The efficacy of government incentives in creating sustainable entrepreneurial growth in the agribusiness SMMEs entrepreneurial ecosystem in Botswana

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STUDENT DECLARATION OF AUTHORSHIP

This PhD thesis is my original study and has not been offered to any university before for the award of any degree.
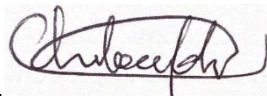
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ABSTRACT

This study investigates the efficacy of government incentives in creating sustainable entrepreneurial growth in the agribusiness SMMEs entrepreneurial ecosystem in Botswana. The study uses a conceptual framework to organize divergent variables that influence growth into numerous coherent themes linked to SMMEs. As a cross-sectional and primarily empirical study, it draws data from a nationally representative sample of 600 owner/managers of agribusiness SMMEs who benefited from government incentives. Multivariate analysis techniques, namely SEM using SPSS and AMOS, analysed the relationships of variables relating to the statistical significance, causal and direct effects of various factors on sustainable entrepreneurial growth of agribusiness SMMEs.

Empirical evidence of this research, among many others, revealed that the majority of owner/managers (219) belonged to micro-companies, 129 belonged to small companies, 135 were from medium companies and lastly, 48 owner/managers were from large companies. Most of the agribusiness SMMEs surveyed had moved past that stage of start-up formalisation and had been operating for more than 2 years with a median firm age of 5 years. Despite a high youth unemployment rate in Botswana, in this empirical study the age category of 18 to 24 years was the smallest group of represented owner/managers of SMMEs in agribusiness value chains. The majority owner/managers of SMMEs were involved in rain-fed agriculture; and followed by owner/managers of SMMEs in cattle breeding. In addition, they were followed by those involved in agribusiness inputs, agribusiness services and others. Results from the inferential analysis suggest that SMME owner/managers of larger agribusinesses had a statistically significant, causal and direct effect on higher opinion on policy environment capital and infrastructural capital. The effect was more on the owner/manager's counterparts who owned and managed smaller SMMEs.

Size of company and type of business activity in the agribusiness value chain were dependent, such that certain types of agribusiness attracted more entrepreneurs due to their higher growth prospects. Agribusiness SMMEs that sought to exploit existing

opportunities based on existing market knowledge showed more chances of attaining growth than those which sought to exploit opportunities based on new market knowledge. Regarding entrepreneurial orientation, owner/managers from larger agribusiness SMMEs were at variance with other agribusiness SMME owners over the statement that past entrepreneurial orientation helped to overcome barriers (roadblocks) in establishing their agribusiness SMMEs. Conversely, respondents from smaller agribusiness SMMEs were more likely to agree, as shown by the negative correlations. These empirical results confirm that increasing the degree of interdependency, interaction and interrelations among four key principal components of the entrepreneurial ecosystem and government incentives facilitates organisational birth and death cycles. Considering these results, certain policy implications are deduced. On this basis, the study recommends that academics, practitioners and policymakers converge their focus on four principal components, namely financial capital, social capital, policy environment and historical capital. These components would serve as indicators of government support for sustainable entrepreneurial growth of agribusiness SMMEs in a healthy ecosystem. An integrative entrepreneurial ecosystem model framework was developed to strengthen the contribution of new knowledge. The framework also proposed what needs to be done in order to create a healthy ecosystem. It thus increases the success rate of entrepreneurial ventures in an emerging market and enhancing implementation of long-term outcomes in sequence.

Table of Contents

List of Tables

List of Figures

LIST OF ABBREVIATIONS

AAAA	Addis Ababa Action Agenda
ACTKS	Absorptive Capacity Theory of Knowledge Spillover
AGOA	Africa Growth and Opportunity Act
AIDP	Agricultural Infrastructure Development Project
AMOS	Analysis of Moment Structures
ANDE	Aspen Network of Development Entrepreneurs
AVE	Average Variance Extraction
BCAIS	Botswana Contributory Agriculture Insurance Scheme
BEEPS	Business Environment and Enterprise Performance Survey
BIDPA	Botswana Institute of Development Policy Analysis
BITRI	Botswana Institute for Technology Research
BoHoCo	Botswana Horticultural Council
BOTEC	Botswana Technology Centre
BTS	Bartlett's Test of Sphericity
CEDA	Citizen Empowerment Development Agency
CEE	Census of Enterprise and Establishments in Botswana
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
COP21	Paris Climate Agreement
CSO	Central Statistics Office (Botswana)
DTI	Department of Trade and Industry (South Africa)
E & Y	Ernst & Young Global Ltd.
ED	Enterprise Development
EFA	Exploratory Factor Analysis
EFTA	European Free Trade Association
ESG	Economic, Social and Governance
FA	Factor Analysis
FAO	Food and Agricultural Organisation

FAP	Financial Assistance Programme
GDP	Gross Domestic Product
GEDI	Global Entrepreneurship and Development Institute
GEM	Global Entrepreneurship Monitor
GFI	Goodness of Fit Index
GoB	Government of Botswana
GTCI	Global Talent Competitive Index
ILO	International Labour Organisation
IMF	International Monetary Fund
ISPAAD	Integrated Support Programme for Arable Agriculture Development
ITC	International Trade Centre
KMO	Kaiser Meyer Olkin
LEA	Local Enterprise Authority
LIMID	Livestock Management and Infrastructure Development
MADFS	Ministry of Agricultural Development and Food Security
MCI	Ministry of Commerce and Industry
MCST	Ministry of Commerce, Science and Technology
MFED	Ministry of Finance and Economic Development
MITI	Ministry of Investment, Trade and Industry
MLE	Maximum Likelihood Estimation
MSA	Measure of Sampling Adequacy
MVA	Multivariate Analysis
NAMPAAD	National Agricultural Master Plan for Arable Agriculture and Dairy Development
NDP	National Development Plan
NFI	Normed Fit Index
NFTRC	National Food Technology Research Centre
NSIC	National Small Industries Corporation

OECD	Organisation of Economic Cooperation Development
P2P	Peer-to-Peer
PCA	Principal Component Analysis
PwC	Price Waterhouse Coopers
RA	Regression Analysis
RADSP	Rural Area Development Support Programme
RBT	Resource-Based Theory
RBV	Resource-Based View
RDT	Resource Dependency Theory
RIIC	Rural Industries Innovation Centre
RIPCO	Rural Industries Promotion Company
RM	Research Methodology
RME	Random Measurement Error
RMSEA	Root Mean Square Error of Approximation
SACU	Southern African Customs Union
SADC	Southern African Development Community
SBR	Small Business Researcher
SDG	Sustainable Development Goals
SEFA	Small Enterprise Finance Agency
SEM	Structural Equation Modelling
SME	Small and Medium Enterprises
SMME	Small, Medium and Micro Enterprises
SNT	Social Network Theory
SONA	State of the Nation Address (Botswana)
TEA	Total Early-stage Entrepreneurial Action
UC	University of Cambridge
UG	University of Guelph
UN	United Nations

UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNFAO	United Nations Food and Agricultural Organisation
UNISA DAM	UNISA Department of Applied Management
UNISA RERC	UNISA Research Ethics Review Committee
VAP	Value-Added Production
VC	Venture Capitalist
VIF	Variance Inflation Factor
VRFA	Variance Rotation Factor Analysis
VRIO	Value, Rarity, Imitability, Organisation
WEF	World Economic Forum
WHO	World Health Organisation

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1   Synopsis of the study

This chapter discusses contextual information underpinning the study, such as research questions, which emanated from customisation and structural coordination of an entrepreneurship ecosystem in a sub-Saharan African setting in order to provide justification of the study. The extensive literature review conducted provided a foundation for this study and also facilitated a response to the research problem. The study presents the problem statement, research objectives, research methodology and rationale for the study regarding entrepreneurial ecosystems, government incentives in creating sustainable entrepreneurial growth and small, medium and micro enterprises (SMMEs) based in agribusiness in Botswana as the context of the study. This researcher deployed divergent entrepreneurial ecosystem, government incentives and sustainable entrepreneurial growth theories to help with building the foundation of this study. Cavallo, Ghezzi and Rossi-Lamastra (2020) concede that the relations linking actors of an entrepreneurial ecosystem to SMMEs have gone to date under-remarked. Therefore, this research partially filled the identified gaps and answered questions by exploring the relationships in an entrepreneurial ecosystem between agribusiness SMMEs' sustainable entrepreneurial growth and government incentives. The topic of the study was derived from SMMEs in Botswana, specifically those which are based in agribusiness, which offered a unique case study of a single country's broad government efforts to support entrepreneurship and develop an efficient and effective entrepreneurship ecosystem.

This topic developed against the backdrop and the growing academic debate connecting resource-based constructs with capitals, stemming from Austrian Capital Theory, to allow a foundation of previously developed models of capitals relevant to

entrepreneurship ecosystems to be interrogated in a different setting, such as the ecosystem of SMMEs in the agribusiness value chains in Botswana.

1.2   Introduction

The term ecosystem means that business does not evolve in a vacuum, but rather it is relational embedded with customers, suppliers, financiers and government as actors (Cavallo, Ghezzi & Balocco, 2019; Mason & Brown, 2017: p.5). Feld (2012: p.187) defines an ecosystem as an interdependent set of interconnected actors, governed in such a way that it enables entrepreneurial action. An ecosystem can be described as a complex biological community of interacting organisms and their physical environment living in a complex network or interconnected system. The entrepreneurial ecosystem concept emphasises that entrepreneurship takes place in a community of interdependent actors and feeders (Spigel, 2017: p.50; Acs et al., 2017:p.40). Feld, 2012: p.163; Isenberg, (2010:p.3), Malecki (2011:p.450), and Federico, Rabetino and Kantis (2012:p.576) argue that dynamic entrepreneurial ecosystems are a platform where new firms thrive on better opportunities to grow and create employment by nurturing an entrepreneurial society (Rosted 2012:p.20). Pervasive entrepreneurial ecosystem processes are described as businesses' birth rates, quantities of high-growth firms, the degree of sell-out mentality inside firms and levels of entrepreneurship ambition, according to Brown and Mawson (2019: p.50; Mason & Brown, 2017:30).

Rosted (2012:p.20) and Feld (2012:p.163) argue that in dynamic ecosystems new firms have better opportunities to grow and create employment as compared with those firms that are created in other locations. The authors state that the growth of firms in dynamic ecosystems tends to be characterised by a process of entrepreneurial recycling driven by entrepreneurs who build and sell successful start-ups. Moreover, scholars recognise other forms of proximity besides geographical agglomeration such as cognitive proximity, according to Cavallo, Ghezzi and Rossi-Lamastra (2020).

Cognitive proximity refers to the extent to which reference and knowledge space are shared by organisations.

An entrepreneurial ecosystem consists of components wherein entrepreneurship happens (Spigel, 2017:p.20; Stam and Spigel, 2016:p.5), whereas entrepreneurship is seen as the mechanism through which the economic growth of firms takes place. The policy environment allocates entrepreneurial efforts towards productive and unproductive activities by influencing the relative incentives and payoffs offered by the economy to such activities (Spigel, 2017:p.20; Acs, Sverb & Autio, 2017).

Botswana is one of the few entrepreneurship ecosystems in Africa that is run by government rather than by private sector initiatives. The Government of Botswana (GoB) realises that 86% of its economy is dependent on diamonds and nickel, triggering an intense focus on diversifying the economy before the mines' minerals run out according to a deadline estimated at 2030 (Republic of Botswana National Development Plans (NDPs) 8, 9, 10 and 11). Among other players such as SMMEs in Botswana, the government and public institutions play a crucial role in the local entrepreneurial ecosystem by encouraging entrepreneurial growth through taxation, political stability, level of education and engaging other economies in the global community (World Bank Group, 2016:p.7).

Several pathways have been identified and pursued to support entrepreneurship in Botswana under various NDPs, starting in the 1970s (Ministry of Finance and Economic Development (MFED), 2017:p.77). In Botswana, government policies are more embedded in the creation of conducive incentives that are biased towards an entrepreneurial economy through its intermediary institutions, as opposed to other sub-Saharan African countries (International Trade Centre [ITC], 2019; Global Entrepreneurship Monitor [GEM] Report, 2012; State of the Nation Address (SONA), GoB, 2018). This distinctiveness is more pronounced in the context of those countries that experience continuous growth in Gross Domestic Product (GDP).

1.3   Problem statement

There is a paucity of attention paid to the efficacy of government incentives in achieving enunciated objectives (Fuerlinger, Fandl & Funke, 2015:p.5; Freiling &

Baron, 2017; Brown & Mawson, 2019). In Botswana, a high failure rate of eighty per cent (80%) that has accompanied the creation of SMMEs in relation to government incentives are not as well understood as they should be, according to the Global Talent Competitiveness Index (GTCI), (2019:p.8; GEM, 2016:p.58).

Acs et al. (2017:p.10) and Freiling, Harima and Heilbrunn (2019) concur that the legacy of failed government venture capital and entrepreneurial support indicates that the presence of resources such as investment capital or knowledge producers is not a guarantee for entrepreneurs' success; rather, it is essential that these resources be accessible through the business and social networks of small firms. According to the Department of Trade and Industry (DTi) in South Africa (2020:p.72) and the Bank of Botswana (2016:p.40), despite the investment of millions of Pula in the development of SMMEs by both the Local Enterprise Authority (LEA) and CEDA in Botswana and their counterparts in South Africa, the failure rate of SMMEs is still very high in both countries. For example in Botswana, CEDA's loan portfolio and venture fund continue to grow, even though their size and presence do not correspond with the extent of reduction in the challenges that affect the growth of SMMEs in Botswana (GEDI, 2018:p.300; GEM, 2016; World Bank, 2011:p.70). Since 2015, CEDA has funded five thousand four hundred and ten (5,410) SMMEs supported by a domestic investment of two billion three hundred and forty three million Pula (P2, 343 billion) according to CEDA New Guidelines (2020).

Given this background, government incentives are important; however, the effectiveness of such programmes in galvanising an entrepreneurial ecosystem warrants interrogation (Gancarczyk, Freiling &Gancarczyk, 2020; Brown & Mawson, 2019; Spigel, 2017). The problem of the effectiveness of government incentives is not resolved and is a cause for concern in the agribusiness SMMEs entrepreneurial ecosystem of Botswana. There are institutional voids, policy gaps and misalignments in the entrepreneurial ecosystem of Botswana that impede the sustainable entrepreneurial growth of agribusiness SMMEs (Botswana Institute of Development Policy Analysis [BIDPA], 2011:p.44); GEM, 2016). According to scholars and policy-makers, misalignments occur when the policies and programmes of different public institutions do not complement each other (Gancarczyk, Freiling & Gancarczyk,

2020:28). For example, Isenberg (2014) advocates for an 'entrepreneurship ecosystem' approach to supporting high-growth SMMEs. He argues that many government efforts go wrong in that they address only one or two elements of the ecosystem.

Acs, Szerb and Autio (2017:10) argue that there are few theoretical frameworks that link sustainable entrepreneurial growth to government incentives. Knowledge about entrepreneurial ecosystems in less-developed societies such as Botswana is limited in the existing body of literature on the subject. This makes it difficult to form an evidence-based understanding of the underlying factors that influence entrepreneurs to thrive or fail. From amongst numerous indicators and measures of entrepreneurship at a global level, most African countries are left out, perhaps due to scarcity of local entrepreneurship scholars (Spigel, 2017:p.20). According to Acs, Szerb and Autio (2017:7), the nature of the subject of entrepreneurship ecosystems is under-researched, coupled with a lack of entrepreneurs to study.

Furthermore, this study provided a structure whereby all subsystems of the entrepreneurship ecosystem accomplish their functions. Thus, the subsystems co-achieve the main goal of empowering the ecosystem through their interaction (Cavallo, Ghezzi & Baloccco, 2019; Freiling & Baron, 2019; Isenberg, 2010:p.7).

1.4   Research questions

The research was guided by four study questions as follows:

i.   What is the efficacy of government incentives on sustainable entrepreneurial growth of SMMEs in the agribusiness ecosystem in Botswana?

ii. What is the impact of entrepreneurial ecosystem capitals on sustainable entrepreneurial growth of SMMEs in agribusiness in Botswana?

iii. What is the extent to which entrepreneurial orientation relates to sustainable entrepreneurial growth of SMMEs in the agribusiness ecosystem in Botswana?

iv. How can Botswana formulate an integrative entrepreneurial ecosystem model framework for the development of entrepreneurs and entrepreneurship?

1.5   Research objectives

1.5.1   Primary research objectives

The primary research objective was to investigate the efficacy of government incentives on sustainable entrepreneurial growth of SMMEs in agribusiness in Botswana.

1.5.2   Secondary research objectives

In order to achieve the main objectives of the study, the following secondary research objectives were used:

i.   To investigate the extent of government incentives on sustainable entrepreneurial growth of SMMEs in the agribusiness ecosystem in Botswana.

ii.   To analyse the impact of entrepreneurial ecosystem capitals on sustainable entrepreneurial growth of SMMEs in agribusiness in Botswana.

iii.   To explain the extent to which entrepreneurial orientation relates to sustainable entrepreneurial growth of SMMEs in the agribusiness ecosystem in Botswana.

iv.   To formulate an integrative entrepreneurial ecosystem model framework for the development of entrepreneurs and entrepreneurship in Botswana.

1.6   Hypotheses

To address the objectives above, the following predetermined alternative hypotheses guided this study:

Hypothesis 1: H_1 - *There is a significant statistical relationship between government incentives offered to the SMMEs in the agribusiness sector in Botswana and sustainable entrepreneurial growth.*

Hypothesis 2: H₂ - *There is a significant statistical relationship between entrepreneurial ecosystem capitals and sustainable entrepreneurial growth of SMMEs.*

Hypothesis 3: H₃ - *There is a significant statistical relationship between entrepreneurial orientation and sustainable entrepreneurial growth.*

Figure 1.1 below depicts the conceptual framework developed for this study.
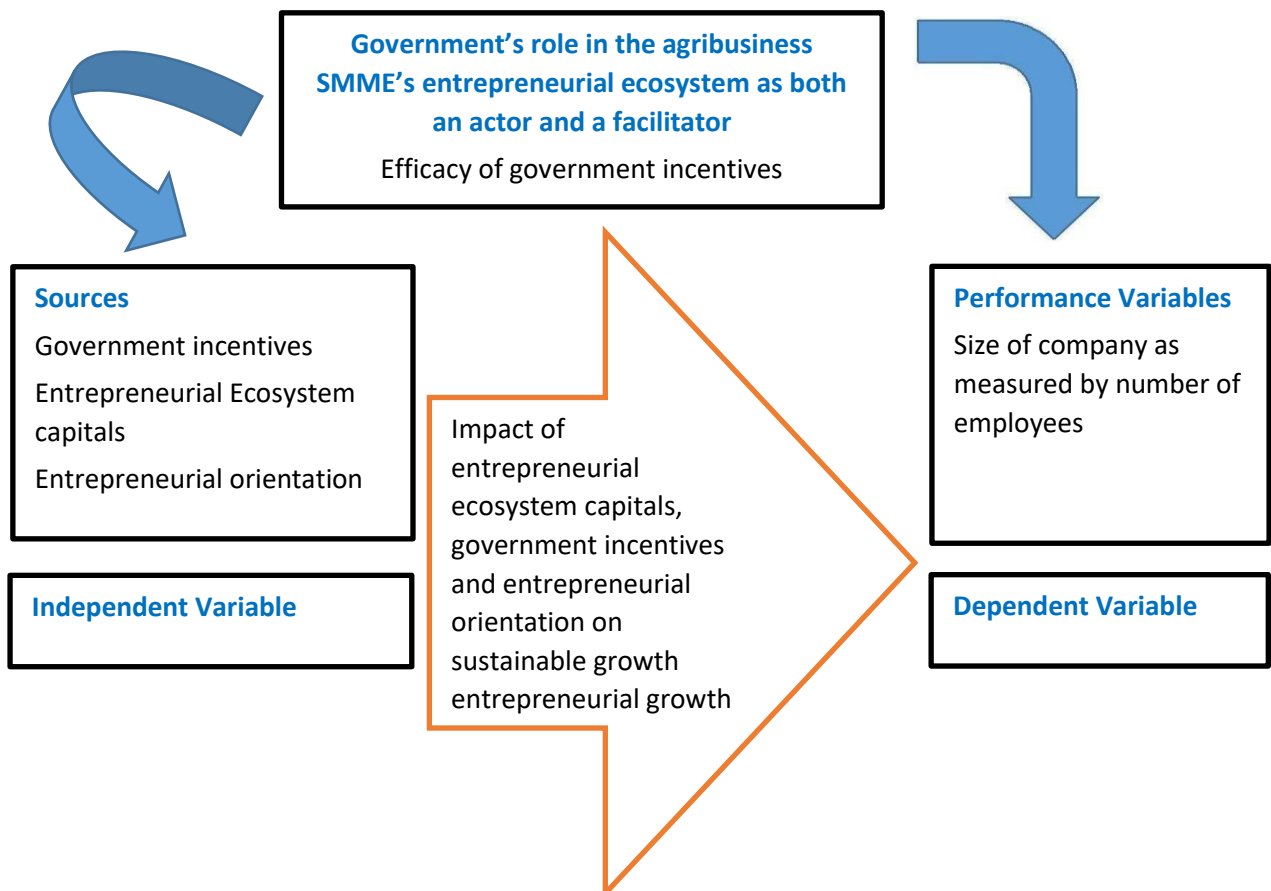
Figure 1.2: Conceptual framework developed for the study. Source: Author's construct using primary data

In order to frame a synchronised criticism of the current extant literature, a conceptual framework was developed to evaluate the theories related to the main constructs of the study, namely entrepreneurial ecosystem capitals, government incentives and sustainable entrepreneurial growth and SMMEs as context of the study. The theory embodied in this framework was contained in the choice of included variables and alternative patterns of variables and their outcomes.

In developing the theoretical framework, the researcher sought to broaden the understanding of the above conceptual constructs in addition to directing the structure of the thesis. Thus, focus was placed on the most recent studies that were available in extensive peer-reviewed international conference proceedings, journal reports and empirical research that delved into the aforementioned main constructs of the study.

Figure 1.2 above shows independent variables, dependent variables and the expected outcome of the study. According to practices of relevant scholars, government incentives was used as an explanatory variable representing the main means of government intervention. Several studies confirm growth of employees as the most accepted method of measuring sustainable entrepreneurial growth (Grabher, 1993; Hoy, 1992). Therefore, size of company represented by number of employees was used in this study due to the ease of data gathering, and the determining and categorising of employment as a measure. Besides the above-stated reasons, the official definition of SMMEs in Botswana already utilises employment to establish firm size. Descriptive statistics was used to describe the state of relationships among variables that were identified and hypothesised. For example, for testing hypotheses, statistical analysis to determine relationships was determined by the correlation coefficient (r). Thus, the value of (r) determined the magnitude of the relationship, meaning whether or not there was significant relationship known as the Pearson correlation coefficient.

1.7   Rationale for the study

This study is a case study of a single country's broad government efforts to support entrepreneurship and create an entrepreneurship ecosystem, thereby raising important research questions about opportunities related to customisation and structurally coordinated entrepreneurship ecosystems (Acs, Autio & Szerb, 2014:p.490; Autio et al., 2017; Global Entrepreneurship and Development Institute [GEDI], 2017). The entrepreneurship ecosystem approach as a research object provides useful pointers for public policy and the central role played by government (Spigel, 2017;Spigel & Harrison, 2018; Cavallo, Ghezzi & Rossi-Lamastra, 2020), in which the role of government is to formulate policy that will stimulate productivity rather

than cause it to decline. Government policy plays an active role in establishing a successful entrepreneurship ecosystem (Cavallo, Ghezzi & Rossi-Lamastra, 2020).

The interaction of regional resources and their causal relation to nurturing entrepreneurship have become of major relevance to economies and local authorities, according to Brown and Mawson (2019), and as highlighted by governments' recognition that traditional approaches often fail in supporting the emergence of start-ups and businesses. To this end, the study has employed the resource-based view (RBV) to make the entrepreneurial ecosystem the unit of analysis, as opposed to an organisational focus. By employing the RBV approach, the study highlights the capitals construct to deal with interrelated resource clusters in entrepreneurial ecosystems, with reference to the Austrian Capital Theory (Juling, Freiling & Harima, 2016:p.18).

1.8 Research methodology

A quantitative research approach was used due to its relevance to the research topic and objectives of the study. The study involved cross-sectional research that was primarily empirical. The literature review entailed defining fundamental concepts, discussing SMME theories and identifying conditions that support sustainable entrepreneurial growth. This approach enabled the researcher to develop a conceptual model that was subjected to empirical tests.

1.8.1 Research paradigm

The study was dominated by positivist views that rely heavily on a quantitative approach. The quantitative approach was meant to establish whether the results were statistically significant. This strategy is compatible with the tradition of the standardisation, generalisability and replicability of a study's results, since this particular study sought to confirm or reject the existence of causal relationships. Regression analysis was used to determine the effects of the variables of the entrepreneurial ecosystem and government incentives on creating sustainable entrepreneurial growth of SMMEs.   Creswell (2014:p.4) defines quantitative research as an approach for testing objective theories through examination of relationships among variables. The author argues that variables can be measured with instruments to produce numbered data that can be analysed using statistical procedures. Creswell

(2014:p.4) asserts that a quantitative approach has assumptions about testing theories deductively, and about generalisability and replication, and it contains built-in protections against controlling for alternative explanations.

1.8.2 Research design

Wolf et al. (2013:p.930) state that a research design describes the population of a study, methods of data collection, design of questionnaire, design of samples and data analysis techniques. Accordingly, the sections below address these items. The study has employed a descriptive survey, which yielded quantitative information that was analysed statistically using the latest SPSS software with an add-on module of Analysis of Moment Structure (AMOS) as a structural equation modelling (SEM) programme. Despite increasing interest in entrepreneurial ecosystems, existing empirical data on the metrics for studying the actors and their interconnections within these systems remains scarce (GEDI, 2017:p.17; Cavallo, Ghezzi & Rossi-Lamastra, 2020). This study therefore provides an opportunity for a direct interrogation and holistic analysis of an entrepreneurial ecosystem that may narrow the said gap in the empirical data.

1.8.3 Population

The population of the present survey consisted of SMME owner/managers (entrepreneurs) in Botswana between the ages of 18 and 65 years whose organisations employed up to 100 employees. Their organisations operated in the agribusiness sector and benefited from government incentives offered through institutions such as LEA, LIMID, CEDA and ISPAAD among others. In view of this definition, a sampling frame of 600 was constructed from the comprehensive list of agribusiness clients of the LEA, drawn from the entire population of 56,300 SMMEs in the country. The SMME Task Force of 1998 established that there were 56,300 SMMEs in Botswana operating across various sectors. The results of the Census of Enterprises and Establishments (CEE) (2016; 2006) concur with the SMME Task Force (1999) as the main sources for updating the Statistical Business Register in Botswana.

The study was granted permission by the LEA to access its dataset, which consists of a comprehensive spreadsheet of 600 national owner/managers of SMMEs that operate in the agribusiness sector (see Annexure F - LEA permission letter). LEA service offerings include incubation, pre-screening, training and mentoring, and funding for SMMEs in Botswana. The research involved agribusiness SMMEs that benefited from the LEA, CEDA and ISPAAD in Botswana.

The LEA was established by the Small Business Act of 2004, Chapter 43:10 of the Laws of Botswana, to carry out on behalf of the GoB the mandate of entrepreneurship and enterprise development in Botswana (ITC & Ministry of Industry, Trade and Investment [MITI], 2019). Having defined the population, it was possible to construct a sampling frame according to University of Cambridge (UC) (2017) guidelines. UC (2017) guidelines define a sample frame as a master list of all samples in the population from which the representative sample can be drawn.

1.8.4   Sampling

The non-probability convenience sampling methodology was used to survey SMMEs in agribusiness in Botswana, since the sampling frame and population were drawn from the national database of the LEA agribusiness-based SMMEs. When SEM is used, a higher sample size is preferred compared to other methods; thus a minimum sample size of 600 was considered as acceptable (Hair et al., 2019; Hair, Gabriel & Patel, 2014; Hair et al., 2021). On this basis, the size of the sample utilised for the current study, which was 600 SMMEs, was considered to be above the minimum requirement.

Justification of the use of non-probability sampling technique in this study

Leiner (2013:p.2) and Dooley and Lindner (2003) argue that convenience sampling has been an important driver of social research for decades. For example, it has been used extensively to test psychological theories throughout several topics such as the mental process of classical conditioning by Pavlov in 1927, according to McCombs and Shaw (1972) and Asch (1963). In the context of this study, convenience sampling

enabled the researcher to explore novel ideas in a fundamentally cost-benefit analysis (Meltzer, Naab & Daschmann, 2012:p.252).

Literature and logic point to the following non-exclusive reasons and circumstances for using a convenience sample.

- Real-world restrictions

Given the specific demographic structure and peculiar sample of this study, a convenience sample was the best possible sample for researching the phenomenon. Zimbardo (2007) concurs that where ethical restrictions demand a volunteer sample, then a convenience sample is sufficient. Tufekci and Wilson (2012) add that it is also the right choice to utilise for a society in a crisis situation.

- Negligible biases

Since a convenience sample is typically not recruited systematically, the researcher may still be able to estimate bias post-hoc by comparing the convenience sample to the attributes of the population, according to Marsden and Wright (2010:p.822). Therefore, if a systematic method is employed to recruit a non-probability sample, biases may be estimated (Tufekci and Wilson,2012). Thus, logical reasoning suggests that bias is small.

- Uniform processes

Sim and Wright (2002:p.120) and Ferber (1977) posit that when convenience samples are used, the processes under the research are the same regardless of the sample.

- Experiments

Nock and Guterbock (2010) and Meltzer, Naab and Daschmann (2012:p.250) argue that since subjects of a convenience sample may be randomly assigned to experimental conditions, the understanding of their underlying processes increases, too.

Inclusion and exclusion criteria for each participant group

The defining characteristics for inclusion were drawn from and guided by the SMME policy of 1998 in addition to other criteria as follows:

i.	SMMEs to have benefited from LEA, LIMID, CEDA and ISPAAD;
ii.	employment-based, for example, employing not more than one hundred employees;
iii.	turnover-based;
iv.	sector-based, for example, SMME to belong to agribusiness sector, and
v.	SMME owners in Botswana between the ages of 18 and 65 years whose organisations employ up to 100 employees, and have benefited from government programmes such as CEDA, LEA and ISPAAD.

The defining characteristics for exclusion were based on the following criteria:

i.	SMMEs operating in the informal sector, since it exists as a sector on its own that can be studied independently. The explanation for this exclusion is that inclusion of samples from the informal sector might bring with it complexity and higher costs to the survey due to informal sector participants having no permanent physical addresses.
ii.	Large enterprises, since this category falls outside the definition adopted for this study, which is in line with the policy on SMMEs in Botswana (GoB, 1999). In most cases, large enterprises employ more than 100 employees.
iii.	SMMEs operating outside the sector of agribusiness such as tourism, manufacturing and services were excluded.

Research instruments

A self-administered structured questionnaire which used affirmative statements as the primary instrument of data collection was used. The questionnaire used a 5-point Likert scale that was developed from the literature to incorporate not only constructs relating to entrepreneurial ecosystems (Juling, Freiling & Harima, 2016:10), but also expert opinion in the field of entrepreneurship and the responses to the pilot study. The 5-point scale ranges from 1 to 5, where 1 indicates strongly disagree (SD) and 5 indicates strongly agree (SA). The closed questions required tick-box answers and were formulated in such a way as to provide a structured framework within which the strength of opinion or preferences of respondents could be gauged, in addition to facilitating coding and quantification.

The questionnaire was designed to be answered by SMME owner/managers or people who had equivalent positions in the targeted SMMEs. Follow-up visits by the researcher to respondents' establishments were done in order to explain any ambiguous terms, when requested by participants. Where participants could not complete the questionnaire, arrangements were made to collect their responses. A telephone call was made to the identified agribusiness SMME owners on the representative sample list provided by the LEA, which contained details such as physical address and telephone contacts.

The questionnaires had four sections, namely (i) demographic information, (ii) entrepreneur's past behaviour, (iii) entrepreneur's highest intentions and attitude, and (iv) entrepreneurs' perception of the entrepreneurial ecosystem using components of the eight capitals model (Juling, Freiling & Harima, 2016:10). Three of the questionnaire's four sections measured the causal and direct effects of government incentives on the sustainable growth of the SMMEs using respondents' statements, where respondents indicated their strength of agreement using the 5-point Likert scale.

The questionnaire used for this study was pre-tested for validity and reliability using Cronbach Alpha coefficients 0.5 to 0.6. For purposes of testing the reliability of questions, the instrument was subjected to Cronbach's α test where the reliability benchmark was set at α ≥0.70. Questions or question groups that fulfilled this criterion were administered. Information from the literature review was utilised to design indicators on the questionnaire such as intention, attitude and the components of the eight capitals model (Juling, Freiling & Harima, 2016:10). Due to the differences in contexts such as culture and several other conditions that originated from items to be used in the research questionnaire, pilot testing the questionnaire on SMME owners/managers who were in close proximity to the researcher, such as those near Gaborone, was done to ensure that questions made sense as well as to calculate the average time needed for completing the questionnaire. The pilot study was conducted prior to the main study in order to test and refine the survey instrument, assess the reliability of the sample and refine the procedure for administering the questionnaire.

An extensive range of factors and conditions obtained from the literature review was presented to participants who were found to be instrumental in sustaining the entrepreneurial growth of SMMEs within an agribusiness entrepreneurial ecosystem.

The respondents rated each factor of condition according to their usage and experience.

1.8.5 Quantitative data analysis

In this study a descriptive survey and quantitative statistical procedures with commensurate analysis and tests were employed, for example, EFA, CFA and SEM. Descriptive statistics along with multivariate analysis techniques including FA and SEM were used to analyse the relationships of variables relating to the causal and direct effects of various factors on the sustainable entrepreneurial growth of SMMEs (Hair, Gabriel & Patel, 2014). These authors say that the variable to be predicted is called the dependent, outcome or criterion variable. Those variables which are used to predict the value of the dependent variable are known as independent, predictor or regressor variables.

Statistical significance of the independent variables

The study tested for the statistical significance of each of the independent variables to determine whether unstandardised or standardised coefficients are equal to zero in the population. In the event where $p < 0.05$, it was concluded that coefficients are statistically significantly different to 0 (zero). The t- value and corresponding p-value were located respectively.

Principal Component Analysis (PCA) with an Orthogonal Varimax Rotation

Hair et al. (2019:p.230) and Malhotra (2018:p.600) advocate that variables be subjected to pre-requisite tests in order for the FA procedure to effectively identify and summarise factors into a relatively smaller but representative number. In view of this, two levels were used to analyse data, namely PCA using Varimax of Rotation, in which the selection of each factor or item is based on a criterion of eight values greater than one and factor loadings greater than 40% (Hair et al., 2019:p.300; Malhotra, 2018:p.633), and usage of the latest version of SPSS with AMOS to produce structural models (Eichhorn, 2014:p.60; IBM, 2014; George & Mallery, 2016).

Theoretical model and hypotheses using structural equation modelling (SEM)

The theoretical model and hypotheses were derived from SEM using AMOS (Eichhorn, 2014). Considering that the entrepreneurial ecosystem model of the study has multi-layered features, SEM was selected as the most suitable statistical method to assess the model and to evaluate the current study's hypotheses. The stated approach allowed the researcher to estimate relationships between observed and unobserved variables and relationships amongst unobserved variables (Hair et al., 2014; Eichhorn, 2014:p.60; IBM, 2014; George & Mallery, 2016). Scholars (Hair et al., 2017b; Eichhorn, 2014:p.60; IBM, 2014; George & Mallery, 2016) argue that researchers can include continuous and categorically observed and latent variables simultaneously, since path analysis between latent variables forms the most powerful functions of SEM. Therefore, the study shows the proposed model followed by reliability and validity of measurements in addition to the hypotheses put forward for SEM modelling.

Structural Equation Modelling (SEM) with AMOS programme as a statistical tool for the current study

Hair et al. (2019; 2014) argue that results produced from SEM are more reliable than those produced from conventional Regression Analysis (RA), since SEM partitions out measurement errors of observed variables, thereby making regression coefficients representative of true relationships between variables of interest. The use of AMOS as a specialised add-on module of the SEM software programme in the study stemmed from its capacity to implement relatively easier user-friendly graphical interfaces (Malhotra, Nunan & Birks, 2017; Byrne, 2016). AMOS has concise representations of models and has an advantage of extensive bootstrapping capability (Arbuckle, 2016; Byrne, 2016).

SEM as an a priori technique means that the researcher specified a model to conduct an analysis (Kline, 2005). As a multivariate statistical technique widely used in behavioural sciences over the past 20 years, SEM is representative of estimating and testing hypotheses of relations of observed and latent variables, according to Hair et al. (2014), Eichhorn (2014:p.60), IBM (2014) and George and Mallery (2016). To test the proposed model of the research's hypotheses, the study needed to apply SEM with maximum likelihood estimation using add-on AMOS (IBM, 2014; Arbuckle, 2016), utilising the latest version of SPSS. SEM allowed estimation of multiple associations

and simultaneously incorporated observed and latent constructs, and accounts for the bias effects of random measurement error in the latent constructs (Shook et al., 2004).

Hair et al. (2019:p.150) state that SEM uses three main approaches to test whether data fit the model, namely confirmatory, alternative and generating. The study adopted the two-step approach to SEM as outlined by UC (2017), IBM (2014) and RM (2012). For these reasons, this study adopted the two-step approach employed by recent studies with a similar conceptual setting.

Step 1:   Determining the fit of CFA

The first step involves determining the fit of the CFA model with the observed data to assess the fit of the overall measurement model and then examining the psychometric properties of constructs. Eichhorn (2014), Hair et al. (2021) and Stam (2015:p.35) describe this step as measuring underlying latent constructs in order to correlate freely and constrain each item for assessment to load only the factor for which it was a proposed indicator.

A CFA model which uses Maximum Likelihood Estimation (MLE) was applied on major factors to measure several fits such as Comparative Fit Index (CFI), Goodness of Fit Index (GFI) and Root Means Square Error of Approximation (RMSEA), according to Byrne (2016), Hair et al. (2019) and Kline (2011). Threshold values in the above confirmed that tests were derived and SEM models were revised in order to assess their fit accordingly. Against this background, items which were found to have low-factor loadings were omitted so that all values, such as the CFI, Normed Fit Index (NFI) and Gross Fit Index were recommended threshold values such as RMSEA of less than 0.05. For this study, the sample size used was 537 owner/managers of SMMEs. The minimum criterion for assessing factor loadings was set, however, and factor loadings below the threshold value were included due to theoretical necessity (UC, 2019; University of North Carolina [UNC], 2007).

Step 2:   Analysing and contrasting a sequence of nested structural models

The second step involves analysing and contrasting a sequence of structural models to obtain information concerning the model that best accounts for the covariance observed among exogenous and endogenous constructs.

1.9   Ethical considerations

In undertaking this study, the researcher observed the ethical stipulations of the UNISA Department of Applied Management (DAM) Research Ethics Review Committee (RERC). An Ethical Clearance Certificate was granted by DAM RERC prior to the commencement of data collection (see Annexure A). Consent was sought and given by both government institutions and SMMEs to conduct research and to participate in the study, including access to a national database of agribusiness SMMEs from the LEA (see Annexure F). The LEA is the foremost public institution mandated to implement SMME policy in Botswana, and as such it also granted permission by owner/managers of agribusiness SMMEs based in its national network of branches. In addition to the above, another permit from the GoB was granted (see Annexure G).

Human subjects formed part of this research; therefore special care and diligence was practised in protecting participants, in line with principles of respect in engagement (UNISA, 2019; Yin, 2014). Through written informed consent, every participant was able to make a decision whether to participate in the study or not, based on disclosed purpose, voluntary participation, anonymity and confidentiality. Special attention was paid to precautions protecting participants in the study by alerting them to the nature of the research so that issues of communication difficulty did not arise.

Selected participants were sent consent forms together with the introduction letter requesting participation in the study. The purpose and objectives of the study were explained in the invitation letter soliciting their voluntary participation in the research. This allowed the participants to make informed decisions about whether to participate in the study or not. The privacy and confidentiality of participants was protected through anonymity, pseudonyms and removal of personal identifiers. Confidentiality of all recorded information was fully maintained. Names including those of businesses were not recorded anywhere. Code numbers and pseudonyms were used. UNISA RERC reserves the right to access the data in order to review the study, and statisticians and language editors were required to sign confidentiality agreements (see Annexure E and L respectively**).**

The study posed minimum or low risk; therefore, it posed no harm other than the routine discomfort experienced daily. The results and findings of the research will be available to participants on request. Participants were selected equitably to avoid unfair exclusion from or inclusion in participation in the study (Yin, 2014:p.78). The ethics of science is described as comprising right and wrong conduct in undertaking research (Mouton, 2003:p.238). Inappropriate practice in research involves describing research problems to suit a hidden agenda, compromising the research design, misapplying statistics, fabricating information, misinterpreting results in order to protect a point of view and concealing information.

In order to attain the highest ethical standards (Yin, 2014), the researcher adhered to the conditions stipulated in UNISA's code on research ethics expressed in the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. Communication problems and other related inappropriate issues were avoided since the researcher adhered to ethical conduct in reporting the findings of the research. Bias was avoided (Yin, 2014:p.76) in pursuing objectives of this research.

1.9.1 Assumptions of the study

Whereas the assumption that entrepreneurial ecosystems' growth and government incentives are inextricably connected is often held in studies (Spigel, 2017; Brown & Mason, 2017), entrepreneurial actors such as SMMEs and other institutions need to understand those variables that are integral to stimulating sustainable entrepreneurial growth. Given this background, the current research investigated the nexus of systematic linkages of what constitutes SMME growth in an entrepreneurial ecosystem. The researcher assumed that the study would contribute to new knowledge and understanding of the role played by government support in entrepreneurial ecosystems with regard to growth of agribusiness SMMEs.

Given that governments all over the world are increasingly placing entrepreneurs at the centre of their economic growth endeavours, it is important that scholars, policy-makers, decision-makers and investors utilise up-to-date knowledge to effectively guide their interventions. Unfortunately, in several sub-Saharan African economies, including Botswana, policy-makers continue to regard the failure of SMMEs as a

consequence of not applying conventional development paradigms, as stated in neo-classical schools of economics, which results in viewing SMMEs as entities with immutable diseconomies (Tesfayohannes, Tessem & Tewolde, 2015:p.1)

1.9.2 Creditworthiness

Creditworthiness deals with non-violation of linearity and multi-linearity assumptions. The study used the Variance Inflation Factor (VIF) to test for creditworthiness of data.

1.9.3 Trustworthiness

Researchers (Hair et al., 2019; Hair et al., 2021) advocate that quantitative research be tested for reliability by examining the consistency of a group of measurements. In light of this, this study employed the test-retest method to ensure reliability by firstly administering one measure to one group of individuals, then waiting for a period of one month to re-administer the same instrument to the same group (Hair et al., 2017).

1.9.4 Validity

Validity is defined as the ability of an instrument to measure what it is designed to measure Hair et al., 2021), meaning the degree to which researchers measure what they set out to measure (Ary et al., 2010). In this study, the researcher adopted those techniques of data collection and analysis that originated and culminated in coherent findings, in accordance with the recommendations of Hair et al. (2019).

1.9.5 Internal and external validity of the research design

In this study, the questionnaire was re-administered to the same group of SMME owner/managers after a period of one month, in accordance with recommendations of researchers (Hair et al., 2019;Hair et al., 2021). The test scores of SMME owner/managers, from using the Likert scales each time, provided an indication of the reliability of the instrument. For example, a correlation coefficient of less than 0.3 signified a weak correlation, whereas 0.3 to 0.5 was considered moderate, and more than 0.5 was considered strong (Hair et al., 2019; Hair et al., 2021).

1.9.6 Validity and reliability of the data-gathering instrument

A pilot study tested the questionnaire for internal consistency, reliability and content validity. Using the Cronbach Alpha tests on the questionnaire showed results with an internal consistency of $\alpha = 0.7$, thus the questionnaire was deemed reliable. Using the pre-requisite Varimax Rotation Factor Analysis (VRFA) of scalar of not less than 0.5, with a minimum eigenvalue of 1, and the Kaiser Meyer Olkin (KMO) Measure of Sampling Adequacy (MSA) greater than 0.5, and Bartlett's Tests of Sphericity (BTS) with Average Variance Extraction confirmed the appropriateness of variables for FA (Hair et al., 2019).

1.9.7 Limitations

A primary limitation of this study emanated from the fact that the study was conducted as cross-sectional research that employed non-probability convenience sampling of a nationally representative sample of 537 owner/managers of SMMEs. Against this background, the research therefore held that as much as scales of measurements remained robust over years, the same may not hold for past entrepreneurial behaviours and intentions of owner/managers of SMMEs based in the agribusiness value chain in Botswana, since the owner/managers change over time in response to situational factors. In view of the foregoing, future studies may consider longitudinal research designs and other types of data collection such as institution surveys.

Since a non-probability sample was used in this study, as opposed to a probability sample, care must be taken not to generalise results to the entire population. However, the study provided hypotheses that were empirically tested and therefore may be useful as a departure for future research on a larger scale.

There was limited availability of panel data such as empirical studies or availability of data specifically on entrepreneurial ecosystems and their relationship with government incentives (GEM, 2015:p.8), possibly because a targeted institution could not, for example, grant access to its database due to company policy.

Emphasis on rigour and reliability may have been at the expense of relevant but more speculative findings.

Potential methodological bias such as emphasising matters that may be observed using a specific methodology, for example extracting main findings from quantitative analyses, was relatively easy, compared to qualitative analyses, which are more difficult to synthesise.

The study focused on relationally-based shared resources in ecosystems and did not consider the interactions between firm-internal strategic resources.

The results of the study are limited to SMMEs based in the agribusiness sub-sector, and therefore may not represent entire existing sectors and sub-sectors such as mining, tourism, manufacturing and services. Nonetheless, the results of the study offer in-depth understanding of and new knowledge about SMMEs operating in the agribusiness sector in Botswana.

The nature of the study required a quantitative approach, necessitating a survey of the lived experiences of owner/managers of SMMEs and their perceptions of the entrepreneurial ecosystem and government incentives in creating sustainable entrepreneurial growth of SMMEs. However, some high-profile participants had limited time available to offer to the researcher due to the nature of their role in their organisations.

After ethical clearance was granted by the UNISA DAM Research Ethics Review Committee (RERC), the researcher commenced the disbursement of the instrument for pilot testing. Future research could consider continuing the effort to explore other types of internal entrepreneurial shared resources in ecosystems and their internal and external networks by examining their interaction with firm-internal resources.

1.9.8 Delineation

A delineation states explicitly what falls inside or outside the research or thesis statement. As such, this study was exclusively limited to agribusiness SMMEs' entrepreneurial ecosystem with a focus on government incentives in Botswana.

1.10 Definition of key terms

- **Entrepreneurial ecosystem**

The term describes two dominant concepts, namely entrepreneurship and ecosystem, jointly. Thus, to define the term entrepreneurial ecosystem holistically, a definition that seems widely applicable is that an entrepreneurial ecosystem is a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory (Yun et al., 2017; Stam, 2015:p.5).

- **Entrepreneurial growth**

Entrepreneurial growth is defined as an expansion in terms of the organisation's resources, size, information and experience, which emerge as a result of entrepreneurial efforts (Nieman & Nieuwenhuizen, 2014:p.295; Wickham, 2006). Characteristics of entrepreneurial growth include, but are not limited to, market domination, differentiation, product leadership, flexibility innovation, exports, future orientation and related growth. Firms that sustain growth tend to reside in growing industries, yet high growth comes with internal challenges that threaten firm sustainability such as infallibility because of success.

- **Sustainable entrepreneurial growth**

The term sustainability is derived from Latin sustinere (tenere meaning to hold; *sus* meaning up). Therefore, sustain means to maintain, support or endure. Sustainability interfaces with entrepreneurship through social and environmental consequences. Panda (2000) defines the relationship of sustainable entrepreneurial growth as an ongoing progression of expansion and renovation of a firm's resources in terms of knowledge acquisition, new markets, and size of the firm in terms of number of employees. According to Bansal (2005) and Spangenberg (2004), it is a process that arises from a conflict between profitability and environmental focus, since correlation between environmental and social sustainability contradict economic demand for sustainability of growth. Sustainable entrepreneurial growth of an SMME relates to the total success and survival of an entity. For example, the agribusiness sector is known to be fraught with external pressures such as increasing food insecurity against

23

scarce resources such as fertile arable soil and environmental protection (Bhattacharyya, 2011).

- **Agribusiness**

For purposes of this study, the term agribusiness means a business of agricultural production which includes input supply, retail, farm machinery, financing, insurance, breeding, crop or livestock production, collecting, handling and storage, processing and sales, according to Ng and Siebert (2009). It consists of the overall activities of farms and those businesses that amass, process and convert raw agricultural commodities into final products for distribution within Botswana and other countries. According to the World Bank (2012), these economic activities comprise repairing machinery, production of fertiliser, farming, processing and manufacturing of food, food packaging, wholesale and retail distribution and market centres.

- **Agri-food system**

This term describes the interlinked set of activities that run from seed in the field to food on the dinner table, including input production and distribution, farm-level production, raw product assembly, processing and marketing (Cole, 2012). It encompasses the value chains for different agricultural and food products, including linkages among them. Agro-processing is the subset of manufacturing that processes raw materials and intermediate products derived from the agricultural sector (UNFAO, 2018); thus, it transforms products originating from agriculture, forestry and fisheries (FAO, 2013).

- **Small, Medium and Micro Enterprises (SMMEs)**

The definition adopted for this study is in line with that developed by SMME Task Force in April 1998 and in alignment with other studies carried out across the world. Thus, the policy on SMMEs in Botswana, in accordance with Government Paper 1 of 1999, expanded the traditional definition of 'SME' to include Micro (GoB, 2013). The MITI (2019) defines a micro-enterprise as an enterprise which has fewer than six employees, inclusive of the founding owner, together with an annual turnover of less than BWP 60,000, a small enterprise as employing fewer than 25 employees and having an annual turnover of between BWP 60,000 and BWP 1,500,000, and lastly a

medium-sized enterprise employs fewer than 100 employees and has an annual turnover of BWP 1,500,000 and BWP 8,000,000. A survivalist enterprise is defined as generating income below the minimum income standard or poverty datum line.

1.11 Conclusion

Despite increasing interest in entrepreneurial ecosystems, existing empirical data on the metrics for studying the actors and their interconnections within these systems remains scarce (GEDI, 2017:p.17; Cavallo, Ghezzi & Rossi-Lamastra, 2020); thus by providing an opportunity for a more holistic analysis of an entrepreneurial ecosystem, the current empirical study narrows the gap. In addition, amongst those numerous indicators and measures of entrepreneurial ecosystems at global level, most African countries are left out, Botswana included, perhaps due to a multitude of reasons (Spigel, 2017:p.20; Isenberg, 2010; Mason & Brown, 2017). The researcher adds validity to previous studies as they are verifiably successful in statistical viability.

Stakeholders such as government, SMMEs and other institutions need a quantitative instrument that informs decisions, thereby assisting in designing and implementing better policy frameworks. This study makes a vital contribution to knowledge by offering a new framework for SMMEs in Botswana against a backdrop of too few studies that provide a comprehensive treatise on sustainable entrepreneurial growth of SMMEs and related government incentives.

1.12 Summary of the chapters

Chapter 1 introduces and gives the background to the study and sets out the context and proposal. This gives necessary background to anchor the study in the relevant situation. It discusses the methodologies that were applied to fill gaps and provides direction.

Chapter 2 discusses the background of Botswana and SMMEs as a study context. It interrogates empirical literature on the strengths and weaknesses of SMMEs in Botswana.

Chapter 3 is dedicated to the literature review of factors in the entrepreneurial ecosystem relevant to the topic of the study. It sourced extant literature in order to answer the research questions and fulfil the research objectives.

Chapter 4 presents the literature that was sourced to establish the role of government incentives in creating sustainable entrepreneurial growth of SMMES in order to promote an entrepreneurial spirit. It seeks to present an in-depth investigation and understanding of whether government incentives drive the sustainable entrepreneurial growth of SMMEs. Similar models used in other parts of the world, such as Brazil, India, Israel and Australia, are examined.

Chapter 5 addresses methodology, specifically the research design of the study. The chapter addresses the sub-topics of data collection and processing from the perspective of quantitative methodology.

Chapter 6 engages in data analysis and interpretation of results. This chapter assesses whether the anticipated objectives and hypotheses were achieved. Different analytical methods were used to test the reliability of the results.

Chapter 7 summarises findings, results and conclusions and makes recommendations for further research.

CHAPTER TWO

SMMEs AS A PANACEA FOR THE GROWTH PARADOX IN BOTSWANA'S ECONOMY

2.1   Introduction

Chapter 2 discusses the background of Botswana and SMMEs as a study context. The objective is to interrogate empirical literature on the strengths and weaknesses of SMMEs in Botswana. The aim of identifying opportunities is to unleash the full potential of SMMEs to grow and diversify the economy away from the mining sector, given the uncertainty that surrounded the depletion of diamond production and revenue. This chapter therefore addresses both empirical and theoretical gaps as a foundation of the study. Sustainable agribusiness SMMEs in Botswana are essential in the food value chain to ensure food security for the nation.

Botswana is a land-locked country located in the southern part of Africa with an estimated population of 2.4 million in 2020, of whom 56.4% are between the ages of 15 and 64 (CSO, 2019). The country's economic growth rate averaged 9% per year in the years between 1967 and 2006, thereby earning the country the reputation for the fastest growth rates per capita income in the world since independence in 1966. Driven in large part by diamond revenue expenditure, Botswana catapulted herself from being the poorest at independence in 1966 to a middle-income economy at present (Bank of Botswana, 2020). However, the growth rates slowed to an average of 4% from 2009 to the present owing to a multitude of global economic downturns. Botswana is considered a success story in managing its resources. Despite the above, it has also been viewed as struggling with diversifying its economy away from diamonds.

Economic diversification has underlined major policy directives of the GoB such that it is a key determinant of both macro and micro economic activity. The role played by SMMEs in Botswana's economic diversification drive is a major one. Support for SMMEs by the GoB in the twentieth century comes in various forms but is predominantly financial. For example, initiatives such as the National Master Plan for

Arable Agriculture and Dairy Development (NAMPAAD) and Integrated Support for Arable Agricultural Development, within the Agricultural Development Policy are but two of the entrepreneurial supports offered by the GoB. According to the Ministry of Agricultural Development and Food Security (MADFS) (2020), agricultural output has increased marginally over the past few years, albeit against very low productivity rates in this sector. The realisation of agribusiness SMMEs as core to the economy, supplying food and resources for all the other industries and social endeavours, is the first economic assumption (Mankiw, 2014).

Against this background, considerable government effort over the years to promote agribusiness SMMEs has yielded little in terms of economy-wide export diversification and its complementary programmes. Despite numerous government policies, SMMEs in Botswana are faced with a multiplicity of challenges which include the following, among many others: excessive government regulations, lack of entrepreneurial skills and competences, lack of access to markets and finance and an inherent bias against them by institutions such as commercial banks (GoB, 1999). As a result, SMMEs exhibit low survival rates owing to would-be entrepreneurs who exploit government schemes and incentives as a means of cheap funding but not necessarily venturing into business once they secure these funds, according to Hinton, Mokobi and Sprokel (2006). Despite government efforts to circumvent these challenges, the ability of SMMEs to survive and grow relies entirely on several other factors such as interrelationships of the components of their entrepreneurial ecosystem.

Therefore, an investigation into the strengths and weaknesses of agribusiness SMMEs that would unleash their full potential to sustainably grow and diversify the economy seems imperative to explain this growth paradox. Temtime and Pansiri (2004) argue that the most common reason for using SMMEs as a solution to a plethora of economic problems lies in their ability to create employment, since they utilise relatively labour-intensive technologies. SMMEs are at the heart of the Botswana economy (ITC, 2019). Many of the country's formal jobs are found in such firms, even though a single SMME is said to employ fewer than 100 people.

As engines of job creation in Botswana, agribusiness SMMEs have a significant potential to spur economic diversification when they survive and thrive to their full potential. Estimates from the BIDPA and the World Bank, 2011) put the contribution by SMMEs to employment creation at 32%. This figure compares with 32% contributed by large firms and 36% contributed by government. According to LEA (2018), the GoB has created policies, organisations and funds that support these enterprises. Against this background, a plethora of obstacles remain in place, preventing SMMEs from achieving sustainable entrepreneurial growth. At international level, SMMEs are considered to be a springboard for achieving the United Nations 2030 Agenda on Sustainable Development since they promote sustained, inclusive economic growth, full and productive employment and decent work (Goal 8); foster inclusive and sustainable industrialisation and catalyse innovation throughout the economy (Goal 9), and lastly, contribute significantly towards ending poverty (Goal 1), according to the UN 2030 Agenda (2018).

2.2 The evolution of entrepreneurship in Botswana

GoB's support of entrepreneurship is in the interest of the public; accordingly, it should be executed effectively (Heinonen & Hytti, 2016:p.150). Because of the increase in awareness of the capacity of SMMEs to create jobs, it is the role of a government to develop its economy and to consider entrepreneurship as an option (Heinonen & Hytti, 2016:p.160). Given that there is strong government entrepreneurial support in Botswana, a lack of coherent definition of the terms entrepreneurship and entrepreneur in the local context is evident (Pansiri & Gageoitsepe, 2017:p.40), leading to limited progress in research on entrepreneurship (Thurik & Wennekers, 2001:p.10). Pansiri and Gagesitepe (2017:p.45) argue that failure to define the terms is evident in the documents and policies on entrepreneurship, but the GoB appears to hold the view that the concepts of entrepreneurship and entrepreneur are already known. For this reason entrepreneurship, informal enterprises and SMMEs are used interchangeably to mean the same thing (CSO, 2015).

The high failure rate that has accompanied the creation of start-ups and SMMEs from some of the entrepreneurial support programmes in Botswana is not well understood

(GEM, 2016:p.35). According to GEM (2016), despite investments of millions of Pula in the development of SMMEs by the GoB, the failure rate of SMMEs is still very high, and the country still largely depends on mining. Basdevant and Singh (2008, as cited in Sekwati, 2015:p.16) use the permanent income hypothesis to plot Botswana's reliance on diamonds to show how the country's diamond reserves are likely to be depleted in the next 20 years. Researchers (GEM, 2016; Sekwati, 2015; Private Sector Development Programme, 2016) argue that increased diamond extraction from volumes of 32 million carats in 2005 to approximately 44 million carats in 2025, coupled with decreased diamond production because of several mine closures or drawing down in the period 2021 to 2029, exacerbate the situation. Figure 2.1 below illustrates how the country's diamond reserves are likely to be depleted by the year 2025 (Basdevant & Singh, 2008). In Botswana, enterprise development is seen as a catalyst to economic development and diversification of the economy from the domineering mining sector (Bank of Botswana, 2017:p.62).
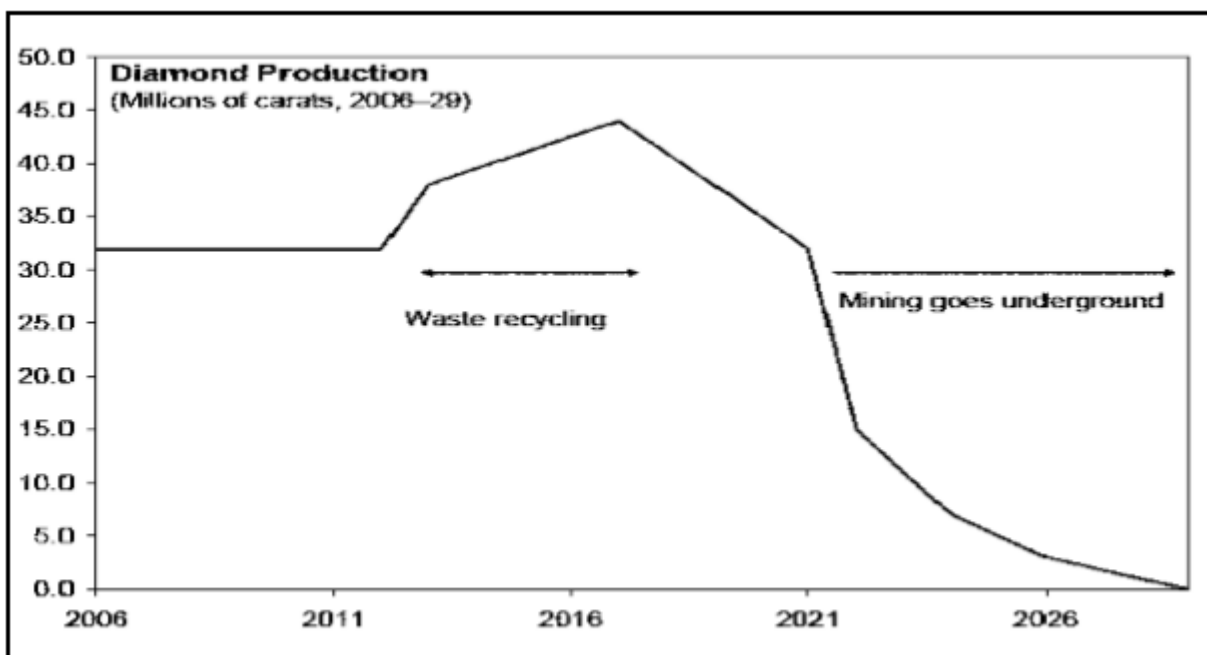
Figure 2.1 Projected pathway of diamonds depletion
Source: Adapted from Basdevant (2008:8, as cited by Sekwati & Seabe, 2015:p.16).

Botswana's intent and focus on promotion of entrepreneurial activity with a view to facilitating economic diversification dates back to the 1960s, when much of the support

was directed towards enterprise development through institutions such as NDPs, business support programmes and policies that primarily focused on financial assistance to SMMEs (MITI, 2019; Gagoitseope and Pansiri, 2012:p.30), and market access and research innovation and technical assistance (MFED, 2017). Earlier NDPs provided the basis for subsequent policies and programmes, according to the GoB (2017). Thus, there is a consensus that entrepreneurship lies at the heart of Botswana's national developmental agenda to date.

2.3 Level of entrepreneurial activity in Botswana

Entrepreneurial activity is multi-faceted, and as such, it presents a problem for researchers to define and measure entrepreneurial activity with precision, according to GEM (2017:p.50). GEM (2015:p.60) points out that an important aspect of entrepreneurial activity is the extent to which people in a given population create business activity. Therefore, researchers often define the self-employment rate or the business-ownership rate (GEM, 2015, 2017). The role of entrepreneurial activity in economic growth using the Total Early-Stage Entrepreneurial Action (TEA) index is commonly used by Global Entrepreneurship Monitoring. The GEM model for TEA is directly concerned with measuring comparable estimates of the extent of entrepreneurial activity across countries (GEM, 2017).

According to GEM (2017), the TEA index measures the percentage of a country's working-age population actively trying to start a new business (nascent entrepreneurs) and those running new businesses for fewer than 3.5 years. Its main goal is to arrive at an internationally comparable estimate of the prevalence of nascent entrepreneurs. Nascent entrepreneurs are defined as those people who are in the process of starting a new business at a given point in time or who have recently started a business that is still running (GEM, 2016:p.10). According to GEM (2012:p.13, 2015:p.15) Botswana is a factor-driven economy based on conditions that facilitate entrepreneurship in the country. Thus, Botswana is comparable to other sub-Saharan African factor-driven economies, such as Ghana, Nigeria, Zambia, Malawi, Ethiopia, Uganda and Angola (GEM, 2012:p.13), in determining the extent to which government incentives help to stimulate entrepreneurship. Figure 2.2 below illustrates the stages of economic development that a country goes through. GEM groups economies that participate in

its surveys into three levels, namely factor-driven, efficiency-driven, and innovation-driven, based on the World Economic Forum (WEF) Global Competitiveness Report (2015).

According to the WEF Global Competitiveness Report (2017), the three phases of economic development are based on GDP per capita and share of exports comprising primary goods. For instance, the factor-driven phase is dominated by subsistence agricultural and extraction businesses, which rely on labour and natural resources. The term efficiency-driven is used to describe those economies that focus on improving production efficiencies in order to drive growth (Schwab, 2012). The efficiency-driven phase is dominated by industrialisation and increased reliance on economies of scale and capital-intensive large corporations. According to Schwab (2012), the following economies are classified as examples of efficiency-driven economies: Brazil, Russia, India, China and South Africa, whereas factor-driven economies are those that compete primarily based on the use of unskilled labour and natural resources. Examples of such countries are given as Iran, Angola, Egypt and Pakistan (Schwab, 2012). In the innovation-driven phase, businesses are more knowledge-intensive; therefore, the service sector dominates this stage. Figure 2.2 below depicts the transitions of economies from factor-driven to efficiency-driven economies, and lastly to innovation-driven economies.

```
FACTOR-DRIVEN          EFFICIENCY-DRIVEN      INNOVATION-DRIVEN
```

FACTOR-DRIVEN	EFFICIENCY-DRIVEN	INNOVATION-DRIVEN
• Institutions • Infrastructure • Macroeconomy • Health and Primary Education	• Higher Education and Training • Goods market efficiency • Labour market efficiency • Financial market sophistication • Technological readiness • Market size	• Business sophistication • Innovation

TRANSITION FROM FACTOR-DRIVEN TO EFFICIENCY-DRIVEN	TRANSITION FROM EFFICIENCY-DRIVEN TO INNOVATION-DRIVEN

Figure 2.2 Stages of economic development
Source: Author's depiction based on WEF Global Competitiveness Report (2017) and Porter (2002).

Empirical literature (Acs et al., 2016:p.102; GEM, 2016) shows that determinants of the supply of entrepreneurship are distinguished into two parts, namely necessity-based entrepreneurship and opportunity-based entrepreneurship. Similarly, this distinction is often viewed as a pull-and-push factor, where an individual can be pulled into entrepreneurship to pursue a business opportunity (rather than continue with a regular day job) or be pushed into entrepreneurship because of lack of choices for making a living (GEM, 2016). Figure 2.3 below illustrates different levels of the supply of entrepreneurship in various countries across the globe.
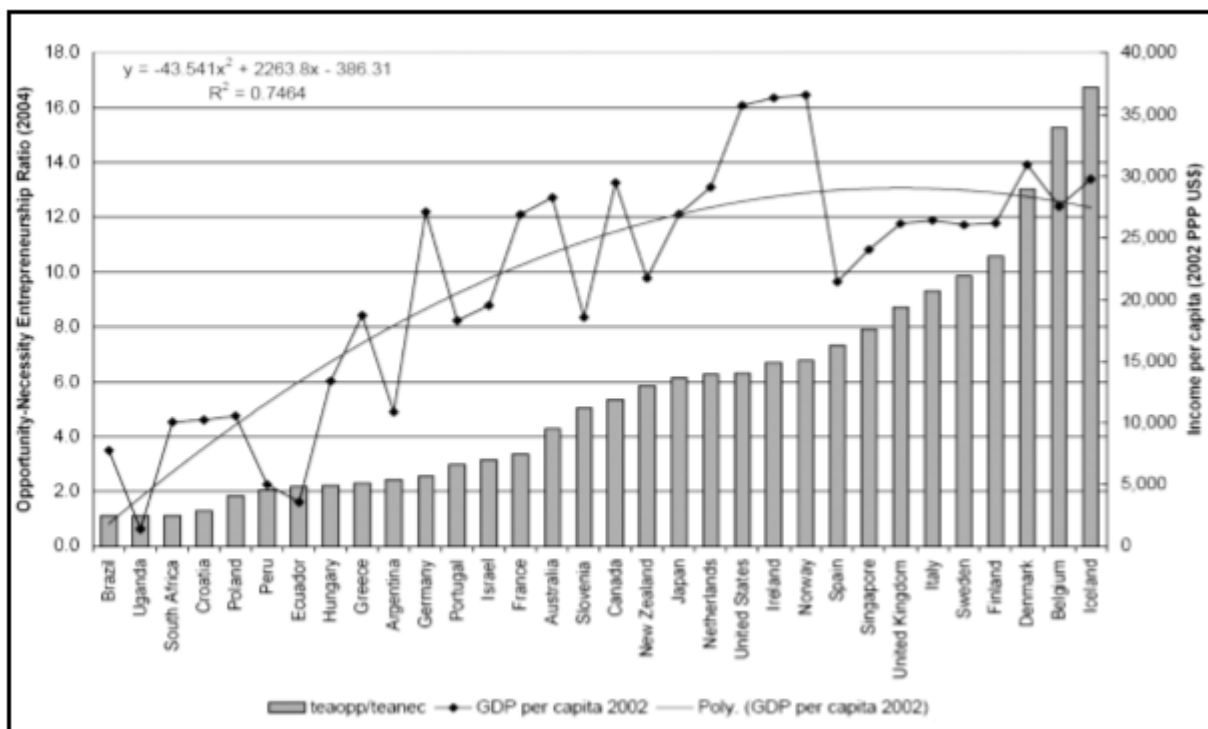
Figure 2.3 Opportunity-to-necessity ratio and income per capita
Source: Adapted from Acs et al. (2016:p.102).

In the strictest definition of the term, necessity entrepreneurship may not fit with the definition of entrepreneurship that was given earlier in the study (Acs et al., 2016:p.90). However, necessity entrepreneurship at later stages becomes opportunity-based entrepreneurship, especially when the entrepreneur discovers a growth opportunity in a business idea. A U-shaped relationship is presented in several studies on the role of entrepreneurship activity in economic development (GEM, 2015), suggesting that policies designed to promote entrepreneurship activity consider challenges faced by economies at different stages of their economic development. According to Acs et al. (2016:200), policies and conditions favourable for entrepreneurship in one country may not be effective or favourable in another. However, Acs et al. (2016) does not address issues of causality in his study.

2.4 SMMEs in Botswana as vehicles for promoting entrepreneurship

The GoB has developed its own policy on Small and Medium Enterprises (SMEs) by extending the definition to incorporate enterprises that can be classified as micro. A

1999 policy document denotes several characteristics used to distinguish between SMMEs and large firms (GoB, 1999).

Government Paper No.1 of 1999 identifies three types of firms as SMMEs. For example, micro enterprises are defined as those with fewer than six workers inclusive of the owner and with an annual turnover of less than BWP 60, 000.00. Small enterprises are considered to have between 7 and 25 workers inclusive of the owner and an annual turnover between BWP 60,000.00 and BWP 1,500,000.00. Medium enterprises are characterised by more than 25 but fewer than 100 employees and an annual turnover of between BWP 1,500,000.00 and BWP 8,000,000.00. Notable contributions of SMMEs in Botswana are job creation and GDP, as argued by Karjalainen and Kemppainen (2008:p.231). Further to the above, SMMEs in Botswana are reported to be of major benefit through their innovativeness, entrepreneurship and local economic growth.

Various entrepreneurial support programmes, such as NDPs within the framework of Vision 2036, provide the basis for subsequent policies and programmes according to NDP 11 (2018:p.120). The ascendancy of SMMEs in Botswana is associated with the instability of markets and the technological turbulence that have been experienced since the 1970s (Central Statistics Office, 2017; Sekwati, 2015:p.27). This turbulence consequently led to the demise of mass production while promoting flexible specialisation and innovation as a source of competitiveness (Thurik, Stam & Audretsch, 2013). Scholars (Furlinger, Fandl & Funke, 2015; Thurik, Stam & Audretsch, 2013; Freeman, 2010) posit that the development is consistent with the trend that affected large corporations in the 1980s, leaving them to focus on their core business and sub-contracting or outsourcing parts of their production processes to SMMEs (Cole, 2012). Similarly, the drastic change in the perception of SMMEs occurred following this era (Thurik, Stam & Audretsch, 2013; GEM, 2012:p.16; GEM, 2017). This means that entrepreneurial activity was viewed as an important cornerstone of several national development strategies in Botswana, given the intertwined relationship between SMMEs and entrepreneurship, according to Amoros and Bosma (2014:p.50). Ahmad and Seymour (2012:p.90) suggest that SMMEs and entrepreneurship are interwoven, since they share similar attributes and characteristics such as innovation and job creation.

Urbonavicius (2015) defines emerging economies as transitional, increasing in their free-market systems and found in countries of Central and Eastern Europe, Asia, Central and South America and Africa. Such economies possess unique challenges of cultural values and infrastructural limitations. For example, challenges may be experienced with the acceptance of new, non-traditional business models (Urbonavicious, 2015). Pieterse (2009:pp.15-29) and Palat (2009:p.39) simplify characteristics of emerging economies into five categories, namely trade, finance, institutions, hegemony and growing inequality. According to Pieterse (2009:pp.15-29), emerging economies are redefining the geographies of trade as they prefer to trade among themselves, finance their own economies and view themselves as victims of debt and prescriptive policies caused by the hegemonic roles of the World Bank and the International Monetary Fund (IMF).

Figure 2.4 below shows the distribution of enumerated enterprises by economic activity and size in Botswana in 2017 (Statistics Botswana, 2017). It shows that SMMEs account for a significantly large proportion of the enumerated enterprises in all economic sectors of the Botswana economy. For example, in agriculture, all enterprises enumerated were SMMEs.
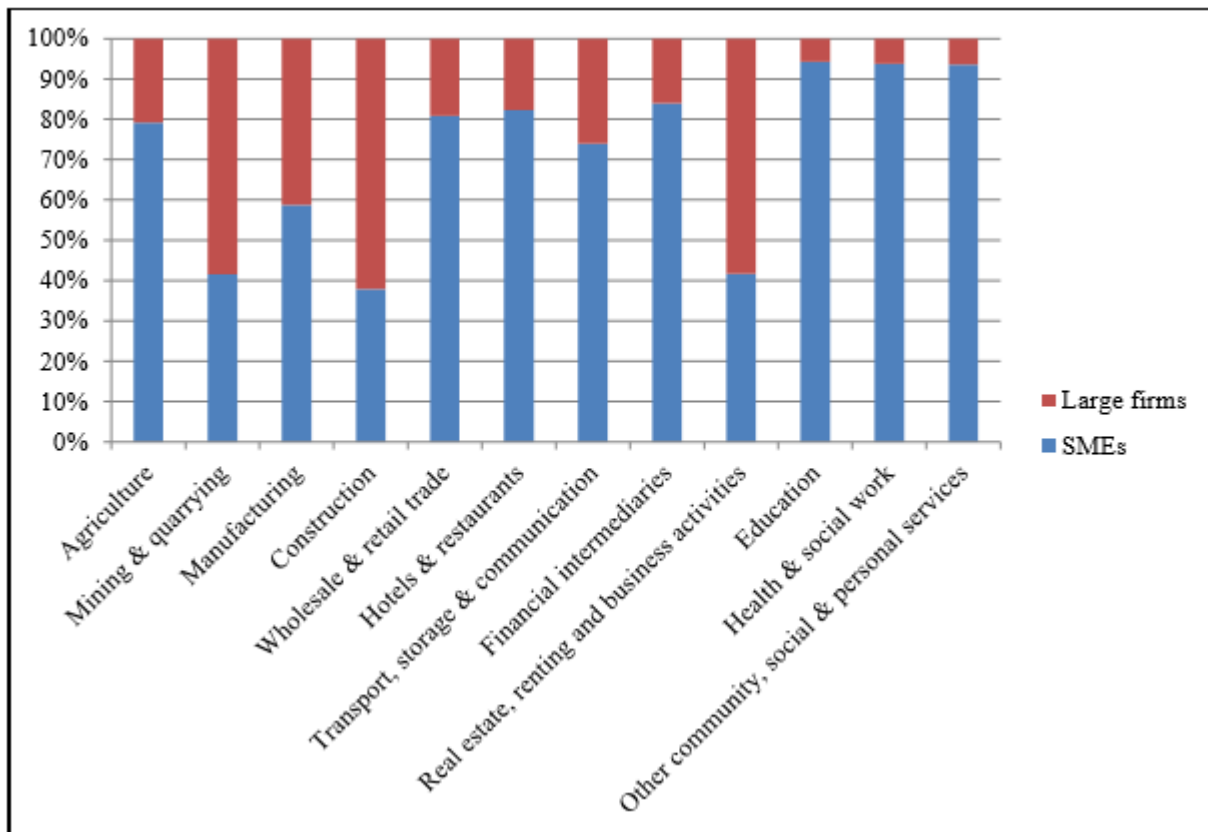
Figure 2.4 Distribution of enterprises by economic activity and size

Source: Central Statistics Office of Botswana (2017).

SMMEs account for 66% of private sector employment in OECD countries; however, a significant proportion of these SMMEs are informal. The ongoing debate on the importance of SMMEs to employment creation, diversifying economies, productivity enhancement and economic growth continues (Wurth, Stam & Spigel, 2021), as evidence from an increasing number of regions the world over indicates a growing orientation towards smaller-sized businesses.

Figure 2.5 below shows that employment shares are consistent with patterns exhibited in most OECD countries (OECD, 2016).
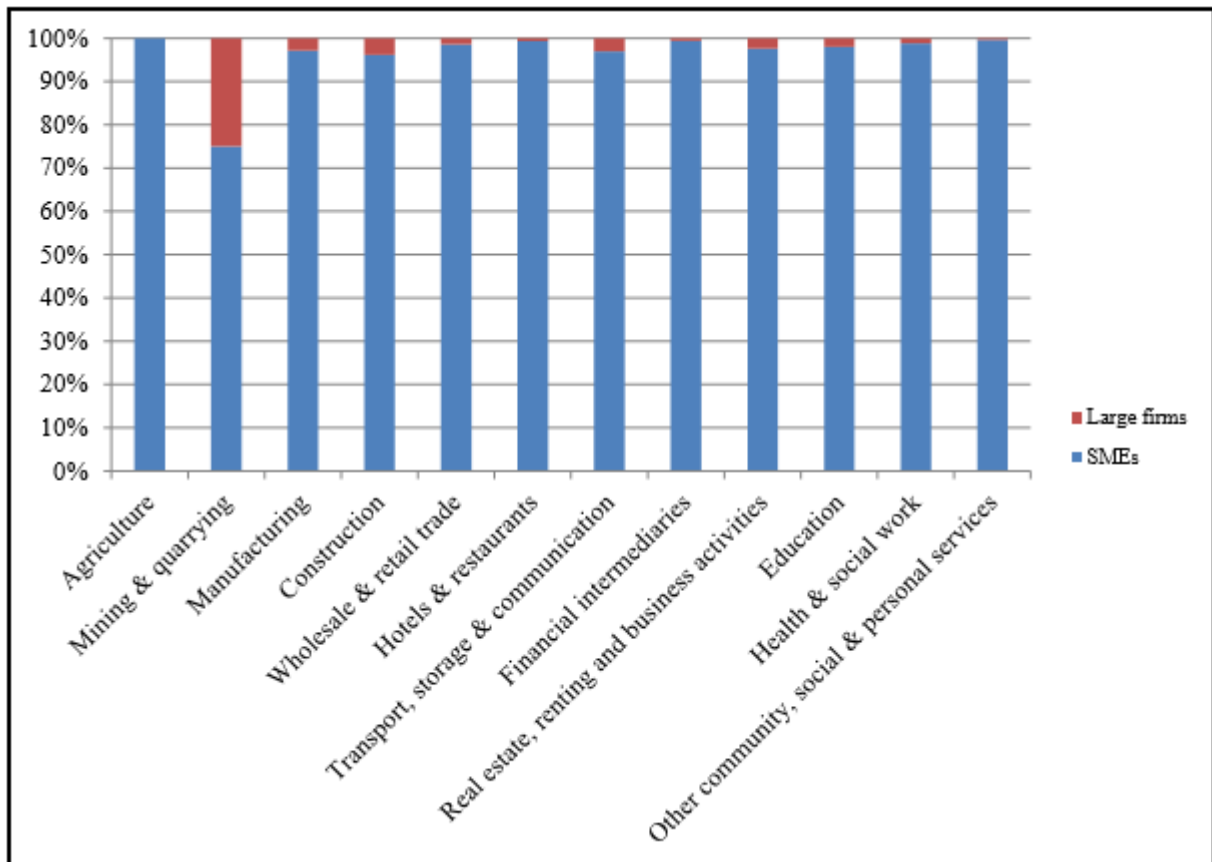
Figure 2.5 Employment share of enterprises by economic activity

Source: Central Statistics Office (2017) and Sekwati (2015:p.27).

2.5   Overview of agriculture in Botswana

The agricultural sector in Botswana generates in excess of BWP 8 billion in revenue per annum. Out of this amount, the demand for key commodities and processed goods is worth more than BWP 3.8 billion (MAFS, 2020). The sector accounts for 30% of the labour market and serves as the key income earner for the rural population.

Public expenditure on agriculture by the GoB has more than tripled since the 2000 financial year (MAFDS, 2020). However, despite the above, the sector is considered as largely underutilised, resulting in high import dependence, and thus high import bills for the country. It is vital to note that Botswana is generally covered by geologically old, highly leached, poorly structured and infertile soils which have limited vegetation

cover (Sekwati, 2015). The average rainfall is estimated to be 475 millimetres per annum, coupled with cyclical droughts. These conditions are indicative of a country that is not well endowed with natural physical characteristics for agriculture. According to the Southern African Development Community (2017), it is estimated that about 5% of the total area is considered suitable for arable agriculture and about 1% is under cultivation yearly. Rain-fed agriculture is only possible for only one season, however is considered risky as a result of unreliable rainfall patterns and poor soils. Surface water for irrigation is scarce while groundwater resources are limited and expensive to exploit for irrigation purposes, rendering the agricultural sector as unattractive (FAO, 2017).

2.6   Growth paradox of the economy of Botswana

Studies into the consequences of and responses to the depletion of Botswana's diamonds estimate that diamond production will decline significantly by the year 2050 (BIDPA & World Bank, 2011). Despite its inherent and crucial backward and forward links for industrialisation, agriculture remains weak and underdeveloped in Botswana. In view of the above, agribusiness SMMEs tend to have benefits over their much larger rivals in that they can adjust effortlessly to harsh economic circumstances and similarly they tend to be ready to withstand hostile socio-economic conditions due to their flexible attributes, according to Dalisto and Peter (2000).

2.7   Conclusion

Despite the importance of the role that SMMEs play and entrepreneurship as an engine for socio-economic growth in Botswana, few attempts have been made to study the following: the extent of government incentives on sustainable entrepreneurial growth of SMMEs in the agribusiness ecosystem in Botswana; analysis of the impact of entrepreneurial ecosystem capitals on sustainable   entrepreneurial growth in agribusiness in Botswana and determination of the characteristics of success or failure of SMMEs in the agribusiness entrepreneurial ecosystem in Botswana. SMMEs in this kind of environment face rather different barriers in comparison to those faced by their counterparts in stable environments such as those found in western countries. There is only anecdotal evidence on which factors academics and policy-makers can utilise to foster entrepreneurship. Thus, this chapter attempted to fill this gap.

CHAPTER THREE

LITERATURE REVIEW OF ENTREPRENEURIAL ECOSYSTEM, SUSTAINABLE GROWTH AND THEIR THEORETICAL FRAMEWORKS

3.1   Introduction

In chapter 2 the researcher addressed SMMEs as the study context. A background of Botswana was given with a view to the growth paradox of the economy. The objective of chapter 3 is to highlight the entrepreneurial ecosystem in sustaining the entrepreneurial growth of SMMEs, as cited in the extant literature. This informs the methodology (chapter 5). Conducting a literature review is a vital component of the current research process in the sense that familiarity with previous research and theories in the field helped in conceptualising the problem, conducting the study and interpreting findings.

This chapter is organised into nine sections, starting with an introduction and an ecosystem overview. Section 3.2 explores a theoretical framework relating to entrepreneurial ecosystems and the heterogeneity of entrepreneurial ecosystem challenges. Section 3.3 outlines a theoretical framework of sustainable entrepreneurial growth, including a definition of sustainable entrepreneurial growth, key characteristics of successful start-ups and contextual dimensions within which entrepreneurial growth takes place. Section 3.4 identifies and discusses the theoretical framework underpinning the research of entrepreneurial ecosystems. Section 3.5 lists relevant theories in the extant literature that support the entrepreneurial ecosystem. Finally, section 3.6 ends by providing a concluding summary.

3.1.1 Ecosystem overview

The literature review was used to identify and characterise factors that make up the entrepreneurial ecosystem model and development of the research design. Using

entrepreneurship views advanced by Cavallo, Ghezzi, and Rossi-Lamastra (2020), Schumpeter (1949:p.75), Alexander and Knight (1971), Kirzner (1973:p.6) and Venkataraman (1997:p.110), the researcher traced the distinct evolution and development of the entrepreneurial economy over the last decades towards an entrepreneurial society. The projection corresponded with distinct ideologies that influenced the transition and progression of entrepreneurship public policy from outcomes associated with economy towards an entrepreneurial society. Scholars acknowledge that an entrepreneurial society better captures the spirit that influences venturing (Bonnet, Dejardin & Madrid-Guijarro, 2012), and they focus on the entrepreneurial society as opposed to the entrepreneurial economy or a single government or single firm as a unit of analysis.

The current chapter attempts to develop a conceptual framework of the entrepreneurial ecosystem which motivates individuals to start new ventures. In the study, a theoretical framework was developed on the basis of the literature review and survey of entrepreneurs, based on the underpinning theoretical framework of the study, the eight capitals model of entrepreneurial ecosystems (Juling, Freiling & Harima, 2016). The eight capitals model exhibits critical resources which are necessary for the evolution of a healthy ecosystem. Extant research on the topic shows that a simple presence of the eight capitals standing alone does not nurture a thriving or successful ecosystem, but rather a combination of the eight capitals, their connectivity with each other, interdependency and interaction does (Cavallo, Ghezzi, & Balocco, 2019; Brown & Mason, 2017:p.15; Aspen Network of Development Entrepreneurs [ANDE], 2013:p.20).The role of this research is therefore to identify and characterise the complex capital structures of an entrepreneurial ecosystem in order to understand the role of each resource as an enabler of or barrier to success or failure (Autio & Levie, 2017; Stam and Spigel, 2016).

The components of a model of an entrepreneurial ecosystem are by themselves obvious factors which contribute to making an entrepreneurial effort a success or failure, and a study of their combined influence in a single framework is unique and facilitates a systematic understanding of those factors that enable or constrain entrepreneurship (Spigel, 2017:p.40). A key point that emerges is that there is need

for a model of entrepreneurship that captures holistically all the factors that contribute to entrepreneurial success or failure.

Isenberg (2011:p.40) argues that an entrepreneurial ecosystem achieves economic prosperity because of its support of public programmes and policies regarding incubation, innovation, competitiveness, conglomerates and knowledge-based enterprises. Its diversity of players and actors (Iansitti & Levian, 2004:pp.65-69) and their active interaction is essential for the success of the ecosystem (Spilling, 1996:p.102). An efficient and effective entrepreneurial ecosystem evolves through time to generate different sets of start-ups (van de Ven, 1993:p.221).

3.2   Theoretical frameworks of entrepreneurial ecosystem

Porter (2001:p.45) argues that the external environment matters for success in innovative activities or entrepreneurial activities and is at least as important as internal factors. The entrepreneurial ecosystem approach provides a valuable conceptual tool for linking the entrepreneur to the external environment, namely the role of government and non-government institutions in creating and adjusting regulatory frameworks and support systems for facilitating the activities of entrepreneurs (Fuerlinger, Fandl & Funke, 2015). Some argue that an attractive external environment for entrepreneurship depends markedly on components of the entrepreneurial ecosystem, since the development of an entrepreneurial ecosystem requires a mixed approach that encompasses a top-down and bottom-up view (Mason & Brown, 2017:p.50; Spigel, 2017:p.30).

Entrepreneurial activity has many manifestations, such as innovative start-ups, high-growth start-ups and entrepreneurial employees (Acs et al., 2017; Stam, 2014:p.15). Therefore, asking what successful individuals are like is not enough; rather, one should go further and understand the individuals' environment, according to Acs et al. (2017:p.50). Brown and Mason (2017), concurring with Spigel (2017), contend that such an approach, which links entrepreneurial success or failure to the environment rather than to personal attributes alone, shows that an ecosystem around the entrepreneur facilitates entrepreneurship. New ventures emerge and grow not just

because talented and visionary entrepreneurs created and developed them, but also because their location in an ecosystem comprises private and public players who nurture and sustain them (Spigel, 2017:p.55). In this situation, the existence of prior ventures in an ecosystem or the availability of start-up funding mechanisms and a culture that tolerates failure facilitate the creation of new firms (Acs et al., 2017:p.50; Stam, 2014:p.15; Brown & Mason, 2017).

Conversely, an ecosystem may hinder entrepreneurship development, such as one that thrives in a corrupt and rogue state (Isenberg, 2010:p.10). Similarly, when an entrepreneur attempts to introduce radical innovation not supported by existing technical standards (Stam & Bosma, 2015:p.170), the ecosystem may hinder success. Feld (2012) and Feldman (2014) argue that individual entrepreneurs generally bridge markets and innovations in dynamic entrepreneurships. Thus, the entrepreneur is not just an outcome of the process but rather a central player, and the enterprise can be the feeder of the system rather than the leader or a mere outcome, according to Acs, Autio and Szerb (2014).

Feld (2012:10) and Isenberg (2014) state that an entrepreneur is not a lone individual who relies primarily on her or his talents, but rather possesses social ties, personal relationships and networks which are essential to the process. According to Spigel (2017:p.60), the terms entrepreneur and owner/manager are often used interchangeably in the literature to describe someone who engages in the running of a small business. Thus, they are used as though they have the same meaning. However, Spigel (2017) and Stam (2015) argue that not all small businesses are run or owned by professional entrepreneurs and that most small businesses are born only to die or simply stagnate.

3.2.1 Heterogeneity of entrepreneurial ecosystem challenges

There is significant heterogeneity in ecosystem composition and dynamics not only cross-nationally, including smaller localities within a country, but also across regions, according to Williamson and De Meyers (2012:p.75). The heterogeneity of an entrepreneurial ecosystem and its differential impact on different countries yields varying performance prospects for new ventures in respective countries. According to Autio and Levie (2017), the determinants of an ecosystem are diverse, and formal

institutional conditions and national regulations alone cannot explain cross-national variations in entrepreneurship rates. An entrepreneurial ecosystem, just like other systems with complex interactions between complementary elements, produces capital goods as a result of complexities that are close to non-decomposability, according to Spigel (2017). In the Resource-Based View Theory (RBT), such a phenomenon is called causal ambiguity.

Freiling and Baron (2017:p.7) argue that the Austrian Capital Theory (Carl Menger, 1871) can be viewed as an advancement of the RBT by considering resources as heterogenous. In the perspective of the Austrian Capital Theory, heterogeneity is not a good but rather a functionality. Freiling and Baron (2017:pp.7,8) state that goods can be produced specifically, for one purpose, and therefore may have one function. As such, these goods can be termed goods of the lowest order. In accordance with this view, the higher a capital good in the production process, the more heterogenous it becomes (Foss & Klein, 2012), meaning that a capital good serves multiple purposes and functions.

Notwithstanding the above, the culture inside an ecosystem serves a rich complex of meanings, beliefs, practices, norms, values and symbols that are prevalent among people in a society, according to Isenberg (2010), who states that a conducive culture and several other key principles of a strong entrepreneurship ecosystem, such as supporting government programmes, regulatory policies and focus on high-potential enterprises, is paramount to a successful and healthy ecosystem. Researchers (Brown & Mawson, 2019; Brown et al., 2018; Cavallo, Ghezzi & Rossi-Lamastra, 2020) contend that micro-environmental factors such as family influence and environments can prove to be impactful on non-economic goals and consequently can influence firms' behaviour. Therefore, successful ventures follow a pattern throughout their life cycle as follows:

- developmental stage,
- start-up stage,
- survival stage,
- rapid growth stage, and
- maturity stage.

Brown and Mawson (2019) and Brown et al. (2018) argue that anomic strain in societies represents the incongruence between cultural values that motivate entrepreneurship and institutional conditions that facilitate or, alternatively, block the achievement of goals related to those values. Thus, there is a link between anomic conditions such as traditional beliefs or fear of failure and risk aversion, according to Garnsey, Stam and Heffernan (2006) and Stam and Bosma (2015).

The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) (2013) shows that gaps in social safety nets for entrepreneurs, such as secure retirement savings and health coverage, are only one of the several obstacles that are encountered in establishing start-ups. The others are as follows: (a) limited access to credit and to information in available finance and training opportunities, (b) inconsistencies in and lack of complementary between policies and programmes, and (c) inaccessible registration and licensing processes that disproportionately affect SMME entrepreneurs compared to their counterparts in large firms (intrapreneurs).

3.2.2 Definition of the concept of entrepreneurial ecosystem

According to researchers (Spigel & Harrison, 2018; Stam, 2015; Feld, 2012; Isenberg, 2010; Mason & Brown, 2014; Motoyama & Knowlton, 2016; Neck et al., 2004), entrepreneurial ecosystem as a term describes two dominant concepts, namely entrepreneurship and ecosystem, jointly. Thus, to define the term entrepreneurial ecosystem holistically, this chapter discusses the two components individually before integrating or fusing them. A definition that seems widely applicable is that an entrepreneurial ecosystem is a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship (Stam, 2014:p.5).

Consequently, an entrepreneurial ecosystem is distinguished from other related concepts, such as innovation ecology, business ecology and regional or industrial clusters, by referring to it as being collective and systematic in nature, in that the individual entrepreneur interacts with the environment rather than existing in a vacuum (Feld, 2012:p.90). Ecosystems are seen in academic (Acs, Autio & Szerb, 2014; Feldman, Francis & Bercovitz, 2005), policy (Isenberg, 2010, WEF, 2013) and business literature (Feld, 2012; Hwang & Horowitt, 2012) as a critical tool for creating resilient economies based on entrepreneurial innovation and creativity.

Table 3.1: Differences and similarities between entrepreneurial ecosystem and related concepts.

Approach	Industrial District, Cluster, Innovation System	Entrepreneurial Ecosystem
Main focus	Main focus is on economic and social structures of a place that influence overall innovation and firm competitiveness. In many cases, little distinction made between (fast growing) startups and other types of organizations.	Startups explicitly at centre of ecosystem. Seen as distinct from established large firms and (lower-growth) SMEs in terms of conceptual development and policy formation.
Role of knowledge	Focus on knowledge as source of new technological and market insights. Knowledge from multiple sources is recombined to increase firm competitiveness. Knowledge spillovers from universities and other large research intensive organizations are crucial.	In addition to market and technical knowledge, entrepreneurial knowledge is crucial. Knowledge about the entrepreneurship process is shared between entrepreneurs and mentors through informal social networks, entrepreneurship organizations, and training courses offered.
Locus of action	Private firms and state is primary locus of action in building and maintaining industrial district/cluster/innovation system. Little room for individual agency in their creation.	Entrepreneur is the core actor in building and sustaining the ecosystem. While state and other sources might support ecosystem through public investment, entrepreneurs retain agency to develop and lead the ecosystem.

Source: Stam and Spigel, 2016:p.5.

The concept of an entrepreneurial ecosystem as an organising mechanism differs from previous concepts such as clusters and regional economies advanced by Spigel (2017:p.52, citing Saxien, 1994), Sheriff and Muffatto (2015, citing Voelker, 2012), largely due to a central focus on the entrepreneur rather than the firm (Stam, 2015:p.1765) as a unit of analysis. In dynamic ecosystems, new firms have better opportunities to grow and create employment, compared to firms created in other locations (Rosted, 2012:p.120). The entrepreneurial ecosystems approach offers a new and distinctive perspective on the geographical clustering of economic activity, incorporating many of the themes from earlier literature (Isenberg, 2011). According to Isenberg (2014), entrepreneurial ecosystem as a term is already being viewed by many scholars as encompassing a capacity for building entrepreneurial vitality. The

key challenge that entrepreneurial ecosystems attempt to address is that even in environments conducive to business start-ups, there is a depletion of high business growth.

Little scientific knowledge exists on the effectiveness and efficiency of newly created entrepreneurial support programmes and policy. According to Mason and Brown (2017:pp.5-8), entrepreneurship policy is concerned with supporting entrepreneurs who require relational rather than transactional assistance and are likely to benefit most from peer-based support for experiential learning and tacit knowledge-sharing. There is a gap in the overall understanding of how different actors and factors interconnect and how they depend on each other. Krueger et al. (2012) and Cavallo Ghezzi and Rossi-Lamastra (2020) argue that despite an increase in scholarly interest in the term entrepreneurial ecosystem, understanding of its structure and importance in adequate assessment mechanisms is limited and under-remarked (Cavallo, Ghezzi & Rossi-Lamastra, 2020).

Table 3.2 Attributes of an Entrepreneurial Ecosystem

Authors (s)	Attributes of Entrepreneurial Ecosystem	Description	Year (s)
Motoyama, Yasuyuki and Knowlton. (2014); Feldman (2012); Julien (2008).	Cultural – supportive culture	These are cultural attributes which support and normalise entrepreneurship activities, risk-taking and innovation.	2014; 2014; and 2008.
Nelles & Vorley, (2010); Feld (2012).	Histories of entrepreneurship	Prominent examples of successful local entrepreneurial ventures	2012; 2010.
Arruda et al. (2014); Audretsch, Aldridge & Sanders et al., (2011); Bahrami & Evans (1995); Leitch, Hill & Harrison, (2010).	Social -worker talent	Presence of skilled workers who are prepared to work in start-ups.	2014; 2011; 2010 and 1995.
Van der Borgh, Cloodt & Romme (2012); Kennedy and Patton (2005); Malecki (2009)	Investment capital	Availability of investment capital from family and friends, business angels and venture capitalists	2012; 2009 and 2005

Authors (s)	Attributes of Entrepreneurial Ecosystem	Description	Year (s)
Dubini (1989); Malecki (2011) and Neck et al, (2004).	Social capital and networks	Presence of social networks that connect entrepreneurs, advisers, workers and investors, allowing free flow of knowledge, ideas and skills	2004; 1997 and 1989
Feld (2012); Kennedy and Patton (2005) and World Economic Forum (2013)	Mentors and role models	Local successful entrepreneurs and businesspeople who provide advice for young entrepreneurs	2013; 2012 and 2005
Isenberg (2010, 2014)	Material - policy and governance	State-run programmes or regulations that either support entrepreneurship through direct funding or remove barriers to new venture creation	2016; 2014; 2010 and 2008
Audretsch, Aldridge & Sanders (2011); Dubini (1989); Feldman, Francis & Bercovitz (2005)	Material – universities	Universities, incubators, accelerators and innovation hubs – higher education institutions train new entrepreneurs and produce new knowledge spillovers.	2011; 2005
Kennedy and Patton (2005); Startup Genome Project (2012)	Material – support services	Firms and organisations that provide ancillary services to new ventures, e.g., patent lawyers, incubators or accountancy	2012; 2005
Audretsch, Aldridge & Sanders (2011); Mack & Rey (2014)	Physical infrastructure	Availability of sufficient office space, telecommunication facilities and transportation infrastructure to enable venture creation and growth	2014; 2011
Spilling (1996); World Economic Forum (2013)	Open markets	Presence of sufficient local opportunities to enable venture creation and unimpeded access to global markets.	2013; 1996

Source: Author's own compilation using extant literature.

According to Feld (2012:pp.186-200), nine attributes emphasise the interaction between players in the ecosystem (those with a high network density, many connecting events and links to large companies' collaborations) and access to relevant resources such as talent, services and capital, with an enabling role of government in the background.

3.2.3 Defining entrepreneurship

Isenberg (2011, 2017) posits that several researchers, when demarcating the concept of entrepreneurial, run the risk of broadening the term entrepreneurship out of meaning. The author argues that differentiating the terms self-employment, entrepreneurship and small business highlights the entrepreneurship process of creating and pursuing an opportunity based on an idea, meaning that entrepreneurs find and seize opportunities by starting value-added production (VAP) within the framework of a new enterprise, most often known as SMEs according to the OECD (2016).

The OECD (2016) defines entrepreneurship as the process dynamic that easily locates economic opportunities, whereas Acs et al. (2017:p.90) define entrepreneurship as the force that mobilises other resources to meet unmet market demands. The authors further contend that entrepreneurship is the ability to create and build something from practically nothing or the process of creating value by pulling together a unique package of resources to exploit opportunities.

The spectrum of meanings of the word entrepreneurship ranges from narrow to very broad (Schumpeter, 1947, 1949), where narrow meanings refer specifically to business in the context of starting a business and growing and developing it. The dictionary definition of the term entrepreneur is the one most commonly understood in society by policy-makers and academia (Mason & Brown, 2017:p.65; Spigel, 2017). According to the *Oxford English Dictionary* (2017), entrepreneur is defined as a person who sets up a business or businesses, taking on financial risks in the of hope making a profit. Such a definition of someone who owns a business and nothing else is a concept related to entrepreneurship in a narrow sense. Mason and Brown (2017:p.65) and Spigel (2017) argue that the broader meaning refers to attitudes, skills and competences which, when possessed by an individual, lead to exhibiting innovative behaviour, including business entrepreneurism.

Fuerlinger, Fandl and Funke (2017:p.6) recommend moving away from narrow dictionary definitions and defining an entrepreneur as someone who undertakes certain projects, that is, someone who recognises an opportunity to create something new (GEM, 2016:p.8). Wider definitions are related to entrepreneurship in a broader sense; for example, Schumpeter (1947, 1949) presents a broader definition of entrepreneurship by suggesting that differentiating between narrow and broad

entrepreneurship is important for analysing economic evolution/development and entrepreneurial dynamics.

Qian and Acs (2013) define knowledge-based entrepreneurship as a process of application and customisation of a combination of domain, market, industry-specified and cultural knowledge to effect an economically prudent and sustainable business venture. The addition of the phrase knowledge-based to the term entrepreneurship refers to the integration of domain knowledge with business processes in order to add justifiable economic value, compared to similar businesses.
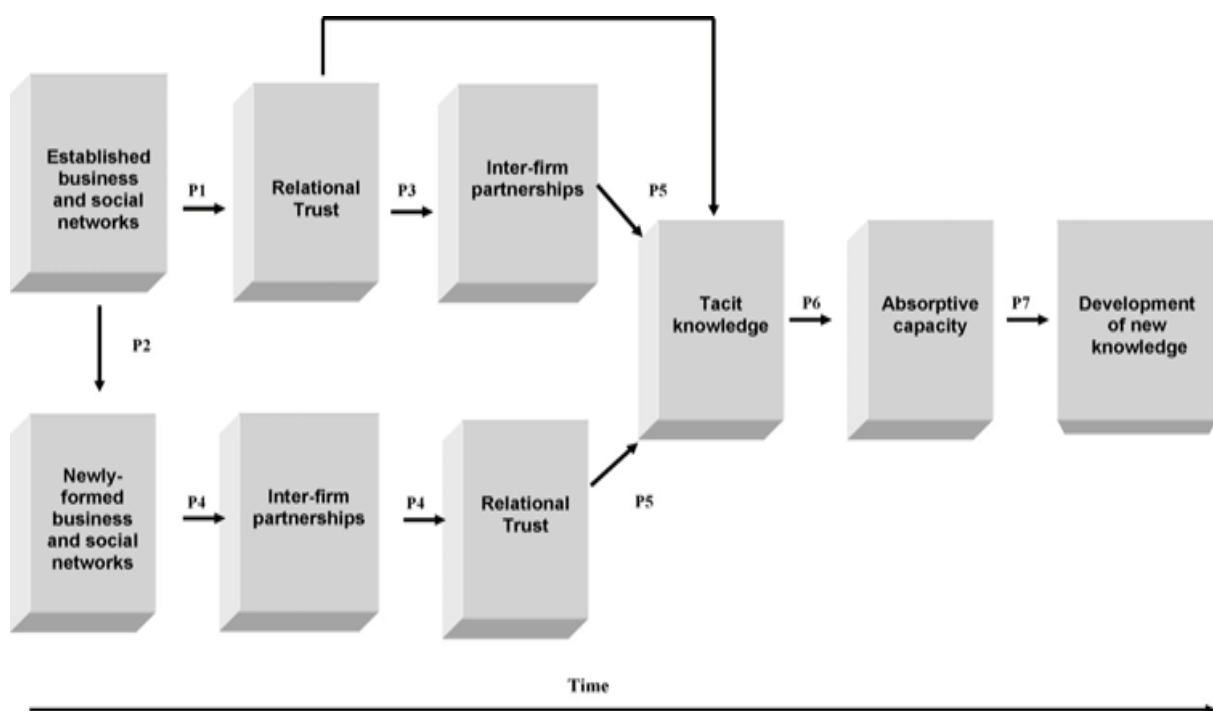
Figure 3.1 New knowledge creation using Absorptive Capacity Theory of Knowledge Spillover

Source: Adopted from Qian & Acs (2013).

Figure 3.1 above illustrates how a complex network of knowledge that is both explicit and tacit flows between firms. The network of knowledge needs to be managed since it affects the internal choices of start-ups. Pittaway et al. (2004) and Rousseau Manning and Denyer (2008) attest that while several existing studies examine the impact of networks on the decision to start a new venture and on the outcomes of

entrepreneurial processes, a research gap still exists regarding the mutual influence between start-up management decisions and sustainable entrepreneurial growth.

3.2.4 Defining an entrepreneur

Isenberg (2011) argues that a person who continuously tries to create economic value through growth is defined as an entrepreneur. Thus, such a person is always dissatisfied with the status quo. According to Isenberg (2014), the nature of entrepreneurship is intrinsically contrarian since it implies that exploitation of an opportunity is based on the perception that the entrepreneur knows, sees or has.

Schumpeter (1949) defines an entrepreneur as a person associated with all entrepreneurial activities that are related to innovation. Schumpeter ushered in the modern definition of the term entrepreneurship, described as carrying out new combinations called enterprise. Those individuals whose function it is to carry them out are called entrepreneurs.

The concept of entrepreneurship remains one of the oldest stimulants of economic activities, which enable individuals to identify business opportunities for exploitation (GEM, 2016). Early studies on the concept of entrepreneurship credit French economists such as Jean Baptiste Say (1767-1832) and Cantillon (1680-1734) with confirmation that the birth of new businesses is the result of the specialised skills of individual innovators (Arthur & Hisrich, 2011). Arthur and Hisrich (2011) state that in the industrial revolution in the eighteenth century, innovators such as Edison and Whitney were seen as potential entrepreneurs who were demanders and providers of funds. Acs et al. (2017:p.12) and Aulio and Levie (2017) posit that drawing from prior definitions of distinctive meanings of entrepreneurship, it can be argued that the concept of entrepreneurship is embedded in many economic growth theories.

3.2.5 Schumpeter's theory of entrepreneurship and an entrepreneur

Schumpeter (1947, 1949) links entrepreneurship to innovative activities and demonstrates the importance of entrepreneurs using the principle of creative destruction. According to Schumpeter (1947), Creative destruction by entrepreneurs develops different economic sectors. Dabic, Crijanovic and Gonzales-Loureiro

(2011:pp.195-197) follow Schumpeter, explaining how different economic sectors are developed using a five-circular flow model, namely:

- o introduction of new products,
- o introduction of new products, methods and processes,
- o opening of new marketing activities,
- o searching for new services of raw materials, and lastly
- o new industry organisational structures.

Schumpeter's theory is different from the neo-classical model of economic development, with its equilibrium market structures, according to Bridge and O'Neill (2009:p.50). Bridge and O'Neill (2009:p.50) argue that the two theories defy comparison because the neo-classical model is built upon a static concept of market equilibrium, whereas creative destruction is built upon a dynamic, deliberate entrepreneurship effort to change market structures. Hisrich, Peters and Shepherd (2013) highlights how the methods and findings of Schumpeter's theory of economic development were modified into a typology called dynamic capitalism, differing from those of more traditional economists, thus indicating the potential of dynamic theory to explain the strength of small businesses in contrast to the static neo-classical model, which does not explain it (Hisrich, Peters & Shepherd, 2013).

3.2.6 The Absorptive Capacity Theory of Knowledge Spillover (ACTKS) of entrepreneurship as a source of entrepreneurial opportunities

Absorptive capacity is a term used to describe how organisations use external knowledge in their innovation process; therefore, it relates to how organisations locate new knowledge to utilise in their creation of new innovative products, services or processes, according to Smith (2010:p.85). It is a funnel-type approach for processing ideas that may coincide with other approaches, such as project planning and product development, which are adopted by the entrepreneur. According to Acs et al. (2009:p.15), contemporary theories of entrepreneurship focus on the recognition of opportunities and related decisions to exploit them. According to Hisrich, Peters and Shepherd (2013:pp.6-7), entrepreneurial opportunities can be defined as those situations in which new goods, services, raw materials and organising methods can be introduced and sold at greater than their cost of production. For example,

entrepreneurial opportunities can stem from introducing a technological product used in one market to create a new market. Alternatively, opportunities can arise out of creating a new technological product for an existing market or creating a new product or service and a new market.

Entrepreneurship literature treats opportunities as exogenous, whereas the theory of economic growth suggests that opportunities are endogenous. Acs et al. (2009:p.30) argue that knowledge created endogenously results in knowledge spillovers that allow entrepreneurs to identify and exploit opportunities effectively. Thurik (2008:p.40) argues that the pervasive socio-economic mindset is driven by knowledge as a source of competitive advantage rather than resources. Thus, acquisition of knowledge that is sourced externally to the organisation has positive direct effects on the growth of a venture, according to Ancona and Caldwell (1992), Inkpen and Dinur (1998) and Zander and Kogut (1995). Such a venture occurs as an outcome of the formation of strategic alliances between organisations which possess the necessary knowledge (knowledge keepers) and those which are eager to acquire it (knowledge seekers). However, limited absorptive capacity is often found in ventures that wish to operate in new sectors that they did not previously operate in, which suspends their growth prospects, according to Hisrich, Peters and Shepherd (2013:p.10). Limited absorptive capacity is a relational factor to organisational growth, which negatively moderates the direct relationship between knowledge that is transferred between the entrepreneurial ecosystem actors and its growth.

Spillover effects of successful entrepreneurship

 Isenberg (2011:p.16) argues that productive and successful entrepreneurship causes important spillover effects, such as a high-quality lifestyle, creativity and innovativeness. Isenberg (2011:p.10) states that successful entrepreneurship develops basic capabilities of creating more chain activities, forming entrepreneurial mindsets, making entrepreneurial choices, launching start-ups and achieving growth.

3.3   Theoretical framework of sustainable entrepreneurial growth

Entrepreneurial growth can be defined as an expansion in terms of the organisation's resources, size, information and experience, which emerge as a result of

entrepreneurial efforts (Nieman & Nieuwenhuizen, 2014:p.295; Wickham, 2006). Scholars suggest that all business organisations have the potential to grow, but none is entitled to such growth. Crijns and Ooghe (1997:p.56), as well as Nieman and Nieuwenhuizen (2014:p.295), outline the characteristics of entrepreneurial growth as including, but not limited to, market domination, differentiation, product leadership, flexibility, innovation, exports, future orientation and related growth.

Entrepreneurial growth literature is extensive; however, research that focuses on specific questions such as how firms grow, why firms grow according to different patterns, how decisions about growing or not growing are made and the contextual dimensions within which entrepreneurial growth takes place is very scarce and often neglected (Moore, 2008:p.90; Nieman & Pretorius, 2004:180; Siropolis, 1997). Thus the phenomenon falls outside the explanatory range of existing frameworks due to the wide variation in growth variables used by researchers (Ghafoor & Iqbal, 2007:p.210; Barkham, Hardy & Startup, 1996). With entrepreneurial ecosystem activities focusing on the reactive role of actors and feeders to sustainable entrepreneurship (Morrish, Miles & Deacon, 2010), concentrating on how sustainability needs to be embedded into the overall strategy produces a research gap on the proactive role of anchoring sustainable entrepreneurship at a strategic level to foster innovative solutions to these conflicting relationships between dual objectives of a sustained competitive advantage and sustainable practices (Bryson & Lombardi, 2009:p.250).

A complication in sustainable entrepreneurial growth arises from a conflict between profitability and environmental focus, since correlation between environmental and social sustainability contradicts economic demand for sustainability of growth (Bansal, 2005; Spangenberg, 2004). Given that the focus of this study is on the agribusiness sector, which is known to be fraught with external pressures such as increasing food insecurity against scarce resources such as fertile arable soil and environmental protection (Bhattacharyya, 2011), identifying and characterising an answer to sustainability demands (Sernhed, 2008), while being subjected to growing and high levels of competitiveness, results in the need for an innovative solution.

According to Ghafoor and Iqbal (2007:p.220) and Barkham, Hardy and Startup (1996), firm size may be measured according to the revenue, profit, human capital and even physical capital that it employs. Thus, there is a greater need to understand the

process that underlies entrepreneurial growth; specifically, there is need to understand the entrepreneur's cognitive processes that shape micro-foundations of growth and how they access and configure resources to achieve growth, that is to say, the resource orchestration that underpins entrepreneurial growth. According to Garnsey, Stam and Heffernan (2006), start-ups do not follow linear growth pathways but rather tend to grow in 'snake and ladder' pathways, meaning they grow in one year, decline in the next year, or vice versa (Davila et al., 2015). Davila et al. (2015:pp.20-23) add that start-ups are able to learn from their mistakes and grow sustainably – efficiently and effectively managing downturns to strengthen sustainability. Davila et al. (2015:p.23) studied 158,000 start-ups based in ten developed countries to determine growth pathways. They found that one-third of these start-ups managed to sustain only three years of consecutive growth from their second year of existence. Such results provide a platform for comparing and assessing Botswana start-ups.

Numerous studies have been undertaken to determine growth and profitability (Emam & Salih, 2011; Delgado, Narrod & Triongco, 2008; Kelly, Maher & Harte, 2002). Growth in terms of profitability, sales, assets and productivity are often cited as indicators. For example, in agribusiness the potential for input reduction and potential for output increment relative to a benchmark or frontier is used as a measure of growth (Asa'ad & Anas, 2014:30). The frontier can be identified by non-parametric and parametric methods (Latruffe, 2010:p.40).

Researchers (Asa'ad & Anas, 2014:30) identify fundamental measures of firm growth and development using turnover (the volume of sales during a financial year), market share (a portion of the market that the business currently serves) and labour force (human resources in the form of staff engagement of professional, technical or administrative personnel) (Emam & Salih, 2011; Delgado, Narrod & Triongco, 2008; Kelly, Maher & Harte, 2002)

3.3.1 Economic, Social and Governance (ESG) issues in sustainable entrepreneurship

The origins of the concept of (environmental) sustainability can be traced back to the Brundtland Commission of 1980, under the former Prime Minister of Norway Mrs Gro Harlem Brundtland. Her seminal work entitled 'Our common future', on sustainable

development, set the definition of sustainable development. According to Brundtland (1987), sustainable development is defined as development that meets the needs of the present generation without compromising the needs of the future generations. The WEF (2014) broadens the definition by Brundtland (1987), adding that sustainability in the context of business ensures that business reduces risk and capitalises on the community, its consumers and its employees.

Sustainability in business can therefore be described as consideration for all the political, economic, social, technological, ecological and legal factors within which the enterprise operates in pursuit of its vision and mission (WEF, 2014). As the globalisation of economic markets increases, scholars (de Clercq & Voronov, 2011; Schönsleben et al., 2010; Walker, DiSisto & McBain, 2008) argue that for sustainability that is driven by diminishing resources, destruction of ecosystems has resulted in ever-increasing consumer pressure. Against this background, sustainable entrepreneurship refers to any form of entrepreneurial service that integrates environmental, social and governance (ESG) criteria into its business or investment decisions for the lasting benefit of both clients and society at large, according to Hisrich, Peters and Shepherd (2013:p.21).

A sustainable entrepreneurship system is therefore one that creates, values and transacts financial assets in ways that shape real wealth to serve the long-term needs of an inclusive, environmentally sustainable economy (De Clerqc & Voronov, 2011; Schönsleben et al., 2010). Hisrich, Peters and Shepherd (2013:p.21) define sustainable entrepreneurship as preserving nature, life support and community sustainability in pursuit of perceived opportunities to bring future products, processes and services into existence for gain (entrepreneurial action), where gain is broadly construed to include economic and non-economic benefits to individuals, the economy and society (development). Sustainable entrepreneurial high growth is derived from internal challenges that threaten start-ups, such as a sense of infallibility because of success, burnout of employees due to mounting job pressures and short periods to cope operationally with the growth and disruptions, according to Hambrick and Crozier (1985:45) and Mount, Zinger and Forsyth (1993:100).

Evidence acquired from extant research on SMMEs the world over shows that the majority of these firms are started, survive and perish small (Cooper, Woo &

Dunkelberg, 1989:p.320). Those start-ups that can sustain growth show abilities to survive business cyclical downturns and other good business practices such as efficient and effective talent management (since small firms often cannot hire as fast as they grow), as their growth is often not linear, according to Haines (2016:25), CAUSEE (2016), Davidsson and Delmar (2006), Davila et al. (2015), Hambrick and Crozier (1985), Kangasharju (2000) and Simes, O'Mahony and Lyster (2013).

Globally, a distinct change of mindset and practice is underway (United Nations-Global Compact and Sustainable Banking Network, 2019; Urazova, 2020), with mounting evidence of financial materiality of ESG issues and the growing demands from regulators, clients and beneficiaries for more sustainable approaches to entrepreneurship. Sustainable development is one of the most important issues in the twenty-first century. There is a deliberate effort to integrate and quantify the risks and opportunities presented by climate change for businesses operating in any country that is highly vulnerable to climate change (United Nations Sustainable Development Goals [SDGs], 2016; COP21 in Paris [Paris Agreement], 2015; Addis Ababa Action Agenda [AAAA], 2015).

The ongoing confrontation between profitability and sustainability forces firms to employ a different focus and to re-evaluate their strategic direction, thereby renewing and redefining the relationship between the organisation and its external influences, by altering the way it competes (Covin & Miles, 1999:p.52). Firms choose to either predict or adapt to future alterations (Witbank et al., 2006).

3.4   Theoretical framework underpinning the study

The theoretical framework underpinning this study is the eight capitals model of entrepreneurial ecosystems, adapted from Juling, Freiling and Harima (2016:8). The model comprises eight elements that form entrepreneurial ecosystems, namely 1. human capital, 2. social capital, 3. financial capital, 4. political capital, 5. economical capital, 6. infrastructural capital, 7. cultural capital, and lastly 8. historical capital.

Juling, Freiling and Harima (2016) synthesise several approaches into one conceptual model, namely the capital model of entrepreneurial ecosystems. The model is based on the RBT (Barney, 1996:p.469), which classifies all eight elements into three

categories of logical levels. The reasoning behind this is that the fertile and well-related interplay of the eight capitals allows dynamic and prosperous developments of entrepreneurship, whereas destructive forces such as benign environments, corruption and extortion destroy capital flows and stocks, in the terminology of Dierickyx and Cool (1989).

A single framework is necessary because of an entrepreneur's personality and behaviour, political and legal systems, social and moral contexts, financial systems and markets, all intertwined with the entrepreneur's national culture (Lee & Peterson, 2000). The cultural impact on developing entrepreneurial ecosystems cannot be underestimated, thus the need for a model to acknowledge the entrepreneur without discounting social factors that are beyond the control of the individual.

3.4.1 Components of eight capitals model of entrepreneurial ecosystems

The entrepreneurial ecosystem pillars and components of the eight capitals model (Juling, Freiling & Harima, 2016) represent a shift away from traditional economic thinking about businesses, specifically about markets and market failure, to a new economic view whereby people, networks and institutions take centre stage. It represents a shift away from company-specific interventions towards holistic activities that focus on networks and building new entrepreneurial institutions' capabilities and synergies between stakeholders (actors, players and feeders) (Feld, 2012:p.190; Isenberg, 2014; Warwick, 2013:p.110; Rodríguez-Pose & Di Cataldo, 2015:60). The rationale for this focus is that it drives productivity (OECD, 2013) and creates new employment, innovation and business internationalisation (Brown and Mason, 2017).

Table 3.3: Entrepreneurial ecosystem pillars and their components of the eight capitals model (Juling, Freiling & Harima, 2016)

Pillars	Components
Economic capital: accessible markets	Domestic market: made of large and SMMEs as customers; government as customers. Foreign market: made of large and SMMEs as customers; government as customers.
Human capital: talented workforce	Distinct talent management strategies and retention of top management, technical, entrepreneurial experience, outsourcing availability and access to talented immigrant workforce.
Financial capital: funding and financing	Access to debt and equity through private venture capital, state venture capital, state grant-subsidies and loans, private equity, business angels, friends and family.
Social capital: support systems-mentors	The society's social support systems such as safety nets, social welfare, insurance and health support. Access to networks of mentors, investment advisers, professional services, incubators and accelerators.
Political capital: government & regulatory framework	Ease of starting and doing business, tax rebates, tax holidays and legislation/policies. Business-friendly environment.
Infrastructure capital: universities as catalysts, education and training	Providing graduates to new companies, playing key role in idea-formation and promoting respect for entrepreneurship. Available workforce with pre-university and post-university education which is specific to entrepreneurship.
Cultural capital: cultural support	Tolerance for risk in both success and failure, preference for self-employment, success stories and case studies, role models, research culture, celebrating a positive image of entrepreneurship.
Historical capital: documentation and record keeping	Legacy of rich success- and failure-documented cases.

Source: World Economic Forum (2013:pp.6-7).

Attributes of an entrepreneurial ecosystem are sustained and reproduced through relationships with other attributes (Spigel, 2017). In denser ecosystems, attributes are reproduced by the interplay between a supportive entrepreneurial culture, social networks, employees and investors and effective public programmes and policies. In sparser entrepreneurial ecosystems, a single attribute drives the production of other attributes, for example, large local markets made up of government and large corporations. Table 2.5 below describes those attributes that exist between players in an entrepreneurial ecosystem.

Table 3.4: Attributes of players in the ecosystem and an enabling government background

Attribute	Description
Leadership	Strong group of entrepreneurs who are highly visible, influential, accessible and committed to making the region a place to start-up and grow enterprises.
Intermediaries	Many mentors and advisers who are well-respected by the community working to give back across all sectors, demographics and geography. A presence of effective, well-integrated accelerators and incubators.
Network density	A well-connected community of start-ups and entrepreneurs along with engaged investors, advisers, mentors and supporters.
Government	Strong government support for and understanding of start-ups' significance to economic growth. Supportive policies should be in place covering taxes, bankruptcy laws and investment vehicles.
Talent	Broad and deep talent pool of competences for employees in all sectors. Universities should be connected to community of start-ups.
Support services	Professional services are appropriately priced, accessible, effective and integrated into the start-up community. These include legal, accounting, real estate, insurance and consulting.
Engagement	Large numbers of events for entrepreneurs to connect with authentic participants, for example, pitch days, start-up weekends, boot camps and competitions.
Companies	Large companies should create links, programmes and departments to enable cooperation with high-growth-start-ups. These linkages could be through participation of start-ups in the supplier programmes to large companies whereby start-ups supply key components.

Capital	Strong, dense and supportive community of venture capitalists, business angels, seed investors and other forms of financing available should be accessible across all sectors, demographics and geography.

Source: Adopted from Stam (2015) and Feld (2012:p.186).

3.4.2   Relationships between entrepreneurial ecosystem attributes

According to Spigel and Stam (2016:51) group attributes such as those highlighted in Table 2.5 above can be categorised into three, namely cultural, social and material. Spigel (2017) argues that these three categories explain the levels of entrepreneurial activity as outputs of entrepreneurial ecosystems. For example, the first category of cultural attributes includes supportive culture and histories of entrepreneurship; the second category of social attributes includes worker talent, investment capital, high-value information networkers, mentors and role models; and the third category of material attributes includes policy, governance, universities, physical infrastructure and open markets.

Stam and Spigel (2017:50) argue that these categories are not isolated from one another but rather work together to create and reproduce relationships. For example, networking programmes that are sponsored by regional governments (material attribute) depend on the existence of knowledge-sharing networks within the same region (social attribute), which require an effort of business networking and knowledge sharing to be legitimised within a local culture (cultural attribute). The operation of the networking programme by government in this context strengthens and reproduces social and cultural attributes by assisting in creating new ventures that view networking with other entrepreneurs as a normal business activity. These relationships are illustrated in Figure 3.2 below.
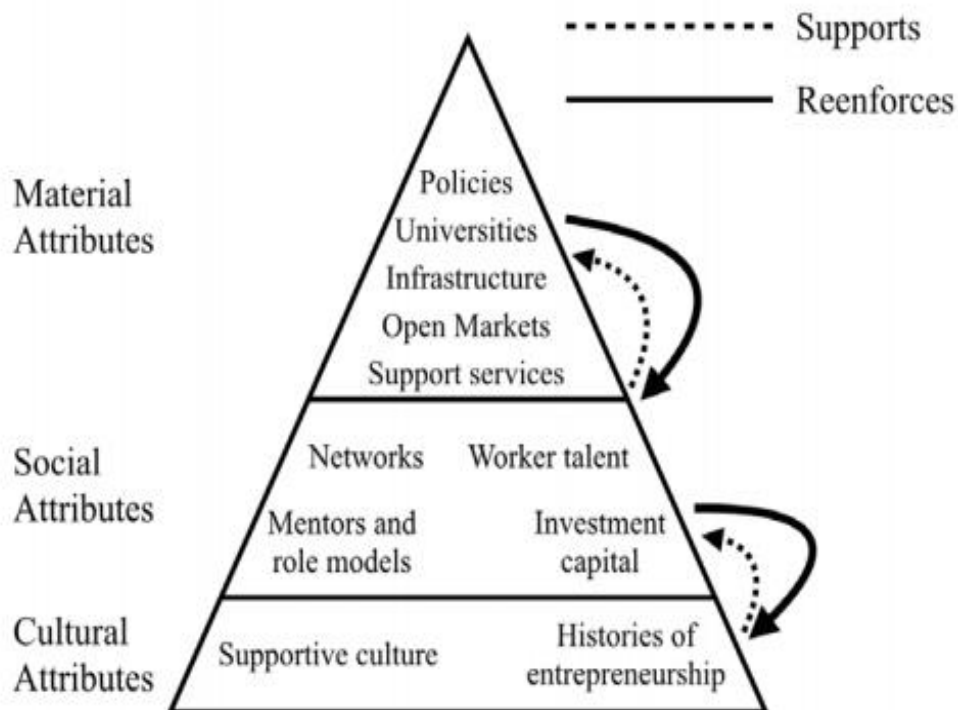
Figure 3.2 Relationships between entrepreneurial ecosystem attributes
Source: Spigel (2017:51).

To integrally bring together all aspects of the entrepreneurship ecosystem, elements of the entrepreneurial ecosystem can be distinguished in one model. This comprises the following: (i) framework conditions, (ii) systemic conditions, (iii) outputs, and (iv) outcomes, according to Brown and Mason (2017:5). Using insights from extant literature, a model can be created with more causal depth, with four ontological layers, for example, framework conditions, systemic conditions, outputs and outcomes, which include upward and downward causation and intra-layer causal relations.

According to Brown and Mason (2017), upward causation reveals how fundamental causes of new value creation are mediated by intermediate causes, while downward causation shows how outcomes and outputs of the entrepreneurial ecosystem feed back into the system conditions. The authors argue that intra-layer causal relations refer to the interaction of different elements within an ecosystem and to how different outputs and outcomes might interact.

3.5   Resource-Based View Theory (RBT) and Resource Dependency Theory (RDT)

This study is informed by the RBT, which is compatible with the suggestion that a firm's growth is the result of its acquisition and effective management of resources using its competitive advantage (Fuerlinger, Fandl & Funke, 2015). The RBT is relevant to this study as it concurs with Ehlers and Lazenby (2010:p.114), who argue that resources can help organisations to achieve a competitive edge in terms of assets, for example, tangible and intangible assets as well as organisational capabilities. Tangible resources include a good financial standing or situation and the materials, equipment and technology that an organisation possesses (Myers, Hulks & Wiggins, 2012:p.200). According to Ehlers and Lazenby (2010:p.120), intangible resources can be categorised as the type of employees in an organisation and the kind of reputation it has among its customers. Organisational capabilities are in the form of processes, talents, competences and skill sets that process their inputs effectively and efficiently into final products that are readily acquired by customers.

Unique combinations that result in offering a superior value to the customer are consistent with Schumpeterian theory (Schumpeter, 1936:p.400). At the same time, various theoretical traditions have implications for the highest intentions towards the entrepreneurial ecosystem and entrepreneurial growth of a firm, for example, self-efficacy theory, which emphasises the role of the entrepreneur's capability, and systems theory, which views the business as an open system with varying levels of combinatorial complexity and information exchanges (Petrovic, Kittl & Teksten, 2001).

In emerging economies such as Botswana and many more in sub-Saharan Africa, SMMEs often cannot afford to hire experienced and highly qualified personnel due to lack of financial capital (Ehlers & Lazenby, 2010:p.114; Myers, Hulks & Wiggins, 2012:p.120). Therefore, it is important for owner/managers of SMMEs to maintain partnerships or collaborations so that they improve their competitive edge, since the internal activities of their organisations depend on the external environment, while the external environment depends on the organisation for products and services (Ehlers & Lazenby, 2010:p.114; Myers, Hulks & Wiggins, 2012:p.120).

3.5.1   Resource-Based Theory (RBT)

The RBT asserts that the competitive advantage of a firm lies in effective and efficient usage of resources and in its capabilities (Barney, Ketchen & Wright, 2011; Penrose, 1959; Lippman & Rumelt, 1982). Whereas RBT is mainly used to analyse and emphasise the importance of resources, it also analyses existing resources inside small businesses in developing a competitive advantage and growth by acknowledging that SMMEs are not always endowed with resources, an important factor in explaining why SMMEs should network. According to Colombelli (2015:p.110), such SMME start-ups enjoy opportunities for external funding for growth.

Barney, Ketchen and Wright (2011) argue that resources are viewed in a broader context, which includes non-financial resources, for example in the creation of employment, where the firm is viewed as an input combiner and efficiency seeker. Thus, its success depends on the environment in which it operates and how it interacts with other actors in the environment. The authors argue that the better the environment and efficiency with which resources are combined in production and distribution, the better the growth expected, and vice versa.

According to Barney, Ketchen and Wright (2011), the tenets of the RBT of the firm include core constructs of value, rareness, imitability and organisation (VRIO), which achieve a sustainable level of competitive advantage. Barney, Ketchen and Wright (2011) note that RBT can predict organisational success through strategic resource management using the perspectives of value VRIO (Abdalkrim, 2013; Barney, 1995). For example, the construct of value entails that adding value requires abilities to recognise, respond to and create value through increased differentiation or reduced production costs (Abdalkrim, 2013; Barney, Ketchen & Wright, 2011). The authors argue that value is not always timeless, since previously created value becomes obsolete as technology, laws, currency and other variables in the environment change.

For rareness, within an entire industry only a small number of firms are rare, according to Wernerfelt (2013) and Barney, Ketchen and Wright (2011). The authors argue that firms are not rare when competitive parity exists and many heterogenous firms share the same resources and capacities. Wernerfelt (2013) adds that even when

competitive parity exists, those endogenously small differences accumulate and grow into larger differences originating within individual firms.

For imitability, Abdalkrim (2013) and Barney, Ketchen and Wright (2011) state that businesses are imperfectly imitable when they can be sustained over time without duplications by competitors, are non-substitutable and without strategic equivalents.

Lastly, organisation in RBT contends that resource management affords opportunities to obtain sustained competitive advantages (Wernerfelt, 2013; Barney, Ketchen & Wright, 2011). This means that the VRIO of a firm's resources and capacities rely on integration and not isolation (Feld, 2012:p.90; Stam, 2015:p.15; Barney, Ketchen & Wright, 2011).

3.5.2 Resource Dependence Theory (RDT)

Contrary to the RBT, the resource dependence theory (RDT) posits that SMMEs can access the necessary resources for growth by leveraging external trade relationships (Hessels & Parker, 2013:pp.138-139). The RDT further explains that firms enter into coalitions to influence and control insiders' behaviour and also in order to make the most of resources, whenever the resources used are owned by others, in a way that allows maximisation of their independence and control. Feld (2012:p.90), Stam (2015:p.15), Barney, Ketchen and Wright (2011) and Hessels and Parker (2013:pp.138-139) concur that both theories, namely the RBT and RDT, may be relevant to those SMMEs that internalise growth.

3.5.3 Social Network Theory (SNT)

Network-building is defined as a process that involves individuals interacting with others to establish a network of cooperative relations, according to Mullins (2010:p.828). These networks are outside the formal structure of an organisation. Daft (2014:p.436) adds that a leader or employee with many relationships knows what is going on in the company and industry, whereas one who has few inter-personal connections is often in the dark. Additionally, Hurry (2012:p.4) concurs that SMMEs by default will collaborate because they themselves do not possess all the resources to engage in continuous innovation. Surin and Wahab (2013:p.55) and Sahara, Abdul-

Aziz and Jafaar (2009:103) posit that it is essential for SMMEs to build reputation-enhancing external relationships with their outside sources that can help them to provide information, ideas and access to finance and technology. Thus, social network theory can be described as relationships and connections in a social structure. The application of this theory to SMME start-ups is yet to be considered; it may influence small firms as a catalyst for their growth.

Social networks are increasingly important to entrepreneurs because they provide firms with access to markets, ideas, business opportunities and other resources (Fang, Tsai & Lin, 2010; Lee & Jones, 2008; Brunnetto & Farr-Wharton, 2007; Taylor & Thorpe, 2004; Birley, 1985). According to Danis, de Clerq and Petricevic (2011), networks and collaborations can be in the form of social contacts of people who the individual knows or who are known by people the individual knows. Social contacts are important to SMMEs in emerging markets because they help them in getting access to knowledge and to modern technology (Daft, 2014:p.436; Hurry, 2012:p.4; Danis, De Clerq & Petricevic, 2011).

One result of social networking is the development of social capital, which consists of resources individuals obtain from knowing others, being part of a network with others or merely being known to others as having a good reputation (Nahapiet & Ghoshal, 1998:p.107). Role models can be defined as those individuals whose example is what an entrepreneur aspires to and copies (Hisrich, Peters & Shepherd, 2013:p.19). Role models serve in a supportive capacity as mentors during and after the successful launch of a new venture. The support system is most crucial during the start-up phase as it provides information, advice and guidance on matters such as organisational structure, obtaining financial resources and marketing.

According to Anderson, Park and Jack (2007:p.265), it is through social relations, social interaction and social networks that entrepreneurship is carried out. It is clear from the literature that an entrepreneur's network can influence the performance of his or her business (Brunetto & Farr-Wharton, 2007; Hoang & Antoncic, 2003; Taylor & Thorpe, 2004; Gulati, Nohria & Zaheer, 2000). The result is that networks are related to the survival and growth of new firms (Brüderl & Preisendorfer, 1998).

3.6   Conclusion

The entrepreneurial ecosystem approach provides a framework for integrating insights from academic literature on regional entrepreneurship, which includes valuable novel contributions such as building up from the level of the entrepreneur in order to better understand the context of the entrepreneurship (Acs, Autio & Szerb, 2014:50). The approach gives clues to identify the weakest links that limit performance of the entrepreneurial ecosystem.

Thurik, Stam and Audretsch (2013:130) argue that the approach feeds the shift in entrepreneurship policy from quantity to quality of entrepreneurship, thus creating a context or a system in which productive entrepreneurship can flourish. According to Baumol (1993:p.30), the term productive entrepreneurship refers to entrepreneurial activity that contributes directly or indirectly to net national outputs of the economy or to the capacity to produce additional output. Thus, entrepreneurial activity creates aggregate welfare increases. Davidsson, Delmar and Wiklund (2006) adds that productive entrepreneurship might also include failed enterprises that have provided fertile breeding ground for subsequent ventures, thereby creating a net social value.

Ritala and Almpanopoulou (2017:p.42) conclude that the term entrepreneurial ecosystem creates areas for future research. Additionally, Feld (2012:p.160) opines that the role of governments may enhance entrepreneurial ecosystems from a supportive role, rather than from a leadership role. Feld (2012) avers that a holistic approach by governments, given their knowledge of local conditions, places them at an advantage in terms of focusing their interventions on productive and high-growth entrepreneurship.

CHAPTER FOUR

GOVERNMENT INCENTIVES AS AN INSTRUMENT OF SUSTAINABLE ENTREPRENEURIAL GROWTH OF SMMEs IN BOTSWANA

4.1   Introduction

The preceding chapters discussed different theories pertaining to SMMEs, entrepreneurial ecosystem and government incentives constructs. The literature discussed in these chapters helped in framing the approach to support research objectives. For example, the role of an entrepreneurial ecosystem in promoting sustainable entrepreneurial growth of SMMEs was discussed. The growth of most new ventures has been found to depend on other factors beyond the business itself, such as the surrounding ecosystem, according to Fuerlinger, Fandl & Funke (2015:pp.1,2), Autio and Levie (2017) and Mason and Brown (2017:p.45). Regaldo et al. (2013:5) concurs with Fuerlinger, Fandl and Funke (2015), arguing that there are two logics to creating entrepreneurial ecosystems: firstly, government entrepreneurial support, and secondly, capitals such as human and social capital through personal and business networks that create new ventures by constant recombination of ideas. Cavallo, Ghezzi and Balocco (2019) and Cavallo, Ghezzi and Rossi-Lamastra (2020) conceded that relationships between components of an entrepreneurial ecosystem have been under-remarked to date.

Similarly, the purpose of this chapter is to align it with the research objectives, which focused on establishing the role of government incentives in sustaining the entrepreneurial growth of SMMEs. Details of information inside the sections of this chapter address the stated research objectives and questions. The chapter presents an opportunity to evaluate how governments in a network of actors, influence the attractiveness of an ecosystem. Up to now, the role of the state has been under-studied in the literature (Cavallo, Ghezzi & Rossi-Lamastra, 2020; Cavallo, Ghezzi & Balocco, 2019; Acs et al., 2016).

Chapter 4 is organised into eight sections. Section 4.1 introduces the second main construct of the study, namely government incentives. Section 4.2 provides a background of barriers to the entrepreneurial growth of SMMEs. Section 4.3 outlines the promotion of entrepreneurship by governments to revitalise the entrepreneurial spirit by embarking on entrepreneurship development programmes, termed entrepreneurial support. The growth of SMMEs through provision of financial as well as non-financial support embodies the spirit of enterprise development. Section 4.4 discusses the concept of government incentives and their types, namely direct, indirect and financial interventions. Section 4.5 discusses types of government incentives, including the role of government venture funds (GVFs), such as CEDA in Botswana, and their new models in the markets. Section 4.6 presents theories in the literature that support government incentives in sustaining entrepreneurial growth, for example the theory of the firm and its principal agency relationships and costs, the McClelland achievement motivation theory and marginalisation theory. Section 4.7 identifies conceptual frameworks for analysing government programmes and policies, for example in the context of Botswana. Section 4.8 concludes the chapter.

4.2   Background of barriers to entrepreneurial growth of   SMMEs

There are several barriers to entrepreneurial growth, which organisations should guard against (Bartlett and Bukvic, 2001:p.180). These barriers include but are not limited to the following: institutional barriers, barriers due to external market position, financial barriers, internal organisational barriers and social barriers. Reduced chances of success of a start-up are made even lower by barriers to market entry. Stangler and Bell-Masterson (2015) classify barriers to market entry as institutional and social. Stangler, Dane and Bell-Masterson (2015:30) define institutional barriers as formal, cultural, government legitimacy, laws, financial markets and lending institutions.

4.2.1 Institutional barriers

Institutional barriers emerge from formalised bureaucratic arrangements such as government regulations that dictate how SMMEs may interact with their stakeholders (Bartlett & Bukvic, 2001:p.180). This challenge is realised in both emerging economies as well as in developed countries, even though institutional barriers are regarded as a high-risk factor for economic development. Institutions are defined as constraints,

usually determined by humans, that are aimed at guiding the behaviour of individuals. In other words, institutions can be defined as rules of the society. Similarly, Leyden and Link (2015:14) define institutions as the rule of the game in any given society that shape the way societies evolve over time.

Rapid knowledge adoption is necessary for start-up SMMEs in order to overcome both the liability of newness and the liability of smallness (García-García, García-Canal & Guillén, 2017:p.97), and government and public institutions play a crucial role in an entrepreneurial ecosystem by encouraging or inhibiting entrepreneurial growth through regulation, taxation, political stability, level of education, employment legislation and engaging economies in the global community (World Bank Group, 2016:p.7).

Isenberg (2014) argues that public institutions and governments invest funds to create incubators and other intense technology-driven hubs such as Tech City in London (United Kingdom), Start Up in Chile, Zhongguancun Science Park in Beijing (China), Paris-Saclay (France), The City in Berlin (Germany), Skolkovo in Russia and Technology Security Park in Israel. According to Isenberg (2014), a common factor in all these examples is the complex set of relationships and learning interactions among actors such as enterprises, institutions, investors, experts, universities and creative talent. Isenberg posits that development of such entrepreneurial ecosystems as given above is based on the ability to 'pull' resources and networks of relationships characterised by physical co-location and industry proximity.

4.2.2 Barriers internal to the firm

Reynolds, Storey and Westhead (1994) argues that owner/managers struggle to hand over control of business functions to professional managers, leading to a key internal constraint on the growth of the SMME. Other key internal barriers to growth are identified as human resources management, labour-related restrictions and conditions of employment. Dismissal of less productive staff and layoffs may also inhibit the growth potential of an SMME, according to Reynolds, Storey and Westhead (1994).

4.2.3 Financial barriers

Several financial barriers affect SMMEs in both the short run and long run, namely high cost of credit, lack of venture capital, bank charges or fees and high collateral requirements (Pissarides, 1998). Underdeveloped capital markets often force SMMEs to rely on self-financing or even borrowing from friends and family as a last resort. Spigel and Harrison (2018) and Spigel (2017) argue that possible limitations that exist in the entrepreneurial ecosystems described above are twofold: firstly, not all the resources required to develop an entrepreneurial initiative may be co-located in the same region, and secondly, different entrepreneurial initiatives require different types of support according to their stage of development. Such factors are an obstacle to the total replication of successful models in other regions and contexts (Acs et al., 2017; Stangler, Dane & Bell-Masterson, 2015:p.307).

Advocates for private sector and citizen support in addition to government involvement, such as Spigel (2017:p.18), Mason and Brown (2017:p.50), Goel and Rishi, (2012:p.55) and Feld (2012:p.60), describe the important role of the state in the entrepreneurial ecosystem as being twofold: firstly, financing and state sponsorship of technologies through high-level investment or development banks, and secondly, governments' role in ecosystems with less maturity in venture capital funding, which provides capital to close the financing gap and allows start-ups to expand their production and increase their reach in the market.

4.2.4 Social barriers

Issues related to trust play a vital role in building or destroying the social barriers of business (Bartlett & Bukvic, 2001:p.180; Reynolds, Storey & Westhead, 1994; Pissarides, 1998). Scholars argue that trust is subject to beliefs, culture and social status, which in turn affect how partners in a business perceive each other. According to Roundy, Brockman and Bradshaw (2017:p.10), public policy initiatives play a critical role in generating economic prosperity in the face of uncertainty, especially as innovative public policy. Cavallo, Ghezzi and Rossi-Lamastra (2020) and Cavallo, Ghezzi and Balocca (2019) opine that support by government goes a long way in encouraging not only necessity entrepreneurship but also opportunistic entrepreneurship by guiding various types of entrepreneurs to form productive

ventures. The role of governments is essential in promoting entrepreneurship throughout the world; however, many studies show that the fundamental and general questions of how, and if, governments can positively influence entrepreneurial activity is far from being resolved (Stam & Spigel, 2016:90; Cavallo, Ghezzi & Rossi-Lamastra, 2020; Mazzucato, 2015:p.50).

Brown and Mawson (2019) see the success of any entrepreneurship programme as subject to the design and ultimately the implementation of the programme. Brown and Mawson (2019) argue that most government programmes influence the knowledge acquired but not practised; thus, government programmes do not translate into new venture creation and most importantly do not increase incomes. The importance of government entrepreneurial support and environmental conditions for economic activity is underscored by the argument that governments are formal institutions that play a major role in reforming the environments through such initiatives as promulgating bankruptcy laws and regulations that are entrepreneurial-friendly (Spigel, 2017:p.50). Spigel argues that there is a relationship between higher levels of entrepreneurship and greater economic development, suggesting that firm-creation rate (start-ups), instead of existing firms' growth, drives economic growth. The net effect of government entrepreneurship programmes and policies on the development of an economy, especially the positive impact on economic growth, has been highlighted by numerous scholars (Acs et al., 2017:p.10; Spigel, 2017).

4.2.5 Rate of entrepreneurial activity of countries around the world

GEM (2016:p.8) states that factors such as low government corruption, credit availability, sound monetary and fiscal policy, high foreign direct investment, contract law enforcement, low regulation and low taxes are associated with higher rates of entrepreneurial activity. GEM (2018) points out that different factors influence measures of entrepreneurial activity, such as the creation of new firms, patents and trademark development. For example, according to GEM (2018), government corruption is more harmful to the creation of small firms such as SMMEs than to larger firms. At the same time, sound monetary and fiscal policies and credit availability have less influence on patents and trademark production activities. Therefore, the success of entrepreneurial activity depends on the environmental system and conditions in

which the initiatives themselves are conducted, that is, an entrepreneurial ecosystem. Examples of the positive impact of an entrepreneurial ecosystem in supporting the conceptualisation, development and growth of entrepreneurial projects have been created by leading companies such as Hewlett Packard, Google and Apple in Silicon Valley in the United States. In other parts of the world, such as Bangalore in India, examples of thriving entrepreneurial ecosystems are InfoSys and Wipro.

4.3   Promotion of entrepreneurship by governments

The development of SMMEs has become a national imperative among many governments in emerging economies (Timm, 2011). For example in Brazil, the government, private sector and various institutions formed an SME body called SEBRAE, which has been central to the successful SME campaign. Similarly, in India, Khadi and Village Industries Corporation Limited assists small business development. According to Small Business Researchers (2017), numerous initiatives over the past 15 years aimed at both high-end enterprise development and micro enterprises, government support agencies and initiatives have been less successful than intended. Heemskerk (2005) points out that formal financial intermediaries such as commercial banks are unwilling to serve poor households and micro enterprises due to the high cost of transactions, lack of basic requirements for financing, lack of collateral and geographic isolation.

Presently in Botswana, government entrepreneurial support such as the Integrated Support for Arable Agricultural Production (ISPAAD), and others, are failing to counter decreasing annual growth rates in national output (MADFS, 2018). The annual growth rate in national output has declined from 7.5% during the period between 1980 and 1990 to the current figure of 3.8%, according to the MFED (2017), the Southern Africa Development Community (SADC) (2017) and UNDP (2015). The unsustainable performance of the agricultural sector, which has remained below 5% since the discovery of diamonds in 1969, has led to sharp declines in farm incomes and consequently living standards on farms (FAO, 2018; Bank of Botswana, 2017). The agricultural sector has suffered due to policy and programme inconsistencies, and the failure of the small-scale farmer can be attributed to lack of infrastructure, training and

policies that support initiatives to add value by the small-scale farmer (Ogundari & Awokuse, 2016:2).

Agriculture can be used as a way of reducing inequality among youths, women and the rural populace (Smyth, Phillips & Kerr, 2016). The evidence in the literature is not conclusive. One group of scholars (David, Dorn & Hanson, 2013:pp.1-17; Mokyr, 2010; Diao, Hazell & Thurlow, 2010) argues that a positive connection between agriculture and industrialisation exists, while others suggest a negative link between the two variables. According to van Haaften et al. (2016:p.21), agriculture occupies different roles during the different stages of economic development. Van Haaften et al. (2016:15) argue that economic development is driven by food production in low-income countries, while in high-income countries growth is driven by the movement of labour away from agricultural activities to other critical sectors, suggesting that agriculture contributes more to growth in developing than in developed economies. Productivity increases incomes for small-scale farmers, but the livelihoods of the poor are improved when economic growth becomes inclusive of more than such farmers (UNFAO, 2016).

The term agribusiness, or agro-industries, was popularised by Harvard University in the 1950s to describe the post-harvest activities involved in the transformation, preservation and preparation of agricultural production for intermediary or final consumption (Wilkinson & Rocha, 2008:p.90). Agro-industries are unique in that they are positioned between the raw material and supply dynamics of food demand. Therefore, promotion of agro-enterprise development has a positive impact on employment creation, especially in rural and urban areas, by offering market access to SMMEs (Price Waterhouse Coopers [PwC], 2017). The combined effects of employment gain and food security through improved agro-industry competitiveness can be an important strategy for reducing overall poverty in developing countries (FAO, 2017).

4.3.1 Social networks as substitutes or complements of formal institutional support

Social network ties, which can be both weak and strong, play a critical role in starting and growing new entrepreneurial ventures (Marano, Tashman & Kostova, 2017:p.390). These authors suggest that as much as social network ties are reasonably appropriate for developed countries, such ties are rather inconsistent with current realities in sub-Saharan Africa because unlike much of the western world, entrepreneurship in sub-Saharan Africa has traditionally been characterised by a critical lack of support from formal political and economic institutions (Zoogah, Peng & Woldu, 2015:p.31). Entrepreneurs seeking to start a new venture often face a chronic shortage of capital (Aterido, Beck & Lacovone, 2013:p.120), bureaucratic red tape and meagre opportunities for human and social capital development. In Table 4.1 below, the role of social network ties is further explained. Zoogah, Peng and Woldu (2015) conclude that a pervasive culture of corruption in institutions, coupled with undue regulatory mandates, often creates significant barriers to aspiring and ambitious entrepreneurs.

Table 4.1: The role of social networking in fostering entrepreneurship in sub-Saharan Africa

Entrepreneurship stage	Description of the stage	Role of the entrepreneur's social network ties
Stage 1: Opportunity Identification	This stage focuses on the process through which individuals identify and develop business opportunities using information they gather from their immediate business environment.	Idea filtering/ vetting. Idea validation. Informal channels for environmental scanning. Platforms for framing social and economic grievances as business opportunities. Mediums for economic activism.
Stage 2: Organising	In this stage, nascent entrepreneurs assume additional steps that are necessary to transform the promising entrepreneurial opportunity into a new venture start-up. Activities here include securing initial funding, obtaining training and developing a business plan.	Provision of resources. Assistance in overcoming institutional roadblocks. Bridging information asymmetry. Assisting in cultivating social legitimacy.
Stage 3: Growth & Expansion	This stage entails the active pursuit of market expansion by the entrepreneur via serving additional customers and diversifying the scope of the firm by starting new products and services.	Medium for the redefinition of business purposes and scope. Means of social validation that attract formal institutional support.

Source: Author's own compilation using extant literature.

Marano, Tashman and Kostova (2017:p.400) believe that enterprises can be created as a result of government policies, while others can precede government policy. The authors also argue, however, that enterprises started in response to government policy

are likely to be aligned with formal institutions. Thus, their social network ties are less likely to be substitutes for other informal networks, and social capital will be complementary.

4.4 Government initiatives to support Small, Medium and Micro Enterprises (SMMEs)

Most governments have tried to stimulate and encourage small businesses and enterprise development by creating and supporting financing schemes that alleviate the present market deficiencies (Economic Development Department, Government of South Africa, 2014). In the United Kingdom, the Small Loans Guarantee Scheme involves the government underwriting or guaranteeing a percentage of the loan made to a small firm by a commercial bank to fund a viable project that would otherwise not qualify for debt finance on commercial terms (Mason & Harrison, 2013; Storey, 2011). Similarly, in South Africa the Small Enterprise Finance Agency (SEFA) provides finance directly to small businesses that cannot access private sector funding through simpler procedures aimed at improving processing time and pricing of services (Department of Trade and Industry (DTI), Government of South Africa, 2019).

4.4.1 Grants and subsidies

Grants and subsidies are generally defined as incentives (WEF, 2017:p.5; OECD, 2016). According to OECD (2016), government incentives are a source of debate amongst academics, economists and researchers. Subsidies are often regarded as a form of protectionism or trade barrier since they make domestic goods and services artificially competitive against imports. OECD (2016) adds that on one hand, some scholars view government incentives as a positive welfare instrument, arguing that there are many cases where subsidies have increased both local and national economic welfare. On the other hand, other scholars argue that subsidies are unlikely to increase local economic welfare and in fact diminish the national economic welfare.

The OECD (2015, 2016) defines a subsidy as a measure that keeps prices for consumers below the market levels or keeps the prices for producers above market levels, and thus it reduces costs for both producers and consumers by giving direct or indirect support. Subsidies can be direct, such as cash grants and interest-free loans,

or indirect, such as tax breaks, low-interest loans, insurance, depreciation write-offs and rent rebates. Government intervention in stimulating the diffusion of entrepreneurship is legitimised by the roles that new firms play in job creation and the diffusion of innovation within a territory (WEF, 2017:p.5). According to Schumpeter (1936, cited in WEF, 2017), new ventures are created by a constant recombination of ideas, talent and capitals embedded in a supportive culture of community.

4.4.2 Policy instruments

Entrepreneurship policies are growing in utilisation, thus warranting greater attention and understanding than in earlier studies (Cavallo, Ghezzi & Rossi-Lamastra, 2020; Feld, 2012:p.60). A profound shift in government policy towards business occurred in the 1990s when new policy agendas designed to promote entrepreneurship activities came to the fore, unlike in the beginning, in the late 1800s, when public policy towards business was preoccupied with harnessing the market power of large corporations through a triad of policy instruments such as regulation, anti-trusts and government ownership (Brown & Mawson, 2019; Brown et al., 2018; Feld, 2012:p.60). Scholars argue that governments in the modern era should not overestimate their own potential to create a self-sustaining entrepreneurship ecosystem but should act as a supporting force (feeder) rather than leading the movement; thus, governments and regulatory bodies can either inhibit or accelerate the growth of many companies.

4.5   Types of government incentives

There are many and diverse aspects to the relationships between different arms of government and early-stage SMME start-ups (WEF, 2013:p.15). Ernest & Young Global Limited (E & Y) (2014:p.30) state that governments can create entrepreneurial ecosystems in which venture finance thrives, concluding that venture capitalists tend to focus on those SMMEs that position themselves appropriately in the market by demonstrating a growth trajectory and competent management teams. Concurring with E & Y (2014:p.30), the OECD (2016) identifies three types of government programmes, namely : 1. direct supply of capital to venture capital firms or small firms, 2. financial incentives for investing in venture capital funds or small firms, and 3. regulations controlling types of venture capital investors.

The OECD (2016) further states that direct supply of capital to venture capital firms or small firms is the most high-profile and high-risk path of providing financial resources to venture capital firms or small firms, since capital is provided as equity investments and low-interest loans.

Financial incentives for investing in venture capital firms or small firms are more widely used and are intended to stimulate private sector investment (Isenberg, 2014). Scholars argue that these types of incentives take the form of tax deductions or tax credits, guarantees of loans taken out by venture capital firms or small start-ups and guarantees of equity investments made by venture capital firms. Investor regulations in OECD countries (OECD, 2016) are broad and include pension funds, which are permitted to make venture capital investments. E & Y (2014) states that financing instruments are in the form of a variety of short-term and long-term loans. Short-term mechanisms comprise lines of credit, commercial bank loans and floor planning, whereas long-term mechanisms include instalment loans, term loans, discounted instalment contracts and character loans. According to E & Y (2014), debt financing comprises non-bank sources such as finance companies and trade credit.

Scarborough and Zimmerer (2006) add to E & Y argument (2014) that equity financing can be obtained from personal investments, which include the entrepreneur's stake in a business, or a venture capitalist (VC) in the form of business-angel financing, or specialist venture capital firms which exist privately or as state-sponsored.

Table 4.2: Stages of business development and financing instruments.

STAGES OF BUSINESS DVELOPMENT	START-UP FIRMS	GROWTH FIRMS	MATURE FIRMS
	No demonstrated track record; minimal business system development.	Demonstrated product potential on small scale or prototype basis; proven management team; rapid business system development.	Stabilisation of competition; development of sophisticated business systems; increasing concentration on cost economies.
STAGES OF FINANCE	EARLY-STAGE FINANCING	LATER-STAGE FINANCING	MATURE AND LATE-STAGE FINANCING
	Seed finance – relatively small amount of capital provided to an entrepreneur to develop and prove a concept.	Second-stage finance – working capital provided for the initial expansion of the company.	Turnaround finance-financing provided for companies in trouble for bankruptcy or reorganisation purposes.
	Start-up finance – financing provided to companies for product development and marketing.	Third-stage finance-financing provided for major expansion of a company whose sales volume is increasing.	Management/ leveraged buy-out – financing provided for management to acquire equity interest in a firm.
	First-stage finance-financing provided to companies to initiate commercial manufacturing and sales.	Bridge finance- financing provided for a company expecting to go public within six months to a year.	Mergers/ acquisition/privatisation – financing provided to cover the firm's share of costs in a merger, acquisition or privatisation of a company

Source: OECD (2016)

4.5.1 Role of Government Venture Capital (GVC) funds and their performance in the market

Many governments around the world have set up government venture capital (GVC) with the aim of fostering the development of the private venture capital industry and to alleviate the equity capital gaps of start-ups (Colombo, Cumming & Vismara, 2016:p.15). Some researchers argue that government subsidies, grants and other incentives should be considered together with impediments such as taxes on well-

functioning venture capital markets because such impediments drive down profits in the venture funding industry and therefore reduce the welfare of players. Further suggestive and indirect evidence that public funding crowds out the venture capital market is advanced by Hellmann, Marco and Manju (2011). The results of their study suggest that small or medium grants for domestic plants do not crowd out private spending. Small amounts of funding by government even create additional effects, but very large grants may be used to finance research and development activities that would have been taking place anyway.

Conversely, there are many studies (Colombo, Cumming & Vismara, 2016:p.24) that are associated with the positive impact of government venture funding. The goal of the present research is neither to defend nor dismiss the crowding out effect, but rather to highlight new perspectives on structuring GVFs, which would prevent any squeezing out effects in future.

Venture capitalists in emerging markets are adopting a systems approach to investing in underdeveloped innovation ecosystems, whereby firms are expected to generate revenues before they exit the investee company (Govindarajan, 2011). Cole (2012) cites risks encountered in emerging markets as follows: bureaucratic delays, cultural barriers, exit difficulties due to low levels of initial public offerings activity and dangers of tropicalisation, a term used to refer to copying successful business models from developed countries. For example, a study conducted in South Africa on venture capital assessment criteria concluded that the quality of the management team or of the entrepreneur was the main determinant for attracting venture capital investment (Portman and Mlambo, 2013).

A case can be made for venture capital guarantee schemes in which losses incurred from investment in SMMEs are covered by governments, as applied in the Netherlands (Kruisinga and Veerschoor, 2005). In this scheme the Netherlands government funds 50% of losses, while the remaining 50% is treated as allowable tax deductions. According to Kruisinga and Veerschoor (2005), such a provision contributes significantly to the development of thriving venture capital markets in the Netherlands.

Ambrose (2012:p.238) conducted a study in Kenya on financing strategies for SMMEs and concluded that personal savings, which constituted 87% of funding, were the most

important source of finance. Other sources comprised microfinance institutions (57%), friends and family (48%), bank loans (7%) and venture capital (2%). According to Ambrose (2012:p.234), 90% of respondents in the study lacked information about venture capitalists, which explained why venture capital funding was not embraced.

According to Colombo, Cumming and Vismara (2016:p.18), there are three categories of examination of performance of enterprises backed by GVC against private venture capital (PVC). The first category deals with those enterprises financed purely by PVCs; the second category deals with those enterprises financed with modest GVC support, less than 50%; the third category deals with those enterprises financed with substantial GVC support, more than 50%.

The poorer performance of GVCs, according to Colombo, Cumming and Vismara (2016:p.24), is associated with the treatment effect, in line with the crowding out effect, as GVC does not fund enterprises that fall below the PVC threshold for investment. However, Hellmann, Marco and Manju (2011) conclude that a modest level of GVC finance seems to improve the performance of those enterprises relative to ventures financed purely by PVC funds. Weaker performances of entrepreneurial ventures are again associated with high levels of support from GVC. The authors consider three areas of performance, namely:

- value creation,
- competitive effects (which is in line with crowding out), and
- innovation.

The poorer performance of GVC is linked with the treatment effects in line with crowding out effects, as GVC is found not to fund many enterprises that fall below the PVC threshold for investment.

4.5.2 New models in the structuring of Government Venture Funding

Recently, alternative financing instruments have emerged in the financial industry, including crowd funding and peer-to-peer (P2P) lending, according to Hobey and Gray (2014) and Mark (2013). Hobey and Gray (2014) add that P2P is leading market trends as an alternative source of business finance, despite some reservations about its

pervasive and inherent risks. A diversity of alternative financing can thrive if regulatory frameworks are conducive (Hobey & Gray, 2014; Mark, 2013).

Bertoni and Tykvova (2012:p.250) argue that syndicates between GVC and PVC investors are the most effective way to increase innovation production and outperform all other ways in cases where the private investors take the lead. Some researchers (Bertoni & Tykvova, 2012:p.250; Hobey *et al.*, 2014; Mark, 2013) believe that the syndication model is most beneficial for promoting innovation in industries. McAlery and Vermeulen (2010:p.50) identify and list advantages of corporate participation, where involvement in independent funding provides innovative, market and financial support to entrepreneurial ventures. According to McAlery and Vermeulen (2010:p.30), corporate venture capital (CVC) organisation does not depend on funds from third-party investors, which makes them less vulnerable in times of financing constraints. However, they allude to the fact that CVCs still depend on the budget of the holding company, which can be cut in times of financial distress.

4.6 Theories in support of the concept of government incentives for promoting growth of enterprises

Enterprise development (ED) is defined as those activities that are undertaken by government, private sector, enterprise development organisations, private consultants or a combination of two or more of these to accelerate the development, sustainability and financial independence of the programme beneficiaries (Raizcorp, 2011). According to Raizcorp South Africa (2011), such a process is followed by business growth, as measured by the business's financial and competitive position in the market. Raizcorp (2011) further defines ED as investing time, knowledge and capital to help SMMEs to establish, expand or improve businesses, including empowering modest income-generating informal activities to grow and contribute to the local economy. Enterprise development programmes aim to pass on knowledge, experience and business support. The following are theories that are deemed to support the concept of government incentives in the extant literature.

4.6.1 Marginalisation theory

Marginalisation theory focuses on how disadvantaged groups of the population are more likely than not to work in the informal sector (Williams and Horodnic, 2015b:7). Williams and Horodnic (2015b) found that those individuals marginalised by society, which includes for geographic, ethnic or financial reasons, are more likely to participate in the informal economy. Barbour and Llanes (2013:p.70) further argue that a variety of reasons exist why individuals are marginalised, including the following: employment status, gender, disability, literacy rates and educational background. Most informal entrepreneurs look to informal enterprises as a way of gaining resources (Taiwo, 2013:p.469).

4.6.2 Agency costs and the theory of the firm

According to Jensen and Meckling (1976:pp.306-308, as cited in Furlinger, Fandl & Funke, 2015), the concept of agency costs is defined as monitoring expenditures by the principal, bonding expenditures by the agent and residual loss. The firm is defined as the nexus of a set of contracting relationships among individuals, serving as a focus for complex processes in which conflicting objectives are brought into equilibrium.

The theory helps to explain why an entrepreneur in a firm with a mixed financial structure such as debt and outside equity would choose a set of activities for the firm so that the total value of the firm is less than it would be if the entrepreneur were the sole owner. The theory also explains why lenders place restrictions on firms to which they lend funds, and why such firms themselves suggest the imposition of such restrictions.

4.6.3 McClelland's achievement motivation theory

McClelland's theory constructs include not only hope of success but also fear of failure, and even fear of success. The expectancy-value theory of achievement motivation, developed by Eccles and Wigfield (2002), defines the constructs of ability, beliefs, expectancy for success and components of subject task values. These definitions are comparable to related constructs such as self-efficacy, intrinsic and extrinsic motivation and interest.

4.7   Frameworks for analysing entrepreneurship policies

GEM (2016) states that the ANDE (2013:p.5) model summarises research conducted on developing entrepreneurial ecosystem assessment frameworks. The model, as illustrated in Figure 4.1 below, indicates the different approaches that are used to compare entrepreneurial ecosystems according to geographical units of analysis and complexity, using several indicators. For example, the models described list extensive indicators such as the one used by OECD, which has 57 indicators; the Asset Mapping model, which has 157 indicators, and others that demonstrate a more conceptual approach but allow flexibility at the same time (GEM, 2016).
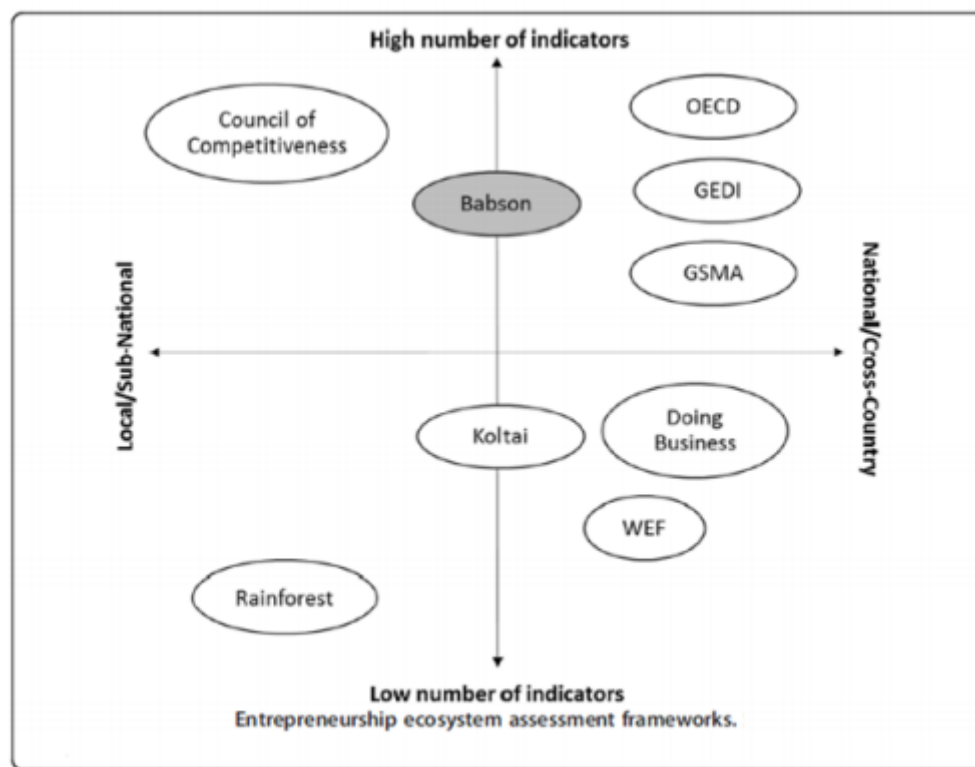
Figure 4.1 Entrepreneurship assessment frameworks

Source: ANDE (2013:p.5).

Several governments around the world, including Botswana (GEM, 2015:p.60; Gagoitseope & Pansiri, 2012:p.61; Hinton, Mokobi & Sprokel, 2006), Australia (Parker, 2010), Sweden (Henrekson & Roine, 2007; Parker, 2010), and Finland (Heinonen & Hytti, 2016:p.120; Heinonen, Hytti and Cooney, 2010) possess and run entrepreneurship development programmes and policies to meet a diversity of needs,

as stipulated by Spigel and Harrison (2018; Spigel, 2017). However, despite the existence of several entrepreneurship programmes and policies in several countries, such as those listed above, few conceptual frameworks exist to analyse entrepreneurial policies appropriately (Mason & Brown, 2017:p.55; Acs et al., 2016; Spigel, 2017). The few conceptual frameworks that have been developed to analyse entrepreneurship policies include but are not limited to the following examples:

- o the competitive model of small business policy (Heinonen and Hytti, 2016; Parker, 2010),
- o environmental munificence and carrying capacity,
- o GEM (2015) conceptual business environmental model (Acs, Szerb & Autio, 2017), and
- o policy framework (Audretsch, Kuratko & Link, 2015).

4.7.1 The environmental munificence and carrying-capacity model

Environmental munificence is defined as the scarcity or abundance of critical sources needed by firms operating within an environment, according to Thomaier et al. (2015:p.50). Resources available within such an environment influence the survival and growth of firms sharing that environment. Such resources also affect the ability of new firms to enter that environment, according to Thomaier et al. (2015:p.15). The environmental munificence and carrying-capacity model borrows heavily from RDT and organisational ecology perspectives, both of which maintain that organisations are shaped by the environment from which they arise (Woolley & Rottner, 2008:p.800). Thomaier (2015) adds that environmental munificence positively relates to carrying capacity. Thus, when environmental munificence increases, the rate of organisational formation increases as well.

This study adopted the environmental munificence and carrying-capacity model to analyse the entrepreneurial ecosystem in Botswana because of the model's view of organisations as embedded in social environments that influence their operations and performance. The model, as already mentioned, is rooted in the RDT and ecosystem (Thomaier et al., 2015:p.50). The resource dependency theory posits that SMMEs can access resources for growth by leveraging external relationships (Hessels & Parker,

2013:pp.138-139), where firms enter into coalitions to influence and control insiders' behaviour.

4.7.2 Global Entrepreneurship Monitor (GEM) policy framework

GEM data (2014) shows that globally over 250 million people are involved in early-stage entrepreneurial activity. Of these, GEM (2014) estimates that only 63 million people expect to hire at least five employees over the next five years, which shows growth expectations and inspirations of early-stage entrepreneurial ventures. This situation is viewed as representing a key dimension of potential entrepreneurial impact and may be linked to first-priority policy objectives of several economies around the world to create jobs, illustrating an entrepreneurial mindset regarding job growth across the world (GEM, 2017).

4.7.3 Hostile and benign environments

Miller (1983, as cited in Thomaier et al., 2015:p.100) laid the foundations for other research development regarding the determinants of entrepreneurial activity as innovation, risk-tasking and proactiveness. Scholars use personality factors of the leader and the structure of the organisation to come up with a model in which the nature of the organisation creates a crude relationship between those factors. They introduce two more dimensions, namely hostile and benign environments: Benign environments are described as positively correlated with the conservative strategic posture of a firm, short-term financial orientation, reliance on single customers and emphasis on product refinement, whereas a hostile environment are described as positively correlated with a small firm's organic structure, long-term orientation, high product prices and prediction of industry trends.

Micro-environmental factors such as family influence and involvement prove to be impactful on non-economic goals, and consequently influence a firm's behaviour (Chrisman et al., 2010). Klapper, Amit and Guillén (2010) state that there is a positive relation between higher levels of entrepreneurship and greater economic development, formal sector participation and better governance. They suggest that countries that have fewer market entry restrictions and less corrupt systems and that

facilitate entrepreneurship have proportional increases in overall economic growth and formal sector expansion.

4.7.4 Public policy framework in guiding entrepreneurship

Informal sector businesses in Botswana are estimated to be around 40,421, according to census reports of the CSO (2015). The ratio of businesses to the adult population, which stands at 1,454,087, is 1:52, according to the CSO (2015). There is a carrying capacity for each of the economic, physical, and social subsystems in an economy. Given the high failure rate of start-ups in Botswana, evidenced by high numbers of deregistration of companies as an indicator of a critical environmental factor (Pansiri & Temtime, 2010:p.45), carrying capacity is a major challenge for companies in Botswana, given the country's population size. Funding and general support of entrepreneurship occurs without regard to variables such as industry size, maturity, and concentration (Chrisman et al., 2010; Klapper, Amit & Guillén, 2010). Scholars argue that such types of funding will not necessarily lead to developing successful entrepreneurship, but rather will create more failing companies. While industry priority areas can be identified owing to environmental munificence, specific prioritised industries should be assessed, taking into consideration their carrying capacities.

4.7.5 The role of research and innovation

The view to addressing the current challenges and future needs of Batswana may be through the Science & Technology policy of 1998, whose objective is to achieve sustainable social and economic development (GoB, 2017). The GoB (2017) acknowledges that research, technological development, adaptation and innovation form the core elements for competitiveness, growth, job creation and general improvement of the quality of life, given the current globalised economy.

The Botswana Institute for Technology Research and Innovation (BITRI) came into being in 2012 to identify and develop appropriate technology solutions and maximise the use of local materials and indigenous knowledge to ensure efficiency and affordability (GoB, 2017). Three institutions, namely the Botswana Technology Centre (BOTEC), the Rural Industries Promotions Company (RIPCO) and its subsidiary the

Rural Industries Innovation Centre (RIIC), and the National Food Technology Research Centre (NFTRC) merged into one to form BITRI (Ministry of Communications, Science and Technology [MCST], 2005:p.60).

4.7.6 Markets-access directed programmes and bilateral / multilateral trade agreements

Acs et al. (2017) highlight the focus of studies on market-specific determinants of entrepreneurship such as profit opportunities and opportunities for entry and exit. Heinonen, Hytti and Cooney (2010:150) concur that these could be foreign markets or local markets. Market opportunities are identified as sources of entrepreneurial action; however, entrepreneurs in Botswana associate their lack of success in sales to lack of assistance in marketing (Stanbic Bank, 2016:p.55; GEM, 2015:p.65). Over the years, the GoB has thus undertaken foreign missions to international markets as well as accessed domestic markets. The GoB is a signatory to and participant in several bilateral and multilateral trade agreements that enhance entrepreneurs' access to regional and international markets (UNFAO, 2016).

Botswana is involved in several major bilateral and multilateral trade agreements; however, for purposes of this study, the following are named: the World Trade Agreement, the Cotonou Agreement, the Africa Growth and Opportunity Act (AGOA) and the European Free Trade Association (EFTA) (SONA, 2018). An opportunity for accessing international markets exists for Batswana entrepreneurs through the EFTA States Agreement and the Southern African Customs Union (SACU) States Agreement (SONA, 2018).

4.8   Chapter conclusion

The purpose of this chapter was to describe the state of knowledge about associations between government incentives in an entrepreneurial ecosystem in Botswana and sustainable entrepreneurial growth of SMMEs. This chapter provided a deeper understanding of the relationships among entrepreneurial ecosystem actors against a background of ever-changing challenges. Since present knowledge is embryonic, a

literature review of the government incentives construct was a vital component of this study, in that familiarity with previous research theories helped the study in conceptualising the problem and, later, in interpreting results and findings.

Through a literature search directly related to the research topic of this study, the researcher found that the literature on government incentives is fragmented, localised to the context of regions of the world and limited in availability. A possible reason for this emanates from the fact that the present research is unique in nature and primarily attempts to integrate areas such as entrepreneurship/entrepreneurship development, with government incentives for the sustainable growth of SMMEs. By putting together different strands of the constructs and variables, chapter 4 provides a comprehensive description of the associations between government incentives and the entrepreneurial growth of SMMEs.

CHAPTER FIVE

METHODOLOGY

5.1   Introduction

The previous chapters discussed and analysed the literature pertaining to the constructs in the topic of this study, namely background of Botswana and SMMEs as the context of the study, entrepreneurial ecosystem and government incentives for sustainable entrepreneurial growth. Therefore, there is a need for a systematic evaluation of the constructs of the topic, and related variables are examined using SEM through AMOS to provide solutions for the research questions, research objectives and hypotheses in chapter 1.   Extant literature established that the relationship between entrepreneurial ecosystems and government incentives focusing on sustainable entrepreneurial growth of SMMEs was increasingly emerging as a perspective of the RBV on institutional support for entrepreneurs (Stam, 2018:5; Spigel, 2018:10; Mason and Brown, 2018:50).

The purpose of this chapter is to describe the quantitative research design that was used to investigate the nexus of relationships between variables and constructs of government incentives in an entrepreneurial ecosystem, such as the agribusiness value chain in Botswana. A descriptive research design was a good fit for this study since it is based on a previous understanding of a problem, but concrete and conclusive evidence still needed to be collected in order to answer the research questions of this study so as to determine courses of action (Wiid & Diggine, 2015). The chosen research design for the current study underpinned the Austrian view, which provided an analytical framework for development of the concept of entrepreneurship and its different roles and scales. Growth is fuelled by capitals, but capitals alone may not drive sustainable entrepreneurial growth unless they are supported by psychological phenomena (Schumpeter, 1955; Baumol, 1996; Velde, 2001:23). The efficacy of government incentives to promote growth in the entrepreneurship ecosystem has received limited attention in most indicators of

entrepreneurial activity such as GEM (2015:pp.9-15), the Business Environment and Enterprise Performance Survey (BEEPS) of the European Bank of Reconstruction and Development (EBRD) (2019), and the GTCI (2019), thus overlooking methods in which the entrepreneurial spirit can be nurtured at a local level.

Literature on empirical studies of quantitative research designs points to a multitude of research designs in existence; however for this study, SEM using the latest version 26 IBM SPSS with AMOS was adopted as a statistical tool, since it uses a large sample size and normality of data (Hair et al., 2017:p.39). Escobar (2016) and Crossman (2018) state that SEM is a technique in which relationships can be modelled through several independent and dependent constructs in a single model.

According to Hair et al. (2019:39) and Meyers, Gamst and Guarino (2016), among several reasons and benefits of applying SEM, the following are considered to be the most relevant: (a) provision of a powerful means of simultaneously assessing the quality of measurement and examining causal relationships among constructs, (b) facilitation of assessment of direct, indirect and total effects, and lastly (c) facilitation of simultaneous analysis of all structural relationships or paths among numerous variables. Thus, SEM is a simpler approach that leads to more accurate results (Hair *et al.*, 2014; Ringle, Sarstedt and Hair, 2013).

This chapter is organised into six sections. The first section 5.1 introduces the chapter and gives a methodological overview. Section 5.2 discusses the research paradigm of the study. Section 5.3 elaborates on the research design and its subsequent sub-sections, namely the population of the study, sampling techniques, research instrument and data analysis. The conceptual model of the study, which complements the hypotheses of the study, will be shown, followed by an altered model, which was derived using SEM. Section 5.4 describes ethical considerations of the study. Section 5.5 identifies and discusses assumptions of the study. Section 5.6 summarises the research methodology of the study.

5.2   Research paradigm

Quantitative research was used due to its relevance to the research topic and objectives of the study. The basis for using quantitative research was informed by epistemological assumptions that the reality to be studied in this research was objectively verifiable and socially constructed (Coluzzi, Ferrando & Martinez-Carrascal, 2015; Aterido *et al.*, 2011). Thus, the reality to be studied needed its social mechanisms to be explored in order to understand it. Ontological assumption refers to the belief of the researcher about the reality of the research topic. The epistemological assumption concerns the nature of knowledge that exists about reality, that is, the source that provided that knowledge in terms of the epistemological focus placed on the nature of objectivity and subjectivity of the knowledge (Stam, 2018; Coluzzi, Ferrando & Martinez-Carrascol, 2015; Acs *et al.*, 2014).

The study was dominated by positivist views relying heavily on the quantitative approach (Stam, 2018; Coluzzi *et al.*, 2015; Aterido *et al.*, 2011). The quantitative approach was meant to establish whether results were statistically significant. This is compatible with the tradition of providing standardisation, generalisability and replicability of the study's results, since the study sought to confirm or reject the existence of causality relationships. RA was used to determine the effects of variables on the main constructs of the eight capitals model (Juling, Freiling & Harima, 2016:p.8). Creswell (2014:p.4) defines quantitative research as an approach for testing objective theories through examination of the relationships among variables. The author states that variables can be measured with instruments to produce numbered data, which can be analysed by statistical procedures. Creswell (2014:p.4) asserts that a quantitative approach has assumptions about testing theories deductively, generalisability and replication, and it contains built-in protections against controlling for alternative explanations.

The hypotheses for this study tested how a sustainable entrepreneurial growth indicator like size of the company represented by the number of employees as a dependent variable significantly related to government incentives, entrepreneurial orientation and ecosystem capitals. In this research, the positivist paradigm was more suitable because it provided the best way for evaluating the sustainable entrepreneurial growth, considering the changes in the indicators as demonstrated in this section.

5.3   Research design

Research is the systematic and objective collection, analysis and interpretation of data in order to address the research problem, according to Malhotra (2018) and George and Mallery (2016:p.220). Research design accordingly is the master plan that specifies the respective methods and procedures for collection and analysis of data (Saunders, Lewis and Thornhill, 2017:50). This study employed a descriptive survey, which as a method yielded quantitative information that was analysed statistically using SPSS with AMOS as a SEM programme (Hair et al., 2017b). Despite increasing interest in entrepreneurial ecosystems, existing empirical data on the metrics for studying the actors and their interconnections within these systems remains scarce (GEDI, 2017:p.17; GTCI, 2019:p.8; Acs and Stam, 2016); thus by providing an opportunity for a more holistic analysis of the relationship between an entrepreneurial ecosystem and government incentives in creating sustainable entrepreneurial growth for SMMES, the current empirical study attempts to fill the gap.

UG (2015), McDaniel and Gates (2013:p.220) and Iacobucci and Churchill (2010:p.90) state that research design describes at least the population of the study, data collection methods, design of the questionnaire, sample design and data analysis. Subsequent sections of this chapter will highlight these areas.

5.3.1   Population

According to Mugo (2002:p.1), the population is defined as groups of individuals, persons, objects or items from which samples are taken. The population of this survey consisted of agribusiness SMME owner/managers in Botswana between the ages of 18 and 65 years, whose enterprises employed no more than 100 employees, whose agribusiness SMMEs had operated in the agricultural sector and benefited from government programmes such as the LEA, LIMID, CEDA and ISPAAD. On the basis of this definition, a sampling frame made up of 600 SMME owner/managers was constructed for the study, taking into account size, sector, turnover and whether the SMME benefited from the LEA. The LEA was established by the Small Business Act, Number 7 of 2004, as a Statutory Authority of the GoB (LEA, 2013).

The LEA is the GoB's foremost entrepreneurship and one-stop venturing institution, which provides entrepreneurial and developmental support (LEA Annual Report, 2020; MITI, 2020). The LEA uses evidence-based information in its engagement with the public and private sectors across Botswana in fulfilling its mandate. Thus, a sample frame from the national database of the LEA became a master list of all samples as a given population from which the researcher drew representative samples (UC, 2017; RM, 2012). The research relied on non-probability convenience sampling as a mini-reproduction of the population. This sampling method was used due to financial constraints associated with accessing spatial geographical locations of agribusinesses in Botswana without exceeding the budget.

Details of the population of the study

A sample size of the magnitude selected for the current study was deemed about twice the statistically accepted sample size, at 95% confidence interval, and allowed an error margin of 5% (Survey Systems, 2012). In addition to the above, in this study the sample size was considered to ensure adequate coverage of the SMMEs in the entire country. Therefore, the sample size increased the power of the statistical analysis.

The SMME policy (1999) estimated the number of employees in small enterprises to be 6,000, followed by 300 employees in medium and lastly 50,000 employees in micro enterprises in the year 1999. In terms of business activity, the policy assumed that 65% of SMMEs were involved in trading, 25% in manufacturing and 10% in other sectors, which include agricultural, mining, services and tourism. Data was collected from 600 agribusiness SMME owner/managers who benefited from the LEA, through its centralised database of all trading SMME businesses countrywide (MITI, 2020). Self-administered questionnaires that contained a preamble and screening question ensured that the right respondents formed the target population of the study.

The study was granted permission by the LEA to access the national database, which consisted of a comprehensive spreadsheet of national owner/managers of SMMEs operating in the agribusiness sector (Annexure G - LEA permission letter). LEA service offerings include incubation, pre-screening, training and mentoring and funding to SMMEs. The list of those targeted by the LEA include the following characteristics: (i) size, (ii) enterprises within the agriculture sector, (iii) turnover, and

(iv) owner/managers of agribusiness-based SMMEs who benefited from the business development services of the LEA in Botswana.

Having defined the population, it was possible to construct a sampling frame. UC (2017) and RM (2012) define a sample frame as a master list of all samples in the population of the study from which the representative sample can be drawn.

Sampling

Non-probability convenience sampling was employed, whereby the sampling unit during data collection was the owner/manager of the SMME. A sample may be described as a subset or some part of a larger population (Zikmund & Babin, 2007:p.266). Therefore, a sample should be representative of the characteristics of a known number of units in the population, according to Latham (2007:2). In underscoring the above, Hair et al. (2019) and Ringle, Sarstedt and Hair, (2013) state that whenever SEM is used, a higher sample size is preferred compared to other methods. Thus, a minimum sample size of 600 would be considered as acceptable (Hair et al., 2019; Hair *et al.*, 2015; Ringle, Sarstedt and Hair, 2013). Hair et al. (2010:p.662) further posit that seven or more constructs in the SEM model are commensurate with a sample size which ranges between 300 and 500. Wolf et al. (2013:914; 918) support Hair et al. (2015,2019), stating that a ratio of cases to free parameters of 10:1 reinforces reliable observations and representation.

Inclusion and exclusion criteria for participants

Defining characteristics for inclusion were drawn from the SMME policy of 1998, in addition to other criteria, such as the following:

- SMMEs to have benefited from LEA, LIMID, CEDA and ISPAAD;
- size of the company or employment-based, for example, employing not more than 100 employees;
- turnover-based, and lastly
- sector-based, for example, SMME to belong to agribusiness sector. SMME owners in Botswana between the ages of 18 and 65 years whose organisations employ not more than 100 employees should have operated

in the agribusiness sector and have benefited from government programmes such as CEDA, LIMID, LEA and ISPAAD.

Defining characteristics for exclusion were based on the following criteria:

- SMMEs operating in the informal sector, since it existed as a sector on its own that could be studied independently. The explanation for this exclusion was that inclusion of samples from the informal sector brought with it complexity and higher costs to this survey due to the fact that informal sector participants had no permanent physical addresses;

- large enterprises were excluded since their category fell outside the definition adopted for this study, which was in line with policy on SMMEs in Botswana (Government Paper 1 of 1999); in most cases, large enterprises employed more than 100 employees; and

- SMMEs that operated outside the sector of agribusiness such as tourism, manufacturing and services.

Research instrument

A self-administered structured questionnaire that used affirmative statements as the primary instrument of data collection was delivered during March and April 2020. The questionnaire was used as a research instrument since it suited this study, in addition to its other advantages, especially the rapidity with which data was collected (Cohen, Manion & Morrison, 2000). The questionnaire used a 5-point Likert scale that was developed from the literature to incorporate constructs relating to the entrepreneurial ecosystem (Juling, Freiling & Harima, 2016:p.10), as well as to incorporate expert opinions of senior academics in the field of entrepreneurship and responses from the pilot test. A 5-point scale ranging from 1 to 5, in which 1 indicated strongly disagree (SD) and 5 indicated strongly agree (SA), was used. Closed questions that required tick-box answers using a 5-point Likert scale were formulated, since they provided a structured framework within which the strength of opinion or preferences of respondents were gauged, in addition to facilitating coding and quantification.

The questionnaire was designed to be answered by SMME owner/managers or people who had equivalent positions in agribusiness SMMEs. Follow-up visits by the

researcher to respondents' establishments were conducted to explain any ambiguous terms whenever requested by participants. Where participants could not complete the questionnaire, arrangements were made to collect and a telephone call was made to the identified agribusiness SMME owners on the representative sample list provided by the LEA, since it contained details such as physical address and telephone contacts. The questionnaire had four sections, namely (a) demographic information, (b) entrepreneur's past behaviour, (c) entrepreneur's highest intentions and attitude, and (d) entrepreneurs' perception towards the entrepreneurial ecosystem using components of the eight capitals model (Juling, Freiling & Harima, 2016). The three sections of the questionnaire measured the causal and direct effects of government incentives using respondents' (beneficiaries) statements, where respondents indicated the strength of agreement using 5-point Likert scales.

The instrument was checked for reliability by pre-testing for validity and reliability using Cronbach Alphas 0.5 to 0.6. For purposes of testing the reliability of the questions, the instrument was subjected to the Cronbach's α test, with the reliability benchmark set at α ≥0.70. Questions or question groups that fulfilled this criterion were administered. Information from the literature review was utilised to design the indicators on the questionnaire, such as highest entrepreneurial intention (HIE), past entrepreneurial behaviour (PEB) and components of the eight capitals model (Juling, Freiling & Harima, 2016:p.8).

Due to the differences in contexts such as culture, and many other conditions that originated with items that were used in this research questionnaire, pilot testing the questionnaire on SMME owners/managers who were in close proximity or located in surrounding areas to the researcher, such as those near Gaborone, was done to ensure that the questions made sense as well as to calculate the average time needed to complete the questionnaire. A pilot study was conducted prior to the main study, and those results were used for purposes such as (1) to test and refine the survey instrument, (2) to assess the reliability of the sample, and (3) to refine the procedure for administering the questionnaire.

An extensive range of factors and conditions obtained from the literature review was presented to participants who had been found to be instrumental in sustaining the entrepreneurial growth of SMMEs within an entrepreneurial ecosystem. The

respondents rated each factor of conditions according to their own usage and experience.

5.3.2 Quantitative data analysis

Sekaran and Bougie (2016) state that quantitative research uses statistical methods to test the strength and significance of relationships between two or more variables after numerical data is generated. Given that this study employed a descriptive survey, it was critical that a quantitative statistical procedure such as PCA with an Orthogonal Varimax Rotation using SPSS statistical package be performed on the survey data. Therefore, PCA as a statistical procedure, Cronbach's Alpha Coefficient and Average Inter-Item Correlation of the pilot test were conducted (IBM, 2014; George & Mallery, 2016).

Given that very little is known about the relationship between an entrepreneurial ecosystem and government incentives in creating sustainable entrepreneurial growth for SMMEs, descriptive summary statistics, along with multivariate analysis techniques including EFA, CFA, FA and SEM with the latest IBM SPSS software and add-on module of AMOS (version 26), were used to analyse the relationships of variables relating to the causal and direct effects of various factors of the government incentives on sustaining the entrepreneurial growth of SMMEs within an entrepreneurial ecosystem (Hair, Marcelo and Vijay; 2014). The authors argue that the variable to be predicted is called the dependent, outcome or criterion variable. Those variables that are used to predict the value of the dependent variable are known as independent, predictor or regressor variables (Hair, Marcelo and Vijay; 2014).

Statistical significance of the independent variables

The study empirically tested the statistical significance of each of the independent variables to determine whether unstandardised or standardised coefficients are equal to zero in the population (Eichhorn, 2014:p.60; IBM, 2014; George & Mallery, 2016). In the event where $p < 0.05$, it was concluded that coefficients were statistically

significantly different to 0 (zero). The *t*- value and corresponding *p*-value were located respectively.

Principal Component Analysis (PCA) with an Orthogonal Varimax Rotation

Hair *et al.* (2014,2017) advocate that variables be subjected under FA as a pre-requisite to data analysis for a study, prior to further tests such as EFA and CFA. FA helped to identify and reduce numerous factors of the empirical study into a summary of factors that were representative of causal relationships among sets of interrelated variables. The PCA with an Orthogonal Varimax Rotation using SPSS statistical package was performed on the survey data and further utilised to separate factors for identifying entrepreneurial ecosystem constructs (Thomas & Autio, 2013; Ketchen *et al.*, 2014), and to emphasise interdependencies among its actors.

Two or more levels were used to analyse data, namely PCA using Varimax of Rotation, in which selection of each factor or item was based on a criterion of eight value greater than one, and factor loadings greater than 40% (Hair et al., 2019; Malhotra, 2018). The analysis also used the latest version of SPSS with AMOS (version 26), in addition to other percentages of frequencies and measures of central tendency (Eichhorn, 2014:p.60; IBM, 2014; George & Mallery, 2016).

Theoretical model and hypotheses using SEM with IBM SPSS with AMOS (version 26)

Theoretical models and hypotheses were derived by SEM with AMOS (Eichhorn, 2014). Considering that the entrepreneurial ecosystem model of the current study had multi-layered features, SEM was selected as the most suitable statistical method to assess the model and to evaluate the current study's hypotheses, as depicted in Table 4.1 below.

The approach allowed the researcher to estimate relationships between observed and unobserved variables and relationships amongst unobserved variables (Hair et al., 2014; Eichhorn, 2014:p.60; IBM, 2014; George & Mallery, 2016). Scholars (Hair et al., 2019; Eichhorn, 2014:p.60; IBM, 2014; George & Mallery, 2016) argue that researchers can include continuous and categorically observed and latent variables

simultaneously, since path analysis between latent variables forms the most powerful functions of SEM. Therefore, this study showed the structural models followed by the reliability and validity of their measurements, in addition to the hypotheses put forward for SEM modelling.

Finally, a model was developed that identified paths that led to sustainable entrepreneurial growth of SMMEs. This was measured by focusing on a popular proxy acknowledged by prior scholars, namely size of the company as measured by the number of employees. This measurement was found to be more stable than financial variables which tend to be influenced by inflation. Compared to other indicators of growth, such as sales turnover and market share, employment was more objective and reflected both short-term and long-term changes in a firm (Shepherd & Wiklund, 2009; Davidsson and Gartner, 2003). Thus, growth in employment was used as an indicator of sustainable entrepreneurial growth of SMMEs in this study.

Other studies that have used employment as the dependent variable include Folster (2006; 2000) in 24 Swedish counties during the years 1976 to 1995. Employment has been used as standard measure of entrepreneurship in entrepreneurial ecosystem studies (Acs et al., 2005; Folster, 2006; Henderson, 2006).

SEM using IBM SPSS with AMOS programme (version 26) as a statistical tool for the study

Hair *et al.* (2014, 2019) argue that results produced from SEM are more reliable than those produced from conventional RA, since SEM partitions out measurement errors of observed variables, making regression coefficients representative of true relationships between variables of interest. The use of AMOS as a specialised SEM software programme in this study is due to its capacity to implement relatively easy user-friendly graphic interfaces (Malhotra, 2017; Byrne, 2016). AMOS has concise representations of models and has an advantage of extensive bootstrapping capability (Arbuckle, 2016; Byrne, 2016).

SEM is an a priori technique, meaning that the researcher specifies a model to conduct an analysis (Arbuckle, 2016; Byrne, 2016; Kline, 2005). As a multivariate statistical technique widely used in behavioural sciences over the past 20 years, SEM was representative in estimating and testing hypotheses of relations of observed and latent

variables (Hair *et al.*, 2014; Eichhorn, 2014:p.60; IBM, 2014; George & Mallery, 2016). To empirically test the research's proposed model's hypotheses, the study applied SEM with maximum likelihood (ML) estimation using the latest add-on AMOS version 26 (Arbuckle, 2016), together with the latest version 26 SPSS. The estimation method employed was ML. SEM allowed estimation of multiple associations and simultaneously incorporated observed and latent constructs and accounted for the bias effects of random measurement error (RME) in the latent constructs (Shook et al., 2004).

Moss (2016), Pallant (2011) and Meyers, Gamst and Guarino (2013) support the suitability of SEM, especially when the researcher anticipates correlating latent variables and when mediated relationships are anticipated. SEM can use three main approaches to test whether data fits the model (Hair et al., 2019:p.150), namely (i) confirmatory, (ii) alternative and (iii) generating. This study adopted the two-step approach to SEM as outlined by UC (2017), IBM (2014) and RM (2012) and as deployed in recent studies with a similar contextual setting to this study. Employing the two-step approach assured that only the constructs retained from the field survey of the study that had good measures, in terms of validity and reliability, were used in the structural model (Hair et al., 2010).

Step 1:   Determining fit of CFA

The first stage involved determining the fit of the CFA model with the observed data to assess the fit of the overall measurement model, and then examined the properties of the respective constructs. Eichhorn (2014), Hair *et al.* (2016) and Stam (2015:p.35) describe this phase as measuring underlying latent constructs to correlate freely and constrain each item to load only to the factor for which it was a proposed indicator.

By using SEM with the AMOS programme, the CFA model which used MLE was applied on three major factors to measure several fits, such as CFI, GFI and RMSEA (Byrne, 2016; Hair et al., 2019 and Kline, 2011). Threshold values in the above tests were derived, and models were revised, in order to assess their fit. Those items which were found to have low-factor loadings were omitted so that all values of CFI, NFI and

gross fit index were above the recommended threshold values, such as 0.9 and RMSEA of less than 0.05.

Step 2:   Analysis and contrasting a sequence of nested structural models

The second stage involved analysis and contrasting a sequence of structural models to obtain information concerning the model that best accounted for the covariance observed among the exogenous and endogenous constructs.

Hypotheses of the study

Sekeran (2005) defines a hypothesis as an explicit testable statement of a logical prediction which illustrates the theoretically expected outcomes when a dependent variable is influenced either positively or negatively by the changes in an independent variable. This research followed the cross-sectional survey suitable for testing hypotheses that involved measurable variables. Since the researcher tested sustainable entrepreneurial growth indicators (size of company represented by number of employees), a descriptive approach was used since it required a large sample from the study population. Moreover, the quantitative method is desirable in testing research hypotheses that comprise statistical variables.

The study results were statistically computed using SPSS with AMOS to sustainable entrepreneurial growth with a greater emphasis on the size of the company variables that are listed above. The dependent variables considered in the hypotheses included the following major sustainable entrepreneurial growth indicator frequently used to measure the growth of firms: size of the company represented by number of employees.

Therefore, the following hypotheses were tested to determine the impact of sustainable entrepreneurial growth on independent variables:

Hypothesis 1: H_1 - There is a significant statistical relationship between government incentives offered to the SMMEs in the agribusiness sector in Botswana and sustainable entrepreneurial growth.

Hypothesis 2:   H$_2$ - *There is a significant statistical relationship between entrepreneurial orientation and sustainable entrepreneurial growth.*

Hypothesis 3:   H$_3$ - *There is a significant statistical relationship between entrepreneurial ecosystem capitals and sustainable entrepreneurial growth of SMMEs.*

Dependent variable

To measure sustainable entrepreneurial growth, the measure engaged involved size of the company in terms of the number of employees. This study's strength is that few studies have used a set of these measures.

Independent variables

Elaborate indices as proposed for example by Acs *et al*. (2014) and Szerb *et a*l. (2015) do give a useful first cross-regional comparison of ecosystem quality. But such composite indices, by the way they have been constructed, have the disadvantage that they cannot be used as independent variables to properly identify the effects of ecosystem quality. It will prove even more complicated to find suitable instruments for such complex multidimensional indices if the aim was to use them as an independent variable in cross-sectional growth regressions.

The independent variables used in the study included government entrepreneurial support, type of business activity, entrepreneurial orientation, entrepreneurial ecosystem capitals and lastly gender. Therefore, to evaluate sustainable entrepreneurial growth, the variable was empirically tested using correlation, Chi-square, FA, EFA and CFA in addition to path analysis (PA) to establish the influence of the independent variables on the dependent variables. Table 5.1 below details the variables used to measure sustainable entrepreneurial growth.

Table 5.1: Variables used to measure sustainable entrepreneurial growth in this study.

Performance Variables	Identification of the variables	Measurement of the variables
Government entrepreneurial support	Questionnaires using coded items for government entrepreneurial support (C21GOVSUPP) and Business network platforms (B16NETWORK)	c_2/df (Chi-square /degree of freedom); GFI; Adjusted Goodness of Fit Index (AGFI); RMSEA; CFI; Non-Normed Fit Index/Tucker Lewis index (NNFI/TLI) and Incremental Fit Index (IFI). Additionally, correlation tests were run.
Types of business activity	Questionnaires using coded items for type of business activity (A7AgriA)	Chi-square tests of association and Crammer's V test.
Entrepreneurial orientation	Questionnaires using coded items from four key constructs of Past Entrepreneurial Behaviour (PEB) and Highest Intention (HI). Entrepreneurial orientation (B17ENTO) was a principal construct under PEB and HI.	c_2/df (Chi-square /degree of freedom); GFI; AGFI; RMSEA; CFI; Non-Normed Fit Index/Tucker Lewis index (NNFI/TLI) and IFI. Additionally, Spearman's Rho tests were run.
Entrepreneurial ecosystem capitals	Questionnaires using coded items for entrepreneurial ecosystem capitals (D2,D3,D5,D6 and D7)	c_2/df (Chi-square /degree of freedom); GFI; AGFI; RMSEA; CFI; Non-Normed Fit Index/Tucker Lewis index (NNFI/TLI) and IFI
Gender	Questionnaires using coded items for gender (A1gender)	Chi-square test for independence.
Company size represented by number of employees used as a proxy to operationalise calculation of sustainable entrepreneurial growth	Questionnaires using coded items for company size (A8SMMEclass). Entity growth as most suitable indicator for measuring sustainable entrepreneurial growth or survival was used by several other researchers (Hoy *et al.*, 1993; Brush and Vanderwerf, 1992 cited by Vijaryakumar, 2013).	Spearman's Rho correlation and cross-tabulation correlations with independent variables.

Source: Author's construction using primary data.

5.4 Ethical considerations

In undertaking this study, the researcher observed ethical considerations as stipulated by the UNISA DAM RERC. An Ethical Clearance Certificate was granted from DAM RERC prior to collecting data (Annexure A). Consent was sought from institutions, asking for their permission to conduct the study in their enterprises as well participating in the study. The researcher sought approval and was granted permission and access to a nationally representative database of agribusiness SMMEs from the LEA (Annexure F). The LEA is viewed as the foremost public institution mandated to implement SMME policy in Botswana; it also granted permission by owner/managers of agribusiness SMMEs on its national database in Botswana to participate in the study

throughout its national network of branches. In addition, a permit from the GoB was granted (Annexure G).

Human subjects formed part of this research; therefore, special care and diligence was practised in protecting participants, in line with the principles of respect in engagement (UNISA, 2019; Yin, 2014). Through written informed consent, every participant was able to decide whether to participate in the study, based on disclosed purpose, voluntary basis, anonymity and confidentiality. Special attention for precautions that needed to protect those who participated in the study was done by alerting them to the nature of the research so that communication issues did not arise.

Selected participants were sent consent forms, together with the introduction letter, for participating in this study. The purpose and objectives of the study were explained in the invitation letter soliciting their voluntary participation in the research. This allowed participants to make informed decisions about whether to participate in the study. Privacy and confidentiality of participants were protected through anonymity, pseudonyms and removal of personal identifiers. Confidentiality of all recorded information was fully maintained. Names, including those of businesses, were not recorded anywhere; code numbers and pseudonyms were used. UNISA RERC reserves the right to access the data in order to review the study. Statisticians and language editors were required to sign confidentiality agreements.

The study posed low risk; therefore, it did not pose any harm other than the routine discomfort experienced daily. Results and findings of the research are available to participants on request. Participants were selected equitably to avoid unfair exclusion from or inclusion in the study (Yin, 2014:p.78). The ethics of science are described as comprising right and wrong conduct in undertaking research (Mouton, 2003:238). Inappropriate practice in research involves describing research problems to suit a hidden agenda, compromising the research design, misapplication of statistics, fabrication of information, misinterpretation of results in order to protect a point of view and concealing information.

In order to attain the highest ethical standards (Yin, 2014), the researcher adhered to conditions stipulated in UNISA's code on research ethics expressed in the UNISA

Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment. Inappropriate issues were avoided, since the researcher adhered to ethical conduct in reporting the findings of the research. Bias was avoided (Yin, 2014:p.76) in pursuing objectives of this research.

5.5   Assumptions of the current study

Whereas the assumption that entrepreneurial ecosystems' growth and government incentives are inextricably connected is often held in studies (Spigel, 2017; Stam, 2016; Brown & Mason, 2017); entrepreneurial actors such as SMMEs and other institutions need to understand those variables that are integral to stimulating sustainable entrepreneurial growth. Given this background, the current research investigates the nexus of systematic linkages that encourage SMMEs to grow in an entrepreneurial ecosystem. The researcher assumed that the study would contribute to new knowledge and understanding of the role played by government support in entrepreneurial ecosystems with regard to the growth of SMMEs.

Given that governments from all over the world are increasingly placing entrepreneurs at the centre of their economic growth endeavours, it is important that scholars, policy-makers, decision-makers and investors utilise updated knowledge to effectively guide their interventions. Unfortunately, in several sub-Saharan African economies, including Botswana, policy-makers continue to regard SMMEs as a consequence of failure to apply conventional development paradigms, as understood in neo-classical schools of economics, resulting in viewing SMMEs as entities with immutable diseconomies (Tesfayohannes, Tessem & Tewolde, 2015:p.1)

Creditworthiness

Creditworthiness deals with non-violation of linearity and multi-linearity assumptions. The study used the VIF to test for creditworthiness of data.

Trustworthiness

Hair *et al.* (2017) argue that in quantitative research, reliability is examined by the consistency of a group of measurements or a measuring instrument, also termed internal consistency. In this study the researcher used the test-retest method, also

known as stability, to prove reliability by administering one measure to one group of individuals, waiting for a month, and then re-administering the same instrument to the same group (Hair *et al.*, 2017).

Validity

According to Ary, Jacobs, Sørensen and Razavieh (2009), validity is that ability of an instrument such as a questionnaire to effectively and reliably measure what it is designed to measure, such as the degree to which the researcher has measured what he/she has set out to measure. The technique advocates for the collection and analysis of data that originated and culminated in coherent findings.

Internal and external validity of the research design

In this study, the questionnaire was administered to the same group of SMME owner/managers after a period of one month. Test scores of SMME owner/managers using the Likert scales provided an indication of reliability of the instrument. For example, a correlation coefficient of less than 0.3 signified a weak correlation, whereas 0.3 to 0.5 was considered moderate, and a correlation coefficient of more than 0.5 was considered strong.

Validity and reliability of data-gathering instrument

Pilot testing was conducted to subject the questionnaire to tests for internal consistency, reliability and content validity. Using the Cronbach Alpha tests on the questionnaire resulted in an internal consistency of $\alpha = 0.7$; thus the questionnaire was deemed reliable enough for the study, including a VRFA of scalar of not less than 0.5, with a minimum eigenvalue of 1, a KMO MSA greater than 0.5, and finally BTS with Average Variance Extraction. These tests indicated the appropriateness of variables for FA only.

5.5.2   Study limitations

A primary limitation of the study may emanate from the fact that the study was conducted as cross-sectional research that employed non-probability convenience sampling of participants. Given this background, and as much as scales of measurements remain robust over the years, the same may not hold for

entrepreneurial behaviour and intentions, since these are known to change over time in response to situational factors. Therefore, future studies may consider a longitudinal research design.

Although a nationally representative sample of 600 SMME owner/managers was selected for this study to ensure adequate coverage of SMMEs in the country, it was a non-probability sample. Therefore, care must be taken not to generalise results to the entire population. However, the study provided hypotheses which may be tested by future research on a larger scale or using other types of data sources, namely documentary review and institutional survey.

There was limited availability of panel data, such as empirical studies, or of data in Botswana on entrepreneurial ecosystems (GEM, 2015:p.8). For example, one of the targeted institutions did not grant access to their database due to company policy.

Emphasis on rigour and reliability may be at the expense of relevant but more speculative findings. Potential methodological bias, such as risk that emanated from emphasising matters that could be observed by a specific methodology (for example, extracting main findings from quantitative analyses) is relatively easy compared to qualitative analysis, which is more difficult to synthesise.

The study focused on relational-based shared resources in ecosystems and did not consider the interactions between firm-internal strategic resources.

Results of the study may be limited to agribusiness SMMEs and therefore may not represent the entire sector, where other sub-sectors exist, such as mining, tourism, manufacturing and services. Nonetheless, the results of the study offer in-depth understanding and new knowledge of the research problems, thus contributing to ongoing academic debate on the topic.

The nature of the study required a quantitative approach, necessitating a survey of lived experiences and perceptions of owner/managers of SMMEs towards the entrepreneurial ecosystem and government incentives in creating sustainable entrepreneurial growth of SMMEs. However, high-profile participants had limited time available due to the nature of their role in their organisations.

After the ethical clearance was given by the UNISA DAM RERC, the researcher disbursed the instrument to pilot test. Future researchers could consider continuing the effort to explore other types of internal entrepreneurial shared resources in ecosystems, and their internal and external networks, by examining their interaction with firm-internal resources.

5.5.3 Delineation

Delineation defines explicitly what falls inside or outside the research or thesis statement. This study was limited to the entrepreneurial ecosystem, with exclusive focus on government incentives inside Botswana. In addition, the study focused on participants whose age ranged from 18 to 65 years who operated exclusively in agribusiness based SMMEs.

5.6 Chapter summary

The purpose of this chapter was to introduce and give an overview of the research methodology that was used in the study. A quantitative approach and descriptive research design were followed in this study to fill the gap created by a paucity of empirical studies focusing on national or regional measurement of the entrepreneurial ecosystem elements at the expense of critical local elements, such as entrepreneurial spirit, culture and historical elements.

Data was collected effectively from 537 agribusiness SMME owner/managers who benefited from the LEA. The LEA is the custodian of a centralised database of all trading SMME businesses countrywide, which informs the development of targeted support programmes and policies that benefit the SMME sector (MITI, 2020). On this basis, self-administered questionnaires containing a preamble and screening question ensured that the right respondents were part of the target population of the study. The questionnaire comprised four sections, namely demographic information, the entrepreneur's past behaviour, the entrepreneur's highest intentions and attitude towards the entrepreneurial ecosystem which captures the spirit of entrepreneurship,

and, the entrepreneurs' perception of the entrepreneurial ecosystem using components of the eight capitals model (Juling, Freiling & Harima 2016).

A 5-point Likert scale response format was applied. Scale items were subjected to validity and reliability tests in order to determine their robustness for the benchmarked values. The empirical section of the research contributed a quantitative evaluative focus of the causal and direct effects of relationships between the entrepreneurial ecosystem and government incentives in a factor-driven emerging economy such as Botswana's. Findings of the research may contribute to an entrepreneurial ecosystem framework and mapping, which may help SMMEs in implementing relevant policy incentives such as government support, to the benefit of all stakeholders.

CHAPTER SIX

DATA ANALYSIS AND INTERPRETATION

6.1   Introduction

Chapter 5 outlined the methodology adopted for conducting empirical research. Research questions, hypotheses and methodologies were discussed. This chapter uses that methodology to analyse and interpret data results of the questionnaire survey received from the owner/managers of 600 SMMEs. Data was captured on SPSS software with the add-on module of AMOS, analysed and interpreted in order to present the requisite SEM structures. Data analysis results are discussed in line with the research objectives and hypotheses of this study, as initially set out in chapter 1, and in its methodology, as set out in chapter 5.

The current chapter is divided into two main parts, comprising interlinked sections: firstly, both descriptive and inferential statistics are presented; secondly, data interpretation is explained.

Sections of the current chapter are interlinked as follows. Section 6.1 is devoted to the introduction. Pilot test results are summarised in section 6.2. Section 6.3 covers the data-gathering processes. Section 6.4 discusses preliminary statistical data analysis and preparation processes. A detailed description of demographic variables of the sample is given in section 6.5, including detailed demographic analysis, tabulation, cross-tabulation and correlations of variables. Section 6.6 analyses variables in sections B and C of the questionnaire. Section 6.7 analyses entrepreneurial ecosystem capitals through tests such as independent t-tests and Chi-square tests in order to establish relationships between variables in the research. Section 6.8 discusses SEM modelling, namely measurement model specification and structural model. Finally, the results of the structural modelling, namely measurement and structural models, are illustrated. Section 6.9 summarises the chapter.

6.2   Pilot test results

In preparation for the pilot test, constructs of the study were pre-tested by consulting with subject experts in the field of entrepreneurship such as professors, statisticians and practitioners. On the basis of inputs obtained from these consultations, coupled with extant literature, final constructs were determined and eventually selected for the pilot test. The pilot test instrument was then developed, incorporating a combination of validated scales selected from relevant studies and corrections.

A convenience sample of 90 SMME owner/managers based in agribusiness value chains from Gaborone and its environs participated in the pilot study during April 2020. These 90 owner/managers of SMMEs were excluded from participating in the main study. The main purpose was to ensure that there was internal consistency and reliability of the scales that were employed in the questionnaire, as recommended by Hair et al. (2019:p.230). Value dimensions of validity and reliability criteria of the first and second generation were examined as recommended by Hair et al. (2019:p.230); Malhotra (2018:p.699) and Crossman (2018). Table 6.1 below shows the results of the pilot test.

Table 6.1: Results of pilot test

Results of pilot test items	Number of variables	Mean	Standard deviation /Variance	Population n	Coefficient using Cronbach's Alpha	Average inter-item correlation
Section D						
D14a – D14j	10	5.4730	0.61948	64	.891	.475
D15a – D15j	10	5.0846	0.68759	64	.822	.540
D16a – D16j	10	5.0940	1.26731	64	.816	.510
D17a – D17i	9	4.6603	0.69721	64	.838	.389
D18a– D18g	7	4.7104	0.89323	64	.799	.406
D19a – D19i	9	4.6781	0.97931	64	.730	.290
D20a– D20g	7	3.7145	1.13663	64	.817	.410

Source: Author's own compilation

Table 6.1 above shows pilot test data with a mean range of constructs between 3.7145 and 5.4730 and a standard deviation (std. dev) range from 0.61948 and 1.26731. All the constructs, except for cultural capitalism (D19a-D19i), which had a Cronbach's Alpha coefficient of 0.730, indicate good internal-consistency reliability, according to Pallant (2016:8). George and Mallery (2016:p.240) argue that Cronbach's Alpha coefficients of more than 0.777 indicate an internal consistency reliability of the constructs ranging from acceptable to excellent. Although cultural capitalism's Cronbach's Alpha coefficient was less than 0.777, at 0.730, this is acceptable according to Malhotra (2018:p.277). Further, the constructs used in the pilot test as shown in Table 6.1 above showed average inter-item correlation range statistics that were sufficiently related, as advocated by Spiliotopoulou (2009:p.12) and Clark and Watson (1995:316). The decision was made to include scales and to proceed with the main study since constructs showed reliability.

6.2.1 Pilot test

Conducting the pilot test prior to the main study afforded the researcher an opportunity to re-conceptualise the objectives of the research in preparation for the main fieldwork and data analysis. According to Yin (2013:p.90), a pilot test helps to refine a researcher's data collection plans with respect to their content and procedures.

Further, it helps to identify any problems that the participants may have in understanding the questions and the validity of responses that will be received.

In the pilot test, while respondents found some questions difficult to answer, they considered the instructions to be clear and easy to understand. However, some owner/managers of SMMEs commented on the length of the questionnaire. They suggested that a shorter version would be easier to complete and might give better cooperation. Hence, after reviewing and analysing the questionnaires from the pilot study, certain questions were deleted and some refined into an affirmative form, which prevented ambiguity and misunderstanding. Some examples were used to accompany those questions where it was felt that respondents needed further understanding and clarity.

The researcher experienced some difficulties while conducting the pilot test, including the following:

- Some owner/managers of SMMEs were always busy, so the researcher was obliged to make several visits to the SMME in order to arrange a convenient time. This presented difficulties, considering the remote and rural locations of most agricultural enterprises on the sample list.

- The researcher observed that other owner/managers of SMMEs possessed no background knowledge of the subject, thus the researcher kept emphasising and repeating some points including the importance of conducting the study.

- There was some unease among some participants because they were unclear about the transparency of the study; however, the researcher produced his identity details together with accompanying introduction letters and consent forms in order to allay their concerns.

The next section discusses data analysis of current study.

6.3   Data gathering

A total of 600 questionnaires were distributed, of which 570 were returned. Data for this study was effectively collected from 537 owner/managers of SMMEs based in the agricultural sector and its segment sub-sectors who benefited from government

support programmes such as the LEA in Botswana. A sample list from the national database of the LEA was used because the LEA has a mandate to consolidate activities of various institutional support provided by other institutions such as government, parastatals, the private sector and civil service for SMMEs with a view to creating an environment for growth (LEA, 2020:p.15; BIDPA and World Bank, 2009:12). Other institutions listed in Botswana tend to have broader mandates and constituencies, thus their focus is not squarely on SMMEs, for example the Botswana Development Corporation and the National Development Bank.

Self-administered questionnaires containing a preamble and a screening question ensured that the right respondents formed part of the target population of this study. The questionnaire comprised four sections: (a) demographic information, (b) the entrepreneur's past behaviour, (c) the entrepreneur's highest intentions and (d) entrepreneurial ecosystem components of the eight capitals model (Juling, Freiling & Harima, 2016). A 5-point Likert scale response format was applied. Scale items were subjected to validity and reliability tests in order to determine their robustness to the benchmarked values. The evaluative focus was in terms of whether the entrepreneurial ecosystem components were accessible or inhibited owner/managers of agricultural sector SMMEs in Botswana from sustainable entrepreneurial growth.

Anonymity and confidentiality were guaranteed to participants. As stated earlier, a total of 600 questionnaires were distributed. From these, a total of 570 were returned. The total number of viable and effectively used questionnaires collected was 537 (see questionnaire, Annexure D). Participation in this research was voluntary, and in addition, respondents remained anonymous. Copies of the consent form and introduction letter that accompanied the questionnaire are attached as Annexures C and B respectively.

6.4   Preliminary data analysis and preparation processes

Data was analysed in primarily three levels. The PCA using Orthogonal Varimax Rotation using SPSS is recommended by Mitchell *et al.* (2000; 2002). Mitchell *et al.* (2000; 2002) recommend PCA using an eigenvalue of 1 to complement Varimax Rotation in order to confirm the dimensionality of each construct. PCA was chosen as the extraction method since it focuses on a minimum number of factors regarding

explanation to a maximum portion of total variance (Hair *et al.*, 2017; 2014). Subsequently, the chosen factors were used to generate descriptive statistics.

Descriptive statistics along with multivariate analysis techniques, including EFA and FA, were used to analyse the relationships of variables that relate to the sustainable entrepreneurial growth of SMMEs. Independent variables were regressed against the dependant measure of the entrepreneurial ecosystem. The focus of interpretations of the results was estimated coefficient, standard error T-value and significance level. Given the critical importance of data analysis and interpretation, a preliminary process was conducted. According to Malhotra (2018:p.410), preliminary data analysis and processing comprise several steps of data preparation.

6.4.1 Data preparation

In this study, each questionnaire received from owner/managers of SMMEs was checked and edited twice to ascertain viability before capturing the data, as recommended by McDaniel and Gates (2010:314). Questionnaires that were incomplete, inaccurate and unsuitable were returned to those participants of the study who had not completed them or discarded as unusable for the study. Questionnaires were discarded by the researcher if they were deemed to be incomplete by more than 10% of the scaled response items or if they failed to meet the criteria of the target population.

The questionnaire used in this study was pre-coded: Each response was assigned a specific number. Malhotra (2018:p.411) argues that a structured questionnaire can be easily pre-coded since codes are assigned to all possible answers before the fieldwork is conducted. Iacobucci and Churchill (2010:351) and Bradley (2010:p.315) define coding as the process that converts raw data into symbols and groups to enable complex meanings to be broken down by assigning a code, usually in the form of a number.

Table 6.2 below shows a summary of the coding information derived from the questionnaire used in the study.

Table 6.2 Summary of coding information

TYPE OF DATA	SECTION	QUESTION	NUMBER OF QUESTIONS
Demographical variables of the entrepreneur	A	Items 1-9	9
Entrepreneur's past behaviour variables	B	Items 10-17	8
Entrepreneur's highest intention towards entrepreneurial ecosystem	C	Items 18-25	8
Entrepreneurial ecosystem and government incentives influence on sustainable growth of SMMEs.	D	Item 26-60	35

Source: Author's own compilation

The final questionnaire used in this study was divided into four sections: section A focused on demographic information; section B addressed the entrepreneur's past behaviour; section C dealt with the entrepreneur's intentions towards the ecosystem, and section D evaluated the efficiency of government incentives on sustaining the entrepreneurial growth of SMMEs in agribusiness in Botswana. Eight capitals (Juling, Freiling & Harmia, 2016:p.8) of the entrepreneurial ecosystem were deployed to assess the causal and direct influence of government incentives on sustainable entrepreneurial growth of SMMEs.

6.4.2 Data cleaning

For the current research, the process of data cleaning involved discarding those questionnaires which were completed by owner/managers of SMMEs who were below 18 and over 65 years of age. Additionally, it involved discarding those questionnaires

completed by respondents who did not belong to the agricultural sector and its segment sub-sectors. In the instances where owner/managers of SMMEs left more than 10% of the questionnaire unanswered, such questionnaires were discarded. A total of 600 questionnaires were distributed, of which only 537 were effectively usable. The response rate of 89.5% was obtained. The number of participants of this study was within the ranges of similar studies, and thus deemed sufficient, according to UG (2015), UC (2017) and Synodinos *et al.* (2014:19).

6.4.3 Missing data

After coding and cleaning the data, the next sequence was addressing the missing data. Questionnaires were checked for missing data using simple frequency counts in SPSS (IBM, 2014). Missing cases were identified in six different questions. Table 5.5 below shows the questions with missing cases. The item 'My past personal experience was valuable in creating this entrepreneurial venture' had two missing cases. All items mentioned above were 5-point Likert scaled. Given that the sample size was 537, data appeared to have been missed at random, and there was no indication of a major problem with any of the items (UC, 2017; Roni, 2014:p.15). The remaining responses were assessed as valid by SPSS, as shown in Table 6.3 below.

Table 6.3: Missing values

Question	Valid	Missing
B11PASTEXPE	535	2
D1MULTSOU	536	1
D6CURRICU	535	2
D6PRACTICES	534	3
D7STORIES	534	3
D7MENTORS	534	3

Source: SPSS Output of the dataset of the study.

The current study employed the Replace Missing Values option in SPSS to fill in missing values. The technique involves replacing the missing value with the median of 2 nearby points. The median option was selected, as opposed to using the mean, because the items were measured on a 5-point Likert scale in which the median tends to provide more useful information than the mean. Missing values were successfully replaced as shown in the Table 6.4 below.

Table 6.4: Number of replaced missing values

Result Variable	N of Replaced Missing Values	Case Number of Non-Missing Values		N of Valid Cases	Creating Function
		First	Last		
B11PASTEXPE	2	1	537	537	MEDIAN(B11PASTEXPE,ALL)
D1MULTSOU	1	1	537	537	MEDIAN(D1MULTSOU,ALL)
D6CURRICU	2	1	537	537	MEDIAN(D6CURRICU,ALL)
D6PRACTICES	3	1	537	537	MEDIAN(D6PRACTICES,ALL)
D7STORIES	3	1	537	537	MEDIAN(D7STORIES,ALL)
D7MENTORS	3	1	537	537	MEDIAN(D7MENTORS,ALL)

Source: SPSS Output of the dataset of the study.

6.4.4 Test for normality

Given the critical importance of data analysis in this study, descriptive summary analyses were further conducted using IBM SPSS version 26 to ascertain normality of the data (UC, 2019; IBM, 2014). Malholtra (2019) and Hair et al. (2019), recommend that for a sample size of more 300 respondents, the ideal methods of testing for normality are those of Skewness and Kurtosis.

In the items analysed from the dataset of this study, high levels of Skewness values were observed for the item 'What is your ethnical group?' (4,692) and 'What is your specific type of activity in the agribusiness value chain?' (7,175). The same items registered high levels of Kurtosis such as 35,986 and 57,017 respectively. Considering the fact that the sample of the study contained owner/managers of SMMEs from one ethnic group, and that the research targeted agribusiness-based entrepreneurs, these naturally constrained the range of responses. Therefore, the above results were expected. However, the results of the descriptive analyses did not have a major impact on the other items, as illustrated in the complete set of Skewness and Kurtosis values in Table 6.5 below.

Table 6.5: Skewness and Kurtosis values

Descriptive Statistics			
	N	Skewness	Kurtosis
	Statistic	Statistic	Statistic
A0Location	537	0,875	-0,025
A1Gender	537	-0,123	-1,992
A2Age	537	-0,127	-1,163
A3EDU	537	0,086	-1,251
A4ROLE	537	-1,194	0,229
A5ORIGIN	537	4,692	35,986
A6ETHICAL	537	7,175	57,017
A7AGRIACTIVITY	537	0,487	-1,131
A8SMMECLASS	537	0,574	-0,722
A9PREVOCCU	537	0,093	-1,254
B10GOAL	537	-1,062	0,143
MEDIAN(B11PASTEXPE,ALL)	537	-1,217	1,365
B12DEALING	537	-0,889	0,784
B13DUEDILI	537	-0,950	0,718
B14FAMILY	537	-0,958	-0,016
B15SHARED	537	-0,472	-0,796
B16NETWORK	537	-0,913	0,306
B17ENTORI	537	-1,148	1,041
C18INTENTION	537	-1,736	3,365
C19STARTNEW	537	-1,563	1,397
C20ADVOCATE	537	-1,341	1,611
C21GOVSUPP	537	-1,432	1,777
C22GROWTH	537	-0,449	-0,350
C23SYSTEMATIC	537	-0,423	-0,497
C24EXPERIENCE	537	-0,316	-0,623
C25CIVICPRIDE	537	-0,462	-0,282
D1BANKS	537	0,009	-0,968
D1CONTROLS	537	-0,781	0,660
D1DFIS	537	-0,407	-0,861
D1FINANCE	537	-0,894	0,014
D1GVTPROGS	537	-0,566	-0,851
D1MGT	537	-0,451	-0,723
MEDIAN(D1MULTSOU,ALL)	537	-0,089	-0,935

Descriptive Statistics			
	N	Skewness	Kurtosis
	Statistic	Statistic	Statistic
D1PRODRATE	537	-0,937	0,599
D1SAVINGS	537	-0,832	0,012
D1TRANSCOST	537	-0,951	0,213
D2INCENTIVES	537	-0,253	-0,792
D2LAWS	537	-0,139	-0,820
D2NATFRAM	537	-0,159	-0,826
D2TAX	537	-0,345	-0,622
D2TURNTIME	537	-0,614	-0,434
D3COACHMENT	537	-0,938	0,442
D3ONJOBTRAIN	537	-0,447	-0,947
D3TRAINDEV	537	-0,552	-0,641
D4ADVICE	537	-0,393	-0,726
D4LARGESHARE	537	-0,003	-1,197
D4LINKAGES	537	-0,040	-1,006
D4SOCNET	537	-0,584	-0,476
D5ELECTRIC	537	-1,023	0,925
D5INFRAST	537	-0,957	0,460
D5LAND	537	-1,237	0,891
D5TRANSPORT	537	-1,021	1,194
D5WATER	537	-1,411	2,364
MEDIAN(D6CURRICU,ALL)	537	-0,344	-0,420
D6FEAR	537	-0,453	-0,335
D6GOV	537	-0,348	-0,543
MEDIAN(D6PRACTICES,ALL)	537	-0,273	-0,573
D6RISK	537	-0,598	0,098
MEDIAN(D7MENTORS,ALL)	537	-0,382	-0,779
D7MINORITY	522	0,366	-0,792
MEDIAN(D7STORIES,ALL)	537	-0,342	-0,620

Source: SPSS Output of the dataset of the study.

The next section discusses common method bias in data preparation.

6.4.6 Common method bias

Podsakoffet et al. (2003:p.879) argue that in quantitative data collection, variances may occur due to the measurement method rather than the constructs themselves, which represent the measures. The authors describe such an occurrence as common method bias. An example of common method bias is when there are low response rates that result in significant differences between non-respondents and respondents (Dalecki *et al*., 1993; an Gelder *et al*., 2010). To minimise that effect in this study, all owner/managers of SMMEs who participated in the survey were assured of their privacy and anonymity based on the fact that the data was used solely for the current

study. Such a procedure assured participants against a risk of compromising their identity, thus ensuring accurate data.

6.5   Demographic variables analysis

In the main study, demographic analyses consisted of the following nine key indicators: (1) gender, (2) age, (3) education, (4) role in the organisation, (5) country of origin, (6) ethnic group (ethnicity), (7) type of activity in the agribusiness value chain, (8) classification of SMME according to official definition in Botswana, and (9) previous occupation. The aim of the questions in section A of the questionnaire was to determine the demographic makeup of participants of the study. This was done primarily to provide some measure of representativeness of the sample. Five hundred thirty-seven questionnaires were effectively used to comprehensively capture demographic statistics. The following figures show various graphs and pie charts demonstrating the allocation of the demographical information gathered from each question of the questionnaire. In section A, the first question was the gender of the respondent.

Table 6.6: Statistics of the locations of sampled owner/managers of SMMEs in Botswana

Statistics		
Location		
N	Valid	537
	Missing	0
Sum		3376.00

Source: SPSS Output of the dataset of the study.

There were no missing entries (0) in the data captured from the effective and usable 537 respondents, giving a sum of 3,376 total entries into the dataset.

Table 6.7: Number of respondents and percentages

Location	Number of Respondents	Percentage	Cumulative Percentage
Gaborone	67	12.5	12.5
Serowe	61	11.4	23.9
Kanye	56	10.4	34.3
Francistown	49	9.1	43.4
Gab Leather Incubator	49	9.1	52.5
Glen Valley Incubator	43	8.0	60.5
Ramotswa	41	7.6	68.1
Mochudi	36	6.7	74.8
Kutla Incubation Centre	32	6.0	80.8
Pilane Incubator	20	3.7	84.5
Molepolole	20	3.7	88.2
Masunga	18	3.4	91.6
Ghanzi	13	2.4	94
Selibi-Phikwe	10	1.9	95.9
Tsabong	9	1.7	97.6
Maun	8	1.5	99.1
Kasane	5	.9	100
Total	**537**	**100.0**	

Source: Author's own compilation using dataset of the study.

There were 537 valid responses to the instrument overall. Of the 537 respondents, 67 (12%) were from Gaborone, 61 (11%) from Serowe and 56 (10%) from Kanye. These are followed by Francistown and Gaborone Leather Incubator, both of which had 49 (9%) respondents, Glen Valley Incubator 43 (8%), Ramotswa 41 (7%), Mochudi 36 (6%) and Kutla Incubation Centre 32 (6%). Pilane Incubator and Molepolole both had 20 (3%) respondents, followed by Masunga 18 (3%) respondents, Ghanzi 13 (2%), Selebi-Phikwe 10 (1%), Tsabong 9 (1%), Maun 8 (1%) and Kasane 5 (0.9%).

Data from Table 6.8 above is used below in Figure 6.1 to illustrate the percentages of respondents according to location around the country's official districts. SMMEs were represented in most of the 17 administrative districts in Botswana: Francistown,

Gaborone, Ghanzi, Kanye, Kasane, Masunga, Maun, Mochudi, Molepolole, Ramotswa, Selibi-Phikwe, Serowe and Tsabong. In addition to these locations, SMMEs from the following five business incubators were surveyed: Francistown industrial business, Gaborone Leather Industries, Glen Valley Horticultural, Pilane Multi-purpose and Kutla Incubation Centre.
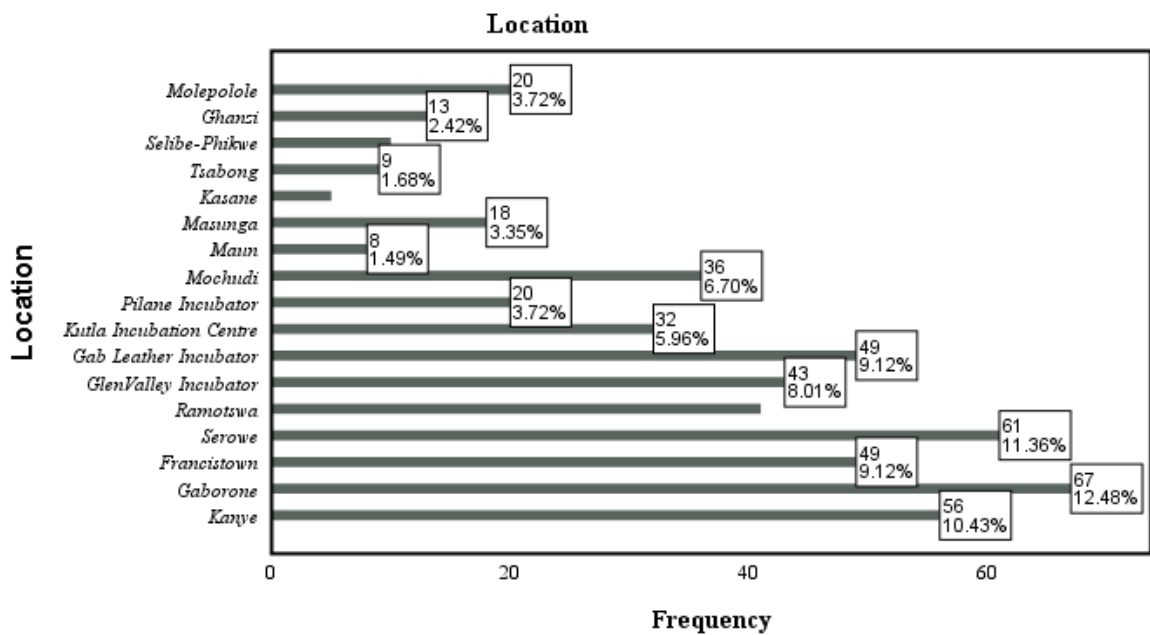
Figure 6.1 Location of sampled owner/managers in Botswana and percentage distribution

The following figures show various graphs, charts, tabulations and cross-tabulations demonstrating the allocation of the demographic information gathered from each question of the questionnaire. The aim of the questions in section A was to determine the demographic makeup of participants of the study. This was done primarily to provide some measure of representativeness of the sample. In section A, the first question asked for the gender of the respondent.
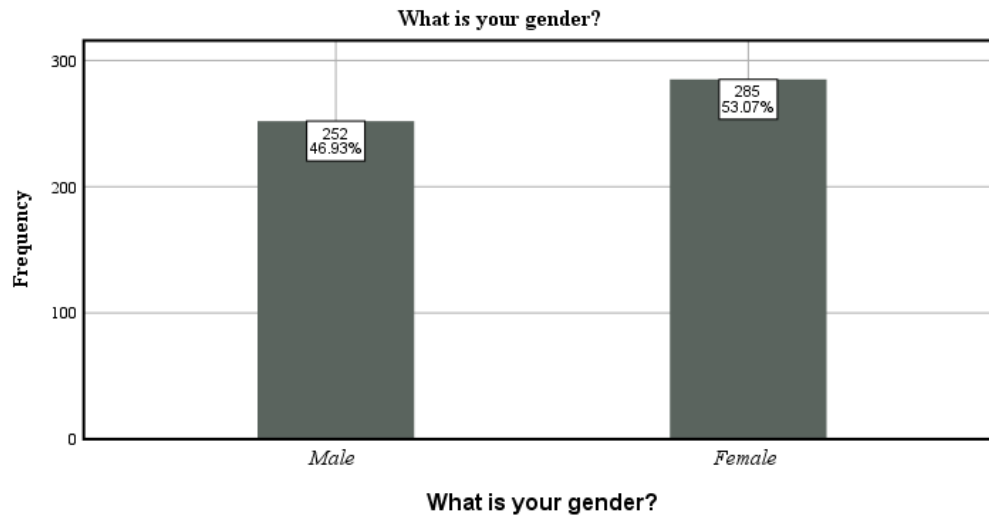
Figure 6.2 Gender

Figure 6.2 above shows that of the 537 owner/managers of SMMEs surveyed, 252 (46%) were male and 285 (53%) were female. Female owner/managers of agribusiness SMMEs are more disproportionately represented in the survey. The rate of participation by women in SMMEs based in the agricultural sector and its segment agribusiness activities is higher than their male counterparts. The ITC Small to Medium Enterprises Competition Surveys Report (SMECS) (2019) states that the rate of participation of females in SMMEs in Botswana is higher than that of other sub-Saharan African SMMEs.

The next demographic question concerned age category of owner/managers of SMMEs, ranging from 18–24 years to 55–65 years.

What is the category of your age?
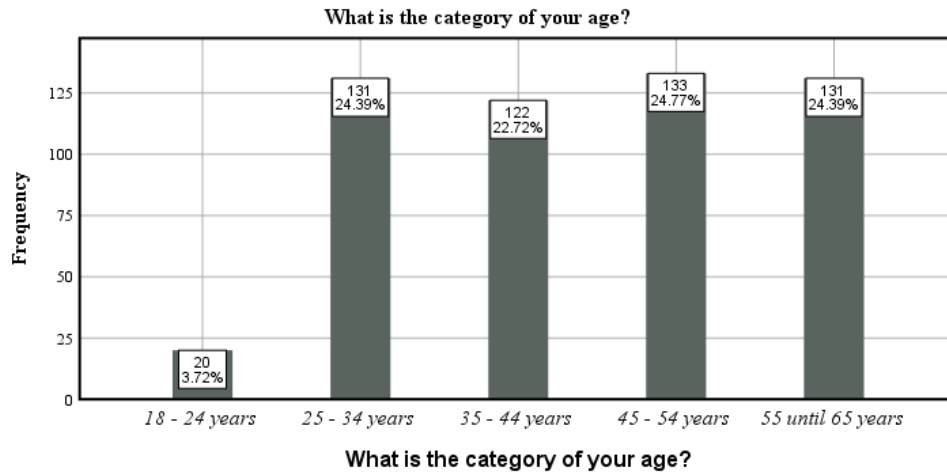
Figure 6.3 Category of age

The second question asked the owner/manager about the category of their age. Figure 6.3 above reveals that 20 (3%) were in the 18–24 years category, 131 (24%) in the category of 25–34 years, 122 (22%) 35–44 years, 133 (24%) 45–54 years and 131 (24%) 55–64 years. Age categories 25–34 years (24%), 35–44 (22%) years, 45–54 (24%) years and 55–65 years (24%) had a relatively similar representation. These four age categories together constituted the majority of the age distribution percentage of owner/managers of SMMEs of 517 (94%). The age category 18-24 years had the lowest representation, with 20 (3%).

The next demographic question required the owner/managers of SMMEs to state their highest level of education attained.

State the highest level of education attained by the owner/(s)
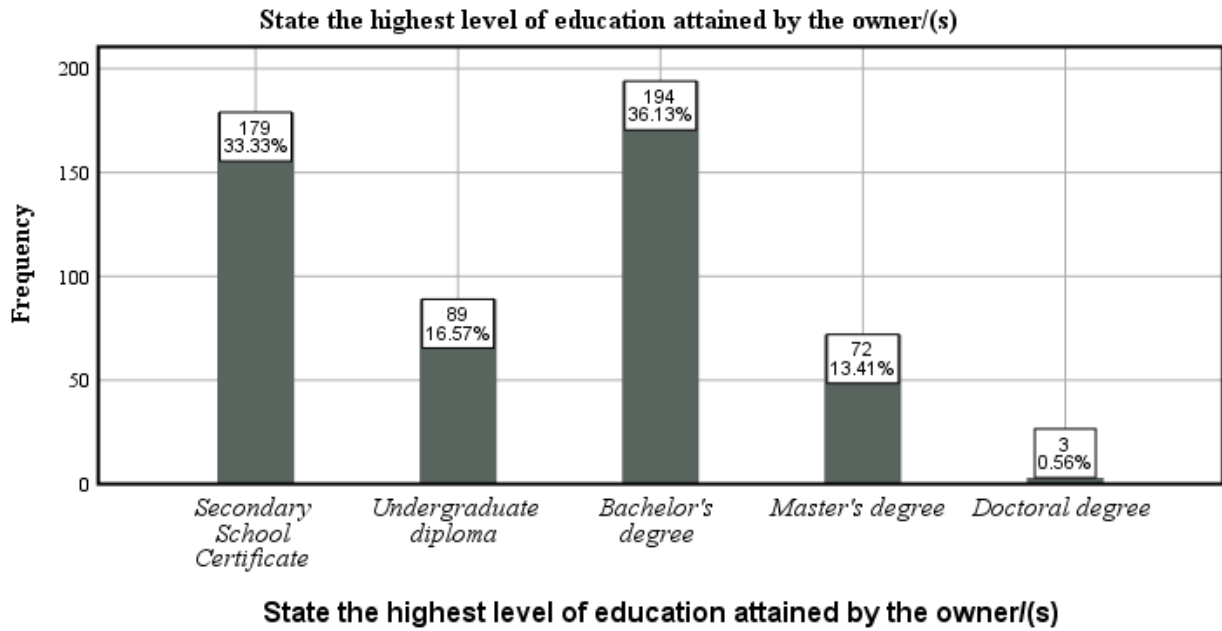
Figure 6.4 Highest level of education attained by owners

The third question asked the owner/manager to state the highest level of education attained. According to Figure 6.4 above, 179 (33%) respondents indicated that a secondary-school certificate was their highest level of education; 89 (16%) had an undergraduate diploma; 194 (36%) had a bachelor's degree; 72 (13%) had a master's degree, and 3 (0.56%) had a doctoral degree. The next demographical question concerned the role played by the owner/managers of SMMEs in their firms.

The fourth question asked owner/managers of SMMEs to state their role in their organisations. Figure 6.5 below illustrates the roles and their distribution percentages in SMMEs.
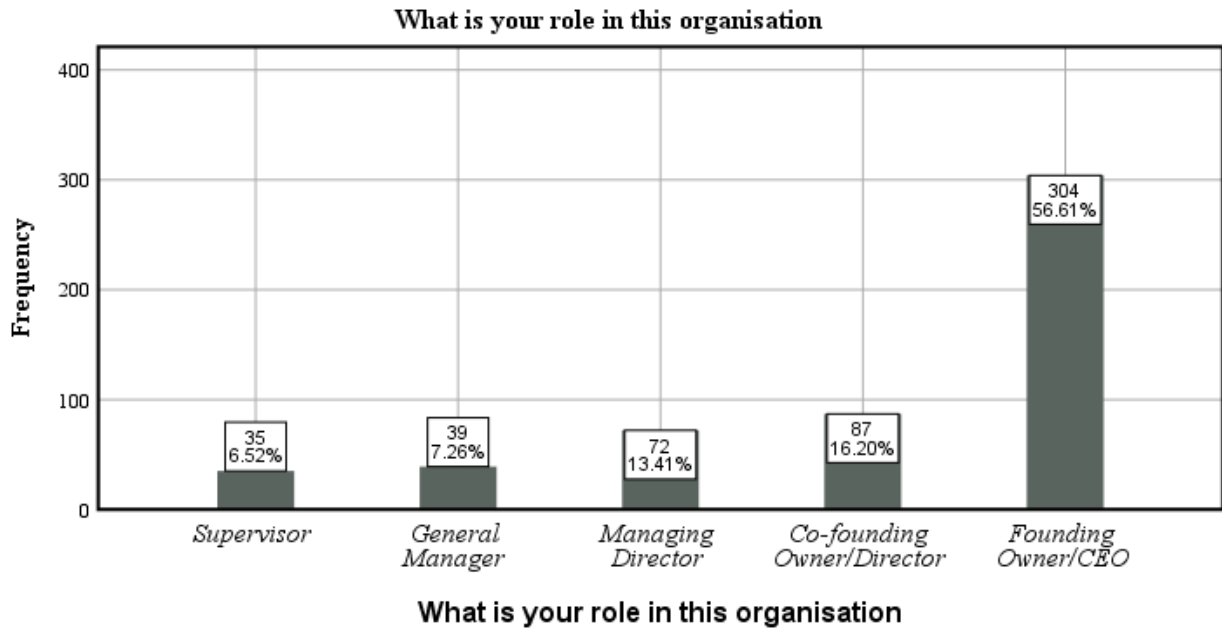
Figure 6.5 Role in the organisation

Figure 6.5 above shows that 35 (6%) respondents held the role of supervisor; 39 respondents (7%) were general managers; 72 (13%) respondents were managing directors; 87 (16%) respondents were co-founding owners/directors, and 304 (56%) respondents were founding owners/CEOs. Appointed roles such as managing director, general manager and supervisor may be assumed by owner/managers as a result of the form of business they founded, such as development trusts, irrigation schemes and cooperatives. The next demographical question required the owner/managers of SMMEs to state their country of origin.

The fifth question asked owner/managers to disclose their country of origin. Figure 6.6 below shows the percentage distribution of owner/managers' responses to this question.
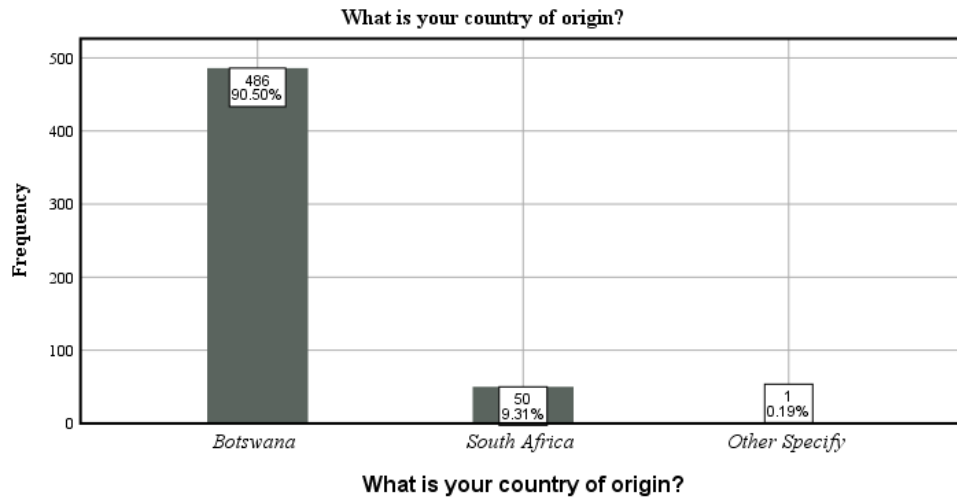
Figure 6.6 Country of origin

Figure 6.6 above shows that 486 (90%) respondents were from Botswana; 50 (9%) were from South Africa, and 1 (0.19%) respondent indicated country of origin as Other.

The next demographic question asked about the ethnic groups of the owner/managers.
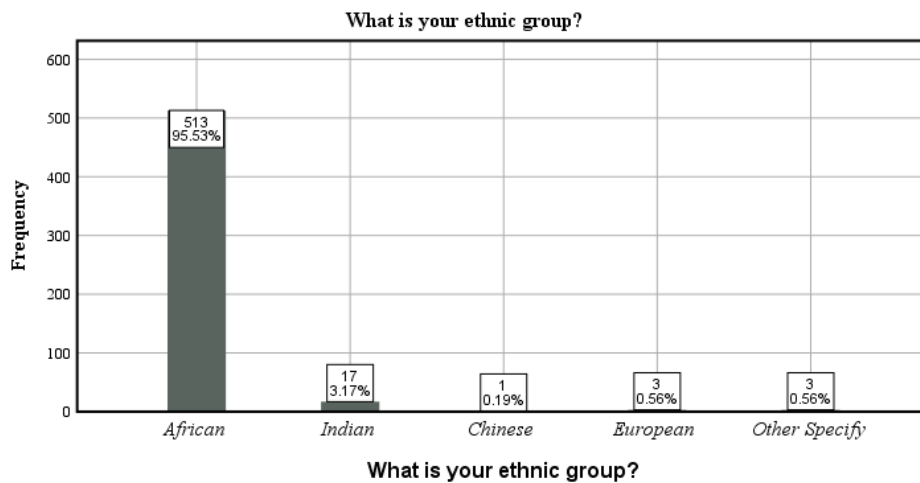
Figure 6.7 Ethnic group

Figure 6.7 above shows that 513 (95%) respondents were African; 17 (3%) were Indian; 1 (0.56%) was Chinese; 3 (0.56%) respondents were European, and another 3 (0.56%) indicated their ethnic category as other.

The next demographic question aimed to analyse specific types of SMME activities in the agribusiness value chain.
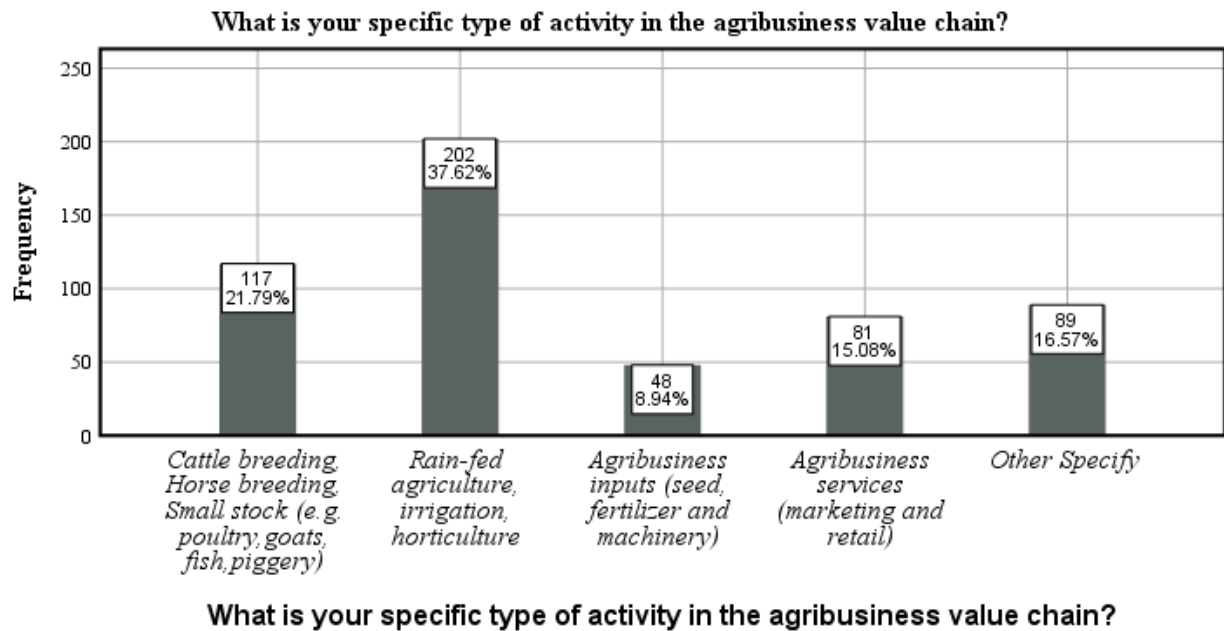
Figure 6.8 shows owner/managers' activity in agribusiness based on predetermined categories, namely 'Cattle Breeding, Horse Breeding, Small Stock (e.g. poultry, goats, fish, piggery)' as the first category, 'Rain-fed agriculture, irrigation horticulture' as the second category, 'Agribusiness inputs (seed, fertiliser and machinery)' as the third category, and 'Agribusiness services (Marketing and retail)' as the fourth category. The fifth option was 'Other Specify', and allowed respondents to express their own category if they felt it did not fall into one of the other options. Respondents could only select one category. For purposes of reporting the results here, they will be identified by the first option listed under each category. One hundred seventeen (21%) respondents were in cattle breeding, 202 (37%) in rain-fed agriculture, 48 (8%) in agribusiness inputs, 81 (15%) in agribusiness services, and 89 (16%) in other.

The next demographic question sought to establish the classification of the company according to the official SMME definition in Botswana. Characteristics of SMMEs that participated in the survey were categorised in accordance with their sizes as follows: micro (employing fewer than 5 people), small (employing fewer than 25 people),

medium (employing fewer than 100 people) and large enterprises (employing more than 100 people).

What is the classification of your company? (According to the official SMME definition in Botswana)
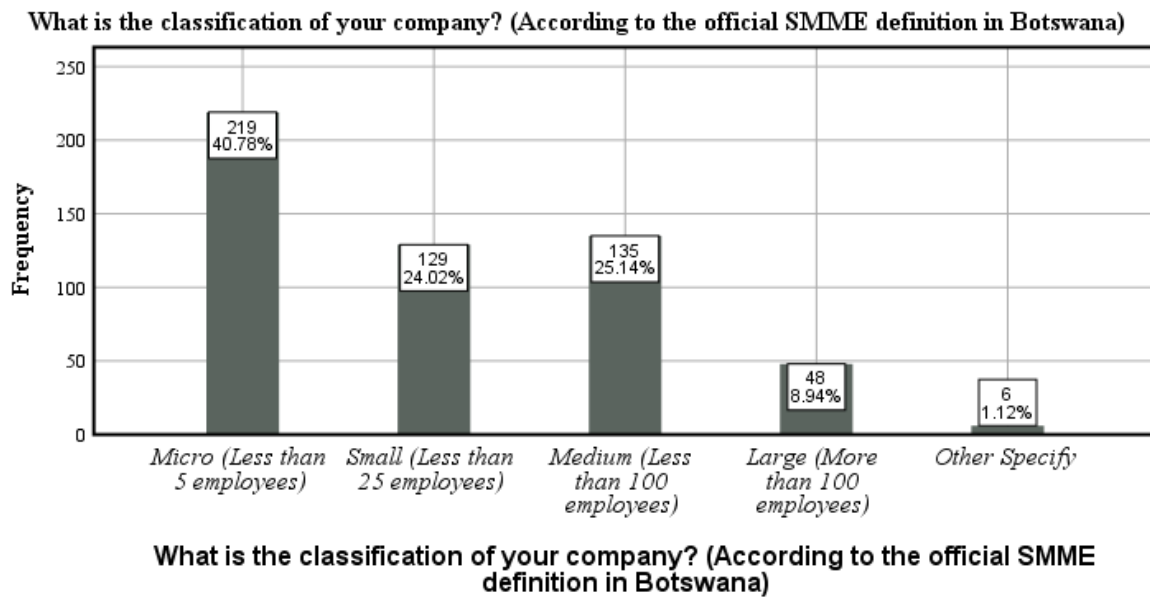
Figure 6.9 Classification of company according to official SMME definition in Botswana

Figure 6.9 above shows that 219 (40%) respondents were from micro-companies; 129 (24%) respondents were from small companies; 135 (25%) were from medium companies; 48 (8%) respondents were from large companies. Six (1%) classified their company as other.

The final metric used in the demographic questions sought to identify and analyse occupations of owner/managers prior to founding their current enterprises.
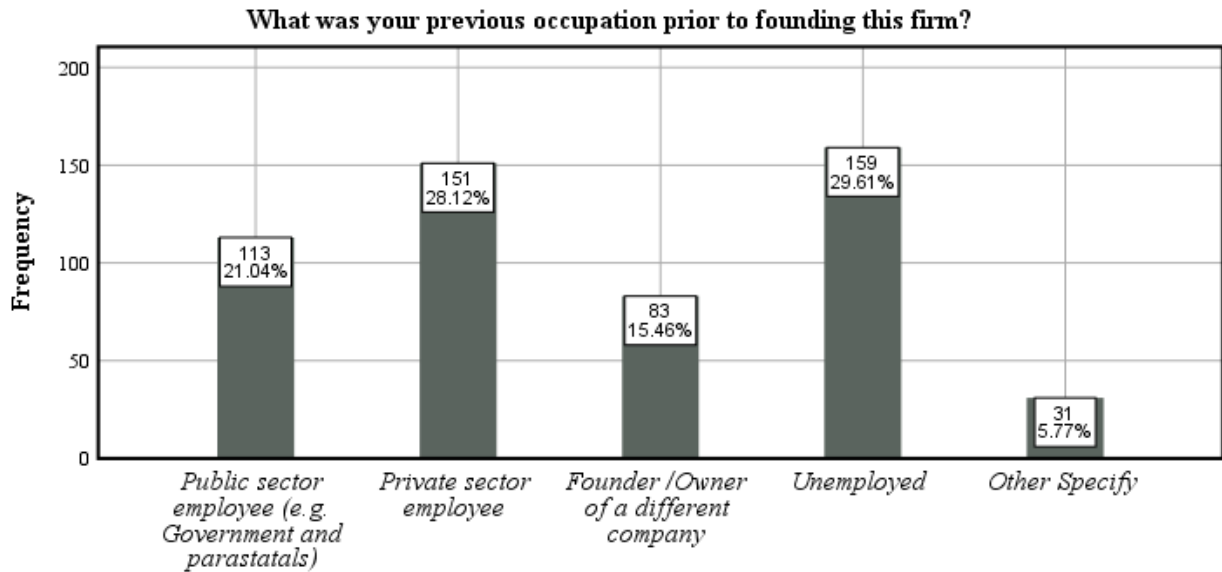
What was your previous occupation prior to founding this firm?

Figure 6.10 Previous occupation prior to founding this firm

Figure 6.10 above shows that 113 (21%) owner/managers listed their previous occupation as public sector employee; 151 (28%) were formerly in the private sector, with 83 (15%) respondents being previous founders/owners of a different company. One hundred fifty-nine (29%) indicated they were unemployed, and 31 (5%) listed their previous occupation as other. Other options such as graduate and student may have been ascribed to this category.

6.5.1 Demographic analysis summary

In conclusion, the highlights are that the majority (53%) of SMMEs in the survey were female-led; the age category of 18–24 years was the lowest, represented by 20 (3%) owner/managers of SMMEs. Of the surveyed 537 owner/managers of SMMEs, the majority, represented by 202 (37%), were involved in rain-fed agriculture, followed by 117 (21%) owner/managers of SMMEs in cattle breeding, 48 (8%) involved in agribusiness inputs, 81 (15%) involved in agribusiness services and 89 (16%) in others.

A majority of owner/managers, 219 (40%), belonged to micro-companies; 129 (24%) belonged to small companies; 135 (25%) were from medium companies, and lastly 48 (8%) were from large companies. The last highlight is that the most common previous occupation was 113 (21%) former public sector employees, 151 (28%) formerly

employed in the private sector, with 83 (15%) previous founders/owners of a different company. One hundred fifty-nine (29%) indicated they were unemployed, and 31 (5%) listed their previous occupation as other.

6.5.2 Cross-tabulation of demographic variables

In this section of the study, demographic variables from section A of the questionnaire were cross-tabulated to check for correlation.

Table 6.8: Results of reliability statistics of the questionnaire

Reliability Statistics	
Cronbach's Alpha	N of Items
.770	51

Source: SPSS Output of the dataset of the study.

There were 18 items measuring respondents' level of agreement with statements presented that covered various concepts. The responses offered were based on a 5-point Likert scale, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. A reliability analysis was run, and 519 responses were assessed by SPSS as valid responses to the 18 statements. Cronbach's Alpha indicated the entire instrument of 18 items was acceptably reliable ($α = 0.770$).

Table 6.9: Gender and education

What is your gender? * State the highest level of education attained by the owner(s) cross-tabulation								
			State the highest level of education attained by the owner/(s)					Total
			Secondary-school certificate	Undergraduate diploma	Bach-elor's degree	Master's degree	Doctoral degree	
What is your gender?	Male	Count	81	30	102	39	0	252
		% within 'State the highest level of education attained by the owner(s)'	45,3%	33,7%	52,6%	54,2%	0,0%	46,9%
	Female	Count	98	59	92	33	3	285
		% within 'State the highest level of education attained by the owner(s)'	54,7%	66,3%	47,4%	45,8%	100,0%	53,1%
Total		Count	179	89	194	72	3	537

Source: SPSS Output of the dataset of the study.

Cross-tabulation analysis of the responses to the questions on gender and highest level of education shows that of all respondents whose highest level of education was a secondary-school certificate (N=179), 98 (54%) were female and 81 (45%) were male. Of all those with an undergraduate diploma (N=89), 59 (66%) were female and 30 (33%) were male. Of those with a bachelor's degree (N=194), 102 (52%) were male and 92 (47%) were female. Of those with a master's degree (N=72), 39 (54%) were male and 33 (45%) were female. Of those with a doctorate degree (N=3), (100%) all three were female.

Table 6.10: What is your role in this organisation?* State the highest level of education attained by owner(s) cross-tabulation

			What is your role in this organisation					Total
			Super-visor	General Man-ager	Manag-ing Director	Co-founding Owner/Director	Founding Owner/CEO	
State the highest level of education attained by the owner(s)	Secondary-school Certificate	Count	14	11	31	6	117	179
		% within 'What is your role in this organisation'	40.0%	28.2%	43.1%	6.9%	38.5%	33.3%
	Undergraduate diploma	Count	4	9	13	15	48	89
		% within 'What is your role in this organisation'	11.4%	23.1%	18.1%	17.2%	15.8%	16.6%
	Bachelor's degree	Count	7	17	10	48	112	194
		% within 'What is your role in this organisation'	20.0%	43.6%	13.9%	55.2%	36.8%	36.1%
	Master's degree	Count	7	2	18	18	27	72
		% 'within What is your role in this organisation'	20.0%	5.1%	25.0%	20.7%	8.9%	13.4%
	Doctoral degree	Count	3	0	0	0	0	3
		% within 'What is your role in this organisation'	8.6%	0.0%	0.0%	0.0%	0.0%	0.6%
Total		Count	35	39	72	87	304	537
		% within 'What is your role in this organisation'	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: SPSS Output of the dataset of the study.

Cross-tabulation analysis of the responses to the questions on highest level of education and role in the organisation establishes that of all supervisors (N=35), 14 (40%) had a secondary-school certificate as their highest qualification; 7 (20%) had a bachelor's degree, with another 7 (20%) possessing a master's degree; 4 (11%) had an undergraduate diploma, and 3 (9%) had a doctorate. Of all the general managers (N = 39), 17 (43%) had a master's degree; 11 (28%) had a secondary-school certificate; 9 (23%) had an undergraduate diploma, and 2 (5%) had a master's degree. Of all the managing directors (N = 72), 31 (43%) had a secondary-school certificate; 18 (25%) had a master's degree; 13 (18%) had an undergraduate diploma, and 10 (14%) had a bachelor's Degree. Of all the co-founding owners/directors (N = 87), 48 (55%) had a bachelor's degree; 18 (20%) had a master's degree; 15 (17%) had an undergraduate diploma; 6 (6%) had a secondary-school certificate. Of all the founding owners/CEOs (N = 304), 117 (38%) had a secondary-school certificate; 112 (36%) had a bachelor's degree; 48 (15%) had an undergraduate diploma, and 27 (8%) had a master's degree.

Table 6.11: What is your role in this organisation?* What is your gender cross-tabulation

			What is your role in this organisation					Total
			Super-visor	General Manager	Managing Director	Co-founding Owner/Di-rector	Founding Owner/CEO	
What is your gender ?	Male	Count	11	18	34	37	152	252
		% within 'What is your role in this organisation'	31,4%	46,2%	47,2%	42,5%	50,0%	46,9%
	Female	Count	24	21	38	50	152	285
		% within 'What is your role in this organisation'	68,6%	53,8%	52,8%	57,5%	50,0%	53,1%
Total		Count	35	39	72	87	304	537
		% within 'What is your role in this organisation'	100,0%	100,0%	100,0%	100,0%	100,0%	100,0 %

Source: SPSS Output of the dataset of the study.

Cross-tabulation analysis of the responses to the questions on gender and role in the organisation establishes that of all the supervisors (N=35), 24 (68%) were female and 11 (31%) were male. Of all the general managers (N=39), 21 (53%) were female and 18 (46%) were male. Of all the managing directors (N=72), 38 (52%) were female and 34 (47%) were male. Of all the co-founding owners/directors (N=87), 50 (57%) were

female and 37 (42%) were male. Founding owners/CEOs (N=304) were evenly split between male and female, each with a total 152 (50%).

Table 6.12: Type of activity and region

Location * What is your specific type of activity in the agribusiness value chain? Cross-tabulation

	What is your specific type of activity in the agribusiness value chain?				
Location	Cattle breeding, Horse breeding, Small stock (e.g. poultry, goats, fish, piggery)	Rain-fed agriculture, irrigation, horticulture	Agribusiness inputs (seed, fertiliser and machinery)	Agribusiness services (marketing and retail)	Other Specify
Kanye	23, (19.7%)	20, (9.9%)	9, (18.8%)	4, (4.9%)	0, (0.0%)
Gaborone	7, (6.0%)	52, (25.7%)	3, (6.3%)	3, (3.7%)	2, (2.2%)
Francistown	13, (11.1%)	18, (8.9%)	9, (18.8%)	7, (8.6%)	2, (2.2%)
Serowe	12, (10.3%)	18, (8.9%)	3, (6.3%)	13, (16.0%)	15, (16.9%)
Ramotswa	19, (16.2%)	12, (5.9%)	4, (8.3%)	2, (2.5%)	4, (4.5%)
Glen Valley Incubator	4, (3.4%)	16, (7.9%)	4, (8.3%)	12, (14.8%)	7, (7.9%)
Gab Leather Incubator	0, (0.0%)	0, (0.0%)	0, (0.0%)	4, (4.9%)	45, (50.6%)
Kutla Incubation Centre	4, (3.4%)	0, (0.0%)	0, (0.0%)	24, (29.6%)	4, (4.5%)
Pilane Incubator	7, (6.0%)	7, (3.5%)	4, (8.3%)	2, (2.5%)	0, (0.0%)
Mochudi	9, (7.7%)	7, (3.5%)	7, (14.6%)	9, (11.1%)	4, (4.5%)
Maun	2, (1.7%)	6, (3.0%)	0, (0.0%)	0, (0.0%)	0, (0.0%)
Masunga	2, (1.7%)	12, (5.9%)	2, (4.2%)	0, (0.0%)	2, (2.2%)
Kasane	1, (0.9%)	3, (1.5%)	1, (2.1%)	0, (0.0%)	0, (0.0%)
Tsabong	3, (2.6%)	5, (2.5%)	0, (0.0%)	0, (0.0%)	1, (1.1%)
Selebi-Phikwe	1, (0.9%)	6, (3.0%)	1, (2.1%)	0, (0.0%)	2, (2.2%)
Ghanzi	10, (8.5%)	2, (1.0%)	1, (2.1%)	0, (0.0%)	0, (0.0%)
Molepolole	0, (0.0%)	18, (8.9%)	0, (0.0%)	1, (1.2%)	1, (1.1%)
Total Count	117	202	48	81	89

Source: SPSS Output of the dataset of the study.

Cross-tabulation analysis of the responses to the questions on location and type of activity in the agribusiness value chain establishes that of all the cattle-breeding businesses (N=117), 23 (19%) were in Kanye, 7 (6%) in Gaborone, 13 (11%) in Francistown, 12 (10%) in Serowe, 19 (16%) in Ramotswa, and other locations fewer than 10 (9%).

137

Cross-tabulation analysis of the responses to the questions on role in this organisation and previous occupation establishes that of all the former public sector employees (N=113), 68 (60%) were founding owners/CEOs; 19 (16%) were managing directors; 11 (9%) were co-founding owners/directors; 9 (8%) were general managers, and 6 (5%) were supervisors.

Table 6.13: Role and Occupation

What is your role in this organisation * What was your previous occupation prior to founding this firm? Cross-tabulation

What is your role in this organisation	*What was your previous occupation prior to founding this firm?*				
	Public sector employee (e.g. government and parastatals)	Private sector employee	Founder /Owner of a different company	Un-employed	Other Specify
Supervisor	6, (5.3%)	10, (6.6%)	2, (2.4%)	12, (7.5%)	5, (16.1%)
General Manager	9, (8.0%)	11, (7.3%)	10, (12.0%)	7, (4.4%)	2, (6.5%)
Managing Director	19, (16.8%)	14, (9.3%)	11, (13.3%)	25, (15.7%)	3, (9.7%)
Co-founding Owner/Director	11, (9.7%)	24, (15.9%)	18, (21.7%)	31, (19.5%)	3, (9.7%)
Founding Owner/CEO	68, (60.2%)	92, (60.9%)	42, (50.6%)	84, (52.8%)	18, (58.1%)
Total	113, (100.0%)	151, (100.0%)	83, (100.0%)	159, (100.0%)	31, (100.0%)

Source: SPSS Output of the dataset of the study.

In Table 6.14 below, specific type of business activity in the agribusiness value chain was cross-tabulated with company size.

Table 6.14: Business activity and company size cross-tabulation

A7AGRIACTIVITY * A8SMMECLASS Cross-tabulation							
			A8SMMECLASS				Total
			Micro (Fewer than 5 employ-ees)	Small (Fewer than 25 em-ployees)	Medium (Fewer than 100 employees)	Large (More than 100 employ-ees)	Other Spe-cify	
A7AGRIACTIVITY	Cattle breeding, Horse breeding, Small stock (e.g. poultry, goats, fish, piggery)	Count	36	25	42	11	3	117
		Expected Count	47,7	28,1	29,4	10,5	1,3	117,0
		% within A8SMME CLASS	16,4%	19,4%	31,1%	22,9%	50,0%	21,8 %
	Rain-fed agriculture, irrigation, horticulture	Count	83	53	53	13	0	202
		Expected Count	82,4	48,5	50,8	18,1	2,3	202,0
		% within A8SMME CLASS	37,9%	41,1%	39,3%	27,1%	0,0%	37,6 %
	Agribusiness inputs (seed, fertiliser and machinery)	Count	9	13	17	9	0	48
		Expected Count	19,6	11,5	12,1	4,3	0,5	48,0
		% within A8SMME CLASS	4,1%	10,1%	12,6%	18,8%	0,0%	8,9%
	Agribusiness services (marketing and retail)	Count	35	12	19	12	3	81
		Expected Count	33,0	19,5	20,4	7,2	0,9	81,0
		% within A8SMME CLASS	16,0%	9,3%	14,1%	25,0%	50,0%	15,1 %
	Other Specify	Count	56	26	4	3	0	89
		Expected Count	36,3	21,4	22,4	8,0	1,0	89,0
		% within A8SMME CLASS	25,6%	20,2%	3,0%	6,3%	0,0%	16,6 %
Total		Count	219	129	135	48	6	537
		Expected Count	219,0	129,0	135,0	48,0	6,0	537,0
		% within A8SMME CLASS	100,0%	100,0%	100,0%	100,0%	100,0 %	100,0 %

Source: SPSS Output of the dataset of the study.

The cross-tabulation table above shows specific types of business activities in the agribusiness value chain with their representations in the survey. The comparison between business activities is shown in the chart below, with rain-fed agriculture the most dominant and agribusiness inputs being the least represented.
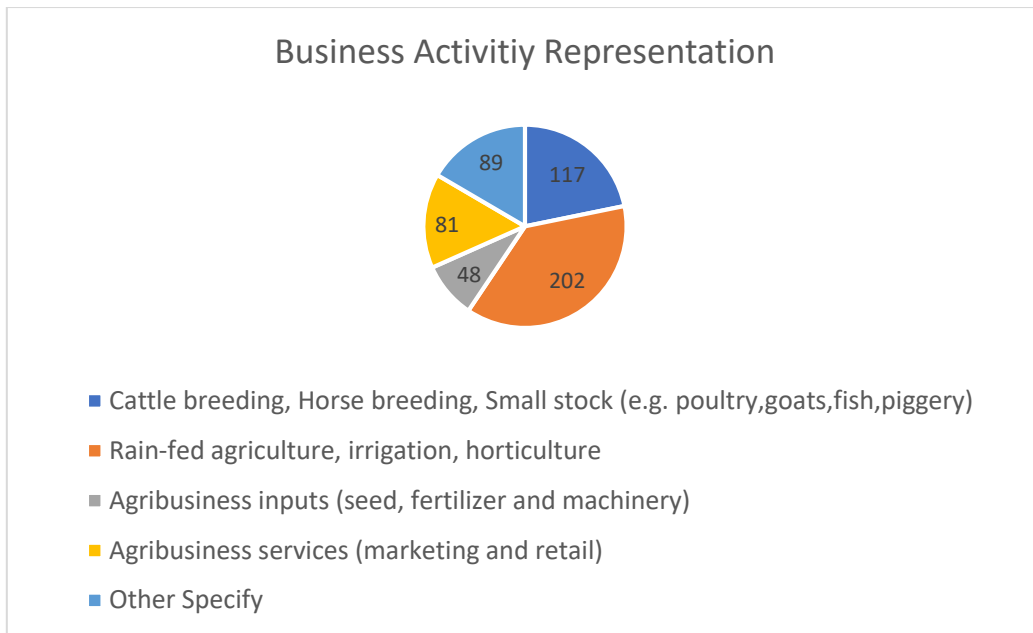
Figure 6.11 Business activity representation. Source: Author's own compilation using data

6.6: Past Entrepreneurial Behaviour (PEB) and Highest Intentions (HI) variables analysis

In this section of the study, responses of participants from questions in sections B and C of the questionnaire are analysed.

Table 6.15: Correlations of section B and section C variables

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	B10GOAL																
2.	B11PASTEXPE	.450**															
3.	B12DEALING	.426**	.424**														
4.	B13DUEDILI	.267**	.237**	.363**													
5.	B14FAMILY	.332**	.204**	.119**	.278**												
6.	B15SHARED	0,058	-0,022	-0,064	.182**	.115**											
7.	B16NETWORK	.127**	.117**	.105*	.266**	.193**	.336**										
8.	B17ENTORI	.223**	.138**	.113**	.360**	.099*	.235**	.477**									
9.	C18INTENTION	.254**	.228**	.249**	.121**	.116**	0,017	0,080	.218**								
10.	C19STARTNEW	.265**	.366**	.185**	.157**	.248**	0,056	.100*	.325**	.472**							
11.	C20ADVOCATE	.282**	.406**	.245**	.174**	.238**	0,037	.130**	.245**	.342**	.324**						
12.	C21GOVSUPP	.089*	.224**	.239**	.098*	0,068	.121**	0,072	.158**	.328**	.279**	.449**					
13.	C22GROWTH	.210**	.212**	.177**	.213**	.237**	0,048	.133**	0,043	.192**	.219**	.306**	.297**				
14.	C23SYSTEMATIC	.178**	0,018	0,042	.188**	.229**	.222**	.173**	0,069	.126**	.153**	.299**	.183**	.610**			
15.	C24EXPERIENCE	.104*	0,012	-0,025	.105*	.135**	.277**	.185**	.087*	.125**	.168**	.252**	.124**	.397**	.646**		
16.	C25CIVICPRIDE	.120**	.102*	0,071	.173**	.184**	.179**	.125**	0,022	.120**	0,024	.177**	0,065	.277**	.523**	.537**	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS Output of the dataset of the study.

An assessment for correlation of items in section B, Past Entrepreneurial Behaviour (PEB), and section C, Highest Intentions (HI), was conducted. Section B consisted of 8 items, rated on a 5-point Likert scale; section C consisted of 8 items on a 5-point Likert. All items were assessed together. Almost all items indicated significant correlations with the highest correlations seen between the items on entrepreneurial mindset of experiencing and entrepreneurial mindset of systematic approach ($r = .646$; $p = <.01$); entrepreneurial mindset of systematic approach and entrepreneurial mindset of growth ($r = .610$; $p = <.01$); high civic pride of appreciation and

entrepreneurial mindset of experiencing (r =.537; p = <.01); high civic pride of appreciation (r =.523; p = <.01); entrepreneurial orientation 'I developed and use of business network platforms' (r =.477; p = <.01); 'past personal experience was valuable and professional goal was always to become an entrepreneur' (r =.450; p = <.01); 'fully utilise government support programmes to grow the capacity of my company and advocate for this entrepreneurial ecosystem to upcoming start-ups' (r =.449; p = <.01). All in all, correlations ranged from a low of r =.089 to a high of r =.646.

Table 6.16: Correlation: Company size in relation to PEB, HI and 7 components

Correlations			1	2	3	4	5	6	7	8	9	10
Spearman's rho	1) av1PEB	Correlation Coefficient	--									
		Sig. (2-tailed)	.									
		N	537									
	2) av2HI	Correlation Coefficient	.462**	--								
		Sig. (2-tailed)	.000	.								
		N	537	537								
	3) av1FinancialC	Correlation Coefficient	.254**	.343**	--							
		Sig. (2-tailed)	.000	.000	.							
		N	537	537	537							
	4) av2PolicyEnvC	Correlation Coefficient	.112**	.197**	.394**	--						
		Sig. (2-tailed)	.009	.000	.000	.						
		N	537	537	537	537						
	5) av3HumanC	Correlation Coefficient	.148**	.235**	.232**	.430**	--					
		Sig. (2-tailed)	.001	.000	.000	.000	.					
		N	537	537	537	537	537					
	6) av4SocialC	Correlation Coefficient	.004	.107*	.326**	.369**	.386**	--				
		Sig. (2-tailed)	.930	.013	.000	.000	.000	.				
		N	537	537	537	537	537	537				
	7) av5InfrastC	Correlation Coefficient	.174**	.311**	.075	.093*	.120**	.014	--			
		Sig. (2-tailed)	.000	.000	.082	.032	.005	.752	.			
		N	537	537	537	537	537	537	537			
	8) av6CulturalC	Correlation Coefficient	-.026	.066	.148**	.129**	.129**	.173**	-.161**	--		
		Sig. (2-tailed)	.542	.129	.001	.003	.003	.000	.000	.		
		N	537	537	537	537	537	537	537	537		
	9) av7HistoricalC	Correlation Coefficient	.107*	.238**	.397**	.444**	.306**	.399**	.045	.312**	--	
		Sig. (2-tailed)	.013	.000	.000	.000	.000	.000	.295	.000	.	
		N	534	534	534	534	534	534	534	534	534	
	10) A8SMMECLASS	Correlation Coefficient	-.079	-.079	.084	.178**	.058	.077	-.118**	.052	.113**	--
		Sig. (2-tailed)	.069	.067	.053	.000	.177	.075	.006	.231	.009	.
		N	537	537	537	537	537	537	537	537	534	537

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 6.16 above shows results of correlation analysis in comparing responses to company size with the following components:

i.   Past Entrepreneurial Behaviour

ii.   Highest Intentions (HI)

iii.   Financial Capital

iv.   Social Capital

v.   Human Capital

vi.   Infrastructural Capital

vii.   Historical Capital

viii.   Policy Environment Capital

ix.   Cultural Capital Goal

A Spearman's Rho correlation analysis was conducted due to the fact that company size is an ordinal variable and the other components are continuous. Results of the Spearman correlation (see Table 6.16) indicate that there is a significant, slightly weak correlation between company size and policy environment capital (rs (537) =.178, p <.000). The result indicates that respondents who own and manage larger businesses have a statistically significant, higher opinion on policy environment capital. Spearman correlation results also indicate that there was a significant, negative correlation between company size and infrastructural capital (rs (537) = -.118, p =.006). The result suggests that respondents who own or manage larger businesses have a statistically significant, lower opinion concerning infrastructural capital.

Finally, a significant, slightly weak Spearman's Rho correlation was found between company size and historical capital (rs (537) =.113, p =.009).

The result indicates that respondents who own or manage larger businesses had a statistically significant, higher opinion on historical capital.

Table 6.17: Company Size Correlations

Correlations			B10GOAL	B14FAMILY	B15SHARED	B17ENTORI	A8SMM ECLASS
Spearman 's rho	B10GOAL	Correlation Coefficient	--				
		Sig. (2-tailed)	.				
		N	537				
	B14FAMILY	Correlation Coefficient	.365**	--			
		Sig. (2-tailed)	.000	.			
		N	537	537			
	B15SHARED	Correlation Coefficient	.055	.082	--		
		Sig. (2-tailed)	.201	.058	.		
		N	537	537	537		
	B17ENTORI	Correlation Coefficient	.246**	.140**	.218**	--	
		Sig. (2-tailed)	.000	.001	.000	.	
		N	537	537	537	537	
	A8SMMECL ASS	Correlation Coefficient	.085	.072	-.093*	-.222**	--
		Sig. (2-tailed)	.050	.095	.032	.000	.
		N	537	537	537	537	537

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

A correlation analysis was run to compare responses to company size with the following variables:

- Goal - 'My professional goal was always to become an entrepreneur.'
- Family Approval - 'My close family approved my plans to start this company.'
- *- Shared Resources - 'Shared resources with other SMME owners were critical to the early development of this enterprise.'
- Entrepreneurial Orientation - 'The entrepreneurial orientation I developed in the past helped me to overcome barriers (roadblocks) in the operations of this company.'

A Spearman's Rho correlation analysis was conducted due to the fact that company size and the other variables are both ordinal. Results of the Spearman correlation indicate that there was a significant, negatively weak correlation between company size and shared resources (rs (537) = -.093, p =.032). Spearman correlation results

also indicate that there was a significant, negative correlation between company size and entrepreneurial orientation (rs (537) = -.222, p <.000).

These results suggest that respondents who run or manage larger businesses have a statistically significant, lower opinion on the role of shared resources and entrepreneurial orientation in establishing success in their companies. In other words, owner/managers from larger SMMEs seem to disagree with other SMME owners that shared resources were critical to the early development of their enterprises. They also seem to disagree that the entrepreneurial orientation helped to overcome barriers (roadblocks) in their SMMEs. Conversely, respondents from smaller SMMEs were more likely to agree with both those statements, as shown by the negative correlations.

6.7 Entrepreneurial Ecosystem Capitals analysis

In the main study, entrepreneurial ecosystems capitals analysis consisted of the following seven constructs: (1) financial capital, (2) social capital, (3) human capital, (4) infrastructural capital, (5) historical capital, (6) policy environment capital, and (7) cultural capital. Table 6.18 below displays correlations of the constructs of the entrepreneurial ecosystem.

Table 6.18: Capitals model constructs correlations

	ENVIRONME NTCAP	HUMAN CAP	SOCIAL CAP	INFRASTRUCTU RALCAP	CULTURA LCAP	HISTORICA LCAP
ENVIRONMENTC AP	1					
HUMANCAP	.208**	1				
SOCIALCAP	.184**	.365**	1			
INFRASTRUCTU RALCAP	0,029	0,082	-0,008	1		
CULTURALCAP	.169**	.164**	.162**	-.160**	1	
HISTORICALCAP	.259**	.274**	.424**	0,069	.390**	1
**. Correlation is significant at the 0.01 level (2-tailed).						

Source: SPSS Output of the dataset of the study.

A Pearson's correlation analysis was conducted as shown by results in Table 6.18 above. Almost all items indicated significant correlations with the highest correlations

seen between HISTORICALCAP and SOCIALCAP (r =.424; p = <.01), HISTORICALCAP and CULTURALCAP (r =.390; p = <.01), and SOCIALCAP and HUMANCAP (r =.365 p = <.01). The lowest significant correlations were between CULTURALCAP and INFRASTRUCTURALCAP (r =.160; p = <.01), and CULTURALCAP and SOCIALCAP (r =.162; p = <.01).

6.7.1 Criteria used to determine important factors for Structural Equation Modelling (SEM)

Fynn, Huo and Zhao (2010) argue that it is important for the researcher to identify the number of important factors that should be retained through application of EFA, thus striking a balance between reduction of factors and adequate representation among the study variables (Hoelzle and Meyer, 2013). Hoelzle and Meyer (2013) contend that errors that arise in the selection of factors to include in the final analysis may lead to under-extraction or over-extraction, which results in incorrect conclusions.

In this section of the study, results from the fieldwork were subjected to levels of analysis. Entrepreneurial ecosystem and government incentives variables were originally tested and represented by 35 variables; therefore it was necessary to find a smaller number of underlying dimensions that could explain relevant interventions.

6.7.2 Chi-square tests

Data types of items were all categorical, as they were presented through Likert-scale items. The categorical scales consisted of ordered and unordered options. However, these tests, when significant, indicate that two variables are dependent, which means a change in one is associated with a change in another. An analysis association amongst responses to items in sections A to D required the correct analysis to be run, since most items were measured across two or more categories. This meant that a test of association was appropriate to help establish whether or not they are independent. The most appropriate test of independence amongst categorical variables was the Chi-square test (Pallant, 2013). Accordingly, the test run in SPSS provided optional readings depending on whether or not a main assumption, that at least 80% of the cells containing data, had a frequency of 5 or more (Pallant, 2013).

Table 6.19: Chi-square test country of origin and business Type

Chi-square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-square	19.343[a]	8	0,013
Likelihood Ratio	13,735	8	0,089
Linear-by-Linear Association	2,215	1	0,137
N of Valid Cases	537		
a. 6 cells (40.0%) have expected count less than 5. The minimum expected count is.09.			

Source: SPSS Output of the dataset of the study.

A Chi-square test was run to test for association between the country of origin of the respondent and the type of activity in the agribusiness value chain. All 537 responses were included in the analysis, and an alpha of p = >.05 was used. As seen in Table 6.19 above, the results of the analysis indicate that 40% of cells had an expected count less than 5, which violated a basic assumption that this percentage is not above 20%. Due to the violation of this assumption, the Likelihood Ratio was used and, with the value p =.089, the test results were not significant. This meant that a Chi-square test for independence indicated that there is no significant association between the country of origin of the respondent and the type of activity in the agribusiness value chain, X^2 (8, N = 537) = 19.34, p =.089.

Table 6.20: Chi-square test of type of business activity and company size

Chi-square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-square	70.546[a]	16	0,000
Likelihood Ratio	78,830	16	0,000
Linear-by-Linear Association	15,595	1	0,000
N of Valid Cases	537		
a. 6 cells (24.0%) have expected count less than 5. The minimum expected count is.54.			
Chi-square			
Symmetric Measures			
		Value	Approximate Significance
Nominal by Nominal	Phi	0,362	0,000
	Cramer's V	0,181	0,000
N of Valid Cases		537	

A Chi-square test was run to test for association between the business activity and company size, with an alpha of p = >.05 used. As seen in Table 6.20 above, the results

of the analysis indicated that 24% of cells had an expected count less than 5, and with an assumption violated, the Likelihood Ratio was used, p = <.001, indicating the test results were significant. This meant that the Chi-square test for independence indicated that there is a significant association between the business activity and size of company, X^2 (16, N = 537) = 70.55, p =.001. Cramer's V indicated a weak association, p =.181. This suggests that the size of the company and type of business are dependent, meaning that there could be a type of business that attracts more people, possibly due to growth associated with that type of activity. Put another way, some business activities led to more growth than others.

Table 6.21: Chi-square gender and company size

Chi-square Tests Gender * Size of Company			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-square	8.165[a]	4	0,086
Likelihood Ratio	8,195	4	0,085
Linear-by-Linear Association	3,833	1	0,050
N of Valid Cases	537		
a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 2.82.			

Source: SPSS Output of the dataset of the study.

A Chi-square test was run to test for association between gender and company size. In this test, the independent variable gender was compared with responses to the dependent variable company size to establish if gender has any influence on company size. Any such influence was vital in determining if the size of the company is dependent on the gender of the respondent. As seen in Table 6.21 above, the results of the analysis indicate that 20% of cells had an expected count less than 5, and with an assumption violated, the Likelihood Ratio was used, p = <.085, indicating the test results were not significant. This meant that the Chi-square test for independence indicated no significant association between gender and size of company, X^2 (4, N = 537) = 8.17, p =.085.

6.8   Developed SEM model of the empirical study

In this section of the study, a comprehensively detailed analysis of empirical statistical data that was collected for this study is carried out with the aim of showing the main features of inferential analysis. The study employed two dimension reduction methods among others, namely EFA and CFA, followed by SEM with IBM SPSS with AMOS (version 26). Steven (1996) states that EFA is both a multivariate analysis and descriptive in nature; therefore it may not test hypotheses alone. CFA as a statistically and theoretically driven method may be deployed to complement EFA, since it has capability to address failures of traditional multivariate procedures.

Hu and Bentler (1999) argue that there is no specified and agreed list of fit indexes used to attain the assessment of the model fit. However, other researchers consider the following conventional fit indexes as sufficient: $x^2/_{df}$, CFI, TLI and RMSEA. Hu and Bentler (1999) recommend a cut-off criteria for fit indexes as 0.95.

In this study, the following model fit indices were taken into consideration: $x^2/_{df}$, AGFI, RMSEA, CFI, IFI, TLI and GFI were used to test the hypotheses of the study. SEM with IBM SPSS with AMOS was used to test interdependence between key summarised factors, with sustainable entrepreneurial growth as the dependent variable. The approach allowed tests of all relevant paths, measurement errors and feedback to be included directly into the proposed model of the study. In this study, the researcher proposed a model for government incentives and sustainable entrepreneurial growth of SMMEs. Model fit was achieved only because of the interaction amongst four predictors or covariances amongst the individual factors of the model (Hu and Bentler, 1999).

In Figure 6.13 below, all indicators were endogenous because they were dependent on or predicted by their respective latent variables. Of the four latent variables depicted in Figure 6.12 below, namely (i) financial capital, (ii) policy environment, (iii) social capital, and (iv) historical capital, sustainable entrepreneurial growth of SMMEs was the only latent variable that was dependent on the other four. Relationships among latent variables are represented by directional arrows that serve as regression weights in the structural equations. Thus, in the SEM model for government incentives, the researcher hypothesised the following directional influences: that government entrepreneurial support referred to as policy environment, financial capital, social

capital and historical capital had a causal and direct effect on sustainable entrepreneurial growth of SMMEs.

6.8.1 Evaluation of measurement models' goodness of fit

The fundamental reason for using of SEM is that it easily determines the extent to which sample data fits into the hypothesised model (Hair *et al.*, 2011), by checking the estimated covariance matrix with the observed covariance matrix. According to Schumacker and Lomax (2004), model fit can be evaluated through the statistical significance of individual parameter estimates for paths in the model at 0.05 level of significance. The other standard includes fit indexes to be analysed and attained in assessing the model fit, according to Hu and Bentler (1999). Conventional fit indexes that are regularly considered include the following: Chi-square (X^2), CFI, TLI and RMSEA. Hu and Bentler (1999) argue that cut-off standards for fit indexes vary and are diverse. Byrne (2009:83) and Hair *et al.* (1998) suggest that determination of indices as acceptable estimators of goodness of fit is complex, given the sample sizes, estimation procedure, model complexity and violation of the underlying assumptions of multivariate normality and variable independence.

6.8.2 Developed SEM model for latents of past entrepreneurial behaviour and highest entrepreneurial intentions

FA was conducted on 16 questions extracted from sections B and C of the questionnaire of this study. These questions were analysed through PCA, and the type of rotation used was orthogonal. The data were analysed for appropriateness through subsequent tables of the KMO test of sampling adequacy and BTS. Total Variance Explained and Rotated Component matrix are shown below. With a strong KMO measure of.739 and a significant BT S ($X2$ (91) = 1983.184, p <.000), the data were adequate for FA.

Table 6.22: KMO and BTS

KMO and BT S		
KMO MSA.		.739
BTS	Approx. Chi-Square	1983.184
	Df	91
	Sig.	.000

KMO and BTS show good sampling adequacy and accurate sampling adequacy in employing FA.

Given the large number of variables in this study, Table 6.23 below shows results of orthogonal extraction with Varimax analysis. This was deemed necessary due to the large number of variables in this study, with a minimum of uncorrelated variables. Thus, Varimax Rotation was employed to minimise variables with high factor loadings in order to augment interpretation of factors.

Table 6.23: Principal Component Analysis

Communalities		
	Initial	Extraction
B12DEALING	1.000	.620
B13DUEDILI	1.000	.693
B14FAMILY	1.000	.335
B15SHARED	1.000	.552
B16NETWORK	1.000	.621
B17ENTORI	1.000	.683
C18INTENTION	1.000	.555
C19STARTNEW	1.000	.535
C20ADVOCATE	1.000	.524
C21GOVSUPP	1.000	.501
C22GROWTH	1.000	.573
C23SYSTEMATIC	1.000	.778
C24EXPERIENCE	1.000	.720
C25CIVICPRIDE	1.000	.561
Extraction Method: Principal Component Analysis.		

The FA produced four factors that accounted for 58% of the variance within the two sections. The first factor loaded questions 22, 23, 24 and 25 from section C. The

second factor loaded questions 18, 19, 20 and 21 from section C. The third factor loaded questions 15, 16 and 17 from section B. The fourth factor loaded questions 12, 13 and 14 from section B. A fifth factor had loaded but it was removed due to its low loading scores.

Table 6.24: Extraction method: PCA

Component	Initial eigenvalues		
	Total	% of Variance	Cumulative %
1	3.689	26.349	26.349
2	1.873	13.381	39.729
3	1.560	11.140	50.869
4	1.130	8.068	58.938
5	.924	6.603	65.541
6	.822	5.870	71.410
7	.748	5.342	76.753
8	.680	4.855	81.608
9	.609	4.348	85.956
10	.514	3.674	89.631
11	.464	3.315	92.946
12	.371	2.651	95.596
13	.343	2.447	98.044
14	.274	1.956	100.000

As alluded to in the explanation above, FA produced factors that accounted for 58% of the variance within the two sections. Accordingly, the tables below show results of the subsequent methods following a successful FA run of the two sections of the questionnaire.

Table 6.25: PCA with Rotation Method

Pattern Matrix				
	Component			
	1	2	3	4
B12DEALING				.744
B13DUEDILI				.785
B14FAMILY				.504
B15SHARED			.694	
B16NETWORK			.742	
B17ENTORI			.726	
C18INTENTION		.766		
C19STARTNEW		.717		
C20ADVOCATE		.625		
C21GOVSUPP		.723		
C22GROWTH	.622			
C23SYSTEMATIC	.865			
C24EXPERIENCE	.811			
C25CIVICPRIDE	.750			
Extraction method: Principal Component Analysis.				
Rotation method: Promax with Kaiser Normalisation.[a]				
a. Rotation converged in 5 iterations.				

The latent variable Highest Intentions and Past Behaviour (HIB) is a summary of variables derived from sections B and C of the questionnaire, referred to in the test above as HIB Ecosystem, to ensure it fitted well into the diagram. The observed variables were High Intention 1 (HiInt1), High Intention 2 (HiInt2), Past Entrepreneurial Behaviour 1 (PEB1) and Past Entrepreneurial Behaviour 2 (PEB2). The latent variable in the fitting solution was manifest in four constructs. Each of those constructs was derived from the calculation of the mean for the relevant question items. The individual questions making up each construct are presented in the table below.

The hypothesised causal relationship between the independent latent variables highest intention, that is to say HiInt1 (growth mindset) and HiInt2 (starting new venture through government support) and the dependent latent variable sustainable entrepreneurial growth of SMME is represented by the directional arrow that serves as a regression weight in Figure 6.11 below. In this structural model in Figure 6.11, the researcher hypothesises the following directional influences: that both highest

intentions, Hint1 and Hint2, had a causal and direct effect on sustainable entrepreneurial growth of SMMEs.

Similarly, the hypothesised causal relationship between the independent latent variables past entrepreneurial behaviour (PEB), that is to say PEB1 (networking and sharing resources) and PEB2 (due diligence and family support) and the dependent latent variable sustainable entrepreneurial growth of SMME is represented by the directional arrow that serves as a regression weight shown in Figure 6.11. Thus, the researcher hypothesises the following directional influences: that both past entrepreneurial behaviours, PEB1 and PEB2, had a causal and direct effect on sustainable entrepreneurial growth of SMMEs.

Table 6.26: Four constructs of Highest Intention and Past Behaviour

HiInt1	HiInt2	PEB1	PEB2
C22GROWTH	C18INTENTION	B15SHARED	B12DEALING
C23SYSTEMATIC	C19STARTNEW	B16NETWORK	B13DUEDILI
C24EXPERIENCE	C20ADVOCATE	B17ENTORI	B14FAMILY
C25CIVICPRIDE	C21GOVSUPP		

6.8.3: Empirical study findings of developed SEM model for latents highest entrepreneurial intention and past entrepreneurial behaviour in the ecosystem

The model fit indices (see Table 6.27 below) verify acceptable fit of the structural model with the dataset of this study (Bagozzi and Yi, 1998; Browne and Cudeck, 1993). The c2/df (Chi-square/degree of freedom), GFI, AGFI, RMSEA, CFI, NNFI/TLI and IFI were all considered to ascertain the appropriateness of the model (Hu and Bentler, 1999). Of note, the proposed model produced a CMIN of 1,272, well below the recommended 5. The model closed out with an RMSEA value of.23, which was the only index that fell out of the recommended range. The major fit indices all registered values above the suggested thresholds (Anderson & Gerbing, 1988).

Figure 6.11 below depicts the proposed model for Highest Intention and Past Behaviour in the ecosystem, illustrating four constructs of the Highest Intention and Past Behaviour ecosystem.
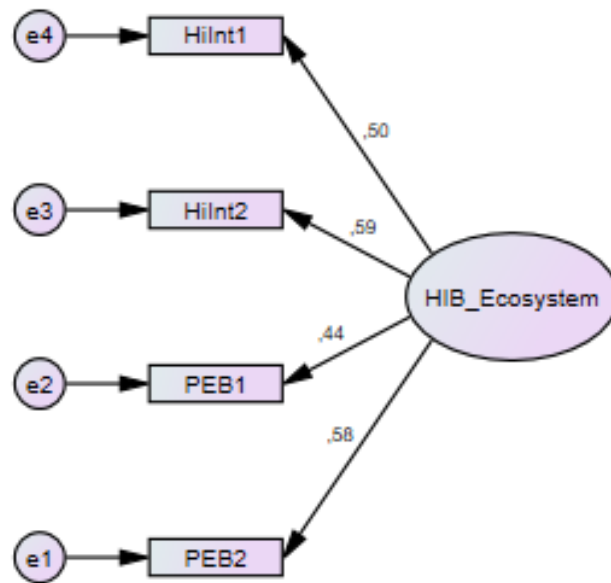
Figure 6.12 Developed SEM model for Highest Entrepreneurial Intentions (HEI) and Past Behaviour (PEB) in the entrepreneurial ecosystem

The constructs registered reasonable standardised estimates except for PEB1 =.44, with HiInt registering.50, HiInt2 =.59 and PEB2 =.58. The non-significant Chi-square p-value (.280) facilitated the retention of the null hypothesis, providing statistical confirmation that the observed model is equal to the predicted model. This confirms that the data observed match the data predicted.

Table 6.27: Model Fit Indices summary of tests for Highest Intentions and Past Behaviour

Index	Perfect Fit	Accepted Values	Sections B and C Model
$x^2/_{df}$	$x^2/_{df} < 3$	$3 < x^2/_{df} < 5$	1,272
AGFI	0.90 < AGFI < 1	0.85 < AGFI < 0.90	0,988
RMSEA	0 < RMSEA < 0.05	0.05 < RMSEA < 0.08	0,23
CFI	0.97 < CFI < 1	0.95 < CFI < 0.97	0,997
IFI	0.97 < IFI < 1	0.090 < IFI < 0.95	0,997
TLI	0.90 < TLI < 1	0.90 < TLI < 0.95	0,992
GFI	0.95 < GFI < 1	0.90 < GFI < 0.95	0,998

Table 6.27 above is a matrix of various results produced by SPSS with AMOS in calculating CFA for this model. The full set of results as they appeared in SPSS AMOS are provided in Annexure I.

6.8.4 Empirical study findings of developed SEM model for latents of government incentives in the entrepreneurial ecosystem

FA was carried out on 35 questions from section D of the study's questionnaire (see Annexure J). EFA was conducted using PCA with Orthogonal Varimax Rotation enabled. The KMO test of sampling adequacy and BTS were added to the analysis to verify the appropriateness of the data for EFA. The analysis yielded a robust KMO measure of 0.663, and BTS was significant (x^2 (537) = 5475.608, p <.000).

As a result of the above, the FA produced 11 factors that had eigenvalues above 1, which together accounted for 68% of the variance of the entire set of variables (see Annexure I). In arriving at these factors, it is important to note that only those factors with an eigenvalue of more than 1 were considered. Thus, a Scree Plot was used to determine the number of factors to retain, confirming the break between factors with eigenvalue greater than 1 and showing the importance for further analysis as well on those lower than 1. For the purpose of interpreting, factor loadings with eigenvalue greater than 0.5 were retained in the Rotated Matrix in Table 6.25. As a result, new constructs that contain most of the variations within the data emerged (Jollife, 2002).

The first factor consisted of three Likert-scale items that explained variance of 17%. The three items provided factor loadings ranging from.551 to.770. The second factor consisted of five Likert-scale items that explained variance of 9%, with factor loadings ranging from.561 to.801. The third factor consisted of four Likert-scale items that explained 6% of the variance, with factor loadings ranging from.526 to.791. The fourth factor consisted of four Likert-scale items that explained variance of 5%, which provided factor loadings ranging from.569 to.777. The rest of the factors comprised one or two items and may have been inadequate for separation as major factors.

A second FA was carried out on 35 questions in section D. These questions were analysed through PCA, and the type of rotation used was orthogonal. The data were analysed for appropriateness through the KMO test of sampling adequacy, and BTS was included. With an adequate KMO measure of .683 and a significant BTS ($X2$ (120) = 2125.082, p <.000), the data were adequate for FA. The data were analysed for appropriateness through subsequent tables of the KMO test of sampling adequacy and BTS (see Table 6.28 below), Total Variance Explained (see Table 6.30 below) and Rotated Component Matrix (see Table 6.29 below).

Table 6.28: KMO and BTS

KMO and BTS		
KMOMeasure of Sampling Adequacy.		.683
BTS	Approx. Chi-Square	2125.082
	Df	120
	Sig.	.000

Table 6.29 below shows communalities of the second FA that was carried out on 35 questions in section D using orthogonal extraction method.

Table 6.29: PCA with Rotation Method

Communalities		
	Initial	Extraction
D1PRODRATE	1.000	.723
D1TRANSCOST	1.000	.732
D2INCENTIVES	1.000	.668
D2LAWS	1.000	.580
D2NATFRAM	1.000	.671
D2TAX	1.000	.623
D3COACHMENT	1.000	.704
D3ONJOBTRAIN	1.000	.618
D1GVTPROGS	1.000	.479
D4LINKAGES	1.000	.649
D4SOCNET	1.000	.639
D5INFRAST	1.000	.629
D5TRANSPORT	1.000	.747
D5WATER	1.000	.630
MEDIAN(D7MENTORS,ALL)	1.000	.757
MEDIAN(D7STORIES,ALL)	1.000	.829
Extraction Method: Principal Component Analysis.		

Table 6.30 below shows results of Total Variance test in initial eigenvalues, percentage of variance and cumulative percentages of the core components of the second FA carried out on 35 questions in section D.

Table 6.30: Total Variance Explained

Component	Initial eigenvalues		
	Total	% of Variance	Cumulative %
1	3.587	22.421	22.421
2	2.118	13.235	35.657
3	1.529	9.554	45.211
4	1.270	7.938	53.149
5	1.121	7.007	60.156
6	1.054	6.586	66.742
7	.797	4.980	71.722
8	.749	4.682	76.404
9	.667	4.167	80.571
10	.618	3.862	84.433
11	.568	3.547	87.980
12	.507	3.170	91.150
13	.439	2.743	93.893
14	.387	2.420	96.314
15	.318	1.990	98.304
16	.271	1.696	100.000

Extraction Method: Principal Component Analysis

The FA produced six components that accounted for 66% of the variance. The first component loaded questions on government incentives, laws and regulations, national frameworks and SMME taxes, tax credits and tax holidays. The second component loaded questions on infrastructure, transport and water. The third component loaded questions on government programmes, linkages and social networking. The fourth component loaded questions on national frameworks, mentors and stories. The fifth component loaded questions on production rate and transport costs. The sixth component loaded questions on coaching and on-the-job training. The components or constructs were created by calculating a mean score of the items within each component.

Table 6.31: PCA, Rotation Method: Promax with Kaiser Normalisation.ᵃ

Pattern Matrixᵃ						
	Component					
	1	2	3	4	5	6
D1PRODRATE					.859	
D1TRANSCOST					.842	
D2INCENTIVES	.785					
D2LAWS	.735					
D2NATFRAM	.721			.303		
D2TAX	.649					
D3COACHMENT						.869
D3ONJOBTRAIN						.665
D1GVTPROGS			.648			
D4LINKAGES			.587			
D4SOCNET			.822			
D5INFRAST		.766				
D5TRANSPORT		.861				
D5WATER		.729				
MEDIAN(D7MENTORS,ALL)				.753		
MEDIAN(D7STORIES,ALL)				.933		
Extraction Method: Principal Component Analysis.						
Rotation Method: Promax with Kaiser Normalisation.ᵃ						
a. Rotation converged in 6 iterations.						

All the items that were loaded were based on responses to statements. All responses were presented on a 5-point Likert scale. While some constructs had more questions than others, they were all based on the 5-point Likert scale. Latent variables were derived from these questions. This simplified model was then analysed, and a combination of model fit indices were considered to refine the model into a well-fitting one. The method of estimation used was ML.

Construct 1	Construct 2	Construct 3	Construct 4
D1BANKS	D2INCENTIVES	D4ADVICE	MEDIAN (D7MENTORS,ALL)
D1CONTROLS	D2LAWS	D4LARGESHARE	MEDIAN (D7STORIES,ALL)
D1DFIS	D2NATFRAM	D4LINKAGES	
D1FINANCE	D2TAX		
D1GVTPROGS			
D1MGT			
D1PRODRATE			
D1SAVINGS			
D1TRANSCOST			

The above stated questions were obtained from the questionnaire of the study. Factor Analysis was deployed to decompose many variables into fewer in preparation for CFA for the SEM of Government Incentives Ecosystem tests.

The label Eco2 above refers to "Government Incentivised Ecosystem" abbreviated to GoIn Ecosystem. It encapsulates the areas covered by all the questions included in variables to the right. Those questions are shown in the table above.

Figure 6.13 Government incentives model structure explanation. Source: Author's own compilation using data from the study

The latent variable in the fitting solution was manifest in four constructs. Each of those constructs was derived from the calculation of the mean for the relevant question items. The individual questions making up each construct are presented in Table 6.32 below.

162

Table 6.32: Four constructs of the Government Incentive Ecosystem

FiCap	PolEnviron	SocCap	HistCap
D1BANKS	D2INCENTIVES	D4ADVICE	MEDIAN (D7MENTORS,ALL)
D1CONTROLS	D2LAWS	D4LARGESHARE	MEDIAN (D7STORIES,ALL)
D1DFIS	D2NATFRAM	D4LINKAGES	
D1FINANCE	D2TAX		
D1GVTPROGS			
11MGT			
D1PRODRATE			
D1SAVINGS			
D1TRANSCOST			

The latent variable Government Incentivised Ecosystem was labelled as GoInc Ecosystem to ensure it fitted well into the diagram. The observed variables were Financial Capital (FiCap), Policy Environment (PolEnviron), Social Capital (SocCap) and Historical Capital (HistCap). Each of the measured and latent variables were either exogenous (independent) or endogenous (dependent), as shown in Figure 6.12 and Table 6.31 above. Relationships among latent variables are represented by directional arrows, which serve as regression weights in the structural equation. Thus, according to the AMOS output model, the following directional influences are hypothesised: (a) that government incentives, namely policy environment (economic and political capitals), financial capital (GVC), social capital and historical capital causally and directly affect sustainable entrepreneurial growth of SMMEs in the agribusiness value chain in Botswana.

6.8.5: Empirical study findings of developed SEM model for government incentives in the entrepreneurial ecosystem

The c2/df (Chi-square/degree of freedom), GFI, AGFI, RMSEA, CFI, NNFI/TLI and IFI were all considered to ascertain the appropriateness of the model. Of note, the proposed model produced a CMIN of 1,840, well below the recommended 5. The model closed out with an RMSEA value of.040 and a PCLOSE of.508. The major fit indices all registered values above the suggested thresholds, and they are presented in Table 6.38 below.
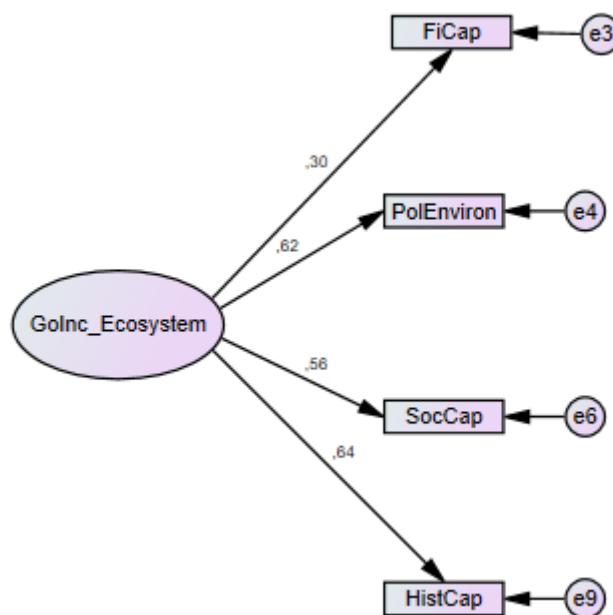
Figure 6.14 Developed SEM model for government incentives in the entrepreneurial ecosystem depicting four constructs

The various constructs registered reasonable standardised estimates, except for FiCap =.30, with PolEnviron registering.62, SocCap =.56 and HistCap =.64. The non-significant Chi-square p-value (.159) facilitated the retention of the null hypothesis, providing statistical confirmation that the observed model is equal to the predicted model. This confirmed that the data observed matched the data predicted.

Table 6.33: Model fit indices summary for government incentives in the ecosystem

Index	Perfect Fit	Accepted Values	section D Model
$x^2/_{df}$	$x^2/_{df} < 3$	$3 < x^2/_{df} < 5$	1,840
AGFI	0.90 < AGFI < 1	0.85 < AGFI < 0.90	0,983
RMSEA	0 < RMSEA < 0.05	0.05 < RMSEA < 0.08	0,40
CFI	0.97 < CFI < 1	0.95 < CFI < 0.97	0,993
IFI	0.97 < IFI < 1	0.090 < IFI < 0.95	0,993
TLI	0.90 < TLI < 1	0.90 < TLI < 0.95	0,978
GFI	0.95 < GFI < 1	0.90 < GFI < 0.95	0,997

Table 6.33 above illustrates a matrix of various results produced by SPSS with AMOS in calculating CFA for this model. The full set of results as they appear in SPSS AMOS are provided in Annexure I.

6.8.6 Recapitulation of study hypotheses and new model expectations

Hypothesis 1: H₁ - *There is a significant statistical relationship between government incentives and sustainable entrepreneurial growth of SMMEs.*

Results as seen in Table 6.15 above show that 'I fully utilise government support programmes to grow the capacity of my company and advocate for this entrepreneurial ecosystem to upcoming start-ups' produced a correlation: (r =.449; p = <.01). Therefore, this indicated a significant high correlation seen between the items government incentives and sustainable entrepreneurial growth. Thus in the model, the researcher hypothesised the directional influence that government incentives causally and directly affected sustainable entrepreneurial growth of SMMEs, confirming the acceptance of hypothesis H₁.

Similarly, the model fit indices (see Table 6.26) verified acceptable fit of the structural model with another variable of government entrepreneurial support (C21GOVSUPP), namely business networking platforms (B16NETWORK). Of note, the proposed model produced a CMIN of 1,272, well below the recommended 5. The model closed out with an RMSEA value of.23, which was the only index that fell out of the recommended range. The major fit indices all registered values above the suggested thresholds.

Agribusiness SMMEs that sought to exploit existing opportunities based on existing market knowledge were more likely to attain growth than those that sought to exploit opportunities based on new market knowledge (Dess & Beard, 1984). Existing market knowledge of dimensions such as funding, taxes and targeted government programmes were adopted and further developed to investigate their effects on sustainable entrepreneurial growth (Covin & Covin, 1990; Pelham & Wilson, 1996).

Hypothesis 2:   H$_2$ - *There is a significant statistical relationship between entrepreneurial ecosystem capitals and sustainable entrepreneurial growth of SMMEs.*

According to the results in Table 6.18 above, a Spearman's Rho correlation analysis was conducted due to the fact that the dependent variable company size, which represented sustainable entrepreneurial growth, was an ordinal variable. The other components of the entrepreneurial ecosystem capitals were continuous. Almost all of the five selected entrepreneurial ecosystem capitals indicated significant correlations, with the highest correlations seen between HISTORICALCAP and SOCIALCAP (*r* =.424; p = <.01), HISTORICALCAP and CULTURALCAP (*r* =.390; p = <.01), and SOCIALCAP and HUMANCAP (*r* =.365 p = <.01). The lowest significant correlations were between CULTURALCAP and INFRASTRUCTURALCAP (*r* =.160; p = <.01), and CULTURALCAP and SOCIALCAP (*r* =.162; p = <.01). Therefore, the result indicates that respondents who own or manage larger businesses had a statistically significant, higher opinion on entrepreneurial ecosystem capitals such as infrastructural, social, historical, human and cultural.

In addition to the above, ecosystem capitals components of the research were subjected to c2/df (Chi-square/degree of freedom) =1,840; GFI =0,997; AGFI =0,983; RMSEA = 0,40; CFI = 0,993; NNFI/TLI and IFI =0,993 to test the hypothesis. Hypothesis H$_2$ was accepted since these variables were internally consistent and the model was a good fit for data.

Hypothesis 3:   H$_3$ - *There is a significant statistical relationship between entrepreneurial orientation and sustainable entrepreneurial growth.*

Results in Table 6.17 above show that a Spearman's Rho correlation analysis was conducted due to the fact that both variables, namely company size or number of employees, which represented sustainable entrepreneurial growth and entrepreneurial orientation, were ordinal. Therefore, results of the Spearman's Rho correlation indicated that there was a significant, negative correlation between company size and entrepreneurial orientation (rs (537) = -.222, p <.000). These results suggest that respondents who run or manage larger SMMEs had a statistically significant, lower opinion on the role of entrepreneurial orientation in establishing

successful companies. In other words, owner/managers from larger SMMEs seem to disagree with other SMME owners that entrepreneurial orientation helped to overcome barriers (roadblocks) in their SMMEs. Conversely, respondents from smaller SMMEs were more likely to agree with the statement as shown by the negative correlations.

Hypothesis H_3 was accepted since company size, which represented sustainable entrepreneurial growth and entrepreneurial orientation, were internally consistent, therefore suggesting that the variable model was a good fit for data and underscoring the notion that sustainable entrepreneurial growth and past entrepreneurial behaviour and intentions are inextricably connected, as held in the literature (Spigel, 2017; Stam, 2016; Brown & Mason, 2017).

Although the outputs of the two models shown above, Figure 6.12 and Figure 6.14, comprise separately empirically tested SEM models and therefore can be read independently, together the two models provide an enhanced understanding of the key variables for measuring holistically all the objectives and hypotheses of the current study. Collectively, the two models above show novel phenomena explaining the unit of analysis. Thus, their important contribution provides further scholarly understanding of the theories of entrepreneurial ecosystem and government incentives in co-creating sustainable entrepreneurial growth of SMMEs.

6.9   Summary of the chapter

This chapter began with an introduction and chapter organisation and concluded with the research findings based on empirical data, which were collected from 600 valid cases. Results of a pilot test were described, as well as data-gathering techniques, along with preliminaries. This was followed by a detailed account of descriptive statistics of demographic variables, correlations and cross-tabulations of the variables of the other two sections of the questionnaire, namely section B covering entrepreneurs' backgrounds and section C covering their highest intentions.

The inferential statistics of the data collected were dealt with through SEM. These included but were not limited to PCA and CFA. The highlight of this chapter was captured by the proposed SEM model of the study for government incentives in creating sustainable entrepreneurial growth of SMMEs, interpreted together with its

complementary SEM model for highest entrepreneurial intentions and behaviour. Collectively, the two models above are utilised to explain the unit of analysis holistically, that is to say, all the functions of the entrepreneurial ecosystem working together as a system. Chapter 7 covers discussions and findings

CHAPTER SEVEN

SUMMARY OF FINDINGS, DISCUSSIONS AND RECOMMENDATIONS

7.1   Introduction

The rationale for the study as laid out in chapter 1 was to investigate the capability of government incentives to create sustainable entrepreneurial growth of SMMEs, and consequently to establish the efficacy of government incentives in promoting sustainable entrepreneurial growth of SMMEs. The quantitative approach adopted for the research and its processing of statistical data entailed analysing data collected from 600 owner/managers of SMMEs based in agribusiness in Botswana. Statistical analyses such as correlation, cross-tabulation and Chi-square tests were performed to describe participants' responses to questions. In addition to the above, Component Principal Analysis (CPA), EPA, CFA and SEM, with IBM SPSS with AMOS were conducted to investigate causal and direct effects of government entrepreneurial support on sustainable entrepreneurial growth of SMMEs in agribusinesses in Botswana. Usage of SEM with AMOS generalised the findings of the study since sample data fitted into hypothesised models. Testing of reliability and validity of data before conducting a statistical process also tested applicability of quality of data for analysis (Hair et al., 2019; 2011; 2006).

This chapter summarises both primary and secondary data that was gathered for this study. Consequently, its sections are sequentially organised to complement each other as follows. Section 7.1 introduces the chapter. A development of the topic is provided in section 7.2. The research summary is discussed in section 7.3, whereby results of the questions as well as SEM with IBM SPSS with AMOS are used to investigate the ability of government incentives in the existing entrepreneurship ecosystem to create sustainable entrepreneurial growth of SMMEs. Section 7.4 provides a problem statement. Section 7.5 highlights research objectives. Section 7.6 discusses the findings summary. Section 7.7 provides key findings and interpretation. Section 7.8 explains the contribution to knowledge. Section 7.9 lists policy implications of the research. Section 7.10 offers recommendations of the research. Section 7.11

identifies some of the limitations of the study and future areas of consideration. Finally, conclusions are provided in section 7.12.

7.2   Research topic

The topic of the study was derived from agribusiness SMMEs in Botswana as a sampling unit that offered a unique case study of a single country's broad government efforts to support entrepreneurship. Agribusiness SMMEs provided a necessary framework for creating a sustainable entrepreneurship ecosystem. The topic for the study was nurtured against a backdrop of growing academic debate and research that connects resource-based constructs that stem from Austrian Capital Theory. This allowed previously developed models of capitals that are relevant to entrepreneurship ecosystems to be interrogated in a setting such as the ecosystem of SMMEs in the agribusiness value chain in Botswana. By deploying divergent entrepreneurial ecosystem, government incentives and sustainable entrepreneurial growth theories, the researcher helped build the foundation, thus partially filling the identified gaps and answering questions that led to the investigation.

7.3   Research summary

In the section below, discussions of the layout of the study through its chapters gives a summary of each chapter in order.

In chapter 1, section 1.1 commenced with a synopsis of the study. Section 1.2 offered an introduction to the study that defined the term entrepreneurial ecosystem, its contextual background and four ontological layers of elements of an ecosystem. Section 1.3 provided a problem statement of the study, which showed a dearth of attention to constraints to government effectuation of entrepreneurial support, resulting in a high failure rate of both government entrepreneurial support and SMMEs in developing countries. Section 1.4 gave a detailed list of the research questions. Section 1.5 highlighted the rationale for the study, which raised research questions related to structurally coordinated entrepreneurship programmes in emerging economies such as Botswana. Section 1.6 highlighted key methodologies of the

research, namely a positivist view paradigm, a descriptive survey research design, population and samples. Section 1.7 provided ethical considerations of the research. Section 1.8 gave definitions of key terms. Section 1.9 drew conclusions. Finally, section 1.10 summarised of the chapters of the research.

Chapter 2 was organised into seven sections. Section 2.1 explored the background of Botswana and introduced SMMEs in Botswana as a study context. Section 2.2 discussed the evolution of entrepreneurship in Botswana. The level of entrepreneurship activity in Botswana was highlighted in section 2.3. Section 2.4 outlined SMMEs as vehicles for promoting entrepreneurship. Section 2.5 discussed an overview of agriculture in Botswana. Section 2.6 identified the growth paradox of the economy in Botswana. Lastly, section 2.7 concluded the chapter.

Chapter 3 contained six sections, starting with an introduction and an ecosystem overview. Section 3.2 explored theoretical frameworks of entrepreneurial ecosystems and the heterogeneity of entrepreneurial ecosystem challenges. Section 3.3 defined sustainable entrepreneurial growth, key characteristics of successful start-ups and contextual dimensions within which entrepreneurial growth takes place. Section 3.4 identified and discussed the theoretical framework underpinning the research of entrepreneurial ecosystems. Section 3.5 listed relevant theories from extant literature that support entrepreneurial ecosystems. Section 3.6 ended by providing a summary.

Chapter 4 was organised into nine sections. Section 4.1 introduced the chapter. Section 4.2 introduced the background of classification of barriers to market entry of start-ups. Section 4.3 outlined the efforts of governments to revitalise the entrepreneurial spirit by embarking on entrepreneurship development programmes, termed entrepreneurial support. Section 4.4 defined the concept of government incentives and their types, namely direct, indirect and financial interventions. Section 4.5 discussed types of government incentives, including the role of government training and development of entrepreneurs by the LEA and GVFs such as CEDA in Botswana and their new models in the markets. Section 4.6 presented theories in literature that supported government incentives in sustaining entrepreneurial growth, for example, the theory of the firm and its principal agency relationships and costs, McClelland achievement motivation theory and marginalisation theory. Section 4.7

identified and discussed conceptual frameworks for analysing government programmes and policies in Botswana. Section 4.8 concluded the chapter.

In chapter 5 section 5.2, elaborated the research paradigm. Section 5.3 explained the research design, in which the conceptual model of the empirical research complemented hypotheses of the study. Section 5.4 described ethical considerations of the study. Section 5.5 identified and discussed assumptions of the study. Section 5.6 summarised the research methodology of the study.

Chapter 6 sections were interlinked in the following sequence: section 6.1 was devoted to introducing the chapter. Pilot test results were summarised in section 6.2, since data were first collected for a pilot test to ensure its reliability. Section 6.3 covered data-gathering processes. Section 6.4 discussed preliminary statistical data analysis and preparation processes, which consisted of coding, data cleaning for missing data, test for normality and common methods bias. A detailed description of demographic variables of the sample was given in section 6.5, which detailed demographic analysis, tabulation, cross-tabulation and correlations of variables. Section 6.6 discussed analyses such as the PCA of government incentives, intentions and past behaviour in the entrepreneurial ecosystem, their correlations, Chi-square analysis and results of common method bias tests. Finally, in sections 6.7 and 6.8, several multivariate analyses such as EFA, CFA and SEM with IBM SPSS with AMOS (version 26) were carried out in order to establish relationships between variables in this study, which are key to understanding causal and correlational relationships. Section 6.9 summarised the chapter.

7.4   Problem statement

The problem statement of the study identified a dearth of attention to constraints on government incentives, resulting in a high failure rate of eighty per cent for both government entrepreneurial support programmes and SMMEs in developing countries. As a consequence of a lack of attention paid to the efficacy of government incentives in achieving enunciated objectives in Botswana, the high failure rates of eighty per cent (80%) that have accompanied the creation of SMMEs in relation to entrepreneurial support programmes in Botswana are not as well understood as they should be, according to the GTCI (2019:p.8; GEM, 2016:p.58).

The problem of the effectiveness of government incentives is not resolved and is a cause for concern in the agribusiness SMMEs entrepreneurial ecosystem of Botswana. This is supported by scholars and policy-makers, who argue that misalignments occur when the policies and programmes of different public institutions do not complement each other (Freiling *et al.*, 2020:28).

7.5   Research objectives

The research objectives of this study are stated as follows:

7.5.1   Primary research objectives

The primary research objective was to evaluate the efficacy of government incentives on sustainable entrepreneurial growth of SMMEs in agribusiness in Botswana.

7.5.2   Secondary research objectives

The secondary research objectives were

i.   to investigate the extent of government incentives on sustainable entrepreneurial growth of SMMEs in the agribusiness ecosystem in Botswana,

ii.   to analyse the impact of entrepreneurial ecosystem capitals on sustainable entrepreneurial growth of SMMEs in agribusiness in Botswana,

iii.   to explain the extent to which entrepreneurial orientation relates to sustainable entrepreneurial growth of SMMEs in the agribusiness ecosystem in Botswana, and

iv.   to formulate an integrative entrepreneurial ecosystem model framework for the development of entrepreneurs and entrepreneurship in Botswana.

7.6 Findings summary

Apart from the major findings, which were based on the outputs of PA of the SEM with IBM SPSS with AMOS, there were other findings that supported the research

objectives of this study. In an effort to realise the objectives of this study in accordance with section 1.5.1 of chapter 1, the main findings of this study were discussed in chapter 6. The approach was aimed at providing an overview of chapter 6. As stated earlier, findings of the research may contribute to academic, government and managerial spheres of practice, which may be utilised as a model framework for creating healthy sustainable entrepreneurial growth of SMMEs through implementation of relevant and timely policy incentives such as government incentives for the benefit of all stakeholders. A summary and discussion of the major results and findings emerged from the analysis in chapter 6. These were presented as follows.

7.6.1   Results of pilot test

Pilot test results were summarised in chapter 6 section 6.3. Pilot tests were conducted on 90 respondents; 64 of the questionnaires were deemed usable and effective. Statistics from the pilot test data showed mean ranges of constructs between 3.7145 and 5.4730 indicating internal consistency and reliability of the constructs, according to George and Mallery (2016:p.240). Standard deviation (std. dev) ranged from 0.61948 and 1.26731. Data was first collected for a pilot test to ensure its reliability. Since all the constructs that were used proved to be robust and valid, results of the pilot study were sufficient for the main study to proceed, since constructs showed reliability.

7.6.2   Preliminary data analysis

In chapter 6, section 6.4 covered data-gathering processes; section 6.5 discussed preliminary data analysis and preparation processes which consisted of coding, data cleaning for missing data, test for normality and common method bias. From the 600 questionnaires that were distributed, data for this study was effectively collected from 537 owner/managers of SMMEs based in the agribusiness sector and its segment sub-sectors from the centralised national database of the LEA.

7.6.3 Demographic analysis

A detailed description of the demographics of the sample were given in section 6.6, using descriptive statistical methods such as demographic mean and median, as well as cross-tabulation, correlation of variables and Chi-square tests.

7.6.4 Principal Component Analysis (PCA)

Section 6.7 discussed results of PCA following calculations of Cronbach's Alpha coefficients of entrepreneurship ecosystem constructs in section D of the questionnaire. PCA was used in this study for examining dimensionality by using a linear combination of optimally weighted observed variables (orthogonal components), according to Stevens (1992), Dunteman (1994) and Lagona and Padovano (2007).

7.6.5 Multivariate Analysis (MVA)

In section 6.8 multi-analysis was discussed; reports indicated both Skewness and Kurtosis values were between -1 and +1, indicating that there were no items associated with non-normal, according to Joanes and Gill (1998), since there were no cases in which D^2 was distinctly separate from other D^2 values. Tabachnich and Fidell (1996) state that when the critical value of p is less than 0.001, there are no outliers identified based on non-existence of substantial gaps in the Mahalanobis D^2 distances, and therefore none were discarded.

7.6.6 Structural Equation Modelling (SEM)

Inferential statistical analysis was carried out by checking for sample data fitness into the hypothesised model using SEM. According to Hair, Ringle and Sarstedt (2010), if Construct Reliability (CR) and Average Variance Explained (AVE) CR>7, CR>AVE and AVE>0.5, then data meets Convergent Validity. SEM represented hypothesised direct causal and correlational effects between different constructs that had statistical dependencies, according to Shipley (2000). Such dependency was explained by parameters that showed the level of effect of the independent variable on the dependent variable and correlations between many variables.

7.7   Key findings and interpretation

The first research objective reads as follows: to investigate the extent of government incentives on sustainable entrepreneurial growth of SMMEs in the agribusiness ecosystem in Botswana. Accordingly, results of Table 6.15 above show that correlation analysis was run to compare responses to company size (representing sustainable entrepreneurial growth) with the following two key variables:

(i)   Shared Resources - 'Shared resources with other SMME owners were critical to the early development of this enterprise.' A Spearman's Rho correlation analysis was conducted due to the fact that company size and the other variables are both ordinal. Results of the Spearman correlation indicated that there was a significant, negatively weak correlation between company size and shared resources (rs (537) = -.093, p =.032).

(ii)   Government incentives - 'I fully utilise government support programmes such as taxes to grow the capacity of my company and advocate for this entrepreneurial ecosystem to upcoming start-ups' (r =.449; p = <.01). The two correlations ranged from a low of r =.089 to a high of r =.646. Spearman correlation results also indicated that there was a significant, negative correlation between company size and entrepreneurial orientation (rs (537) = -.222, p <.000).

The second research objective reads as follows: to analyse the impact of entrepreneurial ecosystem capitals on sustainable   entrepreneurial growth of SMMEs in agribusiness in Botswana. Results of Table 6.18 above show that Pearson's correlation analysis was conducted to compare responses to company size (representing sustainable entrepreneurial growth) with the following five key entrepreneurial ecosystem capitals variables: social capital, historical capital, cultural capital, human capital and infrastructural capital.

Almost all items indicated significant correlations, with the highest correlations seen between HISTORICALCAP and SOCIALCAP (r =.424; p = <.01), HISTORICALCAP and CULTURALCAP (r =.390; p = <.01), and SOCIALCAP and HUMANCAP (r =.365

p = <.01). The lowest significant correlations were between CULTURALCAP and INFRASTRUCTURALCAP (r =.160; p = <.01), and CULTURALCAP and SOCIALCAP (r =.162; p = <.01).

The third and final research objective reads as follows: To explain the extent to which entrepreneurial orientation relates to sustainable entrepreneurial growth of SMMEs in the agribusiness ecosystem in Botswana. Results in Table 6.17 above show that a Spearman's Rho correlation analysis was conducted due to the fact that both variables, namely company size or number of employees, which represented sustainable entrepreneurial growth and entrepreneurial orientation, were ordinal. Results of the Spearman's Rho correlation indicated that there was a significant, negative correlation between company size and entrepreneurial orientation (rs (537) = -.222, p <.000). These results suggest that respondents who run or manage larger SMMEs had a statistically significant, lower opinion on the role of entrepreneurial orientation in establishing successful companies. Owner/managers from larger SMMEs seem to disagree with other SMME owners that entrepreneurial orientation helped to overcome barriers (roadblocks) in their SMMEs. Conversely, respondents from smaller SMMEs were more likely to agree with the statement, as shown by the negative correlations.

Although the outputs of the two models shown above, Figure 6.12 and Figure 6.13, comprise separately empirically tested SEM models and can be read independently, together the two models provide an enhanced understanding of the key variables for measuring all the objectives and hypotheses of the current study. Collectively, the two models above show novel phenomena, explaining the unit of analysis.

7.8   Contribution to knowledge

This research makes a significant contribution to knowledge in two ways. Firstly, the study proffers an integrative model framework for an entrepreneurial ecosystem in Botswana for SMMEs (see Figure 7.1) with its constitutive propositions. The aforementioned statement is important, given that most of the studies in entrepreneurial ecosystem literature are based on the United States and Europe, and further, the studies tend to focus on start-ups rather than actual SMMEs. As alluded

to above, several recommendations in extant literature are proffered to sub-Saharan African policy-makers and academics; however, they tend to be directed towards hi-tech start-ups rather than agro-industries SMMEs.

The study proffers a related conceptual construct to bridge an academic gap (see Figure 7.2).

7.8.1 Integrative entrepreneurial ecosystem model framework for developing entrepreneurs and entrepreneurship in Botswana for SMMEs

The integrative entrepreneurial ecosystem model framework for developing entrepreneurs and entrepreneurship in Botswana for SMMEs is recommended to benefit key stakeholders in the entrepreneurial ecosystem in order to increase the success rate of new ventures and implementation in sequence. Despite widespread and universal acknowledgement of the death of SMMEs before they reach five years, no study has developed an integrative model framework for entrepreneurial ecosystem and government incentives in creating sustainable entrepreneurial growth in Botswana by combining variables such as government incentives and entrepreneurial ecosystem to create sustainable entrepreneurial growth of SMMEs. Thus, empirical findings posited that these variables had statistical significance and a causal and direct effect on sustainable entrepreneurial growth of SMMEs in Botswana. The researcher thus developed an integrative model framework for entrepreneurial ecosystem and government incentives in creating sustainable entrepreneurial growth in Botswana for SMMEs, as shown in Figure 7.1.

The proposed integrative model framework includes variables that have not been used before. The dependency and interrelationships of government support, financial capital, cultural capital, social capital and infrastructural capital were discovered to have a strong effect on enhancing sustainable entrepreneurial growth of SMMEs in Botswana. Consequently, the entrepreneurial ecosystem will follow a pathway, moulded by government incentives, of an imminent growth sequence from an early, less-developed stage towards a more mature, specialised and differentiated healthy sustainable ecosystem of SMMEs.

In this context, the researcher derives from the proposed model framework's constituent variables and their interrelationships the following propositions.

Proposition 1: Defining entrepreneurial evolution as the result of interaction at any given time between the principal variables, namely government support, financial capital, social capital, cultural capital and infrastructural capital is essential.

Proposition 2: Co-evolving and interaction of all six variables with each other, as a result of economic incentives offered by either government or the private sector, leads to nonlinear dynamics and feedback effects. These resultant effects may be termed positive knowledge spillover. As a result, there are distinct contrasts between a government-driven entrepreneurial ecosystem and a business-driven ecosystem.

Proposition 3: The strength of the interdependency of the principal variables and type of economic incentives, that is to say, government-led incentives or business-led incentives, influences the possible pathway trajectory of an entrepreneurial ecosystem from early stages to mature stages.

Proposition 4: The external environment and markets influence the entrepreneurial ecosystem. In this context, the external environment may be described as transparency of competitors and their business activities or the frequency of obsolescence of production technologies, whereas markets may be described as business activities outside its own borders.

Proposition 5: Strength and balance of each constituent variable as a determining force of the level of development of an entrepreneurial ecosystem are important.
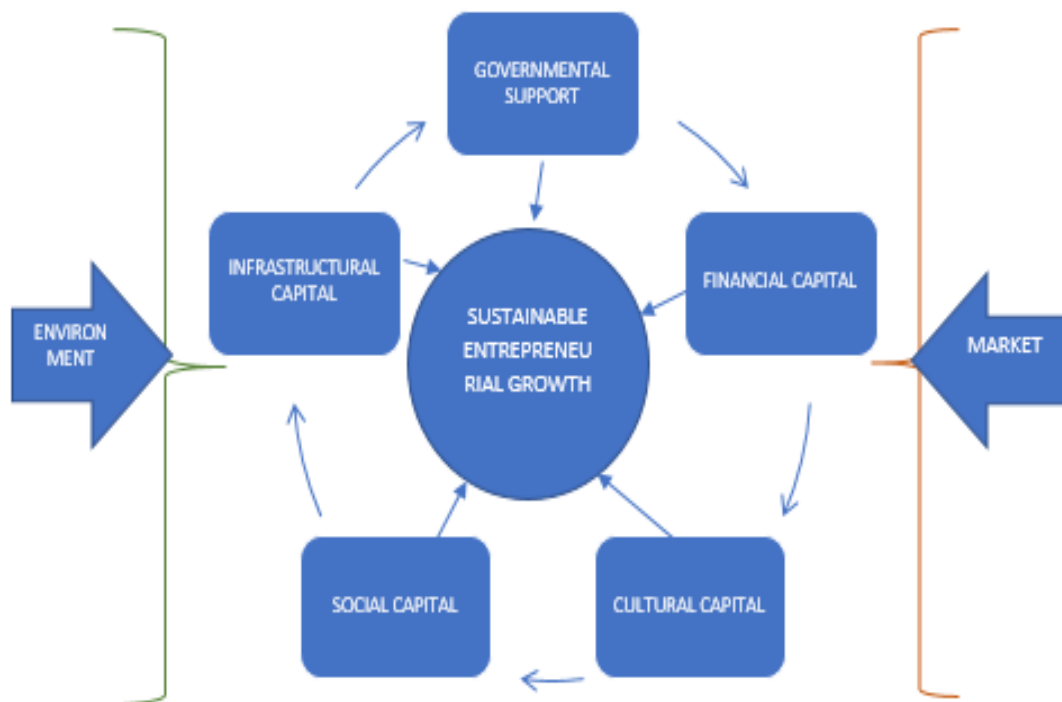
Figure 7.1 Integrative entrepreneurial ecosystem model framework for the development of entrepreneurs and entrepreneurship in Botswana

Source: Author's compilation using empirical results of the study.

7.8.2 Central conceptual constructs of the study and related academic gap

The study's central conceptual constructs that are related to an academic gap are shown in Figure 7.2 below. Conceptual constructs of this study are related to an academic gap in three areas, namely (i) evaluation and knowledge creation, (ii) expected outcomes and impact, and (iii) the role of the analytical framework in strengthening sustainable entrepreneurial growth of SMMEs.

Evaluation and knowledge creation

The model continuously refines its monitoring and evaluation framework to evaluate the impact and outcomes of the constructs conceptualised by the leading roles of entrepreneurs in the development of the entrepreneurial ecosystem, using a self-reinforcing process of entrepreneurial recycling.

Role of strengthening the sustainability of entrepreneurial growth of SMMEs

The central conceptual constructs of the study play an important role in strengthening an under-researched area by providing insight from both the developed and developing economies.

Expected outcomes and impact

Among many expected outcomes and impacts of the central constructs of this study, the following are listed: (i) directly and indirectly promoting SMMEs and the green economy of innovative agribusiness in an emerging economy, (ii) increasing job creation along the agribusiness value chain in rural and urban areas, (iii) accelerating the green economy of competitive agribusiness, thereby enabling emerging economies to realise greater development gains from the agribusiness segments of their economies, and (iv) inspiring entrepreneurs to join agribusiness industries.
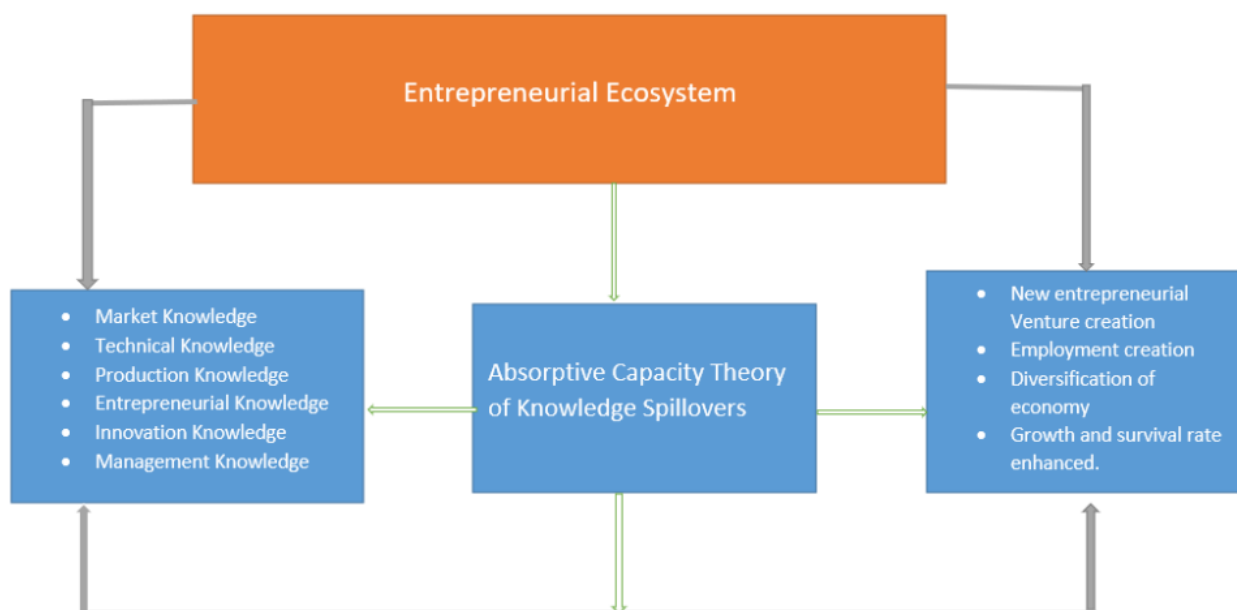
Figure 7.2 Central conceptual constructs of the study and related academic gap
Source: Author's own construction.

The findings of the study may have some important implications for the area of research on the entrepreneurship ecosystem and its relationship with government

incentives, since it provides support to the ongoing debate that examines such relationships. Historically, large transnational enterprises, rather than agribusiness SMMEs, within the food security system spread across sub-Saharan African countries, filling voids within vertical food systems from farm provider up to the final client. Thus, they carried out those functions of inputs technology, farming, processing and distribution that seemed to be performed inefficaciously by agribusiness SMMEs within the total vertical food system, termed agribusiness according to Bruni and Santucci (2016). Horbach, Rammer and Rennings (2012) support findings by Bruni and Santucci (2016), adding that agribusiness firms in advanced economies are growing at a faster pace than those found in emerging economies such as sub-Saharan African economies.

In the context of Botswana, understanding the relationships between the entrepreneurship ecosystem, government incentives and sustainable entrepreneurial growth of agribusiness SMMEs is of paramount importance, given the importance of entrepreneurial ecosystems and the increasing need for SMMEs based in agribusiness value chains to operate economically, efficaciously, efficiently, effectively and ethically. With the background of an annual import bill of BWP 7.6 billion, SMMEs in the agribusiness value chain are a key component to propelling the country into food security and economic stability. Government entrepreneurial support has played a critical role in improving outcomes of funding, taxation and other empowerment initiatives. However, little is known about the role of government incentives and their effect on sustainable entrepreneurial growth of SMMEs, particularly those based in the agribusiness value chain.

This study has offered an empirical analysis of responses of owner/managers of SMMEs in the agribusiness value chain in Botswana by using a first-hand investigation approach. Firstly, the research may be considered to have contributed to an under-studied subject of entrepreneurship, in addition to contributing an example for other sub-Saharan African economies that face similar challenges. According to Cavallo, Ghezzi and Balocco (2019) and Acs and Szerb (2017:10), the nature of the subject of entrepreneurship ecosystems is under-researched, under-remarked and coupled with a lack of entrepreneurs to study.

Secondly, while acknowledging that this area of entrepreneurship is under-researched, previous contributors to extant literature (Autio et al., 2016; Acs et al., 2017; Stam and Spigel, 2017; Brown and Mason, 2019) suggest that both government programmes and the targeted SMMEs are often failing to leverage adequately the potential of government incentives to help them achieve sustainable growth, including profitability and liquidity. Thus, this study contributes to the scarce and sparse literature on SMMEs in developing countries, in terms of their contribution to ecosystems through entrepreneurship programmes. Several researchers (Acs et al., 2017) note that there are few theoretical frameworks that link sustainable entrepreneurial growth to government incentives or programmes for entrepreneurship. Amongst numerous indicators and measures of entrepreneurship at global level, most African countries are left out, perhaps due to scarcity of local entrepreneurship scholars (Spigel, 2017:p.20).

Thirdly, since the current study attempted to connect resource-based constructs with capitals that stem from Austrian Capital Theory, it therefore built on the foundation of previously developed models of capitals relevant to entrepreneurship ecosystems (Freiling & Baron, 2014:pp.5, 9). By doing, so this study sought to answer the question of whether entrepreneurial ecosystems possessed unique resources and the capital structures that explained outcome measures, such as growth, and dynamism, such as fluidity. Therefore, the study contributed to global knowledge by demonstrating that entrepreneurship ecosystems and government incentives create sustainable entrepreneurial growth of SMMEs. The data from this study could be used by policy-makers, academics and practitioners of ecosystems to enhance their efficacy, efficiency, effectiveness and profitability.

Fourthly, this study proposed a SEM model for government incentives that can be used in emerging economies such as those in sub-Saharan Africa. Therefore, the study added a model and an explanation to those institutions, governments and researchers who wish to benefit from the relationships between government incentives, sustainable entrepreneurial growth of SMMEs and the positive knowledge spillover effects in an entrepreneurship ecosystem. Such institutions can use the data to assess their own ecosystems rather than cut-and-paste models from developed economies, such as the Silicon Valley ecosystem.

Fifthly, several researchers (Spigel, 2017:p.20; Isenberg, 2010; Mason & Brown, 2017) state that amongst numerous indicators and measures of entrepreneurship at global level, most African countries are left out for numerous reasons. This study adds validity to previous studies because it is successful in statistical viability. Despite increasing interest in entrepreneurial ecosystems, existing empirical data on the metrics for studying the actors and their interconnections within these systems remains scarce (GEDI, 2017:p.17; Acs and Stam, 2016); thus by providing an opportunity for a more holistic analysis of an entrepreneurial ecosystem, the current empirical study narrows the gap. Stakeholders such as government, SMMEs and other institutions need a quantitative instrument that can inform decisions, thereby assisting in designing and implementing better policy frameworks.

Sixthly, the study has highlighted several other ideas regarding structurally coordinated entrepreneurial ecosystems that form a platform to enable academics and researchers to streamline their own studies.

Finally, this study summarises numerous statistics from literature, some of which were difficult to clarify and hard to find clarify, thereby reducing time and inconvenience in searching for such data in future.

7.9   Policy implications of the research

Given the background above, certain policy implications are deduced. The study recommends that academics, practitioners and policy-makers focus on four principal components, namely financial capital, social capital, policy environment and historical capital, as indicators of government support for co-creating sustainable entrepreneurial growth of SMMEs in a healthy ecosystem. A framework that emerged from empirical evidence adds to the contribution of new knowledge by proffering what needs to be done in order to create a healthy ecosystem, thus increasing the success rate of entrepreneurial ventures in an emerging market and enhancing implementation of long-term outcomes.

7.10   Recommendations

Recommendations in this section focus on variables used in this study on the grounds of both empirical fieldwork and literature reviews about the entrepreneurial ecosystem value chain of SMMEs based in the agribusinesses, together with their related government incentives and subsequent sustainable entrepreneurial growth of SMMEs. These recommendations should be viewed as starting points for constructive scholarly discussions among academics, practitioners and policy-makers.

Based on the conclusions above, that the following recommendations are made.

i) **Strengthening the willingness to sustainably grow the entrepreneurial ecosystem value chain of SMMEs**:

- There is need to examine incentive structures affecting entrepreneurship by including fiscal instruments. A tolerant policy environment shown in the current study highlighted four principal components of the entrepreneurial ecosystem, namely financial capital, policy environment, social capital and historical capital. These were observed to be major determinants of environmental munificence, underlined by the benefits that emanated from statistically significant, direct and causal effects on fostering sustainable entrepreneurial growth of SMMEs. A tolerant policy environment in return would motivate SMMEs' sustainable entrepreneurial growth.

- Some enabling regulatory requirements may include but are not limited to the following: digitalisation of government services, harmonisation of policies and regulations, improved access to regulatory information and leveraging data for evidence-based decision-making and review of SMME policy.

- In terms of competitiveness, there are indications from the empirical results that agribusiness SMMEs in Botswana are competing based on low labour costs and cheap products, rather than competing on their ability to design and sell unique products or processes. For example, citing competition among agribusiness SMMEs as a challenge tended to point to congregations in dense markets and overcrowded cities (National Baseline Survey in Botswana, 1999). Therefore, there is need to strengthen and promote long-term innovation systems as a government support to SMMEs, since the evidence cited above suggests lack of market information and innovation, as new ventures are already a duplicate of existing ones.

(ii) **Stimulating sustainable entrepreneurial growth of SMMEs in agribusiness beyond the mere rate of new entrepreneurial venture creation or self-employment rates**:

- Current government incentives support policies that tend to excessively focus on how to increase self-employment rates in an effort to generate outcomes that cater to short-term tastes. Despite this, higher government spending has not necessarily yielded the desired entrepreneurial outcomes. Therefore, there is need for laying out an appropriate long-term policy environment of enhancing innovation practices.
- Because agribusinesses implement workable innovation practices to give them more competitive advantage, for example, those agribusinesses in advanced economies are known to be growing at a faster pace than those in developing and emerging economies (Horbach, Rammer & Rennings, 2012:p.112). There is need for government incentives that add to the formation of flexible economic systems in which SMME and larger established firms are linked. Such linkages are crucial in attracting foreign investment, since potential investors look at sound domestic supply chains.

(iii) Targeting economic incentives for SMMEs:

- There is need for SMME tax relief strategies such as the Seed Enterprise Investment Scheme to curb major business costs, free up cash flow and stimulate employment.
- There is need for land incentives for entrepreneurship that cater for accessibility, accountability, land-sharing benefits and property leasing. In this study, institutions were considered as the structures for providing incentives for different entrepreneurial behaviours and intentions, such as the context in which the incentives were used to generate productive entrepreneurship and in return contribute positively to growth.
- There is need for research and development incentives for SMMEs.

186

- There is need to integrate entrepreneurship curriculum into all levels of education to inculcate an entrepreneurial mindset and culture from an early age, since the conclusions of the study point to past entrepreneurial behaviour and highest intentions of the owner/managers of SMMEs having an effect upon the survival of SMMEs.

- On the basis of recommendation above, there is need to treat entrepreneurship as a key component of basic curriculum rather than as a topic for vocational education.

- There is a need for local entrepreneurial ecosystems to consider connecting with international ecosystems to become globally competitive; there is need for strengthening skills in international market entry, merchandising and promotion.

(iv) Creating a cohesive value chain for SMMEs development from pre-seed, start-up, small, medium and micro funding, given that existing platforms are viewed as being misaligned with SMMEs models:

- Empirical evidence points towards a burden to fund start-ups to SMMEs that has largely fallen on government. Therefore, there is need to encourage more private sector-led participation to fund SMMES through angel investing and stokvel (Metshelo). The private sector-led entrepreneurial ecosystem development may transform global food challenges such as sustainability into profitable opportunities that could be exploited locally.

- While mining is a major contributor to the economy's GDP, it is not a sustained major employer of the economy, given that it is primarily machine-led rather than human-led. Therefore, the current economy favours a suspended economy, in which government leads, followed by retail sectors, as opposed to a broad-based economy in which agriculture leads, followed by manufacturing and then retail sectors. In view of this background, the turnaround to a broad-based economy requires SMMEs to drive the economy of the country, as opposed to mining sector dominating, followed by government.

- Growing sustainable entrepreneurial ecosystems in the agribusiness value chain may be a key driver for both public and private sectors to co-achieve food

security and safety for citizens. Thus, food security may generate employment for the youth and marginalised population, boosting national socio-economic development.

v) Strengthening SMME policy-making and learning:

- There is need for timely, updated formation, coordination, implementation and evaluation of SMME policies. This could be enhanced by mechanisms for evaluating SMME policies during their implementation, integrating evaluation into the policy-making process, as opposed to merely carrying out formalistic evaluations after the fact.
- Policy learning can be supported through fora-structured high-level policy exchanges and learning.

7.11   Limitations of the study and areas for future research

Since this research was conducted in the early years of implementing government incentives in Botswana, coupled with COVID-19 pandemic shocks, there may be supplementary adjustments in policy frameworks as well as their implementation, especially in the post COVID-19 era. Owing to the results of this research, the following are presented as limitations of the study.

A primary limitation of this study comes from the fact that it was conducted as cross-sectional research that employed non-probability convenience sampling of participants. Therefore, as much as scales of measurements may remain robust over years, the same may not hold for behaviours and intentions, since they change over time in response to situational factors. In view of the foregoing, future studies may consider a longitudinal research design.

Since a non-probability sample was used in this study, it was deemed nationally representative. However, care must be taken not to generalise results to the entire population. The study provides hypotheses which may be tested by future research on a larger scale.

There was limited availability of panel data, such as empirical studies, and of data in Botswana on entrepreneurial ecosystems (GEM, 2015:p.8). Emphasis on rigour and reliability may have been at the expense of relevant but more speculative findings.

Potential methodological bias, such as risk of methodological bias, may emanate from emphasising matters that can be observed by a specific methodology. For example, extracting main findings from quantitative analyses was relatively easy compared to qualitative analysis, which could be more difficult to synthesise.

The study focused on relational-based shared resources in ecosystems and did not consider the interactions between firm-internal strategic resources.

Results of the study may be limited to agribusiness SMMEs, and therefore may not represent the entire sector, where other sub-sectors exist such as mining, tourism, manufacturing and services. Nonetheless, the results of the study may offer in-depth understanding and new knowledge of the research problems explored, thus contributing to ongoing academic debate on the topic.

The nature of the study required a quantitative approach, necessitating a survey of lived experiences and perceptions of owner/managers of SMMEs towards the entrepreneurial ecosystem and government incentives in creating sustainable entrepreneurial growth of SMMEs. However, high-profile participants had limited time available due to the nature of their role in their organisations.

Future research opportunities

Future studies could use confirmatory findings of this research to provide insights that could inform the development of hypotheses for future larger-scale projects. In addition, future studies could seek to establish the cogency of competing explanations of entrepreneurial ecosystems and business clusters.

7.12 Conclusions

The following conclusions were drawn from an examination of the research objectives of this cross-sectional analysis of entrepreneurial ecosystems and government incentives in creating sustainable entrepreneurial growth of SMMEs in agribusinesses in Botswana. Findings of this study point towards important contributions of

government incentives in entrepreneurial development that show notable distinctions between entrepreneurial ecosystems in sub-Saharan Africa and those in western entrepreneurial ecosystems. The conclusions are presented as follows. As the first empirical study of its kind to integrate the understanding of agribusiness value chain activities with SMMEs owner/managers in a government incentives-led ecosystem with sustainable entrepreneurial growth, empirical evidence posits that the majority of owner/managers, 219 (40%), belonged to micro-companies; 129 (24%) belonged to small companies; 135 (25%) were from medium companies, and lastly 48 (8%) were from large companies.

Most of the SMMEs surveyed had moved past that stage of start-up formalisation and had been operating for more than two years, with a median firm age of five years. Despite a youth unemployment rate of 37.52% in Botswana (ILO, 2019), in this empirical study the age category of 18–24 years was the lowest represented by 20 (3%) owner/managers of SMMEs in agribusiness value chains. The majority, 202 (37%) owner/managers of SMMEs, were involved in rain-fed agriculture, followed by 117 (21%) owner/managers of SMMEs in cattle breeding, 48 (8%) involved in agribusiness inputs, 81 (15%) involved in agribusiness services, and 89 (16%) in other.

Results from the inferential analysis suggest that SMME owner/managers of larger agribusinesses had a statistically significant, causal and direct effect on higher opinion on policy environment capital and infrastructural capital than their counterparts who owned and managed smaller SMMEs. Size of company and type of business activity in the agribusiness value chain were dependent, such that certain types of agribusiness attracted more entrepreneurs due to higher growth prospects.

On the basis of the aforementioned, certain policy implications are deduced. The study recommends that academics, practitioners and policy-makers focus more on four principal components, namely financial capital, social capital, policy environment and historical capital, as indicators of government incentives for sustainable entrepreneurial growth of SMMEs in a healthy ecosystem. An integrative model framework was developed to strengthen the contribution of new knowledge, proposing what needs to be done in order to create a healthy ecosystem, thus increasing the

success rate of entrepreneurial ventures in an emerging market and enhancing implementation of long-term outcomes.

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ANNEXURE A: UNISA DAM RERC CLEARANCE CERTIFICATE

UNISA | *university of south africa*

UNISA DEPARTMENT APPLIED MANAGEMENT RESEARCH ETHICS REVIEW
COMMITTEE (DAM-RERC)

Date: 14 January 2020

Dear Mr O'Brian M'Kall

ERC Reference # :
2019_CEMS_DAM_021

Name: O'Brian M'Kal

Student #: 58555196

Decision: Ethics Approval from
January 2020 to January 2023

Researcher(s):   O'Brien M'Kal
+267 71860908 / 58555196@mylfe.unisa.ac.za

Supervisor (s):   Prof Germinah Chiloane-Tsoke
012 429 4705 / chiloge@unisa.ac.za

Working title of research:
Entrepreneurial ecosystem and government incentives in creating sustainable
entrepreneurial growth for SMMES in Botswana.

Qualification: Doctor of Philosophy in Management Studies (Entrepreneurship)

Thank you for the application for research ethics clearance by the Unisa DAM Ethics Review
Committee for the above mentioned research. Ethics approval is granted for three years.

The **low risk application** was **reviewed** by the DAM Ethics Review Committee in
December 2019 in compliance with the Unisa Policy on Research Ethics and the Standard
Operating Procedure on Research Ethics Risk Assessment. The decision was approved on
the 13th of January 2020.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and
principles expressed in the UNISA Policy on Research Ethics.

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2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the DAM Committee.

3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.

4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.

5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.

6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.

7. No field work activities may continue after the expiry date (09/2022). Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2019_CEMS_DAM_021** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Yours sincerely,

Mrs C Poole
Chair of DAM-RERC
E-mail: damrerc@unisa.ac.za
Tel: (012) 433-4668

M Mogale
Executive Dean: CEMS
E-mail: mogalmt@unisa.ac.za
Tel: (012) 429-4419

URERC 25.04.17 - Decision template (V2) - Approve

ANNEXURE B: RESEARCH INSTRUMENT COVER LETTER

PARTICIPANT INFORMATION SHEET

6 April 2020

Dear Prospective Participant

My name is O'Brian M'Kali and I am doing research with G Evelyn Chiloane-Phetla, a Professor in the Faculty of Economic Management Sciences in Department of Applied Management at the University of South Africa. We are inviting you to participate in a study entitled ENTREPRENEURIAL ECOSYSTEM AND GOVERNMENT INCENTIVES IN CREATING SUSTAINABLE ENTREPRENEURIAL GROWTH FOR SMMES IN BOTSWANA.

WHAT IS THE PURPOSE OF THE STUDY?

The purpose of the study is to investigate the ability of the existing entrepreneurship ecosystem to create sustainable entrepreneurial growth of SMMEs in the agribusiness sector in Botswana.

I am conducting this research to find out the efficacy of governmental incentives to promote growth and the consequences of this type of entrepreneurship ecosystem to SMMEs in agribusiness in Botswana.

WHY AM I BEING INVITED TO PARTICIPATE?

You were selected as a possible participant in this study because of your experience and leadership position in your firm. There are close to 200 other participants who will participate in this study. Your contact details where obtained from Local Enterprise Authority (LEA) database of agribusiness SMMEs at head office in Gaborone. All target firms were selected randomly among SMMEs in Botswana from the list of LEA agribusiness clients.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

As a participant in this study, you will be involved in a survey. You will be required to fill in the questionnaire which takes approximately 30 minutes to complete. The researcher will hand you the questionnaire or alternatively it will be emailed to you by prior appointment. Once completed, an arrangement will be made to collect the questionnaire.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participation in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason. However, once the questionnaire has been completed and collected, withdrawal will not be possible.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

When your participation is complete, you will be given an opportunity to learn about this research which may be useful to you in your ownership and leadership of an agribusiness SMME in Botswana.

ARE THEIR ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

In this survey there are no discomforts, inconvenience and potential risks that the participant may experience. There are no foreseeable risks envisaged for this survey.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

The confidentiality of all recorded information will be maintained to the fullest extent possible. Your name or that of your business will not be recorded anywhere and no one will be able to connect you to the answers you give. Your answers will be given a fictitious code number or pseudonym and you will be referred to in this way in the data, any publications or other research reporting methods such as conference proceedings.

Your answers may be reviewed by people responsible for making sure that research is done properly including external coder and members of the Research Ethics Review Committee. Otherwise records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.
A report of the study may be submitted for publication to a journal, book chapter or conference proceedings but individual participants will not be identifiable in all such reports.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing cabinet Botho University, Botswana, for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

You will not receive any form of payment or reward for participation in this study. There are no costs to you for your participation in this study beyond time and effort required to participate in the survey described above. The questionnaire will be handed over to

you or emailed to you after you have agreed and be collected following your confirmation that it is completed.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

This study has received written approval from the Research Ethics Review Committee of the College of Economics and Management Sciences, UNISA. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, **please contact O'Brian M'Kali on (+267) 71860308**   email address **obrian.mkali@bothouniversity.ac.bw**. on request an executive summary of the findings will be made available to you. Should you have concerns about the way in which the research has been conducted, you may contact the supervisor **Professor Chiloane-Phetla on +27 72 858 9257 or email chiloge@unisa.ac.za.** Alternatively, contact the Research Ethics Review Committee Chairperson of the College of Economics and Management Sciences, UNISA. Thank you for taking time to read this information sheet and for participating in this study.

O'Brian M'Kali

ANNEXURE C: CONSENT TO PARTICIPATE IN THE STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the data of the questionnaire.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname…………………………………… (Please print)

Participant Signature…………………………………………..Date…………………

Researcher's Name & Surname   O'Brian M'Kali

Researcher's signature   .Date: 6 April 2020

COLLEGE OF ECONOMIC MANAGEMENT SCIENCES, SCHOOL OF PUBLIC AND OPERATIONS MANAGEMENT, DEPARTMENT OF APPLIED MANAGEMENT (DAM), UNIVERSITY OF SOUTH AFRICA (UNISA), SOUTH AFRICA.

Research questionnaire by O'Brian M'Kali (Doctoral student identity 58555196)

THE EFFICACY OF GOVERNMENT INCENTIVES IN CREATING SUSTAINABLE ENTREPRENEURIAL GROWTH IN THE AGRIBUSINESS SMMES ENTREPRENEURIAL ECOSYSTEM IN BOTSWANA .	Serial Number:

Instructions to respondents:
 	
The questionnaire of this study is in four sections, the first part focuses on demographic information, the second part addresses the entrepreneur's past behaviour, the third part assesses the entrepreneur's intentions and attitude towards entrepreneurial ecosystem which captures the spirit of entrepreneurship and fourthly, the impact of the entrepreneurial ecosystem deploying components of the eight (8) capitals model (Juling, Freiling and Harima 2016). Capitals fuel entrepreneurial ecosystem whether they are privately or publicly accessed. The questionnaire is divided into four main sections in total as follows:
 	
    A: Demographical variables of entrepreneur
    B: Entrepreneur's past behaviour variables
    C: Entrepreneurs' highest intention and attitude towards entrepreneurial ecosystem
    D: Impact of entrepreneurial ecosystem towards survival and growth of entrepreneurial venture. Kindly take some time to complete the questionnaire by ticking in the appropriate box bearing your response or ranking on a Likert scale. Attempt to give your immediate impression since there are NO RIGHT or WRONG answers. Using the Likert scales given in sections below from B up to D, please indicate how you **AGREE** or **DISAGREE** with the provided statement.
 	
Purpose of my study:
 	
To establish the pathway of the entrepreneurial ecosystem and the impact, efficacy, sufficiency and effectiveness of government incentives in sustaining entrepreneurial
	……………

growth of SMMEs operating in the agribusiness sub-sector in Botswana. I am soliciting feedback on the impact, efficacy, sufficiency and effectiveness of the following governmental incentives:- (i) ISPAAD, (ii) LIMID, (iii) CEDA funding loans, (iv) LEA training & mentoring programmes and others including value chain networking, collaboration and entrepreneurial ecosystem support in sustaining entrepreneurial growth of SMMEs in the agribusiness SMMEs in Botswana. Additionally, feedback regarding governmental incentives such as tax concessions, preferential procurement schemes, regulation and competition and their impact thereof on SMMEs in the agribusiness sub-sector would be greatly appreciated.

PLEASE, ANSWER EVERYTHING!

SECTION A: **DEMOGRAPHICAL INFORMATION**

Please mark the appropriate box with a cross (X) or write down your answer where applicable

QUESTION ENTREPRENEUR		DEMOGRAPHICAL VARIABLES OF THE				
1	What is your gender?	☐ Male			☐ Female	
2	What is the category of your age? (in years)	☐ 18 – 24 years	☐ 25 – 34 years	☐ 35 – 44 years	☐ 45 -54 years	☐ 55 until 65 years
3	State the highest level of education attained by the owner/(s)	☐ Secondary-School Certificate	☐ Undergraduate diploma	☐ Bachelor's degree	☐ Master's degree	☐ Doctoral degree
4	What is your role in this organisation?	☐ Supervisor	☐ General Manager	☐ Managing Director	☐ Co-Founding owner/ Director	☐ Founding owner/CEO
5	What is your country of origin?	☐ Botswana	☐ South African	☐ India	☐ China	☐ Other, specify …….
6	What is your ethnical group?	☐ African	☐ Indian	☐ Chinese	☐ European	☐

7	What is your specific type of activity in the agribusiness value chain?	☐ Cattle breeding Small stock (e.g. poultry, goats, fish, and piggery)	☐ Rain-fed agriculture, irrigation, horticulture	☐ Agribusiness inputs (seed, fertiliser, and machinery)	☐ Agribusiness services (marketing and retail)	☐ Other, specify …….
8	What is the classification of your company according to the official SMME definition in Botswana?	☐ Micro (Less than 5 employees)	☐ Small (Less than 25 employees	☐ Medium (Less than 100 employees)	☐ Large (more than 100 employees)	☐ Other, specify …….
9	What was your previous occupation prior to founding this firm?	☐ Public sector employee (Government)	☐ Private sector employee	☐ Owner of a different company	☐ Unemployed	☐ Other, specify …….

SECTION B:

Please answer the following questions about your past entrepreneurial behaviour (PEB). Please cross (X) your relevant response.	1-Strongly	2-Disagree	3-Neutral	4-Agree	5-Strongly
10. My professional goal was always to become an entrepreneur.	1	2	3	4	5
11. My past personal experience was valuable in creating this entrepreneurial venture.	1	2	3	4	5
12. Business dealings of my company are based on past trustworthiness with stakeholders.	1	2	3	4	5
13. I engaged due diligence to assess fitness of the purpose of my venture.	1	2	3	4	5
14. My close family approved my plans to start this company.	1	2	3	4	5
15. Shared resources with other SMME owners were critical to the early development of this enterprise	1	2	3	4	5

	1-Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5-Strongly Agree
16. I used my business network platforms to the advantage of this company to gain new information.	1	2	3	4	5
17. The entrepreneurial orientation I developed in the past helped me to overcome barriers (roadblocks) in the operations this company.	1	2	3	4	5

SECTION C:

Please answer the following questions about your highest intentions (HI) towards this ecosystem. Please cross (X) your relevant response.	1-Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5-Strongly Agree
18. My highest intention is to be a profitable and efficient company.	1	2	3	4	5
19. I am determined to start another new firm in future, given an opportunity and resources.	1	2	3	4	5
20. My intention is to be the advocate for this entrepreneurial ecosystem to upcoming start-ups.	1	2	3	4	5
21. I have intentions to fully utilise governmental support programmes to grow the capacity of my company.	1	2	3	4	5
22. An entrepreneurial mindset of growth is well spread out in this entrepreneurial ecosystem.	1	2	3	4	5
23. An entrepreneurial mindset of systematic approach is well spread out in this entrepreneurial ecosystem.	1	2	3	4	5
24. An entrepreneurial mindset of experiencing is well spread out in this entrepreneurial ecosystem.	1	2	3	4	5
25. A high civic pride of appreciation is well spread out in this entrepreneurial ecosystem.	1	2	3	4	5

SECTION D:

D1 = FINANCIAL CAPITAL COMPONENT Please answer the following questions about the impact of financial capital component of the ecosystem on sustainable growth of your venture. Please cross (X) your relevant response.	1-Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5-Strongly Agree

	1	2	3	4	5
26. I have high confidence in this company's financial ability to meet its obligations.	1	2	3	4	5
27. Funding from developmental financial institutions (DFIs) is highly accessible. (Examples of DFIs are as follows: CEDA, National Development Bank, Botswana Development Corporation)	1	2	3	4	5
28. Funding from commercial banks is highly accessible to SMMEs. (Examples of banks are: ABSA, Bank ABC, FNB, Stanbic, and Standard Chartered)	1	2	3	4	5
29. I have accessed government entrepreneurship programmes from the following intermediary institutions. (For example, CEDA, LEA, ISPAAD, and LIMID)	1	2	3	4	5
30. Funding from multiple financial sources is highly accessible.	1	2	3	4	5
31. I have accessed funding from other sources other than the above. (Examples of such funding is family, friends, and savings)	1	2	3	4	5
32. High transport costs are one of the biggest challenges in overcoming costs requirements of this company?	☐	☐	☐	☐	☐
33. Low productivity rates are one of the biggest challenges in overcoming costs requirements of this company??	1	2	3	4	5
34. Poor management is one of the biggest challenges in overcoming costs requirements of this company?	1	2	3	4	5
35. The level of adoption of management controls is high in this company.	1	2	3	4	5
SECTION D : **D2 = POLICY ENVIRONMENT COMPONENT** **Please answer the following questions about the impact of policy environment component of the ecosystem on sustainable growth of your venture. Please cross (X) your relevant response.**	1-Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5-Strongly Agree

	1-Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5-Strongly Agree
36. The turnaround time for starting a business in this ecosystem is an incentive.	1	2	3	4	5
37. Government national frameworks are favourable to SMMEs. (Examples of such are the following: Botswana Vision 2036 and National Development Plan 11)	1	2	3	4	5
38. Access to government incentives catalyse growth of this company. (Examples of such are the following: Public Procurement & Asset Disposal Act 2002, Youth Development Fund and Supplier Development Program)	1	2	3	4	5
39. Laws for SMMEs in this ecosystem, enable sustainable entrepreneurial growth of this firm.	1	2	3	4	5
40. Tax incentives for SMMEs enable sustainable entrepreneurial growth of this company. (Examples of such incentives are as follows: tax reliefs, tax credits and tax concessions)	1	2	3	4	5
SECTION D : **D3 = HUMAN CAPITAL COMPONENT** **Please answer the following questions about the impact of human capital component of the ecosystem on sustainable growth of your venture. Please cross (X) your relevant response.**	1-Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5-Strongly Agree
41. Organisations which provide training and development for my business are well known and visible in this ecosystem.	1	2	3	4	5
42. My ability to manage my company better can be improved by more access to coaching and mentoring services.	1	2	3	4	5
43. On-the-job training and development for staff is easily accessible for my type of business in this ecosystem.	1	2	3	4	5

SECTION D : **D4 = SOCIAL CAPITAL COMPONENT** **Please answer the following questions about the impact of social capital component of the ecosystem on sustainable growth of your venture. Please cross (X) your relevant response.**					5-Strongly Agree
44. Large enterprises are always ready to share valuable information with SMMEs.	1	2	3	4	5
45. Large enterprises always create linkage programmes with SMMEs to enhance supply chain activities. (Example of such a linkage programme is a provision that local goods and services are given preferential treatment or purchased to the extent feasible)	1	2	3	4	5
46. Business advice is easily accessible for this company.	1	2	3	4	5
47. Social networking platforms where valuable information is easily accessible for this company are known and visible in this ecosystem.	1	2	3	4	5

SECTION D : **D5 = INFRASTRUCTURAL CAPITAL COMPONENT** **Please answer the following questions about the impact of infrastructural capital component of the ecosystem on sustainable growth of your venture. Please cross (X) your relevant response.**	1-Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5-Strongly Agree
48. Access to electricity enables higher productivity in this company.	1	2	3	4	5
49. Access to transportation enhances the probability of products of this firm to reach the markets. (Examples of such transportation are as follows: as road, rail, shipping, and air networks)	1	2	3	4	5

	1-Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5-Strongly Agree
50. Access to water for production improves the sustainable growth of this firm.	1	2	3		5
51. Access to technological infrastructural services enable growth of this company. (Examples of such services are as follows: broadband WIFI and cloud computing)	1	2	3	4	5
52. Access to land enables growth of this business.	1	2	3		5

SECTION D :

D6 = CULTURAL CAPITAL COMPONENT

Please answer the following questions about the impact of cultural capital component of the ecosystem on sustainable growth of your venture. Please cross (X) your relevant response.

	1-Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5-Strongly Agree
53. The tolerance level of calculated risk as an aspect of my organizational culture is high.	1	2	3	4	5
54. Fear for failure as an aspect of my organizational culture is high.	1	2	3	4	5
55. Government incentives mitigate my company against inherent risks of doing business.	1	2	3	4	5
56. Entrepreneurship curriculum as a taught course of formal education is well understood in my ecosystem.	1	2	3	4	5
57. Adoption of management practices in this company is benchmarked with best practices.	1	2	3	4	5

SECTION D :

D7 = HISTORICAL CAPITAL COMPONENT

Please answer the following questions about the impact of historical capital component of the ecosystem on sustainable growth of your venture. Please cross (X) your relevant response.

	1-Strongly Disagree	2-Disagree	3-Neutral	4-Agree	5-Strongly Agree

58. The impact of local entrepreneurship success stories that are documented and publicly accessible is high.	1	2	3	4	5
59. Local entrepreneurship mentors are easily accessible for this company. (For instance this is evidenced by local mentors accessibility on public media such as radio, television, and newspapers; or on social media such as WhatsApp, Twitter and Facebook)	1	2	3	4	5
60. Minority groups have reasonable access to key resources such as capital and labour in this ecosystem.	1	2	3	4	5

END OF QUESTIONNAIRE

THANK YOU!

ANNEXURE E: CONFIDENTIALITY AGREEMENT WITH STATISTICIAN

UNISA | university of south africa

Confidentiality Agreement with Statistician

This is to certify that I, Mr. Tichaona Mhundwa Passport Number: CN775467 as the Statistician of the PhD research project: **Entrepreneurial ecosystem and government incentives in creating sustainable entrepreneurial growth for SMMES in Botswana** agree to the responsibilities of the statistical analysis of the data obtained from participants (and additional tasks the researcher may require in my capacity as statistician.

I acknowledge that the research project is conducted by O'Brian M'Kali Student Number 58555196 of the Department of Applied Management (DAM) under CEMS at UNISA.

I understand that any information (written, verbal or any other form) obtained during the performance of my duties in this research must remain confidential and in line with UNISA RERC Policy on Research Ethics.

This includes all information about participants, their employees/ their employees/ their organisation as well as any other information.

I understand that any unauthorized release or carelessness in the handling of the confidential information is considered a breach of the duty to maintain confidentiality.

I further understand that any breach of the duty to maintain confidentiality could be grounds for immediate dismissal and /or possible liability in any legal action arising from such breach.

Full Name of Statistician: **Tichaona Mhundwa** .Passport Number: CN.775.46.7

Signature of Statistician: ....Date: 06 March 2020   A.T.M

Full Name of Primary Researcher: O'Brian M'Kali

Signature of Primary Researcher: ....Date: 06 March 2020   O.M

ANNEXURE F: RESEARCH PERMISSION FROM LOCAL ENTERPRISE AUTHORITY (LEA)

REF: LEA 7/5/4/1 IV (58)

2 May 2019

O'Brian M'kali

HEAD OFFICE

2nd floor, Block A, Lot 50676, Fairgrounds Office Park

Private Bag 191, Gaborone, Botswana.

Tel: (+267) 3644000 Fax: (+267) 3644001

Toll-free No. 0800 155 155 | Ebotsalo@lea.co.bw

Dear Sir/ Madam

RE: PERMISSION FOR STUDY OF LEA CLIENTELE IN AGRIBUSINESS

Your request to study LEA clientele in the Agribusiness sector refers.

We have perused your proposal and do accede to you request. Find attached the list of LEA clients in the agribusiness sector. The provision of the information is done under the following terms;

1. The provision of LEA clients list does not amount to organizational consent on behalf of its clients; individual consent for participation in your study is to be sought from each of the target clients you intend to enumerate.

2. The clients' information provided is to be used strictly for the conduct of your study only and is to be protected from unauthorized access.

3. LEA requires you to disseminate the findings to the relevant authorities within the organization before being published for public consumption.

4. That the findings of your study do not prejudice LEA in anyway.

Thank you.

Dynah Solani
Director, Research & Development

www.lea.co.bw

ANNEXURE G: RESEARCH PERMIT FROM MINISTRY OF TERTIARY EDUCATION, RESEARCH, SCIENCE AND TECHNOLOGY

Fax: 3914271
E-mail: botsanote@gov.bw

Private Bag 0051 / Gaborone

REPUBLIC OF BOTSWANA

MINISTRY OF TERTIARY EDUCATION, RESEARCH, SCIENCE AND TECHNOLOGY

REF: MOTE 1/18/6 V (7)   19 March 2019

Mr. O'brian M'kali
PO Box 588 ADD
Gaborone

Dear Sir/Madam

RE: "ENTREPRENEURIAL ECOSYSTEM AND GOVERNMENT INCENTIVES IN CREATING SUSTAINABLE ENTREPRENEURIAL GROWTH FOR SMMES IN BOTSWANA"
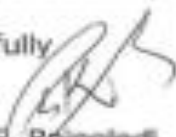
Reference is made to your application on the above captioned matter.

Your application for Research Permit for the proposed research titled: "*Entrepreneurial Ecosystem and Government Incentives in Creating Sustainable Entrepreneurial Growth for SMMEs in Botswana*", has been granted. The permit is valid for one (1) year. You are kindly advised to peruse section 4.4 to 5.0 of the 'Guidelines for Application for Research Permit' in Botswana.

Any changes in the proposed research should be communicated, without fail, to the Permanent Secretary, Ministry of Tertiary Education Research Science and Technology citing above reference.

By copy of this letter, the Director of Research Science and Technology is advised to take note of this development and ensure that deliverables to government are timely met.

Yours faithfully

Kekgonne E. Béipoledi
For/Permanent Secretary

cc: **Director of Research Science and Technology**

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ANNEXURE H: LAYOUT OF QUESTIONNAIRE CODES, VARIABLES AND CONSTRUCTS

Section A	Demographical data		Value assigned to response in Likert Scale
Question	Full code	Type of data	
	A0Location	Location in District	
1	A1Gender	What is your gender?	[1] Male, [2] Female
2	A2Age	What is the category of your age?	[1] 18-24 years,[2] 25-34 years,[3]35-44 years,[4]45-54 years,[5]55 until 65 years
3	A3Edu	State the highest level of education attained by the owner/ (s)	[1] Secondary-School Certificate [2] Undergraduate diploma, [3]Bachelor's degree, [4]master's degree, [5] Doctoral degree
4	A4Role	What is your role in this organisation?	[1] Supervisor, [2] General manager, [3]managing Director, [4]Co-Founding Owner/Director [5] Founding Owner/CEO
5	A5Origin	What is your country of origin?	[1]Botswana, [2] South Africa, [3] India, [4] China,] 5] Other, specify ….
6	A6Ethical	What is your ethnical group?	[1] African, [2] Indian, [3] Chinese, [4] European, [5] Other, specific…………….
7	A7Agriactivity	What is your specific activity in the agribusiness value chain?	[1] Cattle breeding, Small stock (e.g. poultry, goats, piggery and fish) [2] Rain-fed agriculture, irrigation, horticulture [3] Agribusiness inputs (e.g. seed, fertiliser and machinery), [4] Agribusiness services (e.g. marketing and retail), [5] Other, specify (e.g. Agro-processing of leather, confectionary, agro-tourism) ……………….
8	A8SMMEclass	What is the classification of your company according to the official SMME definition in Botswana?	[1] Micro (less than 5 employees), [2] Small (less than 25 employees), [3] medium (less than 100 employees), [4] large (more than 100 employees), [5] Other, specify (e.g. Cooperatives, irrigation schemes, farming syndicates, Trust) ………….
9	A9Prevoccu	What was your previous occupation prior to founding this firm?	[1] Public sector employee (Government, parastal), [2] Private sector employee, [3] Founder owner of different company, [4] Unemployed, [5] Other, specify (e.g. Graduate, Student, Opted out of school) …
Section B		Past Entrepreneurial Behaviour (PEB)	

10	B10Goal	My professional goal was always to become an entrepreneur.	[1] Strongly Disagree
11	B11Pastexpe	My past personal experience was valuable in creating this entrepreneurial venture.	[2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
12	B12Dealing	Business dealings of my company are based on past trustworthiness with stakeholders.	
13	B13Duedili	I engaged due diligence to assess fitness of the purpose of my venture.	
14	B14Family	My close family approved my plans to start this company.	
15	B15Shared	Shared resources with other SMME owners were critical to the early development of this enterprise. (e.g. borehole water, incubation machinery, space, fencing, secretarial and legal services)	
16	B16Network	I used my business network platforms to the advantage of this company to gain new information (e.g. new markets and funding sources)	
17	B17Entorie	The entrepreneurial orientation I developed in the past helped me to overcome barriers (roadblocks) in the operations of this company.	
Section C		Entrepreneur's highest intentions (EHI) and aspirations towards this ecosystem	
18	C18Intention	My highest intention is to be a profitable and efficient company.	
19	C19Startnew	I am determined to start another new firm in future, given an opportunity and resources.	[1] Strongly Disagree [2] Disagree
20	C20Advocate	My intention is to be the advocate for this entrepreneurial ecosystem to upcoming start-ups.	[3]Neutral [4] Agree [5] Strongly **Agree**
21	C21Govsupp	I have intentions to fully utilise governmental support programmes to grow the capacity of my company.	[1] Strongly Disagree
22	C22Growth	An entrepreneurial mindset of growth is well spread out in this entrepreneurial ecosystem.	[2] Disagree [3]Neutral [4] Agree
23	C23Systematic	An entrepreneurial mindset of systematic approach is well spread out in this entrepreneurial ecosystem.	[5] Strongly **Agree**
24	C24Experience	An entrepreneurial mindset of experiencing is well spread out in this entrepreneurial ecosystem.	[1] Strongly Disagree

25	C25Civicpride	A high civic pride of appreciation is well spread out in this entrepreneurial ecosystem.	[2] Disagree [3]Neutral [4] Agree
Section D1		Financial capital component	[5] Strongly Agree
26	D1Finance	I have high confidence in this company's financial ability to meet its obligations.	[1] Strongly Disagree
27	D1Dfis	Funding from developmental financial institutions (DFIs) is highly accessible. (Examples of DFIs are as follows: CEDA, National Development Bank, Botswana Development Corporation).	[2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
28	D1Banks	Funding from commercial banks is highly accessible to SMMEs. (Examples of commercial banks are as follows among many others : ABSA, Bank ABC, FNB, Stanbic and Standard Chartered Bank)	1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
29	D1Gvtprogs	I have accessed government entrepreneurship programmes from the following intermediary institutions. (E.g. LEA, CEDA, ISPAAD and LIMID).	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
30	D1Multsou	Funding from multiple financial resources is highly accessible in this ecosystem.	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
31	D1Savings	I have accessed funding from other sources other than the above. (Examples of such type of funding is family, friends and savings).	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
32	D1Transcost	High transport costs are one of the biggest challenges in overcoming costs requirements of this company?	
33	D1Prodrate	Low productivity rates are one of the biggest challenges in overcoming costs requirements of this company?	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
34	D1Mgt	Poor management is one of the biggest challenges in overcoming costs requirements of this company?	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree

			[5] Strongly Agree
35	D1Controls	The level of adoption of management controls is high in this company.	[1] Strongly Disagree
Section D2	Policy environment		[2] Disagree [3]Neutral
36	D2Turntime	The turnaround time for starting a business in this ecosystem is an incentive.	[4] Agree [5] Strongly **Agree**
37	D2Natframe	Government national frameworks are favourable to SMMEs. (Examples of such frameworks are as follows: Botswana Vision 2036 and National Development Plan 11)	[1] Strongly Disagree
38	D2Incentives	Access to government incentives catalyse growth of this company. (Examples of such government incentives are as follows: Public Procurement & Asset Disposal Act 2002, Youth Development Fund and Supplier Development Program)	[2] Disagree [3]Neutral [4] Agree [5] Strongly Agree [1] Strongly Disagree
39	D2Laws	Laws for SMMEs in this ecosystem enable sustainable entrepreneurial growth of this firm.	[2] Disagree [3]Neutral [4] Agree
40	D2Tax	Tax incentives for SMMEs enable sustainable entrepreneurial growth of this company. (Examples of such tax incentives include tax reliefs, tax credits and tax concessions).	[5] Strongly **A**gree [1] Strongly Disagree
D3	Human Capital Component		[2] Disagree [3]Neutral [4] Agree
41	D3Traindev	Organisations which provide training and development for my type of business are well known and visible in this ecosystem.	[5] Strongly Agree
42	D3Coachment	My ability to manage my company better can be improved by more access to coaching and mentoring services.	[1] Strongly Disagree [2] Disagree
43	D3Onjobtrain	On-the-job training and development for my staff is easily accessible for my type of business in this ecosystem.	[3]Neutral [4] Agree
D4	Social Capital Component		[5] Strongly Agree
44	D4Largeshare	Large enterprise are always ready to share valuable information and mutually support SMMEs.	
45	D4Linkages	Large enterprises always create linkage programmes with SMMEs to enhance supply chain activities. (Examples of	[1] Strongly Disagree [2] Disagree [3]Neutral

		such a linkage program is a provision that local goods and services are given preferential treatment or purchased to the extent feasible).	[4] Agree [5] Strongly Agree
46	D4Advice	Business advice is easily accessible for this company.	1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
47	D4Socnet	Social networking platforms where valuable information is easily accessible for this company are known and visible in this ecosystem.	1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
D5	Infrastructural capital component		
48	D5Electric	Access to electricity enables higher productivity in this company.	1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
49	D5Transport	Access to transportation enhances the probability of products of this company to reach the markets. (Examples of such transportation modes are as follows: road, rail, shipping and air networks).	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
50	D5Water	Access to water for production utilisation improves the sustainable growth of this firm.	1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
51	D5Infrast	Access to technological infrastructural services enable growth of this company. (Examples of such infrastructural services as the following broadband internet/WIFI and cloud).	1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
52	D5Land	Access to land enables growth of this business.	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree

D6	Cultural Capital Component		
53	D6Risk	The tolerance level of calculated risk as an aspect of my organisational culture is high.(For instance, the organisational-wide appetite for risk-taking, innovativeness and proactiveness)	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
54	D6Fear	Fear of failure as an aspect of my organisational culture is high.	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
55	D6Gov	Government incentives mitigate my company against inherent risks of running a business.	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
56	D6Curricu	Entrepreneurship curriculum as a taught course of formal education is well understood in my ecosystem.	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
57	D6Practices	Adoption of management practices in this company is benchmarked with best practices (Examples of such practices are quality management, inventory management and continuous innovation)	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
D7	Historical capital Component		
58	D7Stories	The impact of local entrepreneurship success stories that are documented and publicly accessible is high.	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
59	D7Mentors	Local entrepreneurship mentors are easily accessible for this company. (For instance local mentors are easily accessible on social media such as WhatsApp, Facebook and Twitter platforms or public media such as radio, television and newspapers)	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree
60	D7Minority	Minority groups have reasonable access to key resources such as capital and labour in this ecosystem.	[1] Strongly Disagree [2] Disagree [3]Neutral [4] Agree [5] Strongly Agree

ANNEXURE I: MODEL FIT STATISTICS DERIVED FROM SPSS AMOS.

Model Fit Summary (B and C Model)

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	8	2,544	2	,280	1,272
Saturated model	10	,000	0		
Independence model	4	204,654	6	,000	34,109

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	,009	,998	,988	,200
Saturated model	,000	1,000		
Independence model	,128	,810	,684	,486

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,988	,963	,997	,992	,997
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	,333	,329	,332
Saturated model	,000	,000	,000
Independence model	1,000	,000	,000

NCP

Model	NCP	LO 90	HI 90
Default model	,544	,000	9,035
Saturated model	,000	,000	,000
Independence model	198,654	155,591	249,140

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	,005	,001	,000	,017
Saturated model	,000	,000	,000	,000

Model	FMIN	F0	LO 90	HI 90
Independence model	,382	,371	,290	,465

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,023	,000	,092	,647
Independence model	,249	,220	,278	,000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	18,544	18,695	52,832	60,832
Saturated model	20,000	20,188	62,860	72,860
Independence model	212,654	212,730	229,798	233,798

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	,035	,034	,050	,035
Saturated model	,037	,037	,037	,038
Independence model	,397	,316	,491	,397

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	1263	1941
Independence model	33	45

Minimisation: ,032
Miscellaneous: ,588
Bootstrap: ,000
Total: ,620

ANNEXURE J: MODEL FIT STATISTICS DERIVED FROM SPSS AMOS FOR SECTION D OF THE QUESTIONNAIRE

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	8	3,681	2	,159	1,840
Saturated model	10	,000	0		
Independence model	4	235,930	6	,000	39,322

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	,012	,997	,983	,199
Saturated model	,000	1,000		
Independence model	,214	,795	,658	,477

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,984	,953	,993	,978	,993
Saturated model	1,000		1,000		1,000
Independence model	,000	,000	,000	,000	,000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	,333	,328	,331
Saturated model	,000	,000	,000
Independence model	1,000	,000	,000

NCP

Model	NCP	LO 90	HI 90
Default model	1,681	,000	11,311
Saturated model	,000	,000	,000
Independence model	229,930	183,376	283,902

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	,007	,003	,000	,021
Saturated model	,000	,000	,000	,000
Independence model	,440	,429	,342	,530

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	,040	,000	,103	,508
Independence model	,267	,239	,297	,000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	19,681	19,831	53,969	61,969
Saturated model	20,000	20,188	62,860	72,860
Independence model	243,930	244,005	261,074	265,074

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	,037	,034	,055	,037
Saturated model	,037	,037	,037	,038
Independence model	,455	,368	,556	,455

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	873	1342
Independence model	29	39

Minimisation: ,004
Miscellaneous: ,544
Bootstrap: ,000
Total: ,548

ANNEXURE K: TURNITIN PLAGIARISM REPORT

Submission date: 30-Oct-2021 06:32PM (UTC+0200)
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File name: NAL_PHD_THESIS_MAIN_DOC_30_October_2021_Final_Edit_by_Alois.docx (2.87M)
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The efficacy of government incentives in creating sustainable entrepreneurial growth in the agribusiness SMMEs entrepreneurial ecosystem in Botswana

O'BRIAN M'KALI, STUDENT NUMBER: 58555196

Submitted under requirements for the award of a Degree of Philosophy of Entrepreneurship
PhD (Entrepreneurial ecosystem and Small, Medium and Micro Enterprises)

in the

Department of Applied Management
College of Economics and Management Science
University of South Africa

ANNEXURE L: CERTIFICATE OF PROFESSIONAL LANGUAGE EDITING

MAFOKO MANUSCRIPT SERVICES

29 October 2021

To Whom It May Concern:

This letter certifies that a PhD thesis entitled

"The efficacy of government incentives in creating sustainable entrepreneurial growth in the agribusiness SMMEs entrepreneurial ecosystem in Botswana"
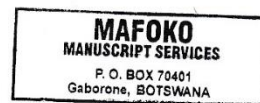
by O'Brian M'Kali

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Yours faithfully,

Dr Mary S. Lederer

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