Beyond Godisa: Critical Success Factors for Business Incubators in South Africa

By

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ABSTRACT

This study examined the critical success factors of small business development organisations and business incubators in South Africa. Top-level managers and directors of these organisations were surveyed both on the characteristics of their organisations and on their perceptions of critical success factors as identified by Buys and Mbewana (2007) in a previous study of a similar nature.

The researcher sought to establish whether these pre-defined antecedents of incubator success were still relevant to the current South African context and if the business model of the organisation had any bearing on performance outcomes. Some critical success factors, namely Access to Technical Expertise, Supportive Government Policy, Availability of Funding and Management Competencies were found to have no significant relationship with incubator performance, while Networking, Stakeholder Support, Financial Sustainability and Stringent Selection Criteria were positively correlated to the performance of the organisation. These outcomes of the quantitative survey were then explored in more detail through three in-depth interviews with directors of organisations with different priority goals and different small business development models.
DECLARATION

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

__________________________________
Vimbainashe Olga Kavhumbura

Signed at .................................................................

On the ........................................ day of ......................... 2014
DEDICATION

For my parents, who have given me everything.
Ephesians 6:2-3
I would like to express my deepest thanks to my supervisor, Professor Boris Urban, for his succinct and honest input into my research and for sharing his immense knowledge.

I would also like to thank my friend and course co-ordinator, Tozi Zeka, for being a champion and a tremendous support.

A special thanks to my family: Words cannot express how grateful I am to them for all of the prayers, words of encouragement, and sacrifices that they have made on my behalf. This goes double for Sam and Andrea.

I would also like to thank all of my friends, near and far, who supported me in writing, and cheered me on throughout this journey.

God bless you all.
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CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

This section examines the background against which the problem statement of this research is to be explored. It delineates the purpose and context of the study as determined by current existing literature on business incubators and the prerequisites for successful incubation programmes in the South African context; thereafter the problem statement is articulated. The significance and delimitations of the research are discussed and finally, definitions of key terms and assumptions underlying the research are presented.

The rest of the paper is structured as follows:

Section 2 provides a thorough review of the literature on the constructs of enterprise development, focusing on incubation as a key strategy; critical success factors for incubation in South Africa and how this pertains to the performance of incubators presently.

In Section 3 the research methodology is discussed with reference to its applicability to the research questions developed from the literature review. In Section 4, the planning of the research is presented.

1.2 THEORETICAL BACKGROUND

This research study is based on previous work done on South African business incubators by Buys and Mbewana (2007). The concept of
incubator performance is based on theoretical frameworks proposed by Mian (1997) which centre around the performance and effectiveness of university-based technology incubators (UBTIs). Mian (1997) puts forward an integrated performance assessment framework derived from extant literature on business incubation, the involvement of universities in technology and business advancement, and the conventional approaches to organizational evaluation. The proposed framework adopts the overall systems perspective combining four programme effectiveness approaches from organizational assessment literature, namely the goal approach; the system resource approach; the stakeholder approach; and the internal process approach (Mian, 1997, p256).

A second theoretical approach explored in this research originates from the work of Hackett and Dilts (2008) who advance a ‘black box’ theory of business incubation which involves presenting sorely needed validated scales for assessing the process of business incubation, as well as an empirically-based theoretical model of the incubation process.

1.3 CONTEXT OF THE STUDY

According to several studies, entrepreneurship is a key factor of economic growth in today’s increasingly competitive global economy. The field of entrepreneurship has been explored in many ways and through the application of several theoretical frameworks that borrow from different academic disciplines, including sociology, management, and economics. As such, there are different operationalizations of entrepreneurship existing in literature. Lee and Peterson (2001) refer to three levels of study: individual, environmental, and firm. They discuss the environmental view, defining entrepreneurship as a response to specific conditions that can hinder or facilitate entrepreneurship activities by the nature of the context they create (Lee & Peterson, 2001). In essence, macro level
influences on the levels of entrepreneurship include the economic, social, cultural and political climate.

Developing a strong culture of entrepreneurship in South Africa is seen as a solution to bridging the widening gap in economic opportunity and minimizing the effects of poverty and inequality (Herrington, Kew, & Kew, 2010). Implications of increased levels of entrepreneurship at the societal level include higher standards of living, improved health, and increased global competitiveness due to increases in new products and services and technological advances (Lee & Peterson, 2001).

Research conducted by the Global Entrepreneurship Monitor (GEM) has shown South Africa to have significantly lower levels of Total Early-stage Entrepreneurial Activity (TEA) than other developing countries (Herrington et al., 2010). In 2008, the national early-stage entrepreneurial rate was 7.8% – notably below the average level of 13% for other middle to low income countries (Herrington et al., 2010). It is essential to understand the factors that are causing this situation and find ways to mitigate it.

To this end, the South African government has introduced several programmes for enterprise development and Small, Medium and Micro Enterprise (SMME) support in order to create employment and wealth. In the view of Pretorius and Van Vuuren (2003), awareness of the cultural influences on entrepreneurial development is imperative for the development and realization of strategies and initiatives that promote entrepreneurship.

According to Lee and Peterson (2001), entrepreneurship theory is applicable to firm behaviour as well as more broadly to the entrepreneurial development of countries. This is significant in terms of the nature of interventions developed and implemented by governments to promote entrepreneurship and economic growth. In the South African context, this
entails creating ways to improve the Total Early-stage Entrepreneurial Activity (TEA) and support SMMEs. To this end, the South African government has put in place several programmes to promote entrepreneurship and business development such as specific support from the Department of Trade and Industry (DTI) and the Broad-Based Black Economic Empowerment (B-BBEE) framework.

At the firm level, entrepreneurial effectiveness is dependent on organizational-level and individual-level behaviours and is an antecedent of firm performance (Covin & Slevin, 1991).

1.4 PURPOSE OF THE STUDY

The purpose of this research is to examine previously identified critical success factors of business incubators in South Africa and assess their relation to performance based on a number of theoretically relevant criteria. The central argument is that there are internal and environmental factors such as existing government policies and regulations, the availability of funding and the provision of funding for entrepreneurs that may improve the performance of business incubators, making them an effective vehicle for enterprise development and national economic growth. The research also intends to investigate differences in performance between different models of small business development.

1.5 PROBLEM STATEMENT

1.5.1 Main problem

Determine the critical success factors for South African incubators and ascertain the relationship between different incubation models and the performance of incubators in South Africa.
1.5.2 Sub-problems

The first sub-problem is to establish the antecedents of successful incubation in the South African context.

The second sub-problem is to evaluate the relationship between type of incubation model used and the performance of incubators in South Africa.

1.6 SIGNIFICANCE OF THE STUDY

The study fills a gap in that, since the study done by Buys and Mbewana (2007), the landscape of small business development and incubation in South Africa has grown and changed significantly. As far as the researcher could ascertain, no further studies have been conducted in this area, despite the recommendation made that definitive success factors specific to the South African context need to be identified (Buys & Mbewana, 2007). A second gap in current knowledge emerges from the fact that the type of incubation being practised has also evolved. A larger array of small business development services now exists. This suggests there may be a need to assess the different models of incubation and the relationship between type and performance.

The study will contribute to the literature that may provide guidance to enterprise development practitioners, industrial policy makers and government who aim to use incubator programmes and entrepreneurship as a vehicle for economic growth in South Africa. By employing a mixed methods approach, the researcher aims to gain both breadth and depth of understanding and corroboration, while compensating for the weaknesses inherent in using either a quantitative or qualitative research approach on its own.
This work aims to contribute to enhancing the conception of the strategic management of incubator models in developing countries and providing valuable information to both academics and practitioners with an interest in incubator programmes, including the areas of corporate governance, enterprise development and industrial policy. The research will also look to contribute to the overall body of entrepreneurship knowledge.

1.7 DELIMITATIONS OF THE STUDY

This study will mainly consider the critical success factors for business incubation identified by Buys and Mbewana (2007) as being relevant to the South African context, although a review of other variables discussed in subsequent literature will also be undertaken.

This study is limited to business incubators and other small business development organizations currently in operation in South Africa, regardless of sector, size or age of the organization. The study does not cover any other countries.

1.8 DEFINITIONS OF TERMS AND ABBREVIATIONS

**Broad-Based Black Economic Empowerment (B-BBEE):** This is defined as the sustainable economic upliftment of all black people, with emphasis on specific groups including women, workers, youth, people with disabilities and people living in rural areas, through various socio-economic strategies (Republic of South Africa, 2004).

**Business Development Services (BDS):** These are non-financial services and products offered to entrepreneurs at various stages of their business needs which are primarily aimed at skills transfer or business advice (Ifc.org, 2014).
Small Enterprise Development Agency (Seda) – Seda is an agency of the South African Department of Trade and Industry (dti) established in 2004 to implement the government’s small business strategy and integrate all government-funded small enterprise support.

Small, Micro and Medium Enterprises (SMME): According to the National Small Business Act, SMME describes a distinct business entity, including co-operatives and non-governmental organizations, managed by one or more owners, which are categorized by the number of employees per enterprise size category in combination with the annual turnover categories. The smallest is a micro enterprise with fewer than 5 employees or turnover of less than R100 000 per year; the largest is a medium enterprise with a maximum of 200 employees or gross turnover of up to R18 million, depending on the sector in which they operate (Mahembe, 2011).

Total Early-stage Entrepreneurial Activity index (TEA): TEA denotes the incidence of business start-ups (nascent entrepreneurs) and new firms in the adult population (18 to 64 years of age) or the level of entrepreneurial activity occurring in a country (Herrington, Kew, & Kew, 2008).

1.9 ASSUMPTIONS

It is assumed that the respondents will have access to the information about their organisations required to understand the constructs and questionnaire to enable them to answer the questions in an appropriate and timely manner with accurate data. The accuracy of data and truthful responses are assumed because the anonymity and confidentiality of respondents will be preserved and the survey participants are asked to take part voluntarily with the option to withdraw their participation at any time and with no ramifications.
CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This section investigates current literature on business incubation and articulates the theoretical constructs presented in this paper. This research draws on existing theory and previous studies to explore the constructs of a conducive environment and firm performance as it pertains to incubator firms. The literature review concentrates on sub-problems 1 and 2 as stated in the introduction to this paper:

1. To establish the antecedents of successful incubation and other business development services in the South African context.
2. To evaluate the relationship between the type of incubation model used and the performance of incubators in South Africa.

This section will first articulate the constructs of business incubation and firm performance by defining them and then exploring how each is assessed and measured. There follows a discussion of the previous study done by Buys and Mbewana (2007), with specific focus on the relevance of these concepts, their findings within the evolving field of enterprise development and business incubation as a means to improving the performance of SMMEs and growing the economy of South Africa.
2.2 DEFINITION OF TOPIC AND BACKGROUND

Entrepreneurship has long been acknowledged as being fundamental to the well-being of any growing economy. The potential of entrepreneurship to create employment and alleviate poverty has been well documented in literature. The concept of entrepreneurship has also been a topic of great debate since the mid-20th century and as a result, there are several contemporary definitions of the term. According to Drucker (1985), entrepreneurship is the act of innovation that involves creating new wealth capacity from existing resources (Drucker, 1985, as cited in Herrington et al., 2010). Timmons (1997) views entrepreneurship as a way of thinking and acting that is opportunity-driven, all-encompassing in approach, and supported and balanced by leadership (Timmons, 1997, as cited in Herrington et al., 2010). In later work Sharma and Chrisman (2007) posit that entrepreneurship consists of acts of organizational creation, rejuvenation, or innovation that take place within or are external to an existing business. This research describes entrepreneurship according to these definitions, viewing it as a cognitive process of innovation, driven by opportunity that results in the creation and renewal of organizations, either new or existing.

2.2.1 Enterprise Development

South Africa currently faces several economic, social and political challenges, including the scourge of growing unemployment. Additionally, income inequality continues to grow, the standards of education are poor on average, and there is growing frustration with public service delivery and corruption (OECD, 2013). This is despite increases in per capita income, improved public services, and falling crime levels. According to Trevor Manuel, former Minister of Trade and Industry,

“Small, medium and micro enterprises represent an important vehicle to address the challenges of job creation, economic growth and
Small and medium enterprises are commonly seen as the drivers of economic and social development in emerging economies and in accordance with this, the promotion and growth of small business has assumed an increasingly prominent role in development planning and policy in emerging African economies (Agupusi, 2007; Rogerson, 2001). In South Africa, a ‘small business’ is defined according to Section 1 of the National Small Business Act of 1996 and amended by the National Small Business Amendment Acts of 2003 and 2004 (NSB Act) as being,

“...a separate and distinct business entity, including co-operative enterprises and non-governmental organizations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or sub-sector of the economy mentioned in Column I of the Schedule14... ”.

The NSB Act uses the term “SMME” to denote small, medium and micro-enterprises. This term is used interchangeably with ‘SME’. The definition uses the number of employees per enterprise size category alongside the annual turnover categories and the company’s gross assets excluding fixed property (Smit & Watkins, 2012). The different classifications are summarized in Table 1 below:

<table>
<thead>
<tr>
<th>Enterprise Size</th>
<th>Number of Employees</th>
<th>Annual Turnover (ZAR)</th>
<th>Gross Assets, Excluding Fixed Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Fewer than 100 to 200, depending on industry</td>
<td>Less than R4m up to R50m depending on industry</td>
<td>Less than R2m to R18m depending on industry</td>
</tr>
<tr>
<td>Size</td>
<td>Fewer than 5</td>
<td>Less than R150 000</td>
<td>Less than R150 000</td>
</tr>
<tr>
<td>------------</td>
<td>--------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Small</td>
<td>Fewer than 50</td>
<td>Less than R2m to R25m depending on industry</td>
<td>Less than R2m to R4.5m depending on industry</td>
</tr>
<tr>
<td>Very Small</td>
<td>Fewer than 10-20, depending on industry</td>
<td>Less</td>
<td>Less than R150 000 to R500 000 depending on industry</td>
</tr>
<tr>
<td>Micro</td>
<td>Fewer than 5</td>
<td>Less than R150 000</td>
<td>Less than R100 000</td>
</tr>
</tbody>
</table>

Source: Mahembe (2011)

The small enterprise economy in African countries is characterised by dynamism and heterogeneity, leading to high levels of fluidity and churn (Dondo, 1998; Mead, 1998; Mead & Liedholm, 1998 as cited in Rogerson, 2001). According to recent studies, small businesses account for approximately 95% of all enterprises in South Africa and contribute between 45-50% of the country’s GDP (Krüger, 2011). Between 1985 and 2005, small, micro and medium firms were responsible for creating 90% of all new jobs (Timm, 2011).

Recent studies show that the majority of South Africa’s SMMEs are micro- and survival enterprises which show little evidence of enterprise growth and do not contribute greatly to national economic growth and employment creation (Berry et al., 2002 as cited in Rogerson, 2004). Medium-sized SMMEs are largely responsible for the most new employment. It is significant to note, however, that these dynamic SMMEs represent the smallest segment of South Africa’s SMME economy as a whole (Rogerson, 2004).

SMMEs in South Africa encounter several challenges that impede entrepreneurial development (Agupusi, 2007; Mahembe, 2011; Ndabeni, 2008). The barriers to SMME success include industry-related problems such as a lack of market knowledge and experience; a lack of market
access; and economy-based impediments like fluctuations in interest rates (Smit & Watkins, 2012). The Global Entrepreneurship Monitor (GEM) 2009 special report on South Africa states that South African SMMEs exhibit a high prevalence of deficient management skills which is seen as a result of inadequate training and education. This leads to high levels of business failure, with South Africa having one of the lowest SMME survival rates globally (Herrington et al., 2010). A lack of managerial expertise and training, together with a lack of business experience and a poor organizational culture, are major impediments to the establishment of successful SMMEs in South Africa (Smit & Watkins, 2012). In addition to this, government initiatives to help small business have had little impact in providing effective support for entrepreneurs to start up and grow their business (Timm, 2011). Another critical factor has been the lack of awareness among entrepreneurs of many of the government’s support schemes among SMMEs (Timm, 2011).

This emphasizes the need for establishing developmental aims and policies that respond directly to localized conditions, and tailor interventions by government appropriately to the particular context in which they operate. The use of strategies and policies that have worked in other contexts needs careful consideration. In addition, it is imperative to understand the factors of small enterprise growth and success in order to formulate appropriate policy (McPherson, 1996 as cited in Rogerson, 2001).

Since the 1994 democratic elections, there has been a radical shift in the landscape of development planning in South Africa, primarily in order to tackle the challenges of reintegrating into the global economy, as well as to meet the objectives of economic development, employment creation and wealth redistribution (Rogerson, 2004). From 1994–2003, the government’s focus on the development of SMMEs stemmed from a vision
of SMMEs as a driving force for employment promotion, redistribution, and improvement in global competitiveness (Rogerson, 2004).

Another unique role for SMME strategy in South Africa is to redress acute inequalities that are the legacy of the apartheid system with regard to economic ownership (South Africa, 1995, as cited in Rogerson, 2004). The importance of this as an agenda for government is highlighted by the inclusion of enterprise development as a prominent feature of the new B-BBEE codes.

Numerous institutions and programmes have been established by the South African government through the Department of Trade and Industry (DTI) to aid small business development. These include the Small Enterprises and Development Agency (SEDA) and Khula Enterprises Limited, (Agupusi, 2007) which was incorporated into the Small Enterprise Finance Agency (SOC) Ltd (SEFA) in 2012. These organizations oversee several programmes designed to nurture new business start-ups and increase the capacity of existing SMMEs. Other institutions include the National Empowerment Fund (NEF), which provides funding for small businesses; the Industrial Development Corporation (IDC); the South Africa Micro Finance Apex Fund (SAMAF); and the Gauteng Enterprise Propeller (GEP).

2.2.2 Business incubators

A business incubator as defined by Hughes, Ireland, and Morgan (2007) is a facility which helps small young firms to develop into competitive businesses in a short space of time. The aim of incubators is to provide support in the development and commercialization of business ideas in an environment that reduces the risk of failure (Aernoudt, 2004; Al-Mubarak & Busler, 2010a; Buys & Mbewana, 2007; Hackett & Dilts, 2004b). This is important because the failure rate of start-ups and new enterprises
remains high over time (Pena, 2004). The role of incubators has evolved from merely providing premises and office facilities to providing networking, training and consulting services (Peters, Rice, & Sundararajan, 2004). Incubation programmes aim to achieve a range of goals, for example, expanding the local economy, commercializing new technologies from academic institutions, serving minority entrepreneurs, and creating jobs (Al-Mubaraki & Busler, 2010a).

Business incubation is believed to have originated in the United States in 1959, followed by significant growth of the concept in the United States in the mid-1980s (Al-Mubaraki & Busler, 2010a). Since then, incubation has become a global phenomenon.

There is notable disagreement in existing literature as to the role and usefulness of incubators in the entrepreneurial process (Buys & Mbewana, 2007). On the one hand, scholars view incubators as an essential service that contributes to enterprise development and gives rise to an environment conducive to the success of small business (Peters et al., 2004). A contrary view sees incubators as creating artificially sheltered environments that do not benefit all businesses (Cunningham, 1999). Despite this lack of consensus with regard to their effectiveness, the motivation for the process of incubation is clear. Firstly, the high rates of new business failure as a result of a paucity of management skills and/or access to capital is a clear indication that support in the early stages of firm development and growth is necessary (Peters et al., 2004). In South Africa, this is shown by the consistently lower numbers of established firms when compared to start-up firms year on year between 2001 and 2009 (Herrington et al., 2010).

Incubators can provide access to the resources that small and young firms need to grow, either directly or indirectly through formal and informal networks (Peters et al., 2004).
Assessing the success and impact of incubators is important because insofar as incubators utilize public and investor funds, they need to be answerable for the outcomes of the allocation and use of those funds (Hackett & Dilts, 2004b). How business incubators are evaluated is of major importance in order to give advice for best practice to stakeholder groups involved with their establishment and operation (Schwartz & Göthner, 2009).

A key contributor to the lack of concurrence among scholars with regard to the effectiveness of incubators may be the lack of a standard measure of incubator performance. There does not seem to be any consensus as to the definition of “performance” and the appropriate measures of assessment and comparison (Bergek & Norrman, 2008; Mian, 1997).

According to Wiggins and Gibson (2003, p56), business incubators should perform certain undertakings competently in order to succeed:

1. Establish clear metrics for success;
2. Provide entrepreneurial leadership;
3. Develop and deliver value-added services to member companies;
4. Develop a rational new-company selection process; and
5. Ensure that member companies gain access to necessary human and financial resources.

In this study the definition (Bergek & Norrman, 2008) of incubator is broadly applied to organizations that provide a combination of physical premises, services, business support and networks to early stage ventures and SMMEs in general.

2.2.3 Business incubation in South Africa
Business incubators have proved to be effective as developmental institutions in other parts of the world (Rogerson, 2004). In South Africa, business incubation is a somewhat recent phenomenon and is in the process of evolving (Ndabeni, 2008). As such there is limited literature in South Africa that can offer insight into the state of business incubators in the country. This is a primary motivation for this research.

Incubators in South Africa are mostly publicly funded – at a national or provincial level – with a growing number of privately-funded incubators. The main challenge for government is whether or not to augment efforts to set up more incubators and the appropriate way to do so. Incubation is a resource-intensive exercise, involving large financial and human capital outlays (Timm, 2011). To this end, the DTI has initiated the Incubation Support Programme (ISP) with the aim of encouraging private sector partnerships with Government to assist incubators in order to develop SMMEs into sustainable enterprises that can create employment and boost economic growth (Departement of Trade and Industry, 2011). The difficulties faced by incubators in developing countries include a lack of access to financial resources; finding and retaining qualified staff; difficulty in establishing partnering opportunities with professional services; the mindset of entrepreneurs who are not willing to ask for help; an unfavourable business environment; a risk-averse national culture; a distinct lack of venture capital; and limited access to networks of “angel” investors (Stefanović, Devedžić, & Eric, 2008).

In the face of these challenges, the question is whether growing the number of incubators will ultimately lead to the formation and growth of businesses that are able to contribute significantly to economic growth and employment (Timm, 2011).

The main government-run incubation initiative operates under the Small Enterprise Development Agency’s (Seda) technology programme, which
emerged out of the Godisa Trust in 2000 and was integrated into the agency in 2006. In 2010 Seda had 29 incubators, representing various sectors in different provinces (Ndabeni, 2008; Timm, 2011). The programme currently has 42 incubation centres throughout South Africa.

The number of business incubators in South Africa and other developing economies is growing (Lalkaka, 1997). This shows that a conducive business environment is increasingly being recognized as a significant factor for the success of SMMEs and the growth of the local economy (Buys & Mbewana, 2007; Ndabeni, 2008).

**Research Question 1: Are the critical success factors of the GODISA case study still significant?**

### 2.2.4 Firm Performance

It is critical for this research to establish exactly what is meant by firm performance. Firm performance can be described in several different ways. The majority of the existing research on firm performance measurement has originated from organizational theory and strategic management (Murphy, Trailer, & Hill, 1996). Strategic management research defines organizational performance measurement in several ways. The narrowest conception of business or firm performance uses simple outcome-based financial indicators that represent the achievement of the firm’s economic goals (Venkatraman & Ramanujam, 1986). The economic or financial performance of a firm is typically comprised of growth and profitability, and includes criteria such as sales growth, profit-to-sales ratios and return on assets and investment (Covin & Slevin, 1991).

A broader conceptualization of business performance looks beyond strictly financial measures and includes indicators of operational or non-financial
performance (Venkatraman & Ramanujam, 1986). Here, measures like market-share, product quality, new product introduction, manufacturing value-add, marketing effectiveness, and other measures of technological effectiveness are also incorporated within the area of business performance (Venkatraman & Ramanujam, 1986). Lalkaka and Abetti (1999) discusses several non-financial measures of incubator performance directly linked to the mission and objectives of the organization.

Business performance can be measured using financial indicators, operational indicators, or both (Venkatraman & Ramanujam, 1986). Research suggests that performance measurement could be improved by examining multiple dimensions of performance simultaneously (Murphy et al., 1996; Venkatraman & Ramanujam, 1986). Additionally, in order for comparisons of performance among businesses to be made, a commonality must be established. Murphy et al. (1996) puts forward four control variables that aid in this process, namely size of the firm, industry, age of the firm, and risk.

### 2.2.5 Incubator Performance

As it pertains to business incubators, Bergek and Norrman (2008) defines performance as the extent to which incubator outcomes correspond to the goals of the incubator. Typically, incubation programmes will have goals and objectives that reflect their own specific operating environment and stakeholders’ interests (H. M. Al-Mubarak & Busler, 2011). Differences in incubator goals may lead to a corresponding variation in outcome indicators, emphasizing the need for them to be selected on the basis of the specific goals of the incubator being assessed (Bergek & Norrman, 2008). In addition to this, an incubator may have several goals that represent the differing interests of multiple stakeholders (Bergek & Norrman, 2008). In other words, considering that incubators have different aims and functions, and provide a variety of different services in unique
combinations, the performance of different incubators should then correspond to how they co-ordinate and manage the incubation process (Bergek & Norrman, 2008). This led to significant criticism for the sole use of financial indicators and has led to the exploration of different approaches to determine incubator effectiveness (Vanderstraeten, Matthyssens, & Van Witteloostuijn, 2012).

Despite an extensive amount of research focusing on the outcomes of incubation schemes and ways to determine incubator performance, there is still little agreement of how to ascertain which incubators are more successful than others (Schwartz & Göthner, 2009).

The existing literature discusses several criteria and indicators that may be used to measure incubator performance or outcomes (M'Chirgui, 2012). The majority of previous research has sought primarily to identify appropriate criteria and indicators to measure outcomes such as occupancy, jobs created, firms graduated, tenant revenues, number of patent applications per tenant firm, and number of discontinued businesses (Bergek & Norrman, 2008). Al-Mubaraki and Wong (2011) evaluates incubators according to four key performance indicators: the number of companies formed with the support of an incubator, the number of companies that graduate, the total number of entrepreneurs assisted, and the number of jobs generated. These overlap significantly with economic indicators identified by Lalkaka and Bishop (1996) in a study of business incubators in industrialized nations. The indicators they present include:

1. Type of Sponsor – Federal and local government sponsors usually provide the initial investment for starting incubator programs including space, equipment, and primary operating cost.
2. Enterprise Creation – Total number of businesses incubated.
3. Survival Rate – The ratio of the number of businesses incubated to the number of businesses discontinued.
4. Employment Generation – The number of jobs created by incubated tenants and graduate businesses.
5. Cost per job – The cost of development and operations divided by the number of jobs created.

Lalkaka and Bishop (1996) also present several non-quantifiable outcomes of business incubation which include:

- Building technical and management skills among incubator staff and tenants;
- Commercializing university and institute research;
- Training and developing entrepreneurs and increasing the entrepreneurial orientation (EO) of businesses;
- Enhancing university-industry relations; and
- Persuading governments to implement policies supporting small business enterprises.

The extent to which the services provided by the incubator meet the requirements of the local market is an alternative measure of incubator success (Autio & Klofsten, 1998). Hackett and Diltz (2004a) explains this using structural contingency theory, which proposes that an incubator must achieve “fit” with its environmental needs in order to realize incubation success.

The numerous dimensions of performance characterize, to some degree, the trade-offs faced by an incubator firm (Murphy et al., 1996). Actions undertaken to improve performance on one dimension may well decrease performance on another dimension and have no effect on others. This is important when considering how internal and external influences can improve performance and facilitate growth for incubators. For example,
aiming to increase the number of incubatee companies supported may require capital investments that have a direct negative impact on the efficiency or liquidity of the incubator itself. This emphasizes the need to evaluate performance using measures that are relevant to the strategic objectives of the incubator. Not-for-profit incubators may opt to focus on the employment creation; graduation and survival rates; and outcomes associated with the performance of the graduate firms (Scaramuzzi, 2002). In contrast to this, technology-based incubators may be concerned with the number of new technologies commercialized through incubated companies; while for-profit incubators would look at indicators of profitability and other evidence of financial performance (Scaramuzzi, 2002).

As is the case with the general body of research on business performance, there are hardly any validated scales for incubator performance measurement in existing literature (Vanderstraeten & Matthyssens, 2010). The appropriate selection of performance measures is vital. Assessing performance using too many measures can be counter-productive. Vanderstraeten and Matthyssens (2010) proposes that the appropriate examination of business performance is only likely when only the most important measures are considered. Researchers in this field emphasise the need to develop a performance measurement framework instead of only using individual measures of firm performance (Tangen, 2004; Neely, 2005; Simons, 2000 as cited in Vanderstraeten et al. (2012).

2.2.6 Incubator frameworks

Two popular incubation frameworks are discussed below:

The UBTI Framework
In his research into the performance and effectiveness of university-based technology incubators (UBTIs), Mian (1997) proposes an integrated
performance assessment framework that draws from an extensive consideration of the existing body of literature on business incubation, the involvement of universities in technology and business advancement, and the conventional approaches to organizational evaluation. The proposed framework adopts the overall systems perspective combining four programme effectiveness approaches from organizational assessment literature, namely the goal approach; the system resource approach; the stakeholder approach; and the internal process approach (Mian, 1997, p256). These are articulated in Table 2 below.

Table 2: Effectiveness Approaches to Incubator Performance

<table>
<thead>
<tr>
<th>Effectiveness approach</th>
<th>Underlying idea</th>
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<tr>
<td>Goal approach</td>
<td>The degree of realization of an organization’s objectives. The closer the organization meets its goals, the more effective it is.</td>
</tr>
<tr>
<td>Stakeholder approach</td>
<td>The extent to which all the organization’s strategic constituencies are at least minimally satisfied. Strategic constituencies are all groups of individuals who have some stake in the organization. The closer the organization meets stakeholder satisfaction, the more effective it is.</td>
</tr>
<tr>
<td>System resource approach</td>
<td>The extent to which an organization acquires its needed resources. The more success an organization has in competing for (and acquiring) scarce resources, the more effective it is.</td>
</tr>
<tr>
<td>Internal process approach</td>
<td>The extent to which an organization is internally healthy and efficient. The “healthier” an organization operates, the more effective it is.</td>
</tr>
</tbody>
</table>

Source: Vanderstraeten and Matthyssens (2010)

This model for UTBI performance measurement is based on three sets of variables, which can equally be applied to all incubator types.
**Performance Outcomes:** Incubator performance outcomes are measured by means of four categories: (a) sustainability and growth of the programme; (b) the survival and growth of incubatees; (c) contributions to the mission of the sponsoring institution; and (d) community-related effects.

**Management Policies and Their Effectiveness:** This involves an evaluation of the incubator’s management policies in relation to the programme goals and objectives. This affords an appraisal of the efficient use of resources which result in the success of the programme. The main aspects include: (a) goals, organizational structure and governance; (b) finance and capitalization; (c) operational policies; and (d) target markets.

**Services and their Value-Add:** An assessment of the services offered by the incubator and their perceived worth to the tenant firms in terms of (a) the communal office services including rental space and other business support services; and (b) the university-related services including student employees, faculty consultants, and the university’s institutional assistance for the incubation facility.

The criteria used to assess performance must take into account the fulfilment of each of these inter-related components, which will determine the success of the incubator in the long term (Mian, 1997).

This study uses an adaptation of Mian’s (1997) framework to develop a multi-dimensional scale of incubator performance. It draws on a previously developed scale from the National Business Incubation Association (NBIA) to measure incubator performance (National Business Incubation Association (NBIA), 2008).
Figure 1: Conceptual model for assessing and managing the performance of UTBIs.

Source: Mian (1997)
2.3 THE GODISA CASE STUDY: CRITICAL SUCCESS FACTORS OF BUSINESS INCUBATION

Based on a case study of 12 incubators which formed The GODISA Initiative, Buys and Mbewana (2007) present a list of eight factors identified from a range of previous studies that play a significant role in the success of incubators, specifically in the South African context. They contend that incubator success is contingent on the existence of a conducive environment, characterised by:

1. Technology expertise and facilities
2. Availability of funding
3. Quality of entrepreneurs
4. Stakeholder support
5. Supportive government policies
6. Competent and motivated management
7. Financial sustainability

Given the dramatic growth in business incubation services in South Africa and other emerging economies in recent years, this research seeks to establish whether the antecedents observed in the case study still apply to the current landscape (Buys & Mbewana, 2007; InfoDev, 2010)

Research Question 1: Are the critical success factors of the GODISA case study still significant?

2.3.1 Technology expertise and facilities

It has been suggested by scholars that innovation and technology are key drivers of economic growth and the development of a knowledge-based economy (M’Chirgui, 2012). According to H. M. Al-Mubarki and Busler...
(2011), business incubators can be separated into different categories depending on their focus and objectives:

1. Technology incubator
2. Incubation of services
3. Incubation of Mixed-use type
4. Manufacturing incubation
5. Web-related business incubation
6. Incubation of community.

The importance of access to technological expertise and facilities may vary depending on the aims of the incubator and the type of ventures being incubated. Technology-based companies would benefit directly from linkages to sources of technical knowledge such as universities or research laboratories (Buys & Mbewana, 2007). These new technology-based firms (NTBFs) are believed to play a vital role in the advancement of local, regional and national economies through job creation and innovation (Scillitoe & Chakrabarti, 2010). Technology incubators have become an important vehicle for investing in new technologies and leveraging their assets and resources to build successful technology-based businesses (Buys & Mbewana, 2007). Buys and Mbewana (2007) discusses access to science and technology expertise and facilities as a key part of a more comprehensive, inter-organisational relationship emphasizing the necessity to locate the incubator where supporting infrastructure and access to technical services is readily available in order to improve the chances of success of the incubator as well as its tenants.
Hypothesis 1: There is a positive relationship between access to technical expertise and incubator success.

2.3.2 Availability of funding

The lack of financial capital is often cited as a critical impediment to the growth and development of new businesses (Bruneel, Ratinho, Clarysse, & Groen, 2012). According to Smilor (1987), incubators play a significant role beyond the provision of basic services and resources to new ventures. They also facilitate networking and provide crucial linkages to capital (Bruneel et al., 2012; nChandra, He, & Fealey, 2007).

Hackett and Diltz (2004b) state that the majority of incubators do not maintain their own investment fund, but rather fulfil the role of facilitator, introducing incubatees to external sources of capital. Despite this finding, there is evidence to suggest that the accessibility of funds and the structure of financial markets is a vital precursor of growth of new ventures (nChandra et al., 2007).

Hypothesis 2: There is a positive relation between the availability of funding, and incubator success

2.3.3 The quality of entrepreneurs

The purpose of business incubation systems is to tackle the challenge of economic development by cultivating a vital entrepreneurial ecosystem by increasing both the quantity and quality (Lalkaka, 1990 as cited by Buys and Mbewana, 2007). Bergek and Norman (2008) proposes that incubator selection processes, business support services and mediation are important distinguishing components of different incubator models. They differentiate between idea-focused selection methods, which place emphasis on the business concept, and entrepreneur-focused selection.
The entrepreneur-focused approach involves the capability to assess the personality as well the general business competence and potential of candidates, including their experience, skills and motivation (Bergek & Norrman, 2008).

According to Buys and Mbewana (2007) the success of incubators in South Africa is also dependent on the quality of the entrepreneurs who are being incubated. They cite several characteristics entrepreneurs must have that contribute to incubator success, including previous business experience; drive; self-efficacy; a family background that supports entrepreneurial activity; access to an entrepreneurial network; and previous incubator experience (Buys & Mbewana, 2007).

The assessment of whether or not entrepreneurs have these qualities was done by surveying the entrepreneurs directly, and may be considered a factor external to the incubator itself. For this reason, this success factor was deemed to be beyond the scope of this study and thus the hypothesis that there is a positive relationship between the quality of entrepreneurs and incubator success was not tested empirically here. This success factor was incorporated into the qualitative part of this research, and discussed in depth during the one-on-one interviews with top level managers.

2.3.4 Stakeholder support

According to Branstad (2010) business incubators typically have an effect on several different types of role-players in the business environment and also rely on them for resources and funding. The success of incubators varies according to the engagement of local, national and international stakeholders, which include government, businesses, research institutions and universities, and the incubator tenants and management (Al-Mubarak & Busler, 2010b). Very often, successful incubator management requires
the balancing of an intricate combination of conflicting goals set out by different stakeholders (Alsos, Hytti, & Ljunggren, 2011). As a result, the effectiveness and impact of business incubators is tough to assess due to various and often changing objectives.

**Hypothesis 3: There is a positive relationship between stakeholder support and incubator success**

### 2.3.5 Supportive government policies

(Buys & Mbewana, 2007) state that the success of programmes aimed at the advancement of entrepreneurship depends to a large extent on supportive local economic and industrial policies. In their review of success factors for university business incubators, Lee and Osteryoung (2004) cite the importance of government support for incubators as being essential. Lalkaka (1996), describes a supportive government as one in which the legislative and regulatory system:

- simplifies the regulatory process to reduce the costs and time involved for starting a business;
- promotes environmental and labour laws that safeguard the interests of all shareholders;
- provides tax incentives for research and development, and venture creation;
- protects business rights and intellectual property; and
- settles disputes, and administers taxes fairly.

In South Africa, the government has several programmes to support SMMEs and develop entrepreneurship, primarily headed by the DTI and SEDA but also at provincial and local government levels (Buys & Mbewana, 2007; InfoDev, 2010). In 2011 the DTI initiated the Incubation Support Programme (ISP) to provide support and financial assistance to
incubators and facilitate the establishment of successful enterprises with the potential to grow the local economy (Departement of Trade and Industry, 2011). The main aim of the ISP is to foster private sector partnerships with Government to support incubators by providing funding for incubators that can generate revenue through the provision of services and initiatives that can become self-sustainable over time. This support is available on a cost-sharing basis between the Government and private sector partners for use on infrastructure development and business services necessary to mentor and grow small businesses. This initiative illustrates that government is a key stakeholder in business incubation, not only in terms of policy, but in terms of financial investment as well (Buys & Mbewana, 2007).

**Hypothesis 4: There is a positive relationship between supportive government policy and incubator success.**

### 2.3.6 Competent and motivated management

According to Scaramuzzi (2002), the ability of an incubator to attract and retain a good number of qualified professionals, volunteers and interns, to support specific functions of the incubator and its clients, is key to the incubator’s success. The leadership should have experience working with small business and extensive networks including sponsors, investors and other stakeholders (Scaramuzzi, 2002). Lalkaka (1996) identifies the key attributes of a good incubator manager as:

- Broad entrepreneurial experience and specific knowledge in aspects of small business, marketing, finance, and technology management;
- Sound knowledge of the professional technical community and a wide network of contacts;
• Computer literacy, and excellent communication and interpersonal skills;
• Good counselling and teaching capabilities; and
• Unqualified integrity, dynamic leadership, and unsurpassed energy.

Buys and Mbewana (2007) emphasizes this by stating that effective incubator management is essential in fostering local support and sponsorship, attracting and appraising prospective tenants and facilitating the graduation and continued support of tenants. Indeed, in an historical review of business incubation in the United States, Shepard (2013) highlights the critical role the chief executive officer or manager of a business incubator plays in the selection of tenants; implementation of planning and policy; marketing activities; recruitment of incubator staff; and the management of operations.

In addition, the ability of an incubator to recruit and retain competent and dedicated management is also a key success factor (Buys & Mbewana, 2007). In order for this to happen, it is essential that key personnel are well compensated.

**Hypothesis 5: There is a positive relationship between management competencies and compensation and incubator success.**

**2.3.7 Financial sustainability**

The successful performance of a business incubator is complex and includes several dimensions, most notable of which is the survival and growth of graduating companies. Another fundamental measure of incubator success is its ability to operate in a sustainable manner (Lalkaka, 1996).
In a study of incubator best-practice in the Finnish context, Abetti (2004) concludes that a vital benefit of incubators is cost effectiveness in terms of the cost of jobs created by the incubatee companies as opposed to other government initiatives. This speaks to the efficient use and management of resources within the incubator to keep costs down, essential for the sustainability of incubators and their contribution to economic growth. This ties in with work done by Hackett and Dilts (2004b) who postulate that incubators need to be accountable for their use of public and investor funds.

_Hypothesis 6: There is a positive relationship between financial sustainability and incubator success_

### 2.3.8 Networking

The generation and transfer of social capital that occurs within an incubator setting through networking, interaction among incubatees, investors, mentors, consultants and other role models is a key determinant of the value created for entrepreneurs (Adlešič & Slavec, 2012; Peters et al., 2004). This may occur in a formal or informal way. A key reason for this is that people in the network generally have experience with the success and failure of ventures as well as within the incubator itself. The sharing of this combined knowledge makes incubators a type of learning organization, allowing them to improve performance over time (Buys & Mbewana, 2007).

Networking is also an efficient way for small businesses to gain access to market opportunities, and this process is expedited through incubation (Buys & Mbewana, 2007).
Hypothesis 7: There is a positive relationship between networking and incubator success

2.3.9 Tenant selection criteria

Buys and Mbewana (2007) initially proposed that stringent selection criteria of entrepreneurs, an experienced advisory board and conducting a feasibility study were important determinants of incubator success. These factors were discounted in their research results (Buys & Mbewana, 2007).

In a later study, Timm (2011) suggests several ways that incubator performance in South Africa can be improved, based on research of successful incubation practices in Brazil. These include:

- Clear policies are necessary to support incubation that are driven from the top.
- Innovative funding models making use of such things as the enterprise development element of the B-BBEE codes of good conduct as well as tax incentives are needed.
- Incubators must adopt systems and monitoring tools to measure their impact.
- Better filtering systems for applicants are also needed.
- Target high-growth firms which offer better chances of upscaling and creating jobs.

Based on these recommendations, it would seem that the selection criteria of entrepreneurs may in fact be an important determinant of successful incubation, warranting further analysis. This is supported by the work of Bruneel et al. (2012) who presents appropriate selection criteria as an essential component of successful incubator management.
Merrifield (1987) asserts that although screening cannot guarantee the success of the incubation process, careful selection of tenants is likely to increase the probability of incubator success. This research will look to retest the results of the Mbewana study.

**Hypothesis 8: There is a positive relationship between stringent selection criteria and incubator success**

In line with the conceptual framework developed by (Mian, 1997), other studies that have investigated the factors that shape the efficiency of business incubators have looked to group related variables. Ghasemizad, Kazemi, Abbasi, and Mohammadkhani (2011) classifies these factors into three categories: intra-organizational factors, extra-organizational factors, and personal factors that characterize the entrepreneur. The factors in the GODISA case may also be loosely grouped in a similar way.
Table 3: Extra-organisational, Inter-organisational and Entrepreneurial Success Factor of South African Incubators

<table>
<thead>
<tr>
<th>Extra-Organizational Factors</th>
<th>Technology expertise and facilities</th>
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<tr>
<td></td>
<td>Availability of funding</td>
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<td></td>
<td>Stakeholder support</td>
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<td>Supportive government policies</td>
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<td></td>
<td>Networking</td>
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<tr>
<td>Intra-Organizational Factors</td>
<td>Technology expertise and facilities</td>
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<td></td>
<td>Competent and motivated management</td>
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<td>Financial sustainability</td>
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<td>Networking</td>
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<td></td>
<td>Stringent selection criteria</td>
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<tr>
<td>Personal Factors</td>
<td>Quality of entrepreneurs</td>
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2.3.10 Incubation Models

An investigation of the existing theoretical and practical models of incubation is a good way to map one aspect of the current landscape of business incubators in South Africa. This will help to differentiate different types of incubators in operation using various criteria grounded in literature and to establish whether this delineation is vital when assessing the factors of incubation success.

2.3.10.1 Non-profit vs. For profit

A primary method of distinguishing between different types of incubator is according to their funding scheme, with a difference being drawn between either for-profit or non-profit (Akçomak, 2009; H; Al-Mubarak, Al-Karaghouli, & Busler, 2010). According to these authors, the type of sponsorship strategy and business entity may have an impact on performance (H; Al-Mubarak et al., 2010).
Generally speaking, non-profit incubators focus on economic development outcomes, while for-profit programmes have as their main priority achieving a good return on investments for their shareholders (Al-Mubaraki & Busler, 2010a).

While for-profit incubators are likely to have a greater focus on financial returns for their shareholders, non-profit incubators primarily serve a social objective, such as being a key element of an overall economic policy, as in the case of B-BBEE (Becker & Gassmann, 2006). The existing literature suggests that the majority of non-profit incubators are sponsored by governments or affiliated with institutions like universities (Peters et al., 2004), while a smaller number of non-profit development incubators receive funding from private, or business initiatives and commercial banks (Becker & Gassmann, 2006). While the US-based National Business Incubation Association (NBIA) further categorizes different types of for-profit incubators according to how investors anticipate obtaining a return on investment (Al-Mubaraki & Busler, 2010a), the primary distinction between for-profit and non-profit models will be used in this study.

2.3.10.2 Sources of funding

Sources of funding for incubation activities can also vary. Funds may be sourced from private donors, public grants and funds, commercial institutions or a combination of these.

Generally, not-for-profit incubators are sponsored by government resources, although some funding may be provided by other entities, including private sector donors. An additional aspect of the incubator as a construct is to consider the overarching model which involves a system of individuals and organizations, including the incubator staff; an advisory board; the incubatee companies and their employees; as well as
universities, industry contacts, and professional services providers such as lawyers, accountants, investors and government (Hackett & Dilts, 2004b).

2.3.10.3 Industry focus

A further point of divergence relates to the focus of the incubator. Here distinctions can be made between mixed-use and niche incubators. Typically, niche incubators will have a technological, developmental or research focus (Scaramuzzi, 2002). Mixed use incubators select businesses based on basic commercial criteria from various industries (Buys & Mbewana, 2007). H. Al-Mubaraki, Wong, Siew Fan (2011) state that incubators may differ in both the sector served and their focus of services as a result. For example, a technology incubator will foster technology-based incubatees and provide support that is targeted at growth in that industry, while an agricultural incubator will place emphasis on creative agricultural-related ideas. Sector-specific needs will also have an impact on the services offered as well as the outcomes of incubation. Key deliverables like turnaround time to bring different types of products to market, or job creation, will differ between industries. Thus, assessment of the performance of an incubator must take into consideration the type of businesses an incubator focuses on.

2.3.10.4 Types of services

Further distinctions between types of incubators can be made according to the nature of services offered, which may include physical premises and infrastructure like office equipment and administrative facilities, coaching and training, and access to networks (Peters et al., 2004; Stefanović et al., 2008). The degree to which each of these components is present in a particular incubator varies and the research focus on each component has changed over time, from the facilities and administrative services provided to a more recent emphasis on the significance of business support (Peters
et al., 2004). The scope and nature of services provided by an incubation programme depend on the types of clients served (Al-Mabaraki & Busler, 2010a).

### 2.3.10.5 Accelerators

More recently, a different type of business development service has emerged, which is characterized by high-intensity, rapid growth programmes, and fittingly referred to as an accelerator. Business accelerators typically aim to identify potential high-growth enterprises and facilitate their rapid development into large scale enterprises and/or to move into global markets (Bosma & Stam, 2012). According to Isabelle (2013), the terms incubator and accelerator are often used interchangeably. Accelerators and incubators display some notable similarities and often overlap in the type of services offered and the clients they cater to. Within the South African landscape, there is much ambiguity and a lack of a clear distinction between the two typologies.

**Hypothesis 9: There is a relationship between the performance of incubators and the incubation model used**

### 2.4 CONCLUSION

According to existing literature in several fields including economics, entrepreneurship and sociology, entrepreneurship is a key factor of economic growth in today’s increasingly competitive global economy. In South Africa, SMMEs and entrepreneurship have the potential to accelerate economic development and promote job creation. As such, significant resources have been allocated to their growth and development by the South African government. Despite this input, SMMEs face many challenges that impede their growth and development.
Given that the new B-BBEE codes place a strong emphasis on enterprise development, it is important to examine how initiatives to support the growth of SMMEs can be made more effective. Business incubators and other BDS firms provide a way to assist small, young firms to develop into successful businesses quickly and with relatively less risk. In order for this to happen, the incubators themselves must perform well and be sustainable. In light of this, it is crucial to identify the factors that lead to successful incubation within the South African context.

Collectively, the following propositions, as listed in Table 4 below, encapsulate how certain aspects of both the external and internal environments as well as the model of incubation in use may relate to the performance of business incubators.
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<td><strong>Research Question 1: Are the critical success factors of the GODISA case study still significant?</strong></td>
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<td>H1: There is a positive relationship between access to technical expertise and incubator success.</td>
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<td>H3: There is a positive relationship between stakeholder support and incubator success.</td>
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CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This section describes the methodology that was used to address the research questions put forward as possible solutions to the sub-problems set out in the Literature Review section.

First the research paradigm is identified and expounded upon, and then the design of the research is discussed, with attention being given to the procedure and methods of analysis to be employed. The population and sampling is elaborated on, followed by an explanation on the actual research instrument. A more in-depth look at the data collection and analysis is taken. The section concludes by examining the limitations, reliability and validity of the planned research.

3.2 RESEARCH METHODOLOGY AND PARADIGM

The research paradigm and method assumed for this study is positivist and pragmatic in nature. It employs aspects of both quantitative and qualitative research, making it a mixed methods study (Creswell, 2013). Quantitative research aims to explain phenomena that occur naturally (Cooper & Schindler, 2011). Previous studies conducted on entrepreneurial orientation have shown a tendency towards empirical exploration (Rauch, Wiklund, Lumpkin, & Frese, 2009). This is consistent with the findings of Mullen, Budeva, and Doney (2009) of entrepreneurial research in general, with almost three-quarters of all studies published in peer-reviewed journals being quantitative. The use of an emergent mixed methods design in this research was aimed at investigating the construct
of incubator performance and its antecedents from more than one perspective, incorporating both objective, measurable aspects and individual interpretation of the current South African context by practitioners in the field (Graff, 2010). This approach is in line with the pragmatic view of reality. This mixed method approach was used to further expound upon the important aspects of the quantitative stage of the study. The status of the quantitative aspects of the research is considered higher than that of the qualitative (Graff, 2010) since the interviews were based on the empirical data which was collected first. The qualitative findings were then used to further contextualize and interpret the results of the quantitative study in an Explanatory Sequential Design.

It is appropriate to use this approach in order to observe the critical success factors of business incubators. Collecting and analysing of primary numerical and categorical data means this will be an empirical study (Hair, Black, Babin & Anderson, 2010). The research focus is deductive, with the research considerations emerging from current theory in entrepreneurship literature, which means that in the proposed research there are established constructs of a conducive environment for incubation, business performance and enterprise development that can be tested. The research assumes that these constructs exist ontologically and can be measured empirically and independent of the researchers or the context of the respondents at the time the research is conducted (Creswell, 1994). The study aims to remain objective, by limiting direct contact between the researcher and respondents. Because of the framing of the research around issues of firm performance, there is a possible risk of bias due to issues of the social desirability of better success outcomes. Minimising the effects of this will require high levels of objectivity. Minimal contact between the researcher and the research subjects who participated in the online survey was implemented in order to ensure that data collected would not be context-dependent. It was anticipated that direct contact would need to be made with one decision-making individual from each
incubator in order to secure buy-in and facilitate the distribution of the questionnaire to other employees.

Quantitative empirical research is pertinent to this study as there is a sense in previous literature that the discipline of entrepreneurship has suffered due to a lack of methodological standards and descriptive statistical reporting (Rauch et al., 2009). In light of the rapid growth and dynamism of the incubation and small business development industry in South Africa, it was felt that the qualitative method could be used to complement and further contextualise the results of the quantitative data.

3.3 RESEARCH DESIGN

This mixed methods research employed a Sequential Explanatory Design, where a quantitative survey was supplemented by data from in-depth one-on-one interviews. The status of the quantitative aspects of the research is considered higher than that of the qualitative (Graff, 2010) since the interviews were based on the empirical data which was collected first. The qualitative findings were then used to further contextualize and interpret the results of the quantitative study at a single sample of incubator and small business development firms in a cross-sectional study, focusing on a single point in time (Chadwick, Bahr, & Albrecht, 1984). Using a questionnaire to a large sample as the primary method of quantitative data collection made this a survey study (Denscombe, 2007). The survey itself was defined as ‘domestic’ as it was only being conducted in South Africa, albeit using scales originating from other countries (Mullen et al., 2009). The comparison of results with studies conducted elsewhere is beyond the scope of this iteration of the research. The study is correlational in nature as it proposed to examine the relations between previously identified success factors, the type of incubation model used and the performance of incubator firms. There is also a descriptive element in that the results of
the study aimed to map the current business incubation landscape in South Africa.

**Figure 3: Mixed Method Research Strategy - Sequential Explanatory Design**
Source: Adapted from Creswell (2013)

The dominant quantitative survey approach was appropriate for the study of the performance of incubators for several reasons. Firstly, the relatively small size of these firms suggested that surveys would be easy to distribute among top and middle level management in order to measure management perceptions (Lyon, Lumpkin, & Dess, 2000). Surveys also provide a quick, inexpensive way to obtain data relatively quickly from a fairly large sample without much specialist expertise required in this process. This meant that utilising surveys allowed the research to be done using limited resources (Lyon et al., 2000). Further benefits of the survey method include wide and inclusive coverage, which has been said to be likely to produce responses from a representative sample of the target population (Denscombe, 2007).

The secondary qualitative component of the research was conducted using structured face-to-face interviews. Where face-to-face appointments could not be made, the interviews were conducted via Skype. This approach was chosen for its ability to be replicated exactly among the subjects and in future studies. Bryman & Bell (2011) assert that a further benefit of this technique is that structured interviews can be used alongside self-completion questionnaires in order to gain a deeper understanding of a subject from different points of view.
Based on the findings of the quantitative study, the questions for the qualitative interviews were composed and sent to the participants in advance of the actual interview in an effort to make the most efficient use of the appointment time. The interviews were recorded and then transcribed by a third party.

3.4 POPULATION AND SAMPLE

3.4.1 Population

In order to clearly understand the role of certain antecedents in the operation and performance of incubator and small business development firms, it is important to view the impact of these variables from the perspective of the drivers of innovation and strategic thinking in these organisations, typically the top level managers (Morris, Kuratko, & Covin, 2010).

Previous research also indicates that the perceptions of top managers of the performance of the organization are highly consistent with the actual performance as shown by objective measures (Poon, Aııuddin, & Junit, 2006).

This decision was made with the consideration that within entrepreneurial research, small sample sizes may be unavoidable and possibly represent the entire population. This may be due to the nature of the industry or the fact that business incubation is a narrow, specialist niche served by a relatively small number of firms (Mullen et al., 2009). Conducting this research on a small population and subsequently small sample may have implications for the reliability of the study (Mullen et al., 2009).
3.4.2 Sample

To create a suitable sample, it was necessary to have access to all incubators and small business development firms currently operating in South Africa. First, a sampling frame was compiled using information acquired through the DTI and Seda, as well as online sources and search engines. As the incubation industry in South Africa is dynamic and relatively new, the study included companies that offer a broad range of small business support services as the sample population. Given the relatively small size of the incubator sector in South Africa currently, the sample frame comprised all eligible firms. By broadening the scope of the study the researcher hoped to further define and distinguish between the different types of business development services offered.

Potential informants within the sampling frame were then considered. Only respondents considered to be in a position to provide the pertinent information in a knowledgeable manner were contacted directly. This is the key-informant approach and top-level managers are identified as the principal source of information about strategic processes and other variables that involve the whole firm (Hughes & Morgan, 2007; Norburn, 1989). While a sample including only top level management would be in keeping with other studies done in this field, within the South African context this was seen as likely to produce a very small sample due to the limited number of incubators. In light of this, this research expanded its scope by including middle level managers and other key personnel within organizations. In some cases, the survey was sent to a general email address where direct contact with individuals could not be made. This approach should generate more robust data and give a clearer indication of the current state of incubator management in South Africa.
3.4.3 Sampling method

The sampling method chosen for this study was non-probability, convenience sampling with an element of purposive sampling included the DTI and Seda. The primary reason for this is that the researcher did not have sufficient information about the total population of incubator firms operating in South Africa currently to opt for a probability sampling approach (Denscombe, 2007). Additionally, it was anticipated that engaging respondents selected by conventional probability sampling means within the time constraints of the study would prove both difficult and costly. Non-probability sampling is also considered to be more appropriate for use with an internet-based data collection instrument, where certain groups in the population are more likely to have access to the internet than others – i.e. top level managers versus lower level service staff (Denscombe, 2007). Finally, convenience sampling was deemed appropriate because participants from the sample frame took part in the survey voluntarily, which is consistent with the work of Moore, Dawson, & McCabe (2005).

The sampling frame was derived from the overall population of employees of South African incubator and small business development firms, for-profit and non-profit, private or state run. The study also examined incubators operating in different industries, in order to increase the generalizability of the findings. A database was compiled based via internet search using the following key words: South Africa business incubator, BBEEE consultant, South Africa business accelerator, small business development, training and development, enterprise development (ED).

Every effort has been made to obtain up-to-date, complete and accurate lists of potential respondents in order to minimize the likelihood of sampling bias as recommended by Denscombe (2007).
The unit of analysis for the study was South African incubator and small business development firms, for-profit and non-profit; private or state run as perceived by employees working therein.

The anticipated number of responses for the study was a minimum of 120 responses, implying a response rate of 24%. This was predicated on a well-designed questionnaire, targeted at key decision-makers within incubator firms who had access to the correct information to respond appropriately. It was anticipated that there would be between three and five respondents from each organization. The questionnaire was designed to take a maximum of ten minutes to complete, so as not to impose on respondent’s time and discourage them from completing the survey. Attempts were also made to extract potentially sensitive information with regard to firm performance in a non-threatening manner.

3.5 RESEARCH INSTRUMENT

3.5.1 Quantitative Survey

The research instrument chosen for the quantitative component of this study was an online questionnaire distributed via email. The survey was divided into 3 sections, broken down as follows:

3.5.1.1 Section 1: General Information on South African incubator and small business development firms

The first section of the online survey asks questions about the characteristics of the respondents and the organisations represented. These include firm age, firm size and industry. The number of employees is used as a way to ascertain firm growth. Respondents were asked for the founding year of the firm to calculate firm age. Secondly, respondents had to indicate the number of current tenant companies and total number of
new and graduated firms in the previous five years. Respondents were asked to state if their firms operate as for-profit or not-for-profit entities to account for industry variation. This general information is largely based on the work of Al-Mubaraki and Busler (2010a) and their global study of incubator firms. Although their initial research was done using interviews, the scale items were adapted here for use in a self-administered survey format.

3.5.1.2 Section 2: Critical Success Factors

In order to build on the work previously done in this area by Buys and Mbewana (2007), a scale was created to measure the perceptions of the incubator managers of how each of the elements of a conducive environment affects the performance of incubators. These items were mostly based on Likert-type scales in which individuals had to respond to a series of statements by indicating whether he or she agreed with the statement, and to what extent (Croasmun & Ostrom, 2011). Respondents usually choose from 5 or 7 items (Croasmun & Ostrom, 2011). Likert scales were first used by Rensis Likert (1931) who described and then developed this technique for the assessment of attitude (Croasmun & Ostrom, 2011).

3.5.1.3 Section 3: Firm Performance (incubator success)

This construct was measured using scales developed by the researcher based on the framework developed by Mian (1997). This measure of incubator performance was chosen for its multi-dimensionality. Mian’s framework adopts a systems perspective combining four programme effectiveness approaches, namely the goal approach; the system resource approach; the stakeholder approach; and the internal process approach (Mian, 1997, p256). The National Business Incubation Association (NBIA) (2008) business performance scale was adapted to measure several
dimensions of firm performance that mirror the four effectiveness approaches discussed by Mian (1997). This multidimensional approach echoes the sentiments of Venkatraman and Ramanujam, who observes that a broad conceptualization of business performance that incorporates an, “emphasis on indicators of operational performance (i.e. non-financial) in addition to indicators of financial performance” (1986: 804) reflects the organization’s overall effectiveness in meeting multiple goals. Some of the items in the NBIA scale were omitted to reduce the length of the survey overall and encourage respondents to complete the questionnaire. Where changes were made from the original format of the NBIA scale, every effort has been made not to compromise the validity of the scale but not changing key anchors, response categories and wording (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

The Mian (1997) framework has not been tested in an African context, as far as the researcher is aware, so using it in this study allowed it to be tested for reliability and contribute to the overall body of knowledge in the subject.

Respondents were asked to score their firm’s performance outcomes, management policies and services on a scale from 1 to 5 or 1 to 7, denoting to what extent they agreed with the scale items. It was felt that for the purposes of this research, asking respondents to compare the performance of their incubators with competing firms was inappropriate.

Firm performance is the dependent variable in this study, with a conducive environment being the main independent variable. The independent factors that contribute to a conducive environment are considered as independent variables. The type of incubation model used makes the third IV.
Construct equivalence issues have been taken into account and are mitigated by the fact that the scales adapted from existing research were used in the original language of use (English) (Mullen et al., 2009).

The research topic, background of the research area, aim and objectives of the study were articulated in a cover letter to respondents. Statistical methods to determine internal consistency of the scales, namely by determining the Cronbach’s alpha of each scale using the SPSS software were used. Previous research supports the use of this measure for single-survey studies with multi-item scales (Mullen et al., 2009). An alpha value of 0.70 was considered as acceptable. This has been adopted as a minimum standard in social sciences (Nunnally and Bernstein, 1994 as cited in Mullen et al, (2009). It must be noted, however, that this assessment of reliability may vary positively as a consequence of sample heterogeneity and scale length (Osborne, 2003), and this standard level needs to be carefully considered in the light of the overall context of the study. Since the goal of this research was to determine accurately the real relationships between the critical success factors and the performance of incubators, careful attention was also paid to the likelihood of measurement error in the scales used and how to correct for this using disattenuation of correlation and regression coefficients (Osborne, 2003).

(See Appendix A)

3.6 DATA COLLECTION

For the quantitative element of the study, an online survey instrument was created using Google Docs. The survey was accompanied by an introductory invitation letter, explaining the purpose and scope of the research. While these are usually not given in detail in order to guard against the ‘good subject’ effect, it was deemed necessary to obtain buy-in from the participants since there was no other direct communication between the researcher and the respondents. The questionnaire was
piloted on a group of 10 volunteers not connected to the small business
development environment to test for general problems in functionality,
design or ambiguity of the research instrument in accordance with the
were subsequently made prior to general distribution.

3.7 VALIDITY AND RELIABILITY

Scale Validity is a crucial component of a positivist research methodology
(Winter, 2000) and describes the extent to which a research instrument
measures what it was designed to measure (Field, 2009). Valid
measurement is achieved when scores achieved in the measurement
scales meaningfully depict the ideas articulated in the overall concept
being measured (Adcock, 2001).

To be valid the research instrument must first be reliable (Mullen et al.,
2009). Reliability or the ability of the measure to replicate the same results
under the same conditions (Field, 2009) is important for this research to
make a positive contribution to the body of entrepreneurship knowledge.
This suggests that the research undertaken should produce similar results
in subsequent studies that employ the same methodology. This is
supported by Roy, Nagpaul, and Mohapatra (2003) who assert that in
order to be reliable, the measurement instruments used should produce
the same or similar results through repeated use on the same sample.

Although test–retest reliability and conducting longitudinal research using
the same sample are acceptable ways to establish reliability (Field, 2009),
these methods were not used in this study due to time and resource
constraints. This is a limitation that can be addressed in future research
into this area.
3.8 THE RESEARCH INSTRUMENT

3.8.1 Part 2: Qualitative In-Depth Structured Interviews

Based on the findings of the quantitative study, the questions for the qualitative interviews were composed. The interviews were recorded and then transcribed by a third party in preparation for analysis.

3.9 DATA ANALYSIS AND INTERPRETATION

The quantitative data was aggregated using Google Docs, and collated, checked and errors corrected using MS Excel. The statistical software IBM SPSS Statistics 21 was used to process and analyse the data set, generate descriptive statistics and perform all statistical tests.

The mean scores for the numerical data were calculated, once items phrased in the opposite direction had been reversed. Once all data was collated it was then analysed using IBM Statistical Package for Social Sciences (SPSS) software.

First, descriptive statistical analysis was done on the categorical, ordinal and nominal data to describe frequency distributions for the organisational and respondent characteristics. Then central tendency (mean, mode and median) and variance (Field, 2009) summary statistics were calculated for numerical variables such as scale and subscale mean or total scores. These techniques were used to analyse the multi-dimensional independent variables of a conducive business environment, namely the eight critical success factors. The reliability of each of the eight individual scales was tested using Cronbach’s alpha (Gravetter & Forzano, 2011).

The main and sub hypotheses were then tested using the methods explained below.
3.9.1 Correlation and Regression

As all the hypotheses include investigations of relationships, Pearson’s coefficient bivariate correlations and linear regression were used to test the main research problem through the hypotheses H1-H8, to measure and describe the direction and significance of linear relationships between pairs of variables (Gravetter & Forzano, 2011).

An independent samples T-test was the basis of assessing Hypothesis H9 which investigated the relationship between performance, and the type incubation model, and to test the assumptions of the linear model (Field, 2009).

3.9.2 Common Method Variance

Since the data for this study was collected through a single questionnaire and was self-reported, the observed relationships could possibly have been the result of common method variance (Podsakoff, MacKenzie, & Podsakoff, 2012). This measurement error can skew the observed relationships between constructs (Kraus, Rigtering, Hughes, & Hosman, 2012). The effects of this in the questionnaire were mitigated by the use of different measurement scales, for example, the use of both 5-point and 7-point scales and a mix of categorical and numerical items. Measurement error was also reduced by the incorporation of the qualitative measurement (interviews) – according to Viswanathan (2005), qualitative research can present the foundation for richer conceptualisation of research constructs and their relationships.
3.10 ANALYSIS OF QUALITATIVE DATA

The data collected in the online survey was used as a basis for the in-depth interviews. The analysis of this complementary qualitative data was done by first re-reading the interview transcripts to establish common themes – i.e. something significant about the data corresponding to the research questions posed, that symbolizes some level of correlational meaning within the data set (Braun & Clarke, 2006) – that emerged from the respondents’ answers (Guion, Diehl, & McDonald, 2011).

The Thematic Analysis adopted the six-step process put forward by Braun and Clarke (2006), which is summarised below:

1. Familiarizing with the data: Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes: Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes: Collating codes into potential themes, gathering all data relevant to each potential theme using MS Word software.
4. Reviewing themes: Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic ‘map’ of the analysis.
5. Defining and naming themes: Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report: The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis (Braun & Clarke, 2011, p87).
The answers were aggregated and organized according to the research questions. The information was then incorporated into the results section of this paper and presented together with the quantitative data, either reinforcing the empirical findings or providing alternative explanations.

3.11 LIMITATIONS OF THE STUDY

Gartner (1988) observes that entrepreneurial research is fraught with complexities that make it difficult to conduct. The difficulty concerns decisions associated with the selection of independent variables that should be studied, the application of these variables, appropriate methods for gathering relevant data, and the techniques that should be used in analyzing the data within the field (as cited in Sebora and Theerapatvong, 2010).

This research conducts a cross-sectional study on the antecedents of performance in incubator firms and is limited in not being able to determine these effects over time. This constrains the strength of the causal inferences that can be drawn (Hughes & Morgan, 2007). A longitudinal study may help to clarify the research findings, particularly in investigating how the effect of different factors might change over time as the incubator moves into different stages of development.

The convenience sampling used in this research and the relatively small number of respondents presents a likelihood that the sample will not be adequately representative, limiting the generalizability of the results.

The survey method employed relies on self-reported data which may be subject to bias due to issues of social desirability and memory decay. Self-reported data may also be affected by common method variance (Rauch et al., 2009). An additional challenge that was encountered was
refusal of participation or incomplete participation (Cooper & Schindler, 2003). Attempts to optimize the reliability of the study included minimal contact between the researcher and the participants of the qualitative survey and conducting a pilot study to identify errors in the research instrument prior to distribution. To improve the reliability of the research as a whole, the researcher has been as specific as possible in the description of the research methodology and all steps taken to acquire, collate and analyze data.

As the desired minimum sample size of 120 respondents was not achieved, exploratory factor analysis could not be performed to test the underlying dimensionality and validity of the underlying constructs (Field, 2009). Ideally confirmatory factor analysis would have been conducted to test the validity of the preconceived dimensions of a conducive environment as explained by Buys and Mbewana (2007) or alternatively, exploratory factor analysis could have been conducted to examine the underlying factor structure of the data in order to compare it to the expected theoretical structure.

3.11.1 External validity

The content validity of this study is established by using scales based on extant theory on the constructs of business incubation and firm performance. The researcher has relied mostly on peer-reviewed articles and previously cited definitions of terms to ensure the credibility of the operationalization of the constructs under investigation (Fink, 1995). The external validity of this research is threatened by the small anticipated sample size, which may not be representative of the entire population of incubators in South Africa, thus limiting the generalizability of the results.

3.11.2 Internal validity
Internal validity describes the approximate validity with which inference can be made that the relationship between two variables is causal or that the non-existence of a relationship suggests the absence of cause (Mullen et al., 2009). Since this research is correlational in design with no causal claims made, the internal validity of the study cannot be considered to be strong.

This means that the study must use data collection methods that will ensure the accuracy of the information gathered to allow for reliable analysis. To maximize the validity of the study, a pilot of the questionnaire has been conducted to test if the measurement items are clearly stated and understood by respondents.

Reliability and validity are articulated as trustworthiness, quality, and rigor in qualitative research (Golafshani, 2003). Lincoln and Guba (1986) present a model which addresses four factors of trustworthiness that apply to qualitative inquiry: (a) credibility; (b) transferability; (c) consistency (dependability); and (d) neutrality (confirmability). These four elements are further discussed in the work of Thomas and Magilvy (2011).

### 3.11.3 Credibility

Credibility, akin to internal validity in quantitative research, allows others to understand the experiences noted within the research through the elucidation of the experiences shared by participants (Thomas & Magilvy, 2011). Credibility is achieved by assessing how representative the data is in totality. In order to establish credibility, the individual interview transcripts were reviewed, in order to observe similarities within and across response sets.

### 3.11.4 Transferability
Transferability is defined as the ability to transfer research findings or methods to other contexts or with other participants (Thomas & Magilvy, 2011). In this study, transferability was established by providing a comprehensive description of the population studied through a description of demographics and the geographic boundaries of the study (South Africa). Repeating the study methods employed here with a different group of respondents in a different location might possibly produce different results (Thomas & Magilvy, 2011).

3.11.5 Dependability

Dependability occurs when other researchers can follow the methodology used by the researcher. Strategies employed to achieve dependability in this study included presenting a detailed description of the research methods used (Thomas & Magilvy, 2011). Due to time and resource constraints, it was not possible to conduct a step-by-step replication of the study to see if the outcomes might be comparable or to enhance the original findings by Buys and Mbewana (2007). This may be done in future studies that employ the same methodology.

3.11.6 Confirmability

Confirmability is established when the study shows evidence of being credible, transferable and reflective (Thomas & Magilvy, 2011). In order to achieve a sense of awareness and openness to the study and the results, the researcher sought to make a deliberate effort to follow, rather than lead, the course of the interviews by asking the participants for clarification of ambiguous terms and further explanation where necessary.
CHAPTER FOUR

PRESENTATION OF RESULTS

4.1 INTRODUCTION

In this chapter, the results of the research are presented in order to test the Hypotheses put forward in Chapter 2. The nine hypotheses are summarised as follows:

There is a positive relationship between incubator success and:

- H1: access to technical expertise
- H2: availability of funding
- H3: stakeholder support
- H4: supportive government
- H5: management competencies and compensation
- H6: financial sustainability
- H7: networking
- H8: selection criteria

H9: There is a relationship between incubation model and incubation success.

First the descriptive statistics of the respondents are recorded, relating the frequency distributions, central tendency (mean, mode and median) and variability (standard deviation). The reliability of the scales is then tested using Cronbach’s alpha and measurement error is corrected for. Content validity of the measurement scales was checked during the pilot study. Finally, each hypothesis is tested in turn.
4.2 DEMOGRAPHIC PROFILE OF RESPONDENTS

This study uses primary data collected from questionnaires distributed via email to business incubators and small business development practitioners working in South Africa. A total of 38 responses were received from the questionnaires sent out. From this number, several responses were deemed unusable due to missing information. Other responses were omitted as it was clear that they had not been answered by people in the target group. This left 28 usable responses. Since the respondents were asked to distribute the questionnaire among their co-workers, there is no way to track how many incubator employees were reached. This makes it difficult to determine the total response rate for the study. However, based on a conservative estimate of 135 direct contacts, the response rate was 21%.

The final sample size was significantly smaller than the expected 120. This number was not considered satisfactory to carry out factor analysis testing, while maintaining acceptable power and perform statistical analyses and modelling. Therefore, these tests could not be carried out. In cases where respondents did not provide a response for certain items, only those cases with complete information were analysed, with the total number of cases (N) noted in the results as recommended by Pigott (2001).

4.2.1 Respondents information

Tables 5 to 13 represent the descriptive demographic statistics for the sample: age, gender, level of education, previous professional background and experience in the incubation industry.
4.2.1.1 Age

Table 5 below presents a summary of the respondents by age. The majority of people surveyed (65%) were 31 years of age or older. A significant number of the remainder (32%) fell between the ages of 25 and 30. Only 3 respondents were over the age of 45.

Table 5: How old are you currently?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>24 or younger</td>
<td>1</td>
</tr>
<tr>
<td>25-30</td>
<td>9</td>
</tr>
<tr>
<td>31-35</td>
<td>9</td>
</tr>
<tr>
<td>36-40</td>
<td>4</td>
</tr>
<tr>
<td>41-45</td>
<td>2</td>
</tr>
<tr>
<td>46 or older</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
</tr>
</tbody>
</table>

4.2.1.2 Education Level

Respondents were asked to indicate the highest level of education they have achieved; 96% had some form of post-Matric education, with 14 respondents (50%) having a post-graduate qualification.

Table 6: What is your highest level of education?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>Matric</td>
<td>1</td>
</tr>
<tr>
<td>National Diploma/Certificate</td>
<td>7</td>
</tr>
<tr>
<td>Postgraduate Degree</td>
<td>14</td>
</tr>
<tr>
<td>Undergraduate Degree</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
</tr>
</tbody>
</table>
4.2.1.3 Position within the Organisation

The survey was aimed at decision-makers within the organisations; it was revealed that 83% of respondents were top level management, directors or the owners of the company.

Table 7: What is your position within the organisation?

<table>
<thead>
<tr>
<th>Position</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director</td>
<td>11</td>
<td>39.3</td>
</tr>
<tr>
<td>Junior Management</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Middle Management</td>
<td>2</td>
<td>7.1</td>
</tr>
<tr>
<td>Non-management</td>
<td>2</td>
<td>7.2</td>
</tr>
<tr>
<td>Owner</td>
<td>5</td>
<td>17.9</td>
</tr>
<tr>
<td>Top Management</td>
<td>7</td>
<td>25.0</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.1.4 Years of Experience

Table 8 below indicates that more than a third of the respondents (39%) have between 2 and 5 years of experience within their organisations, with a further 46% having worked a year or less. Less than 4% of the sample has more than 10 years’ experience in their organizations.

Table 8: How many years have you worked for the organisation?

<table>
<thead>
<tr>
<th>Years</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 years</td>
<td>13</td>
<td>46.4</td>
</tr>
<tr>
<td>11-15 years</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>2-5 years</td>
<td>11</td>
<td>39.3</td>
</tr>
<tr>
<td>6-10 years</td>
<td>3</td>
<td>10.7</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 8 above and Table 9 below indicate that 79% of the sample has more than a year’s experience in the industry, with 39% having worked in small business development for more than 5 years.

### Table 9: How many years have you worked in the business development industry?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 years</td>
<td>6</td>
</tr>
<tr>
<td>11-15 years</td>
<td>3</td>
</tr>
<tr>
<td>16+ years</td>
<td>2</td>
</tr>
<tr>
<td>2-5 years</td>
<td>11</td>
</tr>
<tr>
<td>6-10 years</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
</tr>
</tbody>
</table>

4.2.1.5 Previous Professional Background

While employees working in small business development companies come from a range of different professions, the most common professions of those surveyed include business consulting (18%), entrepreneurship (18%) and Sales and marketing (14%).

### Table 10: What ONE area best describes your background prior to this position

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>1</td>
</tr>
<tr>
<td>Actuary</td>
<td>1</td>
</tr>
<tr>
<td>Architecture</td>
<td>1</td>
</tr>
<tr>
<td>Banking or Finance</td>
<td>2</td>
</tr>
<tr>
<td>Business Consulting</td>
<td>5</td>
</tr>
<tr>
<td>Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>Engineering</td>
<td>1</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>5</td>
</tr>
<tr>
<td>ICT</td>
<td>1</td>
</tr>
<tr>
<td>IT</td>
<td>1</td>
</tr>
<tr>
<td>Law</td>
<td>1</td>
</tr>
<tr>
<td>Legal</td>
<td>1</td>
</tr>
<tr>
<td>Marketing or Sales</td>
<td>4</td>
</tr>
<tr>
<td>Venture Capital</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
</tr>
</tbody>
</table>
4.2.2 Organizational Descriptive Statistics

4.2.2.1 Age of Organization

Table 11 below indicates that close to a third (29%) of the organizations surveyed have been operating for a year or less. Only 11% of all companies providing small business development services are over than 10 years old, showing that the industry as a whole is still in its infancy.

Table 11: How many years has the organisation been operating?

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 years</td>
<td>8</td>
<td>28.6</td>
</tr>
<tr>
<td>11-15 years</td>
<td>3</td>
<td>10.7</td>
</tr>
<tr>
<td>16+ years</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>2-5 years</td>
<td>11</td>
<td>39.3</td>
</tr>
<tr>
<td>6-10 years</td>
<td>5</td>
<td>17.9</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.2.2 Number of Employees

From the evidence in Table 12, 82% of the organizations represented started with a staff of 5 or fewer.
The number of organizations that currently have between 1 and 5 employees is less than half of those that began operations with that number (11). This shows that by and large, there has been growth in the sector. This is confirmed in Table 13, which shows an increase in the number of organisations with staff of 21 or more, from 1 to 5.

### Table 12: How many employees did the organisation have at inception?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>'1-5</td>
<td>23</td>
<td>82.1</td>
</tr>
<tr>
<td>'11-15</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'6-10</td>
<td>3</td>
<td>10.7</td>
</tr>
<tr>
<td>21 or more</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 13: How many employees does the organisation have currently?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>'1-5</td>
<td>11</td>
<td>39.3</td>
</tr>
<tr>
<td>'11-15</td>
<td>3</td>
<td>10.7</td>
</tr>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'6-10</td>
<td>8</td>
<td>28.6</td>
</tr>
<tr>
<td>16-20</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>21 or more</td>
<td>5</td>
<td>17.9</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### 4.2.2.3 Business Model

Table 14 below illustrates that the number of companies utilizing a for-profit model (17) exceeds that of those which are not-for-profit, which accounts for 36% of the total surveyed.
Table 14: Is your organisation for-profit or not-for-profit?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For Profit</td>
<td>17</td>
<td>60.7</td>
</tr>
<tr>
<td>Non-profit</td>
<td>10</td>
<td>35.7</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Thirty-six percent of the sample described their organisation as a business incubator. The second most common categorisation was Business Accelerator, of which there were 9 (32%).

Table 15: Which of the following best describes your organisation?

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Accelerator</td>
<td>9</td>
<td>32.1</td>
</tr>
<tr>
<td>Business Enterprise</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Business Incubator</td>
<td>10</td>
<td>35.7</td>
</tr>
<tr>
<td>ED Consultancy</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Networking Organisation</td>
<td>2</td>
<td>7.2</td>
</tr>
<tr>
<td>Social Enterprise</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Training and Development Centre</td>
<td>4</td>
<td>14.3</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.2.4 Geographical Scope

Thirty-nine percent of the organisations represented operate solely, in Gauteng, representing the largest single number. This is followed by the Western Cape, where another 18% of organisations are located. In addition, 21.4% of the surveyed organizations have a presence in both Gauteng and the Western Cape. Overall, 43% of organisations operate in more than one location.
<table>
<thead>
<tr>
<th>Provinces</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Western Cape</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Eastern Cape, Gauteng, Limpopo, Mpumalanga, Northern Cape, North West</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Eastern Cape, Limpopo, Northern Cape, North West</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Free State</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Gauteng</td>
<td>11</td>
<td>39.3</td>
</tr>
<tr>
<td>Gauteng, KwaZulu-Natal</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Gauteng, KwaZulu-Natal, Western Cape</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Gauteng, Western Cape</td>
<td>6</td>
<td>21.4</td>
</tr>
<tr>
<td>Western Cape</td>
<td>5</td>
<td>17.9</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.2.5 Priority goals of the Organisation

There was notable variation in the priorities of each organisation. While 21% of the sample shared the common goals of Job Creation, Economic Growth, and Profitability and there was significant overlap between the other categories that emerged, there was no single priority that was shared among all 28 respondents.
### Table 17: What are the main priority goals of the organisation?

<table>
<thead>
<tr>
<th>Service</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid: Accelerating Growth in local Industry, Profitability</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Valid: Commercialising Technologies, Accelerating Growth in local Industry, Profitability</td>
<td>2</td>
<td>7.1</td>
</tr>
<tr>
<td>Valid: Commercialising Technologies, Economic Growth</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Valid: Economic Growth</td>
<td>2</td>
<td>7.1</td>
</tr>
<tr>
<td>Valid: Job Creation, Accelerating Growth in local Industry, Economic Growth</td>
<td>5</td>
<td>17.9</td>
</tr>
<tr>
<td>Valid: Job Creation, Accelerating Growth in local Industry, Skills Development</td>
<td>2</td>
<td>7.1</td>
</tr>
<tr>
<td>Valid: Job Creation, Commercialising Technologies, Economic Growth</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Valid: Job Creation, Commercialising Technologies, Profitability</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Valid: Job Creation, Economic Growth, Profitability</td>
<td>6</td>
<td>21.4</td>
</tr>
<tr>
<td>Valid: Job Creation, Skills Development, Economic Growth</td>
<td>3</td>
<td>10.7</td>
</tr>
<tr>
<td>Valid: Job Creation, Skills Development, Profitability</td>
<td>2</td>
<td>7.1</td>
</tr>
<tr>
<td>Valid: Skills Development, Economic Growth</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Valid: Skills Development, Economic Growth, Profitability</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>100.0</td>
</tr>
</tbody>
</table>

#### 4.2.2.6 Services offered

Respondents were asked to select all the services offered by their organisation from a list. The results showed that although all organisations provided a variety of services, there was no combination of services in common. That is to say, each organisation provided a unique service offering.
4.3 MEASUREMENT ASPECTS OF SCALES

The mean scores for each of the eight critical success factors are summarised in Table 18 below. Average scores for Availability of Funding and Financial Sustainability were 5.92 ($SD=1.09$) and 4.85 ($SD=1.10$) respectively.

**Table 18: Descriptive Statistics – Critical Success Factors**

<table>
<thead>
<tr>
<th>Critical Success Factor</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis Statistic</th>
<th>Kurtosis Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Technical Expertise</td>
<td>28</td>
<td>4.68</td>
<td>.98</td>
<td>-.80</td>
<td>.44</td>
<td>.80</td>
</tr>
<tr>
<td>Availability of Funding</td>
<td>26</td>
<td>5.92</td>
<td>1.09</td>
<td>-1.43</td>
<td>.46</td>
<td>2.30</td>
</tr>
<tr>
<td>Stakeholder Support</td>
<td>27</td>
<td>5.33</td>
<td>.88</td>
<td>.00</td>
<td>.45</td>
<td>-.65</td>
</tr>
<tr>
<td>Supportive Government Policy</td>
<td>28</td>
<td>3.32</td>
<td>1.19</td>
<td>-.11</td>
<td>.44</td>
<td>-.04</td>
</tr>
<tr>
<td>Management Competencies and Compensation</td>
<td>28</td>
<td>3.86</td>
<td>1.11</td>
<td>-.39</td>
<td>.44</td>
<td>.20</td>
</tr>
<tr>
<td>Financial Sustainability</td>
<td>27</td>
<td>4.85</td>
<td>1.10</td>
<td>-.81</td>
<td>.45</td>
<td>.22</td>
</tr>
<tr>
<td>Networking</td>
<td>28</td>
<td>5.39</td>
<td>1.34</td>
<td>-1.09</td>
<td>.44</td>
<td>1.12</td>
</tr>
<tr>
<td>Selection Criteria</td>
<td>27</td>
<td>5.52</td>
<td>1.22</td>
<td>-.73</td>
<td>.45</td>
<td>1.07</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**4.3.1 Frequency Distribution Charts – Critical success factors**

Frequency distributions of the Critical Success Factors have been used to organise and present the frequency counts so that the shape, centre and spread can be interpreted more easily. As shown in Table 18 above, the skewness for the critical success factor variables ranges from -1.43 to .00 and the kurtosis is between -.65 and 2.30 is 1.10. Both statistics are within two standard errors, which suggest that the data appears to be reasonably normally distributed.
Figure 4: Frequency distribution - Access to Technical Expertise

![Figure 4: Frequency distribution - Access to Technical Expertise](image)

Figure 5: Frequency distribution - Availability of funding

![Figure 5: Frequency distribution - Availability of funding](image)
4.3.2 Reliability: Cronbach’s Alpha + average inter-item correlations

The scales used to measure the independent variable – a conducive environment – had varying levels of reliability, with Cronbach’s Alpha scores ranging from -.1 to .7. Two of the scales - Availability of Funding and Selection Criteria - could not be tested for reliability using this method as they only had one numerical item each. The Networking scale reflected a high level of consistency with an Alpha value of .74.

Table 19: Reliability Statistics

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cronbach's Alpha&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Cronbach's Alpha Based on Standardized Items&lt;sup&gt;a&lt;/sup&gt;</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Technical Expertise</td>
<td>-.13</td>
<td>-.13</td>
<td>3</td>
</tr>
<tr>
<td>Availability of Funding</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Stakeholder Support</td>
<td>.36</td>
<td>.46</td>
<td>4</td>
</tr>
<tr>
<td>Supportive Government Policy</td>
<td>.21</td>
<td>.31</td>
<td>3</td>
</tr>
<tr>
<td>Management Competencies and Compensation</td>
<td>.25</td>
<td>.29</td>
<td>2</td>
</tr>
<tr>
<td>Financial Sustainability</td>
<td>.61</td>
<td>.62</td>
<td>5</td>
</tr>
<tr>
<td>Networking</td>
<td>.74</td>
<td>.75</td>
<td>4</td>
</tr>
<tr>
<td>Selection Criteria</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

The Access to Technical Expertise scale had a negative Alpha Value, suggesting that there was a negative average co-variance among items. Since none of these items are reversed as a way to mitigate against response biases, this was most likely due to the small sample size and small numbers of scale items, meaning that while the true population co-variances of items was positive, sampling error caused a negative average co-variance in the given sample. Alternatively, the negative Alpha may imply that the items used to measure this factor do not form a valid scale because they do not measure the same construct.
The Financial Sustainability scale had an Alpha value of .61. For this scale, the inter-item correlation was checked. As a result, it was determined that the Alpha value would increase to .62 if one item was deleted (see Table 20 below)

**Table 20: Inter-Item Correlation Matrix – Financial Sustainability**

<table>
<thead>
<tr>
<th></th>
<th>The organisation is financially self-sustaining or has a clear strategy to become so</th>
<th>The organisation charges appropriately for its services and facilities</th>
<th>The organisation financial records are audited annually</th>
<th>The organisation is financially self-sustaining or has a clear strategy to become so</th>
<th>The organisation charges appropriately for its services and facilities</th>
<th>The organisation financial records are audited annually</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organisation is financially self-sustaining or has a clear strategy to become so</td>
<td>.07</td>
<td>.13</td>
<td>1.00</td>
<td>.03</td>
<td>-.13</td>
<td>.69</td>
</tr>
<tr>
<td>The organisation charges appropriately for its services and facilities</td>
<td>.38</td>
<td>.32</td>
<td>.28</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organisation financial records are audited annually</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organisation is financially self-sustaining or has a clear strategy to become so</td>
<td>.61</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organisation charges appropriately for its services and facilities</td>
<td>.03</td>
<td>-.13</td>
<td>.69</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The organisation financial records are audited annually</td>
<td>.38</td>
<td>.32</td>
<td>.28</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 21: Item-Total Statistics – Financial Sustainability

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organisations planning and budgeting processes are based on</td>
<td>.54</td>
</tr>
<tr>
<td>The organisations budgets are reviewed regularly against actual</td>
<td>.57</td>
</tr>
<tr>
<td>The organisation is financially self-sustaining or has a clear strategy to become so</td>
<td>.48</td>
</tr>
<tr>
<td>The organisation charges appropriately for its services and facilities</td>
<td>.62</td>
</tr>
<tr>
<td>The organisations financial records are audited annually</td>
<td>.55</td>
</tr>
</tbody>
</table>

Table 22: Reliability Statistics

<table>
<thead>
<tr>
<th>Success factor</th>
<th>Number of items</th>
<th>Cronbach's alpha</th>
<th>Average inter-item correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Original</td>
<td>Original</td>
<td>Revised</td>
</tr>
<tr>
<td>Access to Technical Expertise</td>
<td>3</td>
<td>-.13</td>
<td>-.13</td>
</tr>
<tr>
<td>Availability of Funding</td>
<td>1</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Stakeholder Support</td>
<td>4</td>
<td>.36</td>
<td>.36</td>
</tr>
<tr>
<td>Supportive Government Policy</td>
<td>3</td>
<td>.21</td>
<td>.21</td>
</tr>
<tr>
<td>Management Competencies and Compensation</td>
<td>2</td>
<td>.25</td>
<td>.25</td>
</tr>
<tr>
<td>Financial Sustainability</td>
<td>5</td>
<td>.61</td>
<td>.61</td>
</tr>
<tr>
<td>Networking</td>
<td>4</td>
<td>.74</td>
<td>.74</td>
</tr>
<tr>
<td>Selection Criteria</td>
<td>1</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>
4.3.3 Descriptives

The Dependent Variable – incubator performance – is a multi-dimensional scale comprised of three sub-scales, namely Performance Outcomes; Management Policies; and Services and Value Added.

The mean score for performance outcomes in terms of Measuring Impact for the respondents was 3.82 ($SD=0.82$). Average scores for Incubatee Performance were 4.70 ($SD=1.1$) and 5.26 ($SD=0.98$) respectively.

Table 23: Summary Statistics – Incubator Performance

<table>
<thead>
<tr>
<th></th>
<th>Performance Outcome: Measuring Impact</th>
<th>Performance Outcome: Incubatee Performance</th>
<th>Performance Outcome: Services and Value-Add</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
<td>Valid 28</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Missing 0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>3.82</td>
<td>4.70</td>
<td>5.26</td>
</tr>
<tr>
<td><strong>Std. Error of Mean</strong></td>
<td>.16</td>
<td>.21</td>
<td>.19</td>
</tr>
<tr>
<td><strong>Std. Deviation</strong></td>
<td>.82</td>
<td>1.10</td>
<td>.98</td>
</tr>
</tbody>
</table>

4.3.4 Reliability: Cronbach’s Alpha + average inter-item correlations

All three scales used to measure Firm Performance proved to be unreliable, having Cronbach’s Alpha scores of less than .7. The scores for Measuring Impact, Incubatee Performance and Services and Value-Add were .55, .62 and .58 respectively.
Table 24: Reliability Statistics

<table>
<thead>
<tr>
<th>Performance Outcome</th>
<th>Cronbach's Alpha</th>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring Impact</td>
<td>.55</td>
<td>.54</td>
<td>3</td>
</tr>
<tr>
<td>Incubatee Performance</td>
<td>.62</td>
<td>.63</td>
<td>5</td>
</tr>
<tr>
<td>Services and Value-Add</td>
<td>.58</td>
<td>.55</td>
<td>4</td>
</tr>
</tbody>
</table>

4.3.5 Tests of hypotheses

H1-H8 predict a linear relationship between the IV and the DV. For this type of Hypothesis, correlation or linear regression tests have been used.

4.3.6 Assumptions for Correlation Analysis

Assumption 1: Interval Data – this assumption is met for all Hypotheses (H1-H8) as the data was generated using Likert-type scales.

Assumption 2: An existing linear relationship between the two variables. This has been checked using scatter plots (Figures 6-13 below and 9-1d). In each observation, as one variable increases in value, the other variable also tends to increase. As a result, all the variables appear to show a strong, positive, linear relationship.
Assumption 3: Outliers – there are no observable outliers in any of the scales. This assumption is met for all hypotheses.

Assumption 4: Normality – in order to assess the statistical significance of the Pearson correlation, bivariate normality is a required condition. As the sample was N<50, is Shapiro-Wilk test of normality was used. The results of this test are shown in Table 25 (See Appendix C).

From Table 25 below, the p-values of Firm Performance, Management competencies and Supportive Government Policy are .31, .04 and .04 respectively. The alternative hypotheses for these scales can be rejected and it can be concluded that the data comes from a normal distribution. For all other scales, the p<.05, meaning the assumption of normality is not met.

Table 25: Summary of Correlations

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Access to Technical Expertise</td>
<td>.22</td>
<td>.28</td>
<td>27</td>
</tr>
<tr>
<td>H2: Availability of Funding</td>
<td>.31</td>
<td>.12</td>
<td>26</td>
</tr>
<tr>
<td>H4: Supportive Government Policy</td>
<td>-.03</td>
<td>.899</td>
<td>27</td>
</tr>
<tr>
<td>H5: Management Competencies and Compensation</td>
<td>.21</td>
<td>.27</td>
<td>27</td>
</tr>
<tr>
<td>H6: Financial Sustainability</td>
<td>.41*</td>
<td>.036</td>
<td>27</td>
</tr>
<tr>
<td>H7: Networking</td>
<td>.49</td>
<td>.01</td>
<td>27</td>
</tr>
<tr>
<td>H* Selection Criteria</td>
<td>.67**</td>
<td>.000</td>
<td>27</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
Hypothesis 1:

H1: There is a positive relationship between access to technical expertise and incubator success.

H0: for this analysis: There is no linear relationship between access to technical expertise and incubator success.

A Pearson’s Correlation was conducted to test this hypothesis. For the sample, there was no statistically significant correlation between access to technical expertise and incubator success, \( r=0.22, p=.28, N=27 \). Subsequently, the null hypothesis was not rejected. See Table 25.

Hypothesis 2:

H2: There is a positive relation between the availability of funding, and incubator success.

H0: for this analysis: There is no linear relationship between the availability of funding and incubator success.

The mean score for the independent variable (availability of funding) was 5.92 (SD=1.09) and the firm performance had an average score of 4.58 (SD = 0.69). Pearson’s correlation substantiated the null hypothesis that there would be no linear relationship between these two variables, \( r(.26) = .31, p > .05 \). See Table 25.

Hypothesis 3:

H3: There is a positive relationship between stakeholder support and incubator success

H0: for this analysis: There is no linear relationship between stakeholder support and incubator success.
Table 26: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.52a</td>
<td>.27</td>
<td>.24</td>
<td>.60</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Stakeholder Support
b. Dependent Variable: Firm Performance

Table 27: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>3.29</td>
<td>1</td>
<td>3.29</td>
<td>9.07</td>
<td>.006b</td>
</tr>
<tr>
<td>Residual</td>
<td>9.06</td>
<td>25</td>
<td>.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12.35</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Firm Performance
b. Predictors: (Constant), Stakeholder Support

Table 28: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>Lower Bound</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.42</td>
<td>.73</td>
<td></td>
<td>.92</td>
</tr>
<tr>
<td>Stakeholder Support</td>
<td>.41</td>
<td>.14</td>
<td>.52</td>
<td>.13</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Firm Performance

Assumptions

- Existence: There is a relationship between the dependent and independent variables.
- Linearity: This relationship is linear over the range of values analyzed.
- Independence:
  - For given values of Stakeholder Support, the values of Firm Performance are independent of each other.
The explanatory variables are independent of each other – hence the name “independent variables”.

- Normality: For given values of the Stakeholder Support, the values of the DV are normally distributed.
- Constant variance: the distribution of y-values has equal variance at each value of x.

A scatter-plot summarizes the results (Figure 15 below).
Figure 15: Scatter Plot of Regression Standardized Residual – Stakeholder Support

Hypothesis 4:
H4: There is a positive relationship between supportive government policy and incubator success.

H0: for this analysis: There is no linear relationship between supportive government policy and incubator success.
The Pearson correlation indicates a negative relationship between a Supportive Government Policy and incubator success \( r = -0.026 \). However this relationship is not significant \( p = .9, N = 27 \). Therefore the research hypothesis is not supported. In essence, a supportive government policy is not essential for incubator success. See Table 25.

**Hypothesis 5:**
H5: There is a positive relationship between management competencies and compensation and incubator success.

**H0: for this analysis:** There is no linear relationship between management competencies and compensation and incubator success.

The Mean scores for Management Competencies and Firm Performance are summarised in the table above. Pearson’s correlation did not support the research hypothesis that the two variables are positively correlated, \( r(27) = .21, p > .05 \). See Table 25.

**Hypothesis 6:**
H6: There is a positive relationship between financial sustainability and incubator success.

**H0: for this analysis:** There is no linear relationship between financial sustainability and incubator success.

There was a positive correlation between financial sustainability and incubator success \( r = 0.41, n = 27, p = .036 \). See Table 25.

**Hypothesis 7:**
H7: There is a positive relationship between networking and incubator success.
**H0: for this analysis:** There is no linear relationship between networking and incubator success.

The sample showed a statistically significant correlation between networking and incubator success, $r=0.49$, $p=0.01$, $N=27$. Subsequently, the null hypothesis was rejected and the alternative upheld. See Table 25.

**Hypothesis 8:**

H8: There is a positive relationship between stringent selection criteria and incubator success.

**H0: for this analysis:** There is no linear relationship between stringent selection criteria and incubator success.

The results of the Bivariate Correlation used to test this hypothesis are summarised in Table 25.

The results indicate that Selection criteria is positively correlated to firm performance of incubators $r=0.67$, $N=27$; and that this correlation is statistically significant at the 0.01 level.

Overall, there was a strong, positive correlation between selection criteria and firm performance and the null hypothesis is rejected.

**Hypothesis 9:**

H9: There is a relationship between the performance of incubators and the incubation model used.
For Profit vs Non-Profit Models

Table 29: Group Statistics

<table>
<thead>
<tr>
<th></th>
<th>Is your organisation</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Performance</td>
<td>Non-Profit</td>
<td>16</td>
<td>4.48</td>
<td>.79</td>
<td>.20</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>For Profit</td>
<td>10</td>
<td>4.7</td>
<td>.51</td>
<td>.16</td>
</tr>
</tbody>
</table>

Table 30: Independent Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Mean Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>Equal variances assumed</td>
<td>2.68</td>
<td>.12</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>Equal variances not assumed</td>
<td>-.86</td>
<td>23.96</td>
</tr>
</tbody>
</table>

An independent samples T-Test was conducted to compare firm performance in for-profit and non-profit organisations.

There was no significant difference in scores for the for-profit incubators (M= 4.7, SD= 0.51) and non-profit incubators (M=4.48, SD= 0.79); t(df=24) = -0.78, p= .44.
Funding Models

No distinct funding models for BDS organisations emerged from the sample. Again, there was significant overlap and different combinations of funding.

Table 31: Which of the following has provided funding or sponsorship for the organization?

<table>
<thead>
<tr>
<th>Source of Funding</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Institution, Government Agencies, Economic Development Organization</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Development Organization, Private Investors, Foreign Donors, Commercial Banks</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Government Agencies, Economic Development Organization, Private Investors</td>
<td>2</td>
<td>7.1</td>
</tr>
<tr>
<td>Government Agencies, Economic Development Organization, Private Sector</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Government Agencies, Economic Development Organization, Individuals</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Government Agencies, Foreign Donors, Commercial Banks, Private Sector</td>
<td>2</td>
<td>7.1</td>
</tr>
<tr>
<td>Government Agencies, Foreign Donors, Individuals</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Government Agencies, Private Investors, Commercial Banks</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Government Agencies, Private Sector</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Private Investors, Foreign Donors, Commercial Banks, Private Sector</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Private Investors, Individuals</td>
<td>1</td>
<td>3.6</td>
</tr>
<tr>
<td>Private Investors, Private Sector</td>
<td>2</td>
<td>7.1</td>
</tr>
</tbody>
</table>
Private Investors, Private Sector, Venture Capital 1 3.6
Private Sector 5 17.9
Private Sector, Individuals 1 3.6
Total 28 100.0

Services Offered

Table 32: Which of the following best describes your organization?

<table>
<thead>
<tr>
<th>Valid Business Accelerator</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Enterprise</td>
<td>1</td>
<td>3.6</td>
<td>3.6</td>
<td>35.7</td>
</tr>
<tr>
<td>Business Incubator</td>
<td>10</td>
<td>35.7</td>
<td>35.7</td>
<td>71.4</td>
</tr>
<tr>
<td>ED Consultancy</td>
<td>1</td>
<td>3.6</td>
<td>3.6</td>
<td>75.0</td>
</tr>
<tr>
<td>Network</td>
<td>1</td>
<td>3.6</td>
<td>3.6</td>
<td>78.6</td>
</tr>
<tr>
<td>Networking Organisation</td>
<td>1</td>
<td>3.6</td>
<td>3.6</td>
<td>82.1</td>
</tr>
<tr>
<td>Social Enterprise</td>
<td>1</td>
<td>3.6</td>
<td>3.6</td>
<td>85.7</td>
</tr>
<tr>
<td>Training and Development Centre</td>
<td>4</td>
<td>14.3</td>
<td>14.3</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Research Question 1: Are the critical success factors of the GODISA case study still significant?

The results of this chapter show that some of the critical success factors identified by proved to have a significant effect on incubator success, while others did not. There is no apparent association between the BDS model employed and the performance of the incubator.
CHAPTER FIVE

DISCUSSION OF THE RESULTS

5.1 INTRODUCTION

The purpose of this section is to evaluate and interpret the results of the study, with respect to the original research questions and hypotheses put forward. This chapter reviews the results presented in the previous Chapter, and their contributions to entrepreneurship and BDS/incubation theory. The limitations of the study and possible explanations for unexpected outcomes are also presented. Finally, this chapter considers some potential areas for future research based on the implications of this study.

Hypotheses 1-8 were based on the original Buys and Mbewana (2007) study, which listed nine key critical success factors for business incubator success in the South African environment.

They found that access to technology expertise and facilities; the availability of funding; quality of entrepreneurs; stakeholder support; a supportive government framework; competent and motivated management; financial sustainability; and networking showed positive significant relationships with incubator success. The first eight hypotheses in this dissertation attempted to replicate the findings, with mixed results. The remaining hypothesis sought to examine if the incubation model used has an impact on the success of the incubator.

5.2 DEMOGRAPHIC PROFILE OF RESPONDENTS

The respondents of the online survey were mostly top level management,
directors or the owners of the company. This was in line with findings from literature that it is important to view the impact of the role of certain antecedents in the operation and performance of incubator and small business development firms, from the perspective of the drivers of innovation and strategic thinking in these organisations (Morris et al., 2010).

Previous research also suggests that the insights of top managers’ of the performance of the organization correlate with the real performance as shown by objective measures (Poon et al., 2006).

The survey revealed that top level managers of BDS organizations in the South African context tend to be highly educated, with the majority having some level of tertiary qualification. Most of the survey participants had a maximum of five years’ experience in their organisation and less than ten years’ working in the BDS sector overall, another indicator of the fluidity and relative immaturity of the industry in the South African context.

The previous professional experience showed evidence of diversity, with the most common professions of those surveyed being business consulting, entrepreneurship and sales and marketing. What emerged from the in-depth interviews was that a generalist skill set and previous entrepreneurial experience are important competencies for BDS managers to have in order to effectively relate to the small business owners and be able to provide holistic assistance to a broad range of people. The ability to build relationships was mentioned as vital to the survival and prosperity of the BDS organisation. In a review of international best practice for business incubation, Lalkaka (2001) expands on this by stating that the ability to build a dynamic team with entrepreneurial characteristics is crucial to the success of incubators.
5.2.1 Demographic profile of BDS organisations

Incubators and Accelerators made up more than half the BDS firms represented in the survey, although these labels were used to describe organisations that provide a variation of different services. The survey revealed that BDS activities are concentrated in Gauteng and the Western Cape, which are the major centres of economic activity in the country. BDS activity outside of these nodes either has a sectoral focus (for example, agriculture) or represents BDS firms that have provincial branches.

The most commonly cited goals for incubators are job creation and economic growth, which are also key priorities for the government as put forward in the National Development Plan (Republic of South Africa, 2013). While there is commonality and overlap of goals between different BDS providers, it is also apparent that there is great variation which is illustrative of a congested and immature industry.

According to the managing directors interviewed, this lack of segmentation will dissipate as the industry becomes more mature, possibly with the introduction of a regulatory body and rating system within the next five years. Some are of the view that this formalisation and standardisation of the sector will be necessary for BDS to become more efficient and ultimately, more beneficial to entrepreneurs and small businesses.

5.2.2 Summary of Hypotheses 1 - 9

There were some dissimilarities in results between the Godisa study and this research.

5.2.2.1 Access to technology expertise
It emerged that there is no significant difference between the performance of those incubators that are closer to universities and have access to technical expertise and those that do not. This is in contrast to the outcome of the GODISA case study, where access to technical expertise proved to be a critical success factor (Buys & Mbewana, 2007). This difference may be due to the fact that the GODISA study focused on technology-based incubators and science parks, while the researcher in this instance sampled a broader spectrum of BDS service providers. This implies that there may be a correlation between the type of incubation model and specific antecedents for firm performance. It may be the case that the importance of access to technological expertise and facilities is dependent on the incubator and the type of ventures being incubated having a technological focus.

5.2.2.2 Availability of funding

Availability of funding was shown to have no significant importance for incubators in the South African context. This is in contrast to the GODISA study, which concluded that access to funding is fundamental for nascent entrepreneurs (Buys & Mbewana, 2007).

5.2.2.3 Quality of entrepreneurs

According to Buys and Mbewana (2007) the success of incubators in South Africa depends on the quality of the entrepreneurs who are being incubated in terms of previous business experience; drive; self-efficacy; a family background that supports entrepreneurial activity; access to an entrepreneurial network; and previous incubator experience.

In the qualitative interviews conducted in this study, respondents echoed these characteristics, and discussed different methods used to identify
them in prospective candidates, including psychometric testing and pre-incubation programmes.

5.2.2.4 Stakeholder support

There is a positive relationship between stakeholder support and incubator success. This is in line with the work of Buys and Mbewana (2007) and supported by a more recent study by Riddle, Hrivnak, and Nielsen (2010) who proposes that the ability to identify and engage appropriate stakeholders is essential for the successful support of start-up ventures.

Riddle et al. (2010) also contends that although incubators can have different organisational and ownership structures, they may have very diverse stakeholders that include local and regional individuals, organizations, and government agencies. These stakeholders play a role in providing access to the resources essential for entrepreneurial success and the success of the incubator.

The top level managers who took part in the one-on-one interviews were asked to identify key stakeholders for BDS success in the current South African context. The government was cited as the most important external stakeholder for BDS, firstly as a key proponent of enterprise development as a mandate, and secondly, with regard to the future standardization and regulation of BDS providers. The B-BBEE codes and Enterprise Development aspects of the scorecard were quoted as being key drivers of growth in the sector, as well as a key differentiator of the South African context when compared with other markets where there is little or no government involvement in entrepreneurial growth.

5.2.2.5 Supportive government policies
According to the outcomes of the quantitative survey, a supportive government policy is not a necessary condition for incubator success. This outcome was surprising in that it contradicts the findings of Buys and Mbewana (2007) as well as other well documented literature (Lalkaka, 2001). It is also not supported by the opinions of the managing directors interviewed for this study. According to several of these top level managers, the National Development Plan, B-BBEE legislation and Enterprise Development policies introduced by government play a major role in the current state and future direction of the BDS sector in South Africa. Not only do they observe the importance of entrepreneurship and innovation in the goals of the national and provincial government, but the challenges this has created, with the emergence of fly-by-night BDS providers and entrepreneurs looking to benefit from the incentives provided by government programmes. Lalkaka (2001) emphasises the role that government plays in creating a stable political, economic and regulatory environment that is necessary for successful incubation.

5.2.2.6 Competent and motivated management

Buys and Mbewana (2007) established that in order to succeed, business incubators need to have experienced, knowledgeable, capable and properly incentivized management. However, Pearson’s correlation did not support the research hypothesis that the two variables are positively correlated in this study. Again, this finding contradicts the greater body of literature.
5.2.2.7 Financial sustainability

There was a positive correlation found between financial sustainability and incubator success. Lalkaka (1997) and Buys and Mbewana (2007) also attest that the sustainability of the incubator as a business entity is an important measure of its success.

5.2.2.8 Networking

The results of the quantitative survey reinforce the extant literature that states networking plays a vital role in the success of any incubation programme (Buys & Mbewana, 2007; Hackett & Dilts, 2004a; Pena, 2004). The qualitative interviews confirmed this finding.

5.2.2.9 Selection criteria

The initial finding by (Buys & Mbewana, 2007) that stringent selection criteria were not one of the critical success factors for business incubation in South Africa was not upheld in this research. Instead, a strong correlation was found between having stringent selection criteria and the performance of incubators, in support of the work done by Timm, (2011) and Bruneel et al. (2012), who maintain that appropriate selection criteria is a vital component of successful incubator management and performance. The managing directors who took part in the in-depth interviews spoke about the process of selecting candidates for BDS as being a key aspect of each programme, with one hesitant to divulge key components of their methodology on the grounds of protecting proprietary knowledge. It appears that this difference in outcomes demonstrates how the incubators have evolved and become more sophisticated since the GODISA case study was conducted.
5.3 BUSINESS MODEL

There was no significant difference found between the performance of non-profit incubators and for-profit incubators represented by the sample. Insights provided by the qualitative interviews suggest that there are key differences in the way non-profit and for-profit BDS firms operate in the South African context. The tax regulations that apply to non-profit organizations are seen as a major obstacle to their growth and sustainability. On the other hand, practitioners using a for-profit model seem to feel that their status is a disadvantage when it comes to having access to funding from the government and corporate entities.

The results of this study concur with previous literature which determined that incubators tend to be funded in various ways and have a combination of different funding sources which include investment from public, private, and the not-for-profit sectors (Shepard, 2013).

5.4 CONCLUSION

In summary, some previously identified critical success factors proved to have a significant effect on incubator success, while others did not. There appears to be no direct relationship between the BDS model employed and the performance of the incubator.
CHAPTER SIX

CONCLUSIONS OF THE STUDY

6.1 INTRODUCTION

This final chapter examines the conclusions of the study with reference to the context set out at the beginning and highlights key differences with other research that emerged. Limitations of this research are presented. The research findings are related to existing theory and the contribution of these results to the overall body of entrepreneurship knowledge is discussed. Suggestions for further areas of exploration and future research are then presented.

6.2 CONCLUSIONS OF THE STUDY

Literature commonly cites small and medium enterprises as the protagonists of economic and social development in emerging economies (Agupusi, 2007; Rogerson, 2001). Subsequently, the promotion and growth of small business has taken on an increasingly prominent role in development planning and policy in emerging African economies (Aggarwal, 2012). In South Africa, entrepreneurship is seen as a solution to bridging the widening wealth gap and reducing the effects of poverty and historic inequality (Herrington et al., 2010). Many African countries see business incubation as a way to instill an entrepreneurial culture. Business incubation and BDS in its broader form are considered as a solution for the poor survival rates among small and new firms (Aggarwal, 2012). This may be one reason that business incubation continues to grow in emerging market economies. A primary motivation for this research was that due to the relative infancy of the BDS and incubation environment in South Africa, there is limited literature that can offer insight...
into the current state of business incubators in the country. This research set out to examine previously identified critical success factors of business incubators in South Africa and assess their relation to the performance of BDS firms. The aim was to ascertain which factors play a significant role in the performance of business incubators, making them an effective vehicle for enterprise development and national economic growth. To this end, this research dealt with two sub-problems, namely:

- To establish the antecedents of successful incubation in the South African context;
- To evaluate the relationship between type of incubation model used and the performance of incubators in South Africa.

The findings of this research indicate that the business incubation and small business development landscape of South Africa has evolved and perhaps grown more sophisticated as more firms have emerged in response to situational and contextual factors. Certain critical success factors remain applicable, while others have undergone change. The types of services offered and business models for BDS firms have evolved but there is still no clear differentiation between different service providers. As such, questions still exist around a definitive list of success factors specifically for South African BDS as well as a suitable model of business incubation.

6.3 LIMITATIONS
A chief limitation of this study was the relatively small sample size of the quantitative survey. As a result, these findings cannot be generalized to the broader incubation and BDS sector based on this study alone. A further limitation involves the researcher's lack of experience in conducting and interpreting qualitative research. The recommendations listed below are proposed as possible ways to improve this study.
E-mail may not be the most effective medium for contacting top level respondents for research of this nature. It is recommended that this method be replaced with a more direct engagement.

6.4 IMPLICATIONS AND RECOMMENDATIONS

This research sought to enhance the knowledge concerning strategic management of incubators and BDS providers in a developing country and to provide helpful information to both academics and practitioners focusing on the areas of corporate governance, enterprise development and industrial policy.

It has been established that not all the success factors that were applicable to the Godisa case study remain relevant in the current context of Business Development Services in South Africa. This may be largely due to the growth and dynamism within the sector in the years since the Godisa study was conducted. However, given the low response rate among BDS and incubator managers, the outcomes and consequent inferences made in this research study are limited and cannot be generalized to all BDS firms operating in South Africa. Nevertheless, the information that emerged provides a good starting point for further exploration into the current state of incubators and their future development within this context.

6.4.1 Recommendations for Research

The following recommendations are proposed for further research in the field of small business development and business incubation in South Africa:

1. Given the changing nature of the sector, a series of longitudinal studies, tracking the development of key organizations such as
SEDA would document trends and shifts both in practice and scope of services and thereby help map the unique nature of the South African context more accurately.

2. While the current expansion of BDS is primarily driven by a local government agenda and the growth seems organic in nature, researchers might consider the BDS models and incubation best practice from a global perspective. It may be beneficial to conduct parallel research which considers the trajectory of incubation in more mature contexts as a way to anticipate potential trends and pitfalls and how others have solved issues that may not yet be apparent in South Africa.

3. Given that this research paper provides a follow-on analysis from the Godisa case study but does not provide generalizable data, a larger scale, more comprehensive investigation into the themes and success factors looked at here would prove to be valuable both to the discipline and to stakeholders working in the sector. Such an effort would help to categorize BDS providers and also be the first steps in regulation of the sector, establishing who the current players are as well as identifying gaps in the market in terms of the provision of services.

4. It is further recommended that researchers more clearly categorize the types of services provided by BDS providers and limit the options of respondents to generate clearer categories. This is likely to become easier over time as BDS providers seek to differentiate their service offerings from their competitors. In addition, this categorization may be something that requires verification by a governing body, as interviewees indicated that stratification and regulation may prove to be of value.
6.4.2 Recommendations for Practitioners

The following recommendations are put forward for practitioners in the field of small business development and business incubation:

1. It is recommended that policy developers, whether within government bodies or organisational structures, use this information as a basis for evaluating and updating their outlook and the scope and emphasis of existing programmes and as a planning tool for future investment.

2. The formalization of Enterprise Development and its prominence in the economic goals of the South African government are a unique driver of BDS in this country. It is important that policies governing this work remain in line with the key objectives outlined in the National Development Plan. In order for BDS and business incubation to meet the mandate of supporting entrepreneurship and growing the economy, legislation regarding the business models of non-profit BDS firms needs to be reviewed, taking its cue from other global examples. Another key issue is the incentives provided by government to BDS providers and how best these can be administered to minimize undue favouritism and discourage opportunistic operators who pose a risk to the industry.

3. As the industry matures and changes, it may become necessary for more regulation to be considered. Suggestions include the creation of a rating system that compares like with like. The benefit of this is two-fold: firstly, BDS service offerings would become better defined and categorized. Secondly, a rating system may be the first step towards benchmarking performance of BDS providers, and raising service levels. This process has already begun with programmes
such as Dalberg’s Catalyst for Growth already being tested in the market. However, more collaborative work needs to be done, and an independent governing body consisting of different stakeholders (government, academic, commercial) would need to be established.

6.5 SUGGESTIONS FOR FURTHER RESEARCH

In their study, Buys and Mbewana (2007) concluded that a critical list of success factors specifically for South Africa needs to be established, and a suitable context-specific incubation model needs to be developed. This study has sought to build on these two observations. However, given the rapid expansion of the sector and the anticipated future growth of BDS in South Africa, there is scope for future research in some key areas. Because extent literature (H. M. Al-Mubaraki & Busler, 2011; Bergek & Norrman, 2008; Lalkaka, 1996; Timm, 2011) endorses the validity of the critical success factors in the Buys and Mbewana (2007) study, additional tests of these constructs within the South African context may be warranted, using a broader sample. Firstly, it is worth investigating whether the success factors for business incubation apply universally to all models of BDS or if some factors are unique to the type of services offered.

Furthermore, there is scope for further research relating to the nature of the services offered by incubators small businesses and how these play a role in the success of both incubators and incubatees.
REFERENCES


Akçomak, İ. S. (2009). Incubators as tools for Entrepreneurship Promotion in Developing countries: Research paper/UNU-WIDER.


APPENDICES
APPENDIX A – CONSISTENCY MATRIX

Table 32: Consistency matrix
Research Problem: Determine the critical success factors for South African incubators and ascertain the relationship between different incubation models and the performance of incubators in SA.

<table>
<thead>
<tr>
<th>Sub-problem</th>
<th>Literature Review</th>
<th>Hypotheses or Propositions or Research questions</th>
<th>Source of data</th>
<th>Type of data</th>
<th>Analysis</th>
</tr>
</thead>
</table>
Table 32: Consistency matrix
Research Problem: Determine the critical success factors for South African incubators and ascertain the relationship between different incubation models and the performance of incubators in SA.

<table>
<thead>
<tr>
<th>Sub-problem</th>
<th>Literature Review</th>
<th>Hypotheses or Propositions or Research questions</th>
<th>Source of data</th>
<th>Type of data</th>
<th>Analysis</th>
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</thead>
<tbody>
<tr>
<td>Sub-problem 1: Establish the antecedents of successful incubation in the South African context.</td>
<td>Covin, J. G., &amp; Wales, W. J. (2012)</td>
<td>Research Question 1: Are the critical success factors of the GODISA case study still significant?</td>
<td>Questionnaire Section 2 and Section 3</td>
<td>Ordinal/Interval Numerical</td>
<td>Factor Analysis, linear regression analysis</td>
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<tr>
<td></td>
<td>Covin, J. G., &amp; Lumpkin, G. (2011).</td>
<td>H1: There is a positive relationship between access to technical expertise and incubator success.</td>
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<td></td>
<td>Rauch, A., Wiklund, J., Lumpkin, G. T., &amp; Frese, M. (2009)</td>
<td>H2: There is a positive relationship between the availability of funding, and incubator success</td>
<td></td>
<td></td>
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<td></td>
<td>Hughes, M., &amp; Morgan, R. E. (2007).</td>
<td>H3: There is a positive relationship between stakeholder support and incubator success</td>
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<td></td>
<td>Antonicic, B., &amp; Hisrich, R. D. (2004).</td>
<td>H4: There is a positive relationship between supportive government policy and incubator success</td>
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<td></td>
<td>Peters, L., Rice, M., &amp; Sundararajan, M. (2004).</td>
<td>H5: There is a positive relationship between management competencies and compensation and incubator success</td>
<td></td>
<td></td>
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<td></td>
<td>Covin, J. G., &amp; Slevin, D. P. (1991).</td>
<td>H6: There is a positive relationship between financial sustainability and incubator success</td>
<td></td>
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<td></td>
<td>Covin, J. G., &amp; Slevin, D. P. (1989).</td>
<td>H7: There is a positive relationship between networking and incubator success</td>
<td></td>
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<td></td>
<td></td>
<td>H8: There is a positive relationship between stringent selection criteria and incubator success</td>
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</table>
Table 32: Consistency matrix

Research Problem: Determine the critical success factors for South African incubators and ascertain the relationship between different incubation models and the performance of incubators in SA.

<table>
<thead>
<tr>
<th>Sub-problem</th>
<th>Literature Review</th>
<th>Hypotheses or Propositions or Research questions</th>
<th>Source of data</th>
<th>Type of data</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-problem 2:</td>
<td>Hackett, S. M., &amp; Dilts, D. M. (2008)</td>
<td><strong>H9: There is a relationship between the performance of incubators and the incubation model used</strong></td>
<td>Questionnaire Section 1 and Section 3</td>
<td>Categorical/ Ordinal</td>
<td>Linear Regression</td>
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<td></td>
<td>Rogerson, C. M. (2001)</td>
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<td></td>
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<tr>
<td></td>
<td>Lalkaka, R., &amp; Bishop, J. (1996)</td>
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</table>
APPENDIX B – RESEARCH INSTRUMENT: QUANTITATIVE SURVEY

My name is Vimbai Kavhumbura and I am a postgraduate student working towards a Masters in Management in Entrepreneurship at Wits Business School. I would like to invite you to participate in a research study which is examining entrepreneurship and small business development services in South Africa. This forms part of the academic requirements of the Masters in Management programme.

Your individual privacy and confidentiality of the information you provide will be maintained in all published and written data analysis resulting from the study. The study is strictly anonymous.

The survey should take approximately (10 minutes). Your participation is entirely voluntary and you have the right to discontinue participation at any time. At no time will you be asked to reveal any personal details. I believe the study will be of value for the further development of entrepreneurship in South Africa.

All results and findings of this research can be accessed upon request by contacting me via email 747171@students.wits.ac.za

Thank you in advance for your valued contributions

Warm Regards

Vimbai Kavhumbura
## Section 1 – General Information

<table>
<thead>
<tr>
<th>Scale</th>
<th>Item</th>
<th>Source</th>
<th>Response categories</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>How many years has your firm been in business?</td>
<td>Adapted from Al-Mubaraki and Busler (2010)</td>
<td>0 – 1 year 2 – 5 years 6– 10 years 15 years 16 +</td>
</tr>
<tr>
<td></td>
<td>How many employees did your firm have at inception?</td>
<td></td>
<td>1 – 5/6 – 10/11 – 15/16 – 20/21+</td>
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<td></td>
<td>How many employees does your firm have currently?</td>
<td></td>
<td>For profit/Non-profit</td>
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<td></td>
<td>Is your company Profit or Non-Profit?</td>
<td></td>
<td>Academic Institution/Government Grant/Economic Development Organization/Private Investors/Foreign Donors/Commercial Banks/Private Sector Grants/Other – please specify</td>
</tr>
<tr>
<td></td>
<td>Which of the following has provided sponsorship or funding to your organization? Please select all applicable</td>
<td>NBIA (2008)</td>
<td>Eastern Cape/ Free State/Gauteng/KwaZulu-Natal/Limpopo/Mpumalanga/Northern Cape/North West/Western Cape</td>
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<tr>
<td></td>
<td>In which province is your incubator located? Select all appropriate</td>
<td>NBIA (2008)</td>
<td>Urban/Peri-urban/Rural</td>
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<tr>
<td></td>
<td>Is your incubator located in an environment that is:</td>
<td>NBIA (2008)</td>
<td>technology incubator/ mixed-use incubator/service incubator/manufacturing incubator/other (please specify)</td>
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<td></td>
<td>Which of the following best describes your program:</td>
<td>NBIA (2008)</td>
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<td></td>
<td>How many incubatee firms have graduated from the incubator in the last 12 months?</td>
<td>Researcher</td>
<td>None/1-5/6-10/11-15/16-20/20+</td>
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<tr>
<td></td>
<td>How many incubatee firms have graduated from the incubator since inception?</td>
<td>Researcher</td>
<td>None/1-5/6-10/11-15/16-20/20+</td>
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<td></td>
<td><strong>Priority Goals of Incubator:</strong></td>
<td>Adapted from Al-Mubaraki and Busler (2010)</td>
<td>Select the 3 most important to your organization</td>
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<tr>
<td></td>
<td>Creating employment</td>
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<td></td>
<td>Retaining business in local community</td>
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<td></td>
<td>Building/accelerating growth in local industry</td>
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<td></td>
<td>Commercializing technologies</td>
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<td></td>
<td>Supporting other entrepreneurs and the community</td>
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<td></td>
<td>Generating benefits for the sponsoring organizations</td>
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<td>Response categories</td>
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<td><strong>Which of the following services is currently offered or facilitated by the incubator:</strong></td>
<td></td>
<td>Yes/No</td>
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<tr>
<td></td>
<td>Business networking activities</td>
<td>Adapted from Al-Mubaraki and Busler (2010)</td>
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<td></td>
<td>Shared administrative/office services and facilities</td>
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<td></td>
<td>Linkages to strategic partners</td>
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<td></td>
<td>Specialized business services (legal, HR, marketing, Accounting, etc)</td>
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<td></td>
<td>Linkage to higher education resources</td>
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<td></td>
<td>Business assessment</td>
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<tr>
<td></td>
<td>Intellectual property management</td>
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<td>Shadow advisory boards/mentors</td>
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<td></td>
<td>Personal development/training</td>
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<td></td>
<td>Specialized equipment/facilities</td>
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<td></td>
<td>Commercializing technology</td>
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<td></td>
<td>Assistance with product design and development</td>
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<td>International trade</td>
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<td></td>
<td>Access to Direct Investment from incubator</td>
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<td></td>
<td>Help accessing funding from other financial institutions, angel or venture capital investors</td>
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<td><strong>Respondent Characteristics</strong></td>
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<td></td>
<td>Are you male or female?</td>
<td>Researcher</td>
<td>Male/Female</td>
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<td></td>
<td>What is your position within the firm?</td>
<td>Researcher</td>
<td>Non-Management/Junior Management/Middle management Management/Owner</td>
</tr>
<tr>
<td></td>
<td>How long have you been with the firm?</td>
<td>Researcher</td>
<td>Less than a year/1-4 years/5-7 years/8-10 years/More than 10 years</td>
</tr>
<tr>
<td></td>
<td>Formal education level</td>
<td>Researcher</td>
<td>Less than High School/Matric/Bachelor’s Degree/Master’s Degree/Doctoral Degree</td>
</tr>
<tr>
<td></td>
<td>How old are you?</td>
<td>Researcher</td>
<td>24 or younger/25-30/31-35/36-40/40-45/45 or older</td>
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<td></td>
<td><strong>What one area best describes your background prior to business incubation:</strong></td>
<td>NBIA (2008)</td>
<td>Select all appropriate</td>
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<td></td>
<td>Accounting</td>
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<td>Banking or finance</td>
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<td>Business consulting</td>
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<td>Corporate management</td>
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<td>Economic development</td>
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<td>Education and training</td>
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<td>Engineer</td>
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<td>Former or current entrepreneur</td>
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<td>Higher education administration</td>
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<td>Investing or venture consulting</td>
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<td>Legal</td>
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<td>Marketing or sales</td>
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<td>Non-port management</td>
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## Scale

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<th>Scale</th>
<th>Item</th>
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<th>Response categories</th>
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### Real estate or property management
- Technology commercialization
- Other

---

## Section 2 – Critical Success Factors

### Critical Success Factors

#### Technology expertise and facilities
- The incubator has access to technological expertise and facilities with a nearby university
- The incubator has direct access to technological expertise and facilities
- The incubator needs more has access to technological expertise and facilities

#### Availability of funding
- The incubator provides the following funding directly to entrepreneurs (select all applicable)
- The Incubator facilitates access to finance through other institutions
- The incubator needs to provide more direct funding to entrepreneurs

#### Quality of entrepreneurs
- The incubatees are selected according to strict criteria

#### Stakeholder support
- This incubator’s stakeholders include (select all applicable)
<table>
<thead>
<tr>
<th><strong>Government, Local Universities, Local Community Members, Local Businesses, Empowerment and Developmental Agencies</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>See section 3</strong></td>
</tr>
<tr>
<td><strong>Supportive government policies</strong></td>
</tr>
<tr>
<td>Current Government policy for SMMEs helps to facilitate entrepreneurial activity in SA</td>
</tr>
<tr>
<td><strong>Competent and motivated management</strong></td>
</tr>
<tr>
<td>Managers’ knowledge and experience of SMME development is</td>
</tr>
<tr>
<td>Managers’ salaries are competitive by industry standards</td>
</tr>
<tr>
<td><strong>See Section 1</strong></td>
</tr>
<tr>
<td><strong>Financial sustainability</strong></td>
</tr>
<tr>
<td>See Section 3</td>
</tr>
<tr>
<td><strong>Networking</strong></td>
</tr>
<tr>
<td>How big is the incubator’s current network?</td>
</tr>
<tr>
<td>The incubator regularly hosts or facilitates networking events for entrepreneurs</td>
</tr>
<tr>
<td>Networking is a key service offering of this incubator</td>
</tr>
<tr>
<td>The incubator networks includes a diverse range of business and technical expertise</td>
</tr>
</tbody>
</table>

7 Point Scale 1 – Strongly disagree 2 – Disagree 3 – Somewhat disagree 4 – Neither agree or disagree (Neutral) 5 – Somewhat agree 6 – Agree 7 – Strongly agree

1 – Poor  2 – Fair  3 – Good  4 – Very good  5 – Excellent

1 – Strongly disagree 2 – Disagree 3 – Somewhat disagree 4 – Neither agree or disagree (Neutral) 5 – Somewhat agree 6 – Agree 7 – Strongly agree

50 or more persons; 250 or more persons; 500 or more persons; 750 or more persons, 1,000 or more persons

7 Point Scale 1 – Strongly disagree 2 – Disagree 3 – Somewhat disagree 4 – Neither agree or disagree (Neutral) 5 – Somewhat agree 6 – Agree 7 – Strongly agree
### Section 3 – Firm Performance

<table>
<thead>
<tr>
<th>Scale</th>
<th>Item</th>
<th>Source</th>
<th>Response categories</th>
<th>Scale of Measurement</th>
<th>Categorical/ Numerical</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Measuring Impact</strong></td>
<td></td>
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<tr>
<td></td>
<td>This incubator collects quantifiable data and information to ensure the incubation program is meeting its mission</td>
<td>Adapted from NBIA (2008)</td>
<td>5 point Scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This incubator collects impact data (revenue, Employment, investment, etc) from its current clients</td>
<td>Adapted from NBIA (2008)</td>
<td>1 – Never 2 – Rarely 3 – Sometimes 4 – Often 5 – Always</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>This incubator collects impact data (revenue, Employment, investment, etc) from graduates</td>
<td>NBIA (2008)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>Incubatee Performance</strong></td>
<td></td>
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<tr>
<td></td>
<td>This Incubator has implemented a graduation process based on established criteria that promote incubator and tenant success</td>
<td>NBIA (2008)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>This incubator regularly monitors client progress toward achieving graduation criteria</td>
<td>NBIA (2008)</td>
<td>7 Point Scale 1 – Strongly disagree 2 – Disagree 3 – Somewhat disagree 4 – Neither agree or disagree (Neutral) 5 – Somewhat agree 6 – Agree 7 – Strongly agree</td>
<td></td>
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<tr>
<td></td>
<td>This incubator consistently moves failing and non-performing companies out of the program as non-graduates.</td>
<td>NBIA (2008)</td>
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<tr>
<td></td>
<td>This Incubator helps its graduates find suitable space to relocate in the community, if possible.</td>
<td>NBIA (2008)</td>
<td></td>
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<tr>
<td></td>
<td>This incubator maintains regular contact with its graduates to obtain impact data to assist current clients to become potential project funders and supporters.</td>
<td>NBIA (2008)</td>
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<tr>
<td>Management Policies</td>
<td>Incubator Finances</td>
<td>Governance</td>
<td>Marketing and PR</td>
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<tr>
<td>This incubator provides reasonable continuing support, assisting graduates with issues that may arise after graduation.</td>
<td>This incubator’s planning and budgeting processes are based on realistic assumptions and include long-term projections.</td>
<td>This incubator’s budgets are reviewed each month against actual revenues and expenditures.</td>
<td>This Incubator has developed and implemented an effective incubator marketing plan.</td>
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<tr>
<td>This incubator is financially self-sustaining or has mapped a path to self-sustainability.</td>
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<tr>
<td>The financial records of the incubator are audited annually.</td>
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<tr>
<td>This incubator charges appropriately for its service and space offerings.</td>
<td>This incubator’s planning and budgeting processes are based on realistic assumptions and include long-term projections.</td>
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<tr>
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<td>Management Policies</td>
<td>Incubator Finances</td>
<td>Marketing and PR</td>
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<tr>
<td>This incubator’s mission is in writing and is current, clear and appropriate.</td>
<td>This incubator’s planning and budgeting processes are based on realistic assumptions and include long-term projections.</td>
<td>This incubator’s budgets are reviewed each month against actual revenues and expenditures.</td>
<td>This Incubator has developed and implemented an effective incubator marketing plan.</td>
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<tr>
<td>This incubator has a business strategic plan that supports its mission statement</td>
<td>This incubator’s planning and budgeting processes are based on realistic assumptions and include long-term projections.</td>
<td>This incubator’s budgets are reviewed each month against actual revenues and expenditures.</td>
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<td>This Incubator has developed and implemented an effective incubator marketing plan.</td>
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</tr>
<tr>
<td>This incubator has implemented a wide range of activities to raise public awareness, generate support and to recruit clients.</td>
<td>NBIA (2008)</td>
<td>4 – Neither agree or disagree (Neutral) 5 – Somewhat agree 6 – Agree 7 – Strongly agree</td>
<td></td>
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<tr>
<td>This incubator promotes client businesses to the community through its web site, open houses, press releases and other means.</td>
<td>NBIA (2008)</td>
<td></td>
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</tbody>
</table>

**Facilities Management**

| This incubator’s size and organizational structure support program success and generate sufficient revenues to contribute to program sustainability | NBIA (2008) |
| This incubator facility offers space that is appropriate for the needs of its clients and staff | NBIA (2008) |
| This incubator provides access to up-to-date data communications infrastructure and equipment | NBIA (2008) |
| This incubator facility offers space that is appropriate for the needs of its clients and staff | NBIA (2008) |
| This incubator provides access to up-to-date data communications infrastructure and equipment | NBIA (2008) | 7 Point Scale 1 – Strongly disagree 2 – Disagree 3 – Somewhat disagree 4 – Neither disagree or disagree (Neutral) 5 – Somewhat agree 6 – Agree 7 – Strongly agree | O | N |
APPENDIX C – RESEARCH INSTRUMENT: QUALITATIVE INTERVIEW QUESTIONS

1. Can you tell me about the BDS services you offer at your organisation?
2. What would you say sets you apart from other players in the space?
3. Is the organisation a non-profit or for profit entity?
4. What advantages have you seen to having that particular structure in the South African context?
5. What about the disadvantages?
6. How long have you worked in the BDS space?
7. And what field were you in before that?
8. How has your previous professional experience contributed to your current role?
9. What key competencies would you say managers and directors in small business development need to possess?
10. The BDS industry in SA has grown significantly in recent years. To what would you attribute this growth?
11. What would you say are the key critical success factors for small business development in SA?
12. Which of these would you say is the most critical?
13. What characteristics do you think entrepreneurs need to possess in order to succeed?
14. How do you identify these in prospective candidates?
15. What other aspects of your selection criteria are key to the success of the program?
16. How would you define success at the level of your organisation?
17. What is the key differentiator in the success of your organisation when compared with others in the same space?
18. What is the biggest challenge to the success of your organisation?
19. Let’s talk about external factors…who would you say are the key stakeholders of BDS in SA?
20. How do these stakeholders impact your own organisation?
21. To what extent does the organisation’s network contribute to its success?
22. What makes the SA BDS sector unique?
23. What do you see happening in BDS in the next 5 years?
24. Thank you for all that valuable information, is there anything else you’d like to add before we wrap up?
Figure 16: Frequency Distribution - Supportive Government Policy
Figure 17: Frequency Distribution - Management Competencies and Compensation
Figure 18: Frequency Distribution - Financial Sustainability

Figure 19: Frequency Distribution - Networking
Figure 20: Frequency Distribution - Selection Criteria
## APPENDIX E – TESTS OF NORMALITY

Table 33

*Tests of Normality (df=26)*

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov(^a)</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>Sig.</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>0.18</td>
<td>0.037</td>
</tr>
<tr>
<td>Access to Technical Expertise</td>
<td>0.25</td>
<td>0</td>
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<tr>
<td>Availability of Funding</td>
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<tr>
<td>Stakeholder Support</td>
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<tr>
<td>Supportive Government Policy</td>
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<tr>
<td>Management Competencies and Compensation</td>
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<td>Financial Sustainability</td>
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<td>0.005</td>
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<tr>
<td>Networking</td>
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<tr>
<td>H9selectioncriteria</td>
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</tr>
</tbody>
</table>

\(^a\) Lilliefors Significance Correction
APPENDIX F – RESEARCH DATA: QUALITATIVE INTERVIEW TRANSCRIPTS

Interview 1

Interviewer: Vimbai Kavhumbura (VK) - Researcher

Interviewee: LW - Managing Director of Non Profit BDS provider

Interview Setting: Interview conducted in, Johannesburg. The interview was conducted at 4:00 PM on Friday 14 March 2014.

Original audio data was not able to be transcribed but has been submitted on CD.

Interview 2

Interviewer: Vimbai Kavhumbura (VK) - Researcher

Interviewee: CT - Managing Director of Non Profit BDS provider

Interview Setting: Interview conducted in, Johannesburg. The interview was conducted at 1:00 PM on Friday 14 March 2014.

Original audio data submitted on CD.

(Start of Interview)

VK: [SOUND] [SOUND] So, the first question is really, can you tell me about the BDS services that you offer at your organization.

CT: Endeavor focuses all of its efforts around three areas. The first being exposure. So, we tend to offer events and engagements not only at a regional level but at a global level, to expose entrepreneurs to best practice alternative thinking, current thinking and cutting edge initiatives. The second area in which we provide support is Out of a more formalized structure. So we, we do a business diagnostic and through that business diagnostic, we then look at the business model canvas, to guide us, together with an advisory board that consists of three or four very senior business leaders that have deep industry expertise or are generalists that are very senior level.

VK: Mm-hm.

CT: The advisory board then meets on a quarterly basis, and uses that business model. Will canvass to implement a road map that's going to guide the entrepreneur in making good decisions. In addition to the advisory board, which is a formalized offering, we offer one-on-one mentoring and group mentoring.

VK: Mm-hmm.
CT: And again, that's with seasoned specialists that can assist the entrepreneur in making considered decisions. The fourth element is really around exposure and access to high quality talent.

VK: Mm-hm.

CT: And access to capital. And, and return that smart capital. The talent is access to really very skilled people or to... Highly skilled people coming out of business school that have deep entrepreneurial interests. The second area around cap... Smart capital, is access to investors that potentially understand the challenge the entrepreneurs facing. In terms of equity need or growth need for that business. And essentially... The, the combination of those skills applied through a dedicated account manager ensures a highly tailored [UNKNOWN] and a high touch level of support through very experienced professionals.

CT: OK, And what would you say sets you apart from other players in this space?

VK: Two things. The fact that we're a global Organization. So we have a very active and engaged global network and deep experience in each market around the world. The second element is the fact that we have a highly structured engagement program, and, combined with the fact that we don't work with higher volume, we work with a very small volume of people and therefore ensure higher quality engagement.

VK: OK. And is the organization a non-profit or for-profit entity?

CT: Purely not, not for profit.

VK: What advantages have you seen in having that particular structure within the South African context?

CT: The very fact that you don't benefit commercially from the entrepreneurs' success keeps you objective and ensures the highest quality contributions from the network. Everybody in our network is giving their service on a pro bono basis so nobody is benefiting financially. Therefore, you're getting the best in terms of With integrity and impartial advice.

VK: Okay. And what about the disadvantages?

CT: One of the biggest challenges in the South African market is our classifications are not for profit because we don't get tax exemptions. And there's a consequence most of our corporate donors and individual donors have to bear the additional costs of donations tax.

VK: Okay.

CT: Over and above that, Endeavor South Africa is compliant in terms of having to pay PAYE. So in an instance where we may have a cash surplus, we have to pay income tax on it. On that. So structurally, it's a very challenging environment being a not-for-profit.
VK: OK. And how long have you worked in the BDS space?

CT: 15 years.

VK: OK. And what field were you in before that.

CT: Umm, probably generalist. Media, and business expansion.

Okay, and how would you say your previous professional experience has contributed to your current role?

CT: Having been, so prior to being with Endeavour in, in, in specifically in corporate finance capital raising and corporate advisory work is highly complimentary to what Endeavor does. And the difference being we tap in highly experience resource versus paying the corporate advisor role, which allows us to get the very best in terms of Business experience and knowledge.

VK: Okay. What key competencies would you say that managers and directors in, in the small business development space need to possess?

CT: Dogged determination. And humility. I do think they also need to be generalists. When you're working in particularly in a small, medium-sized space, you need to be good at a lot of things. It's hard to be excellent at one thing and recruit the type of complimentary skills in. Intro business that you need in in the leadership team given the cost associated with that skill.

VK: Okay. The BDS industry in South Africa seems to have grown significantly in recent years. To what would you attribute that growth?

CT: One of the biggest contributors to that is enterprise development. I think as a, just as a, my perception of the market is that the majority of the players that are competing or offering services in BDS. All have an enterprise development link. So there's a commercial model driven off the back of regulatory needs. There are very few players that are pure not for profits that are set up to support business through their various life cycles. And it seems as though there's a lot of commercial activity born off the back of three stage business growth.

VK: Okay, so what would you say are the key critical Success factors for small business development in South Africa.

CT: From a structural economic perspective, or from a, the perspective of building a successful business?

CT: From, from, the, being able to, to build a, a successful BDS service provider business. To actually be able to tangibly help the business, you're going to need access to really good skill. Experienced skill.

CT: [INAUDIBLE] report skill. That's a very difficult thing to get, just given the cost base of those, that caliber of skill.

VK: Mm hm.
CT: Complemented by, deep industry knowledge. I think, when you're building a business in specific industries, you need to understand those market drivers. Just practical challenges for the business include talent, which is normally the biggest stumbling. Market access and role models. Finance aside. So, just around talent, most business developments, support providers, aren't in a position to [INAUDIBLE].

VK: Mm hm.

CT: At no cost. The cost of the risk reward [INAUDIBLE] is very constraining. So I think if there was a practical model where you could provide that level of service without the cost base...

VK: Mm hm.

CT: On the access to market. Market making is very specialist. It's commercial business development need, which means. Essentially, you need to have a very strong value proposition. So an enormous amount of time and effort needs to go into packaging and presenting those, the value proposition to the market.

VK: Mm-hm.

CT: And then to create the market demand. Again, that's highly specialized skill, but if a business development support entity can provide that, I think it immediately adds an enormous amount of value to [UNKNOWN].

VK: 'Kay.

CT: And then the third element just around trying to scale the business. Practically to scale, it means you need to have A repeatable reputable products, services, or business model to get that right with the right team means there has to be a lack of reliance on leadership because you need to be able put that model in any environment without that specific initial team.

VK: Mm-hm

CT: So I think for a business development support entity to be able to provide that initial support in setting up that team that would be hugely beneficial.

VK: So we're talking mostly about like the, the skills and services that the BDS provided. Has access to and is able to pass on to their customers then?

CT: Yes.

VK: Okay, and which, which of those success factors would you say is most critical for the BDS service provider?

CT: Talent. Without dodge specialized talent, with business experience is the hardest thing to come by.
VK: Okay.

CT: And I think your business consulting is one element, but at the end of the day, that's consultation. And it requires a huge amount of time and the business and the entrepreneur Recipient's side when they are trying to focus their attention on growing the business. So there's a natural tension there.

VK: Hm.

CT: And then the challenge with the BDS providers, how do you [INAUDIBLE] on a scalable basis?

VK: Mm-hm.

CT: It means at some juncture, you are going to have people doing on the job training with out a track record. Advising people who are really experienced business leaders. I think there is a tension there.

VK: OK. What characteristics do you think the entrepreneurs themselves need. Need in order to succeed?

CT: I think I might have answered that earlier and just around the ability to adapt continuously. That kind of the fluidity in the language that can interact but the business model.

VK: Mm-hm.

CT: I think that's critical and that requires a certain attitude by the huge amounts of discipline because our natural inclination to chase work because that keeps the business growing. But the consequence of that is [INAUDIBLE]. And business, lack of focus. So I think that's, requires a really specialized mindset to be able to know that you're actually focusing the right amount of attention of building the team, and the core capability. As well as having their new team come that you need on a month to month basis. So that, again, that adaptability of [UNKNOWN] is quite critical. In addition to that, I think in the South African business climate we're not well-structured to deal with with failure. And I think that's probably one of the biggest drivers for entrepreneurs chasing work.

VK: Um-hmm.

CT: But, I think if entrepreneurs are open to the fact that they can really benefit from having a good advisory board, earlier rather than later, that can really differentiate them and, and help them mature both as individuals and as businesses a lot quicker.

VK: OK. How do you identify these characteristics in prospective candidates?

CT: Robust selection process is the short answer. You can only, you can only test capability with experience, and so within an endeavor environment, we take seasoned professionals, business owners and business leaders. And we Get them to ask those hard questions. And if you do that enough times, eventually you're going to be able to test quite quickly whether or not the entrepreneur and the business both have the attitude
to take it to the next level.

VK: Okay. What other aspects of your selection criteria, apart from the, the mentoring, would you say are key to the success of the program?

CT: The, I think the role model influence is, is enormous. And you see a lot of copy cat businesses in South Africa based off successes in, in the US. And you see a lot of franchise models and business ideas coming out of the US environment and [UNKNOWN]. And I think that is probably the one thing that gives us freedom of opportunity, and with it a lot of complex [UNKNOWN] copycats. I lost my train of thought.

VK: [LAUGH] We were talking about the the selection process, and, and how, like the, which other aspects of the endeavor process. Actually contributed to the success of the Endeavor program.

VK: Oh, OK. So the role model. Yeah, so going back to the, yeah, the influence of those role models. I think the reality is is with those remarkable success stories, you build confidence. And that is self-validating and we've got many examples of it where entrepreneurs have engaged with each other and they've heard of each other's success and it becomes self-fulfilling, where you know that if someone else, your, someone that you see as your peer to be able to be successful, you should be able to do it. And therefore, it becomes self fulfilling. And like anything, that herd mentality comes when you've got peers all pushing each other, their, the boundaries for success keep moving forward as opposed to softening.

VK: Mm-hm.

CT: And, and therefore, that innate desire to want to be part of the herd will drive that entrepreneur to perform. So I think that's something that we see in Endeavor purely because to get into our program you're probably in the top two percent in the world.

VK: Okay, How would you define success at the level of your organization?

CT: Probably Endeavor prospective. What's successful for Endeavor? For Endeavor success is totally about the entrepreneurs. If we had two or three absolute success stories. Those one in a billion. The impact it has on the border ecosystems is enormous. Role Models. Co-investment mentoring, peer to peer, inspiration. All of the good things that come out of that are really the cause of a successful, ecosystem. And I think Endeavor really owns the, all of the rights to make sure that that happens. It's, if, if Endeavor doesn't succeed in the local markets to find those gems. Then you're never gonna really build a successful ecosystem.

VK: Okay.

CT: Does that answer you question correctly?

VK: [LAUGH] There are no right answers.

CT: Oh.
VK: [LAUGH] What is a key differentiator then, I suppose, in the success of your organization as compared to others in the same space, specifically in the [INAUDIBLE] African context.

CT: The, the very fact that the candidates that are in the endeavor portfolio are. Are founder-led, unique, and highly scalable, so they're not market dependent. These are three factors which I think in most of the cases in South Africa, they're building businesses to be South Africa relevant, whereas Endeavor is looking to build businesses that are globally relevant. And so I think, just by that very nature, you're not talking about building good businesses, you're talking about building great businesses. And I think, for Endeavor, we genuinely believe that that's one of the founding philosophies. This is about making tangible impact On the economy. And if you look at job creation as just as a measure of that, we're talking hundreds of thousands of jobs versus most of, most of the other support programs that are creating hundreds of jobs.

VK: Mm-hm.

CT: So I think just that scale alone is a fundamental differentiator.

VK: Okay, and what would you say is the biggest challenge to the success of the organization?

CT: Sustainability without doubt. You know, the endeavor model being an not for profit model, is large. Largely dependent on philanthropy. And more and more there's this underlying pressure in the South African environment where philanthropists, philanthropy is frowned upon. And there's also the mixed messages and the signaling that comes from supporting high-potential candidates. It's seen to be elitist, which is not something that's socially palatable in South Africa, just given our, the singularities in our market.

VK: OK. Let's talk about some of the external factors. Who would you say, are the key stakeholders of BDS in South Africa?

VK: I'm not sure I understand that question.

VK: We're talking about... ...like the people who are outside of Endeavor, that have an impact on how Endeavor operates within the South African context.

VK: Sure. Put multiple stakeholders, it's hard to differentiate which one is more influential than the other. They... It's a virtuous cycle. So... I'll start with the founding principle of the Endeavor market model and that is very [UNKNOWN] board of directors. The Endeavor model's success is hinges around a very engaged and highly content board. Off the back of the board, [COUGH] excuse me, you're able to pull a network of very influential and very experienced business people that become the mentor base.

VK: Mm-hm.

VK: In your local market. So they goes to a very high interlinked, off the back of a highly skilled mentor network. You get access to seeing potential talent. So if your mentor network is highly engaged, you should get very good referrals. And then off the back of those good referrals, you should pick good quality candidates. And when you've got
good quality candidates that perform well, it becomes a self-fulfilling cycle, because you get the best picking the best, and so the circle goes. And obviously your team is a high performing team that can, that can identify the talent in each of those three key elements: board, mentors, and entrepreneurs. Years. And that cycle is virtuous; it's impossible to disconnect them.

VK: OK. And then outside of that, let's call it broader network, would you say there are other external stakeholders?

CT: Definitely. I think, whether or not they're active is a different debate. But I think, ultimately, your government should be engaged in the conversations of policymakers and educators, and corporates because ultimately If you get policy right, you get regulations right. This should stimulate more [INAUDIBLE] behavior. If you get corporate participation, you share the success. And it's obviously a challenge. Because you compete in the same market. And then educators, because you're now encouraging people to think out of the box, rather than to. ... Just follow the traditional corporate corporate breed.

VK: Okay. Well I suppose you've the answered the sec... The next question. Which would be, how would the stake holders actually impact the organization?

CT: Yeah. I think maybe just more on like, education. Without a really robust... Vast education system. You put more and more pressure on the state and more and more pressure on corporate entities to raise the standard of education. And that doesn't solve the success of entrepreneurs. And not everybody is born to be an entrepreneur and not everyone can be educated to be an entrepreneur. So education really is the founding principle. If you get that model wise and you educate everybody to the highest standard, you're much more likely to have more successes both in corporate government and Entrepreneurs. So I think that's, you know, definitely from an Endeavor standpoint, that is the differentiator of having a sound education policy in place.

VK: OK. To what extent does the organization's network contribute to its success? Heh. I think we've already talked about that.

CT: Yeah. That's the virtuous cycle, so I'll point you back to the earlier question. But, ultimately, everyone wants to be associated with success. So when you, when you pick, or work with high-potential candidates, And they perform. There's an enormous amount of excitement. And private comes with that. And again, you raise the bar and the standard for the next individual. And then you got a self-selection process that then starts to happen, where success breeds success. You're only working with people. People that wanna be associated with other people that they perceive to be more successful than they are.

VK: Mm-hm.

CT: They like to be part of that peer group. So you start that forward momentum when you start becoming really successful, talent orientated.

VK: Okay. What do you think makes the South African BDS sector unique?
CT: Enterprise development. Its drive. It would be interesting to fast-forward ten years from now. The shift in allocation of the pillars of the broader B-BBEE codes. As the shift of allocation of points and spend changes, you start to see them knock on offensive, er, effects in BDS. Positive, in the sense that That education because incentivized, skills development becomes incentivized, business support, supply chain, all of those things become incentivized. And the only downside of that is you’re creating tender-driven entrepreneurs as opposed to unique, individual businesses that could stand alone with option d.

VK: OK.

CT: So, yeah. I think that’s the biggest market stimulant.

VK: OK. So what would you see happening in the BDS space in the next five years?

CT: There’s probably going to be a huge amount more competition. And, through that, you should start to see a separation of the different labels; there should be some stratification of business development providers. So, if you look at more developed markets, you’ll see a natural inclination towards incubation versus acceleration versus mentor-driven support. And so there’s a natural proclivity towards certain points within an entrepreneur’s life cycle. So I think that stratification should, should definitely see within the next five years. The other think is I think you probably going to see some kind of oversight or rating methodology that’s going to be put in place, similar to what you see happening with compliance around B-BBEE. You’re gonna see ratings done into come about for other parts of the codes, and specifically on medias, because I think, it’s one of the hardest thing. Things to measure. And, and when you’ve got more and more competition and there’s more people fighting for the pie, you hope that the standards improve but then there’s also the risk that entrepreneurs actually are not being, not benefiting, they’re actually paying for the privilege.

VK: Okay. Finally, is there anything else you’d like to add before we wrap up? Just in terms of your thoughts around the media space and how Endeavor sits in it?

CT: Having the Endeavor hat on, I get excited about the fact that Endeavors, graduated at the curve, in terms of knowing that the scale-ups are really where you get the highest amount of impact. And it’s interesting to see that, in a lot of, of pure incubators are starting to reheat [INAUDIBLE] as well. And so there’s gonna be a maturity that comes with [UNKNOWN] in South Africa. Endeavor’s fortunate that we’ve already got 17 years experience, [UNKNOWN]. From the global markets. And, and I think that, that knowledge will keep differentiating us as we move forward. And I think that. I’m excited about the prospect that we can unleash and find the next awesome story coming out of South Africa with even some of our African countries. And that, for me, is the most exciting proposition that they could possibly dream of. Given that all eyes are looking at our continent, at the moment.

VK: Okay. Thank you very much. We’ve reached the end of my list of questions.

CT: Cool.
Interview 3

Interviewer: Vimbai Kavhumbura (VK) - Researcher

Interviewee: PR - Managing Director of For Profit BDS provider

Interview Setting: Interview conducted via Skype in, Johannesburg. The interview was conducted at 4:30 PM on Wednesday 19 March 2014.

Original audio data submitted on CD.

(Start of Interview)

[SOUND] Hello?

VK: Hi Petra. It's Vimbai

PR: Hi, how are you doing?

VK: I'm good. Can you hear me okay?

PR: Yes.

VK: Yea good I've been having a bit of an issue with my Skype,

PR: Okay.

VK: I just wanted to chat to you a little bit and give you just a background on my research.

PR: Yes.

VK: I'm looking at basically the, the business development space in South Africa as it currently stands and what constitutes Critical success factors. Hello?

PR: [INAUDIBLE]

PR: Yes I can hear now. (Pause)

VK: Okay. So shall I carry on or try, try calling you back? [INAUDIBLE] okay. I was saying that, my research was basically looking at critical success factors for business development services and business incubation in the South African, so I've just got a couple questions around your, your thoughts on some of the, the aspects of, of what that entails. And the first, the first question is really can you tell me a little bit more.

PR: Can I just stop you, can I just stop you for a quick question, Are you doing it as part of your, thesis or what is it.

VK: Oh yes sorry, I'm studying a Master in Management at Witsmbusiness school.

[INAUDIBLE] What is the context?

VK: Yeah, sorry about that, yeah, so it's within an academic context.
VK: Yeah. Let me just get my questions. [BLANKAUDIO] So the first question is really can you tell me a little bit more about what's what media services your organization offers.

Okay so we find [INAUDIBLE]. [INAUDIBLE] offering to corporate clients from from [INAUDIBLE]. [INAUDIBLE] way to [INAUDIBLE] supply [INAUDIBLE].

PR: Hm hm.

PR: So from. [INAUDIBLE] struggling with [INAUDIBLE] the wrong company or [INAUDIBLE] in one.

PR: Okay.

PR: [INAUDIBLE] all from [INAUDIBLE].

PR: Mm-hm.

PR: And then [INAUDIBLE] . There's finding to one of the [INAUDIBLE]. So [INAUDIBLE] company to be able, [INAUDIBLE], quantity, [INAUDIBLE] companies.

PR: Okay.

PR: Does that make sense?

PR: Yeah.

PR: So that's, that's [INAUDIBLE]. And then [INAUDIBLE] and all the way to [INAUDIBLE]. What if [INAUDIBLE]. [INAUDIBLE]

PR: So that's a, that's a service.

PR: And maybe [INAUDIBLE].

PR: Hm. To, to get axis to property notes. In the construction mining industry.

PR: hm hm.

PR: So we very much specialize in in the field.

VK: Okay.

PR: In that area. And, and we provide also we have an integration program for the GWP George Marvin.

VK: Mm-hm. And an under construction [UNKNOWN] Okay. So on the, on the incubation side and the, the, the services that you provide for the suppliers, for the suppliers themselves, how, what would you say sets you apart from other players in that space?
PR: Okay so [INAUDIBLE] What [INAUDIBLE] experience because very much [INAUDIBLE] you would have [INAUDIBLE] Well, this company that has modules and can be approached, that that thing you know, refined over the years and you know, they need to be offering a. A kind of, an approach that, whether you're [UNKNOWN] or in [UNKNOWN], you kind of go through this process.

VK: Mm-hm.

PR: And they come and it's an entrepaneural program, where [UNKNOWN] need to become a better [UNKNOWN].

PR: Yeah. What, what we do, actually we get individual companies to [UNKNOWN]. So we actually assist for [UNKNOWN] when we do it [UNKNOWN] to be happening. And then Taylor makes the difference in the programs against and the runs. So we didn't have a market structure and then the next purchase in the future. If you're asking where the company's at like for example the company has already found too many transition and market strategy. You don't have [INAUDIBLE] to take him to your games. You're getting him [INAUDIBLE]. Or you have [INAUDIBLE].

PR: Mm-hm.

PR: [INAUDIBLE] That they don't have in place. They don't have [INAUDIBLE] in the future. Or check, check with them. So we actually would get the 45 [INAUDIBLE] from the different industries. Some of them civil engineering, electrical engineering or et cetera. To actually get to their premises and implement the various systems and processes [INAUDIBLE] up to speed and [INAUDIBLE] Hopefully have this corporation's [INAUDIBLE] business

PR: Mm-hm.

PR: or IQ if one of the large [INAUDIBLE] firm.

PR: Yep.

PR: [INAUDIBLE] and, and [INAUDIBLE]

PR: Uh-huh.

PR: Or we actually also have access to their services when it comes to additional Additional mentoring needed. So, if for example, [INAUDIBLE]. Require [INAUDIBLE]

PR: Mm hm.

PR: So if the company requires anything to [INAUDIBLE] sub specialized services. We, we have also [INAUDIBLE] argue and [INAUDIBLE] program [INAUDIBLE] actually offer you [INAUDIBLE].

PR: Right, okay.

PR: [INAUDIBLE]. It's [INAUDIBLE] approach [INAUDIBLE]. [INAUDIBLE] can give you the [INAUDIBLE].

PR: hm.

PR: But what we do [INAUDIBLE] today, which I did [INAUDIBLE]. Number two [INAUDIBLE].

PR: Okay.
PR: [INAUDIBLE] Yeah, [INAUDIBLE].

PR: Yeah.

PR: But [INAUDIBLE] and then [INAUDIBLE] and also [INAUDIBLE]. So [INAUDIBLE] very much [INAUDIBLE] each individual company. And, the other products that actually, you know, other companies have on the market. Is that they actually also offer [UNKNOWN].

PR: Okay.

PR: So, which means if we have an expansion to work. Your kind of, normal working out.

PR: Mm-hm.

PR: Actually provides. Electronic supports and systems.

PR: Mm-hm.

PR: Where you access and [UNKNOWN] you get access to an advice line, in terms of you are, you got a [UNKNOWN] on a screen with them. Employee [UNKNOWN] it may even [UNKNOWN] which would be really, really expensive. You can call our lawyers and they can give you the [INAUDIBLE] on what you needed to do. Somebody owes me money, [INAUDIBLE] best for our lawyers and also [INAUDIBLE] tell you what you needed [INAUDIBLE] find and techs [INAUDIBLE]. We call it A head back office. [INAUDIBLE] so we also have [INAUDIBLE] assistant on call to speak their language which means that if you call your offices [INAUDIBLE].

PR: Yeah.

PR: Or you call [INAUDIBLE] messages for you. For this way [INAUDIBLE] can actually get. Get, get hurt, you now? And [INAUDIBLE].

PR: Right, okay.

PR: We also negotiate [INAUDIBLE] on behalf, of companies. We can get city discounts on vehicles, travel. Big travel deals. We [UNKNOWN] procure on, on behalf of, over two million customers [INAUDIBLE]. So we can actually get, Great deals on the areas of [INAUDIBLE] 40 off, for example.

PR: Mm-hm.

PR: And there are a variety of services. Training, there's training institution. We have special deals that you know, [INAUDIBLE] Any business training services can be negotiated [INAUDIBLE] deal.

PR: Mm-hm.

PR: Or we will negotiate on the day for you. Okay.

PR: [INAUDIBLE] customer [INAUDIBLE] a small business and he [INAUDIBLE]. And he actually called up and said I'm looking for a second hand engine head for my escalator.

PR: Mm-hm.

PR: Now that would take him days [INAUDIBLE].
PR: Yeah.

PR: [INAUDIBLE] actually [INAUDIBLE] people. [INAUDIBLE] he could move on and do other things [INAUDIBLE]. And we do [INAUDIBLE] the running around for him. We call the scrap yard while he [INAUDIBLE]. And [INAUDIBLE] we also for example, [INAUDIBLE] or a service provider.

PR: Hm hm.

PR: [INAUDIBLE] and [INAUDIBLE] .

I don't know. [INAUDIBLE] and can actually find out for me what the situation is so we do [INAUDIBLE].

PR: Okay.

PR: Makes sense?

PR: Yeah.

PR: On the phone and [INAUDIBLE] online in [INAUDIBLE]. And then no other company offers it so that's a [INAUDIBLE].

PR: Mm hmm

PR: We actually run this Also this curve [INAUDIBLE] so for example, earlier in the program, as [INAUDIBLE] because it's an extension of something you use, something you get the diversity of the business operational training given.

PR: Mm-hm.

PR: And they have unlimited access to professional and experts that they would normally. Not be able to even hire [INAUDIBLE], would have to pay hefty coin for.

PR: Yeah.

PR: Like a [INAUDIBLE], like a lawyer.

PR: Okay.

PR: You know?

PR: Yeah.

PR: So that's really where our focus is. And where we, where we believe we are different. And and on the [INAUDIBLE] side, and offering the holistic solution to companies, from. Running the [INAUDIBLE] to [INAUDIBLE] and as well as offering the [INAUDIBLE] businesses.

VK: Okay and is the organization a non profit or a for profit. [INAUDIBLE]

PR: It's for profit.

VK: Okay. What advantages have you seen in that particular structure within the South African context?

PR: I'm sorry? Can you come again?

VK: What, what advantages have you seen to having PLP be a full profit entity within
the South African context?

PR: What advantages?

VK: Yeah. That we are for profits. Yeah.

That we are for profit? [xx] [laughs] Yeah, okay. The profit is the advantage. You have organizations that are not for profit? Yes. And I think that they operate on the profit is illegal you would [xx] positive government organizations. And really really well.

PR: Mm-hm.

PR: If you're a not for profit organization and we are in [INAUDIBLE] I would home in to a much different area, I mean what has advantages as a non for profit organization.

VK: Okay.

PR: I can tell you what he advantages of being a non-profit [INAUDIBLE] are. The advantages would be that you can definitely approach more government related work or more corporate related work where Quick words are concerned with how the program is actually ordered in the end, and how the funds are being spent. So that would be a rather bit since [INAUDIBLE].

VK: Okay so that then we would say that is a disadvantage of being a for profit organization.

Yes.

VK: Okay, are there any other disadvantages you can think of?

PR: Not immediately no. Nothing comes to mind quickly.

VK: Okay and how long have you personally worked in the BDS space?

PR: For six years.

VK: 6 okay, and what field were you in before that?

Me personally or the company?

VK: No, you personally.

PR: I was running my own business. I was in the [UNKNOWN] studies overseas.

VK: Mm-hm.

PR: In the Czech Republic. That's where I come from.

VK: Okay.
Where we were also developing entrepreneurs if you weren't an entrepreneur you weren't sent off to Siberia. [LAUGH] It was not existent there you, you, entrepreneur in a socialist system, and a communist system. And the communist system free market economics didn't exist. So an entrepreneurial environment [INAUDIBLE] exists, you know what I mean.

VK: Yes.

PR: In the, in a communist era. So when the communism fell, the country had to change to democratic free marketing economy. [INAUDIBLE]. [INAUDIBLE]

VK: Mm-hm.

PR: And so, we're [INAUDIBLE] to change the mindsets of people, of the way how they think, they, how they operate, how they you know, set up small businesses. [INAUDIBLE] actually thinking like a small business, so that's what we represent.

VK: Okay

PR: [INAUDIBLE]

VK: And how do you think your previous experience has actually contributed to your current role?

And also sorry, also the [UNKNOWN] And how this contributes to me [UNKNOWN] I actually experience from being an entrepreneur and understanding entrepreneurs and also I have experience from [INAUDIBLE] and understanding corporate world and governance and responsibility and governance and governance structures which are [INAUDIBLE]. So that would be the [INAUDIBLE] also seeing in other parts of the world so we're in, before I came to [UNKNOWN] several years ago, I worked in, [UNKNOWN] in Austria. I worked in Germany, in spatial [UNKNOWN]. So, you know, that experience, just seeing how, how the entrepreneurial environment is in the different In this part of the world, and what the challenges are. And what they're contributing to what it could be, but it's also, it's competing and [INAUDIBLE] with the third world. So you know, I. [INAUDIBLE] both were interesting for me working in Europe and working in Africa before.

VK: Yeah, so what key competencies would you say that managers and directors in the small business development space need to possess?

PR: Competency.

VK: Yep. So managers, or owners, managers?

PR: I mean I've been in like, as a general manager that's what you're saying. Like I'm running the business.

VK: Yes, yeah.

PR: Okay So my, my, the primary as other seeing to as any other business owner would do. That can show that you're operational functions [INAUDIBLE] can be looked after, so you know your, your operational and financial and [INAUDIBLE] all that is in place.

VK: Hm hm.

PR: As if you were running out of business. So [INAUDIBLE] of On that level are very
similar to other small business owners. Its different part however is to be able to interested and think innovatively about each business. Because one day you might have [INAUDIBLE] the next day you are a contractor, the third day you are supplying The [INAUDIBLE]

VK: Mm-hm.

PR: To small businesses in the [INAUDIBLE] so you need to have a very broad, kind of, very broad based knowledge about the state of the economy and the industry in general. Where the country's going in different sectors, obviously. I think the key is Also you know, I think that the R companies would try to do everything to do this, so you know I do know how, it seems quite difficult if you running anything anything with IP to construction, to anything else that the key is to surround yourself with people who are smarter than you. And obviously find. People with those capacities and skills. So if you want to develop and incubate companies in the concession unit sector. You need to have the necessary skill available in the business.

VK: Right.

PR: But that doesn't necessarily mean that you need to do it. But you need to have that skill in the business. So if she want's a [UNKNOWN] So I think the whole aspect is to be able to sing [UNKNOWN]

VK: Mm-hm.

PR: To be able to sing generally as a kind of generalist approach of the business. Be able to sing innovatively in the same [INAUDIBLE] as I mentioned to think out of the box So each and every sing, single individual [UNKNOWN] so that you can see the [UNKNOWN] for one anti company, and for construction company.

VK: Right, okay.

PR: And you need to know something about us, and you need to have a general knowledge about us, so that you can, so that you can be comfortable, that you can assist them. You know what I mean, so it's a very, it's kind of a generalist knowledge, but with the fact that you can actually come in and we have created a new way to say I can actually have a company and make a difference. [INAUDIBLE] business, you know, can come in or a company that I know that can help it Well I umm, well I can direct them to that directions, put them onto the right path.

VK: Right.

PR: So, to me that is the biggest key. Where, where if you run in any other business, you become very slow in that business. Whatever that individual runs.

VK: Ummhmm

PR: So if I had To tell you that, just one more thinking. It is that if you [INAUDIBLE] look at a board of directors -

VK: Yes.

PR: For any company,

VK: Yeah.

PR: you actually can fit, you can be a successful business person that runs a [INAUDIBLE] business.
PR: Mm-hm.

PR: And because you're successful, business your successful business, someone might ask you to sit on the board, and that person might be in construction.

VK: Right.

PR: Nothing to do with [UNKNOWN] but they want you to sit on their board because of the diversity, and what you can bring in terms of your capability as to where you [INAUDIBLE] your business. I think it's that kind of aspect [INAUDIBLE] The people who have run the, the, the BDAs and those organizations need to be able to be equivalent to [INAUDIBLE] director in, in [INAUDIBLE]

VK: Yes.

PR: You need to be, you need to, those people should actually be competent to be able to sit on any board that was [INAUDIBLE]

VK: Okay, yeah.

PR: And really try [INAUDIBLE] and, and, and great input. So much so that the company would take a phenomenal [INAUDIBLE]. [INAUDIBLE].

VK: Right.

PR: I think that, that's probably the right answer. [INAUDIBLE]. [INAUDIBLE] of a [INAUDIBLE].

VK: Alright. The BDS industry in South Africa has grown significantly in recent years. To what would you attribute this growth?

PR: I think maybe I would contribute it to the government [INAUDIBLE]. And that's really from. [INAUDIBLE] from perspective of mandate laid out in the national development plan.

VK: Yes.

PR: [INAUDIBLE] key mandate of all the governments [INAUDIBLE] of this country.

VK: Yeah.

PR: [INAUDIBLE] and they [INAUDIBLE] to everything like the. You know, like obviously the, the different initiatives that the government and the BTR provides to small businesses. [UNKNOWN] and would [UNKNOWN] everything else that the government provides.

VK: Mm-hm

PR: And, and with that you know, the focus That those companies have a [UNKNOWN] on job creation,

VK: Yes.

PR: which is again, part of the nation development plan. And with the nation development planning, you'll obviously have a lot A lot of [INAUDIBLE] obviously we can provide upgrades, whether it's so, you have to look at that area, and the government that
surrounds it. And that has three job spots, you have a lot of integrated [INAUDIBLE]

VK: Mm-hm.

PR: And also the development component of the BEE codes. Spoke out.

VK: Mm-hm.

PR: That is another aspect where companies obviously looked at what am I doing in terms of [INAUDIBLE] development stage, so they can actually get the necessary points. [CROSSTALK] The other aspect is that, you know, a lot of companies, for example in aerospace They actually want to grow their customer base. Not necessarily their supplier, but their customer base.

VK: Mm-hm.

PR: If they, if their customer base is small business. And they're actually looking for support services for, for their business customers.

VK: Alright, okay.

PR: So it's really, I think it's overdrive, but as number 1, the [UNKNOWN].

VK: Mm-hm.

PR: Where the government is able to incentivize in various ways companies to. Create jobs and create opportunities for growth in these businesses.

VK: Yep.

PR: And on the other hand and also a part of businesses because they want to grow their customer base. And essentially [UNKNOWN] in the market. They want to [UNKNOWN] their suppliers Supply chain.

VK: Yeah.

PR: And, and do it from that [UNKNOWN]. I think that's really, but I would contribute as many to the government [CROSSTALK]

VK: And what would you say are the key critical success factors for small business development in South Africa?

PR: The key to critical successes would be Access to markets, access to finance, and access to business support.

VK: Okay. And for the business support services themselves?

PR: I think what, what, at least in our area, where it's very [INAUDIBLE] critical is is in, in two, in two areas.

VK: Mm-hm.

PR: One is when, according to many [INAUDIBLE] and maybe, I'm talking not just having them on paper, because we've seen companies with [UNKNOWN] boards, [INAUDIBLE] management systems that are implemented within the business, and the company should know what it means. And producing [UNKNOWN] to work. So that, again, filters down
into every aspect of the small business. And company you know and [INAUDIBLE] process.

VK: Yeah.

PR: And exchange [INAUDIBLE]. But [INAUDIBLE] understanding about you know, signage and management. [INAUDIBLE] and she would also [INAUDIBLE]. Companies often don't know that they mix [INAUDIBLE] money with company's money and [INAUDIBLE]. And all of it [INAUDIBLE] an they're getting basically tangled into the whole thing and falling behind. So I think it's the [INAUDIBLE] governance, whether it's governance of their finances, governance of their business overall and putting, Course management systems and that and the other thing is what's really missing especially now, is strategic, strategic [INAUDIBLE] for small businesses.

VK: Okay.

PR: They get distracted.

VK: Okay.

PR: So and then they don't need you know, typically a small business owner can only himself or herself to bounce ideas off.

VK: Right.

PR: Doesn't have anyone else. So, and, and that's Where they stop to let [INAUDIBLE] voting or where am I taking my business next? Where I'm trying to get into [INAUDIBLE]. I might [INAUDIBLE] I want different. And they get in this rat race.

VK: Okay.

PR: Of trying to [INAUDIBLE] this and that. But is she getting a strategic Vision or [INAUDIBLE] organization we have a board of directors.

VK: Yeah.

PR: We're asking the question why are you doing what you're doing and they don't have that [INAUDIBLE].

VK: So which of those success factors would you say is the most critical?

PR: For an entrepreneur or for what?

VK: Yeah for the entrepreneur and also for the small business development firm like PLP.

So [INAUDIBLE] entrepreneur is definitely being serviced.

VK: Mm-hm.

PR: Having having [INAUDIBLE] you know having the [INAUDIBLE].

VK: Yeah.

VK: Yeah.

PR: [INAUDIBLE]. You know half of. Half of getting there and being successful is attitude, and you know you hit is actually kind of what plays in to this. You know how you hit is kind of it looks good on you kind of everywhere. So the whole attitude is very very critical, and with that the whole drive and not being, not being afraid of failing. And but at the same time, you know, driving to success, and trying to be better than what you were yesterday.

VK: Right.

PR: A lot of business owners kinda think that [INAUDIBLE] know how to do it but they don't know how to push themselves.

VK: Yeah. Yeah.

PR: they don't try to push themselves to the next level. [INAUDIBLE] everyday [INAUDIBLE] not good enough.

VK: Okay.

PR: And it's never good enough. And also a lot of entrepreneurs do it for [INAUDIBLE] lifestyle You know, this is my lifestyle I'm kinda happy with where I am.

VK: Yeah.

PR: I don't need to push the [INAUDIBLE] anywhere further. And that, it, It's going to. By them anyway.

VK: Mm-hm.

PR: Being, immigrated in the [INAUDIBLE] able to change.

VK: Right.

PR: And [INAUDIBLE] for the business for the PDA, again the critical area is [INAUDIBLE] We've seen a lot of companies who you know, kind of not necessary [INAUDIBLE].

VK: Yeah.

PR: With results in terms of their job creation where there is You know the quality of the skills transfer.

VK: hm hmm.

PR: so its really focusing on quality and it they, if they, if you do want to talk about quantity they need to be [INAUDIBLE] better than place that is, that is under student [INAUDIBLE] that they don't mix them together.

VK: right.

PR: so I think that when it's really focusing on the quality and it Thanks to [INAUDIBLE] producing good entrepreneurs, [INAUDIBLE] and [INAUDIBLE] I understand that the [INAUDIBLE] and you know in one [INAUDIBLE] they. How do you get to everyone. To be also programs that for the [INAUDIBLE] [INAUDIBLE] doing the [INAUDIBLE] can be
done. We [INAUDIBLE] literally the support office. [INAUDIBLE].

VK: Hm.

PR: For them [INAUDIBLE] what is the point [INAUDIBLE].

VK: Okay.

PR: [INAUDIBLE] but we’re not necessarily doing [INAUDIBLE].

VK: Right.

PR: You know, [INAUDIBLE]. And they’re going [INAUDIBLE].

VK: Yeah.

PR: [INAUDIBLE].

VK: Yes.

PR: [INAUDIBLE] so to that [INAUDIBLE] was trying to finish it off [INAUDIBLE].

VK: Okay.

PR: Yes.

VK: Yeah. On the side of the, of the quality candidates that you work with, how do you identify those characteristics? That, that, you know? You know they’re going to make a success of the program.

PR: [INAUDIBLE] we, we have [INAUDIBLE]. [INAUDIBLE] So there are certain areas which are identified [INAUDIBLE] you know, [INAUDIBLE].

VK: Okay.

PR: Assertiveness of the entrepreneurs and [INAUDIBLE].

VK: Mm-hm.

PR: Some of the controlling norms and [INAUDIBLE]. And that the, kind of the leadership a lot of characteristics.

VK: Right.

PR: In that which you know, for very long discussion essential to how we put it together and. So they a lot of so, let's check with what they answered and they have different kinds of. [INAUDIBLE] the whole [INAUDIBLE].

VK: Okay, and then how would you define success at the level of your organization?

PR: Success, well we measure [INAUDIBLE] achieve the right things [INAUDIBLE]. We measure [INAUDIBLE] on our team we have an economist. We also using the other [INAUDIBLE] you know sometimes we also bring in the [INAUDIBLE] the document, measuring the eight seconds of it.

VK: Mm-hm.
PR: So we always did obviously, the [INAUDIBLE] analysis as to quantitative [INAUDIBLE] quite a bit. So I try and take a look at the number of jobs planted and staff, [INAUDIBLE] skilled, unskilled staff. I mean, jobs created [INAUDIBLE], our revenue of the business profit, profit margin, salaries paid in the future

VK: Yeah.

PR: [INAUDIBLE] On the qualitative, on the quantitative side we look for a social return on investment, where we actually are measuring how we affected the community. And it's [INAUDIBLE] different kind of measurement and measuring tool, but you'll get measuring, basically the [INAUDIBLE] where we actually got into the community and Measuring [INAUDIBLE] impacted.

VK: Mm-hm.

PR: You positively or negatively [INAUDIBLE] because you can also [INAUDIBLE]

PR: Yeah. Yeah. So what -

PR: Yeah, so that kinda [INAUDIBLE] is part of [INAUDIBLE], yeah.

VK: Okay. What would you say would be the biggest challenge, then, to the success of your organization?

PR: Biggest challenge.

PR: Mm-hm. [INAUDIBLE] Does six.

PR: Yeah.

PR: I don't really see anything to apologize.

PR: Okay.

VK: [BLANKAUDIO] And I'm. Nothing, okay not a problem. [LAUGH]

PR: We don't do challenges, we don't do challenges.

VK: [LAUGH] Okay, or maybe let's talk about some of the external factors then, what would you say, or rather who would you say are they key staples...

PR: How long, sorry do you mind, I know that I've been talking a lot. But do you mind just telling me how long is your, the rest of the questions.

VK: I've got about five questions left. [UNKNOWN]

VK: Okay I was just saying who would you say are the key stakeholders to BDS in South Africa?

PR: [UNKNOWN] either the government and corporate in terms of German supply chain experts the business community.

VK: Mm-hm.

PR: So you will have [UNKNOWN] business community. And, yeah. From the corporate from the corporate [INAUDIBLE]. You would need the government and the corporate environment [INAUDIBLE]. [INAUDIBLE] On the corporate, you will have the the supply chain,um which is typical, and obviously they need to be [INAUDIBLE] to their different,
PR: The [INAUDIBLE] Also my manager mentioned the KPI of the [INAUDIBLE] Because the [INAUDIBLE] might say no you have to give the work to this person, but my manager said not in a million years.

VK: Yeah.


PR: [INAUDIBLE].

PR: [INAUDIBLE] to. Or [UNKNOWN] within their oncoming issues.

PR: Sure.

PR: And not just relying on large corporates to [UNKNOWN] the work. Yeah?

VK: And to what extent does, does PLP's network contribute to it's success?

PR: PLP's network. [UNKNOWN] we've been around for 20 years. We have when I [UNKNOWN] everything watch corporate. Jack NGN, [UNKNOWN], [UNKNOWN]. So we've been vegan established, and it's much easier to obviously talk to companies if, you know, if you have track record and success behind your name.

VK: Yeah. And what would you say that makes the South African BDS sector unique. I know you've spoken about your experience in other markets. What have you found about the South African market that makes it unique.


VK: Mm-hm.

PR: And it's amazing how big government actually doesn't even, they don't care, [INAUDIBLE] small business and you want to give them a business plan about During TKX.

VK: Yep.

PR: For the tourism section because it's growing in the area. The government doesn't even a division that you can give it a towards you, they don't change, it's not there, yes they're trying to grow that area so i think that what's amazing is legislative,] so if the government sits up, as a it's it's own entity, a government entity you can go to in Texas.
Yeah.

PR: And say, at least you're not planing on doing x, y and z. And what's more, you, it's not just that you haven't talked to them, but you can get advice from the government. And the, there's lots of [UNKNOWN]

VK: Mm-hm.

PR: And number two, you can get money from a loan.

VK: Yeah.

PR: And you don't have that in, for example, in Europe or anywhere else in Africa.

VK: Mm-hm.

PR: You would have different organizations that were set up, like with a W [xx] internationally set up. They are not by the government organizations. In theory, if you [xx] actually being driven by the government. The government [xx] so that's why the [xx] is almost it's own industry. Whereas in the third world. It's [INAUDIBLE] funded by other corporates. You will have [INAUDIBLE] that [INAUDIBLE] of work [INAUDIBLE] small businesses, but they are fully paid by the entrepreneurs.

VK: Right.

PR: Whereas, in South African environment, you actually have [INAUDIBLE] paid by the corporates. And you don't have that anywhere else in the world.

VK: Okay. So what would you say is is the future of the media sector in the next five years. What do you see happening there.

PR: I think that I see that there's been [INAUDIBLE] a lot more lab development.

VK: Mm-hm.

PR: But I think that companies are going to get more service.

VK: Okay.

PR: And so we're developing and they're actually sending their on what company those [UNKNOWN] come from.

VK: Okay.

PR: And, and it's given them, I think, it's more mature. So with maturity comes a lot of other things. [UNKNOWN] So I think you'll see a lot of control in terms of [INAUDIBLE] into work [INAUDIBLE].

VK: hm.

PR: So to me there needs to be a body [INAUDIBLE]. I think that it should be [INAUDIBLE] not [INAUDIBLE] but it should be a body that should be established and [INAUDIBLE]. And also. What you will find is measurement and how it's measured. And the practice is that our world class practices that can be tailor made for South Africa. The programs we leaving the special return on investment [INAUDIBLE] or

VK: Yeah.


PR: maturity, mature [INAUDIBLE], you know, so, I mean we're seeing it more and more where you have [UNKNOWN] coming out and people, because people are getting more aware of what's out there. So it's becoming more competitive, when people start comparing apples with apples.

VK: Yeah.

PR: Right before he was also [INAUDIBLE] fruit basket [INAUDIBLE]. So I'm just saying if the mature [INAUDIBLE] where he suddenly realizing there's a menu you can select from.

VK: Hm hm.

PR: And [INAUDIBLE] inspector came there and said that the restaurant is certified [INAUDIBLE]. Food. So the same way the deviation should be 35 [INAUDIBLE] and any [INAUDIBLE] for the value.

VK: Mm-hm.

PR: So that's, you know, so that's what I'm talking about.

VK: Okay.

PR: And other [INAUDIBLE], you know. If you hate the food you have, you, you pay the restaurant if, if you think it was horrible, or you want to vomit, or they poison you.

VK: Yeah


VK: Okay.

PR: So that's when you're trying to be a little bit ahead of the game is all.

PR: Yeah thank you so much for your time Petra. Is there anything else you would like to add right before we wrap up because that was my last question.

PR: No. I think that too, thank you so much.

VK: Thank you so much again for taking the time.

PR: No problem. [CROSSTALK]

VK: Alright, thanks, bye. [NOISE] [BLANKAUDIO]