3.9 Conclusion

In conducting this assessment of the efficacy of business incubation as a strategy for the realisation of B-BBEE as a strategy, a structured research design enabling the comprehensive address of the main research problem together with the sub-problems was adopted.

Quantitative research design and methodologies were implemented in this study and a purposive sampling technique used to gather responses to the research instrument.

In the following chapter, the results of the statistical tests are presented, prior to a discussion on the findings of the study.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

This chapter presents the outcomes of the study with the use of tables and graphs. The first section presents the demographic profile of the responding small businesses and a brief profile of the types of business incubation programmes that the small businesses had been through or were presently affiliated with. The next section presents the results pertaining to the principal factor analysis conducted, and the hypotheses tests conducted on the derived factors of small business incubation service provision. The final section presents the results of Hypotheses 1 and 2, which assessed the efficacy of small business incubation programmes in South Africa.

4.2 Demographic profile of respondents

Demographic information of the respondents together with the incubator characteristics are presented in this section.

A total of 659 research questionnaires were sent out through a database of emails from various incubation programmes, 54 were returned, with 44 of those identified as useful. The usefulness of the responses was based on the whether the questionnaire was complete or not. Incubators and entrepreneurs were approached with hard-copies of the questionnaire, and a total of five valid responses were collected. In total, 49 responses were collected, with the response rate at 7.44 percent.

The study surveyed a total of n = 49 incubated firms across a range of incubation programs. In order to answer the hypotheses the study needed to understand the breakdown and type of incubation programmes under consideration. The respondents indicated whether they were affiliated to either a private or a public incubation programme. A total 98 percent (n = 48) of the surveyed population responded to this question. The majority, nearly 88 percent of the respondents (n

= 43) were affiliated to a publicly administered incubator with 10.2 percent of the respondents (*n* = 5) being affiliated to a private incubator. Two percent of the surveyed population did not respond to the question (*n* = 1).

Table 1: Incubatees affiliated to either public or private incubation programmes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	43	87.8	89.6	89.6
	Private	5	10.2	10.4	100.0
	Total	48	98.0	100.0	
Missing	System	1	2.0		
Total		49	100.0		

With regard to the demographic profile of the respondents, this study sought to understand the black economic empowerment profile of the respondents. The black economic empowerment characteristics explored in this study were whether the responding businesses were black-owned businesses or female-owned businesses.

With regard to the racial composition of the ownership, 98 percent of the surveyed population responded to this question, (*n* = 48). 95.9 percent of the responding businesses were black-owned (*n* = 47), only two percent of the respondents (*n* = 1) represented white owned incubated businesses, while the remaining two percent (*n* = 1) did not respond.

Table 2: Racial profile of responding incubated firms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Black-owned	47	95.9	97.9	97.9
	Non-Black-owned	1	2.0	2.1	100.0
	Total	48	98.0	100.0	
Missing	System	1	2.0		
Total		49	100.0		

With regard to the women ownership aspect of empowerment, 44.9 percent (*n* = 22) of the respondents were female-owned enterprises with 49 percent (*n* = 24), being male owned businesses, 6.1 percent of the surveyed population, (*n* = 3), did not respond to the question.

Table 3: Gender profile of responding incubated firms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female-owned	22	44.9	47.8	47.8
	Male Owned	24	49.0	52.2	100.0
	Total	46	93.9	100.0	
Missing	System	3	6.1		
Total		49	100.0		

4 3 Descriptive statistics

Table 4 comprises the descriptive statistics.

Table 4: Descriptive statistics

	No Value at all		Little Value		Average Value		Large Value		Very Large Value	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Office Space	7	14.9%	8	17.0%	12	25.5%	8	17.0%	12	25.5%
R & D Facilities	7	16.3%	9	20.9%	8	18.6%	10	23.3%	9	20.9%
Clerical Facilities	13	28.3%	11	23.9%	8	17.4%	6	13.0%	8	17.4%
Leadership Training and Coaching	5	11.1%	4	8.9%	9	20.0%	12	26.7%	15	33.3%
Business-plan development	6	12.8%	3	6.4%	6	12.8%	17	36.2%	15	31.9%
Innovative Problem Solving Techniques	9	18.8%	9	18.8%	11	22.9%	9	18.8%	10	20.8%
Project Management	11	23.4%	10	21.3%	9	19.1%	12	25.5%	5	10.6%
Financial Management	5	10.9%	9	19.6%	9	19.6%	16	34.8%	7	15.2%
Legal matters	9	19.1%	4	8.5%	15	31.9%	10	21.3%	9	19.1%
Marketing Management	7	15.2%	4	8.7%	13	28.3%	15	32.6%	7	15.2%
HR Management	10	21.3%	4	8.5%	20	42.6%	8	17.0%	5	10.6%
Strategic Management	7	14.9%	4	8.5%	16	34.0%	10	21.3%	10	21.3%
Mediation regarding Partners	15	31.9%	9	19.1%	11	23.4%	10	21.3%	2	4.3%

	No Value at all		Little Value		Average Value		Large Value		Very Large Value	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Mediation regarding Customers	16	34.0%	8	17.0%	10	21.3%	12	25.5%	1	2.1%
Mediation regarding Suppliers	14	30.4%	7	15.2%	13	28.3%	12	26.1%	0	0.0%
Mediation regarding Employees	18	40.9%	13	29.5%	8	18.2%	3	6.8%	2	4.5%
Mediation regarding University Researchers	15	36.6%	9	22.0%	6	14.6%	8	19.5%	3	7.3%
Mediation regarding Financiers	16	39.0%	8	19.5%	9	22.0%	7	17.1%	1	2.4%
Mediation regarding equity investors	13	31.0%	10	23.8%	6	14.3%	11	26.2%	2	4.8%

The measurement aspect of the scale examines the descriptive and exploratory statistics of the constructs in the study. This section makes use of both dependent and independent variables to understand the reliability and measurement validity.

Table 5: KMO and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.659
Bartlett's Test of Sphericity	Approx. Chi-Square	575.588
	df	171
	Sig.	.000

The KMO value of 0.659 is reasonable to conduct a factor analysis. The p-value of Bartlett's test (.000), which is below 0.05, is significant, indicating the correlations structure is significantly strong enough to perform a factor analysis.

In Table 6, the communalities indicate the extent to which an individual item correlates with the other items. As the value is 1 for all items, it means that it correlates highly with the other items.

Table 6: Communalities

	Initial	Extraction
Office space	1.000	.349
R & D facilities	1.000	.477
Clerical facilities	1.000	.393
Leadership training and coaching	1.000	.523
Business-plan development	1.000	.612
Innovative problem solving techniques	1.000	.748
Project management	1.000	.627
Financial management	1.000	.604
Legal matters	1.000	.721
Marketing management	1.000	.807

	Initial	Extraction
HR management	1.000	.855
Strategic management	1.000	.688
Mediation regarding partners	1.000	.642
Mediation regarding customers	1.000	.651
Mediation regarding suppliers	1.000	.829
Mediation regarding employees	1.000	.529
Mediation regarding university researchers	1.000	.600
Mediation regarding financiers	1.000	.667
Mediation regarding equity investors	1.000	.750

Note: Extraction Method: Principal Component Analysis

The components extracted from the factor analysis are then used conduct independent samples t-tests to tests the hypothesis as set out by the research.

Table 7: Extracted factors

Com-ponent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.261	54.004	54.004	10.261	54.004	54.004	5.327	28.037	28.037
2	1.809	9.521	63.525	1.809	9.521	63.525	5.225	27.502	55.539
3	1.486	7.821	71.347	1.486	7.821	71.347	3.003	15.808	71.347
4	.982	5.168	76.515						
5	.714	3.757	80.271						
6	.636	3.347	83.618						
7	.595	3.132	86.750						
8	.492	2.591	89.341						
9	.428	2.253	91.594						
10	.408	2.145	93.739						
11	.360	1.897	95.636						
12	.256	1.347	96.983						

Com-ponent	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
13	.179	.941	97.924						
14	.146	.771	98.695						
15	.104	.545	99.240						
16	.073	.386	99.626						
17	.044	.234	99.859						
18	.017	.087	99.947						
19	.010	.053	100.000						

Note: Extraction Method: Principal Component Analysis

Principal component analysis extracted three factors

Considering the different criteria, the decision was made to extract three factors. The cumulative percentage explained by the factors is 71.4 percent.

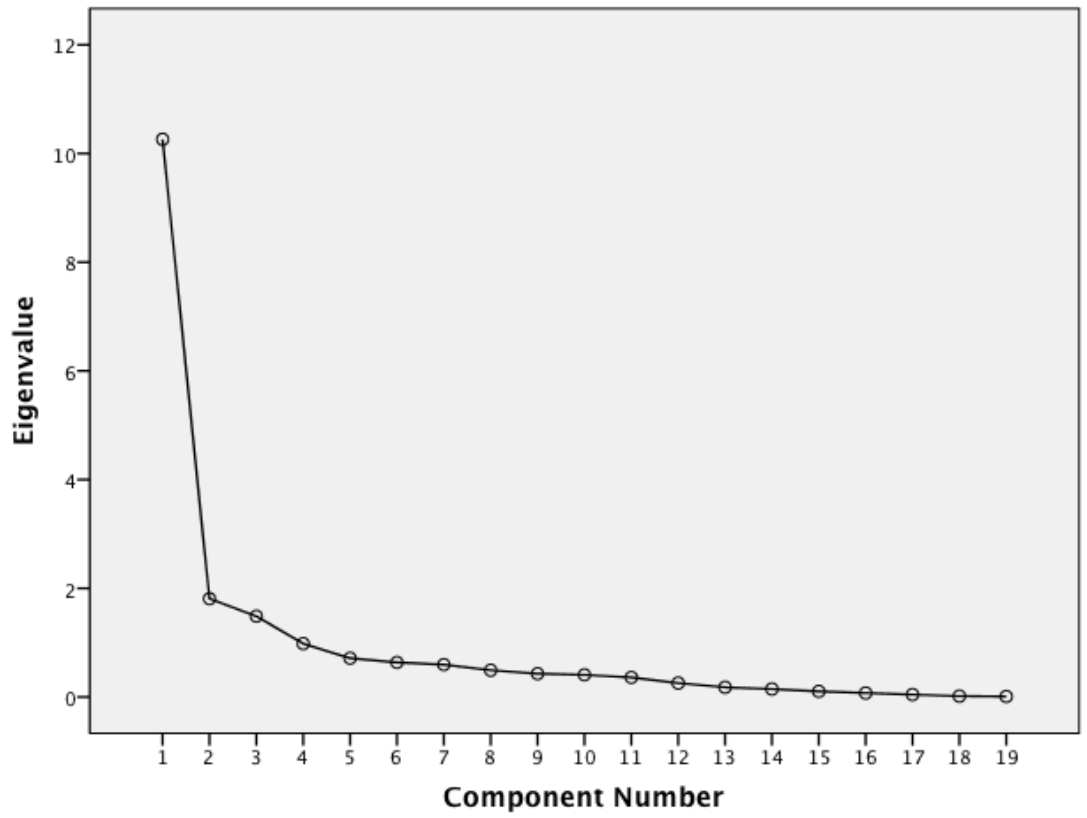


Figure 1: Scree plot

Table 8: d-component matrix

	Component		
	1	2	3
Strategic management	.837		
HR management	.804		.
Marketing management	.766		
Legal matters	.759		
Business-plan development	.723		
Financial management	.686		
Leadership training and coaching	.656	.	
Mediation regarding partners	.612		
Mediation regarding university researchers		.835	
Mediation regarding financiers		.803	
Mediation regarding suppliers		.795	.
Mediation regarding equity investors		.770	
Innovative problem solving techniques		.703	
Mediation regarding customers		.620	
Mediation regarding employees		.609	
Clerical facilities			.895
Office space			.707
R&D facilities		.451	.594
Project management	.469	.454	.476

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 6 iterations

This study sought to account for as much of the covariance in the collected data with as few factors as possible. In Table 8 a loading of 0.40 was considered meaningful. Loadings that were < 0.40 were deleted, as they were not considered meaningful to the study.

In determining the number of factors, the cumulative percentages, at 71.35 percent, were assessed. The Kaiser Guttman rule was applied, recognising the Eigen values > 1. Three significant declines in the scree plot were observed.

Table 8 and Figure 1 show the factor loadings for the three extracted constructs, which form the dimensions in the study going forward. The three extracted factors are infrastructure, management, and mediation.

The first component, infrastructure, comprises office space, R&D facilities, clerical facilities and project management. The second component: management, comprises strategic management, HR management, marketing management, legal matters, business-plan development, financial management, leadership training and coaching, mediation regarding partners. The third component, mediation comprises a range of mediation regarding financiers, University researchers, suppliers, equity investors, customers and employees as well as innovative problem-solving techniques

4.4 Reliability of the three extracted constructs

In this section, the reliability of the constructs and adjustments that were made to the scale, as a result of the factor analysis, is discussed. To test the reliability of the constructs in the instrument item analyses were performed on the extracted factors to produce Cronbach alpha values.

4.4.1 Infrastructure support services

Table 9: Infrastructure Cronbach alphas

Cronbach alpha	Cronbach alpha based on standardised Items	N of Items
.818	.818	4

Note: Cronbach alpha score of .82 signals the reliability of the extracted component

Table 10: Infrastructure inter-item correlation matrix

	Office space	R&D facilities	Clerical facilities	Project management
Office space	1.000	.489	.609	.444
R&D facilities	.489	1.000	.630	.541
Clerical facilities	.609	.630	1.000	.457
Project management	.444	.541	.457	1.000

The first extracted dimension of infrastructure, now consisting of four items (office space, R&D facilities, clerical facilities, and project management), had good reliability with a Cronbach alpha score of 0.82. The reliability for the construct infrastructure is good, with the overall Cronbach alpha value of 0.82.

To compute the mean score for the construct, infrastructure support services, the transformation allowed the mean score for the construct to be calculated, with which, further statistical tests were conducted on these construct scores.

With the reliability of the constructs permitting, scale statistics provided a mean score calculated at m = 2.9.

4.4.2 Business support services

The second extracted component was management. Results from the factor analysis indicated that the management construct comprised the following items strategic management, HR management, marketing management, legal matters, business plan development, financial management, leadership, training and coaching, and mediation regarding partners. The reliability of the construct was acceptable as the Cronbach alpha score produced was 0.92

Table 11: Business reliability statistics

Cronbach's alpha	Cronbach's alpha based on standardized Items	N of Items
.922	.922	8

Table 12: Business item statistics

	Mean	Std. Deviation	N
Strategic management	3.364	1.2592	44
HR management	2.955	1.2191	44
Marketing management	3.227	1.2915	44
Legal matters	3.273	1.2825	44
Business-plan development	3.795	1.2497	44
Financial management	3.227	1.2734	44
Leadership training and coaching	3.682	1.2899	44
Mediation regarding partners	2.545	1.2659	44

Table 13: Business items summary

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.259	2.545	3.795	1.250	1.491	.155	8

A transformation was conducted, to compute the mean score for the construct, management related services, which allowed the calculation of the mean score for the construct and was used to perform the statistical test and the t-test.

The mean score of the construct, that was produced was m = 3.26.

4.4.3 Mediation support services

The third extracted component was mediation. Results from the factor analysis indicated that the management construct comprised the following items mediation regarding financiers, university researchers, equity investors, customers and employees, along with innovative problem solving techniques. The reliability of the construct was acceptable as the Cronbach alpha score produced was 0.93

Table 14: Mediation reliability statistics

Cronbach's alpha	Cronbach's alpha based on standardised items	N of Items
.926	.927	7

Table 15: Mediation item statistics

	Mean	Std. Deviation	N
Innovative Problem Solving Techniques	3.000	1.3765	39
Mediation regarding Customers	2.410	1.3322	39
Mediation regarding Suppliers	2.410	1.2078	39
Mediation regarding Employees	1.872	1.0306	39
Mediation regarding University Researchers	2.359	1.3667	39
Mediation regarding Financiers	2.179	1.1669	39
Mediation regarding equity investors	2.436	1.3138	39

Table 16: Mediation item statistics summary

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	2.381	1.872	3.000	1.128	1.603	.115	7

A transformation was conducted, to compute the mean score for the construct, mediation support services. The transformation allowed the calculation of the mean score for the construct, which could be used to perform the t-test. The mean score of the construct produced was m = 2.38

4.5 Results pertaining to Hypothesis 1

Hypothesis 1: *The perceived value-add of business incubation services to small businesses is greater for private programmes in comparison to public programmes.*

4.5.1 Assumptions of the T-test

The assumptions of the t-test conducted explored the normality of the distribution, which was determined by means if the Shapio Wilk test, together with homogenous variances, as determined by Levene's test. First, the normality of the distribution was explored, followed by an understanding of Levene's test.

Normality of distribution

An important description of the variable is its distribution, which informs the degree to which the distribution of results can be approximated by the normal distribution. The Shapiro Wilk test, tests for normality, as the sample is less the 2000.

Table 17: Hypothesis 1 case processing summary

Name of Incubator		Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
Infrastructure	Private	42	97.7%	1	2.3%	43	100.0%
	Public	5	100.0%	0	0.0%	5	100.0%
Management	Private	42	97.7%	1	2.3%	43	100.0%
	Public	5	100.0%	0	0.0%	5	100.0%
Mediation	Private	42	97.7%	1	2.3%	43	100.0%
	Public	5	100.0%	0	0.0%	5	100.0%

Taking into consideration the Shapiro Wilk test of normality the distribution of the tested data was assumed normal. With regard to the p-value for all tested distributions, the p-values were greater than 0.05 the results generated are ($p > 0.005$)

Table 18: Hypothesis 1 test of normality

Name of Incubator		Kolmogorov-Smirnov[b]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Infrastructure	Private	.075	42	.200*	.960	42	.151
	Public	.136	5	.200*	.989	5	.976
Management	Private	.131	42	.066	.963	42	.184
	Public	.229	5	.200*	.905	5	.439
Mediation	Private	.160	42	.009	.902	42	.002
	Public	.221	5	.200*	.917	5	.511

*. This is a lower bound of the true significance
a. There are no valid cases for Infrastructure when name of incubator = .000. statistics cannot be computed for this level
b. Lilliefors significance correction
d. There are no valid cases for management when name of incubator = .000. statistics cannot be computed for this level
e. There are no valid cases for mediation when name of incubator = .000. statistics cannot be computed for this level

The t-test conducted also assumed homogeneity of variances, as determined by Levene's test. The conducted t-test for the perceived value-add of management, infrastructure and mediation support services from incubators was $p > 0.01$.

The t-test conducted, tested for significant differences between the mean scores of groups, public and private incubation programmes. The ability of private incubation programs to add value to incubated small businesses was compared to the ability of publicly administered incubation programs to add value. Mean scores across the various business incubation services and constructs were extracted and transformed for dependent variables management, infrastructure support, and mediation support.

In assessing the ability of private and public incubation programmes to add value, firms were incubated through the provision of incubation support services, conducts t-tests, the value add of the three extracted components of incubation support services provided by private and public incubation support programmes were compared. Furthermore, the ability of private and public incubation programmes benefitted small business in terms of management, infrastructure and mediation incubation support services

4.5.3 Infrastructure support services

Hypothesis 1a: *The perceived value-add of infrastructure support services to small businesses is greater for private programmes in comparison to public programmes.*

The t-test for the infrastructure support services compared the mean scores of privately administered incubation programmes (m = 2.92) with the mean scores of publicly administered incubation programmes (m = 3.05).

Table 19: Hypothesis 1 infrastructure group statistics

Name of Incubator		N	Mean	Std. Deviation	Std. Error Mean
Infrastructure	Private	42	2.9167	1.15748	.17860
	Public	5	3.0500	.87321	.39051

The t-test was conducted on the perceived value-add of infrastructure business incubation support services offered by privately and publicly administered incubation programmes.

Table 20: Hypothesis 1 infrastructure independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Infra-structure	Equal variances assumed	.928	.341	-.248	45	.805	-.13333	.53700	-1.21491	.94824
	Equal variances not assumed			-.310	5.824	.767	-.13333	.42942	-1.19185	.92518

The conducted independent samples t-test indicated that there were no statistically significant differences in the perceived value add of infrastructure incubation services offered by either privately or publicly administered incubation programs. The p value, p = 0.43 suggests that there is no statistically significant difference in the means compared in the t-test.

4.5.2 Management support services

Hypothesis 1b: *The perceived value-add of management support services to small businesses is greater for private programmes in comparison to public programmes.*

In conducting the t-test for the perceived value-add of management incubation services provided by either privately or publicly administered incubation programmes, the means scores of incubatees from privately administered incubation programmes at m = 3.13 were compared with the mean scores of publicly administered incubation programmes at m = 3.45.

Table 21: Hypothesis 1 management group statistics

Name of Incubator		N	Mean	Std. Deviation	Std. Error Mean
Management	Private	42	3.1356	1.08594	.16756
	Public	5	3.4500	.84132	.37625

The t-test on the perceived value add of management business incubation support services offered by privately and publicly administered incubation programmes was conducted.

Table 22: Hypothesis 1 management independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Management	Equal variances assumed	.895	.349	-.623	45	.536	-.31437	.50453	-1.33055	.70180
	Equal variances not assumed			-.763	5.722	.476	-.31437	.41187	-1.33417	.70543

The independent samples t-test indicated that there was no statistically significant differences in the perceived value-add of management incubation services offered by either privately or publicly administered incubation programs. The p value, p = 0.35 suggested that there is no statistically significant difference in the means compared in the t-test.

4.5.4 Mediation support services

Hypothesis 1c: *The perceived value-add of management support services to small businesses is greater for private programmes in comparison to public programmes.*

Lastly, in conducting the t-test for the mediation support services, the mean scores of privately administered incubation programmes (m = 2.48) with the mean scores of publicly administered incubation programmes (m = 2.48) were compared.

Table 23: Hypothesis 1 mediation group statistics

	Name of Incubator	N	Mean	Std. Deviation	Std. Error Mean
Mediation	Private	43	2.4822	1.05416	.16076
	Public	5	2.4810	1.10687	.49501

Table 24: Hypothesis 1 mediation independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
Mediation	Equal variances assumed	.008	.929	.003	46	.998	.00127	.50031	-1.00579	1.00834
	Equal variances not assumed			.002	4.883	.998	.00127	.52046	-1.34630	1.34885

The t-test on the perceived value add of mediation business incubation support services offered by privately and publicly administered incubation programmes was conducted.

The conducted independent samples t-test indicated that there was no statistically significant differences in the perceived value add of mediation incubation services offered by either privately or publicly administered incubation programs. The p value, p = 0.92 suggested that there is no statistically significant difference in the means compared in the t-test.

4.5.5 Conclusion

Based on an independent samples t-test, there was no significant difference ($p > 0.05$) in the perceived value add of business incubation offered by either publicly or privately administered programs. Based on the conducted independent samples t-test, there was no statistically significant difference in the perceived value add of business incubation services offered between private and

public incubation programs. The t-test conducted, measured the difference in the perceived value add of incubation programs across the three components of business incubation support services. The mean score for the perceived value add of infrastructure support services provided by private incubation programs was slightly but not significantly lower than the mean score of infrastructure support services offered by public incubation programs. Based on the results of the conducted t-test, Hypothesis 1 was rejected.

4.7 Results pertaining to Hypothesis 2

Hypothesis 2: *The perceived value-add of business incubation services is greater for female-owned businesses compared with male-owned businesses.*

4.7.1 Assumptions of the t-test

The assumptions of the conducted t-test explored the normality of the distribution together with homogenous variances, as determined by Levene's test. First the normality of the distribution was explored followed by an understanding of Levene's test.

Normality

An important description of the variable is its distribution, which suggests the degree to which the distribution of results can be approximated by the normal distribution. The Shapiro Wilk test was used to test for normality, as the sample is less the 2000.

Table 25: Hypothesis 2 tests of normality

	Female Ownership or Not?	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Infrastructure	Male-owned	.127	22	.200*	.975	22	.817
	Female-owned	.108	24	.200*	.955	24	.348
Management	Male-owned	.116	22	.200*	.967	22	.651
	Female-owned	.112	24	.200*	.962	24	.485
Mediation	Male-owned	.136	22	.200*	.927	22	.107
	Female-owned	.193	24	.021	.879	24	.008

*. This is a lower bound of the true significance

a. Lilliefors significance correction

The t-test assumed equal variances; the t-test conducted assumed homogeneity of variances, as determined by Levene's test. The conducted t-test for the perceived value-add of management, infrastructure and mediation support services from incubators was $p > 0.01$. In conducting the t-test, the perceived value-add of business incubation support services to male-owned and female-owned incubated businesses. The perceived value-add of management, infrastructure and mediation support services to female-owned and male-owned incubated small businesses was compared

4.7.2 Infrastructure support services

Hypothesis 2a: *The perceived value-add infrastructure support service is greater for female-owned businesses compared with male-owned businesses.*

In conducting the t-test for the infrastructure support services, the perceived mean scores of male owned businesses (m= 2.82) with the mean scores of female-owned businesses (m = 2.93) were compared

Table 26: Hypothesis 2 group statistics

	Female-owned or Not?	N	Mean	Std. Deviation	Std. Error Mean
Infrastructure	Male-owned	22	2.8295	1.01590	.21659
	Female-owned	24	2.9375	1.17729	.24031

The -test on the perceived value add of infrastructure business incubation support services to male-owned businesses in comparisons to female-owned businesses were conducted.

Table 27: Hypothesis 2 independent samples test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Infra-structure	Equal variances assumed	.278	.601	-.332	44	.742	-.10795	.32563	-.76422	.54831
	Equal variances not assumed			-.334	43.852	.740	-.10795	.32352	-.76002	.54411

The conducted independent samples t-test indicated that there was no statistically significant differences in the perceived value add of infrastructure incubation services offered by either male-owned or female-owned incubated firms. The p value, p = 0.60 suggests that there is no statistically significant difference in the means compared in the t-test.

4.7.3 Management support services

Hypothesis 2b: *The perceived value-add infrastructure support service is greater for female-owned businesses compared with male-owned businesses.*

In conducting the t-test for the management support services, the perceived mean scores of male-owned businesses (m = 3.03) with the mean scores of female-owned businesses (m = 3.21) were compared.

Table 28: Hypothesis 2 management group statistics

	Female Ownership or Not?	N	Mean	Std. Deviation	Std. Error Mean
Management	Male-owned	22	3.0398	1.10423	.23542
	Female-owned	24	3.2165	.99312	.20272

The t-test on the perceived value add of management business incubation support services to male-owned businesses in comparisons to female-owned businesses was conducted..

Table 29: Hypothesis 2 independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Management	Equal variances assumed	.677	.415	-.572	44	.571	-.17675	.30922	-.79993	.44644
	Equal variances not assumed			-.569	42.402	.572	-.17675	.31068	-.80354	.45005

The independent samples t-test indicated that there was no statistically significant differences in the perceived value add of management incubation services as perceived by male owned and female-owned incubated firms. The p value, p = 0.42 suggests that there is no statistically significant difference in the means compared in the t-test.

4.7.4 Mediation support services

Hypothesis 2c: *The perceived value-add mediation support service is greater for female-owned businesses compared with male-owned businesses.*

In conducting the t-test for mediation support services, the perceived mean scores of male-owned businesses (m = 2.49) with the mean scores of female-owned businesses (m = 2.41) was compared.

Table 30: Hypothesis 2 mediation group statistics

	Female Ownership or Not?	N	Mean	Std. Deviation	Std. Error Mean
Mediation	Male-owned	22	2.4940	1.04359	.22249
	Female-owned	24	2.4196	1.05135	.21461

The t-test on the perceived value add of management business incubation support services to male-owned businesses in comparison to female-owned businesses was conducted.

Table 31: Hypothesis 2 mediation independent samples test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Media-tion	Equal variances assumed	.089	.766	.241	44	.811	.07440	.30923	-.54880	.69761
	Equal variances not assumed			.241	43.709	.811	.07440	.30913	-.54872	.69753

The independent samples t-test indicated that there was no statistically significant differences in the perceived value add of management mediation support services as perceived by male-owned and female-owned incubated firms. The p value of 0.766, signals that there was not a significant difference in the compared means. Therefore, Hypothesis 3 was rejected.

4.8 Conclusion

In conclusion, none of the formulated hypothesis were confirmed by the results of the study.

The first test conducted sought to assess the ability of privately administered incubation programmes to add value to incubated firms in comparison to publicly administered incubation programmes. The results of the test, found that there was no difference in the ability of either private or publicly administered incubation programmes to add value to incubated businesses.

Secondly the value-add of business incubation support services between male-owned and female-owned small businesses was conducted. There was not a

significant difference in the perceived value add of business incubation support services between the two groups.

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

The study assessed the efficacy with which business incubation had been operationalised in South Africa. This study concerned itself with key aspects of B-BBEE, which is seen as having spurred on the increase in enterprise development and small business incubation initiatives in South Africa. The central question of this study was concerned with examining the ability of these small business incubation initiatives to add value to incubated business in South Africa. Particular to the study was whether privately or publicly administered small business incubation programmes were more effective in adding value to small business incubation programmes. Additionally, the value obtained by female-owned business from business incubation, relative to their male counterparts together with the ability of black-owned businesses to gain value compared to the non-black-owned counterparts was examined.

To address these research problems, the study sought the perceptions of small businesses owners and managers, currently receiving support within business incubation programs. The study relied on the insights of the incubated small businesses to assess the efficacy of small business incubation to add value to small businesses in South Africa, inter alia the realisation of B-BBEE and its objectives.

As the results were presented in the previous chapter, this chapter discusses and explains the results, making use of the literature reviewed and the hypotheses formulated. The chapter presents a discussion pertaining to the demographic profile of the respondents to the survey. It continues to discuss the principal factor analysis conducted, and the resultant observations. This is then followed by a discussion on the conducted t-tests, which effectively lead into the discussion of the findings from the initial hypotheses. The chapter closes with a conclusion of results observed, prior to outlining the possible implications these

findings hold for the audience (policy makers, practitioners and scholars of small business incubation).

5.2 Demographic profile of respondents

In the design of this study, a range of business incubation programs was identified with the deliberate purpose of adding complexity and depth to results of the study, hence the purposive sampling strategy adopted. Originally 120 respondents to the survey questionnaire was sought, with the intention of improving the representativeness of the study and as a result provide greater predictive and application ability to incubation practice in South Africa. However, during the field research it became apparent that a majority of incubation programmes were unwilling to participate in the research, and allow their incubatees to participate in a survey that evaluates the incubators ability to add value to the incubated businesses.

In total, 649 emails were sent the questionnaire via the Qualtrics software programme, in addition to a number incubators and small businesses being physically approached with the intention of soliciting responses. From 54 questionnaires returned, 49 were satisfactorily populated and adequate for use in the analysis of the results. Five of the returned questionnaires were printed copies, solicited by physically approaching incubators and entrepreneurs, while 44 of the responses were received through the online Qualtrics questionnaire medium.

The study focused solely on SMME's affiliated to incubation programs of different typologies (private and public), and incubated small businesses representing different demographic groups (black-owned or non-black-owned, and female-owned and non-female-owned). Unfortunately, a comprehensive range of business incubation typologies could not be explored, and for convenience, the study limited the typology break down to private and publicly administered incubation programs. A comprehensive exploration of business incubation typologies could explore, virtual and brick and mortar initiatives, industry focused

and generalist business development support incubators. Had the study been able to draw observations from the different typologies this would have provided further meaning to the audience and their work.

In response to the questionnaire, 43 respondents were affiliated to a private incubation programme with the other five respondents being affiliated to a public incubation program. One of the respondents did not indicate the incubation program they were affiliated to. The promulgation of the B-BBEE codes, together with the implications these hold for the private sector has effectively seen and increasing number of privately administered incubation programmes dominate the incubation landscape in South Africa.

In seeking diversity in the demographics of the respondents, only one of the responding businesses was white-owned with 47 of the participating small businesses indicating that they were a black-owned. One respondent did not indicate whether they were a black-owned or non-black-owned business. The dismal response rate of white-owned small businesses was expected due to the emergence of a number of incubation programmes. Because incubation initiatives aim to addressing the B-BBEE objectives, the selection criteria for incubatees, is heavily geared towards attracting the incubation of black-owned businesses. Consequently, incubation programmes have little incentive to incubate non-black-owned businesses. However, on the other hand, one may argue that non-black-owned businesses often do not require the support of an incubation programme, as it has been argued that these businesses often have at their disposal, the support, networks and resources required for successful entrepreneurial venturing.

In terms of the gender profile of the respondents, 22 businesses were male-owned while the remaining 24 were female-owned businesses.

The response rate for the questionnaire was disappointingly low, as the majority of incubating organisations were not willing to let their incubated firms to participate in the study.

5.3 Discussion pertaining to Hypothesis 1

Hypothesis 1 restated for convenience:

Hypothesis 1: *The perceived value-add of business incubation services to small businesses is greater for private programmes in comparison to public programmes.*

Turton and Herrington (2012) in the GEM 2012 report, bring the role of government in the administration of incubators into question. In their report, Turton and Herrington (2012) suggest that state run incubators have not been able to yield the desired results as it was revealed that state run incubators create on average, less than one job per annum. With the efficacy of the publicly administered incubator under scrutiny, the role of the state in the incubation of small businesses is questioned.

According to Allen and Weinberg (1988), the state may choose one of two approaches to ensuring effective small business incubation, either a catalytic approach or a management approach. The GEM report suggests that the government should take on a catalytic approach, which will see the state play the role of an information broker, creating incentives for local action by providing partial financial resources (Turton & Herrington, 2012) as opposed to a management role where the state is involved in operating the business incubator. Effectively the report suggests that privately run incubators should be incentivised to develop businesses (Turton & Herrington, 2012).

The GEM report's suggestions (Turton & Herrington, 2012) are based on job creation statistics; whereas this study seeks to assess the perceptions that incubated small business owners have of public incubation services. It was the intention of this study to draw on the views of incubated firms, prior to drawing conclusions on the role the state in the incubation of small businesses.

Hypothesis 1 was used to investigate Sub-problem 2, which sought to identify the perceived value add of small business incubation. This led to an investigation that focused on assessing the perceived value add of small business incubation

support services administered by private in comparison to state administered incubation programmes. Responses were solicited from incubated small businesses that were requested to indicate the perceived value they were able to derive for their ventures through their affiliated incubation program. Respondents indicated the perceived value-add across all incubation services offered. The results suggested that, there was no significant difference in the ability of private incubation programmes to add value to incubated firms, as compared to private incubation programmes. There was no significant difference in the ability of the firms to add value to the incubated firms in terms of the business incubation support service categories, namely infrastructure support services, management support services and mediation support services.

Conclusion

The results suggest that business incubation services offered by private incubation programmes are not significantly better than or inferior to business incubation services administered through public incubation programmes. It is therefore concluded that, whether an incubation program is privately or publicly administered, has no implication for its ability to add value to an incubated business through the provision of incubation support services.

Meaningful statistical support did not indicate that private business incubation programmes are better placed to add value to small businesses. As such, there is insufficient evidence to reject the Null Hypothesis, and insufficient evidence to support Hypothesis 1.

5.5 Discussion pertaining to Hypothesis 2

Hypothesis 2 restated for convenience

Hypothesis 2: *The perceived value-add of business incubation services are greater for female-owned businesses compared with male-owned businesses.*

As espoused by the IFC (2006) and the B-BBEE framework, it has been recognised that the South African economic policy is cognisant of the fact that women are an untapped pool of entrepreneurs, with a need for support as a significant driver of economic policy. While women entrepreneurs have historically lagged behind their male counterparts, there emerges an opportunity to create meaningful social and economic impact through the support of women entrepreneurs (Carter, 2000). The understanding that women entrepreneurs face particular constraints unique and different from their male counterparts prompts the study to investigate Hypothesis 3, the extent to which women entrepreneurs are able to derive value from business incubation services relative to their male counterparts.

Understanding female entrepreneurship in South Africa, a few factors central to the gender and economic discourse need to be considered. One needs to understand whether female are facing barriers resulting from prejudice and chauvinism, or the extent to which women entrepreneurs have to make trade-offs between family and work responsibilities (Carter, 2000). Because of these embedded challenges that women entrepreneurs face all the time, it is important that the value women entrepreneurs derive from being affiliated with these incubation programmes be established. In line with this study, the inroads that are being made by business incubation to achieve the objective of B-BBEE, which place emphasise the empowerment of women, needs to be understood.

The results from the respondents to this survey, identified that there was no significant difference in the value female entrepreneurs were able to derive from business incubation support services compared to their male counterparts.

As such, this study supports the Null Hypothesis and rejects Hypothesis 3.

5.6 Conclusion

This study was done on the back of increasing investment and attention being given to the development of small business using incubation as a strategy for the realisation of B-BBEE. The importance of assessing the efficacy of small

business incubation in adding value to small businesses is necessary as policy makers and practitioners reflect on the strides made since the promulgation of the B-BBEE legislation.

Hypothesis 1 and 2 considered different aspects of business incubation practice and objectives in South Africa, and together assessed the efficacy with which business incubation has been operationalised as a strategy for B-BBEE.

CHAPTER 6: CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

6.1 Introduction

In this study, academic literature and research methodologies in the areas of enterprise development, small business market failure, and business incubation support was referenced. The study looked towards literature to provide a theoretical basis for the study and the formulation of testable hypotheses. The theories in this field led to two main sub-topics of study. First, it was important to understand the rationale behind the rise in popularity of small business incubation as a strategy for addressing B-BBEE. Second, the research sought to understand the efficacy with which small business incubation support services are being offered to entrepreneurs, in the midst of the rise in popularity. The drafting of specific research problems and hypotheses, sanctioned the assessment of the efficacy with which small business incubation was utilised for not only small business incubation, but rather a tool for affecting the objectives of B-BBEE. The results of the study revealed three important learnings regarding the efficacy with which small business incubation programmes have been implemented as a tool for B-BBEE.

The section presents the conclusions of the study; the findings are summarised and presented, followed by recommendations and suggestions for further research on the subject matter.

6.2 Overview of literature review

The hypothesis, statistical tests and results discussed in this study are based on a comprehensive review of literature on business incubation and B-BBEE, the two central themes of the study. Jack and Harris (2007) provide an explanation of B-BBEE along with the most compelling reason for the implementation of B-BBEE as the promotion of economic growth, and a policy aimed at

mainstreaming black people's participation in the economy. This study, takes an interest in arguably the most popular approach in South Africa aimed at improving black people's participation in the economy through the incubation of small businesses.

The world over, incubation owes its prominence to its perceived role of reviving entrepreneurship and innovativeness in regions (Hackett & Dilts, 2004). For Voisey et al. (2006) incubation is understood as "a range of business development processes that are employed to support the growth of small, new start and young business ventures" (p. 455). Thus, the importance of studying the perspectives of businesses receiving support from different incubation programmes. With this study, the efficacy with which business incubation has been adopted as a strategy for effective B-BBEE, informed the main research problem. This problem was unpacked into three areas of focus, and the three hypotheses were formulated.

First, the efficacy of incubation by understanding the ability of privately and publicly administered incubation programmes to add value to incubated small businesses was assessed. Allen and Weinberg (1988) asked whether incubation is a public or a private affair. The GEM report suggested that the government should take on a catalytic approach to incubation, as opposed to a management approach, which would see the state play the role of an information broker, creating incentives for local action by providing partial financial resources (Turton & Herrington, 2012). Of interest was the establishment of the administrative entity, better suited to add value to incubated small businesses.

Second, the ability of incubation programmes to add value to black-owned businesses as per the B-BBEE framework, in contrast to the value added to non-black-owned incubated businesses, was measured. Ramirez (1995) introduced the notion of the exclusionary effects of race-based affirmative action programmes. Ramirez's (1995) perspective prompted an investigation of the second hypothesis, which effectively sought to assess the value added to black-owned and non-black-owned incubated businesses, through the provision of business incubation support services.

Lastly, the ability of business incubation to add value to female-owned businesses as compared to their male owned counterparts was assessed. The B-BBEE legislation and the IFC (n. d.) recognise that the South African economic policy has called for concerted efforts geared towards the empowerment of women, largely because of the fact that they are an untapped pool of entrepreneurs, with significant challenges posing a threat to their entrepreneurial ventures (Carter, 2000). The ability of business incubation support services to add as much value to female-owned business as it does to male-owned business, signals that strides are being made by business incubation programmes towards the realisation of B-BBEE, more specifically in this case the empowerment of women and the businesses they own.

Through studying these three aspects of small business incubation in South Africa, the efficacy with which business incubation has been able to contribute towards the realisation of B-BBEE was assessed.

6.3 Summary of results

In addressing the main problem of the study, three hypotheses were tested, which helped draw conclusions on three main aspects of incubation as a strategy for B-BBEE.

The first hypothesis was rejected. This result reflects that whether a programme is privately or publicly administered, has no bearing on the incubation programmes ability to add value to incubated firms and contribute to B-BBEE driven business incubation.

The second hypothesis was rejected. In effect, the results of the third hypothesis signal the ability of female-owned business to derive the same level of value add, as compared to their male counterparts.

In summary, tests to measure the efficacy of SMME incubation have yielded a few areas of discussion in addressing the research problem. The administrative capabilities of private and public incubation support programmes were

compared, and the role that the state should play in terms of the provision of incubation support was considered. Key inferences in terms of the implications that a B-BBEE driven incubation have for non-black-owned small businesses were made. Lastly, the ability of business incubation programmes to add as much value to female-owned businesses, compared to their male counterparts was observed.

6.3.1 Assessment of the problem statement

Main problem restated for convenience.

Investigate the efficacy of small business incubation as a strategy for enterprise development in South Africa.

By aligning the findings of this study with the problem statement, conclusions on the main question of the study were drawn. In terms of assessing the efficacy of small business incubation, this study sought to evaluate the effectiveness of business incubation across key components of administration, achievement of B-BBEE objectives of empowering black-owned small business and female-owned businesses.

First, a publicly administered incubation programme is as effective as privately administered incubation programme in its ability to add value to incubated small businesses.

Second, the ability of business incubation programmes to contribute to key aspects of the B-BBEE agenda, namely the empowerment of black-owned businesses and female-owned businesses was examined. The findings of the study indicated that small business incubation was effective in achieving its objectives around the realisation of B-BBEE objectives. This efficacy is manifested in the increased preference by incubation programmes to select black-owned businesses over white owned businesses.

In terms of adding value to female-owned businesses, it is apparent that women entrepreneurs have been able to gain as much value as male-owned businesses from business incubation support services.

6.4 Research implications

This section provides recommendations for stakeholders that were identified in Section 1.4 of the study. Stakeholders mainly include enterprise development policy makers, as well as small business incubation practitioners in transitioning economies. The output of the study may be useful to scholars of enterprise development, policy makers and business incubation practitioners, as key insights from the findings of the study may inform future practice and programs geared towards effective small business incubation.

6.4.1 Policy makers and incubators: Making incubation an effective tool for achieving B-BBEE

In response to the GEM report (Turton & Herrington, 2012) the suggestion was made that government should rethink its role in terms of the administration of incubators; whether an incubator is privately or publicly administered, has no bearing on the incubators ability to add value to the incubated small business.

As government considers what its role should be in the implementation of small business incubation, it should bear in mind that privately administered incubation programs are not able to add greater value compared to publicly administered programs, according to incubated firms.

For small business incubation practitioners and policy makers, it is important to note that there is a need to attract more white-owned small businesses to incubation programs. Further studies could look to determine economic development outputs of small business incubators as it is becoming increasingly important for incubation programs to attract and provide support to small businesses that exhibit the greatest growth potential, regardless of B-BBEE status. The disposition of many incubation programs focuses on supporting

black-owned small businesses to the detriment of broader and more strategic gains that could be realised from supporting and attracting white-owned small businesses as well.

With the emergence of women only business incubation programmes such as the case in the Jabal Taj of Jordan (Scaramuzzi: 2002), policy makers would consider the development of women only business incubators to better support female-owned businesses and achieve B-BBEE objectives. With the ability of South African incubators to deliver similar value to both women and male owned entrepreneurs, there would be no need for women only incubation programmes.

In effect, in order to realise the efficacy of SMME incubation to achieve the economic development objectives of the country, key considerations need to be made by both policy makers and practitioners regarding the most appropriate form to administer small business incubation. Key considerations will also need to be made to ensure that B-BBEE imperatives driving the establishment of small business incubators are not met at the detriment of attracting quality non-black-owned small business.

6.5 Limitations

The extent to which the study has been able to provide a meaningful contribution to business incubation and B-BBEE practice in South Africa, was limited by a number of factors.

The inability of the study to survey a wider population than obtained posed a challenge in terms of the representativeness of the results to the wider population.

In seeking to understand the contributions that are being made towards effecting B-BBEE, a comprehensive framework befitting of the broader range of incubation support services should be explored. Within this study, the administration of incubation programmes and the gender and race objectives of B-BBEE were the primary concerns. A comprehensive assessment would have included an

assessment of the ability of incubation to contribute towards economic development indicators.

6.6 Recommendations for future research

Based on the findings and research process undertaken in this study, this section discusses possibilities for further research. In addition, a few possible research areas are suggested, which may be important in deepening the understanding of small business incubation and its efficacy as a tool for effecting B-BBEE.

6.6.1 The rationale behind incubation as a strategy for B-BBEE

The popularity of small business incubation owes its prominence to its claimed economic development, especially for transitioning economies such as South Africa. In the South African context, small business incubators have been around for at least two decades and have graduated a number of small businesses. Future research seeks not only to measure the efficacy of small business incubation, but also other aspects of the incubator, such as its economic development role.

Further research should seek to understand the impact of the business incubation programs on the economic development in South Africa. Hence, a number of areas for future research are identified and include:

- *Proposed area for future research 1:* The impact of small business incubation programmes in contributing towards economic development;
- *Proposed area for future research 2:* The efficacy of small business incubation as an enterprise development strategy as compared to alternative approaches;
- *Proposed area for future research 3:* The effectiveness of different business incubation typologies (industry focused, gender focused, privately administered, publicly administered, and university based incubation), in adding value to small businesses; and

- *Proposed area for future research 4:* The impact of B-BBEE on small business incubation in South Africa.

6.7 Conclusions of the study

The efficacy of small business incubation as a strategy for the realisation of B-BBEE is explored across three important aspects of B-BBEE. Traditionally, incubation has been adopted by the state as a strategy for small business development in South Africa, however in recent years the responsibility of private institutions is increasing.

Given the hypotheses tested in this study, the null hypothesis holds on the first and the third hypotheses, confirmed by a t-test on the corresponding data; however, the third t-test, relating to Hypothesis 3 was not able to be conducted and therefore Hypothesis 3 could neither be accepted nor rejected.

6.7.1 Findings related to private versus public administration of incubation programmes

Whether small business incubation is best suited as a private or a public affair, has been the subject of debate, more specifically in reviews of the South African incubation landscape (Allen & Weinberg: 1988, Turton & Herrington, 2012). Instead of adopting an approach that assesses the ability of incubation programmes to achieve economic development indicators, as is the case with the job creation metric measure outlined by the GEM report (Turton & Herrington, 2012); this study sought an alternative approach in its quest to understand the perspective of incubated firms.

According to perceptual data collected in this study, there was no significant difference in the abilities of either privately or publicly administered incubation programmes to add value to incubated SMMEs. This allows better assessment of the suggestion put forward by the GEM report (Turton & Herrington, 2012) on the role of the state in the administration of incubation programmes. Whether a public entity administers an incubator or a private entity does, has no bearing on

the ability of the incubator to add value to an incubated small business. According to the study, there was no significant difference in the ability of either type of organisation (private or public) to add value to small businesses. This is contrary to suggestions by Turton and Herrington (2012) in the GEM report on the role that the state should be playing in the incubation of small businesses. Suggestions by the Turton and Herrington (2012) imply that state administered incubation support services have not been able to yield desired results, with the job creation rate by these types of incubations averaging approximately a single job per annum.

6.7.2 Findings related incubation support services by black-owned and white owned firms

The argument that affirmative action programmes effectively place black and white against each other, in a scramble for resources is assessed by this study. Based on the literature review, the hypothesis states that small business incubation support and resources are largely geared towards the benefit of black-owned businesses, and largely exclude white-owned business from receiving similar support.

While conducting the data analysis of the study, a number of incubation programmes were approached, in pursuit of respondents to the study. On the whole, respondents were difficult to obtain, as many incubation programmes were unwilling to provide access to their incubated businesses. Furthermore, responses from white-owned businesses, relative to black-owned businesses, were not sufficient to conduct meaningful independent samples t-tests. The low response rate from white-owned businesses is indicative of the incubation landscape in South Africa, as B-BBEE objectives and resources, therefore prioritising the selection of black-owned businesses over others, drive many programs.

It can be concluded that incubation programmes in South Africa prefer black-owned businesses in their selection as a result of the B-BBEE rationale that drives the emergence of many incubation programmes.

The study was unable to observe whether there was a significant difference in the value received by black-owned and white-owned firms. Key to the findings however, was the significant lack of non-black-owned small businesses across incubation programmes in South Africa. The study could not confirm either a significant difference, or lack thereof in the value derived from incubation programmes by black-owned and white-owned firms. The framework under which these incubation programmes have emerged, namely the B-BBEE framework, has led to exclusionary consequences for white-owned businesses across incubation programmes in South Africa, hence the inability to gather adequate responses from non-black-owned incubated businesses.

6.7.3 Findings related to incubation support services by female- and male-owned firms

Lastly, the study found that there was no significant difference in the value derived by female-owned businesses to male-owned businesses from incubation programmes. Female-owned businesses were able to derive as much value as male-owned businesses from the same incubation programmes, indicating the ability of incubation programmes to cater equally for both male and female entrepreneurs. Increasingly, efforts towards the support of female-owned businesses, has been top of the economic agenda in many transitioning countries, including South Africa. The support of female-owned small business plays an important role in the achievements of the objectives on B-BBEE.

With these objectives explicitly outlined in the B-BBEE codes of good practice, the study hypothesises that female-owned businesses would be able to derive greater value from business incubation support services, relative to their male counterparts. The results of the study however, revealed that there was not a significant difference in the perceived value female-owned small businesses were able to obtain relative to their male counterparts.

REFERENCES

Abduh, M., D'Souza, C., Quazi, A., & Burley, H. T. (2007). Investigating and classifying clients' satisfaction with business incubator Services. *Managing Service Quality, 17*(1), 74-91.

Adegbite, O. (2001). Business incubators and small enterprise development: the Nigerian Experience. *Small Business Economics*, *17*(3), 157-166.

Al-Mubaraki, H. & Busler, M. (2011). The development of entrepreneurial companies through business incubator programs. *International Journal of Emerging Sciences*, 1(2), 95-107.

Allen, D. N. & Weinberg, M. L. (1988). State investment in business incubators, *Public Administration Quarterly, 12*(2), 196–215.

Allen, D. N. & Mccluskey, R. (1990). Structure, policy, services, and performance in the business incubator industry. *Entrepreneurship Theory & Practice, 15*(2), 61–77.

Arya, B., & Bassi, B. (2011). Corporate Social Responsibility and Broad-Based Black Economic Empowerment Legislation in South Africa: Codes of good practice. *Business & Society*, 50(4), 674-695.

Barbero, J. L., Casillas, J. & Ramos, A. (2012). Revisiting Incubation Performance How Incubator Typology Affects Results. *Technological Forecasting and Social Change*, 79 (5), 888-902.

Bergek, A. & Norrman, C. (2008). Incubator Best Practice: A Framework. *Technovation*, 28 (1/2), 20-28.

Bosma, N. S. (2013). The Global Entrepreneurship Monitor and its Impact on Entrepreneurship Research. *Foundations and Trends ® in Entrepreneurship*, 9(2), 143-248.

Brink, M. & Cant, D. (2003, 28 September – 1 October). *Problems Experienced By Small Business In South Africa*, Paper presented at the 16th Annual Conference Of Small Enterprise Association Of Australia And New Zealand. Australia: University Of Ballarat..

Bryman, S. (2012). *Social Research Methods*. Oxford: Oxford University Press.

Buglear, C. (2005). *Quantitiative methods for business: The A-Z of QM*. Butterworth: Heinemann.

Carayannis, E. G. & von Zedtwitz, M. (2005).Architecting gloCal (global-local), realvirtual incubator networks (G-RVINs) as catalysts and accelerators of entrepreneurship in transitioning and developing economies: lessons learned and best practices from current development and business incubation practices. *Technovation, 25*(2), 95-110.

Carter, S. (2000). Improving the numbers and performance of women-owned businesses: some implications for training and advisory services. *Education and Training, 42*(4/5), 326-334.

Castillo, J. (2009). *Convenience sampling applied to research*. Retrieved 27 November 2014 from http://www.experiment-resources.com/convenience-sampling.html

Chandra, A. (2007). *Business Incubation in Brazil: Creating an Environment for Entrepreneurship*.. Retrieved 19 November 2014 from SSRN:http://ssrn.com/abstract=1058901 or http://dx.doi.org/10.2139/ssrn.1058901

Chandra, A &, Silva, M. (2012). Business incubation in Chile: Development, financing and financial services. *Journal of Technology Management & Innovation*, 7(2), 1-13.

Cheng, S. & Schaeffer, P. (2011). Evaluation Without Bias: A Methodological Perspective On Performance Measures For Business Incubators. *Région Et Développement*, 33(2011), 211-225.

Colombo, M. G. & Delmastro, M. (2000). How effective are technology incubators? Evidence from Italy. *Research Policy*, 31(7), 1103-1122.

Cooper, C. R., & Schindler, P. S. (2008). *Business Research Methods* (10 Ed.). Boston: Mcgraw-Hill.

Cornelius, B. & Bhabra-Remedios, R. (2003,28 September – 1 October). *Cracks in The Egg: Improving performance measures in business incubator research.* Paper presented at the 16th Annual Conference of Small Enterprise Association of Australia and New Zealand. Australia: University of Ballarat.

Dee, N., Gill, D. E., Livesey T. F., & Minshall, T. H. W. (2011). *Incubation for growth: A review of the impact of business incubation on new ventures with high growth potential*. Retrieved 14 october 2014 from http://www.nesta.org.uk/library/documents/IncubationforGrowthv11.pdf.

DTI (Department of Trade and Industry). (2012). *Incubation Support Programme (ISP): Programme Guidelines*. Pretoria: DTI.

Gravetter, F. J. & Forzano, L. B. (2012). *Research methods for the behavioural sciences*. Belmont, CA: Wadsworth.

Fadahunsi A., Smallbone D., & Supri S. (2000). Networking and ethnic minority enterprise development: insights from a North London study. *Journal of Small Business and Enterprise Development, 7*(3), 228-240.

Field, A. P. (2009). *Discovering Statistics Using SPSS*, (3rd edition). Los Angeles: Sage.

Fornoni, M., Arribas, I., & Vila, J. E. (2012). An entrepreneur's social capital and performance: The role of access to information in the Argentinean case. *Journal of Organizational Change Management*, 25(5), 682-698.

Gatewood, E., G., Carter, N. M., Brush, C. G., Greene, P. G., & Hart, M. M. (2003). *Women Entrepreneurs, Their Ventures, and the Venture Capital Industry: An Annotated Bibliography*. Stockholm: ESBRI.

Grigoria, A., Ratinho, T., & Harms, R. (2012). *Business Incubators: Creation Of A Fit In Armenia*. Nikos, School of Management and Governance, University Of Twente.

Grimaldi, A. & Grandi, A. (2005). Business incubators and new venture creation: An assessment of incubating models. *Technovation*, 25(2), 111-121.

Hackett, S. M. & Dilts, D.M. (2004). Systematic review of business incubation research. *Journal of Technology Transfer*, 29(1), 55-82.

Hamdani, D. (2006) *Working paper on conceptualizing and measuring business incubation.* Ottawa: Statistics Canada, Science, Innovation and Electronic Information Division (SIEID).

Hellerstein, J. (2008). *Quantitative Data Cleaning for Large Databases*. Retrieved 31 December 2014, from http://db.co.berkeley.edu/jmh/papers/cleaning-uece.pdf

IFC (International Finance Corporation). (2006). *Access to finance for women entrepreneurs in South Africa: Challenges and opportunities*. Johannesburg: IFC.

Jack, V. & Harris, K. (2007). Broad Based Black Economic Empowerment- The Complete Guide, Johannesburg: Frontrunner Publishing.

Khalil, M. & Olafsen, E. (2010). Enabling Innovative Entrepreneurship through Business Incubation. Washington DC: World Bank.

Knight, G. & Cavusgil, S. (2004). Innovation, organizational capabilities, and the born global firm. *Journal of International Business Studies*, 35(2), 124-141.

Lalkalka, D. (2003). *Current Trends In Business Incubation*. Paper presented at The Africa Regional 17 Conference On Business Incubation. Bagamayo: Tanzania.

Malhotra, N. K. &. Birks, D. F. (2007).,*Marketing Research An Applied Approach* (Third Edition). New York, Prentice Hall.

McAdam, M., & McAdam, R. (2008). High tech start-ups in university science park incubators: The relationship between the start-up's lifecycle progression and use of the incubator's resources. *Technovation, 28*(5), 277-290.

M'Chirgui, Z. (2012). Assessing the performance of business incubators: recent France evidence. *Business and Management Research*, *1*(1), 62-76.

Meru, A. K. & Struwig, M. (2011). An evaluation of the entrepreneurs' perception of business-incubation services in Kenya. *International Journal Of Business Administration, 1*(4),112-121.

Mian, S. A. (1996). Assessing The value-added contributions of university technology business incubators to tenant firms. *Research Policy*, *25*(3), 325-335.

Mian, S. A. (1997). Assessing and managing the university technology business incubator: an integrative framework. *Journal of Business Venturing*, *12*(4), 251-285.

Mitchell, B. (2003). Ethnic Entrepreneurship: Preliminary Findings from a South African Study. *Journal of Small Business and Entrepreneurship, 17*(1), 47-62.

NCT (National Credit Regulator). (2011). *Literature Review on Small and Medium Enterprises' Access to Credit and Support in South Africa*. Pretoria Underhill Corporate Solutions.

Ndabeni, L. (2008). The contiburtion of business incubators and technology stations to enterprise development in South Africa. *Development Southern Africa*, 25(3), 259-268.

OECD (Organisation for Economic Co-operation and Development). (1997) *Technology Incubators: Nurturing Small Firms*, Paris: OECD

Olsen, C. & George, D. M. M. (2004). *Cross Sectional Designs And Data Analysis, The Young Epidemiology Scholars Program*. Princeton, NJ: The Robert Wood Johnson Foundation.

Patton, D., Marlow, S., & Hannon, P. (2000). The relationship between training and small firm performance; research frameworks and lost quests. *International Small Business Journal, 19*(1), 11-27.

Penrose, E. T. (1959). *The theory of the growth of the firm*. New York: John Wiley.

Peters, L., Rice, M. & Sundararajan, M. (2004). The role of incubators in the entrepreneurial process. *Journal pf Technology Transfer, 29* (1), 83-91.

Phillips, R. G. (2002). Technology business incubators: How effective as technology transfer mechanisms. *Technology in Society*. 24(3), 299-316.

Ramirez, D. (1995). Multicultural empowerment: It's not just black and white anymore, *Stanford Law Review*, 47, 958-992.

Ramluckan, S. & Thomas, W. (2011). Raising Businesses, *Agenda, 2*, 18-21.

Rantseli, P. (2011). The role of preferential procurement in promoting historically disavantaged SMMEs: Evidence from Ekurhuleni Municipality, Masters in Development finance thesis. University of Stellenbosch, Stellenbosch.

Rogerson, C. M. (2004). Urban tourism and economic regeneration: the example of Johannesburg. In C.M. Rogerson & G. Visser (Eds), *Tourism and Development Issues in Contemporary South Africa*, (pp. 466-487). Pretoria: Africa Institute of South Africa.

Sanchez, D. (2006*). Socio-economic transformation In South Africa, Black Economic Empowerment and small, medium and micro enterprises*. Denmark: DIIS.

Scaramuzzi, E. (2002). *Incubators In Developing Countries: Status **And** Development Perspectives*, Washington DC: The World Bank.

Scillitoe, J. L. & Chakrabarti, A. K. (2010). The role of incubator interactions in assisting new ventures. *Technovation, 30*(3),155-167.

Sehitoglu, Y. & Ozdemir, O. C. (2013). The impact of business incubation on firm performance during post-graduation period - Turkey example. *British Journal of Arts and Social Sciences,12*(1), 133-146.

Smilor, R. W. (1987). Commercializing technology through new business incubators. *Research Management 30*(5), 36-41.

Smilor, R. &Gill, M. (1986). *The new business incubator: Linking talent, technology and know-how*. Lexington: Lexington Books.

Suhr, D. D. (1999). *Principal Component Analysis vs. Exploratory Factor Analysis*, University of Northern Colorado, Greeley, Colorado.

Tamasy, C. (2007). Rethinking technology-oriented business incubators: Developing a robust policy instrument for entrepreneurship, innovation, and regional development? *Growth and Change, 38*(3), 460-473.

Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research, 1*, 77-100.

Turton, N. & Herrington, M. (2013). *Global Entrepreneurship Monitor South African 2012 Report.* Retrieved 13 October 2014 from, Http://Www.Gemconsortium.Org/Docs/2801/Gem-South-Africa-2012-Report (December 22, 2013)

Ulrich, D., & Lake, D. (1991). Organizational Capability: Creating Competitive Advantage. *The Executive, 5*(1), 77-92.

Vanderstraeten, J., Matthyssens, P., & Van Witteloostuijn, A. (2012). *Measuring The Performance Of Business Incubators, Research Paper 2012-012*, University Of Antwerp, Antwerp, Belgium.

Visagie, J. C. (1997). SMMEs challenges in reconstructing South Africa. *Management decisions, 35*(9), 656 -663.

Voisey, P., Gornall, L., Jones, P. & Thomas, B. (2006). The measurement of success in a business incubation project. *Journal of Small Business & Enterprise Development, 13*(3),454-468.

Voisey, P., Jones, P., & Thomas, B. (2013). The pre-incubator: A longitudinal study of 10 years of university pre-incubation in Wales. *Industry & Higher Education, 27*(5), 349-363.

Xu, L. (2010). Business incubation in China: Effectiveness and perceived contributions to tenant enterprises. *Management Research Review, 33*(1), 90-97.

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

Wits Business School
Sculpting global leaders

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. My research focuses on the efficacy of small business incubation as a strategy for a South African enterprise development.

This is a voluntary survey and participants may withdraw at any stage of the process. It takes approximately 5 minutes to complete, and I would be most grateful for your participation. 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 0713817j@students.wits.ac.za. Queries, additional comments and recommendations can be forwarded as well.

Thanking you in advance for your participation! ☺

In which industry does your business conduct its daily activities?

Which Incubation Programme is your business presently affiliated to?

Has your business been involved in any other incubation programmes besides the one you are currently in?

Is your company a black-owned business (51 % or more of ownership is black)?

Yes	
No	

Is your company a female-owned business (51 % or more of ownership is female)?

Yes	
No	

How many months has your business been in incubation?

Please indicate with a cross (X) the level with which each of the below business incubation services have added value to the development of your incubated business.

	No Value at all	Little Value	Average Value	Large Value	Very Large Value
Office space					
R & D Facilities					
Clerical Services					
Leadership Training and Coaching					
Business Plan Development					
Innovative Problem solving techniques					
Project Management					
Financial Management					
Legal Matters					
Marketing Management					
HR Management					
Strategic Management					
Mediation regarding Partners					
Mediation regarding Customers					
Mediation regarding Suppliers					
Mediation regarding Employees					
Mediation regarding University Researchers					
Mediation regarding Financiers					
Mediation regarding Equity Investors					

APPENDIX B:

Instrument Consent Form

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MM RESEARCH CONSENT FORM

The efficacy of SMME incubation as a strategy for B-BBEE Study

INFORMATION SHEET AND CONSENT FORM

Who I am

Hello, I am Tshepo Ntlamelle. 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 efficacy of SMME incubation as a strategy for SMME incubation. I am conducting a quanitative study with 120 informants to establish *the extent to which business incubation support services have been effective in achieving broad based black economic empowerment.*

Your participation

I am asking you whether you will allow me to distribute a questionanaire through your organisation to selected SMME's. If you agree, I will ask you to distribute the questionnaire on my behalf. I am also asking you to give us permission to also access organisational data on the performance of the incubator..

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.

Benefits

There are no immediate benefits to you from participating in this study. However, this study will be extremely helpful to us in understanding the practice and application of SMME incubation in South Africa

If you would like to receive feedback on the study, I can send you the results of the study when it is completed sometime after February 2014

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

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

If you have concerns or questions about the research you may call my academic research supervisor …….(include a direct office number).

CONSENT

I hereby agree to participate in research on (*insert research objective*). I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop participating at any point should I not want to continue and that this decision will not in any way affect me negatively.

I understand that this is a research project whose purpose is not necessarily to benefit me personally in the immediate or short term.

I understand that my participation will remain confidential.

……..

Signature of participant **Date**:……..

I hereby agree to the tape-recording of my participation in the study.

……..

Signature of participant **Date**:……..