

UNIVERSITY OF KWAZULU-NATAL

Achieving sustainable competitive advantage: The case of small and medium-sized manufacturing enterprises in Botswana

By

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DECLARATION

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DEDICATION

To my late parents, Fambisai and Serina Munodawafa for their unending love, motivation on matters of education and guidance on life skills. Raising a child under difficult conditions of deprivation and toil was not easy. And for this, I dedicate this thesis to you.

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ABSTRACT

The aim of the study was to investigate factors that impact on sustainable competitive advantage of small and medium-sized manufacturing enterprises (SMEs) in Botswana. In Botswana, manufacturing SMEs have been targeted as a priority sector because of their potential to (1) diversify the country's economy from diamond mining; (2) create employment thus reducing poverty; and increase the inflow of foreign currency through exports. Despite their potential, manufacturing SMEs are affected by traditional challenges which include – but are not exhaustive – lack of access to finance, lack of access to markets, lack of business acumen, lack of human capital and competition from multinational corporations. Primary data was collected from seven key government informants through face-to-face interviews and 348 manufacturing SME owners/managers using a structured questionnaire. Thematic analysis was used to analyse the data gathered from key government informants. This helped to obtain in-depth information about the phenomenon under observation. The data collected from manufacturing SMEs was analysed using a combination of descriptive and inferential statistics. The main findings revealed that manufacturing enterprises in Botswana are high risk enterprises and financial institutions are reluctant to provide them with funds. These SMEs are also affected by high rentals and high cost of land to use in their operations, high equipment and product quality costs. Manufacturing SMEs which export their products face additional challenges of traceability issues and mileage charges in the countries that they export their products. The study recommends that funding organisations should continue to review issues of collateral in order to increase access to finance by manufacturing SMEs. The Botswana government and tribal authorities issuing land should remove the bottlenecks related to application for land, especially for business purposes. Manufacturing SMEs should also consider SME equity funding as an alternative to funding and offers less risk compared to commercial banks and existing government-sponsored funding agencies. The findings of the study contribute towards the development of a sustainable theoretical framework that can be used by manufacturing SMEs to identify and utilise their internal resources and capabilities to increase their competitiveness, survive and grow.

Key words: Botswana, manufacturing enterprises, survival, growth, sustainable competitive advantage

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
BIDPA	Botswana Institute for Development Policy Analysis
BIH	Botswana Innovation Hub
BIHL	Botswana Insurance Holding Limited
BITC	Botswana Investment and Trade Centre
BITRI	Botswana Institute for Technology Research and Innovation
BOCCIM	Botswana Confederation of Commerce, Industry and Manpower
CEDA	Citizen Entrepreneurial Development Agency
CFA	Confirmatory Factor Analysis
COVID-19	Corona Virus Disease – 2019
DF	Degrees of Freedom
FA	Factor Analysis
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
HRDC	Human Resources Development Council
IBM	International Business Machines
IDM	Institute of Development Management
IDP	Industrial Development Policy
IEP	Indegenisation and Empowerment Policy
ISIC	International Standard Industry Classification
ISO	International Standards Organisation
IT	Information Technology
KIA	Kirton Adaptation-Innovation Inventory
KMO	Keiser-Meyer-Olkin
LEA	Local Enterprise Authority
MANOVA	Multiple Analysis of Variance
NDB	National Development Bank
NDP	National Development Plan
OECD	Organisation for Economic Co-operation and Development

RBT	Resource-Based Theory
RBV	Resource-Based Value
SEDCO	Small Enterprise Development Corporation
SEM	Structural Equation Modeling
SME	Small and Medium Enterprise
SMEDAN	Small and Medium Enterprise Development Agency of Nigeria
SMME	Small, Medium and Micro Enterprise
SPSS	Statistical package for Social Sciences
TCA	Total Competitiveness Audit
UK	United Kingdom
UIF	Unemployment Insurance Fund
USA	United States of America
VAT	Value Added Tax
VRIO	Valuable, Rare, Immutable, Organised

CHAPTER 1 INTRODUCTION

1.1 INTRODUCTION

Small and Medium Enterprises (SMEs) in developed and developing countries contribute towards economic development and employment creation (Botha, Smulders, Combrink & Meiring, 2020, pp. 153-174; Monyake *et al.*, 2020a, p. 330; Kubanji, Biza-Khupe & Mapharing, 2021, pp. 330-348; Meyer & Kruger, 2021, p. 75; Sekwati, 2023, p. 215). SMEs also help countries to achieve economic diversification (Pansiri & Chatibura, 2022, p. 171; Moffat & Kapunda, 2023, p. 205; Owolabi *et al.*, 2023, p. 5). Despite the importance of SMEs' contribution to the economy, SMEs have been reported as having a low survival rate. For example, 70% to 80% of SMEs in Botswana were reported as failing within their first 18 months of operation and an additional 30% over the next 12 months (Molefe, 2020, p. 23; Rasetapa, 2022, p. 17; Nthubu, Supramaniam & Suppiah, 2023, p. 285). About 70% to 80% of SMEs in South Africa fail within 5 years (Bushe, 2019, p. 1). The situation is not very different in Nigeria where 60% to 80% of SMEs do not survive beyond 5 years (Faloye *et al.*, 2023, p. 1).

The challenges affecting SME survival, growth and sustainable competitive advantage are multifaceted. Several scholars (Namugenyi, Nimmagadda & Reiners, 2019, p. 1151; Njanike, 2019, pp. 9-13; Monyake & Kuruba, 2020, p. 1; Grondys, Slusarczyk, Hussain & Androniceunu, 2021, p. 11; Munga, Olweny & Yegon, 2021, p. 21; Mrindoko, 2022, p. 21; Grosse, Wocke & Mthombeni, 2022, p. 1) have established that firm-specific factors impact on the survival of SMEs. Ahinful, Boakye and Bempah (2021, p. 362) surveyed 238 manufacturing and service SMEs in Ghana and demonstrated that firm-specific characteristics (firm age, firm size) and industry are closely related to firm survival and growth. Eldesouky, Gazzar and Waseem (2023, p. 1) investigated a sample of 23 SMEs Egypt and concluded that firm-specific factors like profitability, leverage, management efficiency and assets volume impacted on the survival and growth of SMEs.

It is against the above context that this study aims to analyse sustainable competitive advantage as a survival and growth strategy for manufacturing small and medium enterprises (SMEs) in Botswana. Both internal and external firm-based factors which may contribute to the success or otherwise of manufacturing SMEs in Botswana were assessed to assist them to survive, grow and become sustainable.

1.2 BACKGROUND OF THE STUDY

The majority of African countries are termed developing countries and are characterised by high unemployment, poverty and economic stagnation. SMEs have been suggested as possible solutions to the challenges affecting developing countries such as Botswana (Alsaaty & Makhoul, 2020, pp. 908-916; Botha, Smulders, Combrink & Meiring, 2020, pp. 153-174; Monyake & Kuruba, 2020, p. 1; Sishuba, 2020; Kubanji, Biza-Khupe & Mapharing, 2021 pp. 330-348; Meyer & Kruger, 2021, p. 75; Pansiri & Chatibura, 2022, p. 171; Obasi, 2023). In order to boost the performance of SMEs, governments across the globe have allocated financial and other resources to assist the survival and growth of SMEs in order to create employment, reduce poverty and increase access to wealth their citizens (Yatim, Rusuli & Yatim, 2019; CEDA, 2020b, p. 16; Ledikwe, 2020, p. 4; Molefe, 2020, p. 85).

Despite the existence of numerous strategies to promote SMEs, these firms continue to face challenges as a consequence of a lack of access to finance, lack of managerial skills, weak internal organisational structure, weak legal and regulatory framework and lack of awareness of environmental factors (Kalyongwe, 2019, p. 20; Njanike, 2019, p. 13; Tadu & Chiguvi, 2019, pp. 113-118; CEDA, 2020b, p. 91; Canari & Francisco, 2021; Mpofo & Sibindi, 2022; Rasetapa, 2022, p. 19). For example, studies by Kubanji, Biza-Khupe and Mapharing (2021 pp. 330-348) and Sivotwa *et al.* (2022, p. 1) reveal that SMEs in Botswana are still shunned by financial institutions when they need to access finance. Owners and managers of SMEs lack basic planning, marketing and financial skills to steer their business on a long-term basis (Ngibe & Lekhanya, 2019, p. 15; Abisuga-Oyekunle *et al.*, 2020, pp.415-419; Matsongoni & Mutambara, 2021). In addition, the majority of SME owners and managers do not have the necessary skills to fully understand their potential in terms of what they can best offer to their customers and the key internal processes that they should implement in order to sustain their businesses (Monyake *et al.*, 2020b, p. 457). Several scholars (Shemi & Procter, 2018; Tadu & Chiguvi, 2019, pp. 113-118; Monyake, Kuruba, Setibi, Mmereki, Boy & Ditshweu, 2020a, p. 330) have attributed the low survival rate of SMEs in developing countries to their lack of techniques to gather key environmental data like customer demands and preferences, intelligence on competitors, government regulations and export markets. CEDA, which is the umbrella body in charge of SME financing in Botswana is also experiencing challenges of low loan repayment by SMEs and lack of resources to manage SMEs in Botswana (CEDA, 2020b, p. 116). Existing policies guidelines to ensure that government departments and the private sector partner with SMEs to boost SME operations have largely been ineffective because of the low quality of goods and services produced by SMEs (Ama & Okurut, 2018, p. 2; CEDA, 2020b, p. 30; Nyakudya & Nyakudya, 2022). All these challenges have caused SMEs in developing countries to collapse within their first 5 years of operation and this has been a major

setback to governments in developing countries, since they cannot realise their national development goals (Molefe, 2020, p. 23; Orobia, Tusiime, Mwesigwa & Ssekiziyivu, 2020; Yeboah, 2021; Kubanji, Biza-Khupe & Mapharing, 2021 pp. 330-348).

The low survival rate of SMEs in developing countries has been attributed to a focus on short-term rather than long-term growth strategies (Orobia *et al.*, 2020; Tadu & Chiguvi, 2019, pp. 113-118). Some governments in developing countries have also failed to identify clear strategies to diversify their economies and this has impacted on the support provided to SMEs. For example, Botswana's economy is heavily reliant on the diamond and beef industries. Most of the studies on SMEs have also focused on developed countries, and the few studies which have been conducted in developing countries adopted literature from research conducted in developed countries which might not be relevant to developing countries (Monyake *et al.*, 2020b, p. 457; Thorsteinsdóttir, Bell & Bandyopadhyay, 2020).

Whilst scholars on SMEs in developing countries have mostly focused on establishing strategies which enhance the competitiveness of SMEs, there have been very few studies on how SMEs can develop and sustain their competitiveness in order to survive, grow and play a meaningful role in economic development. Previous studies on SMEs in Botswana mainly focused on the challenges faced by SMEs (Pansiri & Yalala, 2017; Shemi & Procter, 2018; Majama & Magang, 2017), whilst some were focused on SME critical success factors (Pansiri & Yalala, 2017; Tadu & Chiguvi, 2019, pp. 113-118), and others focused on competitive advantage (Tangirala, 2019; Monyake *et al.*, 2020a, p. 330). Issues of sustainable competitive advantage were briefly dealt with in previous studies on why SMEs in Botswana are failing to survive and achieve long-term growth. For example, the study by Nkwe (2012) was one of the initial studies to introduce the concept of sustainable competitive advantage, but it did not investigate the factors related to sustainable competitive advantage. A subsequent study by Tadu and Chiguvi (2019, pp. 113-118) focused on the sustainability of family-based SMEs, which was a narrow focus on sustainable competitive advantage, since the research did not cover other types of SME sectors in Botswana.

Early scholars on sustainable competitive advantage (Barney, 1991, pp. 99-120; Day & Wensley, 1988, pp. 1-20; Peteraf, 1993; Sirivastava *et al.*, 1998) have largely agreed that it is mainly through knowledge of their core competencies that SMEs can achieve sustainable competitive advantage. According to Day and Wensley (1988, pp. 1-20), an SME can achieve sustainable competitive advantage if it focuses on utilising its superior skills and superior resources. Peteraf (1993) posits that an SME can achieve sustainable competitive advantage by focusing on four conditions, which are superior resources, ensuring that competitors cannot imitate its products and services, ensuring that there is imperfect mobility of its goods and

services and ensuring that there is little or no competition as possible in the market for its products. Similarly, a study by Srivastava *et al.* (1998) concluded that an SME can create sustainable competitive advantage in two ways. Firstly, an SME can create a unique and inimitable relationship with its customers. Secondly, an SME can cultivate unique skills amongst its workforce which help the workforce to gather and utilise knowledge concerning their customer needs, tastes and preferences and such skills cannot be imitated by the SME's rivals (Srivastava *et al.*, 1998).

Sustainable competitive advantage has been broadly classified by other scholars into two categories (Masama & Bruwer, 2018; Mutegi, Kiai & Maina, 2020), which are micro-economic factors and macro-economic factors impacting on sustainable competitive advantage. According to Mutegi, Kiai and Maina (2020), an SME can achieve sustainable competitive advantage at micro-economic level through the creativity of its employees, learning ability of the firm's employees, innovation capacity, economies of scale, advanced technology owned by the firm, experience gained in particular sector, and inimitability of the company's products. Masama and Bruwer (2018) argue that at macro-economic level, an SME can gain sustainable competitive advantage through adjusting to customers' demands, ability to scan the environment and obtaining information from it in a way which cannot be imitated by rivals, and flexibility to respond to change involving the structure, culture and equipment in a unique way.

Governments across the globe also play a significant role in the operation of SMEs through the facilitation of key economic activities and infrastructure. For example, the Botswana government, through CEDA and other agencies, provides loan and grant funding to local SMEs (Tadu & Chiguvi, 2019, pp. 113-118; CEDA, 2020a, p. 2; Monyake *et al.*, 202a, p. 1). The Botswana government has also developed policies and guidelines to ensure efficient operation of SMEs (Botswana, 1999; Monyake & Kuruba, 2020, p. 1; Marufu, 2021). Additional services which have been made available to SMEs in Botswana by the government of Botswana include transport network, information and communication technologies and utilities. The availability of government intervention strategies has been confirmed as an important factor towards the sustainable competitive advantage of SMEs (Guruwo, 2020, p. 2; Ledikwe, 2020, p. 4; Musabayana & Mutambara, 2020).

The current research has taken a keen interest on manufacturing SMEs in Botswana for various reasons. Globally, the growth of the manufacturing sector is a demonstration of evidence that industrialisation is taking place and this often leads to greater economic development, growth in gross domestic product (GDP) and employment creation (Abisuga-Oyekunle, Patra & Muchie, 2020, pp. 415-419; Owusu, 2021; Tebetso, 2021; Obasi, 2023). The growth of the manufacturing sector also demonstrates high levels of innovation and creativity resulting in

more products and services, improvements in quality of products, and more efficient production processes within an economy. Furthermore, the growth of the manufacturing sector boosts other economic sectors in the secondary and tertiary industries like service, transport, health, education and tourism.

The aforementioned section implies that the growth of the manufacturing sector in Botswana will also boost economic activities in the country, increase the economic diversification effort from diamond mining, create employment, contribute towards the GDP and accelerate the growth of other economic sectors in the country. Botswana also stands to benefit from an expanded manufacturing sector through foreign earning exports and less importation of goods manufactured in other countries. The foreign currency generated from exports and saved from export cuts can be used in other essential sectors like health and education.

The manufacturing sector in Botswana is still underdeveloped and contributes only 5% of GDP (World Bank Open Data, 2024). The quality of locally manufactured products is below expectation compared to imported products from countries like South Africa and China. This means consumers in Botswana prefer imported products which are of better quality and are also cheaper than locally manufactured goods (Zi, 2023). The challenges affecting manufacturing SMEs across the globe are also the same as those impacting on manufacturing SMEs in Botswana. Manufacturing SMEs in Botswana are affected by lack of skills, lack of technology adoption, lack of competitiveness, and poor marketing techniques (Mazikana, 2020; Mokwana, 2021; Mongwaketse, 2021; Mphale, Gorejena & Nojila, 2024).

The challenges impacting on the survival of manufacturing SMEs discussed above are contextualised as a summary in Table 1.1 below:

Table 1.1: Contextualisation of survival challenges of manufacturing SMEs

Survival challenges	Main issues	Author
Weak firm-specific factors	Firm age, firm size, profitability, leverage, management efficiency, industry and asset volume.	Namugenyi, Nimmagadda & Reiners, (2019, p. 1151); Njanike, (2019, pp. 9-13); Monyake & Kuruba, (2020, p. 1); Munga, Olweny & Yegon, (2021, p. 21); Mrindoko, (2022, p. 21); Grosse, Wocke & Mthombeni, (2022, p. 1).
Lack of adequate government interventions	Policy frameworks and guidelines, funding, entrepreneurial training, and marketing.	Republic of Botswana, (1999); CEDA, (2020b, p. 27); Molefe, (2020, p. 78-79); Monyake <i>et al.</i> , (2020a, p. 1); Musabayana, Mokwana, (2021, p. 8); Lekhanya &

		Ngwenya, (2022).
Low levels of innovation and creativity	Design, registration of industrial designs, increasing social media presence, collaborative clusters, employee training, technology, market development, access to finance and customer tastes.	Karedza & Govender, (2020, p. 74); Ngibe & Lekhanya, (2020, p. 1); Chipambwa <i>et al.</i> , (2023app. 1-22); Chipambwa <i>et al.</i> , (2023b, pp. 4-5).
Inadequate human capital	Entrepreneurial skills, network building and collaboration.	Domeher, Abdulai & Yeboah, (2019, pp. 162-188); Mafoko (2019, pp. 1-33); Abisuga-Oyekunle, Patra & Muchie, (2020, pp.415-419); Nyakudya, (2020, p. 251); Tebetso, (2021).
Lack of access to finance	High interest rates, short-term loan product offerings, collateral requirement, audited financial statements and training	CEDA, (2020b, p. 12-14); Guruwo, (2020, p. 109); Kubanji, Biza-Khupe & Mapharing, (2021, pp. 330-348); Molefi, (2021, p. 5); Sivotwa <i>et al.</i> , (2022, p. 1); Atiase <i>et al.</i> , (2022, pp. 31-44).
Lack of financial management skills	Training, financial literacy, mentoring, budgeting, debt management and record keeping.	Chileshe, (2019, p. 52); Folajinmi & Peter, (2020, p. 90); Nautwima and Asa, (2021); Mbongo & David, (2021); Mpofu & Sibindi, (2022);
Lack of managerial skills	Strategic and creative thinking, decision-making skills, communication and presentation skills and managerial liaison and support skills.	Monyake <i>et al.</i> , (2020b, p. 457); Chauisi & Imeri, (2021); Mashavira <i>et al.</i> , (2022).

Source: Compiled by the Researcher

Various strategies, for example financial and technical assistance, have been developed by governments and scholars (Local Enterprise Authority, (LEA) 2018; Citizen Entrepreneurial Development Agency (CEDA), 2020a, p. 2; Molefe, 2020, p. 78-79; Mokwana, 2021; Musabayana, Mutambara & Ngwenya, 2022a, p. 1) across the globe and in Botswana to promote and expand the manufacturing sector, but these have yielded little success and many SMEs still fail within their first few years of operation. In order to improve the performance of the manufacturing sector, the Southern African Development Community (SADC) region, including Botswana, aims to double the contribution to GDP of the manufacturing sector by

30% by 2030 and 40% by 2050 (CEDA, 2020b, p. 18). This confirms the importance of the manufacturing sector to economic development in Botswana.

This study postulates that a holistic study on challenges and possible solutions affecting manufacturing SMEs in Botswana can increase the chances of survival and growth of these firms. Different scholars have highlighted the factors that positively contribute towards the survival and growth of SMEs in different regions across the globe. The various studies have also pointed out the shortcomings and gaps that continue to prolong the challenges affecting the survival and growth of SMEs across the globe. This study hypothesises that it is possible to identify specific factors that can increase the survival rate of manufacturing SMEs in Botswana and produce goods which are unique and more superior than of their local and global competitors, gain greater market share and realise long-term success.

From the brief literature review, it is surmised that the factors which determine sustainable competitive advantage have been synthesised into five categories, namely, innovation and creativity within the SME, human capital development of employees in the SME, access to capital, availability of infrastructure, and a supportive legal and government regulatory framework (CEDA, 2020a, p. 2; Folajinmi & Peter, 2020, p. 94; Ngibe & Lekhanya, 2020a, p. 1; Tebetso, 2021). The assumption made in this study is that a supportive legal and government regulatory framework and availability of infrastructure will act as mediating factors in the study. These factors can also be applied within the Botswana context, since SMEs are affected by the same challenges.

The overall aim of this study is to develop a theoretical framework which could be implemented by manufacturing SMEs in Botswana and could result in manufacturing SMEs achieving a sustainable competitive advantage, survive and grow.

1.3 RESEARCH PROBLEM

SMEs have been widely accepted as drivers of economic development in both developing and developed countries (Alsaaty & Makhlouf, 2020, pp. 908-916; Monyake & Kuruba, 2020, p. 1; Sishuba, 2020; Kubanji, Biza-Khupe & Mapharing, 2021 pp. 330-348; Pansiri & Chatibura, 2022, p. 171; Obasi, 2023). Despite this, SMEs in Botswana are affected by low survival rate and lack of competitiveness (CEDA, 2020b, p. 56; Folajinmi & Peter, 2020; Guruwo, 2020, p. 109; LEA, 2020; Madiba, Kekwaletswe & Komati, 2020; Matsongoni & Mutambara, 2021). This exploratory and descriptive study investigates factors that affect the sustainable competitive advantage of manufacturing SMEs in Botswana, since they experience challenges that are similar to those faced by similar firms across the globe, namely, low survival and

stagnant growth. The extant literature on SMEs has largely focused on SMEs in developed countries (Monyake *et al.*, 2020b, p. 457; Thorsteinsdóttir, Bell & Bandyopadhyay, 2020) and the few studies which have been conducted in Botswana did not place significant emphasis on strategies to be implemented by the SMEs to achieve sustained competitive advantage. Furthermore, previous studies in Botswana have mainly explored the challenges faced by manufacturing SMEs mainly focused on critical success factors and competitive advantage with very few studies dealing with survival strategies that they can employ to realise sustainable competitive advantage of SMEs (Tadu & Chiguvi, 2019, pp. 113-118; Monyake *et al.*, 2020b, p. 457). Current literature has also been largely fragmented with no clear focus on analysing the competitiveness of manufacturing SMEs in Botswana from the perspectives of innovation and creativity, human capital development, access to finance, legal and regulatory framework and infrastructure (Tadu & Chiguvi, 2019, pp. 113-118; Abisuga-Oyekunle, Patra & Muchie, 2020, pp.415-419; Karedza & Govender, 2020, p. 74; Monyake & Kuruba, 2020, p. 1; Nautwima & Asa; 2021).

Intervention strategies by governments through policy frameworks and guidelines can accelerate SME survival and growth (Republic of Botswana, 1999; CEDA, 2020a, pp. 2-11; Molefe, 2020, p. 78-79; Monyake *et al.*, 2020a, p. 1; Musabayana & Mokwana, 2021, p. 8). A study conducted by Musabayana, Mutambara and Ngwenya (2022a, p. 1) on 499 SME owners/managers and 20 key government informants confirmed that government policies contributed towards better performance of Zimbabwean SMEs. The criticality of government intervention strategies was also studied by Bosire and Muturi (2020, pp. 55-63) on 1262 youth-owned SMEs in Kenya. The findings of the study revealed that government funding, entrepreneurial training, marketing and government policies affect the growth and sustainability of youth-owned SMEs in Kenya. However, the study concluded that most youths had limited or no access to government funding, training and marketing support and this led to the low survival and growth of their business.

The survival of SMEs hinges on their level of innovation and creativity (Karedza & Govender, 2020, p. 74; Ngibe & Lekhanya, 2020b, p. 1; Chipambwa *et al.*, 2023a, pp. 1-22; Chipambwa *et al.*, 2023b, pp. 4-5). Chipambwa *et al.* (2023b, pp. 1-14) investigated 24 manufacturing SMEs in Zimbabwe and demonstrated that design education, registration of industrial designs, increasing social media presence, creating clusters to lobby for government support and training employees were specific programs that could help SMEs to be innovative. Despite these requirements, Chipambwa *et al.* (2023b, p. 11) noted that lack of government support and low participation of all SMEs in innovation and creativity endeavours were major shortcomings. Onwe *et al.* (2024, p. 101) investigated factors influencing business and entrepreneurial survival in Africa using a systematic literature review. The results of the study asserted that technological advancement, market development and shifting consumer tastes compelled SMEs

to prioritise innovation. However, challenges like lack of access to finance, disparities in the education system, uneven access to technology and the Internet and the absence of a supportive ecosystem for innovation negatively influenced business survival and growth.

There is abundant literature to confirm that human capital positively contributes towards the survival and sustainable competitive advantage of SMEs (Domeher, Abdulai & Yeboah, 2019, pp. 162-188; Abisuga-Oyekunle, Patra & Muchie, 2020, pp. 415-419; Tebetso, 2021). An exploratory study by Nyakudya (2020, pp. 44-49) involving 10 female participants proposed that families can tap into human capital of female members to manage family-owned businesses and create competitive advantage in the process. The study by Nyakudya (2020, p. 251) pointed out that there continue to be challenges like lack of entrepreneurial skills and poor network building amongst women who participate in entrepreneurship. Another study conducted by Mafoko (2019, pp. 1-33) involving 150 youth-owned manufacturing enterprises in Botswana preferred that lack of effective entrepreneurial training and lack of collaboration amongst youth entrepreneurs were the biggest hindrance towards their survival and sustainability.

Access to finance seems to be the biggest challenge affecting the survival and growth of SMEs (CEDA, 2020b, pp. 12-14; Guruwo, 2020, p. 109; Kubanji, Biza-Khupe & Mapharing, 2021, pp. 330-348; Molefi, 2021, p. 5; Sivotwa *et al.*, (2022, p. 1). A study on constraints experienced by SME owners/managers was conducted on 60 SMEs and 10 institutions in Zambia and revealed that, whilst access to finance facilitated procuring of new technology, and improving firm performance, challenges like high interest rates, short-term loan product offerings, requirements of collateral and audited financial statements were a barrier towards SME access to finance. In the end, SME, survival, growth and sustainability were compromised. Atiase *et al.* (2023, p. 31) conducted a longitudinal research on 12-year data on parameters on access to finance and revealed that effective public and tax policies, research and development, and accounting and assessment services enhance SME survival in African countries. The study by Atiase *et al.* (2022, pp. 31-44) noted that SME tailored training alone was not adequate for firm survival, but survival required tailored skills development for strategic decision making to reverse the poor performance of African SMEs.

Several scholars (Folajinmi & Peter, 2020, p. 90; Mpofu & Sibindi, 2022; Mbongo & David, 2021) have conducted research on the impact of financial management skills and the survival and sustainable competitive advantage of SMEs. In a separate study by Nautwima and Asa (2021) of 44 SMEs in Namibia, the contribution of non-financial measures, including financial management skills was observed. The results confirmed that possession of financial management skills by SME owners/managers was statistically correlated with the survival and growth of SMEs. The findings by Nautwima and Asa (2021) noted that the contribution of

financial management skills towards SME growth and survival is more effective when government intervention programs like free training on financial literacy and mentoring are made available to SMEs. A previous study conducted by Chileshe (2019, p. 52) on 66 Zambian SMEs concluded that financial literacy is one of the competencies required for the survival and growth of SMEs. However, SMEs lacked support activities like budgeting, debt management and record keeping that contribute towards the growth of SMEs (Chileshe, 2019, p. 5).

Managerial skills or managerial competencies are viewed as significant contributors towards the survival and growth of SMEs (Monyake *et al*, 2020b, p. 457). A survey research on 57 SME owners/managers in Macedonia by Chausi and Imeri (2021) concluded that managerial skills are a prerequisite for the smooth running of a business. The study specifically explored the managerial competencies – strategic and creative thinking, decision-making skills, communication and presentation skills, and managerial liaison and support skills. A similar study on 105 South Africa SMEs by Mashavira, Guvuro and Chipunza (2022) also affirmed the fundamental importance of managerial competencies on the performance and economic growth of SMEs. The major shortcomings of the study by Mashavira *et al*. (2022) were the small sample size, which produced less robust results, and poor record keeping by participating SMEs, which led to responses informed by individual memory rather than documented facts.

It can be surmised from the preceding literature that there is sufficient evidence to conclude that manufacturing SMEs in Botswana lack sustainable competitive advantage in the markets that they operate in and have a low survival rate (CEDA, 2020b, p. 56; Folainmi & Peter, 2020; Guruwo, 2020, p. 109; LEA, 2020; Madiba, Kekwaletswe & Komati, 2020; Matsongoni & Mutambara, 2021). This study intends to examine and analyse how manufacturing SMEs in Botswana can utilise their core competencies to ensure their survival and realise sustainable competitive advantage.

1.4 PRIMARY RESEARCH QUESTION

Scholars (Monyake *et al*, 2020a, p. 1; Muthoka & Kilika, 2020a) have commonly agreed that competitive advantage by firms cannot be maintained for a long time, because rival firms soon imitate their performance and capture some of their customers and markets, thus decreasing or diminishing their competitiveness. This seems to be the situation with manufacturing SMEs in Botswana, because they have been reported to have low survival rates. Currently, there are no coherent guidelines to assist manufacturing SMEs in Botswana to help them to reinvigorate their operations and also steer them away from focusing only on short-term competitiveness.

The primary research question is:

What strategies could be adopted and implemented by manufacturing SMEs in Botswana in order for them to survive, grow and achieve sustainable competitive advantage?

1.4.1 Secondary research questions

The following are the research questions:

1. What firm-specific factors impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
2. To what extent do existing government policies and guidelines contribute to the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
3. What factors of innovation and creativity influence the survival, growth and sustainable competitive advantage of manufacturing sector SMEs in Botswana?
4. To what extent does human capital development affect the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
5. How does access to finance impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
6. How do financial management skills contribute towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
7. Which managerial skills can be employed by manufacturing SME management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
8. What theoretical framework can be designed for implementation by manufacturing SMEs in Botswana in order ensure that they survive, grow and achieve sustainable competitive advantage?

1.5 RESEARCH OBJECTIVES

The following are the research objectives:

1. To evaluate firm-specific factors that impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
2. To critically review the influence of existing government policies and guidelines on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

3. To assess factors of innovation and creativity that influence survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
4. To analyse the extent to which human capital development affects the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
5. To assess the impact of access to finance on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
6. To assess the impact of financial management skills on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
7. To evaluate the specific managerial skills which contribute towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
8. To design a theoretical framework which can be implemented by manufacturing SMEs in Botswana in order to survive, grow and achieve sustainable competitive advantage.

1.6 HYPOTHESES

The following hypotheses have been postulated in order to identify the factors that are responsible for SME sustainability in Botswana. It is assumed that:

1. H1: Firm-specific factors are positively associated with the ability of the manufacturing SMEs in Botswana to survive, grow and achieve sustainable competitive advantage.
2. H2: Existing government policies and guidelines are positively associated with the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
3. H3: Innovation and creativity will positively impact the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
4. H4: Human capital development will positively contribute to an increase in the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
5. H5: Access to finance is positively associated with the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
6. H6: Possession of financial management skills is positively associated with the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
7. H7: Improved managerial skills are positively associated with the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

8. H8: A suitable theoretical framework can be developed for manufacturing SMEs in Botswana to implement in order to survive, grow and achieve sustainable competitive advantage.

1.7 THEORETICAL AND CONCEPTUAL FRAMEWORK

Drawing upon the Resource-Based View (RBV) theory (Teece, 2018; Kiyabo & Isaga, 2019, pp. 1-23; Cattani & Malerba, 2021, pp. 265-289; Huemer & Wang, 2021; Ployhart, Schepker & McFarland, 2022) and Porter's value chain model (Porter, 1985; Muriithi, 2018; Gongxeka, 2020; Bag *et al.*, 2021, pp. 32-51; Mtisi & Govender, 2022), the researcher will attempt to construct an integrated model to examine how manufacturing SMEs in Botswana can achieve sustainable competitive advantage and ensure their survival and growth. The RBV theory assumes that a firm can achieve sustainable competitive advantage when it trades in strategic resources which are valuable, rare, difficult to imitate and non-substitutable (Teece, 2018; Kiyabo & Isaga, 2019, pp. 1-23; Cattani & Malerba, 2021, pp. 265-289; Huemer & Wang, 2021; Ployhart, Schepker & McFarland, 2022). Kiyabo and Isaga (2019, pp. 1-23) argue that a firm should have the capacity to bundle, manage and exploit such resources in a way which provides value added to its customers and create competitive advantage over its rivals.

Resources include all physical assets, human resources, information resources, organisational processes and organisational capital resources (including both internal and external relations) that can be leveraged by the firm to create competitive advantage (Kiyabo & Isaga, 2019, pp. 1-23). The RBV theory assumes that a firm possesses certain resources that offer unique firm strength and can be leveraged for competitive advantage (Huemer & Wang, 2021). The key assumptions in the RBV theory are that resources (skills, capabilities and other resources) are not homogeneous and that they cannot easily move from one firm to another (Kiyabo & Isaga, 2019, pp. 1-23). If resources could be perfectly mobile from one firm to another, then no firm would achieve competitive advantage over another in the same industry (Lazazzara & Galanaki, 2020). Intangible resources such as brand, equity, processes, knowledge and intellectual property are usually immobile.

Although possessing heterogeneous and immobile resources is critical in helping a firm to realise competitive advantage, this alone is not adequate if a firm wants to sustain this competitive advantage. Kiyabo and Isaga (2019, pp. 1-23) identified a framework which examines if a firm's resources are valuable, rare, costly to imitate and non-substitutable (commonly abbreviated as the VRIO framework). When a firm possesses resources that answer Yes to all these questions, then such resources have the capacity to drive a firm towards realising sustainable competitive advantage (see Figure 1.1).

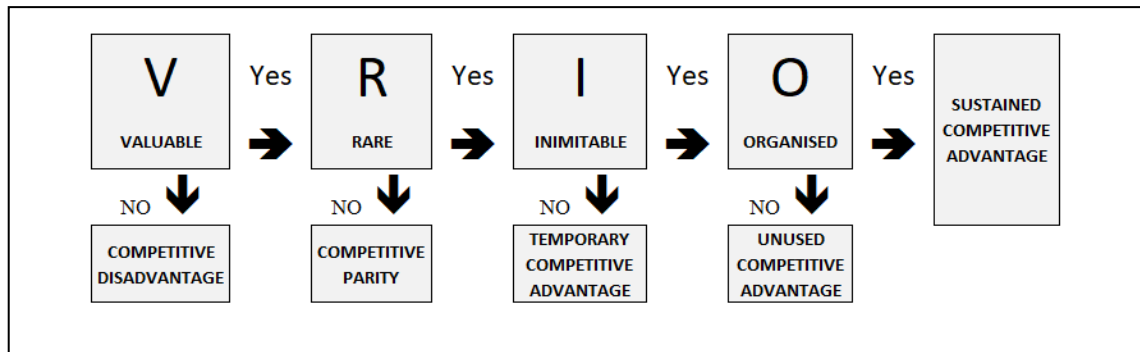


Figure 1.1: The VRIO Framework

Source: Barney, 1991

Explaining the competitiveness of a firm based on the utilisation of its internal resources and capabilities has been criticised by some scholars (Liu & Yang, 2019; Bag, Dhamija, Gupta & Sivarajah, 2021, pp. 32-51; Toms, Wilson & Wright, 2020; Ashour, 2018, p. 2323) as being inadequate. The dynamics and complexity of the external environment are forcing firms to rely on both their internal and external resources to fully achieve sustainable competitive advantage. Porter’s value chain model explains the dynamics of external markets by incorporating and justifying the influence of competitors, suppliers and customers on the competitive advantage of a firm. As observed by Alvarez and Porac (2020, pp. 735-744), firms do not have all the necessary resources to adequately compete in emerging markets. Pereira and Bamel (2021) concur that small firms can create value through the utilisation of a combination of both internal and external resources. Recent studies (Chawinga & Chipeta, 2017, pp. 25-36; Maphula & Diraditsele, 2019; Karedza & Govender, 2020, p. 74; Monyake *et al.*, 2020b, p. 466; Mashingaidze, Phiri & Bomani, 2021, pp. 123-133) also reveal that firms can improve in their performance by acquiring external resources from competitors, suppliers, customers, consultants, alliances and acquisitions.

This study therefore combines the RBV model and recent developments in strategic management which acknowledge the contribution of external resources towards the sustainability of manufacturing SMEs.

The proposed conceptual model is depicted in Figure 1.2.

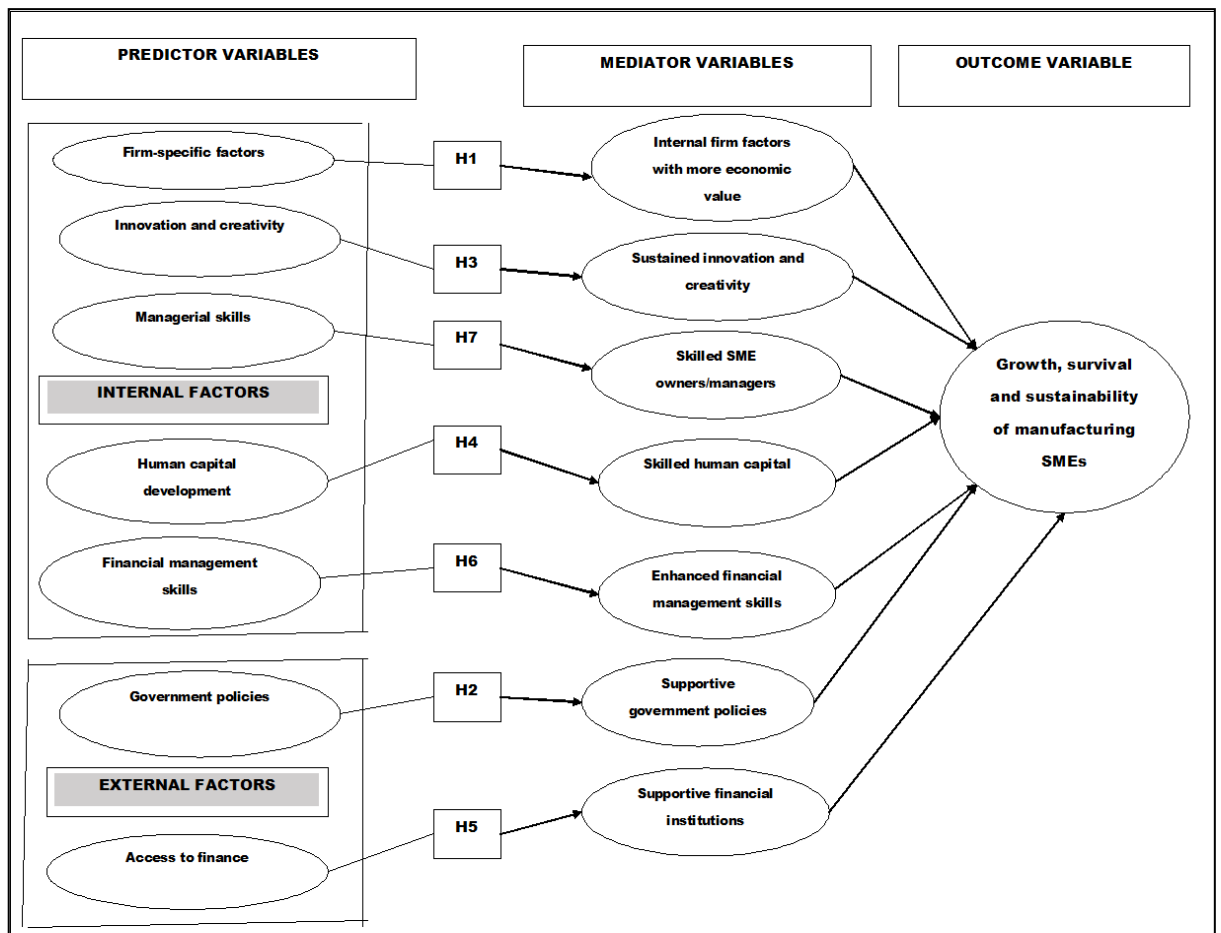


Figure 1.2: Conceptual framework for manufacturing SMEs

Source: Developed by the Researcher

It is conceptualised that the challenges affecting manufacturing SMEs in Botswana impact on their ability to survive, grow and achieve sustainable competitive advantage. Existing government policies and guidelines are hypothesised to have an impact on the survival, growth and sustainability of manufacturing SMEs in Botswana. Innovation and creativity are conceptualised to have a direct impact on the survival, growth and sustainability of SMEs in Botswana. It is hypothesised that human capital development has a direct effect on the survival, growth and sustainability of manufacturing SMEs in Botswana. Access to finance is conceptualised to have a direct effect on the survival, growth and sustainability of manufacturing SMEs in Botswana. It is postulated that the existing finance options have a direct impact on the survival, growth and sustainability of manufacturing SMEs in Botswana. Managerial skills have a direct impact on the survival, growth and sustainability of manufacturing SMEs in Botswana.

An integrated framework similar to the above has previously been used by scholars like Campbell and Park (2017, pp. 302-308), Srivastava and Srivastava (2019), Mahdi, Nassar and

Almasafir (2019) and Agyapong, Essuman and Yeboah (2021) to develop and implement specific theoretical framework to determine internal and external factors which contribute towards the sustainable competitive advantage of SMEs in different sectors. However, these frameworks had shortcomings which motivated the initiation of the current research. For example, the major shortcoming of the research by Campbell and Park (2017, pp. 302-308) was that the study only adopted mono-method (online survey) as a method of data collection and analysis. The study also investigated four factors and involved different types of SMEs and was not specifically targeted towards manufacturing SMEs.

Similarly, the study by Mahdi *et al.* (2019) focused on knowledge management processes in private tertiary institutions and followed only a mono-method choice. This study focused on manufacturing SMEs and will employ mixed methods approach in order to gain indepth knowledge and understanding of survival and growth challenges that impact on the sector. This will promote more consolidated and coherent analysis and interpretation of the findings leading to better understanding of factors that impact on sustainable competitive advantage of manufacturing SMEs in Botswana.

The use of mixed methods in this research will lead to more holistic and coherent findings on the phenomenon under investigation. The weaknesses of one method will be offset by the strengths of the other method and merging two methods will lead in the discovery of new knowledge and insights which may not be identified using only one method. Focusing on the manufacturing sector will also help to contextualize the study and ensure high quality of data by investigating a homogeneous sector. Compared to previous studies, this research covered seven groups of factors, which help to advance more knowledge and understanding of survival and growth challenges that impact on sustainable competitive advantage of manufacturing sector SMEs.

1.8 OVERVIEW OF THE RESEARCH METHODOLOGY

This study adopts a sequential exploratory descriptive research design to answer the research questions and contribute towards the development of a theoretical framework which can be used by manufacturing SMEs in Botswana to achieve sustainable competitive advantage. The study reviews and critiques existing knowledge on the problem under investigation and makes use of primary data gathered to provide solutions to the problem.

The study was conducted in the South-Eastern District in Botswana and covers Gaborone City, Lobatse Town, Ramotswa and Tlokweng villages. The South-Eastern District was chosen because the area consists of the highest concentration of manufacturing sector SMEs in Botswana and also from different economic regions (urban, peri-urban and rural). The total

population in this district is 60,623 and there are approximately 25,000 manufacturing SMEs in the South-Eastern District (Botswana Central Statistics Office, 2014).

The target population ranged from newly established (less than 1 year in business) to experienced (above 5 years in business) manufacturing SMEs owners/managers in the South-Eastern District of Botswana that have been in existence in business for five (5) years or less. These SMEs are registered by the South East District Council in order to verify their enterprise, performance, and competitiveness. Data will also be gathered from selected key informants from the Botswana Ministry of Investment, Trade and Industry since they have in-depth knowledge about challenges affecting manufacturing SMEs operating in Botswana as well as in-depth knowledge about the Botswana government policies and guidelines on manufacturing SME funding and management.

Purposive sampling was used to select seven (7) the government participants who provided data in the qualitative phase of the study (Saunders *et al.*, 2019; Creswell, 2009, p. 95-108). Convenience sampling was used to select the 348 manufacturing SME owners/managers who participated in the study. The original proposed sample size was 379. The value of 379 is based on the Krejcie and Morgan (1970, pp. 607-610) tables for calculating sample size which state that for a population of 25,000 the sample size is 379 (Krejcie & Morgan, 1970, pp. 607-610).

The study collected data in two phases. The first phase gathered data from 7 participants from government departments and agencies operating under the Botswana Ministry of Investment, Trade and Industry. Face-to-face interviews were used to conduct the actual one-on-one interviews to accelerate the pace of data collection. In the second phase of the study, quantitative data was gathered from 348 manufacturing SME owners/managers using a structured questionnaire. The captured data was used to complement the views from key government informants.

A statistical qualitative data analysis tool, NVivo11 was used to analyse data captured from key informants from the Botswana government's Ministry of Investment, Trade and Industry. The procedure, called thematic analysis, assisted with the discovery of patterns and specific themes from the responses of key government informants and use the information to make an in-depth analysis of the qualitative data from these participants. A statistical data analysis package, Statistical Package for Social Sciences (IBM SPSS version 27.0) was used to code and capture the quantitative data from manufacturing SME owners/managers before frequency tables, graphs and descriptive statistics (means, medians and standard deviations) are generated to accomplish the discussion and analysis of the findings. Inferential statistics in the form of multiple regression analysis were used to discover some characteristics or patterns in the

sampled participants and use the information to make further inferences, predictions and generalisation of the findings to a larger population.

1.9 ETHICAL CONSIDERATIONS

The Research Ethics Guidelines from the University of KwaZulu-Natal's School of Management, IT and Governance acted as the standard guideline for ethical considerations. The letter of full approval of ethical clearance from UKZN is attached as Appendix A. Permission was also sought from The Botswana Human Resources Development Council (HRDC) and the Ministry of Investment, Trade and Industry in order to initiate the process of data collection from the target site. In conducting this study, the researcher ensured that participants gave their consent in order for the researcher to gather data from them and also access the premises where participants were operating from. Informed consent was obtained through a covering letter and a verbal explanation to all participants explaining their role in the study. The researcher assured the participants that their personal and confidential details will neither be gathered nor revealed to third parties. The researcher assured and ensured that the results of the findings are only used for the purpose the data was collected (Corbin & Strauss, 2014, pp. 42-46). The researcher ensured that no harm came to participants by ensuring that questions designed and asked would not cause any discomfort to them. Responses from participants were not obtained through coercion (Saunders *et al.*, 2019).

1.10 SIGNIFICANCE OF THE STUDY

The study was significant in the following ways:

1.10.1 Academic/Theoretical Contribution

The extant literature confirms that the survival rate of manufacturing SMEs in Botswana is low despite concerted efforts made by the government of Botswana to support these firms since the 1990s. There is evidence to suggest that the strategic focus of the management of manufacturing SMEs in Botswana is on short-term basis which does not necessarily translate into survival and growth. Despite ample theoretical and empirical evidence that firms can achieve sustainable competitive advantage by utilising their core competencies, there have not been any local comparable studies on the specific resources and capabilities which can be harnessed by manufacturing SMEs in Botswana to achieve sustainable competitive advantage. The findings of this study may help in pioneering the development of a theoretical framework which could be used by manufacturing SMEs in Botswana to identify and utilise their internal strengths to increase their competitiveness, survival and growth.

1.10.2 Contribution to policy formulation for promotion of SMEs

There is currently no standard theoretical framework to guide manufacturing SMEs in Botswana to identify their internal resources and capabilities and achieve sustainable competitive advantage, survive and grow. The findings of this study may help policy makers from across different sectors and industries working with manufacturing SMEs to develop and implement a specific tool which can be used by manufacturing SMEs in Botswana to identify and nurture competencies to realise sustainable competitive advantage.

1.10.3 Contribution towards practice

The current low survival rate of manufacturing SMEs in Botswana may deter those who want to venture into small business. The lack of clear strategy to boost the performance of manufacturing SMEs in Botswana is also likely to be the reason why these firms are not getting financial and technical sponsorship from commercial banks and government agencies. The development of a working framework may help to act as a catalyst for greater participation in the economy by more Botswana citizens who are entrepreneurially minded and attract financial and technical support for manufacturing SMEs. The overall effect could be greater economic development, accelerated diversification of the economy and poverty alleviation in Botswana.

1.11 JUSTIFICATION OF THE STUDY

The manufacturing sector in Botswana has been targeted for this research because of its contribution to employment creation, economic diversification and GDP (CEDA, 2020b, p. 8). Despite its small size, the manufacturing sector is currently is placed third in terms of employment creation and sixth in terms of contribution towards GDP (Statistics Botswana, 2023, p. 43). However, the survival rate of manufacturing SMEs in Botswana remains low and there exists no clear guidelines to help manufacturing SMEs to survive, grow and ensure their long-term growth. A continuation of the status-quo would imply that Botswana continues to experience challenges of poverty, unemployment, low economic development and dependence on mineral resources for economic development. This study is, therefore necessary to ensure that a theoretical framework is developed in order to increase the survival and long-term growth of manufacturing SMEs.

1.12 CONCEPTUALISATION OF KEY TERMS

The following is a conceptualisation of key terms compiled from literature and subsequently adopted by the researcher to be applied throughout this thesis.

1.12.1 SME

Whilst there is no commonly agreed definition of an SME, scholars have generally defined SMEs according to the number of employees, or annual turnover, balance sheet, or total gross asset value (Small Enterprise Development Corporation (SEDCO), 2014; Mphela & Shunda, 2018; CEDA, 2020b, p. 39).

This study adopts the definition presented in the Policy on Small, Medium and Micro Enterprises in Botswana (Republic of Botswana, 1999) which defines SMEs as enterprises employing between 7 and 100 people with an annual turnover of between P60,000 and P5 million. This definition has also been adopted by CEDA (2020b, p. 39) which is the umbrella body of SMEs in Botswana.

1.12.2 SME growth

The growth of manufacturing SMEs is as important as their survival (Esteve-Perez *et al.*, 2022, pp. 1-22; Ncube & Zondo, 2022). Growth occurs when barriers (for example lack of skills, lack of access to finance, poor technology adoption, low innovation, lack of access to markets) that inhibit SME growth are removed and connections through networking and collaboration are promoted (Salder *et al.*, 2020; Mukonyo *et al.*, 2022). Various indicators are used to measure SME growth, change in number of employees, greater sales revenue, increase in net profit, improvement in average lead conversion, more customers and a gain in market share.

Scholars often combine SME survival, growth and sustainable competitive advantage in the same studies (Monyake & Kuruba, 2020, p. 1; Salder *et al.*, 2020; Yeboah, 2021; Mukonyo *et al.*, 2022; Ncube & Zondo, 2022; Kindström, Carlborg and Nord, 2024, pp. 700-723). For example, Kindström *et al.* (2024, pp. 700-723) views SME growth as an extension of survival and sustainable competitive advantage as the ultimate goal of every firm. Yeboah (2021) established a link between the high failure rate of SME and their growth. These scholars commonly agree that the ability of SMEs to sustain growth is a pre-requisite for survival and sustainable competitive advantage.

This study used the number of employees and annual turnover to measure the size of SMEs that were investigated. Based on the gathered literature review, the study hypothesises that SME survival, growth and sustainable competitive advantage are intricately related.

1.12.3 SME survival

Business survival is a common objective for most businesses, especially those which are starting up their operations. SME survival refers to a period from inception when a business strives to maintain its operations for a certain period of time (Machera, 2020; Muhwezi & Kiliman, 2023). Most SMEs aim to survive in their first year. The initial survival strategies employed by most SMEs are cost cutting, efficient utilisation of scarce resources, increasing

marketing, creating an established customer base, and selling a unique product or service which appeals to a group of customers or market (Mmereki, Hovorka & Gwebu, 2020; Ramphoma, 2021; Yeboah, 2021).

Various scholars (Monyake & Kuruba, 2020, p. 1; Salder *et al*, 2020; Yeboah, 2021; Mukonyo *et al.*, 2022; Ncube & Zondo, 2022; Kindström, Carlborg and Nord, 2024, pp. 700-723) agree that firms that survive have greater chances of achieving growth through a combination of creating customer retention strategies, searching for additional funding and addressing the relationship between revenue and expenses. Despite these observations, a high number of SMEs do not survive beyond 5 years of operation.

In this study, SME survival refers to sustained and long-term period from business inception when operations are maintained for a period of at least 5 years. In order to assess SME survival, this study will collect and analyse data on the various strategies that SMEs use to increase their chances of survival. This research hypothesises that the survival of SMEs is central to their growth and sustainable competitive advantage.

1.12.4 Sustainable competitive advantage

Sustainable competitive advantage occurs when a firm meets the needs of its customers better than its competitors. This unique superiority is accomplished through various strategies, including creativity and innovation, providing better quality products, branding, marketing, niche marketing, technology adoption, better product design, forming strategic alliances and unique customer services (Monyake & Kuruba, 2020, p. 1; Molefe, 2020, p. 42; Chipambwa *et al.*, 2023a, pp. 1-22; Nyakudya, 2020, p. 229; Tebetso, 2021). Kiyabo and Isaga (2019, pp. 1-23) postulate that in order for sustainable competitive advantage to be achieved, a firm's products should fulfill all the requirements of the VRIO framework (that is, valuable, rare, inimitable, and organisation).

This study assumes that when manufacturing SMEs manage to survive and realise growth, and strategically position themselves in their markets, they can realise sustainable competitive advantage. The study will gather and analyse data from entrepreneurial factors, firm-specific factors, exogeneous/market factors, government policies and guidelines, innovation and creativity, human capital development, access to finance, financial management skills, and managerial skills and recommend strategies that can be used by manufacturing SMEs in Botswana to achieve sustainable competitive advantage.

1.12.5 Sustainability

In the broadest sense, sustainability means meeting the needs of the present without compromising the ability of future generations to meet theirs (Jayasundara *et al.*, 2020). SME

sustainability is defined as the concept and practice undertaken by small and medium-sized businesses, and this includes business operations performed in a socially and ethically responsible manner with respect to the way they deal with local and global social, environmental, and economic matters (Firth, 2020, p. 2; Goncalves, 2020). This definition implies long-term commitment to maintaining a balance between social, environmental and economic concerns, rather than short-term profit practices.

According to Milanese *et al.* (2022) SMEs can use sustainability practices as a driver for innovation, impact and growth leading to the leveraging of SMEs' market position and promotion of related business opportunities. Ultimately, the results of sustainable practices are greater financial inclusion, enhanced brand image, greater employee retention, improved reputation, greater customer retention, increased profit and contribution to the triple bottom line (Goncalves, 2020; Firth, 2023, p. 2).

There is a link between sustainability and sustainable competitive advantage and the two terms are used interchangeably though there are apparent differences between the two (Styaningrum, Soetjipto & Wulandari, 2020; Mady, Abdul Halim & Omar, 2022; Iyke & Olori, 2024). Adoption of sustainable practices is a driver of sustainable competitive advantage.

This study will use the term sustainability to imply various long-term approaches and strategies that are implemented by manufacturing SMEs to position themselves in their markets by efficiently utilising resources, saving cost, reducing pollution and waste, ethical employment of human capital, mutual and responsible engagement and collaboration with stakeholders (customers, employees, regulators, suppliers and trading partners) and striking a balance between long-term financial rewards and protection of the environment.

1.12 OUTLINE OF THE THESIS

The following is an outline of all the eight chapters covered in this thesis:

Chapter 1 – Introduction

This chapter introduces the study, including the topic, background of the study, problem statement, research aim, research objectives, hypotheses, theoretical and conceptual framework, overview of the research methodology, significance of the study, justification of the study and a summary of the chapter.

Chapter 2 – Literature Review on Firm-Specific Factors, Government Intervention Strategies and Innovation and Creativity

This chapter presents theories and concepts of manufacturing SMEs, survival, growth and government intervention strategies used to support SMEs and factors of innovation and creativity influencing the survival and growth of SMEs. The survival, growth and sustainability challenges faced by these firms and strategies that are used by these firms to create and maintain competitive advantage are also reviewed. The chapter follows the order of the research questions and provides theories and case studies in an effort to answer each research question.

Chapter 3 – Literature Review on Human Capital Development, Access to Finance, Financial Management Skills and Managerial Skills

This chapter presents theories and concepts of human capital development in SMEs, access to finance by SMEs, financial management skills and managerial skills that impact on SMEs. The survival, growth and sustainability challenges faced by these firms and strategies that are used by these firms to create and maintain competitive advantage are also reviewed. The chapter follows the order of the research questions and provides theories and case studies in an effort to answer each research question.

Chapter 4 - Theoretical and Conceptual Framework

This chapter further delineates the specific theories associated with SMEs, especially in the manufacturing industry. The theoretical framework presents and explains the theoretical underpinnings of the study on sustainable competitive advantage of manufacturing SMEs. The chapter also discusses the conceptual framework and maps out the variables in the study and the interrelationships between these variables.

Chapter 5 – Research Methodology

This chapter discusses how data for the study will be collected, analysed and interpreted. The chapter discusses and justifies the research methodology, research approach, methodological choice, research strategy, time horizon, and techniques and procedures for data collection, data analysis, data interpretation, validity and reliability and research ethics.

Chapter 6 –Findings from the Qualitative Study

This chapter presents the findings of the qualitative study on achieving sustainable competitive advantage of manufacturing SMEs in Botswana. The main focus is on the research questions and the views of the 7 key government informants who participated in the study.

Chapter 7 - Findings from the Quantitative Study

This chapter presents the findings of the quantitative study on achieving sustainable competitive advantage of manufacturing SMEs in Botswana. The main focus is on the research objectives and the views of the 348 SME owners/managers who participated in the study.

Chapter 8 – Discussion of Findings

This chapter discusses the findings from both the qualitative and quantitative phases of the study. The chapter compares and contracts the literature review and empirical findings from both the qualitative and quantitative studies.

Chapter 9 – Conclusions and Recommendations

This chapter concludes the research by presenting and explaining the major findings of the study. The chapter also proposes specific recommendations to different stakeholders who are affected by the findings of the study like scholars, management of manufacturing SMEs in Botswana, SME owners/managers, entities that are responsible for the management and support of SMEs and the general public.

1.14 CHAPTER SUMMARY

The purpose of this chapter was to introduce the topic under investigation which focuses on developing a theoretical framework which could be implemented by manufacturing SMEs in Botswana and could result in manufacturing SMEs achieving a sustainable competitive advantage, survive and grow. The factors that impact on the survival, growth of manufacturing SMEs were presented, together with the survival and growth challenges that SMEs face. Research gaps were identified in the cited cases, paving way for the justification of conducting the present study.

The background of the study, research problem, objectives and research questions were presented and reasons why the study should be conducted from the perspectives of research, practice and policy on manufacturing SMEs. The research methodology section presented and explained the study's blueprint on all methods, techniques and procedures which will be used to collect and analyse data and report the findings.

Subsequent to the overview of the research methodology, key terms were presented and defined in order for the reader to have an understanding of the different terminologies used throughout this thesis. The researcher also formulated a definition of each term as it will be applied in this study. The next chapter, Chapter 2, focuses on the literature review on firm-specific factors, government intervention strategies and factors of innovation and creativity that influence the survival, growth and sustainable competitive advantage of SMEs.

CHAPTER 2 – LITERATURE REVIEW ON FIRM SPECIFIC FACTORS, GOVERNMENT INTERVENTION STRATEGIES AND CREATIVITY AND INNOVATION

2.1 INTRODUCTION

This chapter draws on information from various sources in the form of journals, published theses, textbooks, websites, government publications, newspapers and magazines. The literature review discussed in this chapter follows the order of the research questions in Chapter 1 of this thesis. Findings from different researchers are compared and contrasted with the purpose of positioning the current study against previous findings on the same subject. It is anticipated that a comparative analysis of the literature review and empirical findings of this study may help to discover new knowledge which will help in constructing a theoretical framework. This framework may help manufacturing SMEs in Botswana to develop and implement strategies which will help them to achieve sustainable competitive advantage. The compiled literature review will also be used to identify research gaps which may require further exploration.

The specific research questions which will be discussed in this chapter are given below:

1. What firm-specific factors impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs manufacturing SMEs in Botswana?
2. To what extent do existing government policies and guidelines contribute to the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
3. What factors of influence innovation and creativity influence the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?

2.2 DEFINITION OF TERMS

This section provides the definition of key terms and concepts which are discussed throughout the thesis and which apply to the area of management under investigation. According to Felizardo and Carver (2020, p. 328) it is important to provide definition of terms in order to conceptualise the variables used in the study. It is equally important for theoretical terms to be explained and justified in order for the researcher to articulate and give a boundary of specific theories, models and concepts apply to the given study (Tikito & Souissi, 2019).

2.2.1 Small and medium-sized enterprise (SME)

There has not been any universally agreed definition of what constitutes an SME and definitions differ from one country to another. SMEs have also been defined by criteria like the number of employees, sales volumes, total value of assets, industry in which they are operating and ownership of the business. Some scholars have defined SMEs in terms of the characteristics which make them different from large, established enterprises. Despite these classifications, it is still difficult to draw a precise line which differentiates an SME from a large enterprise (Belas, Gavurora & Toth, 2018, pp. 604-606).

The European Union defines a small enterprise as one that employs less than 50 people, has an annual turnover of less than €10 million and an annual balance sheet total of less than 10 million Euros. A medium enterprise employs less than 250 people, has an annual turnover of less than €50 million and an annual balance sheet total of less than 43 million Euros. (European Commission, 2005). The Moroccan Ministry of Economy defines an SME as a firm that employs less than 200 employees with a turnover of less than five million DH (500,000 Euros) in the creation stage, 20 MDH (2M Euros) for the growth phase and 50 MDH (5M Euros) for the maturity phase (Moroccan Ministry of Finance and Privatization, 2000).

In South Africa, an SME is defined under two categories, small and medium enterprises. A small enterprise is a firm that employs between 1 and 49 people and has an annual turnover of up to R13 million, with a balance sheet of R5 million. A medium enterprise is a firm that employs between 50 and 100 people and has an annual turnover not exceeding R51 million, with a balance sheet of R19 million (Olawale & Garwe, 2010).

In Botswana, the definition of an SME is drawn from the definition recommended by the SMME Task force of 1998, which defines the three categories of enterprise using annual turnover and the number of employees. According to the Policy on Small to Medium Enterprises (Republic of Botswana, 1999) a small enterprise generates an annual turnover of between P60,000 and P1,5 million and employs not more than 25 people. A medium enterprise is defined as an enterprise that employs a maximum number of 250 employees and generates an annual turnover of between P1,5 million and P5 million.

From the above definitions, it can be concluded that SMEs are constrained by limited resources such as start-up capital, annual turnover and number of employees. This implies that the limited resources also affect the survival, growth and sustainability of SMEs.

2.2.2 SME growth

Researchers have differing views on what factors contribute to the growth of SMEs. Previous studies by Mckelvie and Wiklund (2010) noted that it is difficult to analyse the growth of a firm at a precise moment. Leitch, Hill and Neergaard (2010) further explain that it is easier to explain factors that determine firm growth and the effects of growth than to explain the dynamics of firm growth or the way that a firm achieves growth.

2.2.2.1 Importance of small business growth

The growth of SMEs has been at the cornerstone of economic growth around the world (Alsaaty & Makhoul, 2020, pp. 908-916; CEDA, 2020b, p. 68, 2020; Ledikwe, 2020, p. 4; Monyake & Kuruba, 2020, p. 1; Meyer & Kruger, 2021, p. 75). This is because the sustained growth of SMEs helps to spur economic growth in different countries, both developed and developing (Ongori, Atambo & Bosire, 2016; Mutoko & Kapunda, 2017; Monyake *et al.*, 2020; Moffat & Kapunda, 2023, p. 205; Owolabi *et al.*, 2023, p. 5). Maziriri and Chivandi (2020) opine that SMEs have been widely accepted as engines of economic growth and development because of their ability to create employment, promote economic diversification, reduce poverty amongst different strata of society, contribute towards GDP, and in some cases help in export earnings. Furthermore Abisunga-Oyekunle, Patra and Muchie (2020) affirmed that SMEs accelerate the pace of innovation and increase the tax base. The presence of SMEs in an economy also helps to increase the rate of competition, both between SMEs and between SMEs and larger companies. This competition further helps to increase productivity within an economy (Matsongoni & Mutambara, 2021).

Sekonopo, Moalosi, Molwane and Mapfaira (2019) posit that new entrepreneurs bring innovation, ideas and skills and this helps to increase the number and variety of new products and services in an economy. Monyake *et al.* (2020a, p. 330) further explain that the potential of SMEs to generate employment at lower capital costs means that they are more capable of increasing economic activities better than global industrial companies. Huang (2022) and Wong (2022) preferred that the rapid industrialisation and economic growth of countries like China, South Korea, Japan and Singapore was due to the contribution of SMEs. For example, approximately 99% of all business ventures in China are attributed to SMEs (Jia, Tang & Kan, 2020) and approximately 60% of all industrial output in China, Japan, South Korea and Singapore is attributed to SMEs (Jiang & Hui, 2021).

During periods of recession, SMEs act as a cushion by adapting and innovating during the changing times. In periods of job losses and downsizing, SMEs have continued to develop and create more jobs (Abisuga-Oyekunle *et al.*, 2020, pp.415-419; Adewumi, 2021, pp. 200-213;

Mugano & Dorasamy, 2023). SMEs also act as suppliers of raw materials to other SMEs and larger companies, thus helping to maintain the supply chain across different economic sectors. There is, thus, a reciprocal relationship between the growth and promotion of SMEs and economic growth and development.

2.2.2.2 Measuring the growth of SMEs

Since the growth of SMEs is heterogeneous in nature (Franco & Haase, 2017, pp. 1-15), the measurement of their growth is also determined by numerous measures. These measures include number of employees, annual revenue, total assets, price per share, variety of products and services and the size of budget, among others. The variety of methods used to measure size of business growth by scholars (Hoqu, Sultana & Thalil., 2016; Sirotin, Arkhipova & Egorov, 2017; Khanie, 2020, p. 1) implies that it is quite difficult for researchers to compare their findings. Measures of firm growth can also be classified as either quantitative or qualitative, with quantitative measures dominating in the range of studies of SME growth.

The most popular measure of SME growth which is used by governments and policy makers is the number of employees since this measure determines the rate of employment in an economy (Brixiová Kangoye & Yogo, 2020; Maduku & Kaseeram, 2021). However, from an SME owner/manager perspective, the number of employees is a less important measure, and sales volume and profit levels are more meaningful and valuable (Muhos, Saarela, Simunaniemi, Foit Jr & Rasochova, 2021).

Annual revenue is a straightforward metric that is used to measure SME growth. A positive change in annual revenue is a strong indicator of the growth of a firm (Asikhia *et al.*, 2020, p. 25; Sidek *et al.*, 2020; Fofana, 2023, p. 6; Simbyakula & Hapompwe, 2023). For example, Simbyakula and Hapompwe (2023) concluded that a positive change in annual revenue is evidence that the business is stable and is a profitable concern. Most governments across the globe designate the transition of firms from micro to medium enterprises using changes in annual revenue. This implies that annual revenue is one of the strongest strong indicators of SME growth (Republic of Botswana, 1999; CEDA, 2020b, p. 39).

Another measure of firm growth is the total amount of assets (Kato & Tsoka, 2020, p. 11; Grosse, Wocke & Mthombeni, 2022, p. 1; Mrondoko, 2022). Different forms of assets, including tangible and intangible assets, are used to determine SME growth. Grosse, Wocke and Mthombeni (2022, p. 1) established that company size can be measured using total assets of the firm, with largest firms possessing the highest rate of return on assets. Kato and Tsoka (2020, p. 11) established that firms with assets can utilise them to generate revenue and realise growth

and success. Despite the importance placed on assets on determining SME growth, Mrindoko (2022, p. 28) observed that it is difficult for SMEs to acquire assets for income generation.

2.2.3 The importance of manufacturing SMEs

Governments across the globe have targeted the manufacturing sector as the engine of growth in their economies (CEDA, 2020b, p. 68; Botha *et al.*, 2020, pp. 153-174; Meyer & Kruger, 2021, p. 75). Globally, the manufacturing sector contributes a significant share of economic activity and many countries have deliberately designed and implemented policies and initiatives towards the promotion and growth of the manufacturing sector. Studies by Niskanen and Niskanen (2015) revealed that SMEs in the manufacturing sector perform better than those in the non-manufacturing sector and this pivots manufacturing sector SMEs ahead in terms of capacity to steer economic development and employment creation. This sector has the potential to create employment, reduce poverty, contribute towards the gross domestic product, increase foreign direct investment, help in economic diversification and increase the export of domestically produced goods, thereby increasing the share of the much-needed foreign currency (NDP 11, 2017; CEDA, 2020b, p. 17, 2020; Meyer *et al.*, 2021, p. 75). Concerted efforts have, thus, been made to improve investment and growth of the manufacturing sector amongst SMEs globally. SMEs have also been targeted because they are a potential source of industrialisation. For example, the economic transformations of Taiwan and Malaysia were driven by the manufacturing sector from the 1970s onwards (Raj-Reichert, 2020; Gomez, Cheong & Wong, 2021).

Regionally, the manufacturing sector has been identified as a source of productivity growth and formal employment growth. The sector has also been a significant driver of innovation and technological advances and export performance. Kenya and Tanzania have manufacturing shares of GDP in the regions of the United States (12%) and the United Kingdom (10%) (African Development Bank Group, 2014, pp. 27-28). Statistics reveal that Kenya, Uganda and Tanzania have a share of manufacturing exports exceeding 20%. However, data on productivity indicates that the scale of productivity of the manufacturing sector is generally low in most African countries. In South Africa, the active participation of the government has helped to rapidly transform the manufacturing sector. On average, SMEs provide more than 55 percent of total employment and 22 percent gross domestic product in South Africa in 2023 (Enaifoghe, 2023, p. 3).

The Botswana manufacturing sector has been identified as driver of the country's twin objectives of economic diversification and employment creation. Since the discovery of diamonds in 1966, the economy of Botswana has been dominated by diamond mining (35%) to

a large extent and also by beef exports (1.5%) to the European Union (NDP 11, 2017). However, both diamond mining and beef industry are not sustainable in the long run. A previous study by Matandare (2018) revealed that the fact that diamond mining is capital-intensive means that the industry cannot absorb a significant proportion of the unemployed workforce in Botswana. Moreover, the recent global financial crisis has led to the diminishing demand for diamonds across the globe and this impacted on Botswana's export earnings (Brou, Mougoué, Kouassi, Thulaganyo & Acquah, 2022, p. 1026). Seoke (2019) further explained that the beef industry has also been affected by declining beef quarters to the European Union and adverse effects of recurrent foot and mouth and anthrax diseases. All these challenges have stirred the government of Botswana and other key stakeholders to focus on the promotion of the manufacturing sector in the country.

In terms of contribution to national GDP, the manufacturing sector is placed sixth according to recent data from Statistics Botswana (Statistics Botswana, 2023, 43). Despite a relatively smaller percentage contribution to GDP of 5.8%, the manufacturing sector, together with agriculture, has been targeted as priority sectors by the Botswana government because of its potential to create most employment and diversify the economy from Botswana compared to other sectors (CEDA, 2020b, p. 8). The manufacturing sector in Botswana consists mainly of meat and meat products sub-sector at 13.6%, beverages at 11.1% and other products at 54.8% (NDP 11, 2017; Statistics Botswana, 2023, p. 43). Table 2.1 illustrates the contribution to GDP and employment of the manufacturing sector and other economic sectors in Botswana.

Table 2.1: Contribution to GDP and employment by economic sector

Economic sector	GDP contribution (%)	Employment contribution (%)
Public Administration And Defence	17.4	18.2
Mining and Quarrying	14.4	1.5
Wholesale and Retail	11.5	15.8
Construction	11.3	7.4
Finance, Insurance and Pension Funding	6.2	1.3
Manufacturing	5.8	7.5

Source: Statistics Botswana, 2023 (Quarter 3)

Compared to sectors like mining, wholesale and trade, the manufacturing sector has experienced more percentage growth post-Covid-19 (Statistics Botswana, 2023, p. 43). The manufacturing sector also supports other primary, secondary and tertiary sectors in Botswana's economy. It is

envisaged that supporting the manufacturing sector will also boost economic activities in related sectors.

Despite its potential, the manufacturing sector is affected by considerable challenges, including lack of skills, lack of technology adoption, poor marketing techniques and lack of competitiveness (Mazikana, 2020; Mokwana, 2021; Mongwaketse, 2021; Mphale *et al.*, 2024). It is these challenges that have motivated an investigation of specific factors that impact on the sector's survival and growth. Specific strategies that can be implemented to support the sector towards survival, growth and sustainable competitive advantage will be proposed thereafter.

2.2.4 SME survival

SMEs have been promoted as engines of economic growth because of their potential to eliminate poverty, increase GDP, create employment, promote industrialisation and lead to economic diversification (Alsaaty & Makhlof, 2020, pp. 908-916; Monyake & Kuruba, 2020, p. 1; Sishuba, 2020; Kubanji, Biza-Khupe & Mapharing, 2021 pp. 330-348; Pansiri & Chatibura, 2022, p. 171; Obasi, 2023). Whilst the contribution of SMEs is generally known, entrepreneurs face many challenges that impact on the survival and growth of their business. There is abundant evidence from the literature to confirm that the failure rate of SMEs in developing countries is higher than in developed countries (See Table 2.2) and the problem is not improving (Modiba, Kekwaletswe, & Komati, 2020).

Table 2.2: SME failure rate in developing and developed countries

Country	SME failure rate within the first 5 years	Survival challenging
USA	Approximately 50% fail within the first 5 years (US Bureau of Statistics, 2022).	Access to finance, lack of customers, lack of managerial capacity, competition.
UK	Approximately 50% fail within the first 5 years (Business Startup Statistics, UK, 2022).	Lack of capital, ineffective management, poor infrastructure, lack of market access.
Nigeria	Approximately 80% fail within the first 5 years (SMEDAN, 2022).	Financial problems, management problems, inadequate basic infrastructure, socio-cultural problems, strategic planning problems.
Ghana	Approximately 60% fail within the first 5 years (Ghana Ministry of trade and industry, 2022).	Lack of finance, limited capital and knowledge, lack of technology, low production capacity, lack of marketing strategies.
South Africa	Between 70% to 80% of SMEs fail within the first 5 years (Fatoki, 2014, p. 922).	Lack of business acumen, poor planning, lack of skills, lack of access to finance, poor accounting skills, late payment by state

		institutions, corruption.
Zimbabwe	About 60% fail within the first year and 25% fail within the next 3 years. This means that approximately 15% will survive (Sibanda, 2016; Matsongoni & Mutambara, 2021).	Access to finance/credit, lack of management and entrepreneurial skills, poor location and networking, poorly defined legal and regulatory frameworks, technological capabilities, government policy towards SMEs.
Botswana	Between 70% to 80% of SMEs fail within the first 5 years (BIDPA, 2016, pp. 1-85; Molefe, 2020, p. 23; Nthubu <i>et al.</i> , 2023, p. 285).	Limited managerial skills, lack of access to markets, restrictive laws and regulations, lack of information on government assistance programmes, poor work ethics, and lack of access to finance.

Source: Developed by the researcher

The above statistics reveal that the failure rate of SMEs in developed countries is much lower than in developing countries. Whilst the failure rate in developed countries is about 50%, the above statistics show a failure rate range of 60% to 80% for developing countries. The above statistics also show that access to finance and managerial capacity affect SMEs in both developed and developing countries. However, developing countries are also affected by lack of marketing strategies, lack of technology adoption and restrictive government laws and regulations.

Scholars have also concluded that the challenges causing the high failure rate of SMEs in developing countries are different from those in developed countries (Modiba, Kekwaletswe, & Komati, 2020). Problems facing SMEs in developing countries can be broadly classified as managerial, operational, strategic and exogenous problems (CEDA, 2020b, pp. 34-54). These survival and growth challenges are discussed in the following sections:

2.2.4.1 Firm characteristics and firm survival and growth

Firm specific factors in the form of age of the firm, annual revenue, number of employees, location of the firm, level of marketing, land owned by the firm, skills of employees and firm machinery and vehicles impact on the survival and growth of SMEs. Research by Grondys, Slusarczyk, Hussain and Androniceanu (2021, p. 1) affirms that firm size is correlated with firm efficiency, growth and profitability. Monyake and Kuruba (2020, p. 1) revealed that the amount of capital invested in an SME positively contributes towards the survival, growth and sustainability of the SME.

Exogeneous or market-related factors like poor infrastructure, poor location, failure to perform market research, poor economic climate, high crime rate and endemic corruption in developing

countries are additional factors which have contributed towards the low survival rate of SMEs (Chigora & Zvavahera, 2017, pp. 1-17; Ndinda, 2021; Ledikwe, 2020, p. 4). SMEs in developing countries are also challenges by low demand of products and services in their countries, lack of access to regional and global markets, low adoption of technology, lack of government support and poor networking and collaboration strategies (CEDA, 2020b, pp. 34-54).

2.2.4.2 Government intervention and firm survival and growth

Governments have formulated policies and guidelines to support SMEs with survival and growth in the markets that they operate in. These government initiatives cover strategies like arranging business exhibitions to promote products of local firms, protecting local firms from outside competition (for example, through import bans and tariffs), providing export initiatives, providing training to SME owners/managers, increasing access to finance and creating networking and collaboration linkages amongst SMEs (Dan-Jumbo & Ogbu Edeh, 2019, p. 164; Ledikwe, 2020, p. 4; Botha *et al.*, 2021, pp. 153-174).

In spite of the above government intervention strategies, SMEs continue to fail due to multiple reasons. Whilst there are specific measures in place to support SMEs, no meaningful effort is made to help SMEs access finance, product development, market identification and export promotion (Bary, 2019, pp. 5-6). Musabayana and Mutambara (2020) further elucidate that there is no significant support from governments to commit financial investment in infrastructural development and to put in place adequate measures to monitor the current structures that support SMEs. Monyake *et al.* (2020b, p. 466) highlighted that excessive laws and regulations imposed by government and lack of information on government support programmes resulted in a high failure rate of SMEs.

2.2.4.3 Innovation and creativity and firm survival and growth

Firms have the potential to increase their survival and growth by adopting innovation and creativity initiatives, encouraging owners/managers innovation and creativity, collaborating with strategic partners and putting in place regulations that protect intellectual property (Karedza & Govender, 2020, p. 72; Ngibe & Lekhanya, 2020, p. 1; Chipambwa *et al.*, 2023a, pp. 11-16; Chipambwa *et al.*, 2023b, p. 9).

Despite these drivers, extant literature highlights that SMEs are still lagging behind in innovation and creativity and this is affecting their survival and growth (Karedza & Govender, 2020, p. 74; Monyake *et al.*, 2020b, p. 457). Failure to develop their internal resources like managerial and workforce skills, low ICT adoption, lack of business linkages and poor

networking and collaboration are some of the challenges affecting the survival, growth and sustainable competitive advantage of manufacturing SMEs.

Additional factors of innovation and creativity impacting on the survival and growth of SMEs in developing countries are low levels of education of SME owners/managers, limited information technology knowledge, cheap imports from China, low wages offered to manufacturing SME employees and little effort towards research and development by manufacturing firms (LEA, 2020; Ngibe & Lekhanya, 2020, p. 1).

2.2.4.4 Human capital development and firm survival and growth

Human capital is essential towards the survival, growth and sustainable competitive advantage of manufacturing SMEs (Pansiri & Yalala, 2017; Domeher, Abdulai & Yeboah, 2019, pp. 162-188; Absisuga-Oyekunle, Patra & Muchie, 2020; Nyakudya, 2020, pp. 44-49; Tebetso, 2021). Both management and employees are anticipated to possess suitable skills, knowledge and experience to plan, implement and execute activities that result in the converting of raw materials to final products and generate revenue leading to the success of SMEs.

Despite the contribution of human capital towards firm survival and growth, pertinent literature alludes that manufacturing SMEs tend to neglect critical activities like performance appraisal of employees (Mashavira, 2020) and focus on short-term revenue generation strategies instead of investing in managerial skills which ensure business survival, growth and sustainable competitive advantage (Ding & Murinde, 2020, pp. 45-56). Musabayana, Mutambara and Ngwenya (2022b, p. 18) determined that firms also lack resources (time, finance and commitment) to train employees and align their competencies with organisational objectives and this leads to high employee turnover, low employee morale and subsequent failure of SMEs.

2.2.4.5 Access to finance and firm survival and growth

One of the major causes of SME failure in developing countries is lack of access to finance. Many SMEs rely on personal or family finance, which is limited, and this negatively affects the survival and growth of these firms (Tadu & Chiguvi, 2019, pp. 113-118; CEDA, 2020b, p. 56). SMEs also face managerial challenges like poor record keeping, lack of business management skills, lack of education, lack of planning, lack of technical skills and lack of market research pose a significant challenge to the survival and growth of SMEs in developing countries (Diraditsile, Hamaluba & Mokoka, 2019, pp. 171-176; Khumalo, Mthului & Singh, 2019, p. 781; CEDA, 2020b, p. 34-54).

There is abundant literature to confirm that SMEs face challenges in access finance and this influences their chances of survival, growth and sustainable competitive advantage (Kubanjji,

Biza-Khupe & Mapharing, 2021 pp. 330-348; Molefi, 2021, p. 5; Sivotwa *et al.*, 2022, p. 1). Because of their small size, SMEs fail to provide collateral, especially with commercial banks, when applying for loans (CEDA, 2020b, p. 32). To further exacerbate their challenge, Nyakudya (2020, p. 223) revealed that SMEs have a high loan default rate and this makes them risky partners when applying for loans.

Lack of formal education, including lack of financial literacy skills, means that SMEs cannot prepare financial statements and proposals required by commercial banks and government agents like CEDA when applying for loans (Njanike, 2019, p. 13; Folajinmi & Peter, p. 90, 2020; Mpofu & Sibindi, 2022). Failure to access finance results in low survival rate of SMEs.

2.2.4.6 Financial management skills and firm survival and growth

Financial management skills help SMEs to monitor income, track their expenses and effectively manage their cash flow. SME owners/managers with financial management skills have the capacity to reduce the firm's exposure to insolvency and realise their strategic objectives (Chileshe, 2019, p. 5; Folajinmi & Peter, 2020, p. 94; Nautwima & Asa, 2021; Mbongo & David, 2021). Chileshe (2019, p. 52) asserts that financial management skills assist managers with the necessary skills to prepare business proposals and cash flow statements which are vital towards access to finance with commercial banks and government lending agents.

Various researchers have concluded that the survival, growth and sustainable of SMEs is affected by their lack of financial management skills (Mutoko & Kapunda, 2017; Nyakudya, 2020, p. 251; Mpofu & Sibindi, 2022). For example, Folajinmi and Peter (2020, p. 90) opine that SMEs fail to negotiate for loans and cannot prepare comprehensive business proposals and cashflow statements due to lack of human resource management skills, including financial management and marketing skills. This eventually results in low liquidity and eventual collapse of their business.

2.2.4.7 Managerial skills and firm survival and growth

Managerial skills are the characteristics that are needed by SME owners/managers to perform managerial processes which are required to produce efficient results in the firm. According to Tebetso (2021) managerial skills are the cornerstone of firm performance and sustainable competitive advantage. By utilising managerial skills, SME owners/managers are able to lead and direct employees in order for them to accomplish their tasks. Acquisition and possession of managerial skills results in organised and motivated teams at work leading to the SME's overall success.

Despite their importance, most SME managers, especially in developing countries lack managerial skills and this impacts on the survival, growth and sustainable competitive of their

business. A study by Tadu and Chiguvu (2019, pp. 113-118) concluded that dependence on family members for labour and a shortage of well-trained employees were hindrances which affected the competitiveness and sustainability of SMEs. A research by Obasi (2023) highlighted that the major challenges affecting the manufacturing sector are that the industry requires specialized skills which are difficult to get and that the sector is continuously losing its skills force to other sectors like service and agriculture. In the end, the manufacturing industry either remains stagnant or faces decline.

2.2.5 Linkage between SME survival, growth and sustainable competitive advantage

The interdependency between firm survival, growth, sustainability and sustainable competitive advantage has been inferred from empirical research findings in Chapter 1. This section provides more detailed evidence from scholarly research to further confirm the linkages between the variables – SME survival, growth, sustainability and sustainable competitive advantage. This will help to further consolidate the researcher’s motivation to also connect firm survival, growth and sustainable competitive advantage in this thesis. Table 2.3 elaborates the findings from multiple scholars.

Table 2.3: Linkages between SME survival, growth, sustainability and sustainable competitive advantage

Authors	Main issues
Styaningrum, Soetjipto and Wulandari (2020)	SME sustainability has a strong relevance towards long-term firm growth. Greater knowledge of corporate sustainability and long term competitive advantages will result in organisational growth.
Mady, Abdul Halim and Omar (2022)	Internal firm sustainability practices (product, process and organisational innovations) by manufacturing SMEs impacts on the sustainable competitive advantage of these firms.
Mafokeng, Chinomona and Mafini (2023)	A product that is user and environmentally friendly increases firm sustainability resulting in higher chances of firm survival and long-term growth.
Firth (2023, p. 2)	Some of the most significant benefits of sustainability are long-term cost-saving, enhanced brand image and reputation, attracting government support through incentives, tax breaks and grants, and increasing SME chances of penetrating new markets.
Iyke and Olori (2024)	Lack of core competencies and sustainability results in failure of SMEs within 5 years of business operations. The advancement of sustainability results in long-term competitive benefits to SMEs.
Nwaobia and Akintoye	Confirmed that sustainability practices enhanced brand value and

(2024)	reputation of manufacturing SMEs leading to sustainable competitive advantage.
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Source: Compiled by the Researcher

2.3 FIRM-SPECIFIC FACTORS IMPACTING THE SURVIVAL AND GROWTH OF SMES

There are three broad categories of factors that impact on the survival, growth and sustainability of manufacturing SMEs and these are (1) the characteristics of SME owners/managers, (2) characteristics of the SME, and (3) contextual/market-related factors. Each of these factors is briefly explained hereafter. The discussion is aligned with the first research objective - To evaluate firm-specific factors that impact the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

2.3.1 Characteristics of SME owners

Age was revealed to be an important factor for the survival, growth and sustainability of SMEs, with older owners/managers leading more successful businesses than younger ones (Svotwa, 2019, pp. 64-68). However, a study by Njanike (2019, p. 13) revealed that the age of SME/owner was insignificant on the profitability and success of an SME.

The extant literature indicates that there are generally more male entrepreneurs than there are women, especially in developing countries (Meyer & Hamilton, 2020). A study by Kalyongwe (2019, p. 125) on Zambian SMEs sustainability challenges revealed that there were 42% of women participating in business compared to 58% male entrepreneurs. These findings are consistent with those of Nyakudya (2020, p. 241) who concluded that the low number of female SME owners/managers was an indication that women faced socio-cultural, educational and technical challenges when starting or sustaining their businesses.

A study by Njanike (2019, p. 13) revealed that the educational level of SME owners/managers was a critical success factor to the success of an SME with more educated owners/managers realising more profit than those with little or no education. A study by Kalyongwe (2019, p. 69) on SME sustainability challenges in Zambia noted that the majority of SME owners (72.5%) had only a high school certificate or college Diploma and this impact on the survival, growth and sustainability of SMEs in Zambia.

Training and development have been revealed as being an important factor in the survival, growth and sustainability of SMEs. Msomi and Olarewaju (2021) proffered that training and development help a firm to equip both management and employees with skills to operate

equipment, manage finances, market products and services more effectively and increase the level of innovation. Ndlovu (2019) further alluded that training also helps managers with skills to motivate employees and increase overall firm productivity.

Shortage of entrepreneurial skills trainers and inability to pay the trainers was a notable factor contributing the survival, growth and sustainability of youth-owned SMEs in Nigeria (Ejejigbe, 2020, p. 1). Mafoko (2019, pp. 1-33) found that training results in an increase in the performance of the firm. There is, however, evidence to suggest that many SME owners/managers do not have any training plans for business. For example, Kalyongwe (2019, p. 59) noted that only 5.8% of SME owners/managers had training plans within their structures.

The number of years an SME owner/manager has been operating is positively correlated to the revenue and profit that the business earns. Several studies have confirmed a learning curve which postulates that the more the number of years an entrepreneur spends in business, the higher the sales return of the business in subsequent years (Eresia-Eke & Okerue, 2019, p. 1, Mabula, Han & Yonah, 2020; Takwi *et al.*, 2020). Moyo (2019) noted that the experience of SME owner/manager is positively correlated with the survival and growth of small businesses.

Lastly, business acumen and managerial skills of the SME owners/managers have been mentioned as being critical for the survival, growth and sustainability of SMEs (Kalyongwe, 2019, p. 20; Moyo, 2019; Njanike, 2019, p. 13; Ledikwe, 2020, p. 15; Nyakudya, 2020, p. 251).

Despite these factors, most SMEs still continue to be affected by low skills of their owners/managers. For example, Koti (2019, p. 3) concluded that one of the sector's key challenges is inadequate skills of the SME owners/managers. Magang and Magang (2019) confirmed that a lack of skills of owners/managers negatively impacted on the survival and growth of these businesses.

Magang and Magang (2019) further observed that most SME owners/managers lacked the capacity to respond to uncertain situations and this affected the survival and growth of their businesses. The notion that internal firm characteristics play a pivotal role in growth and sustainability of SMEs is not consistent with the findings of Karedza and Govender (2020, p. 68) who concluded that the impact of distinctive capabilities on export performance of Zimbabwean manufacturing SMEs is not statistically significant.

SME owners/managers who have an entrepreneurial inclination are likely to be more successful than those who are not (Ngibe & Lekhanya, 2019, p. 19; Owusu, 2021). Several studies have highlighted that SME owners/managers who possess the right mix of entrepreneurial competencies and take the right decisions have higher chances of successfully steering their

businesses beyond the first five years and realise growth and sustainability in the long run (Kalyongwe, 2019, p. 20; Mmapula & Diraditsile, 2019, pp. 171-176; Monyake & Kuruba, 2020, p. 1; Matsongoni & Mutambara, 2021). SME owners/managers who lacked entrepreneurial competencies and were risk averse, experienced business failure with most failing at startup (Chausi & Imeri, 2021; Mashavira *et al.*, 2022).

Zhou (2021) concluded that SME owners/managers who have high intentions to achieve set goals have businesses which have a higher survival and growth rate than SME owners/managers who lack these intentions.

The reputation and trust of an SME owner/manager are significantly correlated to the firm's survival and growth. Khanie (2020, p. 1) posits that the greater the firm's years of experience, the higher the chance of it to access credit, because experience results in trust to the SME and this eliminates the fear of possible default of the firm. Khanie (2020, p. 17) further asserts that the experience of the entrepreneur plays a role on issues of access to credit. This is due to the fact that the SME owner/manager's experience is likely to attract financial institution's trust as well as guarantee lower chances of SME owner/manager defaulting. The reputation of a firm also plays a role in the survival, growth and sustainability of an SME. This is because a firm with sound reputation, for example a firm which never defaulted on loan repayment, is likely to attract credit better than the one with a bad reputation (Khanie, 2020, p. 18).

Scholars also attributed the survival, growth and sustainability of SMEs to the leadership style of SME owners/managers. Leaders who motivate their employees are likely to increase the productivity of employees. McFarlin (2019) opines that a manager's ability to grasp the strategy of a firm and ensure that employees' efforts are in line with the company strategy is as a result of visionary leadership. Such strategic leadership brings together industry knowledge, skills and strategic aptitude and this can help a firm to overcome challenges and achieve growth.

2.3.2 Characteristics of the SME

The age of a business is an important indicator of its survival, growth and sustainability. Scholars largely agree that SMEs which have been in existence for 5 years or more are an indication that the longer a business has been in existence, the higher its chances of survival, growth and sustainability. There is general consensus that firms gain experience and mature over time. Several studies have confirmed that most SMEs in developing countries fail within the first five years of their operation (Fatoki, 2014, p. 922; Modisane, 2017; Ncube & Chimucheka, 2019; Diraditsile *et al.*, 2019, pp. 171-176). For example, 65% of SMEs in Zambia fail within their first five years of operation (Kalyongwe, 2019, p. 57). In Botswana, 70% of SMEs fail within their first five years of operation (Modisane, 2017; Diraditsile *et al.*,

2019, pp. 171-176). On the contrary, the failure rate of SMEs in developed countries is much lower. For example, a study by Alsaaty and Makhoulf (2020, pp. 908-916) concluded that the failure rate of SMEs in Australia stands at 23% and in United States of America at 50%. These findings imply that SMEs in developing countries have high chances of failing than those in developed countries.

Several studies (Kalyongwe, 2019, p. 4; Mafoko, 2019, pp. 1-33; Njanike, 2019, p. 14; Alsaaty & Makhlauf, 2020, pp. 908-916; Monyake & Kuruba, 2020, p. 1) have confirmed that the size of the business determines its survival, growth and sustainability. This proposition is affirmed by Njanike (2019, p. 14) who concluded that firm size has a positive and high significant effect SME growth. And Tsoka (2020, p. 11) further revealed that large firms have more entrepreneurial skills and capital assets to grow than small firms. These findings are also acknowledged by Kato and Tsoka (2020, p. 11). Ussif and Salifu (2020) also validated these findings and revealed that firm size significantly influences financial performance of a firm which ultimately leads to the growth and sustainability of the firm.

Businesses which are located in towns and cities tend to be more successful and sustainable than those in rural and remote areas. Similarly, businesses which use rented premises are capable of attracting more customers than those run from home (Kaylongwa, 2019; Mafoko, 2019, pp. 1-33; Alsaaty & Makhlauf, 2020, pp. 908-916). SMEs located in towns and cities have access to a large market with customers who earn income through employment and income-generating activities. SMEs which are located in rural and remote areas tend to have a lower customer base and the circulation of income is less than in urban areas. These findings are consistent with a previous study by Katrodia, Naude and Soni (2018, p. 132) who affirmed that the location of a business and image are important for customers for shopping experience.

A study by Kalyongwa (2019) confirmed that SMEs that sold their products from home did not attract as many customers as those in rented premises in city centres. A study conducted by Mafoko (2019) on youth-owned SMEs in rural Botswana concluded that the rural location of these businesses impacted on the survival and growth of these businesses. Typical challenges encountered by SME owners/managers included small market size and poor infrastructure (Mafoko, 2019, p. 29).

Most SMEs across the globe are either managed by single proprietors or are operated in some form of joint venture or partnership. Findings by most scholars (Alfred & Isaac, 2021, p. 256; Dzomonda, 2022, p. 8863) reveal that SMEs which are jointly owned are better managed and have greater chances of surviving, realising growth and achieving long-term sustainability compared to those which are run by sole proprietors. Ng'andu, (2022) suggested that SMEs

owners/managers who are in joint ventures or partnerships tend to share resources like finance, skills and expertise unlike those who operate solo businesses. A study by Ferejo *et al.* (2022) concluded that ownership patterns significantly affected the survival and growth of micro and small enterprises in Ethiopia.

The adoption of new knowledge and technology has been revealed as being critical towards the innovation of SMEs across various sectors. SMEs with high levels of innovation tend to grow and become sustainable in the long run (Moyo, 2019; Njanike, 2019, p. 19; Alsaaty & Makhlouf, 2020, pp. 908-916).

Alsaaty and Makhlouf (2020, pp. 908-916) confirms that high levels of adoption of new knowledge and technology by SMEs in the USA lead to their survival and growth. Despite the positive contribution of innovation towards the growth and sustainability of SMEs, Moyo (2019) revealed that commercial banks were reluctant to offer loans to SMEs, including those in the manufacturing and engineering sectors.

Annual revenue has been reported as being contributory to the survival, growth and sustainability of SMEs with firms which realise high annual revenue being able to utilise the revenue to acquire more resources and become sustainable in the long run (Sidek *et al.*, Seturumane, 2023). Kalyongwe (2019, p. 20) concluded that most SMEs (40.5%) realise low levels of annual revenue and this impacted on their survival, growth and sustainability. Mafoko (2019, pp. 26-29) noted that manufacturing SMEs in Botswana initially record high levels of turnover but eventually fail to sustain the turnover levels and this impact on the survival and growth of these SMEs.

The number of employees has been observed to be positively correlated with the survival, growth and sustainability of an SME. SMEs with a large number of employees were found to have more access to employee knowledge and skills and could execute tasks faster than firms with fewer employees. Sidek *et al.* (2020) noted that SMEs with 1 to 10 employees never expanded and less than 1% of these SMEs grew to the size of 10 employees.

Studies reveal that SMEs which have been in existence for a long period of time stand greater chances of survival, growth and sustainability than those which recently been established (Svotswa, 2019). This advantage is attributed to the knowledge and experience gained by the company over time. The knowledge and experience translate to better services, error-free processes and higher product quality than those firms which are still new. The number of business units has also been studied and noted as being an important factor in the survival, growth and sustainability of SMEs. Njanike (2019, p. 14) concluded that the higher number of

business units owned by an SME the greater the chances of realising more profit than those SMEs with only one business unit.

2.3.3 Contextual/market-related factors

Contextual or market-related factors are factors that relate to the surrounding or external environment that the business is operating. These factors consists of forces that interact with the firm, including the finance sector, technology available in the market, socioeconomic factors, government intervention, available infrastructure, local and international competition, market size, consumer/buyer behaviour, suppliers, corruption and red tape and crime rate. A firm which is able to provide financial records to financial institutions like commercial banks and microfinance institutions stands a greater chance of accessing finance and achieving growth. These contextual factors are critiqued in the following sections.

A study of manufacturing SME revealed that lack of audited financial records caused these firms to fail to access finance with microfinance agencies in Botswana (CEDA, 2020b, p. 58). However, a previous study by Khanie (2020, p. 15) found no evidence of a significant link between possession of audited financial statements by an SME and ease of access to finance.

The extant literature supports the conclusion by many scholars that registered businesses have more opportunities to access loans and grants from commercial banks, government agencies and global financiers. A study by Mafoko (2019, pp. 24-29) on the factors affecting youth-owned manufacturing SMEs in Botswana revealed that a significant number of SMEs in Botswana fail to obtains loan from commercial banks and CEDA because they are not registered with the Botswana Registrar of Companies.

There is strong evidence to confirm that use of up-to-date technology results in the survival, growth and sustainability of manufacturing SMEs (Svotwa, 2019, p. 65). Kalyongwe (2019, p. 194) observed that technology usage was high with a significant proportion of SME owners/managers using cellphones (72.5%), email (39.1%), computer or laptop (34.8%) and cash register (24.6%) to operate their businesses. A study by Ndhlovu and Dube (2023) revealed that SMEs in the restaurant industry in South Africa are making a gradual transition towards technology adoption but this migration is affected by challenges such as organisational culture, infrastructural barriers, and education and training.

The importance of SMEs in terms of contribution towards economic development, employment creation, diversification of the economy and poverty alleviation has caused government across the globe to devise strategies to support SMEs in different ways including financial support, provision of technical expertise and mentorship (Khanie, 2020, p. 15; Diraditsile *et al.*, 2019, pp. 171-176; CEDA, 2020b, p. 27). Intervention strategies by governments have been noted to

boost the performance of SMEs and increase economic activities within countries. However, many scholars have also cautioned the notion that government intervention always results in the success of SMEs and uplifting of economic wellbeing of citizens (Bary, 2019, p. 5; Koti, 2019; Monyake *et al.*, 2020a, p. 1).

Ejejigbe (2020, p. 161-163) cited unstable government policies as being a barrier towards the survival, growth and sustainability of youth-owned SMEs in Nigeria. A study by Koti (2019, p. 3) on factors affecting the manufacturing sector in South Africa concluded that uncertainties in government policies was a major issue impacting on the success of the sector. An empirical assessment of how government policies affect the performance of SMEs in Zimbabwe by Musabayana, Mutambara and Ngwenya (2022b, p. 21) established that SMEs are operating under difficult and unstable macroeconomic conditions. These challenges are exacerbated by issues like lack of financial support, lack of farm input and lack of training from the government. A study on youth-owned manufacturing SMEs in Botswana revealed that the lengthy and cumbersome process of registering a business was a significant hindrance to the performance of these SMEs (Mafoko, 2019, p. 23).

The availability of good infrastructure, including roads, railways and buildings (office space, warehouses) helps to contribute towards the survival, growth and sustainability of SMEs (Okeke-Uzodike & Ndinda, 2021; Ledikwe, 2020, p. 4). Adequate infrastructure helps in speedy transportation of raw materials to factories, finished goods to markets, including storage of goods and raw materials in transit. Infrastructure has been mentioned as a serious challenge for the success of SMEs in developing countries. For example, Bomani, Derera and Mashingaidze (2022, pp. 1-15) conducted a content analysis on urbanisation and SME growth in Zimbabwe and concluded that limited access to infrastructure and inadequate infrastructure, coupled with stringent government regulations negatively impacted on the development and sustained growth of the SME sector in Zimbabwe.

Access to finance has also been mentioned as being a critical factor on the survival, growth and sustainability of SMEs (CEDA, 2020b, p. 57; Kubanji *et al.*, 2021 pp. 330-348; Sivotwa *et al.*, 2022, p. 1). Availability of finance enables SMEs to acquire assets, land, raw materials and labour. Despite the importance of finance, most SMEs confirmed that access to finance was a major challenge to their sustainability. Commercial banks and equity funds were reluctant to offer loans to SMEs as due to unavailability of financial records, lack of collateral, lack of trust SMEs by commercial banks and difficulty to locate SMEs which default on loan repayments. SMEs which managed to obtain loans found it difficult to service such loans because of the short grace period and high rates of interest.

A study by Kalyongwe (2019, p. 20) on sustainability challenges of Zambian SMEs showed that only 34.5% of SME owners kept financial records of their businesses and this significantly lowered their chances of accessing finance from commercial banks and other sources. Access to finance was also echoed by Molefi (2021, p. 5) who investigated barriers towards the profitability and sustainability of pharmaceutical manufacturing firms in Botswana and found that lack of access to finance, the risk averse nature of financial institutions and an unsupportive business environment impacted on the survival and growth of pharmaceutical firms in Botswana.

Competition plays a dual role in the survival, growth and sustainability of SMEs. Firstly, competition helps SMEs to benchmark and maintain a thriving and robust industry in the markets that SMEs will be operating in. Secondly, competition also has the effect of taking away customers from the firm and reduces sales and this threatens the survival, growth and sustainability of affected SMEs. Studies have shown that SMEs which develop unique products and services and differentiates their operations are capable of achieving sustainable competitive advantage. This increases the survival, growth and sustainability of such SMEs. A study by Kalyongwe (2019, p. 20) on SME business sustainability challenges noted that competition was a major hindrance towards the survival, growth and sustainability of SMEs in Zambia.

The size of the market for goods and services produced by SMEs is positively correlated to the survival, growth and sustainability of SMEs. SMEs which operate in large urban markets with high customer numbers like South Africa stand a higher chance of achieving success than SMEs operating in smaller markets like Botswana (World Economic Forum, 2019; Monyake & Kuruba, 2020, p. 1). SME owners/managers who lack knowledge on who to sell their products to also face challenges of business failure. Knowledge of the market has the potential to significantly increase sales volumes and generate more revenue for SME owners/managers than those with no knowledge about the characteristics of the market (CEDA, 2020b, p. 56).

A study in Nigeria by Ejejigbe (2020, p. 163) interventions and challenges faced by indigenous NGOs supporting start-up businesses concluded that lack of markets was a factor hindering the survival, growth and sustainability of youth-owned SMEs in the country.

Companies which strived to offer the best service to customers have greater chances of survival, growth and achieve sustainability than those SMEs which do not take extra measures to satisfy their customers (Svotswa, 2019). Customer service is probably one of the most important components of a business. Knowledge of what consumers want to purchase in a business helps SME owners/managers to stock the right product on time and also determine the most profitable price (Simon *et al*, 2020). The issue of customer service is also acknowledged by Katrodia,

Naude and Soni (2018, p. 132) and Mosimanegape *et al.* (2020) who suggested that managers should pay more attention to customer services counters in order to satisfy queries from customers.

Simon *et al.* (2020) affirm that a business without customers returning to make repeat purchases is unlikely to grow and become successful. It is therefore important for firm owners/managers to plan for high-quality customer service operations in order for the firm to grow and become sustainable. Various companies have relied on a strong customer service promotion to gain competitive advantage over their rivals (Monyake & Kuruba, 2020, p. 1). Excellent customer service ensures that customers make repeat sales and are also able to refer other customers to the same business. A previous study by Soni and Govender (2018) also confirmed the relationship between service quality dimensions and brand equity concluded that personal attention and demonstrating to customers (students) that the business (university) has their best at heart helps to improve overall brand equity.

SMEs which establish networks with their customers and suppliers tend to achieve growth and sustainability compared to those SMEs which do not nurture effective relationships with their trading partners (Ledikwe, 2020, p. 4; Molefi, 2021, p. 5). Association and membership to specific business networks has also been cited as a driver towards the success of an SME (Monyake *et al.*, 2020, p. 466; CEDA, 2020b, p. 36). SMEs are able to share knowledge and information about markets and suppliers when they network or form associations. They are also capable of sharing transportation, advertising and other costs when they work together (Monyake & Kuruba, 2020, p. 1; Kubanji *et al.*, 2021 pp. 330-348; Nthubu *et al.*, 2023, p. 285). Information sharing, building strong networks and partnerships were identified as specific strategies which can be used by SME owners/managers to ensure the survival, growth and sustainability of their business (Moyo, 2019; Nthubu *et al.*, 2023).

Studies have confirmed that SMEs which take their business beyond their geographical boundaries have access to new markets and opportunities and realise more sales and increase their performance. This results in greater sustainability of such firms as a result of more financial resources. The use of the Internet and electronic commerce (e-commerce) has helped SMEs to leapfrog in their operations and equally compete with large, established companies (Shemi & Procter, 2018; Mthembo & Osakwe, 2020; Seleka & Mpundu, 2023). SMEs which solely rely on their domestic markets have a low survival rate. This is particularly true for SMEs operating in small markets like Botswana where internal competition is intense.

Corruption and red tape are critical factors which hamper the survival, growth and sustainability of SMEs (Wraag, Paynes & Connor, 2019; Ejejigbe, 2020, p. 1; Magang & Magang, 2021;

Transparency International, 2021). Corruption and red tape increase the cost of doing business and results in losses of money which is intended towards the smooth running of government services like healthcare, education and infrastructural development. Whilst corruption and red tape occur across almost all economies across the globe, the scourge of corruption and red tape is prevalent in developing countries like Nigeria, South Africa, Zimbabwe and Botswana (Wraag, Paynes & Connor, 2019; Ejejigbe, 2020, p. 1; Transparency International, 2021). Corruption and red tape exist in many ways like paying to access services which are supposed to be free, paying to take shortcuts in certain business processes, paying to obtain favourable considerations in issues like procurement and tenders and offering financial incentives (bribes) to turnaround unfavourable outcomes (Transparency International, 2021; Ejejigbe, 2020, p. 1).

Corruption was a major factor impacting on the survival, growth and sustainability of youth-owned SMEs in Nigeria (Ejejigbe, 2020, p. 1). An investigation by Moyo (2019) on SME growth taxonomy in eThekweni in South Africa noted that corruption by government officials who demanded a percentage of payment for awarding tenders negatively affected the loan repayments by SMEs to commercial banks.

High crime rate has been reported as being a factor which negatively impact on the survival, growth and sustainability of SMEs (Cant& Wiid, 2013, p. 707-716; Moyo, 2019). Crime consists of various activities like break-ins into SME premises, theft of products (by both thieves and employees), vandalism of properties, injury or death to SME owners or customers as a result of criminal activities on SME premises, fraud and forgery (Barasa, 2021, pp. 60-75; Gaborone, 2021). Gaborone (2021) affirms that crime results in diminished stock, shutdown of SME premises and relocation to other locations which may be less favourable to the sustainability of business operations.

An investigation by Moyo (2019) on SME growth taxonomy in eThekweni showed that high crime statistics tarnished the good reputation of the location as a prime location with suitable market conditions to drive up business.

2.3.4 Summary of reviewed firm-specific factors on SMEs

Table 2.4 depicts a summary of the reviewed literature on firm-specific factors that impact on SMEs.

Table 2.4: Summary of reviewed firm-specific factors on SMEs

Firm-specific factors	Main aspects	Authors
Characteristics of	Age, gender, education level, training and development, years	Njanike, (2019, p. 13), Moyo,

SME owners	in business, and business acumen and managerial skills of SME owners/managers contribute towards the survival, growth and sustainable competitive advantage of SMEs. However, SME owners/managers experience challenges which threaten the survival and growth of their business.	(2019), Sivotwa, (2019, pp. 64-68), Nyakudya, (2020, p. 44-49), Kalyongwe, (2019, p. 20), Msomi and Olarewaju (2021),
Characteristics of SME	Age, size, location, ownership of premises, ownership/proprietary structure, technology adoption, annual revenue, number of employees and number of years in business impacted on the survival, growth and sustainable competitive advantage of SMEs. . In most instances, lack of or inadequate resources affect the survival and growth of SMEs.	Kalyongwe, (2019, p. 20), Mafoko, (2019, p. 29), Njanike, (2019, pp. 9-13), Alsaaty and Makhlof, (2020, pp. 908-916), Monyake and Kuruba, (2020, p. 1), Ngáandu, (2022).
Contextual/market-related factors	Submission of financial records to commercial banks, registration status of business, up-to-date technology, government support, available infrastructure, access to finance, competition, market size, level of customer services, networking, political factors and crime rate influenced the survival, growth and sustainable competitive advantage of SMEs. Market-related forces tend to work against SMEs and this impact on their survival and growth.	Diraditsile <i>et al.</i> , (2019, pp. 171-176), Mafoko, (2019, pp. 29-30), Wraag, Paynes and Connor, (2019), Ejejigbe, (2020, p. 1), CEDA, (2020b, p. 56), Ledikwe, (2020, p. 4), Monyake and Kuruba, (2020, p. 1), Simon <i>et al.</i> , (2020), Kubanji <i>et al.</i> , (2021 pp. 330-348), Nthubu <i>et al.</i> , (2023, p. 285)

Source: Compiled by the Researcher

2.3.5 Applicability of reviewed firm-specific factors to current study

The focus of this research is to identify factors that impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. Extant and seminal literature indicates that firm-specific factors, including characteristics of SME owner/manager, characteristics of the firm and contextual or market-related factors impact on the survival, growth and sustainable competitive advantage of SMEs.

Researchers who have conducted research on SMEs in Botswana and other countries have also confirmed the relevance of firm-specific factors on the survival, growth and sustainable competitive advantage. Both the government of Botswana and agencies supporting manufacturing SMEs in Botswana have made it a priority to develop SME firm-specific factors

in order to improve their operations and manage to survive, grow and realise sustainable competitive advantage.

It is, thus imperative that this study also investigates firm-specific characteristics that impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs and propose strategies that can be used to develop these factors in order for these firms to be sustainable.

2.4 THE INFLUENCE OF GOVERNMENT POLICIES ON SME SURVIVAL AND GROWTH

This section presents the literature on the influence of government policies on SME survival, growth and competitive advantage. The discussion is aligned with the second research objective – To critically review the influence of existing government policies and guidelines on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

2.4.1 Contribution of government intervention strategies towards the survival and growth of SMEs

The immense contribution of SMEs to employment creation, poverty alleviation and economic growth has led governments throughout the world to devise measures to encourage the growth of SMEs, thus enabling SMEs to contribute towards economic development. Ifekwem (2019) asserts that boosting the performance of SMEs help them to create sustainable employment opportunities; reduce poverty and diversify global economies. Successful SMEs also result in larger government tax bases from both SMEs and their employees. Governments provide the legal and social framework, maintain competition, correct for externalities and stabilise the economy (Molefe, 2020, p. 78-79; Mokwana, 2021; Musabayana *et al.*, 2022a, p. 8).

Governments also provide the basic infrastructure for SMEs to utilise and offer business development support to SMEs (Dan-Jumbo & Ogbu Edeh, 2019, p. 164; Ledikwe, 2020, p. 4). If left unaided, most SMEs have challenges of meeting strict regulatory requirements, ranging from registering a business, taxation and submitting periodic returns. Government have also taken measures to ease these regulatory requirements on SMEs in order for them to increase their chances of establishing themselves in business and lowering the costs and time to register and start operating (CEDA, 2020b, p. 36; Monyake & Kuruba, 2020, p. 1; Mongwaketse, 2021).

Governments across the globe have implemented strategies to help SMEs by implementing policies to promote entrepreneurship, accelerate economic development and diversification,

create employment and improve livelihoods of individuals involved in entrepreneurship. Strategies for selected countries are briefly discussed in the following sections.

2.4.2 Challenges encountered on government intervention strategies

Despite various policy measures introduced by governments to support SMEs, the failure rate of SMEs in developing countries remains quite high. This has led various scholars to question the effectiveness of government policies that are intended to help SMEs to thrive and also develop economies through poverty alleviation and employment creation (Herrington *et al.*, 2017; Khanie, 2020, p. 19; Sibiya & Kele, 2019). The main challenges affecting these policies related to lack of viable measures to help SMEs access finance and obtain tax relief, especially for young SMEs. The other challenge observed by scholars has been lack of specific metrics to evaluate and measure the effectiveness of government policies designed to assist SMEs in different countries. For example, despite considerable government intervention, the failure rate of SMEs in Ghana is 60% (Amaglo, 2019, p. 2; Malm, 2020; Yeboah, 2021).

A study by Bary (2019, p. 5) on Egyptian SMEs concluded that the government does not offer any meaningful support to SMEs on areas of access to finance, product development, market identification and exports promotion. Bary (2019, p. 10) further explain that commercial banks find it difficult to give credit to SMEs because of lack of records from the government on SME statistics and their operations.

Whilst there has been concerted effort by the South African government to put in place policies to support and develop SMEs; the desired results of this effort have not borne any meaningful results (Herrington *et al.*, 2017; Sibiya & Kele, 2019; Botha *et al.*, 2021, pp. 153-174). Cultural norms in South Africa also stereotype entrepreneurship and this has made it difficult to cultivate entrepreneurial spirit, especially amongst the Black population of South Africa. The education policy in South Africa has also been reported as poorly conceptualised and implemented and does not promote entrepreneurship among citizens. Despite the establishment of entrepreneurial education in the South African school curriculum since 2005, there is evidence to conclude that little effort has been made in terms of implementing entrepreneurship education in schools. Various scholars have identified challenges in the South African regulatory framework which negatively impact on registering and managing a business in South Africa. These include VAT and income tax, biased labour laws, compulsory deductions towards the Unemployment Insurance Fund (UIF) and the Skills Development Levy. Musabayana *et al.* (2022a, p. 1) underscored the need for government policies to be implemented across the SME sector in order for these policies to be effective and contribute towards the sustainable growth of small enterprises in South Africa. For example, coaching and mentorship programs were not adding value to the operation of women-owned SMEs as a result of lack of skills in implementing

government programs and initiatives. The other challenges observed by Musabayana *et al.* (2022a, p. 15) were lack of infrastructure, lack of market information and low levels of technology, and these challenges were attributed to government policies which were not implemented holistically.

The implementation of Industrial Development Policy (IDP) and Indegenisation and Empowerment Policy (IEP) in Zimbabwe produced mixed results. The contribution of SMEs is currently at 60% and about 5.8 million people are employed in the small business sector in the country (Majoni, Mutunhu & Chaderopa 2016). Despite this apparent positive outlook on the performance of SMEs, there is evidence to suggest that SMEs are still struggling in Zimbabwe and the country's economy has not benefited from the implementation of the two policies. Bvirindi (2022, pp. 438-463) and Mpofo (2023) concluded that Zimbabwean SMEs continue to face challenges of access to finance, bureaucratic hurdles when registering their business, poor infrastructure and weak institutional structures.

Overall, scholars (Dlamini & Schutte, 2020, pp. 306-322; Musabayana & Mutambara, 2020, p. 2; Kabonga, Zvokuomba & Nyagadza, 2021, p. 1) have pointed out that the climate for small business operation in Zimbabwe is adverse and this is mainly attributed to lack of government support. Whilst policies have been implemented to support SMEs, there has been no significant effort by the Zimbabwe government to commit financial investment in infrastructural development, create funding to assist SMEs and put in place adequate measures to monitor the current structures that support SMEs in the country. A study conducted by Tshehla and Mukudu (2020) concurred with the findings by Musabayana and Mutambara (2020, p. 10) by revealing that most SMEs in Zimbabwe were constrained by infrastructural challenges and restrictive government laws and regulations.

The last employment statistics conducted on Botswana SMEs revealed that there were approximately 191,000 people employed in the SME sector, which constituted 31% of total employment in Botswana (Statistics Botswana, 2023, p. 43). The SME sector contributes 35% towards the country's GDP (Botswana Insurance Holdings Limited (BIHL), 2023); Moffat & Kapunda, 2023, p. 205; Statistics Botswana, 2023, p. 43). Monyake and Kuruba (2020, p. 1) asserted that whilst there is increasing attention towards SMEs in Botswana, the performance of this sector has been below expectations. Paya (2022) further noted that the failure rate of SMEs in Botswana is still high despite measures put in place by the government to create a conducive environment for sustainable growth of the sector. Mafoko (2019, p. 29) and Nthubu *et al.* (2023, p. 285) found that about 70% of SMEs fail within their first 18 months of operation whilst the overall failure rate is about 80%. Various studies have attributed the high failure rate of SMEs in Botswana to limited managerial skills, lack of access to markets, excessive laws and

regulations, lack of information on government assistance programmes, lack of access to finance and poor work ethics (Njanike, 20219, p. 13; Alsaaty & Makhlof, 2020, pp. 908-916; Ngaandu, 2022; Monyake *et al.*, 2020b, p. 466; Kubanji *et al.*, 2021 pp. 330-348; Nthubu *et al.*, 2023, p. 285).

Despite various measures put in place to assist SMEs, there is growing evidence that policy makers in Botswana lack the capacity to continuously monitor and mentor government-funded SME programmes. Existing government policies lack accompanying guidelines to drive their implementation on areas like human capital development, market access and export incentives. Guruwo (2020, p. 2) asserts that stringent regulatory measures imposed by government agencies like CEDA and PPADB discouraged SMEs to fully participate in ventures where they could generate revenue and ensure their sustainable growth. CEDA, the local financing body for SMEs in Botswana also faces internal challenges in the form of lack of resources and high default rate from clients and this is hampering the fulfillment of government policies on poverty eradication, sustainable employment and growth (CEDA, 2020b, p. 68).

Utete, Zhou and Ajani (2023) confirmed that prohibitive labour laws formulated by the government prevented SMEs from recruiting cheap labour from foreigners. Utete *et al.* (2023) further state that the current government regulations do not have affirmative action programmes to promote more women to venture in SMEs and this is contributing the higher failure rate of women-owned SMEs. However, Rudhumbu, Plessis and Maphosa (2020) disputed the findings by Utete *et al.* (2023) and suggested that women-owned enterprises in Botswana found the legal and regulatory environment in Botswana to be conducive and supportive.

Other bottlenecks which SME owners/managers encounter such as high taxation, bureaucratic business registration process and tedious document processing (for example, company profiles, business plans, cashflow statements) have been observed as significant challenges which the Botswana government has failed to address (Molefi, 2021, p. 5; Yeboah, 2021; Monyake & Kuruba, 2020, p. 1). These challenges pose serious threats to the survival, growth and sustainability of SMEs in Botswana.

2.4.3 Summary of reviewed factors of government intervention strategies on SMEs

Table 2.5 illustrates a summary of factors of government intervention strategies on SMEs.

Table 2.5: Government intervention strategies on SMEs

Government intervention strategies	Main aspects	Authors
Policies and guidelines	Government support comes in the form of	Dan-Jumbo and Ogbu Edeh,

	<p>infrastructure provision, import barriers, certification on quality, training and development, tenders, promoting local products, marketing manufacturing firms locally and abroad.</p> <p>Challenges still exist, especially with actual implementation of government policies, lack of IT infrastructure and corruption and these impact on the survival, growth and sustainable competitive advantage of SMEs.</p>	<p>(2019), Ledikwe, (2020, p. 4), Molefe, (2020, p. 23), Mokwana, (2021), Musabayana, Lekhanya and Ngwenya, (2022a).</p>
Economic factors	<p>Economic diversification from dominant industries, employment creation, poverty alleviation, government subsidies, and industrialisation.</p> <p>Challenges still exist include lack of access to funds by SMEs, slow pace of diversification and employee turnover and these affect the survival, growth and sustainable competitive advantage of SMEs.</p>	<p>Bary, (2019, pp. 5-6), Musabana and Mutambara, (2020), Guruwo, (2020, p. 109), Molefe, (2020, p. 94); Pansiri and Chatibura, (2022, p. 171); Moffat and Kapunda, (2023, p. 205); Sekwati, (2023, p. 215).</p>
Legal, social and political factors	<p>Government support consists of business registration, tax waiver on new firms, and incorporation of entrepreneurship in education curriculum.</p> <p>However, bureaucracy, biased labour laws, corruption, red tape, cultural norms and stereotypes negatively impact on the survival, growth and sustainable competitive advantage of SMEs.</p>	<p>Rudhumbu, Plessis and Maphosa, (2020); Mutuku <i>et al.</i>, (2020); Kubanji <i>et al.</i>, (2021 pp. 330-348), Maluleke and Odhiambo, (2021), Rasetapa, (2022, pp. 57-58).</p>
Procurement-related factors	<p>Government support consists of subsidised prices of raw materials, subsidised rentals of warehouses and factor shells.</p> <p>Challenges exist, for example, short duration of subsidies and not all SMEs benefit from these arrangements.</p>	<p>Guruwo, (2020, p. 2), Monyake <i>et al.</i>, (2020a, p. 1), Kubanji <i>et al.</i>, (2021 pp. 330-348); Maluleke, Odhiambo and Nyasha, (2021); Mongwaketse, (2021).</p>

Source: Compiled by the Researcher

2.4.4 Applicability of reviewed government intervention strategies to current study

The strategies formulated by governments across the globe to support SMEs are well-documented. The purpose of these strategies is to design and implement policies and guidelines that direct the support offered to SMEs and help them to survive, grow and realise sustainable competitive advantage in their markets. Scholars, policy makers and strategists have acknowledged the contribution of these government policies and guidelines in promoting the operations of SMEs. Beginning in the late 1990s, the government of Botswana formulated policies that help to alleviate poverty and create employment by putting in place measures that sustain the operations of SMEs in the country. This was followed by the establishment of specific agencies that support SMEs in Botswana with financial and technical support.

Whilst these policies have significantly contributed towards the establishment of SMEs in Botswana and helped them with basic guidelines on funding, business registration, training and development, business mentoring and incubation, and export promotion; a significant number of SMEs are still failing to survive beyond 5 years and the surviving firms cannot realise growth and expansion.

It is against the above synopsis that this study aims to identify the strengths and weaknesses of existing government policies and guidelines in Botswana with the aim of consolidating them and suggesting areas of improvement in order to ensure that survival and growth of SMEs increases and they achieve sustainable competitive advantage.

2.5 FACTORS OF INNOVATION AND CREATIVITY THAT IMPACT ON SME SURVIVAL AND GROWTH

The following sections present literature review on the impact of innovation and creativity on manufacturing SMEs. The discussion is aligned with the third research objective - To assess factors of innovation and creativity that influence survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

2.5.1 Benefits of creativity and innovation to SMEs

Whilst larger businesses are mainly content with concentrating on products that have a predictable demand, SMEs are responsible for at 50% of all the innovations which occur in markets and 95% of all radical or disruptive innovations (OECD, 2018; Monyake *et al.*, 2020b, p. 457; Kubanji *et al.*, 2021 pp. 330-348; Nthubu *et al.*, 2023, p. 285). The development of technology like computers, electronic commerce, internet of things and other high technology products is largely attributed to SMEs (Monyake *et al.*, 2020, p. 1).

SMEs have been identified as key drivers of creativity, innovation, economic growth and job creation. Several studies (OECD, 2018; Monyake *et al.*, 2020b, p. 457; Kubanji *et al.*, 2021 pp. 330-348; Nthubu *et al.*, 2023, p. 285) confirmed that creativity and innovation are key determinants to the survival, long-term growth and sustainability of SMEs. When mechanisms for fostering creativity and innovation are implemented in SMEs, such mechanisms can reduce productivity and wage gaps between SMEs and large companies. Several studies have confirmed that whilst SMEs are highly creative, the majority of SMEs, especially in developing countries, have lagged behind in innovation. SMEs which develop their internal resources like managerial and workforce skills, ICT and research and development and collaborate with external partners have a better chance of improving in their performance (Alsaaty & Makhlauf, 2020, pp. 908-916; Monyake & Kuruba, 2020, p. 1).

2.5.2 Influence of information technology on SME creativity and innovation

Recent developments in information technology and markets have helped firms to be innovative and enhanced sustained growth of firms which have utilised the opportunities brought by information technology (Shemi & Procter, 2018; Mthembo & Osakwe, 2020; Njanike, 2021; Seleka & Mpundu, 2023). Innovative SMEs are more likely to grow faster than traditional start-ups. The use of information technology has helped firms to scale very quickly with few resources. Mthembo and Osakwe (2020) opine that the use of the Internet and e-commerce has enabled small businesses to share knowledge and information with partners, benchmark on industry best practices and compete equally with large companies. By investing in research and development, SMEs have the capacity to determine the possibility of transforming ideas into actual products. Coupled with protection from intellectual property rights, new products can help SMEs to generate revenue faster than before and result in their survival, growth and sustainability.

2.5.3 Influence of firm specific factors on SME creativity and innovation

Firm specific factors like age, market and managerial skills are additional drivers of creativity and innovation. Studies by Gimenez-Fernandez, Sandulli and Bogers (2020) and Krammer and Jimenez (2020, p. 16) noted that recently established SMEs (year 2000 and beyond) have higher chances of embracing innovation than those that were established before the year 2000. Young SMEs have also been cited as being more creative than traditional ones. The market that an SME is operating in also helps to determine the level of creativity and innovation. Korauš *et al.* (2020, p. 1142) concluded that manufacturing SMEs are more innovative than those in agriculture because of the larger size of manufacturing SMEs. Evidence points to a strong link between managerial skills on one hand and productivity growth on the other. SMEs that

innovate their internal processes benefit from cost-reduction (less wastage and fewer employees).

2.5.4 Influence of networking and collaboration on SME creativity and innovation

External factors like collaboration and networking are closely related to creativity and innovation in a firm. Nyamaka, Botha, Van Biljon and Marais (2020) opined that SMEs which form vertical linkages with larger firms have greater chances of realising growth through shared innovation than those without such linkages. Gaglio, Kraemer-Mbula and Lorenz (2022) assert that this failure is attributed to missed opportunities from technology diffusion with larger firms. SMEs which collaborate with large companies benefit from the experience of large companies.

Several scholars (Monyake & Kuruba, 2020, p. 1; Kubanji *et al.*, 2021 pp. 330-348; Nthubu *et al.*, 2023, p. 285) confirmed that benefits of networking include visibility of products, business development, reputation and knowledge on how to access key markets. Ngibe and Lekhanya (2020a, p. 3) concluded that most manufacturing SME owners/managers in KwaZulu-Natal (68.3%) are neglecting networking as a critical factor that can contribute towards the growth, survival and sustainability of their enterprises. An earlier research by Ama and Okurut (2018, p. 2) confirmed that only 27.2% of SMEs in Botswana belonged to networks and only 18.9% were involved in collaborative innovation. This problem was mainly attributed to lack of managerial capacity to innovate, the long cycle times associated with implementing innovation strategies, poor approaches on establishing strategic partnerships and lack of trust amongst SMEs.

2.5.5 Challenges faced by SMEs on creativity and innovation

The following sections present literature on the challenges faced by SMEs on creativity and innovation.

2.5.5.1 Lack of resources to support innovation

In order for manufacturing SMEs to fully harness the benefits of creativity and innovation, they should have adequate resources which include finance, materials, human resources and access to skills development opportunities (Molefe, 2020, p. 37; Kraemer & Lorenz, 2022). Ngibe and Lekhanya. (2020b, p. 12) observed that these resources are required by manufacturing SMEs to rapidly improve their operational effectiveness and efficiency. Globalisation and technological changes have helped to open more avenues for manufacturing SMEs to gain larger market share and increase export earnings. However, globalisation has brought intense competition and this has affected manufacturing enterprises, especially in developing countries which have challenges of access to essential resources (Monyake *et al.*, 2020b, p. 466; Mondliwa *et al.*, 2021). Several scholars have pointed out the importance of capital on the growth, survival and

sustainability of SMEs (Ledikwe, 2020, p. 4; Khanie, 2020, p. 12; Ngibe & Lekhanya, 2020b, p. 12; Kubanji *et al.*, 2021 pp. 330-348). The contribution of finance was also confirmed by Ngibe and Lekhanya (2020b, p. 12) who revealed that most (75.7%) manufacturing SMEs in KwaZulu-Natal in South Africa.

2.5.5.2 Lack of effective intellectual property rights strategies

Despite the benefits of creativity and innovation presented in this section, SMEs face considerable challenges on creativity and innovation. Most SMEs do not have intellectual property rights strategies within their structures (NDP, 2017; Letsholo & Matenge, 2019). Additional challenges are met by SMEs that seek to access global markets where the use of intellectual property rights involve legal overheads and technical differences amongst different countries. Additionally, most SME owners/managers, especially in developing countries are not aware of intellectual property rights and lack the technical skills to implement appropriate strategies to register and protect their products (Takyi & Naidoo, 2020, Fu & Shi, 2022, p. 1).

2.5.5.3 Lack of knowledge about the impact of creativity and innovation of SMEs

The other challenge affecting SMEs is that they do not have any knowledge about the close association between business creativity and innovation and business survival, growth and sustainability (Karedza & Govender, 2020, p. 74; Ngibe & Lekhanya, 2020b, p. 1; Chipambwa *et al.*, 2023a, pp. 1-22; Chipambwa *et al.*, 2023b, pp. 4-5). Letsholo and Matenge (2019) opine that in some circumstances SME owners/managers may have the knowledge but lack the skills to engage in creativity and innovation in order to increase the productivity of their firms.

2.5.5.4 Competition from large enterprises

SMEs operate in a climate of intense competition from both local and global environments. It is, therefore important for SMEs to have close relationships with their customers in order to stay connected to these customers and generate repeat sales (Simon *et al.*, 2020). Customers also help firms with continuous improvement through the feedback they give to SME owners/managers. Customer satisfaction is, therefore, one of the key strategies that SMEs use to grow and achieve sustained competitive advantage. Nyakudya (2020, p. 241) affirms that the heterogeneous nature of customers imply that it is also important for firms to satisfy as many customer segments as possible in order to realise maximum revenue from them.

SMEs face intense competition (Monyake & Kuruba, 2020, p. 1; Simon *et al.*, 2020; Molefi, 2021, p. 80-81; Mongwaketse, 2021) from large companies which dominate most market sectors and have superior technology, funds and skills to engage in innovation. This competition impedes SMEs from participating in innovation since it will be a futile effort to innovate in

industries where they have a very small share of the market (Avenyo, Konte & Mohnen, 2021, p. 1; Canare & Francisco, 2021, p. 24; Mondliwa, Goga & Roberts, 2021).

2.5.5.5 Lack of knowledge on how to identify partners to collaborate with

Whilst globalisation has increased opportunities for SMEs to collaborate in innovation, SMEs often find it difficult to identify and collaborate with suitable knowledge partners at local, regional and global levels (Journeault, Perron & Vallières, 2021). This challenge means that SMEs continue to lag behind large companies on innovation. Zahoor, Al-Tabbaa, Khan and Wood (2020) noted that this is because large companies have appropriate resources to identify and form global alliances with other companies and share knowledge on innovation. Bary (2019, p.5) asserts that lack of entrepreneurial skills was a significant factor on creation of a culture of creativity and innovation amongst Egyptian entrepreneurs. Monyake *et al.* (2020b, p. 457) established that an average Botswana citizen-owned enterprise lacks creativity and innovation because of lack of funds to acquire technology. Monyake *et al.* (2020b, p. 466) highlighted that SMEs in Botswana encounter cost-related challenges on outsourcing and collaborations with strategic partners. These challenges affect the survival, growth and sustainability of these SMEs.

2.5.5 Impact of government support on SME creativity and innovation

There exist situations where innovation policies of governments may be misaligned with those of SMEs and this negatively impacts on the ability of SMEs to innovate. Governments have been observed to support and fund research and development efforts of large firms and this incapacitates SMEs in their efforts to innovate (Thapelo, 2020; Musabayana & Mutambara, 2022b, p. 19). An earlier study by Ama and Okurut (2018, p. 2) revealed that more than 93% of SMEs never received any assistance from Citizen Entrepreneurial Development Agency (CEDA) or the Botswana Innovation Hub in the form of knowledge sharing on innovation and effective ways to collaborate on innovation efforts. These problems imply that Botswana SMEs continue to lag behind large companies in terms of innovation which also affected their ability compete with large companies (Avenyo, Konte & Mohnen, 2021, p. 621; Canare & Francisco, 2021, p. 24; Mondliwa, Goga & Roberts, 2021).

The government of Botswana is lagging behind in terms of implementing an effective entrepreneurial framework and has failed to inculcate an innovative and creative mindset amongst entrepreneurs in Botswana (Monyake *et al.*, 2020b, p. 457). On the other hand, findings by African Innovation II Report (2014) indicate that, unlike in Botswana, South Africa has undertaken measures to ensure that effective framework supporting innovation are implemented.

2.5.6 Summary of reviewed factors of innovation and creativity on SME survival and growth

Table 2.6 shows a summary of reviewed factors of innovation and creativity on SMEs.

Table 2.6: Factors of innovation and creativity on SME survival and growth

Factor of innovation and creativity	Main aspects	Authors
Drivers of adoption of innovation and creativity in SMEs	<p>Firm-specific factors and networking and collaboration help to accelerate innovation and creativity.</p> <p>Firms that innovate through technology grow faster than traditional startups.</p> <p>Form-specific factors like age of owner, market and managerial skills influence the level of innovation and creativity.</p> <p>Networking and collaboration amongst firms help to accelerate innovation and creativity</p>	<p>OECD, (2018), Monyake <i>et al.</i>, (2020b, p. 466), Nyamaka, Botha, Biljon and Marais, (2020), Galgio, Kraemer-Mbula and Lorenz, (2022)</p>
Benefits of innovation and creativity	<p>SMEs generate the bulk of innovation and creativity.</p> <p>The innovation and creativity results in fast growth of SMEs</p> <p>Creativity and innovation motivate the informal sector to serve as an incubator for business potential and transition to join the formal economy.</p> <p>Innovation is a key determinant of SME survival, long-term growth and sustainability</p>	<p>OECD, (2018), Shunda, Ganamotse and Marobela, (2019), Monyake <i>et al.</i>, (2020b, p. 457), Technology and Innovation Report (2021), Ngibe and Lekhanya, (2020b, p. 1), Chipambwa <i>et al.</i>, (2023a, pp. 1-22), Chipambwa <i>et al.</i>, (2023b, pp. 4-5)</p>
Challenges encounters on factors of innovation and creativity	<p>Potential for SME growth and expansion is constrained by institutional challenges that impede their creativity, innovativeness and sustainability.</p> <p>Lack of resources like financial, material and human resources hinder innovation and creativity in SMEs.</p> <p>Lack of intellectual property rights is a barrier towards the adoption of innovation and creativity in firms.</p> <p>Competition from larger enterprises with better technology, skills and funding thwart innovation and</p>	<p>Abisuga-Oyekunle <i>et al.</i>, (2020, pp. 415-419), Indrawati, (2020), Molefe, (2020, p. 28), Oduro, (2020), Takyi and Naidoo (2020), Molefi, (2021, p. 10), Fu and Shi, (2022, p. 1), Moalosi <i>et al.</i>, (2023)</p>

Source: Compiled by the Researcher

2. 5.7 Applicability of reviewed factors of innovation and creativity to current study

There is little doubt from the literature review that most of the innovation and creativity comes from SMEs. This development ensures that SMEs have the leading advantage to implement these new ideas into competitive products and services if they have adequate resources to do so. Significant effort has also been done by governments and strategies to ensure that SMEs are encouraged to generate new ideas and become innovative and creative. Additional government support is also available to these firms so that they can register their ideas and creations as patents.

There are specific measures which have been placed in Botswana to help SMEs to be innovative and creative. Local agencies help SMEs with training and development of new products. The government of Botswana has also helped local firms by placing import barriers on specific products to boost the performance of local manufacturing SMEs. The previous bottlenecks associated with company registration in Botswana have also been removed to a great extent. Furthermore, a new department, The Botswana Innovation Hub (BIH), has also been established to support SMEs with training on new business ideas and registration of patents.

Whilst the above measures have proved to be helpful to SMEs to some extent, SMEs in Botswana still face challenges of competition from large established companies. They also continue to face challenges of access to finance and managerial skills, which are crucial for investing in innovation and creativity. There is also apparent lack of awareness from a significant number of local SMEs about the available government support to ensure greater innovation and creativity amongst manufacturing SMEs in Botswana. This research, therefore, seeks to identify gaps on innovation and creativity amongst manufacturing SMEs in Botswana with the purpose of contribution to more knowledge and understanding on the subject matter. Bridging the knowledge gap will help policy makers and manufacturing SMEs in Botswana to increase their survival and growth chances and realise sustainable competitive advantage.

2.6 RESEARCH GAPS

Having discussed the literature review in detail, it is important to discuss research gaps which have emerged during the course of this chapter. The literature review has extensively presented the idea that manufacturing SMEs are challenged by scarcity of internal resources in order for them to survive, grow and become sustainable. As such, they need to develop and capitalise their internal resources (human, financial, physical and organisational) and capabilities in order

to achieve sustained competitive advantage (Teece, 2018; Kiyabo & Isaga, 2019, pp. 1-23; Lazazzara & Galanaki, 2020). The nature of manufacturing sector SMEs in Botswana also means that they require greater access to export markets because the local market is quite small. This brings in market theories like Porter's Five Forces (Porter, 1985) which can be used to explain how these firms can solidify their competitive advantage and expand through exports to regional and global markets.

The contribution of technology to sustained competitive advantage has also been extensively studied (NDP 11, 2017; European Commission, 2019; Mmapula & Diraditsile, 2019, pp. 171-176; Ollerenshaw, Corbett & Thompson, 2021). Whilst manufacturing SMEs can benefit from technology, SMEs in developing countries are generally labour-intensive and lack critical resources (skills, finance, government support) to adopt and benefit from technology.

Currently, there is very little literature on Botswana-based studies which have developed an integrated model which incorporates Resource-Based View Model and Five Forces Model with technology as an important driver for business growth and expansion. This study intends to explore this gap and find out how these three issues may enable local manufacturing SMEs to survive, grow and realise sustainable competitive advantage.

This study intends to explore the possibility of manufacturing employing creativity and innovation using technology to improve manufacturing processes and devise unique ways which cannot easily be imitated by rivals to make high-quality products in a cost-effective way. There are currently no studies which have clearly investigated strategies which can be used by local manufacturing SMEs to utilise creativity, innovation and technology to help SMEs to deal with challenges of scarce labour skills and streamline production processes.

Scholars whose work has been discussed in this chapter have used different methods to gather, analyse and report their findings. Each method has its own strengths and weaknesses (Robinson, Saldanha & McKoy, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017). In some studies, there were population gaps (for examples, some studies only focused on women, whilst some dealt with youths only) and this may have impacted on the conclusions that were drawn. Different research philosophies were also used in the presented case studies and this might have resulted in methodological gaps which justifies the execution of the current research. The context and settings of the reviewed studies are also significantly different from the current study. Whilst the reviewed studies were mainly conducted outside Botswana and did not necessarily focus on manufacturing firms, this research contextualized the investigation to a specific region in Botswana and narrows the study on only manufacturing firms. This current approach will help to produce more meaningful results and conclusions.

2.7 SUMMARY

The purpose of this chapter was to present the literature on sustainable competitive advantage of SMEs in the manufacturing sector. Literature from global, regional and local authors on the topic under investigation was gathered and reviewed against the objectives of the study. The literature was subdivided into theoretical concepts and definition of terms, theories that help to explain management concepts under each objective and matching empirical evidence in the form of previous research by different scholars. The chapter compared and contrasted the given literature in order to gain a deeper understanding of the research topic, investigate what has been researched on the topic and what is still not known and identify possible research gaps.

The literature review discussed factors that impact on the survival, growth and sustainability of manufacturing SMEs. Specific factors which were discussed centred on SME owner/manager characteristics, characteristics of the SME and contextual factors. The influence of government policies and their influence on the survival, growth and sustainability of manufacturing SMEs were also discussed. The literature review revealed that whilst governments have placed measures to sustain SMEs, there was little or no effort to actually implement these policies and channel funds towards SMEs in order to ensure that these policies add value to the survival, growth and sustainability of SMEs. This was suggested as the reason why SMEs have a high failure rate. The contribution of creativity and innovation was also discussed in the literature review. The major observations were that SMEs were likely to be more creative than their larger counterparts because of their small size and the risk –taking nature of SME owners/managers. On the other hand, larger enterprises were likely to be more innovative because of available resources to invest in new products.

CHAPTER 3 – LITERATURE REVIEW - HUMAN CAPITAL DEVELOPMENT, ACCESS TO FINANCE, FINANCIAL MANAGEMENT SKILLS AND MANAGERIAL SKILLS

3.1 INTRODUCTION

The purpose of this chapter is to present the reviewed literature on factors of human capital, factors of access to finance, factors of financial management skills and factors of managerial skills that impact on the survival, growth and sustainable competitive advantage. The literature review focuses on manufacturing SMEs, especially in developing countries, including the contribution of the reviewed factors towards the success of manufacturing firms, the challenges that are encountered by manufacturing firms in acquiring and utilising human capital, finance, financial management skills and managerial skills. The chapter concludes by providing a summary of the identified factors in order to establish the context of the study.

The specific research questions which will be discussed in this chapter are given below:

1. To what extent does human capital development affect the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
2. To what extent does access to finance impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
3. How do financial management skills impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
4. Which managerial skills can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?

3.2 IMPACT OF HUMAN CAPITAL DEVELOPMENT ON SME SURVIVAL AND GROWTH

This section presents the literature review on the impact of human capital on the survival, growth and sustainable competitive advantage of SMEs. The discussion is aligned with the fourth research objective - To analyse the extent to which human capital development affects the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

3.2.1 Contribution of human capital development to SMEs

Human capital, or human resources, consists of the skills, education, knowledge, training, experiences and health possessed by an individual or a population (Mutoko & Kapunda, 2017; Alnoor, 2020, p. 149; Golding, 2024). Human capital has economic value or cost to an

organisation or country. It enables workers in an organisation to perform tasks more effectively and efficiently. Oluwatobi *et al.* (2020) and Ngepah, Sabah and Mabindisa (2021) acknowledge that, from an organisational perspective, human capital enables a firm to increase its productivity, profitability and growth. When employees in a firm are developed through further training and education, they become more productive, creative and innovative and this leads to firm growth, success and sustainability (Muriithi, 2018; Allais *et al.*, 2021, pp. 649-662; Kahn, Sithole & Buchana, 2022, pp. 37-56). Investment in employee health is also another dimension of human capital development since health employees are more productive and have register less absent days at the workplace due to sickness. At national level, human capital development results in economic growth as a result of higher firm production levels.

Several scholars have studied the contribution of human capital at different stages of the business growth cycle and have commonly agreed that human capital demands are different at each stage of the cycle (Wach, 2020). It is, therefore, imperative for SME owners/managers to strategically allocate appropriate human and non-human resources at different stages of the business cycle in order to ensure that firms survive and realise sustained growth (Muriithi, 2018; Allais *et al.*, 2021; Kahn, Sithole & Buchana, 2022, pp. 37-56). There is also evidence to suggest that human capital invested at the earliest stage of the business has a positive contribution to subsequent stages of the business. However, as Ding and Murinde (2020, pp. 45-56) observed, the small size of firms forces SME owners/managers to focus on short-term strategies which produce revenue rather than invest in managerial skills which will help the business to survive, grow and become sustainable. Firms which do not invest in human resources at the earliest stage of growth have low survival and growth rate and most fail to go beyond five years of growth.

Oluwatobi *et al.* (2020) and Kahn *et al.* (2022, pp. 37-56) affirm that firms that grow and nurture human resources have the greatest chance of realising competitive advantage and survive beyond the critical five-year threshold. Since human capital is an internal and intangible asset of a firm, SME owners/managers can uniquely develop these resources and ensure that it is inimitable, and achieve sustained competitive advantage in the process (Wernerfelt, 1984; Ngepah *et al.*, 2021).

There is abundant empirical evidence to support the notion that efficient utilisation of human capital yields higher firm performance in SMEs, including those in the manufacturing sector. A South African study by Eresia-Eke and Okerue (2020, p. 1) on SMEs (manufacturing, service and retail) revealed that managerial skills and level of education of SME owners/managers are positively correlated with business performance.

3.2.2 Relationship between human capital and firm performance

The relationship between human capital and firm performance has been studied by numerous scholars (Dohemer, 2019; Adesina, 2021, pp. 303-319; Khahn *et al.*, 2022). There is evidence to attest that human capital provides firms with direct influence on performance or indirect effects through structural, relational, innovation or process capital. The direct influence of human capital has been proved by many researchers (Bashir & Venkatakrishnan, p. 8, 2022; Chipunza & Mupani, 2019, p. 4; Naidoo, 2022). Oluwati *et al.* (2020) concluded that human capital directly impacts on SME performance, and therefore SME owners/managers should concentrate on improving human capital through strategies like training and development.

In a study by Teklewold (2023) it was concluded that human capital has a positive effect on financial performance of women-owned businesses. The study recommended that the Nigerian government should put in place regulatory measures which promote human capital development in women in order to improve the financial performance of their firms. Mashavira (2020) found that in Zimbabwe, most SMEs receive external feedback from customers and colleagues and very little internal feedback from within the firms. Mashavira (2020) further revealed that managerial activities like performance appraisal were neglected in these SMEs and this negatively impacted on the performance of employees.

Mafoko (2019, pp. 24-30) concluded that sustainable growth and performance of SMEs in Botswana, is negatively affected by lack of managerial skills in customer relations, networking and social media usage. Mafoko (2019, pp. 24-30) recommended managerial skills and training and development for owners/managers in youth-owned SMEs in order for them to benchmark, grow and continuously improve their businesses.

3.2.3 Relationship between human capital and economic growth

There exists a strong positive correlation between human capital and economic growth (NDP 11, 2017; Abdouli & Omri, 2021, pp. 788-790; Ogunjobi, Eseyiin & Popoola, 2021). Human capital impacts on economic growth and can contribute towards economic development through the expansion of skills and knowledge of people in a country. The skills and knowledge possessed by employees in an economy provide economic value because a skilled workforce contributes towards increased productivity. Governments across the globe contribute towards the development of human capital by ensuring that education is affordable to their citizens (Bomani *et al.*, 2019, pp. 1-15; Dohemer *et al.*, 2019; Ogunjobi *et al.*, 2021). At firm level, companies also ensure that individual employees develop their human capital through measures like education and training, and attending to workshops and seminars. These efforts

cumulatively result in greater productivity of employees and overall economic development at national level.

Mohamed *et al.* (2021) revealed a positive insignificant relationship between government spending on education and economic growth and a negative insignificant relationship between government investment in health and economic growth. The findings by Mohamed *et al.* (2021) are attributed to a low-quality infrastructure, lack of adequate capacity and weak governance level in Egypt to utilise the productivity of human capital efficiently. However, a separate study by Baset and Fawzy (2021) contradicted the findings by Mohamed *et al.* (2021) and observed that investment in education contributed to twice as much as investment in health towards economic development in Egypt. The differences in these studies might be attributed to the time periods in which the data was gathered.

A study by Khanie (2020, p. 1) on manufacturing SMEs in Botswana showed a positive relationship between investment in secondary education and an increase in manufacturing value added, which implies that an investment in human capital development leads to growth of manufacturing sector which also results in increased industrial development. This ultimately leads to overall economic growth in Botswana.

3.2.4 Development of human capital at firm level

SME management can be used to develop human capital through various means like orientation and induction, on-the-job training, further education, seminars and workshops and trade fairs. A study by Bomani, Fields and Derera (2019, pp. 1-15) investigated the role of higher education institutions in the development of SMEs in Zimbabwe. The study confirmed that higher education institutions in Zimbabwe were promoting SMEs through workshops, technology transfer, running of short courses and provision of consultancy services. The study by Bomani, Fields and Derera (2019, pp. 1-15) suggested that higher education institutions should differentiate their services for manufacturing, retail and service sectors since these firms had different training needs.

Scholars and economists have devised numerous approaches of measuring human capital but there is no single methodology that has been adopted yet (Thathsarani, Wei & Samaraweera, 2021). Islam and Amin (2021) found that adopting a single methodology is affected by the quantification of skills, knowledge, ideas, skills and talent, among other variables on human capital. Fahim (2018, p. 38) noted that the challenge of adopting a single measure of human capital is further compounded by the fact that each firm is unique entity with its own requirements for human resources. The other setback on identifying a single measure of human

capital is that SME owners/managers have different skills and approaches of fulfilling their organisational objectives (Xiao & Cooke, 2022).

Human capital also contributes towards firm performance in different ways, depending on the type of firm and strategies used to execute objectives. There has been general agreement by scholars that indicators of measuring human capital should have a direct link with the performance of the company and the fulfillment of its current and future objectives (Philippou, 2020; Mashavira, Chipunza & Dzansi, 2021). Typical indicators used to measure human capital are productivity, value added per employee, motivation of employees, expenses, evaluation of investment in education, absence from work, employee satisfaction, employee accident rate, cost of hiring a new employee, training costs, healthcare costs, and the cost of health and safety at work (Philippou, 2020; Mashavira, Chipunza & Dzansi, 2021).

3.2.5 Challenges faced by SMEs in acquiring and retaining human capital

Several scholars have opined that the lack of human capital is one of the major causes of the low survival, growth and sustainable competitive advantage of SMEs, especially in developing countries (Chundu, Pindiriri & Kaseke, 2020, p. 1889; Booyens *et al.*, 2020, pp. 77-92; Mashavira *et al.*, 2022). The small size of SMEs and lack of financial resources imply that the priority of SME owners is focused on short-term strategies of generating revenue to survive and grow. SMEs also lack financial resources to recruit and retain skilled and competent staff that can be productive and lead to the growth and sustainability of businesses. SME owners/managers also fail to appreciate the value add by retaining skilled employees and prefer to treat skilled employees as an expense rather than an asset to the firm. Various scholars (Ngepah *et al.*, 2021; Musabayana, Mutambara & Ngwenya, 2022a, p. 14) have pointed that firms in the growth stage require competent line managers, and without these line managers, such firms fail to survive beyond the growth phase. Firms also lack resources (financial, time and commitment) to train employees so that they align their competencies with the objectives of SMEs. These challenge lead to high staff turnover; low employee motivation and low productivity and the business does not proceed beyond the growth stage.

In order for a business to prosper, there is need for top management to ensure that the workforce is highly motivated (Chundu, Pindiriri & Kaseke, 2020, p. 1899). Ngibe and Lekhanya (2020b, p. 13) confirmed the findings by Chipunza and Mupani (2019, p. 4) by highlighting that lack of support from employees has a negative effect on the SME's capacity to achieve growth and sustainability. Yu-Ting, Cant and Wiid (2016) concluded that SME owners/managers in South Africa required assistance in training and development of employees, performance evaluation of employees, motivating employees and analysing and classifying work in order for their firms to realise growth and sustainability in their sectors.

Studies by Jongman (2020) and Rudhumbu, du Plessis and Maphosa (2020) argued that whilst the government of Botswana sought to improve training skills of entrepreneurs through CEDA and LEA, the effort has not paid any significant dividend since it only resulted in development of SMEs without necessarily improving the capabilities and sustainable competitiveness of firms in Botswana. Rudhumbu *et al.* (2020) further explain that the lack of capacity building by Botswana SMEs is the reason why there is a high failure rate of these enterprises in Botswana.

3.2.6 Summary of reviewed factors of human capital development on SME survival and growth

Table 3.1 shows a summary of the reviewed literature on factors of human capital development on SME survival.

Table 3.1: Factors of human capital development on SME survival and growth

Factors of human capital development	Main aspects	Authors
Drivers of human capital development	<p>Firms that grow and nurture human resources have the greatest chance of survival, growth and realising sustainable competitive advantage.</p> <p>SME management can be used to develop human capital through orientation and induction, orientation, on-the-job training, further education, seminars and workshops.</p> <p>Skilled workforce adds value to human capital.</p> <p>Investment in secondary education contributes towards human capital development and greater productivity in the manufacturing industry.</p>	<p>Bomani <i>et al.</i>, (2019, pp. 1-15), Oluwatobi <i>et al.</i>, (2020), Khanie, (2020, p. 1), Ogunjobi <i>et al.</i>, (2021), Khan <i>et al.</i>, (2022)</p>
Importance of human capital development	<p>Human capital increases firm productivity, profitability and growth leading to sustainable competitive advantage.</p> <p>Human capital demands are different at each stage of the firm's cycle.</p> <p>Human capital has a positive effect on financial performance.</p> <p>Human capital positively impacts on firm growth.</p> <p>Human capital contributes towards SME productivity and competitiveness.</p>	<p>Oluwatobi <i>et al.</i>, (2020), Wach, (2020), Abdouli and Omri, (2021, pp. 788-790), Adesina, (2021, pp. 303-319), Allais <i>et al.</i>, (2021, pp. 649-662), Ngepah <i>et al.</i>, (2021), Khan <i>et al.</i>, (2022), Teklewold, (2023)</p>

Challenges faced by SMEs in developing human capital	<p>Firms which do not invest in human capital at the earliest stage of growth have low survival rate. This is the situation with SMEs since they lack adequate resources.</p> <p>Low quality infrastructure, lack of adequate capacity and weak governance level impact on human capital development.</p> <p>SMEs lack financial resources and competent staff to develop human capital.</p> <p>SME owners/managers do not appreciate the importance of retaining skilled workforce.</p>	<p>Absisuga-Oyekule, (2020), Ding and Murinde, (2020, pp. 45-56), Booyens <i>et al.</i>, (2020, pp. 77-92), Nyakudya, (2020, pp. 44-49), Mohamed <i>et al.</i>, (2021), Ngepah <i>et al.</i>, (2021), Tebetso, (2021), Mashavira <i>et al.</i>, (2022)</p>
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Source: Compiled by the Researcher

3.2.7 Applicability of reviewed factors of human capital development to current study

The literature review has outlined the importance of human capital development towards the survival, growth and sustainable development of SMEs. Different scholars have pointed out that human capital provides the leadership which is responsible for planning, directing and executing of firm processes leading to the accomplishment of goals and the ultimate success of SMEs. Scholars have also elucidated that human capital development requires various resources in order for it to contribute towards the survival and growth of SMEs. These include training and development, orientation and induction, curriculum development at secondary school and tertiary levels, access to finance and government support.

There have been concerted efforts to develop human capital in Botswana, including the support from the government, agencies like CEDA and LEA and private sector partners. The Botswana government has established policies and guidelines to ensure that human capital development is make a priority across all sectors of the country's economy. Agencies like CEDA and LEA are involved in SME owners/managers training, coaching and mentoring. Various programs are also available to ensure that youths are equipped with skills in order to establish their own business.

The above strategies have not always been successful and there are still some challenges with regard to human capital development in Botswana, especially for SMEs. SMEs continue to lose skilled employees to the government and the private sector and this is impacting on their performance. SMEs also tend to overlook the importance of retaining skilled employees. The funds targeted towards human capital development are inadequate and there are still complaints about skills mismatch between the education sector and industry. This implies that human capital development in Botswana remains a challenge.

This research aims to evaluate the current human capital development landscape in Botswana and identify specific gaps within the employment and skills development sectors with the purpose of proposing specific strategies that can be used to accelerate human capital development, especially for the benefit of the manufacturing sector in Botswana.

3.3 IMPACT OF ACCESS TO FINANCE ON SME SURVIVAL AND GROWTH

This section presents the literature review on the impact of access to finance on the survival, growth and sustainable competitive advantage of SMEs. The discussion is aligned with the fifth research objective - To assess the impact of access to finance on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

3.3.1 Importance of SME finance

Finance is important for the survival and growth of SMEs. Through finance, SMEs are able to innovate, improve efficiency and quality, enter new markets, and provide millions of jobs (Abisuga-Oyekunle, Patra & Muchie, 2020, pp.415-419). Despite this, many SMEs in developing economies are unable to access finance which they require in order to realise their full potential.

A study by Ozili (2021) revealed that financial institutions find it risky to provide finance to SMEs in developing countries, resulting in a huge financial gap. In order to reduce this financial gap, governments, financial institutions and donors have devised strategies in the form of policies and products that are meant to help SMEs to acquire finance in order for them to grow and innovate. However, the effectiveness of these efforts has not been rigorously measured. There exist various sources which can be used by SME owners/managers to seek finance to start and sustain a business (Kshetri, 2021, pp. 1-6).

3.3.2 Sources of SME finance

Personal savings, including own funds have been acknowledged as the leading source of finance for the majority of SMEs in developing countries. For example, a study conducted by SME Survey in South Africa noted that 57% of all SMEs in South Africa relied on personal savings to start a business (SME Survey, 2018). Using personal savings is a quick and convenient form of raising finance and no interest is paid back. The main challenge with using personal savings is that the money is never enough to start, grow and sustain a business. Personal savings also compete with other demanding household needs and this diminishes the relevance of this form of finance as a sustainable source of finance for SMEs.

The SME owner, family and friends are some of the common sources of finance. This is because the investors may be willing to accept a lower return compared to other sources of finance (Tadu and Chiguvi, 2019, pp. 113-118; Saah and Musvoto, 2020). The major drawback of this method is that these sources of funds are limited in terms of amounts. The borrowed money may not be recovered if the business collapses.

SMEs can also seek funding from business angels, wealthy individuals who are willing to take the risk of investing in SMEs. Business angels also offer advice and assistance to SME owners/managers. The major drawback of this method is that business angels are not common and are also particular about what they are prepared to invest in. They may also have a different vision for the business and this has the potential to create conflict of interest with the SME owner/manager. However, business angels can prove to be quite useful to SMEs since they have business acumen which can contribute towards the success of SMEs (Urban & Moreno, 2022; Teixeira *et al.*, 2023).

Commercial banks have always been a common source of finance for different forms of companies including SMEs. Commercial banks have the capacity to lend finance to SMEs on a long-term basis. The main challenge for SMEs when using commercial banks is the requirement of collateral by commercial banks. Most SMEs, especially in the small and micro enterprise categories lack collateral, and ultimately find it difficult to borrow money from commercial banks. Commercial banks are also traditionally conservative when it comes to lending money to SMEs because of the credit risk associated with SMEs (Monyake *et al.*, 2020b, p. 457; Msomi & Olarewaju, 2021). The high interest rate charged by commercial banks also discourages SMEs from borrowing from them.

Micro finance is another method in which an SME can acquire finance and is quite common with SMEs at various stages of growth. With microfinance, an SME is capable of acquiring finance on easier terms than would be with a commercial bank since issues like collateral and complex paperwork may be waived. The major drawback is the higher interest rate and shorter repayment period compared to commercial banks. CEDA is a typical example of microfinance in Botswana (Monyake *et al.*, 2020b, p. 466).

SMEs can also acquire finance through government funded schemes. These involve grants and loans of different formats. In Botswana, the government provides loans and grants such as Young Farmers Fund, Youth Development Fund, among others (Tadu & Chiguvi, 2020, pp. 1-8; Amoako-Adu & Eshun, 2018, p. 151). The advantage of government grants is that the SME does not need to pay back the money. The main challenges associated with loans and grants is that certain stringent requirements have to be fulfilled before the funds can be released.

Applying for the funds is also time consuming, especially the completion of paperwork for the funds.

Joint venture capital refers to financial input from a group that is willing to invest into a new and expanding business in exchange for certain shares in the business (Monyake *et al.*, 2020b, p. 457; CEDA, 2020b, p. 96). Venture capitalist will demand a return in exchange of their investment together with contributions on how the firm should be managed. The main advantages of joint ventures are that an SME gains access to new markets and distribution networks and shares risks with new partners. The firm is also exposed to new knowledge and expertise and has greater access to financial and technological resources (NDP 11, 2017; CEDA, 2020b, p. 27).

Joint ventures may result in eventual loss of the firm by the SME owner/manager to venture capitalist since they always come in with more finance and control of the firm. Work resources and expertise may be unmatched and this may create tension between the SME and joint venture partners. In some cases, the firm may eventually be sold when the venture capitalists' interests are diverted to another area of business or location (Molokwane, 2019).

Another source of finance for SMEs is through foreign direct investment (FDI). With FDI, an international company commits substantial financial investments in a local firm. Such investment may consist of acquisition of sources of raw materials, expanding the foreign company's footprint or developing multinational presence (Magang & Magang, 2019). FDI may go beyond financial investment and may also include provision of equipment, technology and management to a local firm.

The main advantages of FDI are that it brings market diversification through the introduction of new products and services (NDP 11, 2017; Molefe, 2020, p. 94; Nyathi & Mlobane, 2024). New technology also lowers production costs and improves quality of products. Most governments offer tax incentives to foreign companies when they invest. There is also creation of employment and access to technology, management expertise and skills. The main disadvantages with FDI are that local firms are likely to be displaced since they face more production costs and cannot compete with multinational companies. Foreign firms also tend to repatriate their profits rather than invest them in the countries that they invest their money. This leaves host countries poorer when multinational companies eventually return to their countries or relocate to other areas (Molokwane, 2019).

3.3.3 Financial measures used by SMEs to predict growth and sustainability

It is important for SMEs to measure the outcomes, or performance, of their business. Performance measurement helps SMEs to assess whether or not they are fulfilling their strategic goals and objectives (Tadu & Chiguvi, 2019, pp. 113-118). Firm growth and sustainability are important SME performance measures. Financial performance measures (See Table 3.2) are traditional measures that are used to measure the short-term success of a business.

Table 3.2 Financial measures used to predict growth and sustainability

Financial measure	Applicability to SMEs	Author (s)
Gross profit margin	Gross profit margin is one of the most important measures of profitability and firm financial performance. It reflects the efficiency of an SME in terms of utilisation of labour, raw materials and other supplies.	Abdulshakour (2020, pp. 9-12)
Working capital	Working capital is a form of short-term asset of a firm and issued to fulfill financial requirements like salaries, creditors and suppliers. An SME with insufficient working capital risks having liquidity problems and will threaten its survival, growth and sustainability.	Schneider and Shor (2017)
Current ratio	Current ratio helps a firm to assess whether or not it can pay its short-term obligations (for example, accrued expenses, dividends payable, taxes payable) that are due within one year using its current assets and liabilities.	Ding and Murinde (2020, pp. 45-56)
Debt-to-equity ratio	The debt-to-equity ratio measures how much a firm can finance its activities by using debt versus equity. This ratio provides a picture of a firm's solvency by showing the capability of shareholder equity to pay all debt in the event that the firm ceases operating.	Kenourgios (2014, pp. 21-30)
Inventory turnover	Inventory turnover calculates how quick a firm sells its inventory. A low inventory turnover implies poor sales and possibly overstocking of inventory.	Lagoarde-Segot (2015)
Return on equity	Return on equity shows how well an SME can make use of	Abdulshakour,

	equity investments to generate profit for investors.	(2020, pp. 9-12)
Return on assets	Return on assets is a performance measure of how well a firm is utilising its available resources and assets to generate higher profits.	Ahrned (2018, pp. 43-46)
Operating cashflow	Operating cashflow is one of the most important performance measures for assessing overall firm financial well-being. It measures the quantity of cash generated through a firm's normal business operations.	Gitman and Zutter (2016)

Source: Compiled by the Researcher

Quantitative measures like gross profit margin, net profit margin, working capital, current ratio, leverage, inventory turnover, return on equity, return on assets, operating cashflow and seasonality are used to compute and evaluate the performance of a firm. The focus of these measures is on external stakeholders of a firm (customers, shareholders, government agencies). Because the overall goal of most firms is to ensure profitability, growth and sustainability, it is imperative that these measures are properly managed and controlled (Schneider & Shor, 2017; Ahrned, 2018, pp. 43-46). Previous studies have also shown that firms that are able to accurately measure and monitor their performance are able to create and sustain competitive advantage better than those that cannot (Barney, 1991, pp. 99-120; Day & Wensley, 1988, pp. 1-20; Peteraf, 1993; Sirivastava *et al.*, 1998).

SMEs face challenges of achieving growth and sustainability because they lack the knowledge and capacity to incorporate performance measurement within their organisational structures. Van Zyl and Jasper (2020) found that the high failure rate of small business in the country can be attributed to lack of specific metrics to measure the performance of SMEs. Van Zyl and Jasper (2020) opined that a tailor-made performance framework for South African SMEs which includes a fifth measurement, basic literacy, to the four dimensions (financial, customer, processing, and learning) of the balanced scorecard would help small businesses to achieve growth and become sustainable in the SME sector. Maduekwe and Kalama (2016) affirmed that the high failure rate of SMEs in south is attributed to the inappropriate use of performance measures. Similarly, Marufu (2021) highlighted that the high failure rate and lack of sustainable development by SMEs was due to the laxity of SMEs to adopt management accounting practices.

Despite their importance as sources of measures of firm performance, the use of financial measures has been criticised by numerous researchers (Gitman & Zutter, 2016; Park & Kremer,

2017). Because they focus on the short-term, financial measures cannot accurately assess whether or not strategic goals and objectives of a firm are met. It is also difficult for internal staff to accurately use data from financial measures since it may be distorted by management with the intention to satisfy their shareholders. Such inaccurate data may negatively impact on the growth and sustainability of SMEs.

3.3.4 Challenges faced by SMEs when accessing finance

One of the major challenges facing SMEs is the demand by finance institutions for collateral such as land or real estate to acquire loans (Mutoko & Mutoko, 2020; Nyakudya, 2020, p. 288; Chilembo, 2021, p. 437; Mpofo & Sibindi, 2022). However, many SMEs which have the potential to acquire loans cannot do so because they lack collateral and this impacts on their ability to grow their business. In order to reduce this request for collateral, some government and financial institutions are relaxing the need for collateral or removing the requirement altogether (Okurut *et al.*, 2016; CEDA, 2020b, p. 32).

Lack of formal education and/or financial illiteracy can also negatively impact on access to finance and growth and sustainability of SMEs (CEDA, 2020). Kalyongwe (2019, p. 69) and Msomi and Olarewaju (2021) opine that most SME owners/managers in developing countries lack formal education and training and this impacts on their ability to make decisions on borrowing finance, prepare documents required by financial institutions in order for loan applications to be processed and continuously appraise financial institutions on the financial performance of their businesses. Without financial literacy training and skills, SME owners/managers fail to improve on financial management and decision-making and this affects the growth and sustainability of firms.

Nyakudya (2020, p. 223) explains further by highlighting that SMEs tend to have a higher loan default rate than established companies and this makes it difficult for financial institutions to offer loans to SMEs. Coupled with this, it is also very difficult for financial institutions to thoroughly screen SMEs because of their small size, incomplete financial records and lack of accurate information on location of areas of business operation (Mafoko, 2019, p. 29). Financial institutions also lack resources (human and technological) to monitor payment records of SMEs which will have acquired loans and this discourages financial institutions to work with SMEs (CEDA, 2020b, p. 116).

Khanie (2020, p. 1) and Mafoko (2019, p. 29) posited that the high interest rates charged by both traditional finance and microfinance institutions prohibit most SMEs from accessing finance. Nyakudya (2020, p. 223) explains further by noting that SME owners/managers face the risk of having their assets forfeited or being blacklisted if they fail to repay their loans. This

challenge implies that most SMEs continue to face financial shortfall and this stalls their business and impacts on the sustainability of their business.

The other challenge facing SMEs when accessing finance is the short grace period offered by microfinance institutions after issuing out loans (CEDA, 2020b, p. 101). Mafoko (2019, p. 29) remarks that the small size of SMEs and the fact that they operate in a complex and dynamic business environment means that they face daily challenges which may affect their cash flow and they end up not generating enough cash by the time the grace period elapses. Chipambwa *et al.* (2023a, pp. 1-22) opine that intense competition from other SMEs and large established companies also increases the risk of reaching the end of the grace period without generating enough cash to start the loan repayments. This risk implies that the majority of SMEs prefer to access finance from informal sources which may not be enough to grow and sustain their operations (Nyakudya, 2020, p. 288).

SMEs also face reputational risks when dealing with financial institutions (Bannerjee, Bielli & Haley, 2016, p. 44; Khanie, 2020, p. 18). There is a general impression amongst financial institutions that SMEs are not ideal organisations to provide finance to and this poor reputation implies that even SMEs deserving to access finance fail to do because of poor reputation and stigmatisation of SMEs by financial institutions (Khanie, 2020, p. 18).

3.3.5 Summary of reviewed factors of access to finance on SMEs

Table 3.3 depicts a summary of the reviewed literature on factors of access to finance on SME survival, growth and sustainable competitive advantage.

Table 3.3: Factors of access to finance on SME survival and growth

Factors of access to finance	Main aspects	Authors
Drivers of access to finance	The most common sources of SME finance are personal savings, family and friends, business angels, commercial banks, micro finance, government funded schemes, joint ventures and FDI.	Magang and Magang, (2019), Tadu and Chiguvi, (2019, pp. 113-118), Saah and Musvoto, (2020), Monyake <i>et al.</i> , (2020b, p. 457); CEDA, (2020b, p. 17)
Importance of access to finance	Through finance, SMEs are able to innovate, improve efficiency and quality, enter new markets and create jobs. Access to finance helps to purchase raw materials, invest in technology, expand firm operations and create new distribution networks.	Molokwane, (2019), Abisuga-Oyekunle <i>et al.</i> , (2020, pp. 415-419), CEDA, (2020b, p. 17), Kubanji <i>et al.</i> , (2021 pp. 330-348), Molefi, (2021, p. 5), Sivotwa <i>et al.</i> , (2022, p. 1)

	Access to finance helps to develop management expertise and improve workforce skills.	
Challenges faced by SMEs on access to finance	<p>Financial institutions find it risky to lend money to SMEs.</p> <p>The continued need for collateral means that most SMEs cannot access finance from commercial banks and other institutions which demand collateral.</p> <p>Lack of formal education and financial literacy by SME owners/managers is a barrier to access to finance.</p> <p>High loan default rate and poor record keeping by SMEs prevents commercial banks from providing finance to them.</p> <p>High interest rate by commercial banks and the risk of having properties forfeited on default prevents SMEs from accessing finance from commercial banks.</p>	<p>Mafoko, (2019, pp. 28-29), CEDA, (2020b, p. 17), Nyakudya, (2020, p. 288), Molefi, (2021, p. 5), Kubanji <i>et al.</i>, (2021 pp. 330-348), Sivotwa <i>et al.</i>, (2022, p. 6), Ozili, (2021)</p>

Source: Compiled by the Researcher

2. 4.4 Applicability of reviewed factors of access to finance to current study

Access to finance is arguably the most important factor that impacts on the survival, growth and sustainable competitive advantage of SMEs. The reviewed literature has explained that finance helps firms to purchase raw materials, acquire equipment and machinery, expand business operations, invest in new technology, improve firm liquidity, access new markets and develop managerial and workforce skills. The literature review has also explained the various sources of finance, with personal savings and borrowings from family and friends being the most popular sources of finance. Firms find it difficult to access finance due to various reasons, including lack of collateral, high interest rates, riskiness of lending money to SMEs, poor record keeping and fear of losing property after defaulting.

Access to finance is a top priority for SMEs in Botswana and the government has devised multiple schemes to ensure that access to finance by SMEs is improved. The government of Botswana devised specific policies which led to the establishment of agencies like CEDA which have helped a significant number of SMEs to establish business. The government of Botswana has specifically targeted the manufacturing sector and agriculture as priority sectors and has put in place additional measures to ensure that firms in these sectors can access finance on more

relaxed terms (for example, removal of collateral up to a certain loan limit and reduction of loan interest rates).

Additional support has come in the form of business incubation and mentoring to ensure that SMEs have room to start their operations without paying their loans for some time and receive support from the onset of their business. Agencies like LEA, CEDA and commercial banks have specific programs that deal with training and development of prospective and established firms in areas like business capacitation, technology awareness, records keeping and proposal writing. All these measures have contributed towards greater access to finance by SMEs in Botswana to a certain extent.

Despite the above measures, access to finance by SMEs is still a problem in Botswana. The available finance options are limited and there is competition for these limited financial resources. SME owners/managers lack business proposal writing skills and have a history of poor records keeping. The requirement for collateral is still a challenge for local firms since they lack assets to use as collateral. These challenges imply that SMEs cannot access finance in most cases and this impacts on their survival, growth and sustainable competitive advantage.

The current research identifies the challenges that manufacturing SMEs encounter when access finance and proposes measures that can be implemented by these firms, together with the government and other strategic partners to ensure that manufacturing firms have greater access to finance and survive and realise growth in their operations. The findings will contribute towards greater knowledge and understanding of the challenges faced by SMEs in accessing finance in Botswana. This will help to formulate strategies which can be used to identify alternative sources of business finance. The findings will also help to identify strategies that can be used by SMEs to efficiently utilise available financial resources made available to them.

3.4 FINANCIAL MANAGEMENT SKILLS IMPACTING ON SME SURVIVAL AND GROWTH

This section presents the literature review on financial management skills influencing the survival, growth and sustainable competitive advantage of SMEs. The discussion is aligned with the sixth research objective - To evaluate the specific financial management skills which contribute towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

3.4.1 Importance of financial management skills to SME survival and growth

Financial management skills are a prerequisite for SME owners/managers, especially with the increasing demand of financial data from both within and outside the firm. A study by Folajinmi and Peter (2020, p. 90) on 150 SME owners/managers revealed that all elements of financial

management practices such as annual budget process, capital structure management and working capital management have a significant positive effect on profitability of an SME.

The emergence of technology and the need to adhere to financial standards means that SME owners/managers should be fully conversant with financial management skills. Possession of financial management skills equips SME owners/managers with a wide range of skills, including budget analysis, financial forecasting, contract management, financial risk management, data analysis, cash flow analysis, and decision making (Chileshe, 2019, p. 23; Folajinmi & Peter, 2020, p. 101; Nautwima & Asa, 2021; Mbongo & David, 2021). These skills are discussed in detail in the subsequent sections.

Possession of financial management skills helps to support the communication function within SMEs and externally with their trading partners. Effective communication helps to bind the various components of a business together. SME owners/managers are expected to communicate financial information with a wide range of people, including employees, government departments, commercial banks and suppliers. Prepared financial statements can be shared and interpreted to give the health status of a business. These records can also be used to determine whether or not the business is fulfilling its financial objectives.

Effective communication of financial information helps firms to increase their chances of access to finance from commercial banks and other funding agencies. For example, a study by Marufu (2021) on management accounting practices of 37 SME owners/managers in manufacturing firms in Botswana concluded that SMEs use accounting practices like budgeting to communicate financial information to internal and external stakeholders and create value in the process. Viable financial records also increase SMEs chances of obtaining raw materials and other goods through credit. All these factors help to increase firms' survival, growth and sustainable competitive advantage (Obadire *et al.*, 2022).

Having financial management skills contributes towards better managerial and leadership skills for SME owners/managers. SME owners/managers are, in most cases, also responsible for preparing business proposals, submitting financial records when applying for loans and also providing annual returns for tax and other purposes. They are also expected to make business decisions and act based on the available financial information. Muchuchuti and Mahambo (2020) investigated 60 women-owned SMEs from various sectors in Botswana and observed that these firms were exposed to financial management challenges like lack of decision making capability when processing financial information. This implies that possession of financial management skills also augments both managerial and leadership skills. These skills help firms to increase chances of accessing finance since SME owners/managers can compile and submit accurate and relevant records required by financial institutions.

Firms can also efficiently manage sourced funds better when they are equipped with financial management skills. The combined output of these skills results in better chances of a firm's survival, growth and sustainable competitive advantage. Chileshe (2019, p. 52) studied the effect of financial literacy on the growth of SMEs on 67 SME owners/managers in Zambia and found that financial literacy levels remained low among the SME owners/managers. The specific challenges that were experienced by SMEs were budgeting, debt management, savings and records keeping and these problems negatively impacted on their growth.

The emergence of accounting software packages has created room for SME owners/managers to focus more on utilising data analysis and financial analysis tools in these programs to support SMEs through decision-making, investment analysis and budgeting (Folajinmi & Peter, 2020, p. 90; Baraka, 2023, pp. 49-55). Through these accounting programs, SME owners/managers are able to generate accurate budgets and obtain the most suitable and informative investment options available for their business. Firms are able to probe these financial management tools to generate innovative solutions in an ever-changing business environment. The internationalisation of business operations also helps firms to gather financial and market data when they have analytical tools embedded in these programs.

Technology has broadened the range of available options that a firm can use to capture, process and output financial data. Technology has also transformed the financial management industry through providing direct interaction between firms, clients, suppliers and other trading partners. Digital documents like income statements, balance sheets, and financial statements can easily be shared in real time. Significant benefits like cost saving, accuracy and speed of transaction processing have been achieved through technological tools like computers, servers, and physical and cloud storage facilities (Folajinmi & Peter, 2020, p. 91; Baraka, 2023, pp. 49-55).

3.4.2 Challenges faced by SMEs in acquiring financial management skills

Most SME owners/managers lack knowledge about financial management skills or tend to neglect the importance of financial management skills leading to gaps in their skills profiles (Mutoko & Kapunda, 2017; Nyakudya, 2020, p. 251; Mpofu & Sibindi, 2022). Ultimately, these firms fail to effectively communicate financial information which is important to relevant stakeholders like commercial banks and government agencies which support SMEs. The success rate of loans application hinges on SME owners/managers knowledge of financial management skills (Folajinmi & Peter, 2020, p. 90). Lack of these skills implies that these firms have lower chances of obtaining finance from commercial banks and other funding bodies.

In order for financial management skills to be effective, there is need for continuous training of SME owners/managers and employees. Extant literature has revealed many gaps with regard to government support on training and development of SMEs. In some instances, policies and

guidelines exist to support SMEs, but issues of implementation of these guidelines remains a challenge. In some cases, lack of education and illiteracy negatively impacts on effort to impart financial management skills on SMEs (Nyakudya, 2020, p. 251; Mpofu & Sibindi, 2022).

In order for financial management skills to be effective in firms, these skills are expected to be integrated with modern technological tools like computer hardware and software. In some cases, these tools are specialist programs which have to be purchased off-the shelf. Most SMEs cannot afford to acquire these software tools and tend to either continue with manual systems or outsource services like business proposal writing, compilation of financial statements and submission of tax returns. The dynamic nature of software programs implies that they require regular updating and continuous training and development of SME owners/managers in order for them to be up-to-date with the latest technology. All these options leave firms at a disadvantage because they invest scarce resources like money and time in order to fully harness the value of technology (Asah, Louw & Williams, 2020; Monyake & Kuruba, 2020, p. 1; Muchuchuti & Mahambo, 2020).

At lower levels, the challenges of employee turnover also implies that staff who are trained to operate computer systems that compile financial information are constantly creating skills gaps within SMEs when they leave. In the end, the financial resources and time which are invested to ensure that the financial management skills contribute towards SME survival, growth and operational efficiency are wasted. Loss of skilled employees results in business failure or stagnated growth of affected firms (Mbogo & David, 2021).

3.4.3 Summary of reviewed factors of financial management skills on SME survival and growth

Table 3.4 illustrates a summary of the literature reviewed on factors of financial management skills on SMEs.

Table 3.4: Factors of financial management skills on SME survival and growth

Firm-specific factors	Main aspects	Authors
Drivers of financial management skills	Government support in the form of funding for training and formulation of policies and guidelines to drive skills development in firms. Emergence of technology has contributed to accurate and timely processing of financial information	Folajinmi and Peter, (2020, p. 90), Nyakudya, (2020, p. 122), Mpofu and Sibindi, (2022)
Contribution of financial management skills	Greater processing of financial information and effective communication of this information with relevant stakeholders.	Abisuga-Oyekunle <i>et al.</i> , (2020, pp. 415-419), Owusu, (2021), Tebetso,

	Higher chances of obtaining loans from funding agencies and commercial banks, and credit arrangements for raw materials from suppliers. Better decision-making leading to realisation of business goals and objectives.	(2021), Obasi, (2023).
Challenges encountered in developing financial management skills	Lack of knowledge and appreciation about the importance of financial management skills. Inadequate government support and the requirement for continuous training. Technology to integrate with financial management skills is expensive for SMEs to acquire. High employee turnover to government and private sector employment negatively affect the effort to impart financial management skills in firms.	Fatoki, (2015, p. 145-149), Asah, Louw and Williams, (2020); Monyake and Kuruba, (2020, p. 1); Muchuchuti and Mahambo, (2020); Mbogo and David, (2021).

Source: Compiled by the Researcher

3.4.4 Applicability of reviewed factors of financial management skills to the current study

Various scholars have confirmed the contribution of financial management skills towards the survival, growth and sustainable competitive advantage of SMEs. Through financial management skills, firms are able to capture, process and provide financial information to relevant stakeholders like commercial banks when applying for loans or suppliers when making arrangements for procurement of raw materials on credit. Financial management skills also help to support both managerial and leadership skills. SMEs are able to make more informed decisions with information generated using financial management skills. This results in the survival, growth and sustainable competitive advantage of SMEs.

Several challenges exist with regard to the acquisition of financial management skills. Most firms do not appreciate the importance of financial management skills and tend to outsource services which require the application of financial management skills. Like other skills, financial management skills require government support and continuous training. However, several researchers and strategists have explained gaps with regard to government support and training efforts. Technology to process financial management records is difficult to acquire and maintain and this is a disadvantage to most firms which already face financial challenges.

The importance of financial management skills as drivers of firm survival, growth and sustainable competitive advantage has been well documented. This research also aims to contribute towards identifying factors of financial management skills that impact on the survival

and growth of manufacturing SMEs in Botswana. SMEs in Botswana continue to collapse within a short period of time after inception and many of these firms cannot efficiently utilise acquired funds and consequently face business failure. There is a currently a paucity of literature of available financial management skills and how they are utilised for the benefit of manufacturing SMEs in Botswana. The findings of this study will help to bridge these gaps and contribute towards knowledge and understanding on the body of knowledge of financial management skills and manufacturing firms.

3.5 MANAGERIAL SKILLS IMPACTING ON THE SURVIVAL AND GROWTH OF SMES

This section presents the literature review on managerial skills impacting on the survival, growth and sustainable competitive advantage of SMEs. The discussion is aligned with the seventh research objective - To identify the specific managerial skills that can be that can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

3.5.1 Importance of managerial skills to SME survival and growth

Managerial skills of SME owners/managers have been extensively investigated and scholars have largely agreed that managerial skills are critical towards the survival, growth and sustainability of SMEs. These skills are explained in the following sections.

Communication skills help SME owners/managers ensure sustainable growth and continued success of their businesses. Effective communication helps in information sharing, providing feedback and seeking new opportunities. Relationships with customers, suppliers and partners are managed through effective communication. Scholars (Fatoki, 2014, p. 922; Obaji, Dan-Jumbo & Ogbu Edeh, 2019, p. 164) have established a link between SME owner/manager education and communication skills. Communication skills can also be acquired through continuous training of SME owners/managers and employees (Ledikwe, 2020, p. 15).

In order for effective communication to take place, SMEs should establish appropriate technological and communication structures. An appropriate communication structure promotes access to various forms of information like market access, suppliers, customer segments and sources of finance (Fatoki, 2014, p. 922; Dan-Jumbo & Ogbu Edeh, 2019, p. 164; Ledikwe, 2020, p. 15). A telecommunication infrastructure (including international telephone and Internet) can help SMEs to access local, regional and global markets are lead to sustainable growth of the sector. Several studies, have however, noted that that most developing countries

lack the basic infrastructure to provide communication services for SMEs and this impacts on their growth and survival (Dan-Jumbo & Ogbu Edeh, 2019, p. 164; Ledikwe, 2020, p. 4).

Business management skills contribute towards planning the strategies, directing the operations of the business, supervising and motivating employees, building effective networks, identifying distribution channels and making important decisions (Mbugua & Mbugua, 2019; Ngibe & Lekhanya, 2019, p. 19). Studies have shown that SMEs utilise business management skills to ensure the long-run performance of their firms (Mafoko, 2019, pp. 1-33; Mashavira, Guvuriro & Chipunza, 2022). These skills are useful when making important decisions using both internal and external information, including sales forecasts, budgeting, product quality assessment, detecting changes in the environment and marketing intelligence (Obaji, Olausu & Jumbo, 2019; Ledikwe, 2020, p. 15).

The role of customer relationship management skills on business performance on Ghana enterprises was investigated by Gyedu, Heng, Menyah and Oti-Frimpong (2021). The major finding of the study was customer relationship management skills positively influenced business growth and performance. Another investigation on factors that determine the performance of manufacturing SMEs in Botswana concluded that customer relationship management skills can help to improve product quality through feedback on products and services by customers (CEDA, 2020b, p. 30). A separate study by Mongwaketse (2021) concluded that SMEs in the tourism sector in Botswana lacked knowledge about the benefits of customer relationship management as a strategic tool to attract, manage and retain customers. Training was one of the strategies proposed by Mongwaketse (2021) to improve customer relationship management skills in order to increase sales and sustainability of business.

Tadu and Chiguvi (2019, pp. 113-118) reveal that strategic leadership skills can help SME owners/managers to streamline processes, increase the level of strategic productivity, promote the degree of creativity and innovation and cultivate an environment which promotes higher levels of employee productivity. Despite being promoted as key engines of economic and social development, SMEs have largely failed to be sustainable, partly because of lack of strategic skills of their owners/managers (Nyakudya, 2020, p. 251; Mpofu & Sibindi, 2022). Scholars (Pansiri, 2020a; Monyake *et al.*, 2020b, p. 466; Simon *et al.*, 2020) agreed that strategic skills can help SME owners/managers to deal with competition, source sustainable funding for their firms and decisions which help to ensure the survival, growth and sustainability of their businesses.

The effect of strategic management on firm performance was investigated by Addae-Korankye and Aryee (2021, pp. 222-230) on Ghana SMEs. The study revealed a significant the role of

strategic management on manufacturing SMEs in Ghana. The findings of a study by Gwakwa (2020, pp. 50-63) on SMEs in four African countries, including Botswana, also confirmed that innovation was a key enabler of strategic leadership in engineering and manufacturing firms which were investigated.

In order for a firm to realise increased sales and revenue, it must be exposed to the right market to sell its goods and services. SME owners/managers possess certain characteristics which may either lead to business success or failure (Baleseng, 2019, p. 4; Nyakudya, 2020, pp. 44-49). Pansiri and Yalala (2017) validate that lack of marketing skills implies that SME owners/managers will fail to identify the correct marketing mix for their products and services and will lead to loss of business to competitors. Van Sheers (2021) identified specific marketing skills which should be possessed by SME owners/managers; acquire a full understanding of the market and potential opportunities arising from the market, appreciation of the market segmentation, performing a market needs analysis, strategies to access finance, education and training, product/service competitiveness, and the actual marketing of products and services.

Interpersonal skills have the capacity to assist SME owners/managers to acquire complex knowledge, distribute tasks effectively, solve problems and maintain a positive attitude. According to Rankhumise and Letsoalo (2019) and Nyakudya (2020, p. 251), effective interpersonal skills help managers to seek critical resources and improve job performance leading to the success and growth of a firm.

A study on factors that affected the performance of SMEs in South Africa and China by Rankhumise and Letsoalo (2019) found out that it was imperative for SME owners/managers in SMEs in the two countries to acquire good managerial skills like planning, interpersonal skills, communication skills and computer skills. Mashek (2021) conducted a study on coping strategies used by women-owned small business in Botswana during the Covid-19 pandemic and noted that women-owned businesses were more exposed to failure than male owned business because of lower levels of interpersonal and digital skills in female entrepreneurs. The study by Mashek (2021) recommended more education and training of women in order to them to increase the chances of survival and growth of their businesses during the pandemic.

A business plan acts as a blueprint of a business and gives guidance and direction on the way business utilises different types of resources in order to achieve organisational objectives (Mbugua & Mbugua, 2019; Mashavira *et al.*, 2022). A study by Ngibe and Lekhanya (2019, p. 15) confirmed the importance of business planning as one of the key skills that an SME owner/manager should possess. According to Ngibe and Lekhanya (2019, p. 15) business plans help owners/managers in the day-to-day operations of their businesses and increase the success

of these businesses. The importance of business planning is also confirmed in study by Moyo (2019) who noted that SME owners/managers considered business plans as the second most important factor which impacts on SME growth and sustainability

Good financial management skills are critical to SMEs where the exposure to insolvency is quite high (Chileshe, 2019, p. 1; Folajinmi & Peter, 2020, p. 90; Nyakudya, 2020, p. 251). With financial management skills, SME owners/managers to make important decisions on planning inventory, pricing, acquisition of assets leading to an increase in the overall value of a business. The main objective of financial management in an SME is to realise optimal profit, both in the short and long term. The profit generated can help a firm to increase its survival rate and achieve sustainable growth.

A study by Folajinmi and Peter (2020, p. 90) on poultry production SMEs in Nigeria concluded that financial management skills like budgeting, capital structure management and working capital management have a significant positive effect on the productivity of a firm. There appears to be a gap between financial management skills and their contribution towards SME requirements.

A study by Mbogo and David (2021) on the impact of financial literacy on South African SMEs concluded that SME owners/managers lack the requisite financial literacy skills to sustain their business. Aspects like budgeting, borrowing, expenditure and savings were not considered to be important by South African SMEs (Mbogo & David, 2021). These challenges negatively affected the growth and sustainability of firms. A previous study by Fatoki (2015, p. 145-149) concurs with the findings by Mbogo and David (2021) and notes that SMEs in South Africa have low financial literacy skills and this negatively affects their ability to access finance from commercial banks.

Technical skills equip SME owners/managers with specialised knowledge and expertise that is needed to execute specific tasks using specific tools in real-world situations. Different SME sectors require different suites of technical skills. With technical skills, SME owners/managers are able to share information both up and down the organisational communication hierarchy.

3.5.2 Challenges faced by SMEs in acquiring managerial skills

A systematic literature review by Shaikh *et al.* (2021) concluded that lack of technical skills and efficiency, technology adoption challenges, cost of technology and infrastructure and lack of government support were critical factors impacting on the challenges faced by SMEs in technology adoption.

SME owners/managers require project management skills to effectively coordinate the operation of a business from start to finish (NDP 11, 2017; Machera, 2020; Rapitsenyane *et al.*, 2023). These skills provide overall leadership skills to SME owners/managers by equipping them with skills to define goals, set up plans, compile budgets, track changes in business processes, assign tasks to employees, define milestones and deliverables and balance priorities. Project management skills are quite complex in nature and are generally overlooked by SME owners/managers as critical skills which are relevant to the management of firms (Magang & Magang, 2019).

Lack of coordination was attributed to poor delivery of projects in manufacturing SMEs in Iran (Mohammadjafari *et al.*, 2021). Mohammadjafari (2021) further highlighted that poor coordination increased both time and costs related to new product design, planning, production and procurement effort in the development of new products by SMEs.

Digital skills are increasingly connected to the way business is performed. It is, thus, imperative to promote the teaching and learning of digital skills to SME owners/managers (NDP 11, 2017; Mmapula & Diraditsile, 2019, pp. 171-176). Digital skills are more crucial in developing countries since they enable SMEs to rapidly break geographical and financial barriers, access global markets and increase their growth and sustainability (NDP 11, 2017; Mongwaketse, 2021; Rapitsenyane *et al.*, 2023). These skills are important to SMEs because they help to raise brand awareness, improve customer relationships, generate leads and increase sales revenue. Through the use of digital skills, SMEs can reduce the time to market of their products, provide additional innovative services, improve supply chain management and logistics, improve product quality and increase return on research and development (European Commission, 2019).

Whilst digital skills have the potential to unlock the value of technologies like e-commerce, Internet of Things, robots and artificial intelligence; significant barriers for the utilisation of these technologies by SMEs are lack of skilled human resources and insufficient funds to acquire the technologies (European Commission, 2019). For example, an Australian study by Ollerenshaw, Corbett and Thompson (2021) observed that SMEs face challenges to utilise digital technologies for entrepreneurial advancement.

Soft skills influence how SME owners/managers can work or interact with others. For a small business, possession of soft skills can lead to attraction and retention of customers, improve presentation skills, manage conflict more effectively, and establish robust networks with trading partners. Scholars have attributed the possession of soft skills in managers to higher levels of

productivity which results in sustainable growth and competitiveness of firms. Soft skills contribute towards successful innovation strategies by SMEs.

A study by Sarker (2021) on innovation by Malaysian SMEs concluded that soft skills like teamwork, leadership, critical thinking and positive attitudes are the most useful skills that help entrepreneurs to be innovative and successful. An investigation by Rankhumise (2022) on factors contributing to business success on South African SMEs revealed that managerial skills like financial management, personal attitude, computer literacy and customer relationship management contribute towards business success and sustainability. One of the challenges affecting access to finance to Botswana manufacturing entrepreneurial was lack of technical and soft skills (CEDA, 2020b, p. 91).

Whilst soft skills are there to create a positive working environment, hard skills exist to successfully execute technical tasks in a job. SME owners/managers can increase productivity through the use of hard skills. Scholars (Rudhumbu, du Plessis & Maphosa, 2020; Matsongoni & Mutambara, 2021) have generally agreed that hard skills can be acquired through continuous training and are more difficult to transfer to another individual than soft skills. SME owners/managers can leverage on hard skills which they possess to create sustainable competitive advantage since their competitors will find it difficult or impossible to imitate these skills. Compared to soft skills, hard skills can be used as resources which can lead to survival, growth and sustainability of SMEs (Mafoko, 2019, p. 13).

Matsongoni and Mutambara (2021) investigated informal SMEs in Zimbabwe and concluded that entrepreneurial and managerial skills were low amongst SME owners/managers and could be improved through training. This lack of skills negatively impacted on the survival, growth and sustainability of SMEs that were investigated. Rudhumbu, du Plessis and Maphosa (2020) investigated challenges and opportunities of women entrepreneurs in Botswana and concluded that lack of training leading to lack of technical skills and lack of knowledge of marketing strategies were some of the challenges facing women entrepreneurs in Botswana. The study recommended that entrepreneurial education and training offered opportunities for women entrepreneurs to enhance their technical skills.

Despite their scarcity, it is universally agreed by scholars in both small and large businesses that soft skills are more relevant at strategic or top management (Majid, Eapen, Aung & Oo, 2019; Webber, Lee & Crawford, 2020; Mabe & Bwalya, 2022; Munir, 2022). Majid *et al.* (2019) proffered that technical skills have been identified as being more important at lower levels of management. The type of task to be executed and the industry in which a firm is operating are

also important differentiators of the type of skills which apply to management (Pontes *et al.*, 2021; Munir, 2022).

3.5.3 Summary of reviewed factors of managerial skills on SME survival and growth

Table 3.5 depicts a summary of literature reviewed on factors of managerial skills on SMEs.

Table 3.5: Factors of managerial skills on SMEs

Firm-specific factors	Main aspects	Authors
Drivers of managerial skills	Continuous training of SME owners/managers develops managerial skills. Education and training in digital and computer skills for SME owners/managers. Government support through funding for training and development of SME owners/managers.	European Commission, (2019), Majid <i>et al.</i> , (2019), Mmapula and Diraditsile, (2019, pp. 171-176), Rudhumbu <i>et al.</i> , (2020)
Contribution of managerial skills	Managerial skills help with information sharing and providing feedback. Through managerial skills, planning of business strategies, supervising and motivating employees, building effective networks, identifying distribution channels and making important decisions becomes possible. Managerial skills help firms to be innovative and creative. Streamlining of processes, enhancing the level of strategic productivity, promoting the degree of productivity and creativity, and cultivating an environment which promotes higher levels of employee productivity are further contributions of managerial skills.	Baji <i>et al.</i> , (2019), Mafoko, (2019, pp. 28-29), Ngibe and Lekhanya, (2019, p. 15), Ledikwe, (2020, p. 15), Abisuga-Oyekunle <i>et al.</i> , (2020, pp. 415-419), Gyedu <i>et al.</i> , (2021), Owusu, (2021), Tebetso, (2021), Obasi, (2023)
Challenges encountered in developing financial management skills	Lack of managerial skills will result in SME owners/managers failing to identify the right marketing mix for their products and services leading to business failure. Lack of funds to train SME owners/managers	European Commission, (2019), Magang and Magang, (2019), Matsongoni and Mutambara, (2021), Mongo and David, (2021), Shaikh <i>et</i>

	and to acquire technology. Most SMEs lack financial literacy skills which impact on their business planning, budgeting and capital structure management.	<i>al.</i> , (2021)
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Source: Compiled by the Researcher

3.5.4 Applicability of reviewed factors of managerial skills to the current study

The literature review presented in the preceding sections highlighted the importance of managerial skills in the operations of SMEs in different economic sectors. Managerial skills can be used for strategic planning purposes, directing firm operations and ensuring that resources are efficiently utilised in order for the business to increase its survival and growth chances and achieve sustainable competitive advantage. Various scholars have highlighted that managerial skills can be used to motivate the workforce, acquire new technology, provide SME owners/managers with the capacity to access finance and seek new markets for the business. There is evidence from the literature review that most business failure is caused by lack of managerial skills by SME owners/managers. Lack of government support and lack of finance to train SME owners/managers are also causes of failure by SME owners/managers in acquiring managerial skills. These challenges eventually result in business failure.

Developing managerial skills is also a priority in Botswana and the government and private sector partners have put in place measures that help to ensure that both SME owners/managers and the workforce employed in SMEs acquire different firms of skills for the benefit of these firms. Organisations like CEDA, LEA, HRDC, secondary schools and tertiary education institutions have been brought on board in order to ensure that managerial skill training is prioritised for the benefit of SMEs and other sectors of the economy. Concerted effort has been made in areas like venture creation, business planning, records management, business proposal writing and financial planning in order to equip SME owners/managers with the skills that help them to manage their business and ensure their survival, growth and sustainable competitive advantage.

There is, however, sufficient evidence to confirm that multiple gaps still exist as far as imparting managerial skills to SMEs is concerned. Institutions and agencies targeted to deal with managerial skills training are hampered by lack of resources (material, financial and human) and this is negatively affecting the operations of SMEs in Botswana. Several studies have been conducted on the challenges that are faced by firms from a skills perspective, but the situation has not improved. This research aims to investigate current challenges that impact manufacturing firms from a managerial skills perspective. The use of both qualitative and

quantitative methods in this research may offer unique insights into the problem and recommend measures that can be used to develop managerial skills of local manufacturing firms in Botswana. The findings will also contribute towards new knowledge and understanding on the body of knowledge of managerial skills in manufacturing firms.

3.6 RESEARCH GAPS

The literature review has further attributed the slow growth and stagnation of manufacturing SMEs to weaknesses in human capital development, lack of access to finance and shortage of various forms of skills (both managerial and employee-related). The literature review also analysed financial and managerial skills that impact on the growth and sustainable competitive advantage of SMEs. The literature review has exposed human capital development gaps that exist in SMEs, including the small size of SMEs and lack of financial resources, failure to prioritise employee training, high employee turnover and low employee morale, and lack of government support and capacity development in equipping SMEs with human capital (Domeher *et al.*, 2019, pp. 162-188; Abisuga-Oyekunle, 2020, pp. 415-419; Nyakudya, 2020, pp. 44-49; Tebetso, 2021). This study will compare and contrast the two perspectives – the views from literature and empirical findings from the current research and draw conclusions which can be used as new knowledge and more informed understanding of factors that impact on the survival, growth and sustainable competitive advantage of manufacturing firms in Botswana.

Access to finance has also been reviewed and many researchers and strategists have affirmed that lack of access is probably the most pressing challenge impacting on the survival and growth of SMEs. These challenges include the riskiness of SMEs in loan provision, limited sources of finance, the requirement for collateral, high interest rate, high loan default rate, short loan repayment period, lack of records keeping by firms, long and tedious loan application process, lack of government support and lack of training of SME owners/managers (Korutaro *et al.*, 2017, p. 354; Guruwo, 2020, p. 2; Kubanji *et al.*, 2021 pp. 330-348; Molefi, 2021, p. 5; Sivotwa *et al.*, 2022, p. 1). This research explores the challenges that impact on access to finance by manufacturing SMEs in Botswana. The identified gaps and results of the findings from the current research will help in understanding the problem and in building a consolidated framework that will be used to assist SMEs to access and efficiently manage financial resources.

SMEs require different types of skills to manage their operations. These skills include both financial management and managerial skills which are used by SMEs for planning, directing and execution of business operations, making critical business decisions, communicating and giving feedback within and outside the firm, networking and collaborating with business

partners, and managing risk in business processes. SMEs also face challenges in acquiring and utilising available skills, including lack of resources to train management and employees, inadequate government support, and skills mismatch between the industry and the education sector (Abisuga-Oyekunle *et al.*, 2020, pp. 415-419; Folajinmi & Peter, 2020, p. 90; Nyakudya, 2020, p. 122; Owusu, 2021; Tebetso, 2021; Obasi, 2023). The current study will gather and analyse data in order to close the gaps which have been identified during literature review and provide recommendations to SMEs, the government, education sector and agencies involved in SME skills training. These recommendations may result in new policies, guidelines and strategies that can be used to enhance skills development for the manufacturing SMEs in Botswana.

Different theories were also used to explain empirical findings in the case studies presented in the literature review (Robinson, Saldanha & McKoy, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017). Each theory has its own benefits and drawbacks and this could have led to conflicting interpretations and findings by the different scholars who investigated the challenges facing SMEs. These different interpretations also led to varying conclusions which could have been flawed and have not properly informed related studies. This study attempts to be innovative by consolidating two theories that impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs and also takes precautions to deal with the weaknesses of previous theories and the possible misinterpretations of the findings from related studies.

3.7 SUMMARY

The literature review explained that the major challenge facing the survival, growth and sustainability of manufacturing SMEs was lack of access to finance. Financial institutions consider SMEs to be risky because of lack of collateral, lack of business plans and financial statements and high default rate associated with SMEs. The challenges of human capital development have also been extensively discussed and the main issues exposed are lack of financial support from governments to train firm management and employees, the small size of SMEs, high employee turnover, low employee morale and loss of staff to the government and private sector.

Financial and managerial skills were also discussed and their contribution towards the survival, growth and sustainability of SMEs explained. The challenges that impact on the survival and growth of firms from a skills perspective were mentioned as lack of infrastructure, overlooking the importance of certain skills (for example, project and risk management), and the high cost of technology to support SME skills.

The next chapter, Chapter 4, focuses on theoretical and conceptual framework of the study. The chapter on theoretical and conceptual framework presents and justifies the blueprint for the entire thesis inquiry on sustainable competitive advantage of manufacturing SMEs and provides the structure of how the research will be philosophically, epistemologically, methodologically and analytically approached as a whole.

CHAPTER 4 – THEORETICAL AND CONCEPTUAL FRAMEWORK

4.1 INTRODUCTION

This chapter presents and explains the theoretical and conceptual frameworks that underpin the research. A theoretical framework is an overview of the entire thesis inquiry and functions as the guideline on which the research is built on and supported (Hughes, Davis & Imenda, 2019; Mensah, Agyemang, Acquah, Babah & Dontoh, 2020). Mensah *et al.* (2020) assert that a theoretical framework provides the foundation to outline how the research will be philosophically, epistemologically, methodologically and analytically approached. Any theoretical framework must consist of three basic elements which are a conceptual model, a theory or theories and a number of concepts and propositions. A conceptual framework consists of one or more formal theories, together with other concepts and empirical findings from literature.

Theoretical frameworks are used to identify a gap in the knowledge and provide a justification for conducting the research (Elmhadhbi, Karray, Archimède, Otte & Smith, 2020; Islam, Parvez & Alam, 2021, pp. 1-15). Elmhadhbi *et al.* (2020, pp. 1-15) further elucidate that a conceptual framework helps to uncover and elucidate what the researcher already knows and values as central to a research and then combines this information with other aspects of the research to depict relationships amongst those ideas and how they relate to the research. Ngulube and Mathipa (2015) assert that a conceptual framework can either be illustrated graphically or presented in narrative format or both. It is used to focus and set boundaries of a research. When used together, a theoretical and a conceptual framework give a researcher the ability to justify the purpose and relevance of the study in the area being investigated and to provide ample academic rigour in preparing for a coherent study (Hooijmaaijers, 2021).

4.2 UNDERPINNING THEORIES

The following sections present and explain the two major underpinning theories that are used in this thesis. These are the resource-based theory and the value chain model.

4.2.1 The resource-based theory

The resource-based theory (RBT) has been extensively used by scholars (Ariyani & Daryanto, 2018, pp. 9-14; Holford, 2018; Khattak & Ullah, 2021, pp. 1619-1637) to explain how firms are able to survive, grow and achieve sustainability using their strategic resources and capabilities. Similarly, the value chain model and knowledge-based theory (KBT) have been used by some scholars (Aboelmaged, 2018, pp. 207-210; CEDA, 2020b, p. 112; Appiah, Possumah, Ahmat & Sanusi, 2019, pp. 37-53; Karedza & Govender, 2020, p. 72), to explain how firms are able to achieve growth in the markets that they operate in.

The resource-based theory (RBT) contends that a firm that possesses strategic resources provides it with the opportunity to develop a competitive advantage over its rivals. This competitive advantage will ultimately result in strong profitability of the firm (Kiyabo & Isaga, 2019, pp. 1-23; Huemer & Wang, 2021). Kiyabo and Isaga (2019, pp. 1-23) define a strategic resource as an asset that is valuable, rare (or heterogeneous), difficult to imitate (or immobile), and non-substitutable. A strategic resource is valuable when the firm is able to use the resource to develop strategies that capitalises on opportunities and wards off threats. The RBT argues that a resource is rare if it can only be obtained by one or two firms, since possession of such resource by a few more firms will lead to competitive parity (Kiyabo & Isaga, 2019, pp. 1-23; Gerhart & Feng, 2021; Holford, 2018).

Resources that are difficult to imitate cannot easily duplicated by rivals (Iruthayasamy, 2021). Legal means like patents, trademarks, copyrights, can also help a firm to deny rivals from imitating its resources or capabilities. Other resources are difficult to imitate because they evolve within a firm over a long period of time and reflect unique characteristics of the firm. When competitors cannot identify alternative ways of obtaining the benefits that a firm's resource offers; then the resource is a non-substitutable resource (Iruthayasamy, 2021; Ariyani & Daryanto, 2018, pp. 9-14).

Ariyani and Daryanto (2018, pp. 9-14) contend that when a firm has resources that embrace all the four attributes (value, rarity, non-imitability, non-substitutability), then the resources will not only provide competitive advantage, but will be able to acquire sustainable competitive advantage. Such a firm will be able to endure over time and be able to realise success in the long term. According to Kiyabo and Isaga (2019, pp. 1-23) and Holford (2018) a firm can have resources that do not have all the four attributes and be successful but such a firm is unlikely to achieve long-term competitive advantage. Competitors will eventually be able to overcome the firm's competitive advantage.

The tangibility of a resource is an important consideration of the RBT. A firm’s resources can either be tangible or intangible (Amayi, 2019; Anugo & Shakantu, 2020). Anugo and Shakantu (2020) assert that tangible resources are physical and quantifiable resources like land, plant, equipment and cash. On the other hand, intangible resources are quite difficult to see or quantify and include skills and knowledge of firm employees, firm organisational culture, brand and reputation of the firm. When compared together, intangible resources are more likely to be more important strategic resources of a firm (valuable, rare, difficult to imitate, nonsubstitutable) than tangible resources. According to Holford (2018) firms that strive to cultivate intangible resources are more likely to achieve sustainable competitive advantage than those that capitalise on tangible resources. Teece (2018) further explains that firms can develop dynamic capability where they have distinct capability of developing new capabilities. This may include developing new products, rebranding, and mergers and acquisition of other firms. Such strategies help firms to achieve long-term competitive advantage over their rivals. Figure 4.1 illustrates the RBT diagrammatically.



Figure 4.1: Diagrammatic Representation of the Resources Based Theory

Source: Rothaermel, 2012

The RBT has dominated theories of firms because of its ability to explain how small firms can capitalise on their internal, scarce resources and capabilities to gain competitive advantage over their rivals. Firms that are able to efficiently utilise their intangible resources can succeed in their industry and realise sustainable competitive advantage. The RBV theory has been extensively applied to firms in different sectors and empirical findings from firms investigated

confirm this theory (Appiah, Possumah, Ahmat & Sasuni, 2019, pp. 37-53; CEDA, 2020b, p. 112; Karedza & Govender, 2020, p. 69).

A mixed method study of 345 SMEs in Harare by Karedza and Govender (2020, p. 68) concluded that whilst distinctive capabilities play an important role in improving the export performance of SMEs, its impact on Zimbabwe manufacturing SMEs is not significant. A cross-sectional survey by Appiah, Possumah, Ahmat and Sanusi (2019, pp. 37-53) on 245 Ghanaian SME owner/managers operating in the oil and gas industry confirmed that the RBT can be used to explain how firms can utilise their internal resources (investment capital, legal status, firm size, type of ownership and location of investment). The study by Appiah *et al.* (2019, pp. 37-53) confirmed that firms with large investment capital, larger fixed assets, more business stability and reinvest their profits) are more likely to succeed in their industries than those that do not efficiently utilise their internal resources and capabilities. A study by CEDA (2020b, pp. 34-54) on Botswana manufacturing SMEs revealed that most SMEs face export challenges due to lack of finance, lack of business acumen, lack of marketing skills and failure to repay loans. Whilst the study did not specifically mention internal resources, there is sufficient evidence from the study by CEDA (2020b, p. 116) that a firm's internal resources significantly impact on its export performance.

The suitability of the RBT in assessing the strengths and weaknesses of a firm's internal capabilities has been largely investigated. For example, a study by Roostika (2019) concluded that internal firm capabilities (marketing, learning and innovation) are key determinants for a firm's sustainable competitive advantage. Another study by Haan-Cao (2022) revealed that the RBT helps SME owners/managers to identify their internal capabilities and be more capable of identifying their strengths and weaknesses in order to survive, grow and gain sustainable competitive advantage on their rivals. Aboelmaged (2018, pp. 207-210) investigated 238 Egyptian manufacturing SMEs with the aim of identifying drivers of sustainable manufacturing practices and found that management support and engagement of employees positively influenced sustainable manufacturing practices.

Despite its apparent strengths, RBT has shortcomings as a suitable theory to fully explain the behaviour of a firm as far as capitalising on its scarce resources and capabilities is concerned. Whilst RBT can be used to identify a firm's internal resources and capabilities that can be utilised to gain sustainable competitive advantage, it is not possible to use this theory compile an empirical research to measure performance. Due to the heterogeneity of firms, it is difficult or almost impossible to identify a homogeneous sample of firms to test RBT. Lastly, RBT does not consider the demand side of the market.

To offset the shortcomings of RBT, some scholars (Zizile, Tendai, 2018; Lafuente & László, 2021; Battisti, Nirino, Leonidou & Thrassou, 2022, pp. 1068-1060) have integrated RBT with other theories in order to obtain a more comprehensive hybrid theory that can be used to identify firm resources and capabilities that can be used to achieve sustainable competitive advantage.

Several factors that impact on the growth, survival, growth and sustainability of manufacturing SMEs are caused by internal firm challenges like lack of tangible resources (assets, human capital, infrastructure) and intangible resources (managerial skills, financial skills, business acumen, creativity and innovation). The RBT postulates that when firm management capitalises on internal resources and efficiently employs these resources, the firm can realise growth and achieve sustainable competitive advantage over its rivals. This justifies the application of RBT in this research.

4.2.2 Value Chain Model

The Value Chain Model (see Figure 4.2) is a strategic management framework that can be used by different sizes of firms, including SMEs, to create competitive advantage by increasing productivity whilst keeping costs down (Porter, 1985; Muriithi, 2018; Gongxeka, 2020; Bag *et al.*, 2021, pp. 32-51; Mtisi & Govender, 2022).

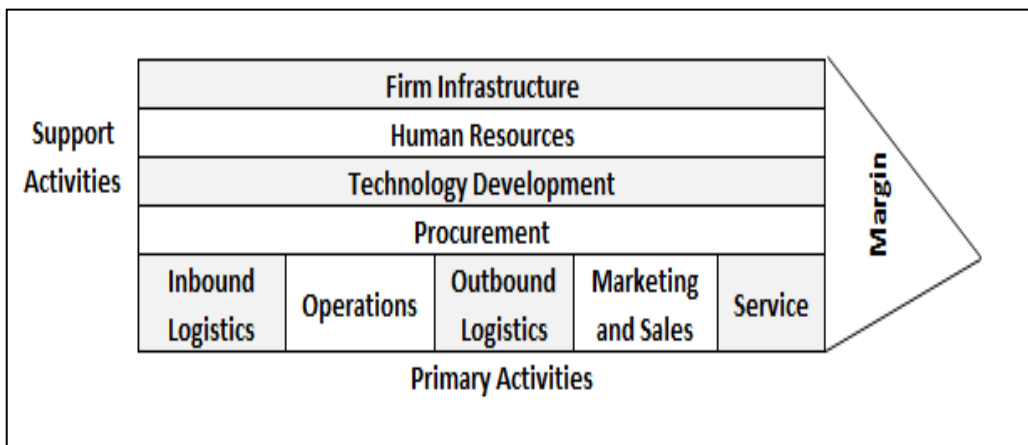


Figure 4.2: Porter's Value Chain Model

Source: Porter, 1985

The Value Chain Model is particularly useful to manufacturing companies because they mainly deal with the conversion of raw materials into finished products. A value chain can be used to map each stage of the production process to the model and identify those activities that can yield the best value to customers. da Luz Peralta, Echeveste, Lermen, Marcon and Tortorella (2020, p. 2) explained customer value as consisting of three primary activities- activities that

differentiate products; activities that reduce costs; and activities that meet customer needs. Panggabean, Dalimunthe, Asih, Perwitasari, Aditia and Dalimunthe (2021) opine that value chain analysis can be used to help manufacturing firms to identify strategies that can be deployed to create value to fulfill customer needs by contributing to different activities.

The value chain depicts total value, and shows value activities and margin. Ngorima and Msweli (2022) explain value activities as consisting of physically and technologically distinct activities that a firm performs. These activities are the foundation on which a firm develops a product that is valuable to its buyers. Margin is defined as the difference between total value and collective cost of undertaking the value activities (Muller & de Klerk, 2020). There are numerous ways in which margin can be established. Supplier and value chains also involve a margin that is important to isolate in comprehending the basis of a firm's cost position, because suppliers and channel margin are components of the total cost paid by the buyer.

Value activities consist of purchased inputs, human resources (managerial skills and workforce capacity), and technology to execute the firm's functions. Information such as buyer data, performance characteristics and product quality metrics are used by each value activity. Value activities can also be used to generate financial assets like inventory, accounts payable, accounts receivable and liabilities (Bag, Dhamija, Pretorius, Chowdhury & Giannakis, 2021, pp. 32-51).

Porter (1985) allocated value activities to two broad categories, primary activities and support activities. Primary activities consist of those activities where the product is created, sold and delivered to the buyer, including after sales assistance. Primary activities for any firm can be grouped into five generic categories; inbound logistics, operations, outbound logistics, marketing and sales, and service. Support activities are there to augment the primary activities and each other through the provision of purchased inputs, technology, human resources, and a variety of firm-wide functions. Firm infrastructure does not support any particular activity but exists to support the whole chain (Atiase, Agbanyo, Ameh, Sambian & Ganza, 2022, pp. 31-44).

Value activities are therefore the basic building block for a firm's competitive advantage (Bag *et al.*, 2021, pp. 32-51). The manner each activity is executed together with its economics will predict whether the firm is high or low cost when compared to its rivals. Fernandez-Stark and Gereffi (2019, p. 54-76) proffer that the way each value activity is conducted will also determine its contribution to buyer needs and hence differentiation. When a firm compared its value chain with those of its rivals the result is firm differences that can be used to establish competitive advantage. In order to identify activities in a value chain, there is need to isolate activities that are technologically and strategically distinct. The various activities will be briefly discussed.

The five categories of primary activities which included inbound logistics, operations, outbound logistics, marketing and sales and service are briefly explained in the following sections (Gongxeka, 2020; Hoffman & Schenck, 2020; Mtisi & Govender, 2022). Inbound logistics consists of activities that are associated with receiving, storing and delivering inputs to the product, like handling of raw materials, warehousing, inventory control, fleet management, and returns to suppliers. Outbound logistics are activities dealing with the collection, storage, and physical distribution of the product to the buyer, like finished goods warehousing, material handling, delivery vehicle operation, order processing and scheduling.

Operations are activities that are associated with converting inputs into finished product, and include machining, packaging, assembly, equipment maintenance, testing, printing, and facility operations. Marketing and sales include activities that focus on offering a way in which buyers can purchase the product and convincing them to do so, like advertising, promotion, sales force organisation, quoting, channel selection, distribution channels, and pricing (Mafini & Loury-Okoumba, 2018).

Service consists of activities that deal with providing service to improve or maintain the value of a product, such as installation, training, warranty, parts supply, product adjustment, and after sales service (Mathu, 2021).

Each category of the value chain can be a source of competitive advantage depending on the firm's industry. For example, for a service firm like a bank, inbound and outbound logistics may not be useful but marketing and sales may be the greatest source of competitive advantage. For a manufacturing firm, all the five categories may be a source of competitive advantage and a firm may identify a specific category or categories that offer it the most competitive advantage over rival firms in the same industry (Mafini & Loury-Okoumba, 2018).

Support activities can be classified into four generic categories and as with the primary activities, each category of support activities can be decomposed into distinct value activities that are unique to a given industry. For example, a technology-related activity may focus on artifact design, product testing, process engineering and selection of the most appropriate technology. Similarly, the activity procurement can be subdivided into activities such as screening new suppliers, procurement of different groups of purchased products, and continuously monitoring the performance of suppliers (Gongxeka, 2020; Hoffman & Schenck, 2020; Mtisi & Govender, 2022).

Procurement refers to activities associated with purchasing of inputs employed in the value chain of the firm; the inputs that are purchased include raw materials, supplies, machinery, laboratory equipment and office equipment. Technology is involved in every value activity,

including knowledge, processes, or technology which comes together with machinery. Technology is used in a wide array of activities from document processing, conversion of raw materials into finished products, and transportation (Mafini, Dhurup & Madzimure, 2020). Kanyoma, Agbola and Oloruntoba (2018, pp. 111-115) further state that the purpose of technology development is to ensure that there is significant improvement in products and the actual processes that develop the products. Whilst technology development can be associated with specific primary or support activities, it can also impact on the entire value chain. Technology can be the greatest factor in creating competitive advantage for a firm.

Human resource management includes activities that cover recruitment, hiring, training, development and compensation of all types of employees. Human resource management supports the effort of both primary and support activities and the entire value chain (Matsongori & Mutambara, 2018; Muriithi, 2018). Human resource management occurs in different areas of a firm, like other support activities. Human resource management impacts on a firm's competitive advantage through employment of skilled workers, motivating employees, and the cost of hiring and training employees. Continuously improving the skills of employees can draw significant competitive advantage of a firm in the industry that it is operating in (Acquah, Agyabeng-Mensah, & Afum, 2020, pp. 267-270).

Firm infrastructure includes a number of administrative activities like planning, general management, legal, finance, government relations and quality management. Unlike other activities, firm infrastructure supports the entire value chain rather than specific activities (Jayashree, Reza, Malarvizhi & Mohiuddin, 2021).

4.2.3 Conducting the value chain analysis

There are two main strategies that are used by firms to conduct value chain analysis: cost and differentiation advantage (Maziti, Chinyamurindi & Marange, 2018; Fatoki, 2021, p. 223; Gomwe, Potgieter & Litheko, 2022).

A firm pursuing the cost advantage strategy competes against its rivals on cost and identifies the cost drivers associated with each activity such as raw materials, manufacturing and labour. The firm analyses the linkages between the activities in order to appreciate how they are interrelated. It may be possible, for example, to include automation on a particular process in order to reduce labour costs and improve quality. Firms can also outsource non-core activities to third parties in order to capitalise on what they can perform most efficiently. Costs like warehousing, order fulfillment and transportation can be significantly lowered through outsourcing and competitive advantage is realised in the process (Maziti, Chinyamurindi & Marange, 2018; Fatoki, 2021, p. 223; Gomwe, Potgieter & Litheko, 2022).

Firms that adopt differentiation advantage focus on product quality and exclusivity, and customer service in order to deliver more value to customers. The main focus of differentiation advantage is to give greater attention towards those activities that customers value the most, and then identify strategies to processes in those activities with the objective of increasing differentiation in those activities (Maziti, Chinyamurindi & Marange, 2018; Fatoki, 2021, p. 223; Gomwe, Potgieter & Litheko, 2022). ‘

The original value chain model identified ten cost drivers which are explained in Table 4.2 below:

Table 4.2: Porter’s Ten Cost Drivers

Cost driver	Description
1. Economies of scale	Economies of scale occur when a firm is able to perform activities differently and more efficiently at higher volumes. Production and unit costs are reduced and this helps a firm to sell products at lower prices than rivals.
2. Learning	Learning includes changes to factory setup, improved scheduling of activities, improvements to labour utilisation and modification of product design. These changes result lower costs over time and creates competitive advantage for the firm.
3. Capacity utilisation	Capacity utilisation refers to the manufacturing or production capabilities that are being utilised by a firm at any given time. This can be used by a firm as a source of competitive advantage, especially when compared with that of a rival firm in the same industry.
4. Linkages among activities	Linkages, both horizontal and vertical linkages, create the opportunity to lower production costs through economies of scale and reduce competition, hence increasing competitive advantage. Firms can increase their market share through horizontal integration and dominate a supply chain through vertical integration. Both strategies result in enhanced competitive advantage.
5. Interrelationships among business units	Interrelationships occur when each firm unit has a relationship with the other units inside the firm. There is need for effective

	communication and close coordination amongst the units. Whilst each unit has its own goals, the combined effort of these goals is to ensure that the firm achieves its strategic goals.
6. The degree of vertical integration	Vertical integration exists when one firm expands its business by taking over one or more stages in the production or distribution of a product. The effect of this approach is to enable a firm to consolidate its position amongst competitors.
7. The timing of market entry	The time at which a firm enters the market may help it to gain first-time advantage and can result in either sustainable cost advantage or a short-term cost advantage. By being the first to introduce a product into the market, the firm is able to establish a strong brand recognition and customer loyalty before competitors enter the market.
8. Firm's policy of cost or differentiation	The policy choices that are made by a firm determine the cost of value activities. Certain types of choices play the greatest role on cost and include level of service provided, delivery time, product features and performance, number of customers who are served, mix and variety of products delivered, technology chosen in production line, the quality of raw material used, and human resource policies.
9. Geographical location	The geographical location of a value activity has a significant impact on production costs. However, most firms do not always appreciate the effect of location of their business on cost. Location provides visibility to customers and products and helps to increase sales.
10. Institutional factors (government regulations, unionisation of employees, taxation)	Issues like government regulations, taxation, unionisation of employees, and tariffs and levies, consist of the final major. Firms can capitalise on favourable government regulations (such as lower taxation, tariffs) to reduce the cost to buyers and realise competitive advantage in the process.

Source: Compiled by the Researcher

Identifying cost drivers helps a firm to obtain a ground-level appreciation of the various processes that the business uses to produce goods and the purpose of each process. Current and future bottlenecks can be identified, together with other inefficiencies in the production process. The firm is also able to identify processes that can result in lower costs through automation, outsourcing or redesign. Identification of cost drivers also helps a firm to eliminate waste and reduce or marginalise unproductive activities. The end result is a streamlined workflow and improved efficiency that can result in increased profit margin for a firm (Maziti, Chinyamurindi & Marange, 2018; Fatoki, 2021, p. 223; Gomwe, Potgieter & Litheko, 2022).

Value chain analysis has been used by multiple researchers and strategists (Gongxeka, 2020; Gwinji, Chiliya, Chuchu & Ndoro, 2020; Hoffman & Schenck, 2020; Mtisi & Govender, 2022) to explain how firms can analyse their value chain activities in order to identify those activities that can give them cost or differentiation advantage over their competitors and create value for their customers. Firms that are able to effectively analyse their value chains can achieve sustainable competitive advantage over their rivals in the same industry.

A study by Musara, Musemwa, Mushunje and Pfukwa (2019) on sorghum value chain analysis in Zimbabwe concluded that the production of sorghum could be improved using better seed varieties and fertilizers. The value chain analysis by Musara *et al.* (2019) revealed that the production of sorghum was compromised by selection poor quality and sometimes expired seed. This negatively affected the efficient linkage of the sorghum value chain. Hoffman and Schenck (2020) conducted an exploratory study on the value chain and activities of polyethylene terephthalate plastics in the South African waste economy. The study by Hoffman and Schenck (2020) identified job creation gaps and further opportunities to formulate policies that would promote plastic waste recycling as a source of both job creation and creation of a sustainable environment.

A case study on Botswana's grain milling industry by Tlhaolang and Gwangwava (2020) focused on developing constructive processes to improve the productivity of grain value chain. The study concluded that strategies such as continuous process improvement, improved production, and service quality and flexibility in the production process could help to turnaround the grain milling industry and improve food security in Botswana. Another study by Rapitsenyane (2019) analysed sustainable innovation in the context of business model innovation with the aim of resuscitating the stagnant manufacturing industry in Botswana. Rapitsenyane (2019) concluded that the manufacturing industry in Botswana could be rapidly transformed by redefining the traditional manufacturing model to fulfill customer needs. A value chain analysis of five factors was made - the value of understanding the context, the requirement for a mature customer service culture, building a positive mind-set through process

design, driving competitiveness and entrepreneurship development through sustainability targets, and reinvigorating the role of support intermediaries. The study by Rapitsenyane (2019) proposed a revised mix of products and services in order to create a business model that could be used to improve food security and the quality of life in Botswana.

The value chain model is a generic model. This means that it has to be suited to a particular industry in order for it to be effectively applied. The scale and scope of value chain analysis is quite wieldy. It can take a long period for an analysis to obtain a value chain analysis of a firm together with those of its competitors in order to fully understand the major differences and cost drivers. It is also difficult to relate the ideals of the original value chain model to the modern firm where technology and the Internet are the main drivers of both primary and support activities.

Despite its drawbacks, the value chain analysis is quite relevant to this study because of its orientation towards a manufacturing firm. The model also connects internal firm activities, which are relevant to the RBT, to external entities like suppliers (inbound logistic), buyers (outbound logistics), and export (local, regional and global) markets. The value chain analysis also acknowledges the impact of technology as a force that can help to improve both production and market access (Mtisi & Govender, 2022; Tlale, van der Westhuizen & Chinomona, 2022). These factors will help to build a more coherent conceptual framework of this study.

The main focus of the value chain is on improving efficiency in a firm's distribution and logistics and ensuring that the different activities that are conducted by a firm create value to customers. Whist the RBT theory is mainly focused on developing a firm's internal core competencies as a source of competitive advantage, the value chain model focuses on breaking down a firm's activities into strategically important components that can help management to obtain a clear impression of the firm's cost drivers and sources of differentiation, and then make changes appropriately (Agyabeng-Mensah, Ahenkorah & Osei, 2019, pp. 267-270). When used together, RBT and value chain model can help a firm to improve its business efficiency and use strategic resources that deliver value to customers and achieve sustainable competitive advantage (Hooijmaaijers, 2021).

4.3 CONCEPTUAL MODEL AND HYPOTHESES DEVELOPMENT

Elmhadhbi *et al.* (2020, pp. 1-15) and Islam *et al.* (2021) explained that a theoretical framework is used to identify a gap in the knowledge and provide a justification for conducting the research. This research is an exploratory study on how small and medium-sized manufacturing enterprises in Botswana achieve sustainable competitive advantage. Several factors impact on

the survival, growth and sustainability of manufacturing SMEs in Botswana. For example, Guruwo (2020, p. 109) and Shemi and Procter (2018) assert that lack of financial support from both commercial banks and the government seems to be the most common cause of low SME survival and growth rate. Findings by Masama and Brower (2018) separately explain that lack of collateral and financial management skills by SME owners/managers are also critical factors that impact on the survival, growth and sustainability of SMEs. The level of financial support and managerial skills are quite significant that they impact on the sustainability of SMEs. Government support through financial incentives, infrastructure and provision of policies that promote the development of SMEs play an important role in the growth and sustainability of SMEs. There is, however, evidence to suggest that government support is lacking for most SMEs in developing countries (Guruwo, 2020, p. 2; Molefe, 2020, p. 578-79; Mokwana, 2021). Additional challenges that impact on government effort to support SMEs include lack of infrastructure and human resources to support SMEs (CEDA, 2020b, pp. 34-54; Monyake *et al.*, 2020b, p. 466). These revelations imply that there exist additional gaps on the growth and survival and growth of SMEs as a result of inadequate government support. The level of creativity and innovation of manufacturing SMEs in Botswana has also been found to be lacking (Monyake & Kuruba, 2020, p. 1; LEA, 2020; Sekonopo *et al.*, 2023). This further points to significant gaps on additional factors that impact on the sustainability of manufacturing SMEs in Botswana.

The challenges established above highlight the importance of developing a theoretical framework for manufacturing SMEs to achieve sustainable competitive advantage, and such a framework must be developed using a combination of determinants of an SME's managerial skills, ability to access finance, innovation and creativity, human capital development, and availability of government support. Since the growth, survival, growth and sustainability of SMEs is determined by firm size, internal resources, access to finance and government support, it is important to develop a conceptual framework that helps to determine specific factors that lead to the success and sustainability of SMEs.

3.3.1 Firm-specific factors that impact on growth and sustainability of SMEs

Firm-specific factors relate to factors that are both internal and external to the firm. Internal factors that impact on the survival, growth and sustainability of SMEs are firm size, assets, product and service range, firm infrastructure, capital and finance, and registration. External factors are environmental related factors that are connected to the firm such as level of industry competition, distribution channels and suppliers, and marketing strategy. Firm size is defined as the total number of employees in an SME (Bhorat, Asmal, Lilenstein & Van der Zee, 2018, p. 9). Several studies (Grondys, Ślusarczyk, Hussain, & Androniceanu, 2021, p. 1; Namugenyi,

Nimmagadda & Reiners, 2019, p. 1151) have attributed firm size to firm efficiency, growth and profitability. A study by Mabandla and Makoni (2019) concluded that the size of a firm has a positive effect on a firm's financial performance. Grosse, Wocke and Mthombeni (2022, p. 1) further stated that firm size is an indication that the firm is experiencing growth and the market will respond positively through greater sales. Financial and non-financial factors are also positively associated with SME growth and sustainability. A study by Adam and Quansah (2019, p. 38) opined that an increase in a firm's debt ratio by one percent causes a decrease in firm profitability by almost one and half percent. The amount of capital invested in an SME positively contributes to the survival, growth and sustainability of these SMEs (Monyake & Kuruba, 2020, p. 1). Capital helps a firm to grow by providing assets that are needed to generate more revenue. A firm that expands physically is able to acquire new technology to improve the production process. However, most SMEs, especially in developing countries face challenges of accessing capital and this affects their survival, growth and sustainability (Majukwa, Fan & Dwyer, 2020; Njanike, 2019, p. 12).

The range of products and services available impacts on the revenue generated by an SME. However, limited capital to increase product lines has a negative impact on the profitability of SMEs since they cannot increase their stock levels (Muchaendepi, Mbohwa, Hamandishe & Kanyepe, 2019; Sathyamoorthi, Pritika, Dzimiri & Wally-Dima, 2019). Several studies have postulated that SMEs that are legally registered and licensed stand a better chance of accessing finance and negotiating contracts with suppliers of raw materials. However, many firms, especially in developing countries face bottlenecks when they attempt to register their businesses or acquire trading licenses. These bottlenecks include low literacy levels of SME owners/managers, corruption at registration and licensing service providers and the long process of registering businesses and acquiring trading licenses (Makiwa, 2018; Munga, Olweny & Yegon, 2021, p. 21).

Availability of a smooth and efficient distribution channels ensures that an SME is able to increase its sales volume and significant throughput and profits (Wakoli & Karanja, 2019). Nanedo and Donleavy (2018) further state that the existence of an efficient distribution channel helps to ensure that a firm achieves growth and success. Despite their advantages in helping to deliver goods to the market, most SMEs face challenges of intense competition, low-profit margins, supply chain uncertainties and erratic supply of inventory when establishing efficient distribution channels. Mrindoko (2022, p. 31) asserts that these challenges negatively impact on the success and sustainability of SMEs. Creating value to the customers through marketing is a strategy that is important for SMEs to generate revenue through sales. Studies by Das, Kundu and Bhattacharya (2020, pp. 204-209) and Wilson and Makau (2018) found that SMEs in developing countries face challenges of poor quality of produced goods, competition from

established companies, and lack of knowledge about the right platform to market their products and low levels of technology adoption. Thus, in light of the existing literature, it is therefore hypothesised in the current study that with regard to the sampled SME owners/managers:

H1: Firm-specific factors are positively associated with the ability of the manufacturing SMEs in Botswana to survive, grow and achieve sustainable competitive advantage.

4.3.2 The influence of existing government policies on SMEs

The critical role played by SMEs has spurred governments in both developed and developing economies to support them through provision of finance, physical infrastructure and business advisory services. In most countries, governments have also created strategic departments and Ministries to cater for the needs of SMEs (Bank of Botswana, 2017, p. 126; Jones, Maas, Dibson & Newberry, 2018; CEDA, 2020a, p. 2; LEA, 2020; Molefe, 2020, p. 78-79; Mokwana, 2021; Musabayana *et al.*, 2022b, p. 21). Governments across the globe have also implemented specific policies and guidelines to spearhead the operation of SMEs. The Ministry of Investment, Trade and Industry is responsible for the management and support of over 6,000 SMEs in Botswana (CEDA, 2020b, p. 36).

The government of Botswana only started acknowledging the role played by SMEs towards the end of the second millennium, with the adoption of the Policy on Small, Medium and Micro Enterprises (SMMEs) in 1998 (Republic of Botswana, 1999). The purpose of this policy was to create a conducive environment in which SMEs would flourish and grow, offer a holistic approach towards SME development which ensures cohesion and linkages between the various programmes, ensure that the SME policy is effectively implemented and assessed against measurable objectives, reduce dependency of SMEs on the government, increase the participation of citizens in business, help Botswana to achieve economic diversification, promote exports, encourage the development of a sustainable and competitive business environment, promote linkages between SMEs and primary industries in agriculture, mining and tourism and improve efficiency in the delivery of services to businesses (Republic of Botswana, 1999).

Following the adoption of the Policy of Small, Medium and Micro Enterprises in 1998, the Botswana government established specific state-owned institutions to spearhead entrepreneurship in the country with the incorporation of the Citizen Entrepreneurial Development Agency (CEDA) in 2001. CEDA is Botswana's umbrella organisation which has the mandate to economically empower Botswana citizens through the provision of loans, business advice and monitoring of projects which cover various sectors of the country's economy (CEDA, 2020a, p. 2). Other state-owned institutions which are linked to

entrepreneurial development in Botswana are the Local Enterprise Authority (LEA) whose mandate covers training and mentoring of SMEs, the Botswana Investment and Trade Centre (BITC) which provides investment advice to SMEs and the Botswana Development Corporation which provides equity, partnership and marketing advice to SMEs (CEDA, 2020b, p. 32; LEA, 2020).

Despite the above intervention strategies, considerable challenges continue to impact on the sustainability of manufacturing SMEs in Botswana. Cheap imports from China have eroded the profitability of local manufacturing SMEs and most have shut their businesses because they could not continue to operate under such adverse conditions (Josiah & Themba, 2015; Guruwo, 2020, p. 109; Obisuga *et al.*, 2020; Chipambwa *et al.*, 2023b, p. 8). The local agency responsible for providing loans to Botswana citizens is also affected by lack of resources and non-payment of loans by SMEs (CEDA, 2020a, p. 2). Additional challenges faced by SMEs in Botswana are lack of business planning and creativity (CEDA, 2020b, pp. 34-54). Business plans given to CEDA on loan application are neither convincing nor comprehensive and local SMEs rely on consultants to prepare business plans which they (SMEs) do not understand (CEDA, 2020b, p. 98). Monyake *et al.* (2020a, p. 1) also point out that local SMEs are heavily dependent on the government for financial and technical support, which is always limited. Msosa (2023) further state that the customers prefer to conduct business with large established business which offers quality and timely delivered goods and services and adhere to government licensing regulations.

Based on the aforementioned literature and empirical evidence, it is hypothesised that:

H2: Existing government policies are positively associated with the survival, growth and sustainability of manufacturing SMEs in Botswana.

4.3.3 Factors of innovation and creativity that influence SMEs

Creativity and innovation are strategies which have been used by SMEs to generate new business ideas and plans through imagination, and implement of such ideas to create new products and services (Stanbic Bank of Botswana, 2013; Abisuga-Oyekunle *et al.*, 2020, pp. 415-419; Monyake *et al.*, 2020b, p. 457; Ngibe & Lekhanya, 2020b, p. 1; Nyakudya, 2020, p. 229; Tebetso, 2021). Both creativity and innovation help businesses to increase customer satisfaction by efficiently offering new or better products and services. Compared to large enterprises, SMEs are more innovative because they have the ability to quickly act on new ideas. Other factors which contribute towards the creativity and innovation of SMEs are the flexibility and adaptability which are enhanced by their lean and simple organisational structure, together with detailed focus on corporate strategy (Agyei & and Culture, 2018, p. 150; Arribas

& Vila, 2007; OECD, 2017; Monyake *et al.*, 2020a, p. 330; Ngibe & Lekhanya, 2020b, p. 5; Nyakudya, 2020, p. 229; Tebetso, 2021).

Agyei and Culture (2018, p. 149) posit that larger enterprises generally take creativity more cautiously due to the damage which may be caused by the risk associated with the implementation of new ideas to aspects such as corporate brands and profitability. Entrepreneurs are by nature, risk takers and have greater propensity to innovate than managers of large enterprises. If well managed, creativity and innovation amongst SMEs can result in increased productivity, profit maximisation, employee motivation, diversification of products and services and introduction of new products and services in the market (Agyei & Culture, 2018, p. 150; Arribas & Vila, 2007; OECD, 2017; Monyake *et al.*, 2020b, p. 468; Ngibe & Lekhanya, 2020a, p. 1; Nyakudya, 2020, p. 229; Tebetso, 2021).

As noted by Yang, Chen, Gu and Fujita (2019), SMEs which are innovative have greater chances of increasing their growth and productivity in the long term. Productivity gaps and wage gaps can be reduced when innovation is adopted by SMEs. However, there is evidence to suggest that SMEs are less innovative than large enterprises (Gimenez-Fernandez *et al.*, 2020; Krammer & Jimenez, 2020, p. 16). Scholars have, however, argued that SMEs which can develop and utilise their internal strategic resources (managerial, workforce skills, research and development, information and communication technologies, processes) and collaborate with external partners in the innovation system can achieve significant levels of productivity and become sustainable (Karedza & Govender, 2020, p. 74; Monyake *et al.*, 2020b, p. 457). Governments can support innovation in SMEs by providing a conducive business environment which helps SMEs to develop and utilise their internal resources effectively.

Manufacturing sector SMEs in Botswana face challenges of efficiently utilising their creativity and innovative capabilities. The greatest challenge is the availability of cheap imports from China, the small size of the local market, low wages given to manufacturing SME employees and little effort towards research and development amongst manufacturing SMEs in Botswana (Tesfayehannes, 2017; Josiah & Themba, 2015; LEA, 2020; Molefe, 2020, p. 45; Monyake & Kuruba, 2020, p. 1; Obisuga *et al.*, 2020; Chipambwa *et al.*, 2023b, p. 8). Therefore, in order to explore the relationship between innovation and creativity and manufacturing SMEs, it is postulated that:

H3: Innovation and creativity will positively impact the survival, growth and sustainability of manufacturing SMEs in Botswana.

4.3.4 The extent to which human capital development impacts on SMEs

It is commonly agreed that human capital is a critical component of SME productivity and competitiveness (Pansiri & Yalala, 2017; Matsongori & Mutambara, 2018; Muriithi, 2018; Abisuga *et al.*, 2020; Nyakudya, 2020, pp. 44-49; Tebetso, 2021). Human capital consists of the skills, knowledge and experience possessed by individuals and have value to an organisation. Developing human capital has the effect of expanding the knowledge and skills of the workforce and result in increased productivity (Islam & Amin, 2021; Ogunjobi *et al.*, 2021). SMEs are a major source of global employment, accounting for about 70.0% of jobs on average and are a major contributor of value creation (Domeher, Abdulai & Yeboah, 2019, pp. 162-188). In developing countries, SMEs contribute about 45.0% of employment and 33% of GDP on average (Bushe, 2019, p. 7; Meyer & Kruger, 2021, p. 75). By improving the effectiveness and efficiency of human capital through education and training, SMEs can realise greater productivity and competitiveness. More employees are able to participate in the labour force and this helps to reduce the gap between the rich and the poor (Bomani *et al.*, 2019, pp. 1-15; Mohamed *et al.*, 2021).

Chundu *et al.* (2020, p. 1896) and Mashavira *et al.* (2022) note that the importance of a skilled and knowledgeable workforce has helped to ensure that the development of sustainable human capital becomes a top priority for governments across the globe. This assertion is equally important for SMEs since they are traditionally affected by lack of managerial and workforce skills (Magang & Magang, 2020; Matsongoni & Mutambara, 2021; Mohammadjafari *et al.*, 2021). Through a skilled workforce, SMEs are able to create a pool of readily available employees who may leave or move up in the organisation from internal sources. Through human capital development, SMEs are also able to adopt and deploy advanced technologies and realise greater market opportunities as a result of an adequately knowledgeable and skilled workforce. The overall effect of a skilled and knowledgeable workforce within SMEs includes greater productivity, more efficient utilisation of resources, strategically responding to opportunities, and enhancing sustainability and competitive advantage (Adom & Asare-Yeboah, 2016, pp. 402-423; Alnachef & Alhajjar, 2017, p. 1154; Monyake *et al.*, 2020b, p. 466; Ngibe & Lekhanya, 2020b, p. 13; Nyakudya, 2020, pp. 44-49; Tebetso, 2021).

The sustainability of manufacturing SMEs in Botswana is negatively affected by human capital problems. According to Jongman (2020), entrepreneurial human capital is one of the areas which should be developed in order for manufacturing SMEs in Botswana to be innovative. A report by Statistics Botswana (2023, p. 43) reveal that the bulk of employment in Botswana is concentrated within the public sector and this leaves little room for manufacturing SMEs to attract employees who would contribute towards the sustainability of manufacturing SME. In

order to further explore the relationship between human capital development and the survival, growth and sustainability of SMEs in Botswana, it is postulated that:

H4: Human capital development will positively contribute to an increase in the survival, growth and sustainability of manufacturing SMEs in Botswana.

4.3.5 The extent to which access to finance impacts on SMEs

One of the major challenges to SME sustainability is lack of access to finance (Korutaro, Kasozi, Nalukenge & Tauringana, 2017; Guruwo, 2020, p. 109; Kubanji *et al.*, 2021 pp. 330-348; Molefi, 2021, p. 5; Sivotwa *et al.*, 2022, p. 1). The survival and growth of SMEs is enabled by the availability of finance during the early stages of the firm and such finance is capable of ensuring the continued growth and sustainability of a business. Availability of funds help to ensure that an SME's entrepreneurial activities are boosted and the capacity to promote creativity and innovation is increased. Capital investment, market entry and expansion strategies are made possible through the availability of funds from the inception of a business throughout its life cycle.

Coupled with the subject of access to finance is financial literacy. Financial literacy is defined as the possession of a set of skills and knowledge that enables an individual to make sound decisions using all of financial resources available to the business (Adomako, Danso & Ofori, 2016, p. 43). This implies that without any financial literacy, an organisation's management may not be able to fully harness the benefits of available finance. Scholars (Korutaro, Kasozi, Nalukenge & Tauringana, 2017; Kubanji *et al.*, 2021 pp. 330-348; Molefi, 2021, p. 5; Sivotwa *et al.*, 2022, p. 5) have concluded that in order to make informed decisions and also ensure that they are sustainable, SMEs require financial literacy. Financial literacy is required in order for SMEs to deal with challenges in the cutting-edge credit markets, diversify products and services and maintain adequate financial reserves (Eniola & Entebang, 2017, pp. 559-576). Inadequate financial literacy has been identified as one of the main barriers to the sustainable development of SMEs (Kotzè & Smit, 2018). The survival, growth and sustainable competitive advantage of SMEs has also been attributed to the presence or absence of financial literacy (Korutaro *et al.*, 2017, p. 354). Based on the aforementioned literature review and empirical evidence, the following hypothesis can be postulated for this study:

H5: Access to finance is positively associated with the survival, growth and sustainability of manufacturing SMEs in Botswana.

4.3.6 The impact of financial management skills on SMEs

Good financial management skills are critical to SMEs where the exposure to insolvency is quite high (Ama & Okurut, 2018; Abisuga-Oyekunle *et al.*, 2020, pp. 415-419; Nyakudya, 2020, p. 251; Owusu, 2021; Tebetso, 2021; Obasi, 2023). With financial management skills, SME owners/managers to make important decisions on planning inventory, pricing, acquisition of assets leading to an increase in the overall value of a business. The main objective of financial management in an SME is to realise optimal profit, both in the short and long term. The profit generated can help a firm to increase its survival rate and achieve sustainable growth.

A study by Folajinmi and Peter (2020, p. 90) on poultry production SMEs in Nigeria concluded that financial management skills like budgeting, capital structure management and working capital management have a significant positive effect on the productivity of a firm. A separate study by Mpofu and Sibindi (2022) supported the views of Folajinmi and Peter (2020, p. 90) by revealing that financial management skills are positively correlated to the capability of an SME to access finance. Mpofu and Sibindi (2022) further allude that lack of financial management skills lowers the chances of SMEs acquiring loans from formal finance institutions causing firms to remain stagnant or collapse in the end.

There appears to be a gap between financial management skills and their contribution towards SME requirements. A study by Mbogo and David (2021) on the impact of financial literacy on South African SMEs concluded that SME owners/managers lack the requisite financial literacy skills to sustain their business. Aspects like budgeting, borrowing, expenditure and savings were not considered to be important by South African SMEs (Mbogo & David, 2021). These challenges negatively affected the growth and sustainability of firms. A previous study by Fatoki (2015, p. 145-149) concurs with the findings by Mbogo and David (2021) and notes that SMEs in South Africa have low financial literacy skills and this negatively affects their ability to access finance from commercial banks. Eric (2016) also confirms a strong positive relationship between financial management skills and financial performance of enterprises. In order to further explore the foregoing discussion on financial management skills literature, it is postulated that:

H6: Possession of financial management skills is positively associated with the survival, growth and sustainability of manufacturing SMEs in Botswana.

4.3.7 Managerial skills which impact on SMEs

The contribution of managerial skills towards organisational success and sustainability has been investigated over the past several decades (Majama & Magang, 2017; Abisuga-Oyekunle *et al.*,

2020, pp. 415-419; Monyake *et al.*, 2020b, p. 466; Owusu, 2021; Tebetso, 2021; Obasi, 2023). Despite this acknowledgement, many scholars continue to reveal that firm management is still affected by lack of managerial knowledge, skills and experience. A study by Majama and Magang (2017) identified lack of formal recruitment and hiring procedures, lack of human resource development policies and inability to attract and recruit staff as being critical factors related to human resource management. Negligence in empowering employees, lack of low-cost training facilities and inaccessible or unavailable training facilities are important managerial factors are also problems affecting SME management in Botswana (NDP 11, 2017; Guruwo, 2020, p. 2; Tebetso, 2021). Tadu and Chiguvu (2019, pp. 113-118) also identified dependence on family members for labour and lack of well-trained employees as hindrances which affect the competitiveness and sustainability of SMEs.

Lack of open communication, low level of standardisation of products and services and formalisation of critical business processes were important managerial factors impacting on the survival and growth of SMEs (Ama & Okurut, 2018, p. 2; Muriithi, 2018; Monyake *et al.*, 2020b, p. 466; Owusu, 2021; Tebetso, 2021; Obasi, 2023). Matsongoni and Mutambara (2021) investigated the problems affecting SMEs and discovered that lack of managerial skills, training, general education and practical experience affected SMEs the most. In order to deal with competition and market entry challenges, managers required more than just basic skills and education. The challenges mentioned by the aforementioned scholars can only be overcome when organisational excellence exists within the SME organisational structure. There is overwhelming concurrence by scholars that today's global competition requires managers who possess strategic planning, competitive strategy, benchmarking and information processing skills in order to ensure that their firms survive and sustain significant growth in the industries that they compete in (Mookodi & Ama, 2016; Muriithi, 2018; Monyake *et al.*, 2020b, p. 466; Owusu, 2021; Tebetso, 2021; Obasi, 2023).

The lack of managerial skills among manufacturing SME owner-managers in SMEs in Botswana has been widely researched (Majama & Magang, 2017; Guruwo, 2020, p. 2; Monyake *et al.*, 2020b, p. 466; Tebetso, 2021). A study by Muchuchuti and Mahambo (2020) concluded that owner-managers of manufacturing SMEs in Botswana lack financial skills which could help them to sustain their businesses. These findings are confirmed by Mpofo and Sibindi (2022) who concluded that manufacturing SME owner/managers lack business management or entrepreneurial skills that will make them aware of the importance of growth activities such as strategic planning. The aforementioned literature and empirical evidence discussed on managerial skills of manufacturing SME owners/managers in Botswana leads to the formulation of the following hypothesis:

H7: Improved managerial skills are positively associated with the survival, growth and sustainability of manufacturing SMEs in Botswana.

4.4 AN INTEGRATED CONCEPTUAL FRAMEWORK OF THIS RESEARCH

Following the preceding discussion of the impact of the various factors that impact on the survival, growth and sustainable competitive advantage of manufacturing firms, an improved consolidated conceptual framework is proposed for this research (See Figure 4.3).

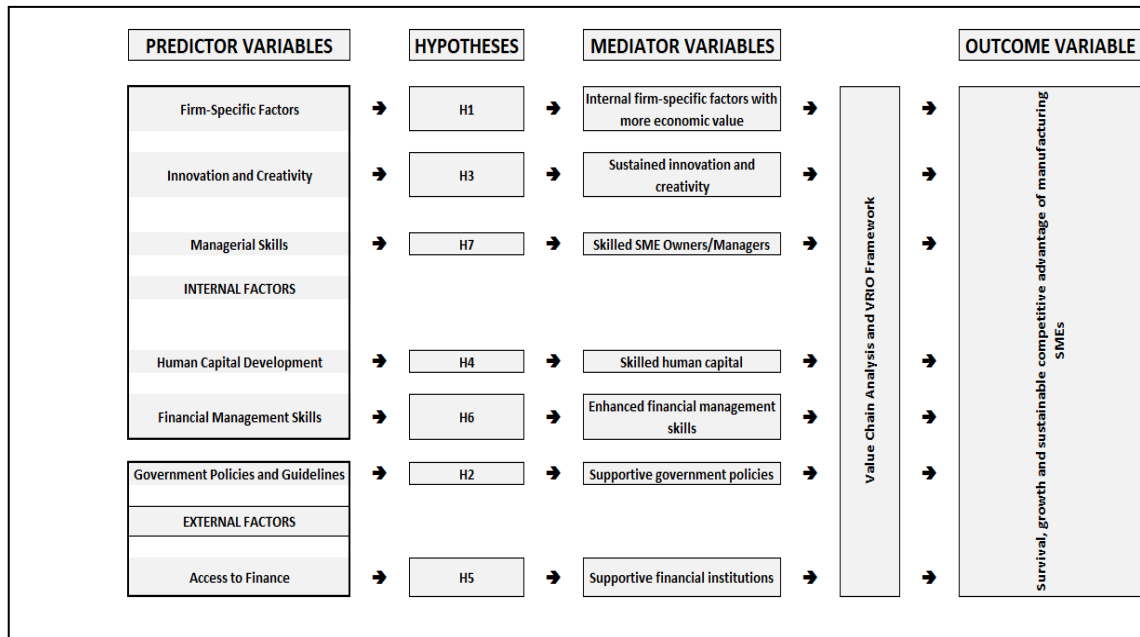


Figure 4.3: Conceptual Framework

Source: Compiled by the Researcher

The conceptual framework in Figure 4.3 depicts the predictor variables for survival, growth and sustainability of manufacturing sector SMEs, namely the entrepreneurial and firm-specific (internal) factors and external factors, and the corresponding outcome variables. The conceptual model was used to design and implement research instruments that were used to explore the survival, growth and sustainability of manufacturing sector SMEs in the South-Eastern District of Botswana. The specific research methodology, tools and techniques that were used are discussed and justified in the next chapter.

4.5 SUMMARY AND CONCLUSION

The RBT (Tece, 2018; Kiyabo & Isaga, 2019, pp. 1-23; Cattani & Malerba, 2021, pp. 265-289; Huemer & Wang, 2021; Ployhart, Schepker & McFarland, 2022) and Value Chain Model (Porter, 1985; Muriithi, 2018; Gongxeka, 2020; Bag *et al.*, 2021; Mtisi & Govender, 2022) are

the two dominant theories that have been discussed and used to develop an integrated framework on the study on achieving sustainable competitive advantage by small and medium-sized manufacturing sector enterprises in Botswana. The RBT assumes that firms can achieve sustainable competitive advantage by identifying and efficiently utilising internal firm resources. The value chain model assumes that efficient management of a firm's distribution and logistics can help the firm to identify production processes that yield the best value for customers.

This chapter explained the various theories, concepts and empirical findings to enable the formulation of a conceptual model which will facilitate the conceptualisation of key variables of the study. The chapter narrowed down the variables related to internal firm resources and managerial capabilities using the RBT (Kiyabo & Isaga, 2019, pp. 1-23) and a thorough description of distribution and logistics in a typical manufacturing firm using the value chain model. Additional theories were briefly explained in order to support the proposed framework of the study. The next chapter, Chapter 5, discusses the research methodology.

CHAPTER 5 – RESEARCH METHODOLOGY

5.1 INTRODUCTION

This chapter presents the research methodology of the study on how the research objectives of this study were addressed. Ahmed, Opoku and Aziz (2016, pp. 32-34) affirm that the research methodology explains specific procedures or techniques that are used to systematically design the study and ensure the validity and reliability of the findings that address the research aims and objectives. The methodology articulates the procedures for identifying, selecting, processing and analysing information on the topic being explored in a study (Kumar, 2018). This chapter presents and explains the study's research design, research approaches, study site, population and sampling, ethical guidelines and limitations.

Saunders, Lewis and Thornhill's (2019) Research Onion Model (adapted in Figure 5.1) is used to explain the entire process of data collection, data analysis and data interpretation in this study.

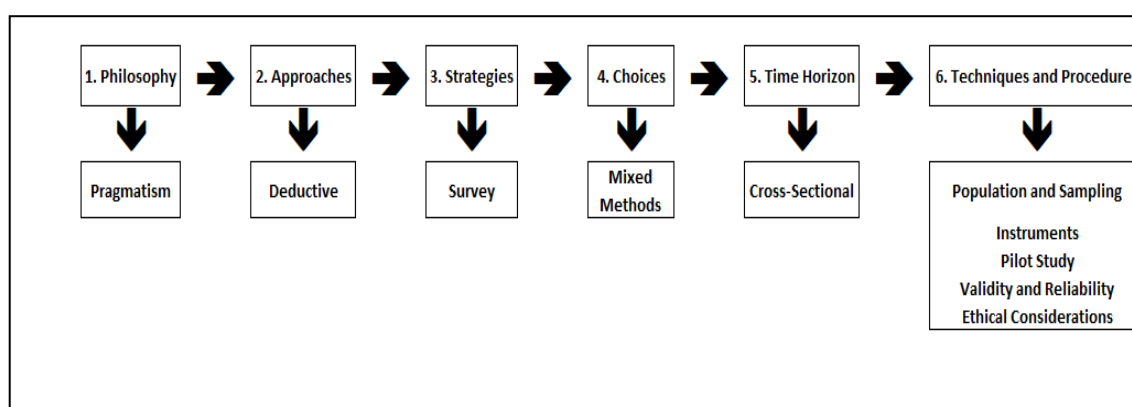


Figure 5.1: The Adapted Research Methodology

Source: Saunders *et al.*, 2019

Saunders, *et al.* (2019) note that research methodology focuses on how knowledge is developed and the nature of how that knowledge is gathered. This study adopts a sequential exploratory descriptive research design to answer the research questions and contribute towards the development of a theoretical framework which can be used by manufacturing SMEs in Botswana to achieve sustainable competitive advantage.

This study aimed to collect both qualitative and quantitative data from manufacturing SME owners/managers and key government informants and a descriptive research design is probably the most suitable approach to synthesise the captured data with the aim of comparing and

contrasting these results with information from the literature review (Creswell & Creswell, 2018, p. 228; Kumar, 2018). Such comparisons may help to uncover new knowledge and contribute to existing theory on the problem under investigation.

5.2 RESEARCH PHILOSOPHY

The three branches of research philosophy, ontology, epistemology and axiology, were applied in the study to solve the research problem (Saunders *et al.*, 2019). Table 5.1 discusses the four research philosophies which are used in management research.

Table 5.1: Comparison of the four research philosophies used in management research

	Positivism	Realism	Interpretivism	Pragmatism
Ontology: the researcher's view of the nature of reality or being	External, objective and independent of social actors	Is objective. Exists independently of human thoughts and beliefs or knowledge of their existence (realist), but is interpreted through social conditioning (critical realist)	Socially constructed, subjective, may change, multiple	External, multiple, view chosen to best enable answering of research question.
Epistemology: the researcher's view regarding what constitutes acceptable knowledge	Only observable phenomena can provide credible data, facts. Focus on causality and law like generalisations, reducing phenomena to simplest elements.	Only observable phenomena can provide credible data, facts. Insufficient data means inaccuracies in sensations (direct realism). Alternatively, phenomena create sensations which are open to misinterpretation (critical realism). Focus on explaining within a context of	Subjective meanings and social phenomena. Focus upon the details of the situation, a reality behind these details, subjective meanings motivating actions.	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different perspectives to help interpret

		contexts.		the data.
Axiology: the researcher's view of the role of values in research.	Research is undertaken in a value-free way; the researcher is independent of the data and maintains an objective stance.	Research is value laden; the researcher is biased by world views, cultural experiences and upbringing. These will impact on the research.	Research is value bound, the researcher is part of what is being researched, cannot be separated and so will be subjective.	Value plays a large role in interpreting results, the researcher adopting both objective and subjective points of view.
Data collection techniques most often used.	Highly structured, large samples, measurement, quantitative, but can use qualitative.	Methods chosen must fit the subject matter, quantitative or qualitative.	Small samples, in-depth investigations, qualitative.	Mixed or multiple method designs, quantitative or qualitative.

Source: Saunders *et al.*, 2019

This study adopts a pragmatist research philosophy to solve the research problem. From an ontological viewpoint (Saunders *et al.*, 2019), the study intends to produce valid knowledge using subjectivism, where participants may interpret the same situation differently. The focus was therefore on the different views of participants on the specific resources and capabilities which can contribute towards the achievement of sustainable competitive advantage by manufacturing SMEs in Botswana. From an epistemological point of view (Saunders *et al.*, 2019), the study distinguishes between what is viewed as acceptable knowledge in the study. In this study, there was more emphasis on eliciting and viewpoints of participants in order to obtain in-depth information, rather than simply obtaining facts from the same participants. From an axiological viewpoint (Saunders *et al.*, 2019), the study places significant importance on judgements of values which contribute towards making wise choices in all stages of the research process. For example, the researcher's values will play an important role in the choice of the topic, research methodology, and techniques and procedures for data collection.

The following sections provide a more detailed breakdown of the research philosophy and how different methods, tools and techniques were applied throughout the stages of the study.

5.3 RESEARCH APPROACH

This study followed a deductive research approach (See Figure 5.1) where the intention was to move from the more general to the more specific.

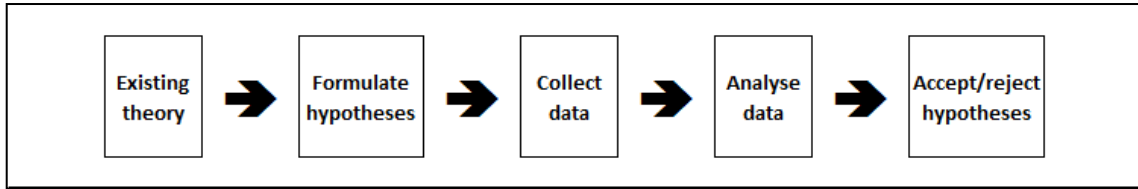


Figure 5.2: Deductive research approach

Source: Saunders *et al.*, 2019

In deductive research approach, literature is gathered on the topic that is being investigated and theory is developed in the process (Woiceshyn & Daellenbac, 2018). A deductive approach is associated with a typical scientific investigation where the researcher analyses what scholars have done on the same topic, summarises the findings in a theory or set of theories, and then tests the theories that emerge from the studies using a set of hypotheses (Casula, Rangarajan & Shields, 2021; Fardet, Lebretonchel & Rock, 2021, pp. 1-14). The focus of this study was to explore sustainable competitive advantage in small and medium-sized manufacturing enterprises in Botswana.

The researcher used quantitative methods to test the above hypotheses and interpret the findings based on the proposed hypotheses.

5.4 METHODOLOGICAL CHOICE

A mixed research choice, where both qualitative and quantitative data is analysed was applied in this study (Creswell, 2009, p. 95-108; Leech & Onwuegbuzie, 2008). This data was gathered in two phases. This follows from the descriptive research design which explains that both qualitative and quantitative data can be gathered and analysed in one study. The data collection and analysis design that was used in this study is depicted below in Figure 5.3.

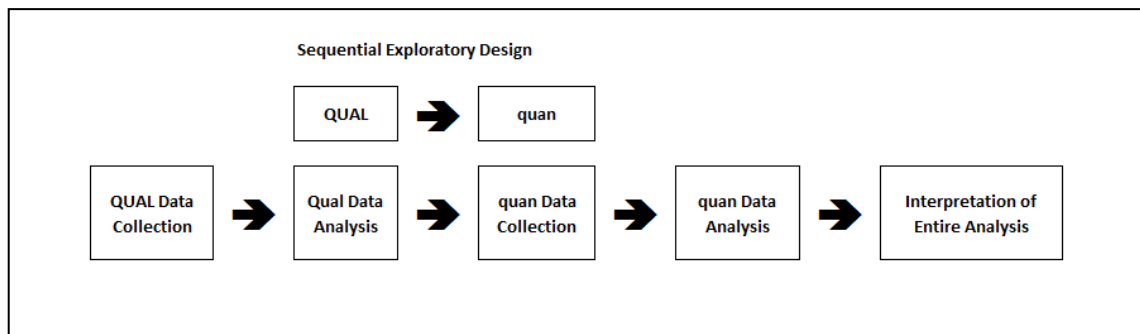


Figure 5.3: Sequential exploratory design of the study

Source: Creswell, 2009

The study is exploratory in nature since variables and theory on sustainable competitive advantage on manufacturing SMEs in Botswana is scant. Creswell (2009, pp. 95-108) further argues that an exploratory research is conducted when there is a conspicuous lack of previous research on the phenomenon. Tambudzayi, Emmanuel and Ngwenya (2022) explain that the sequential exploratory strategy involves a first phase that encompasses qualitative data collection and analysis, followed by a second phase of quantitative data collection and analysis that builds upon the first qualitative phase. There is much emphasis placed on the first phase and the data is mixed through the use of both qualitative and quantitative data analysis and collection.

In the sequential exploratory design chosen for this study, data was used to interpret the qualitative findings. The theories of sustainable competitive advantage in the manufacturing industry in Botswana are emergent, hence the need to conduct a sequential exploratory study (Gogo & Musonga, 2022). There are numerous advantages to the exploratory sequential design (Gogo & Musonga, 2022). Firstly, its two-phased approach makes it convenient to gather and analyse data and report the findings. Secondly, the method is suitable for studies where a phenomenon needs to be observed and theory also developed for the same phenomenon. Thirdly, the design is appropriate when there is need to develop a new research instrument (Gogo & Musonga, 2022).

Besides the purpose of serving to complement the qualitative findings, the use of quantitative data in this study is also advantageous in many ways (Pham, 2018; Sherif, 2018). Use of both qualitative and quantitative data helps to strengthen the reliability and increase the internal validity. Pham (2018) affirms that the weaknesses of one method of data collection (for example, interview) will be complemented by the strengths of the other method (for example, structured questionnaire).

An in-depth exploratory study was conducted on manufacturing SMEs in Botswana, where both qualitative and quantitative data was gathered and analysed. In this study, in-depth qualitative data was gathered from Botswana Institute for Development Policy Analysis (BIDPA), Botswana Institute for Technology Research and Innovation (BITRI), Citizen Entrepreneurial Development Agency (CEDA), Local Enterprise Authority (LEA), National Development Bank (NDB) and Ministry of Investment, Trade and Industry (specifically Department of Industrial Affairs and Botswana Investment and Trade Centre (BITC)) through face-to-face interviews. This was followed by the collection of quantitative data from manufacturing SME owner/managers using a structured questionnaire. The data from SME owners/managers were used to complement the qualitative data from key government informants (Creswell & Plano-Clark, 2007).

5.5 RESEARCH STRATEGY

This study used a survey as the research strategy, which Vaske (2019) posits is common with research questions that seek answers on who, what, where, how much and how many questions. The survey strategy is widely used for exploratory and descriptive research and it allows for the collection and analysis of large amounts of data in a cost-effective way (Bauer & Falade, 2021, pp. 238-260).

Walters (2021) highlights that the gathering of data from a large population means that surveys offer greater statistical power and help to determine the representativeness of participants' views and experiences. Kohler (2020, pp. 93-94) further explains that remote administration ensures less infringement of respondents when they are participating in the survey. On the downside, there is no way that the researcher can verify that the targeted participants are the ones who have actually completed the survey instruments (Braun & Clarke, 2006, p. 83; Braun, Clarke, Boulton, Davey & McEvoy, 2021, pp. 641-654). Research instruments like structured questionnaires are used to gather data in surveys and this enables the analysis of standardised data which is easy to compare and generalise. Despite their popularity with questionnaires, surveys can also be used together with interviews to gather qualitative data.

5.6 TIME HORIZON

A cross-sectional study is a form of research design where data is collected at a single point and time. Data from various individuals is gathered at the same time and the researcher does not influence the variables under investigation. A cross sectional study is observational in nature

and is related to descriptive research where inferences and possible relationships on variables of interest are made (Zangirolami-Raimundo, Echeimberg & Leone, 2018).

A cross-sectional study was used in this study because the method can be used to prove or disprove a hypotheses or a set of hypotheses. The findings from a cross-sectional study can be analysed and used to create new theories. This method is also suitable for analysing several variables at the same time. This study consists of a set of hypotheses and the data analysed was used to prove or refute these hypotheses. This study also aims to develop a theoretical framework that can be used by manufacturing SMEs in Botswana to survive, grow, and achieve sustainable competitive advantage. Several variables on SME owners/managers and firm characteristics were analysed at the same time and a cross-sectional study was the most ideal method to conduct the analysis required.

5.7 RESEARCH CONTEXT, POPULATION AND SAMPLING

This section discusses the study site, population and sampling on the study on the exploratory study on achieving sustainable competitive advantage in manufacturing small and medium-sized enterprises in Botswana.

5.7.1 Research Context

The study was conducted in the South-Eastern District in Botswana (Map 5.1) and covers Gaborone City, Ramotswa and Tlokweng villages. The South-Eastern District was chosen because the area consists of the highest concentration of manufacturing SMEs in Botswana and also from different economic regions (urban, peri-urban and rural). The total population in this district is 60,623 and there are approximately 25,000 manufacturing SMEs in the South-Eastern District (Statistics Botswana, 2014, p. 509). This study adopts the definition of an SME which is in the Policy on Small, Medium and Micro Enterprises in Botswana (Republic of Botswana, 1999), namely, an SME is an enterprise employing between 7 and 100 people with an annual turnover of between P60,000 and P5 million.



Map 5.1: Research site

Source: Botswana Central Statistics Office, 2014

5.8 TECHNIQUES AND PROCEDURES USED IN QUALITATIVE PHASE

The following sections describe the techniques and procedures that were used to gather, analyse and interpret data obtained from key government informants.

5.8.1 Population and sampling of key government informants

Data was gathered from selected key informants from key government informants from BIDPA, BITRI, CEDA, NDB and Ministry of Investment, Trade and Industry (specifically Department of Industrial Affairs and BITC) since they have in-depth knowledge about challenges affecting manufacturing SMEs operating in Botswana, as well as in-depth knowledge about the Botswana government policies and guidelines on manufacturing SME funding and management. Data collection followed a two-phase exploratory descriptive research design. In the qualitative data collection phase, a non-probability purposive sampling technique was used to select participants

from the Ministry of Investment, Trade and Industry who have in-depth knowledge about challenges facing manufacturing SMEs in the South-Eastern District of Botswana.

Purposive sampling was used to sample key government informants. The method was ideal for selecting key government informants because of the small size of the sample in the study (Saunders *et al.*, 2019). Purposive sampling was used to select seven (7) the government participants who would provide data in the qualitative phase of the study (Saunders *et al.*, 2019; Creswell, 2009, pp. 95-108). Originally, a sample size of 10 participants was proposed for this study. The value of 10 was determined through saturation, where it was reasonably assumed that further data collection would yield the same results and serve to confirm emerging themes and conclusions in the findings (Hennink & Kaiser, 2019).

Purposive sampling is a form of non-probability sampling where participants are chosen on the basis of the characteristics that they pose and such characteristics are required in the sample. That is, participants are selected 'on purpose' in purposive sampling. Also called judgemental sampling, purposive sampling depends on the researcher's judgment when selecting individuals who will be most suitable to provide responses that will help to answer the research questions. Purposive sampling was, thus, suitable for this study since the researcher's intention was to sample only key government informants who have detailed knowledge about manufacturing SME owners/managers in the South-Eastern District where data was collected.

5.8.2 Pilot study on key government informants

The interview schedule that was developed was tested on one bank manager and a consultant working with SMEs. These two individuals were purposefully chosen to participate in the study based their work with SMEs in their respective areas. They helped to assess the instrument and they helped to provide important insights into the relevance of the questions that were in the instrument, the order of the questions, and whether or not they were able to gather the actual data that they were intended to capture. This feedback helped the researcher to restructure the items in the interview schedule in order to ensure that it solicited relevant questions during the actual interview.

5.8.3 Data collection from key government informants

Before discussing the actual instruments, it is important to discuss the research objectives and the measurement variables that will be used. The specific measurement variables that were benchmarked for the study are reflected in Table 5.2.

Table 5.2: Measurement of variables

	Research objective	Dimensions to be measured	Source (s)

A	Dimensions of SME survival, growth and sustainability of manufacturing SMEs in Botswana	12 competitiveness factors based on Total Competitiveness Audit (TCA)	Ahlbrandt and Slevin (1992, p. 12)
B	Dimensions of government policies on the survival, growth and sustainability of manufacturing SMEs in Botswana	SME Policy Index Scores for Pillar A: A responsive government	OECD (2020)
C	Dimensions of SME innovation and creativity on the survival, growth and sustainability of manufacturing SMEs in Botswana	Kirton Adaptation-Innovation Inventory (KIA) instrument	Scott and Bruce (1994)
D	Dimensions of human capital development on the survival, growth and sustainability of manufacturing SMEs in Botswana	There are three factors: <ul style="list-style-type: none"> • Leadership and motivation • Qualifications • Satisfaction and creativity 	Nyberg, Moliterno and Hale (2012)
E	Dimensions of finance institutions support for the survival, growth and sustainability of manufacturing SMEs in Botswana	OECD Scoreboard Survey on the access to finance of enterprises (SAFE)	OECD (2017) European Commission/European Central Bank, 2015
F	Dimensions of managerial skills towards the survival, growth and sustainability of manufacturing SMEs in Botswana	The dimensions are: <ul style="list-style-type: none"> • Management skills • Marketing skills • Financial skills • Legal skills • Administrative skills 	Smith <i>et al.</i> (2007)

Source: Compiled by the Researcher

The above measurement variables were used to generate hybrid instruments for interviews on key government informants and structured questionnaires for manufacturing SME owner/managers.

This section discusses the data collection instruments that were used during face-to-face interviews.

Face-to-face interviews were used to gather data from key government informants. The interview process with key government informants began with an appointment via a phone call or email and a date and time of interview. During the interview, the researcher explained the purpose of the interview with each participant before the data collection process began. An audio recorder was used to capture voice recordings of each key government informant during the interviews.

During the interview, the researcher used an interview guide (Table 5.3).The researcher also asked more questions in order to obtain clarifications on responses from participants. When all questions were exhausted, the researcher terminated the interview and thanked the participants. The draft interview guide is attached as Appendix C.

Table 5.3: Interview guide

Section	What is covered
1	Introductions and consent
2	Questions on survival and growth challenges faced by manufacturing SMEs in Botswana
3	Questions on the impact of existing government policies and guidelines on the sustainability of manufacturing SMEs in Botswana
4	Questions on the ways in which existing government policies help manufacturing SMEs in Botswana to increase the satisfaction of their customers.
5	Questions on the role of innovation and creativity on the sustainability of manufacturing SMEs in Botswana.
6	Questions on the contribution of human capital development towards the sustainability of manufacturing SMEs in Botswana.
7	Questions on the adequacy of available finance options for manufacturing SMEs in Botswana and the contribution of these finance options towards the sustainability of manufacturing SMEs in Botswana.
8	Questions on the intervention strategies that can be employed by SME management in order to ensure the sustainability of manufacturing SMEs in Botswana

9	Questions on other views on measures manufacturing SMEs in Botswana should do in order to improve on their competitiveness and performance.
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Source: Compiled by the Researcher

5.8.4 Advantages of interview

Interviews have many advantages as a data capturing method in this study Saunders *et al.* (2019). Interviews helped the researcher to obtain an in-depth understanding of the topic under investigation, in this case, exploring sustainable competitive advantage of manufacturing SMEs in Botswana. The researcher was also able to seek clarifications from interviewees and gather non-verbal cue like gestures and facial expressions. Non-verbal cues provided the researcher with valuable information on how participants might be feeling about a given situation. This could not have been possible with other methods like questionnaires (Saunders *et al.*, 2019).

5.8.5 Disadvantages of interview schedule

Interviews also have some disadvantages (Saunders *et al.*, 2019). It takes significant time to prepare for interviews and also to conduct them. There is a high chance of interview bias and to compensate for this, there might be need for thorough training of the interviewee on how to handle respondents and the types of conditions that need to be established during the interview process to eliminate bias and strain on the interviewee. Interviewees may not answer all questions with honesty and candour and this will negatively impact on the validity and reliability of the findings (Saunders *et al.*, 2019).

Despite their disadvantages, interviews were the best method of gathering data from the 7 government informants because of their ability to obtain indepth information within a short time frame. The data gathered from key government informants was used to transfer generalisation of the study using quantitative data from SME owners/managers.

5.8.6 Data quality control on key government informants

Specific measures were taken to ensure that the data collection, analysis and reporting process conform to best practices of validity and reliability. The final thesis report was checked by a professional editor for English language proficiency. The language proficiency and proofreading letter is attached as Appendix F. The data quality control measures are explained in the next sub-sections for qualitative data.

Key informants were sent the interview invitation link in order for them to participate in face-to-face interviews. The interview data collected from key informants was transcribed verbatim and

reviewed. Key informants served as a check throughout the data collection, analysis and reporting in order to ensure credibility of the process (Barrett & Twycross, 2018, pp. 63-64; Bearman, 2019, pp. 1-11). The interview schedule was reviewed for clarity by a subject matter expert at the School of Management, IT and Governance. The informants were involved in most of the stages of the study, from research design, through to interpretations and conclusions (Barrett & Twycross, 2018, pp. 63-64; Bearman, 2019, pp. 1-11). The study ensured provision of indepth, thick and detailed descriptions in order to ensure dependability, credibility, transferability and confirmability of the data captured from key informants (Barrett & Twycross, 2018, pp. 63-64; Bearman, 2019, pp. 1-11).

5.8.6.1 Ensuring trustworthiness of data

In order to ensure trustworthiness of data collected from the 7 key government informants, the researcher explained how aspects of dependability, credibility, transferability and confirmability were dealt with in this study.

5.8.6.2 Dependability

Dependability involves the participants' evaluation of the findings over time. The researcher takes measures to ensure that the interpretation and recommendations of the study are repeatable if the same study is conducted by the same cohort of participants, data coders and study settings (Khusniyah, 2019, pp. 75-84; Singh, Benmamoun, Meyr & Arikan, 2021). The researcher made use of peer debriefing and peer scrutiny in order to ensure that there is uniform and rich description of the study's methods. The researcher also ensured that all the key phases of the research could be tracked by developing detailed drafts of the study protocols throughout the research process. The researcher ensured that there is a high level of dependability by continuously consulting the 7 key government informants and getting both their confirmations and viewpoints on the correctness of the data that they submitted and the interpretations that was made by the researcher. Where there were disparities, the researcher liaised with the key government informants to rectify such disparities until consensus was reached.

5.8.6.3 Credibility

Credibility involves determining that the findings of a qualitative study are believable or credible from the perspective of the participants in the research. The purpose of qualitative research is to describe the phenomenon under investigation from participants' viewpoint. This means that it is only through the feedback of participants that a research's findings can be verified as credible or not (Khusniyah, 2019, pp. 75-84; Singh, *et al.*, 2021). The findings from this study were shared with key government informants who confirmed the information that

they gave as authentic, thus verifying the credibility of the findings of the study. The methods used to capture and analyse the data were also confirmed by participants as credible following the same process. The researcher also made use of a pilot study with two participants to ensure that the process of gathering data from participants was fully understood by the researcher and that the participants could follow through the interview without any constraints.

5.8.6.4 Transferability

Transferability is the extent to which the findings of a qualitative research can be transferred to other context or settings with other participants. The researcher accomplishes transferability by using rich descriptions of the entire process of data collection, data analysis and data interpretation (Khusniyah, 2019, pp. 75-84; Singh, *et al.*, 2021). In order to ensure transferability in this study, the researcher reviewed research from similar studies on manufacturing SMEs and applied the methods in the current study. The researcher also described every stage of the study in order for other researcher who may intend to conduct similar studies in future to follow the process as long as the settings and context are the same.

5.8.6.5 Confirmability

Confirmability in qualitative studies is the degree to which the findings would be corroborated or confirmed by other researchers. In order to ensure confirmability, the researcher can document the guidelines for checking and cross-checking the data throughout the research. Another researcher can probe the findings in order to check for any flaws and the process is documented (Khusniyah, 2019; Singh, *et al.*, 2021). In order to ensure confirmability in this study, the researcher compiled a reflexive journal and conducted fortnightly meetings with key government informants, especially during the data collection, analysis and interpretation period. The researcher also applied multiple triangulation techniques (theoretical, researcher, methodological and data source) in order to ensure confirmability of the findings.

5.8.6.6 Triangulation

Methodological triangulation involves employing more than one method to study a phenomenon. Methodological confirmation has the strengths in ensuring that the findings of a study can be confirmed, the degree of validity is increased and the understanding of the phenomenon being studied is enhanced (Forero, Nahidi, De Costa, Mohsin, Fitzgerald, Gibson, McCarthy & Aboagye-Sarfo, 2018; Korstjens & Moser, 2018). In this study, the researcher used both qualitative and quantitative data to increase the rigour of the findings. Thematic analysis was used to analyse qualitative data and statistical inference were used to analyse quantitative data. When many methods are used in one study, the effect is a more informed understanding of

the phenomenon. The researcher intended to obtain an indepth understanding of sustainable competitive advantage of SMEs in the manufacturing sector in Botswana.

Theory triangulation involves the use of several theories or hypotheses when examining a phenomenon. (Forero *et al.*, 2018; Saunders *et al.*, 2019). In this study, the researcher applied theoretical triangulation by incorporating Resource Based Theory (RBT) and the Value Chain Model in order to understand the phenomenon on sustainable competitive advantage in manufacturing SMEs in Botswana. The researcher also postulated seven hypotheses in order to analyse the phenomenon from different lenses.

Researcher or investigator triangulation involves the use of multiple researchers in the same study to give multiple observations and conclusions (Korstjens & Moser, 2018). In this study, the researcher ensured researcher triangulation by making use of an expert to cross check the entire process of data collection, data analysis and interpretation of the findings. The researcher's supervisors also played a role as subject matter experts in this regard since they have the experience in guiding students doing their research.

Data source triangulation is the use of various data sources, including people, time and space. The findings of a study can be corroborated by using the strengths of one data source to compensate for the weakness of another data source, thus enhancing the reliability and validity of the findings (Forero *et al.*, 2018; Saunders *et al.*, 2019). In this study, the researcher ensured data source triangulation by consolidating interview data (qualitative) from key government informants and data captured using structured questionnaires (quantitative) from manufacturing SME owners/managers. The overall effect was greater reliability and validity of the results of the study.

5.8.6.7 Analysis of key government informants data

The data gathered from interviews with key Botswana government informants dealing with manufacturing SMEs could be analysed using multiple textual data analysis methods like thematic analysis or content analysis. With thematic and content analysis, the researcher is able to identify patterns, themes and categories in the analysed data and obtain indepth information on the phenomenon being observed (Braun & Clarke, 2006 p. 83). The findings from this study were analysed using thematic analysis. The thematic analysis was accomplished using Nvivo 11, a qualitative data analysis tool.

5.9 TECHNIQUES AND PROCEDURES USED IN QUANTITATIVE PHASE

The following sections describe the techniques and procedures that were used to gather, analyse and interpret data obtained from SME owners/managers.

5.9.1 Population and sampling of SME owners/managers

The target population consisted of manufacturing SMEs owners/managers in the South-Eastern District of Botswana ranging from newly established (less than 1 year in business) to experienced firms (5 years and above). The South-Eastern District consists of Gaborone, Lobatse, Otse and Tlokweng. These SMEs are registered by the South East District Council in order to verify their enterprise, performance, and competitiveness. The different types of manufacturing SMEs that were covered in this study are presented in Table 5.4 below:

Table 5.4: Types of manufacturing SMEs in the study population

Manufacturing sector	ISIC classification	Number in population
Manufacture of Food products	15	5,450
Manufacture of Beverages	15	225
Manufacture of Tobacco products	16	25
Manufacture of Textiles	17-18	1,400
Manufacture of Wearing Apparels	17-18	4,225
Manufacture of Leather and Related	19	30
Manufacture of Wood products Except Furniture	20	45
Manufacture of Paper and Paper Products	21	25
Printing and Reproduction of recorded Media	22	2,450
Manufacture of Chemical and Chemical Products	23	70
Manufacture of Pharmaceuticals, Medical and Botanical products	24	50
Manufacture of Rubber and Plastic products	25	35
Manufacture of Other Non-Metallic Minerals	26	2,400
Manufacture of Basic Metals	27	60

Manufacture of Fabricated Metal Products, except Machinery and Equipment	28	1,900
Manufacture of Computer, Electronic and Optical Products	29	125
Manufacture of Electrical Equipment	30	28
Manufacture of Machinery and Equipment	30-33	30
Manufacture of Vehicles, Trailers and Semi-Trailers	30-33	225
Manufacture of Other Transport Equipment	30-33	25
Manufacture of Furniture	36	60
Recycling	37	289
Other Manufacturing	36	42
Repair and Installation of Machinery and Equipment	30-33	125
Total		25,000

Source: Adapted from Statistics Botswana, 2016 and International Standard Industry Classification of all Economic Activities (ISIC), 2022

The ISIC classification column depicts the standard code for manufactured goods and services as defined by ISIC (2022).

For the quantitative data collection phase, convenience sampling was used to select manufacturing SME owners/managers ranging from newly established manufacturing SMEs (less than 1 year in business) to experienced ones (5 years and above in business) and operated their businesses within the South-Eastern District. Convenience sampling was used since there is no full list of manufacturing SMEs operating in Botswana (Saunders *et al.*, 2019).

Convenience sampling was used to select the 348 manufacturing SME owners/managers who participated in the study. The actual ideal sample size proposed was 379 participants. The value of 379 is based on the Krejcie and Morgan (1970, pp. 607-610) tables for calculating sample size which state that for a population of 25,000 the sample size is 379. Convenience sampling is a form of non-probability sampling method that is used when it is not feasible to use probability sampling. Bhardwaj (2019, pp. 1-18) posits that this method can be used in quantitative research where the researcher accesses participants based on their fit for the criteria in reference to the research question and the availability of individuals to participate in the study. There is no

specific pattern used to access participants, their involvement in the study is based on their availability and suitability to answer the research question.

This study used convenience sampling to select the 348 SME owners/managers who completed the structured questionnaire. In order to reduce bias, the researcher used a sample size calculator (Krejcie & Morgan, 1970, pp. 607-610) to draw as many SME owners/managers as possible from the population. Convenience sampling is the most suitable method to select participants from manufacturing SMEs because of the need to rapidly fulfill the sample requirements and the unavailability of a full list of manufacturing SMEs operating in Botswana. Whilst the chances of generalisation are very low when convenience sampling is used, the small variation in manufacturing SMEs helped to increase the generalisability of the findings when convenience sampling is used (Saunders *et al.*, 2019).

5. 9.2 Pilot study on SME owners/managers

In order to ensure that the questionnaire that was designed for the study is accurate, valid and unambiguous, a pilot study was conducted using 6 business accounting students who have detailed knowledge about manufacturing firms and 6 SME owners/managers whose firms are currently operational. The accounting students were randomly selected from a class of 25 tertiary students from a college within close proximity of the researcher's workplace. The 6 SME owners/managers were purposefully selected from a busy shopping centre also in close proximity of the researcher's workplace.

The 12 participants were given the questionnaires to complete after a detailed explanation on the role of each participant was explained from the covering letter. The researcher was able to receive feedback from participants, including issues of ambiguous questions, technical issues like spellings/typos, difficulty of language in some questions, and average time to complete the instrument. These issues were addressed by the researcher before the final questionnaire administered.

5. 9.3 Data collection from SME owners/managers

In the second phase of the study, quantitative data was gathered from 348 manufacturing SME owners/managers using a structured questionnaire. The captured data was used to complement the views from key government informants. The findings from both phases of the study were analysed with the purpose of developing a theoretical framework which can be used by manufacturing SMEs in Botswana to assess their core competencies. The draft of the questionnaire is attached as Appendix D. The format of the final questionnaire is presented in Table 5.5.

Table 5.5: Format of the final questionnaire

Section	What is covered
A	Biographical details of manufacturing SME owners/managers. The data types are both nominal and ordinal.
B	This section gathers views on the different types of resources used by manufacturing SME owners/managers and how they impact the profitability of their business. The data type is ordinal.
C	This section gathers views on the different types of resources used by manufacturing SME owners/managers and how they impact on the stock turnover of their business. The data type is ordinal.
D	This section gathers views on the different types of resources used by manufacturing SME owners/managers and how they impact on customer satisfaction of their goods and services. The data type is ordinal.
E	This section gathers views on the different types of resources used by manufacturing SME owners/managers and how they impact on the quality of their goods and services. The data type is ordinal.
F	This section gathers views on the different types of resources used by manufacturing SME owners/managers and how they impact on the loan repayment period of their business. The data type is ordinal.
G	This section gathers views on the different types of resources used by manufacturing SME owners/managers and how they impact on the sustained growth/expansion of their business. The data type is ordinal.

Source: Compiled by the Researcher

5. 9.4 Advantages of structured questionnaire

Structured questionnaires can result in the collection of large amounts of information from multiple respondents within a short period of time (Saunders *et al.*, 2019). The geographical distribution of participants in this study acted as an enabler in this effort since manufacturing SMEs in the demarcated area (Gaborone, Ramotswa, Otse, Lobatse, Mogobane, Phakalane and Tlokweng) are located close to each other. There is also a high population density in most of the selected areas since they are urban areas and it was possible for the researcher to rapidly move from one place to another distributing and the questionnaire and collecting back the completed ones.

5. 9.5 Disadvantages of structured questionnaire

Structured questionnaires have many disadvantages (Saunders *et al.*, 2019). There is a high chance of a low response rate, with some studies reporting a response rate that is as low as 20% or even less. There is no way the researcher can ascertain that it is indeed the targeted participants who have completed the instrument since the questionnaire is completed in the absence of the researcher. Some participants may not understand certain questions leading to a low response rate or impacting on the quality of the data (Saunders *et al.*, 2019).

Despite the disadvantages of using a questionnaire in this research, the researcher used the instrument because of the large number of people that needed to give their views on the topic under exploration. The questionnaire was ideal since most of the participants are confined to areas where there is high population density and it was easy to move from one participant to another. The findings of data analysed through questionnaires could easily be generalised to studies with similar settings and context, which was the rationale of this study.

5. 9.6 Data quality control on SME owners/managers

In order to ensure that accurate statistics were performed on numeric data, a professional statistician was consulted in order to achieve this goal. The statistical analysis confirmation letter is attached as Appendix G.

The questionnaires were hand-delivered to manufacturing SME owners/managers in the selected locations. Quantitative data captured from the 348 manufacturing SMEs was controlled for quality using methods of validity and reliability. The structured questionnaire was used to capture numeric data from the 348 manufacturing SME owners/managers. The instrument was pilot-tested on 5 conveniently sampled SME owners/managers in order to establish content validity and improve questions, scales and formats. A sample size calculator, Rao Soft, was used to generate a representative sample size based on pre-set confidence intervals and error margins (Donald, 2018, pp. 65-70; Smith, 2019). Follow-ups were made twice in order to increase the response rate and assist respondents who may require clarification on the questionnaire.

Descriptive statistics in the form of means, standard deviations and range scores were used to add statistical rigour on the findings from SME owners/managers responses and also to improve the generalisation of the study's findings to similar studies in Botswana and other developing countries (Donald, 2018, pp. 65-70; Smith, 2019). The Cronbach alpha statistic of reliability was generated in order to check for internal consistency of the questionnaire which was administered to manufacturing SME owners/managers. The relevant data which aims to establish relationships was analysed using inferential statistical research techniques such as

multiple-regression in order to check for the strength of the association between the study's variables (Donald, 2018, pp. 65-70; Smith, 2019).

5.9.6.1 Ensuring validity and reliability

The reason why reliability and validity are determined in research is to ensure that the data collected are sound and replicable, and the results are accurate. Reliability and validity are a prerequisite to provide assurance to the integrity and quality of a measurement instrument (Mueller & Knapp, 2018; Chetwynd, 2022, pp. 392-396).

5.9.6.1.1 Validity

There are four main types of determining validity: internal validity, external validity, construct validity and criterion-related validity. Internal validity is the process of verifying the cause-and-effect relationships in the research. Internal validity establishes the strength of the causal relationship between the independent and dependent variables (Chetwynd Mueller & Knapp, 2018; Chetwynd, 2022, pp. 392-396).

External validity is the extent to which a researcher can generalise the findings of a study to other settings, measures, situations and people. Construct validity establishes how well an instrument measures the concept that it was designed to evaluate. It is verified by comparing the instrument to other instruments that measure similar quantities to check how highly correlated the two instruments are. Criterion-related validity refers to how well one measure (a predictor) predicts the outcome of another (a criterion). It is a measure of the strength of the relationship between the measures intended to predict the ultimate criterion of interest and the criterion measure itself (Mueller & Knapp, 2018; Chetwynd, 2022, pp. 392-396). Table 5.6 illustrates the statistical measures of validity that were used to check the validity of the questionnaire for this study.

Table 5.6: Measures of Validity

Measure of validity	Methods or statistics	Reference
Internal validity	Cronbach's alpha can be used to check for internal validity. A value greater than or equal to 0.70 indicates high internal validity.	Mohamad, Evi and Nur, (2018).
External validity	Use of large sample sizes (greater than or equal to 30) using appropriate probability random sampling methods. Minimise sampling errors by adhering to sampling protocols for specific	Saunders <i>et al.</i> , (2019)

	sampling methods.	
Construct validity	Pearson's correlation coefficient. A coefficient greater than or equal to 0.60 indicates that internal validity exists	Kent State University Libraries, (2017)
Criterion-related validity	Bivariate correlations between predictor and criterion being measured. A valued of at least 0.70 indicates strong criterion-related validity.	Kent State University Libraries, (2017)

Source: Compiled by the Researcher

In order to ensure internal validity, Cronbach's alpha coefficients were computed on questionnaire items to check for internal consistency on the 7 groups of factors in the instrument (See Table 5.7). The computed values of internal consistency were at least 0.70 which showed high levels of internal consistency (Mohamed *et al.*, 2018). In order to ensure external validity, a large sample size (Krejcie & Morgan, 1970, pp. 607-610) of 348 manufacturing SME owners/managers was used to ensure high levels of external validity and generalisation of the findings (Saunders *et al.*, 2019).

Cronbach alpha coefficient values were computed on questionnaire items to ensure construct validity (See Table 5.7) and these values were at least 0.60 which confirmed high levels of construct validity (Nur, 2018). Criterion-related validity was derived from the computed values of Cronbach's coefficients (See Table 5.7) and these values were at least 0.70 which indicated high levels of criterion-related validity (Pham, 2018; Sherif, 2018).

Table 5.7: Measures of Validity

Measure of validity	Methods or statistics
External validity	The researcher used a large sample of 348 SME owners/managers to ensure high level of external validity. The researcher also ensured that the sampling method used was rigorously applied, for example by choosing participants from a diverse geographical area and across different time periods and population groups (Saunders <i>et al.</i> , 2019).
Construct validity	The Pearson's correlation coefficient was computed for each group of factors and was at least 0.60 which indicates that construct validity existed (Nur, 2018).
Criterion-	Bivariate correlations between predictor and criterion being measured were

related validity	computed. In all instances, the values were at least 0.70 which indicates strong criterion-related validity (Pham, 2018; Sherif, 2018).
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Source: Compiled by the Researcher

The results in Table 5.7 demonstrate that all the parameters that were computed on validity adhered to the theoretical thresholds. The values of Cronbach’s alpha were at least 0.70. Furthermore, the use of a large sample size of 348 SME owners/managers also helped to ensure high levels of validity of the findings. The sampling process was also exhaustively performed with the researcher covering a wide geographical area in order to ensure that the final sample was as representative of the population as possible.

5.9.6.1.2 Reliability

Reliability is the degree to which a specific research method or instrument is capable of producing consistent results from one test to the next. Reliability is consistent across time (test-retest reliability), across items (internal consistency) and across researchers (interrater reliability). In test-retest reliability, the same test is administered twice over a period of time to a group of individuals. Each participant is tested twice, with the two tests done, say, over a month apart (Rose & Johnson, 2020).

Internal consistency is a measure of how well a test deals with different constructs and provides reliable scores. Internal consistency helps the researcher to ensure that a sufficient number of items have been included in a test in order to capture the concept being measured sufficiently. Interrater reliability is the extent to which two or more raters (or observers, coders, examiners) agree. Interrater reliability addresses the issue of consistency of implementation of a rating system (Rose & Johnson, 2020).

Table 5.8 illustrates the statistical measures of reliability that were used to check the reliability of the questionnaire for this study.

Table 5.8: Measures of reliability

Measure of reliability	Methods or statistics	References
Test-retest reliability	Cronbach’s alpha value of 0.7 or greater would indicate a high value of test-retest reliability	Mohamad, Evi and Nur, (2018)
Internal consistency	Cronbach’s alpha value of 0.7 or greater would indicate a high value of internal	Mohamad, Evi and Nur, (2018)

	consistency.	
Interrater reliability	<p>Choen's kappa, product-moment correlation, and intraclass correlation coefficient.</p> <p>A Choen's kappa value of at least 0.60 denotes substantial agreement between two raters.</p> <p>A value of at least 0.60 denotes a level of agreement between two rates.</p> <p>Intra-class correlation coefficient values of at least 0.75 indicate good interrater reliability between two raters.</p>	Bujang and Baharum, (2017, pp. 27-35)

Source: Compiled by the Researcher

In order to ensure test-retest reliability, a pilot study was conducted on both the qualitative (1 bank manager and 1 consultant working with SMEs) and quantitative (6 accounting students and 6 SME owners/managers) phases of the research in order for participants to check them for accuracy, technical issues and relevance to the research objectives and research questions that were being addressed by the research. Expertise was also sought from the researcher's two supervisors and examiners during the proposal phase of the research. The computed value of Cronbach's coefficient on questionnaire items (See Table 5.9) was at least 0.70 which showed high levels of test-retest reliability (Mohamad *et al.*, 2018). The final instruments were only used after rigorous crosschecking of the instruments was done.

Internal consistency was ensured by benchmarking the two instruments with standard instruments and research objectives. Cronbach's coefficient was also computed on questionnaire items to assess for internal consistency (See Table 5.9) and the value was at least 0.70 which showed high levels of internal consistency (Mohamad *et al.*, 2018).

In order to ensure interrater reliability the instruments were cross-checked by the researcher's two study peers, two supervisors and examiners during the proposal phase of the research. Suggested amendments were incorporated by the researcher and Cronbach's coefficient was computed on questionnaire items (See Table 5.9). The computed value was at least 0.70 which showed high levels of interrater reliability (Mohamad *et al.*, 2018).

Table 5.9: Cronbach's Alpha of Reliability Tests

Measurement item	Number of	Cronbach's Alpha	Comment
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	items		
Entrepreneurial factors	9	0.757	Acceptable
Firm-specific factors	9	0.775	Acceptable
Exogeneous factors	12	0.893	Good
Government policies and guidelines factors	12	0.934	Good
Innovation and creativity factors	12	0.777	Acceptable
Human capital development factors	11	0.909	Excellent (Item 78 was deleted and coefficient changed from 0.653 to 0.909)
Access to finance factors	12	0.891	Good
Financial management skills factors	12	0.914	Excellent
Management skills factors	12	0.954	Excellent

Source: Primary data

The following key, established by Evi and Nur (2018), was used to provide comments on the values of Cronbach's Alpha of Reliability.

Table 5.10: Explanation of Cronbach's Alpha Coefficient of Reliability

Coefficient of Cronbach's Alpha	Reliability Level
More than 0.90	Excellent
0.80 to 0.89	Good
0.70 to 0.79	Acceptable
0.60 to 0.69	Questionable
0.50 to 0.59	Poor
Less than 0.50	Unacceptable

Source: Evi and Nur (2018)

The results in Table 5.10 reveal that the sets of measurement items in each group of factors are closely related and consistently measure the same characteristic. For example, Management Skills factor of 0.954 indicate that the 12 items in the group quantifies a high level of agreement amongst the 12 items in the group. The same conclusion can be drawn for other groups of factors in Table 5.10. These results also imply that the captured data can be used for further

statistical analysis since the measurement item (or questionnaire) has been verified to be reliable.

5.9.7 Analysis of SME owners/managers data

This section provides insight into the analysis of the quantitative data that was collected, analysed and interpreted in this study.

The data gathered using questionnaires was analysed using the IBM Statistical Package for Social Sciences (IBM SPSS version 27.0). The findings could be visualised through graphs and frequency tables and this easily helped with discussion of the findings. Inferential statistics in the form of regression analysis, Chi-Square and analysis of variance were used to test the significance of the findings and also to extrapolate and predict data under different scenarios (Taherdoost, 2022).

Descriptive statistics are summary statistics that are used to describe the basic features of the gathered data. Tools like tables and charts can also be used to display summarised data from a research. Descriptive statistics that were used in this study are presented in Table 5.11.

Table 5.11: Descriptive statistics

Descriptive statistic type	Description	References
Measures of frequency	Summarised data is presented as a distribution of scores or values. Frequency tables or charts can be used to present the frequencies.	Saunders <i>et al.</i> , 2019
Measures of central tendency	Measures of central tendency compute an estimate of a dataset's average or centre.	IBM, 2022
Measures of dispersion or variation	These statistics provide an idea of how spread out the data is.	IBM, 2022
Measures of position	Measures of position express the position of a single value in relation to other values in a dataset.	Sallis <i>et al.</i> , 2021

Source: Compiled by the Researcher

Descriptive statistics were useful in this study because they helped to show the basic information about the data. When combined with additional tools like frequency tables and charts, they are a source of vital information that described quantitative data. They also helped

to provide potential relationships between variables. This led to a more detailed analysis of the data using inferential statistics (Guetterman, 2019; Mishra, Pandey, Singh, Gupta, Sahu & Keshri, 2019).

Despite their advantages, the use of descriptive statistics in this study is limited by the fact that any predictions or generalisation of the analysed data to the wider population. Outliers may also impact on some types of descriptive statistics like the mean (Baffoe-Djan & Smith, 2019, p. 398-414). Given their disadvantages, use of descriptive statistics in research is limited and other forms of data analysis like inferential statistics have to be considered.

The quantitative data on manufacturing SME owners/managers that was gathered in this study can be used to make predictions or inferences to the broad population of manufacturing SMEs in Botswana and beyond as long as the settings and context of the populations are similar. Table 5.12 presents the inferential statistics that were used in this study:

Table 5.12: Inferential statistics

Inferential statistics	How the statistics was used in this study	References
Analysis of variance (ANOVA)	ANOVA was used to make inferences on, variables used in the study	Saunders <i>et al.</i> , (2019)
Multiple analysis of variance (MANOVA)	MANOVA was used to determine cause and effect relationships between dependent variables and independent variables in this study	IBM, (2022)
Confidence intervals	Confidence intervals was used to estimate the limits of population variables like SME owners/managers age or loan repayment period	IBM, (2022)
Chi-square statistics	Chi square statistics was used to determine the goodness of fit of sample variables against population characteristics in the study.	Ramokolo, (2020)
Pearson's correlation	The Pearson's correlation coefficient was used to determine the association between variables of study interest in the study.	Kafle, (2019, p. 126-132)
Linear regression analysis	Linear regression was used to measure the association between specific independent and dependent variables.	Saunders <i>et al.</i> , (2019)

Structural equation model (SEM)	SEM was used, among others, to determine causal relationships amongst observable and latent variables in this study.	Collier, (2020, pp. 1-31)
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Source: Compiled by the Researcher

It is worth noting that several forms of inferential statistics can be generated from a single set of operations using a statistical data analysis program. This implies that inferential statistics generated may be interwoven and may not necessarily be generated in isolation.

5.10 ETHICAL CONSIDERATIONS

The Research Ethics Guidelines from the University of KwaZulu-Natal's School of Management, IT and Governance acted as the standard guideline for ethical considerations. In conducting this study, the researcher adhered to research ethics in the following ways:

5.10.1 Ensuring participants have given informed consent

Informed consent is when participants give the researcher the permission to gather data from them and access to the premises where participants operate from (Corbin & Strauss, 2014, pp. 42-46; Arifin, 2018, pp. 30-33). The letter of request to conduct the study informed participants and the University of KwaZulu-Natal Research Ethics Committee of the nature of research and obtained their agreement and participation. The covering letter to the questionnaire outlined the involvement of participants to the research study and sought their permission to participate. The information sheet and consent to participate in the study from UKZN is attached as Appendix B.

5.10.2 Ensuring confidentiality and anonymity

The researcher assured the participants that their personal and confidential details would neither be gathered nor revealed to third parties. The researcher assured and ensured that the results of the findings were only used for the purpose the data was collected (Corbin & Strauss, 2014, pp. 42-46; Arifin, 2018, pp. 30-33). The findings of the study were published but the identity of participants was protected. The identity of all participants was protected to encourage them to be open and honest.

5.10.3 Ensuring that permission is obtained

In order to conduct this research, a formal request for permission to carry study was obtained from the University of KwaZulu-Natal Ethics Committee. This also enabled the researcher to

access the rest of the participants. The researcher then sought formal permission or clearance to access the premises where the study was being conducted so that the process is ethical upright (Corbin & Strauss, 2014, pp. 42-46; Arifin, 2018, pp. 30-33). A research permit was sought and granted from the Botswana Ministry of Finance. The letter from the Ministry of Finance is attached as Appendix E.

5.10.4 Ensuring no harm comes to participants

The researcher ensured that no harm came to participants by making sure that questions designed and asked did not cause any discomfort to them. Responses from participants would not be obtained through coercion (Corbin & Strauss, 2014, pp. 42-46; Arifin, 2018, pp. 30-33). The researcher ensured that the environment which was used to gather data from participants was safe from both environmental and psychological factors such as poor lighting, noise, intrusion by third parties and the asking of sensitive or intrusive questions.

5.11 CONCLUSION

The purpose of this chapter was to introduce the research methodology on the study on achieving sustainable competitive advantage by manufacturing SMEs in Botswana. The research methodology section presented and explained the study's blueprint on all methods, techniques and procedures which were used to collect and analyse data and report the findings. The specific areas that were discussed in this chapter were research philosophy, research choice, research strategy, time horizon, study site, data collection instruments, data quality control, data analysis, ethical considerations, and statement of limitations and delimitations.

The study adopted a pragmatist research philosophy to guide the answering of the research questions. A deductive research approach was proposed and the methodological choice was mixed research where both qualitative and quantitative data was gathered and analysed. Since the study involved gathering large volumes of data from a wide geographical area, a survey research strategy was adopted. Time and resource constraints forced the researcher to utilise a cross-sectional time frame where data was gathered and analysed over a short period of time. A structured interview guide was used to gather qualitative data from key government informants and a structured questionnaire was used to gather quantitative data from SME owners/managers. Issues of validity, reliability and ethics were also addressed by the researcher. The research methodology was separately discussed for key government informants and manufacturing sector SME owners/managers. The next chapter, Chapter 6, focuses on research findings from key government informants.

CHAPTER 6- FINDINGS FROM THE QUALITATIVE STUDY

6.1 INTRODUCTION

The data collection in this research was done in two phases. In the first phase, qualitative data was collected from key government informants in order to explore their views on the manufacturing industry in Botswana, especially their knowledge, experience and working relationships with manufacturing SME owners/managers. In the second phase, quantitative data was collected from manufacturing SME owners/managers in order to also gather their views on the same issues with the purpose comparing and contrasting data from key government informants. The second phase of the data collection was also to assess relationships among the variables and also test the hypotheses.

Data was collected from key government informants through face-to-face interviews. Responses to the following research questions guided the presentation and discussion of findings in this chapter.

1. What firm-specific factors impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs manufacturing SMEs in Botswana?
2. To what extent do existing government policies and guidelines contribute to the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
3. What factors of innovation and creativity influence the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
4. To what extent does human capital development affect the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
5. To what extent does access to finance impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
6. How do financial management skills impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?
7. Which managerial skills can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana?

6.2 BIOGRAPHICAL DATA OF PARTICIPANTS

This section presents the biographical details of key government informants who participated in this study.

A total of seven (7) key government informants participated in the study out of the anticipated ten (10). This represents an interview response rate of 70%. This value of response rate is considered to be excellent according to Babie and Mouton (2001). Table 6.1 reflects the biographical characteristics of the participants.

Table 6.1: Biographical characteristics of key government informants

Participant Code	Gender	Role of participant	Role of organization
P1	Male	Business development	Business productivity
P2	Female	Research analysis	SME funding
P3	Female	Business support	SME funding
P4	Female	Customer services	SME funding
P5	Male	Capacity development	SME training, mentoring and monitoring
P6	Male	Business advisory	Commercial bank
P7	Male	Customer accounts services	Commercial bank

Source: Primary data

The biographical details above show that 3 out 7 (or 42.9%) were female and the remainder (57.1%) was male. The biographical composition of the selected key government informants confirms that they all had a mix of knowledge and experience on the sustainable competitive advantage of manufacturing SMEs since they were employed in government departments or government-funded institutions that deal with development and productivity of SMEs, funding of SMEs, training, mentoring and monitoring of SMEs, and SME loans and business customer services. The key government informants also confirmed that they have also dealt with manufacturing SMEs in Botswana.

6.3 KEY FINDINGS

This section discusses the findings from the 7 key government informants who participated in the study. The purpose of obtaining data from these key government informants was to get specific background information about the topic under investigation - which focused on achieving sustainable competitive advantage by manufacturing SMEs in Botswana.

6.3.1 Factors that impact on manufacturing SMEs

The research question addressed in this section is – What firm-specific factors impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs manufacturing SMEs in Botswana? This research question focused on obtaining the views of the sampled key government informants on factors that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana. The main themes and sub-themes which were extracted are shown in a project map in Figure 6.1.

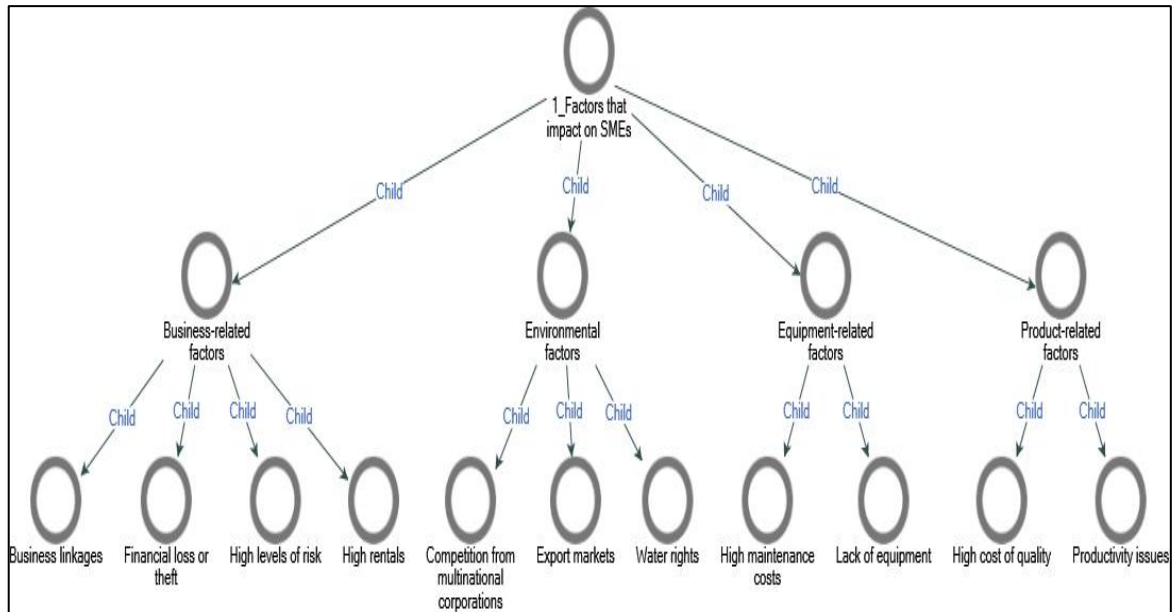


Figure 6.1: Factors that impact on SMEs

Source: Primary data

The views from the key government informants on factors that impact on manufacturing SME owners/managers reveal that the factors are categorized under four broad themes, which are business-related factors, equipment-related factors, product-related factors and environmental factors. The first three factors (business-related, equipment-related, and product-related) are internal factors and the last one (environmental) is an external factor.

Four sub-themes were extracted under business-related factors and they are business linkages, high rentals, financial loss/theft and high levels of risk (See Figure 6.2). Two sub-themes were extracted under equipment-related factors and they are high maintenance costs and lack of equipment. Two sub-themes were extracted under product-related factors and they are high cost of quality and productivity issues. Lastly, three sub-themes were extracted under environmental factors and they are competition from multinational corporations, export markets and water rights.

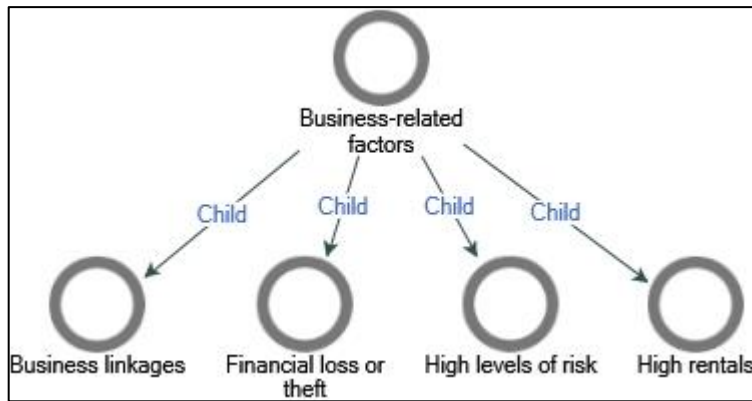


Figure 6.2: Business related factors that impact on SMEs

Source: Primary data

The analysis of the views from key government informants revealed that were of the notion that manufacturing SME owners/managers should have the capacity to establish business linkages with their customers, producers, exporters and other stakeholders within their networks. The questions which was asked was "*How are local manufacturers going to benefit from the recent initiative by the Botswana Government to ban importation of products like school uniforms, vegetables and certain fruit products?*" The key government informants were of the view that the import ban helped to improve local productivity, technological and managerial capabilities and market diversification.

Participant 5 said:

"The ban has resulted in the setting up of business by several foreign firms that are interested in establishing joint ventures with local manufacturers and this has resulted in skills and technology transfer to local manufacturing companies. These foreign firms also have ready markets for locally produced goods in South Africa and beyond and this has helped to establish business linkages across the supply chain."

The perception of business linkages was also corroborated by other key government informants.

Participant 3 concurred by pointing out that:

"We help manufacturing companies with strategies to identify potential customers through market research and also connect them with local authorities to check their sites for quality and health inspections. We also encourage local manufacturing companies to team up with foreign firms to form joint ventures and increase their chances success in their industry."

Financial loss and theft also impacted on the survival and growth of manufacturing SMEs in Botswana. The manufacturing sector deals with material resources which are prone to wastage, loss and theft and these issues impact on the financial stability of these companies.

Participant 1 noted that:

"Theft of assets is a challenge which I came across when I was assessing the productivity of one refuse collection company in Gaborone. The company which was hired to collect refuse by this lady to dump refuse was inflating the number of bins in order to claim more money for work which was not actually done. In order to solve this problem we came up with a system where bins were attached with special tags from collection points all the way to the dumping site"

Participant 6 also concurred with these findings by disclosing that:

"Most local firms in the agribusiness sector include the same maintenance costs for machinery like tractors whether they plough on small or big fields. The same applies to issues like agrochemical costs where farmers are forced to purchase more than what they want because these chemicals are not packaged in smaller bags. In the end the excess chemicals cannot be used and result in financial loss to the farmers."

Participant 2 observed that:

"Most SMEs do not differentiate between cash which is supposed to be ploughed back into the business and cash which is supposed to be used for personal issues. In the end these businesses become bankrupt as a result of this practice."

The riskiness of manufacturing SMEs was pointed out as an important factor which impacted on their survival, growth and sustainability. The literature review also highlights the issue of risk when it comes to SMEs applying for loans from commercial banks and government-funded agencies. The question which was asked was *"To what extent do you offer financial support to prospective loan applicants who apply for loan to buy farming machinery like tractors and combine harvesters which will be in excess of P5 million?"* One of the main SME funding agencies in Botswana charges reasonable interest with little or no collateral for loans which are less than P5 million.

Participant 2 responded and explained that:

"We do not give all the amount of, say P10 million, to the SME but we give it in installments and monitor how the money is utilised. As time goes on we continue to further release the cash if we are satisfied with the way the funds are used."

Participant 4 explained that:

"Most firms are able to sustain themselves over the first few months or years but fail to respond to market fluctuations, especially when business is low. In the end these firms fail to repay their loans and collapse. It is therefore quite risky to allocate funds to some firms, especially when we do not have their vital statistics."

The views on risk associated with SMEs were supported by Participant 5:

"If we can find ways of de-risking SMEs then we will be able to also deal with issues like collateral. Commercial banks and multinational corporations take the issue of risk seriously and do not want to invest their money where there is high risk. Perhaps we need to identify another organisation which is able to absorb the risk which is faced by commercial banks and multinational companies so that they are more willing to invest in local SMEs."

Land is very expensive in Botswana and this makes it quite difficult for manufacturing SMEs in Botswana to purchase and own the premises that they operate from. Renting business premises is also problematic, especially for start-ups which have minimal financial resources. The high rentals for land, offices and factory warehouses means that most SMEs fail to break even and cease to operate before they reach 5 years of operation. Other firms resort to using open spaces with serious limitations on issues like lack of utilities and ability to build permanent structures.

Participant 1 noted that:

"The Botswana government has established agencies that help new firms to establish themselves by renting out factory shells at below market prices for a period of 3 years. These firms are monitored for productivity and profitability and are then required to be relocated and give room to other new firms. This has helped these firms in a great way because they are able to break even and use their profit to grow and expand."

The above issue was confirmed by Participant 7 who elaborated by saying:

"We liaise with entrepreneurs and identify areas where they can set up shop at subsidised rentals in Gaborone, Francistown and rural areas like Borolong and Oodi. We monitor these firms during this period of business incubation."

In summary, key government informants concurred that manufacturing SMEs were high-risk entities which were prone to market fluctuations. They also agreed that land was contributing to significant costs of manufacturing firms through high rentals. However, SMEs which are in the early stages of operation benefitted from subsidised rentals during incubation period.

The second component of the model illustrates product-related factors that impact on manufacturing SMEs. Figure 6.3 shows the outcome of the model representing the sub-themes under product-related factors.

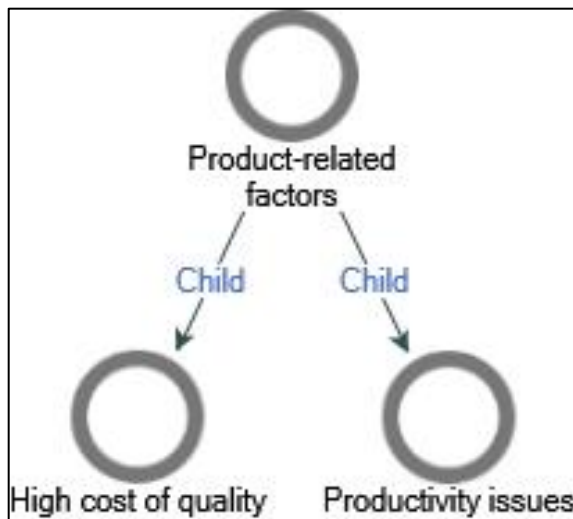


Figure 6.3: Product-related factors that impact on SMEs

Source: Primary data

Participants explained product-related factors that impact on SMEs. The question posed was “*What challenges have you observed when you are helping SMEs with advice on how to produce quality goods in the production line?*” Strategic utilisation of these product-related factors can result in the survival, growth and sustainability of manufacturing SMEs.

Participant 1 explained:

"My organisation assists with productivity and cost reduction. An example of a productivity-related project was when we worked with 10 textiles companies affiliated with Women in Business Botswana. These companies had challenges of pricing their textile products. Previously, these companies were benchmarking their pricing strategy with other companies but this was not working."

Participant 5 confirmed:

"This is why I am saying I think we preach quality on the production side but on the demand side we are not, but customers should be taught to demand quality and then it will actual, that have been said quality is not an option but it is a must but I think by certification, manufacturing invest so much in producing quality but does the market pay them for producing quality but does the market pay them for producing quality but does the market pay them for producing quality, I am not quite sure."

In summary, participants confirmed that SMEs encountered product-related challenges like identifying the best pricing strategy for their goods and the high costs associated in producing quality products.

The third component of the model illustrates equipment-related factors that impact on manufacturing SMEs. Figure 6.4 shows the outcome of the model representing the sub-themes under equipment-related factors.

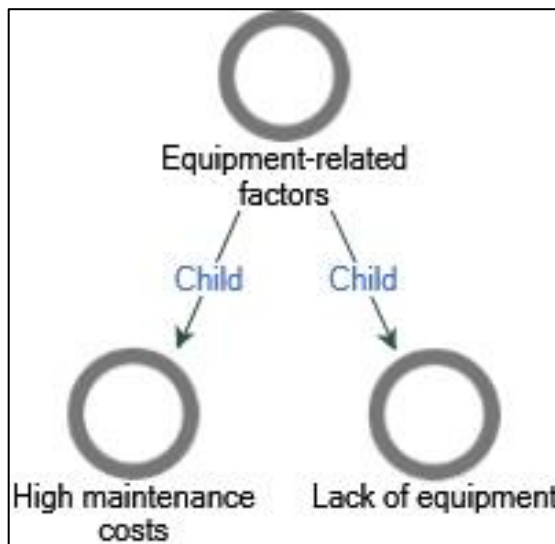


Figure 6.4: Equipment-related factors that impact on SMEs

Source: Primary data

Equipment-related factors were discussed by key government informants as follows:

On the issue of high maintenance costs, Participant 7 raised an important point:

"The manufacturing industry uses a lot of equipment, some of which is overused leading to high levels of equipment damage. It costs a lot of money to replace damaged parts, especially considering that most of these parts have to be sourced from South Africa and overseas. These recurrent costs affect the profitability of most manufacturing companies"

Participant 3 explained that:

"Large established firms from South Africa have more capacity than local firms because these foreign firms have funds to purchase equipment and expand their business. Local companies can only benefit through joint ventures with these outside firms."

The above point on lack of equipment was supported by Participant 6 who stated that:

"Local manufacturing firms are under-equipped and this impacts on their ability to produce a sustainable amount of output. In the end they fail to break even and cannot move beyond the Valley of Death."

In summary, key government informants confirmed that manufacturing SMEs in Botswana incur high costs associated with equipment purchase, repair and replacement. A significant number of local SMEs cannot raise funds to acquire equipment and resort to hiring equipment, which is an expensive process.

The fourth component of the model illustrates environmental factors that impact on manufacturing SMEs. Figure 6.5 shows the outcome of the model representing the sub-themes under environmental factors.

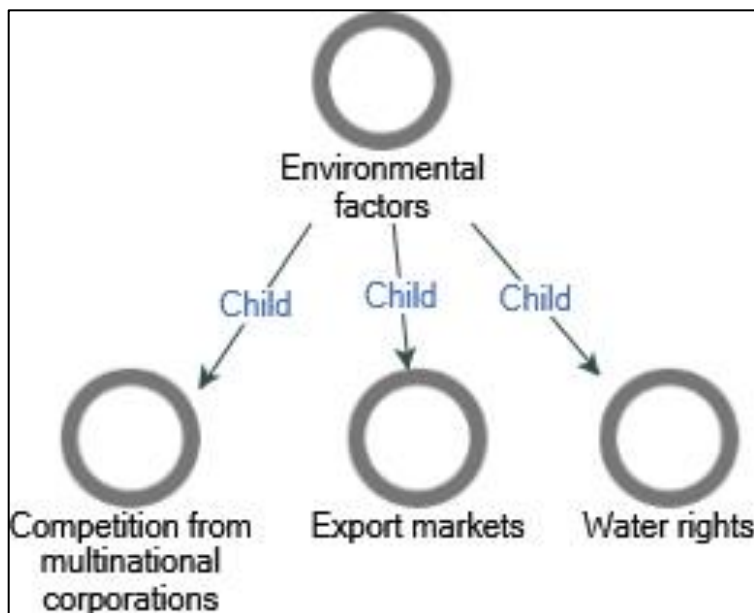


Figure 6.5: Environmental factors that impact on SMEs

Source: Primary data

Participants explained environmental factors that negatively impact on the operation and competitiveness of manufacturing SMEs in Botswana. The research question which was asked is *"To what extent are manufacturing SMEs creative and innovative with the purpose of withstanding competition from established multinational companies which have abundant resources?"* It is therefore important that these factors are investigated in this study with the purpose of identifying them and recommending measures that can be used to limit their effect on manufacturing SMEs in Botswana.

Participant 1 respondent by revealing that:

"There is a company which developed a unique perfume in the market and attracted customers from both Botswana government and private customers. Another example is a yoghurt manufacturing company based in Molepolole. Despite initial challenges, this company managed to create demand with local hotels and also expanded its business to large supermarkets in the country where it is offered shelf space to market its products."

The above revelations were concurred by Participant 5 who gave the statement:

"When prospective entrepreneurs bring their plans, we vet these plans for suitability of their products or services within the market and help these entrepreneurs with market research in order to ensure that they check the competitiveness of their products or services."

On the issue of export markets, Participant 1 explained as follows:

"Local manufacturing firms face challenges of certification and mileage when they decide to export their products to countries like Namibia, Zimbabwe and South Africa. However, my organisation, through the Japanese Productivity Centre, has helped these firms with certifications through Botswana Bureau of Standards. This has helped these firms to enter foreign markets and generate more sales and revenue. However, the issue of mileage remains the main challenge."

Participant 5 highlighted that:

"It is mostly local SMEs which team up with multinational corporations which manage to grow and become competitive. Local manufacturing firms face challenges of finance and technology when they try to enter the export market by themselves."

The desert climate of Botswana was also a factor that negatively impacted on access to water for manufacturing companies, especially those that required vast amounts of water in their production lines.

Participant 3 said:

"Most loan applications by youths fail because they lack water rights on the premises that they will have arranged leases with their landlords. The process for applying for water rights is also a cumbersome and tedious process and most youths give up altogether."

Participant 7 also further highlighted the challenge of access to water:

"A large number of SMEs use open spaces to run their businesses because they cannot afford the rentals for office space or warehouses. There is no water in most of these premises used by manufacturing entrepreneurs and some resort to the use of jojo tanks. However, there are price

and quantity limitations when it comes to the use of these tanks and most SMEs do not have adequate funds to purchase more water using jojo tanks. This means that their businesses remain stagnant and eventually close.”

In summary, key government informants were of the view that competition from established multinational companies was a factor which negatively impacted on their growth and sustainability. It was only those SMEs which could engage in joint ventures with these foreign firms that could manage to expand and generate more revenue through exports. Lack of water rights was also another infringement to the survival, growth and sustainability of manufacturing SMEs in Botswana. Youths-owned businesses were the most affected since they do not own the premises that they operate their business from.

6.3.2 The influence of existing Botswana government policies

The research question addressed in this section is - To what extent do existing government policies and guidelines contribute to the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana? This research question focused on obtaining the views of the sampled key government informants on the extent to which existing government policies and guidelines contributed towards the survival, growth and sustainability of manufacturing SMEs in Botswana. In order to accomplish this, the 7 informants were asked interview questions which solicited their views pertaining to the variables related to existing government policies and guidelines and how they impacted on manufacturing SMEs in the country. The main themes and sub-themes which were extracted are shown in a project map in Figure 6.6.

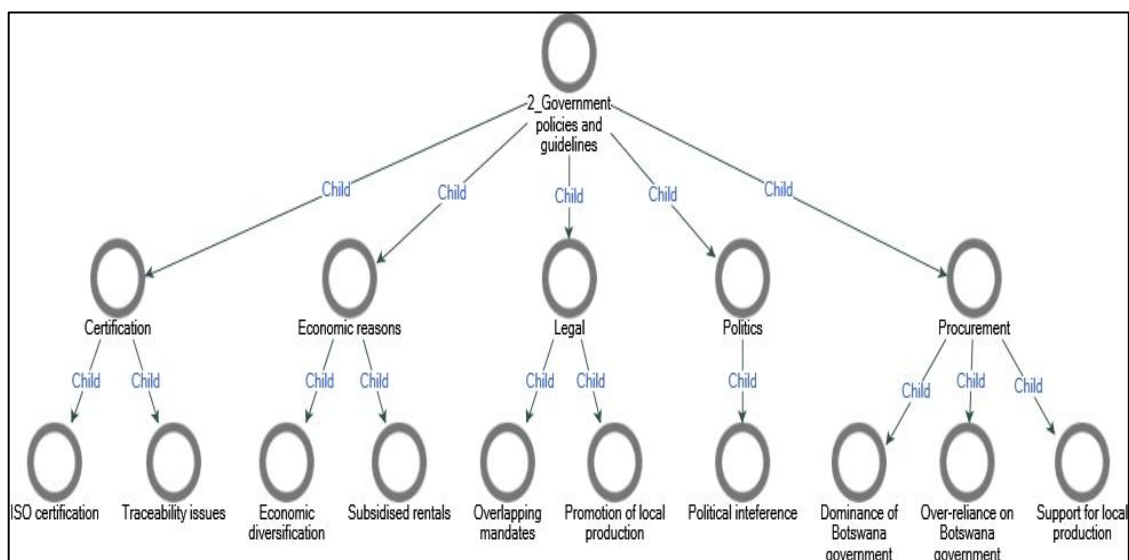


Figure 6.6: Government policies and guidelines

Source: Primary data

The views of key government informants on the extent to which existing government policies and guidelines influence the survival, growth and sustainability of manufacturing SMEs depict five broad themes, which are certification, legal aspects, and procurement.

Two sub-themes were extracted from certification issues and they are ISO certification and traceability issues. Two sub-themes were extracted from the theme covering economic reasons and they are economic diversification and subsidised rentals. Two sub-themes were also extracted from the theme on legal aspects and they are overlapping of the mandates of some government agencies and promotion of local production. The theme on politics had only one sub-theme which is political interference. Lastly, the theme on procurement had three sub-themes, which are dominance of Botswana government, over-reliance on government, and support for local production.

The importance of SMEs across the globe has attracted the interest of governments and government agents who have implemented policies and guidelines that help to promote the operations of SMEs. These policies and guidelines also help in mobilising funding and technical support in order for SMEs to achieve sustainable competitive advantage. Figure 6.7 shows the outcome of the model representing the sub-themes under certification.



Figure 6.7: Certification

Source: Primary data

Participant 1 explained the issue of traceability issues:

“My organisation deals with productivity issues and one of the matters that we focus on is traceability of export products that are manufactured in Botswana. Through the assistance of my organisation and the Japanese Productivity Centre, we have been able to assist several

companies to obtain appropriate certifications which helped them to verify that their products were manufactured by companies in Botswana under international best practices.”

The issues on traceability were also corroborated by Participant 6 who elucidated:

"Initially locally produced goods faced challenges of traceability since port authorities in host countries demanded that the exporting process is transparent throughout the supply chain. This was done in order to gather evidence of the trail of each product, its components, quality and safety."

Participant 5 also affirmed and commented:

"Prospective firms which requested traceability certification were referred to local authorities who deal with the issue in order to pave way for the export of their products."

Key government informants also stressed that quality was one of the most important factors that impacted on the growth and sustainability of manufacturing firms in Botswana.

Participant 1 remarked:

"A number of textile companies that we assisted had challenges of quality on their finished products. Part of the problem was attributed to the high staff turnover in the textile industry, with experienced tailors leaving to form their own companies. In order to alleviate this challenge, we suggested that they recruit experts (tailors and machinists) to do the finishing of their garments in order to improve their quality and export readiness."

Participant 4 lamented that quality was still a challenge and barrier for most loan applicants in her organisation:

"Whilst there are several opportunities in the agribusiness in Botswana, most loan applicants fail to obtain loan clearance because they cannot meet quality requirements associated with either services or products. We normally send them to health and safety authorities to test their products and also to inspect their premises. A significant number of firms fail to make the grade but those which succeed manage to get financial assistance to establish their business."

Participant 6 explained that quality was over-emphasised, especially on the part of producers:

"Manufacturing firms invest a lot of money in incorporating quality in their products but their customers are not quality-conscious when they purchase their goods. Instead, they would prefer to buy cheaper products which did not go through any quality processes. This ends up disadvantaging those firms which invest money in quality processes and they lose business to those that do not."

In summary, key government informants concurred that manufacturing firms faced genuine challenges in ensuring that their products meet specific quality standards and that they obtain certificates which helped to trace their products along the supply chain when they are being exported. All these factors involved significant investment in terms of equipment and time to engage relevant authorities. Several manufacturing firms failed to get loans because of these challenges.

The second component of the model illustrates economic reasons that justify the implementation of specific government policies and guidelines on manufacturing SMEs. Figure 6.8 shows the outcome of the model representing the sub-themes under economic reasons.

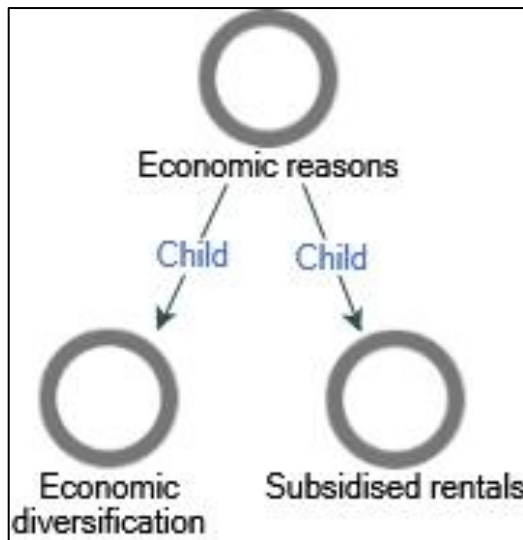


Figure 6.8: Economic reasons

Source: Primary data

This research explores the influence of existing government policies and guidelines with the purpose of increasing the survival and growth of manufacturing SMEs in Botswana.

On the issue of economic diversification, Participant 5 posited:

"The existence of multinational manufacturing companies in Botswana is actually a blessing in disguise because they get into joint ventures with local manufacturing firms. The local manufacturing firms benefit from technology and skills transfer and the multinational companies have a ready export market from their home countries and beyond. So, these efforts help Botswana in its effort to diversify away from diamond mining."

Participant 2 also supported the views of Participant 5 by remarking:

"When we inspect business proposals of prospective entrepreneurs, we look at the uniqueness and economic contribution of the product being offered. Viable projects have a high chance of being financially supported because they contribute towards economic diversification."

One of the policies that the Botswana government formulated was the allocation of subsidised warehouses to manufacturing firms that have been allocated financial assistance. This incubation period lasted for 2 to 3 years.

Participant 1 admitted:

"There are factory shells across Gaborone City that are allocated to newly established SMEs by LEA. These shells have both water and electricity connections and SME managers are provided with skills training, including bookkeeping as part of the incubation process."

Participant 7 concurred with the presentation by Participant 1 and commented:

"The manufacturing sector is a priority sector and our organisation, through BITC, helps newly established SMEs with cheap office and factory accommodation for their business for a limited period of time. During this period, we ensure that these firms regularly provide us with their vital statistics as a form of monitoring and control. We eventually release these companies so that they can be on their own and reassign new firms to the same premises."

In summary, key government informants acceded that projects which promoted economic diversification, which is a major strategic initiative by the Botswana government, have higher chances of funding than those which do not. In order to alleviate the challenges of scarce factory and office space for newly established and funded SMEs, the Botswana government, through BITC and LEA has built many factory shells and offices in and out of Gaborone which can be allocated to them.

The third component of the model illustrates legal and political reasons that justify the implementation of specific government policies and guidelines on manufacturing SMEs. Figure 6.9 shows the outcome of the model representing the sub-themes under legal and political factors.

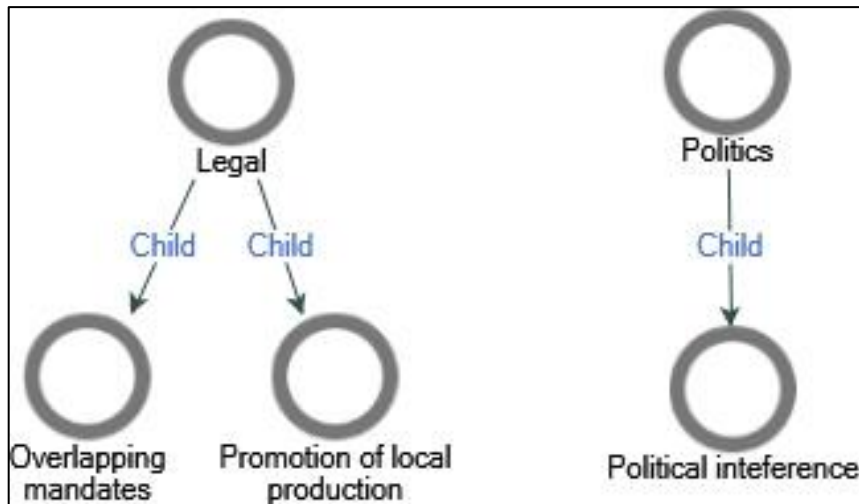


Figure 6.9: Legal and political factors

Source: Primary data

Key government informants gave their views on legal and political factors that affect SMEs. One legal factor which impacts on the survival, growth and sustainability of SMEs in Botswana relates to the perceived overlapping of the mandates of key government agencies responsible for SME funding and SME training and business incubation.

Participant 5 expounded:

“Whilst the mandate of my organisation is focused on SME training and business incubation, there seem to be an overlapping of the same responsibilities with a finance agency which processes loans to prospective entrepreneurs because they are deal with the same issues of SME monitoring and incubation. It is very difficult to delineate these overlapping duties because the mandates of the two organisations are defined by the government. It would be helpful if staff in the two organisations would collaborate and clearly specify where the mandate of one organisation starts and ends.”

On the other hand, Participant 2 from the finance agency clarified the anomaly:

“Our mandate is specifically on evaluation of business proposals with the purpose of providing loans to SMEs and the other body specifically deals with training, business incubation, and monitoring and control of firms which will have received funds from us.”

The recent import bans of commodities like school uniforms and certain agricultural produce were meant to promote local production of the same products in Botswana.

Participant 1 consented that there are two problems associated with this recent initiative by the Botswana government:

“Local manufacturing SMEs lack capacity, in terms of both skills and machinery, to meet local demand of goods which used to be imported from South Africa and other countries. The other challenge is that it is actually multinational companies that are benefitting from these initiatives because they bring in financial and technological investment in Botswana and reap all the benefits.”

However, Participant 7 had a different opinion:

“The multinational companies help with employment creation, skills transfer and contribute to the Botswana GDP when they establish their business in Botswana. These companies also help with skills transfer from their host countries back to Botswana since their factories will now be relocated to Botswana. This helps to boost local demand of their products and also help with employment creation, skills and technology transfer.”

Participant 1 also commented on political interference in the operations of local manufacturing SMEs:

“Besides the dominance of multinational companies in Botswana, there is also the possibility of senior government officials and politicians who may force local SMEs to get into joint ventures with them. This will end up disadvantaging local manufacturing SMEs.”

In summary, key government informants consented that the overlapping mandates of some government-sponsored agencies was a hindrance towards the effective management of manufacturing SME projects. Key government informants also concurred that whilst import bans were meant to boost local production of goods in Botswana, there existed challenges of lack of capacity and loss of potential gains to multinational companies based in Botswana. However, there was also a notion that multinational companies bring in funds, technology and skills transfer. The threat of political interference in local manufacturing SMEs was also highlighted.

The fourth component of the model illustrates procurement factors that justify the implementation of specific government policies and guidelines on manufacturing SMEs. Figure 6.10 shows the outcome of the model representing the sub-themes under procurement factors.

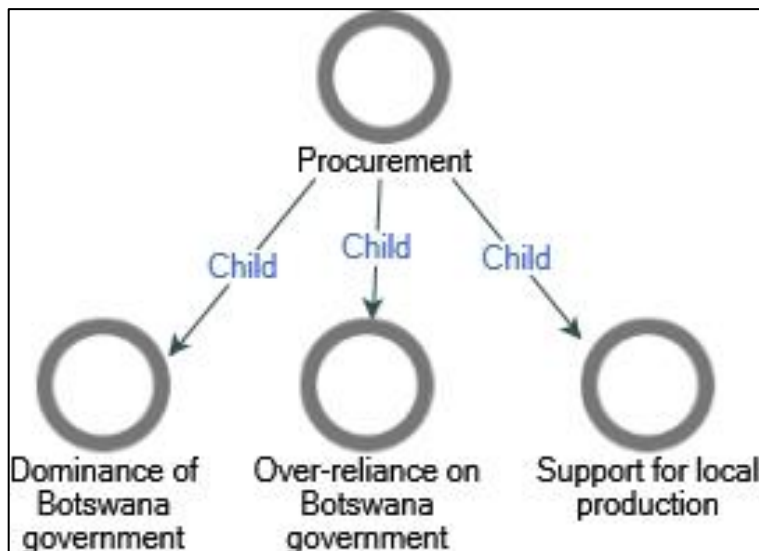


Figure 6.10: Procurement factors

Source: Primary data

Procurement-related factors were discussed by participants and how they impact on SMEs. The bulk of tenders in Botswana are given by the Botswana government to local and international companies operating in Botswana. This means that local firms tend to target the Botswana government as their only source of finance from allocated tenders and source of their survival, growth and sustainability.

Participant 6 admitted:

“The Botswana government is the largest provider of tenders in the country and firms compete for these tenders. However, in most cases, local manufacturing SMEs lose out to multinational corporations and also to local competitors which provide cheap and low quality products. In some cases, firms which fail to get government tenders on a regular basis end up collapsing due to lack of business.”

The Botswana government has also formulated policies which encourage companies to only buy and sell local products in order to ensure that local manufacturing firms remain viable and sustainable. However, this policy also regularly faces challenges.

Participant 4 consented:

“Local SMEs produce poor quality goods which are rejected by government departments and parastatals when they submit their tenders. It is the large established companies which end up winning government tenders at the expense of local SMEs.”

The observations by Participant 4 were confirmed by Participant 5:

“The Botswana government imposes quality on producers and suppliers but consumers do not demand the same quality from these bodies. Consumers tend to buy from producers and suppliers who offer cheaper products and are not concerned with quality attributes of the same products. This means that manufacturing SMEs which invest in quality on their products end up losing business.”

In summary, the survival and growth of some manufacturing SMEs in Botswana depends on their winning of government tenders since the government dominates the funding of tenders in the country. This puts a considerable number of SMEs at a disadvantage since they cannot compete with large companies which have capacity and resources. Local manufacturing SMEs are also affected by quality issues which are imposed on them but consumers do not have the same quality focus and prefer to purchase from cheaper producers and suppliers.

6.3.3 Factors that influence innovation and creativity of SMEs

The research question addressed in this section is - What factors of innovation and creativity influence the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana? This third research question focused on obtaining the views of the sampled key government informants on factors that influence on innovation and creativity of manufacturing SMEs in Botswana. In order to accomplish this, the 7 informants were asked interview questions which solicited their views pertaining to the variables related to innovation and creativity and their influence on manufacturing SMEs in the country. The main themes and sub-themes which were extracted are shown in a project map in Figure 6.11.

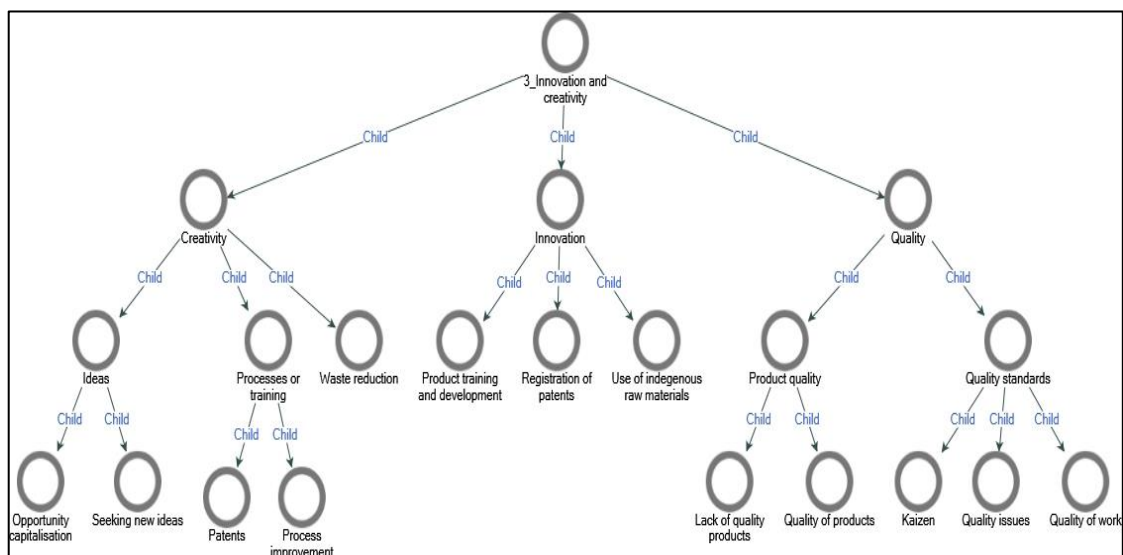


Figure 6.11: Innovation and creativity

Source: Primary data

The views of key government informants on the factors of innovation and creativity on manufacturing SMEs in Botswana resulted in the identification of three broad themes, which are creativity, innovation and quality. Three sub-themes were extracted from the theme on creativity and they are ideas, processes and training and waste reduction. Three sub-themes were also extracted from the theme on innovation and they are indigenous raw materials, product development, and registration of patents. Two sub-themes were extracted from the theme on quality and they are product quality, and quality standards.

Issues that have been discussed on innovation and creativity focused manufacturing SME creativity, innovation and quality. Figure 6.12 shows the outcome of the model representing the sub-themes under creativity.

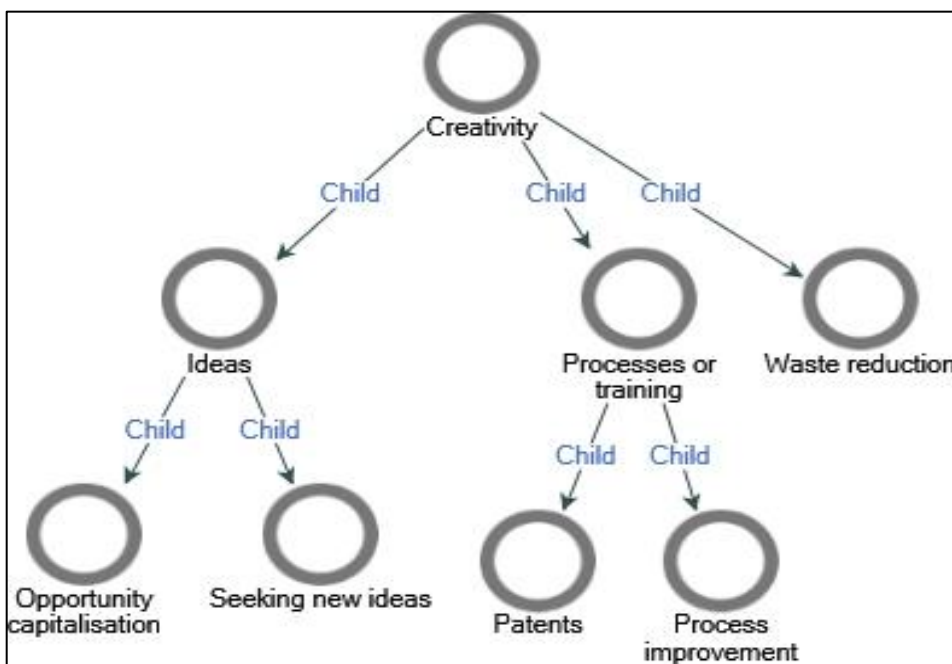


Figure 6.12: SME creativity

Source: Primary data

Some manufacturing SMEs in Botswana use their imagination or ideas to create something new.

Participant 1 acknowledge to this notion of creativity:

"Some SMEs use local indigenous raw materials like Morula to make perfumes and have collaborated with supermarkets where they are given shelf space to display and sell these perfumes. You need to be strong, and you have to convince someone to purchase your product. Some SMEs easily give up."

The issue of creativity was also supported by Participant 3:

"The elevation of manufacturing and agribusiness to priority sectors has led to some SMEs capitalising on this opportunity and diversifying their business to agribusiness and manufacturing in order to increase their chances of acquiring financial assistance. These firms have also managed to compile unique business proposals which enable them to enter niche markets which were never exploited before."

Participant 7 also explained the role of Botswana Innovation Hub in this endeavour:

"Some entrepreneurs go to the Botswana Innovation Hub to get new business ideas and also to register those ideas once they are verified as viable."

On registration of patents, Participant 4 expounded that:

"Manufacturing SMEs who designed new products from unique ideas often went to Botswana Innovation Hub to be assisted on how to register their ideas as patents and to receive further training on patents and protection of their ideas."

Participant 5 elucidated that:

"We offer regular skills training to entrepreneurs in order for them to ensure that they develop strategies which help them to become sustainable and expand their business. This training includes cash management, book keeping and market research."

Participant 1 corroborated the views of Participant 5 by acceding that:

"We once worked with a brick moulding company in Tlokweng. One of the productivity challenges that the company was encountering was wastage of raw materials, water and energy. When we analysed their process, we realised that significant losses were caused by faulty pallets when the finished bricks were damaged during transfer to the market. We improved this company's brick moulding process by recommending that they always use pallets which were flawless." In the end the company started to realise significant profits."

Participant 6 confirmed a similar assignment on process improvement and waste reduction at a certain cabling company in Mogoditshane:

"This company was not realising any profit and we inspected their processes. The first thing that we realised were several electrical cables which were strewn on the floors of the premises. These cables were not just occupying space but were also a safety hazard. We helped the company to redesign its floor space and properly laid out the cabling using trunks on the floor and walls. This helped to increase working space and mobility of employees in the factory the performance and productivity of employees increased."

In summary, key government informants concurred that the generation of unique business helped some SMEs to create sustainable business ideas which helped them to capture a specific niche market in the industry. Their effort was complimented by the Botswana Innovation Hub which helped to register their products as patents and also gave these SMEs training on protection of their patents. Key government informants also used process improvement and waste reduction strategies to help manufacturing SMEs to reduce costs and generate more sales and revenue, thereby becoming sustainable.

The second component of the model illustrates innovation and creativity factors that have an influence on the growth and sustainability of manufacturing SMEs. Figure 6.13 shows the outcome of the model representing the sub-themes under manufacturing SME innovation.

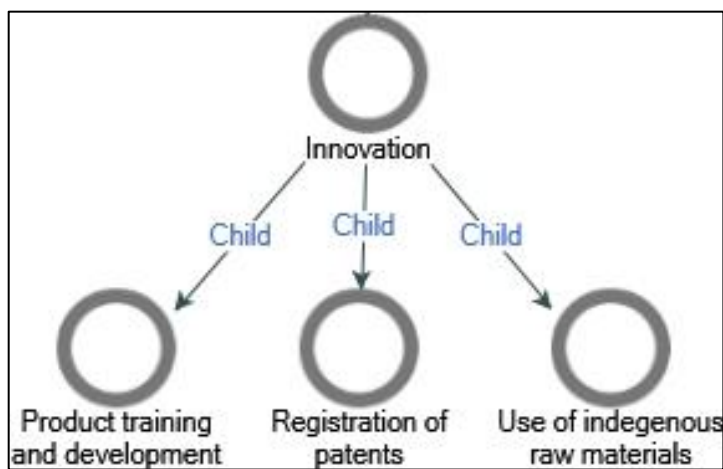


Figure 6.13: SME innovation

Source: Primary data

Traditionally, SMEs face challenges of scarce resources and key government informants confirmed that firms that are highly innovative can efficiently utilise scarce resources, develop new products and realise sustainable competitive advantage. Manufacturing SMEs can also safeguard and protect their products by registering them as patents.

Participant 2 confirmed what her organisation did when loan applicants submit proposals to market new products:

“We refer the entrepreneur to LEA for business training in order for the product to be effectively marketed. This training also includes book keeping, cashflow management, and customer services.”

Participant 1 also acknowledged the issue of product training and development:

“A key productivity strategy that we employ is on how to ensure that SMEs effectively produce and sell their products without running into losses. Some SMEs are capable of producing quality products but lack the skills to set the right price which will help them to realise profit. So, training SMEs on pricing strategies is one of our key activities when we work with SMEs.”

Participant 7 also confirmed the issue of product training and development by clarifying that:

“We ensure that prospective loan clients receive the right training on the specific type of product that they will produce and sell to the market. This is important since there will be similar products in the market and the training will help these entrepreneurs to be competitive and realise better sales.”

Participant 3 revealed that:

“Some SMEs stand better chances of getting their loans approved when they design and produce unique and marketable goods that make use of locally available raw materials. This is common in the craft, brick making and furniture manufacturing SMEs where entrepreneurs can utilise locally available raw materials which might not be found in other places.”

In summary, key government informants confirmed that the growth and sustainability of manufacturing SMEs can be accelerated by providing these entrepreneurs with product training and development skills. SMEs are also encouraged to come up with unique ideas which can help them to make unique and marketable products using locally available raw materials.”

The third component of the model illustrates innovation and creativity factors that have an influence on the growth and sustainability of manufacturing SMEs. Figure 6.14 shows the outcome of the model representing the sub-themes under quality issues.

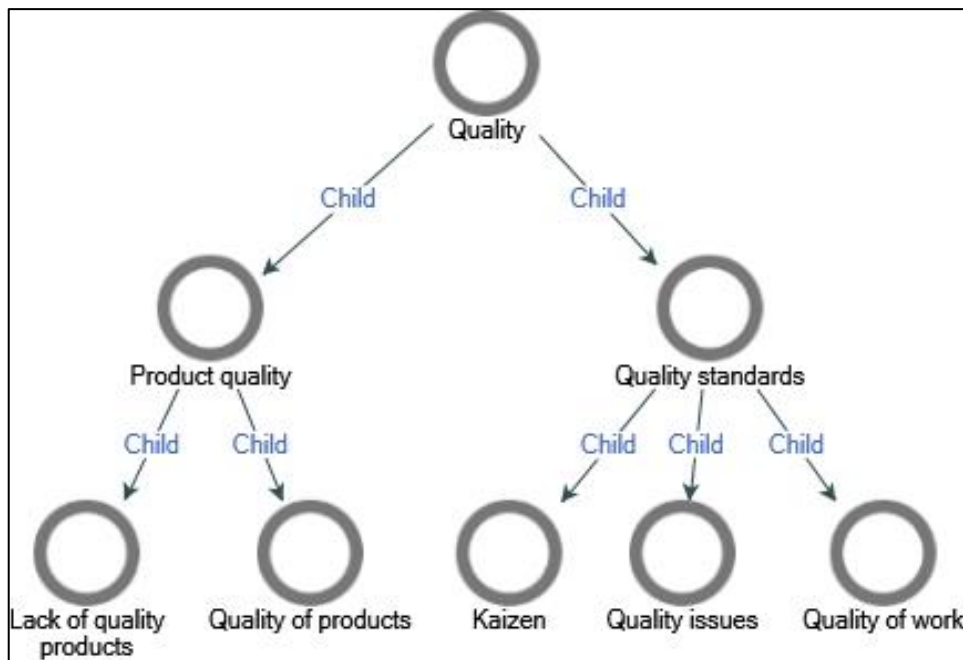


Figure 6.14: Quality issues

Source: Primary data

Traditionally, SMEs face challenges of scarce resource and firms that are highly innovative can efficiently utilise scarce resources, develop new products and realise sustainable competitive advantage. Manufacturing SMEs can also safeguard and protect their products by registering them as patents.

On the issue of quality products, Participant 1 elucidated:

“The textiles firms that we were assisting were affected by quality issues. The tailors that they worked with frequently left them to work on their own and this impacted on the quality of their products. The most affected parts of the garments were button holes, which showed poor finishing.”

Participant 3 concurred with the observations of Participant 1:

“The statutory instruments which resulted in importation bans of agricultural produce from South Africa resulted in an increase in demand for funds by local SMEs to venture into agribusiness. However, the only challenge is lack of quality of the products which are produced by local SMEs.”

Despite the above challenges of product quality, Participant 5 pronounced that:

“Quality assurance is an area that we take seriously when we are training entrepreneurs. We train them so that they obtain accreditation with the Botswana Bureau of Standards”

In ensuring that organisations produce quality goods, key government informants explained the various quality standards that they assist manufacturing SMEs with:

Participant 1 expounded that:

“My organisation worked with the Japanese. One of the quality improvement processes that we assisted SMEs in Botswana with is Kaizen. With Kaizen, we were able to help SMEs to improve on their quality of service and safety in their factories”

Another quality standard which key government informants helped with SMEs is ISO 9000 certification. Participant 4 explained:

“We also helped several companies in the export markets with ISO 9000 certification in order to ensure that their products were of globally acceptable quality. For example, there is a cabling company that we helped with ISO 9000 certification to export its products to South Africa.”

Participant 2 also corroborated on the issue of quality:

“Quality inspection is an important aspect that we consider when we are processing business proposals for manufacturing SMEs. We always ensure that we refer these entrepreneurs to health and safety authorities to inspect their premises. As for their products, we always recommend that the products are tested before loans can be approved.”

Participant 6 also consented and highlighted:

“We refer loan applicants to LEA so that they can undergo training on process improvement when we detect flaws in their production process. We also suggest that their products are aligned with international best practices if they are bound for export markets.”

In summary, key government informants noted that quality was an important component of SME growth and sustainability. The organisations that key government informants worked for assisted manufacturing SMEs with training and consultancy on quality issues like certification, quality assurance and adherence to international best practices. Specific quality standards which are currently applied on manufacturing SMEs are Kaizen and ISO 9000. However, there still exist multiple challenges. A sizable number of manufacturing SMEs cannot access financial loans because they cannot meet product quality specifications. Many manufacturing SMEs also fail to survive and grow in the market because of poor quality of their products. In some cases, the production process also contains flaws which require inspection to remove defects.

6.3.4 The extent to which human capital development impacts on SMEs

The research question addressed in this section is - To what extent does human capital development affect the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana? This fourth research question focused on obtaining the views of the sampled key government informants on the extent of human capital development on manufacturing SMEs in Botswana. In order to accomplish this, the 7 informants were asked interview questions which solicited their views pertaining to the effect of human capital development on manufacturing SMEs in the country. The main themes and sub-themes which were extracted are shown in a project map in Figure 6.15.

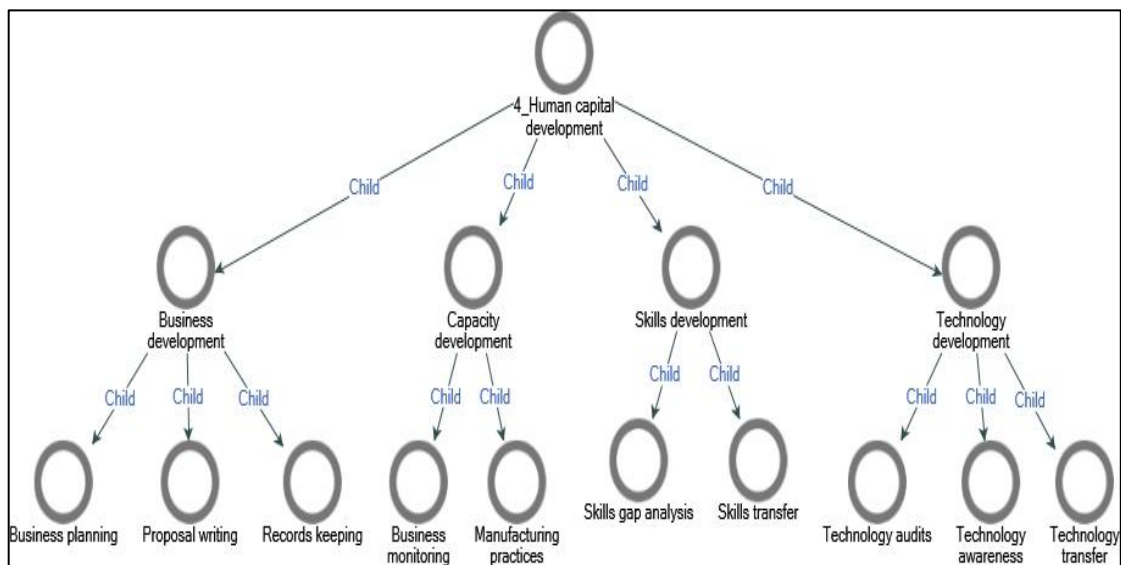


Figure 6.15: Human capital development

Source: Primary data

The views from key government informants on the extent to which human capital development affects manufacturing SMEs revealed four broad themes, which are capacity development, business development, skills development, and technology development. Two sub-themes were extracted under the theme capacity development and they are business monitoring and manufacturing practices. Three sub-themes were extracted under the theme business development and they are business planning, proposal writing and records keeping. Two sub-themes were extracted from the theme skills development, which are skills transfer, and skills gap analysis. Lastly, three sub-themes were extracted from the theme technology development, and they are technology audits, technology awareness, and technology transfer.

The first component of the model illustrates the extent to which capacity development factors affect the growth and sustainability of manufacturing SMEs. Figure 6.16 shows the outcome of the model representing the sub-themes capacity development.

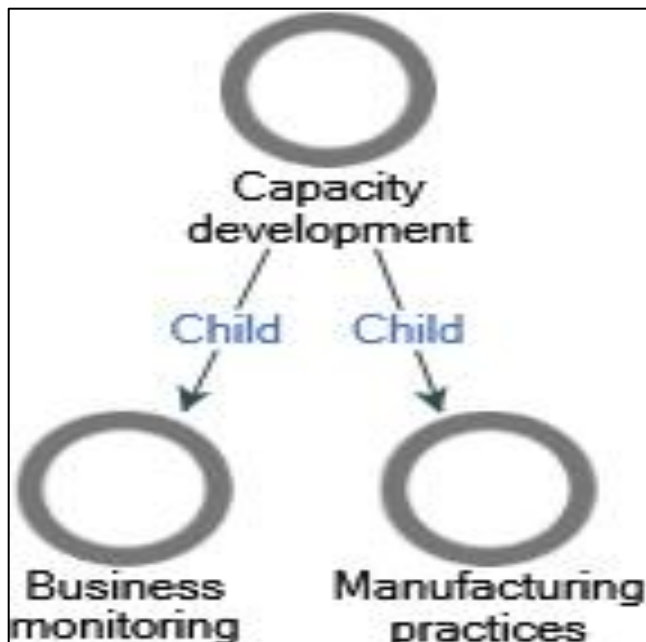


Figure 6.16: Capacity development

Source: Primary data

Manufacturing SMEs are affected by lack of skilled manpower, including high employee turnover. This implies that manufacturing SMEs face the challenge of continuously developing their human resources. Business development was a major issue that evolved from the discussions with the key government informants.

Participant 5 expounded:

“SMEs come to us for business planning training because planning is important for expansion and growth.”

Participant 6 concurred:

“Planning will help your business as you start and grow. A good business plan guides an entrepreneur through each stage of starting of starting and managing a business.”

Participant 3 lamented:

“Most of the business plans which are submitted by our clients are lacking in detail and highly generalised. Some clients do not understand what is required at different sections of their proposals.”

On the issue of proposal writing:

When asked what a typical proposal should consist of, Participant 2 explained:

"We look at the market and availability of raw materials when a new proposal is submitted to our organisation. We also look at the potential profit under the proposal. We also look at whether the product has been appropriately remodeled."

On how they deal with challenges of literacy, Participant 4 said:

"Our organisation refers our customers to LEA for training in business management and proposal writing. They work with customers on a one-on-one basis until the proposal is ready for submission."

Participant 7 further explained on this aspect of proposal writing:

"Some proposals lack third party documents which specify whether or not some background checks have been made, for example whether or not the product has been approved by the City Council and if any market research has been conducted. In such cases, these proposals are sent back to the drawing board."

Records keeping was a recurring theme in this research:

Participant 1 explicated:

“The textile firms that we assisted had challenges of keeping records and this affected their chances of obtaining loans from commercial banks and also submitting required documents to the government.”

Participant 5 further remarked:

“We offer training in both business planning and records keeping. Most SMEs struggle with keeping records on their financial performance and we assist them with the required training. We also monitor their records on a month-by-month basis by checking their vital statistics.”

In summary, key government informants explained that they developed the capacity of manufacturing SME owners/managers through business monitoring using methods business planning training, product remodeling, and assessment of venture profitability. The manufacturing practices of manufacturing enterprises is another capacity development strategy

that is used by key government informants to ensure that production processes of these enterprises are efficient, less costly and produce high quality products along the production line.

The second component of the model illustrates the extent to which business development factors affect the growth and sustainability of manufacturing SMEs. Figure 6.17 shows the outcome of the model representing the sub-themes business development.

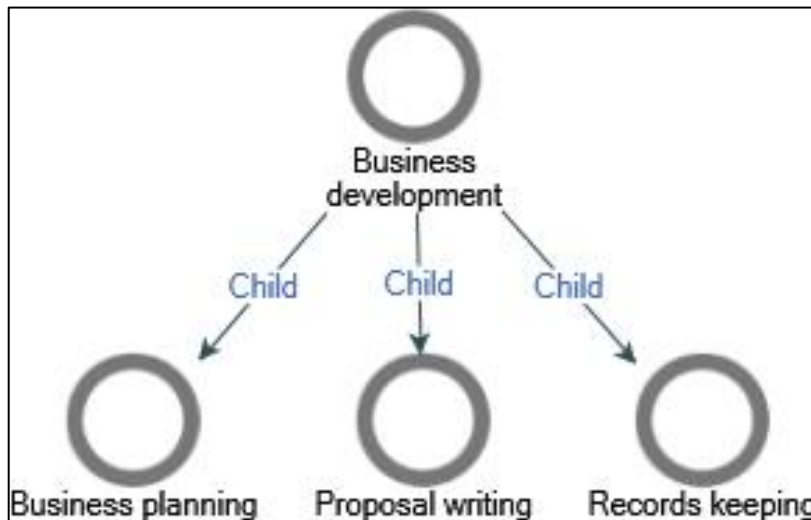


Figure 6.17: Business development

Source: Primary data

Business development is important to manufacturing SMEs because it helps SME owners/managers to create and utilise ideas, initiatives and activities that help a business to become competitive. Business monitoring and enhancing manufacturing practices are two key sub-themes which were identified under capacity development.

Another area of human capital development which was discussed was capacity development.

Participant 1 acceded:

“We monitored the 10 textile firms over a period of 3 years in order to ensure that their processes are efficient. Unfortunately, we did not keep any records on their performance but when we returned to some of these firms, we realised that they were still functioning. Of course, some had changed employees.”

Participant 4 consented:

“We do not give these SMEs all the loan finance at once but we give them in small amounts and monitor how they spent it on their projects.”

Participant 5 acceded to the issue of business monitoring:

“We inherited factory shells from FAP which we rent out to newly established SMEs. We monitor them for 3 years and check how they are performing, including their financial records. After 3 years we give the space to other firms.”

In summary, key government informants explained the importance business monitoring and incorporation of excellent manufacturing practices in both products and processes of SMEs. Business monitoring was done as part of incubation and manufacturing processes were verified during the processing of business proposals and also as part of business monitoring during incubation.

Another way key government informants developed the capacity of SMEs was through the enhancement of their manufacturing practices.

Participant 5 clarified:

“We get regular requests from companies to train their employees on capacity development. We also enroll SMEs into the same program, which covers product development, product quality and manufacturing practices.”

Participant 6 concurred:

“Before we approve any loans to these SMEs, we verify that their manufacturing practices are clearly outlined and that they adhere to international best practices. We also check quality standards in their processed and products.”

In summary, key government informants highlighted weaknesses within the human capital development strategies of manufacturing SMEs, including poor business planning, poor proposal writing and poor records keeping. Institutions which issue loans to SMEs indicated that they always ensure that these issues are rectified before loans can be given. The informants also explained that SMEs are always referred to LEA for entrepreneurial skills training.

The third component of the model illustrates the extent to which skills development factors affect the growth and sustainability of manufacturing SMEs. Figure 6.18 shows the outcome of the model representing the sub-themes skills development.

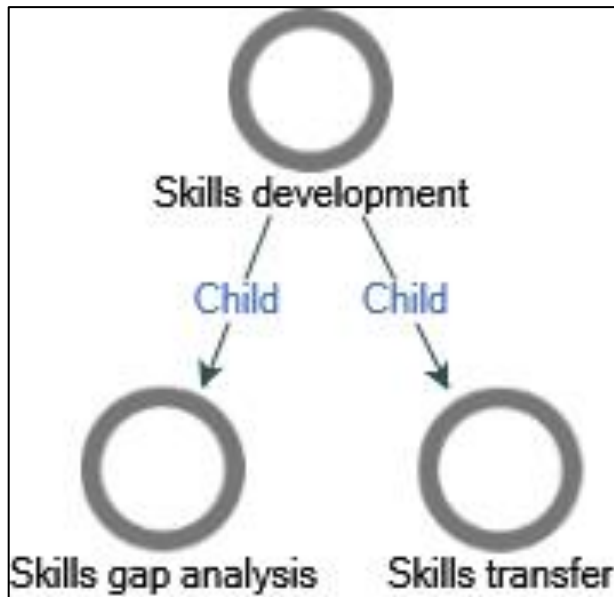


Figure 6.18: Skills development

Source: Primary data

The manufacturing industry uses different types of skills depending on the nature of manufacturing SME activities. Key government informants in this study highlighted issues of skills gap analysis and skills transfer as being critical in the manufacturing industry in Botswana.

Key government informants reiterated the scarcity of skills in the manufacturing industry:

Participant 1 concurred on the issue of skills scarcity:

“We noticed that the textile companies that we dealt with had challenges with button holes on their garments. We recommended that they hire experts to do the button holes for them.”

Participant 4 acknowledged:

“We encourage SMEs to enter into joint ventures with foreign companies in order to promote skills and technology transfer to local SMEs.”

Participant 5 posited:

“We were part of the introduction of those statutory instruments. The banning of imports from South Africa helped to import these manufacturing skills which used to be in South Africa and now locals can be equipped with the same skills since these multinationals have set up their business in Botswana. ”

In summary, key government informants agreed that there are serious skills shortages in the manufacturing industry in Botswana and some of the scarcity is due to employee turnover whilst some is due to lack of training of manufacturing SME employees. However, significant effort is being made by LEA and also through the transfer of skills as a result of the relocation of manufacturing firms from South Africa to Botswana following the importation ban of certain products.

The fourth component of the model illustrates the extent to which technology development factors affect the growth and sustainability of manufacturing SMEs. Figure 6.19 shows the outcome of the model representing the sub-themes technology development.

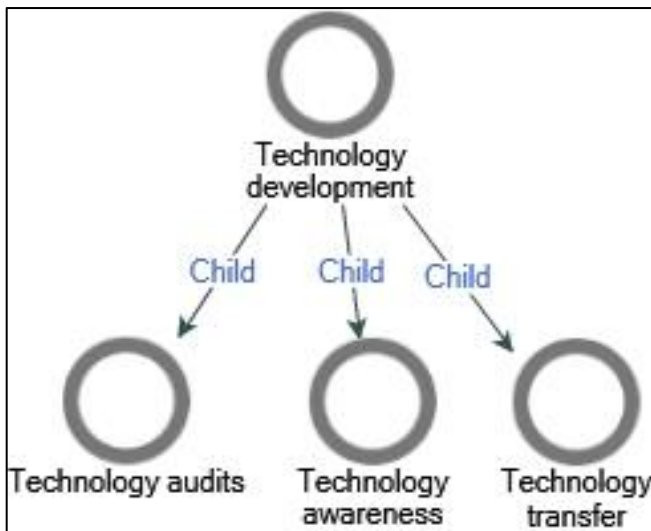


Figure 6.19: Technology development

Source: Primary data

Manufacturing SMEs have the potential to eliminate waste, defects and inefficiencies through the use of technology. The key government informants in this research highlighted the importance of technology awareness, technology audits, and technology transfer as being critical for manufacturing SMEs in Botswana.

Participant 3 supported the issue of joint ventures with foreign companies:

"We actually encourage joint ventures between local and foreign firms because foreign firms bring in capital and technology to our country. However, the arrangements sometimes work, but sometimes do not work also because these foreign companies do not want to give away everything."

Participant 1 commented:

“Most textile firms that we worked with used manual systems (notebooks) to store their records and this affected their pricing strategy because some of them could not accurately subtract expenses from sales to get profit.”

Participant 5 remarked:

"During the Covid-19 pandemic, most manufacturing SMEs turned to technology in order to remain operational. However, after Covid-19, what we are seeing now is a reversal of the process where fewer companies are now using technology in their operations. Currently, we are trying to ensure that part of our business development and training programs cover technology audits so that we identify areas where these SMEs can utilise technology to their advantage. We are also developing programs to ensure that we incorporate technology awareness to manufacturing SMEs so that they can improve their processes and products using technology. We also run technology audits in firms in order to assess the technologies which they have or do not have and what can be done to remedy their challenges, technology wise."

Participant 7 retorted:

"Most manufacturing firms in Botswana are still using manual processes to produce their goods and this is impacting on quality and delivery time. These firms have also failed to grow and expand because they cannot produce enough to sustain and grow their business."

In summary, key government informants concurred that there was scarcity of technology within manufacturing SMEs in Botswana. Key government informants also regularly undertook technology audits during the incubation of new SMEs and also imparted technology awareness during training of entrepreneurs. Key government informants also highlighted the importance of technology transfer during the formation of joint ventures between local firms and foreign companies. Technology transfer is also happening as a result of the relocation of some South Africa to Botswana following the banning of importation of certain products from South Africa.

6.3.5 The impact of access to finance on SMEs

The research question addressed in this section is - To what extent does access to finance impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana? This fifth research question focused on obtaining the views of the sampled key government informants on the extent to which access to finance impacted on manufacturing SMEs in Botswana. In order to accomplish this, the 7 informants were asked interview questions which solicited their views on the extent to which access to finance impacted on

manufacturing SMEs in the country. The main themes and sub-themes which were extracted are shown in a project map in Figure 6.20.

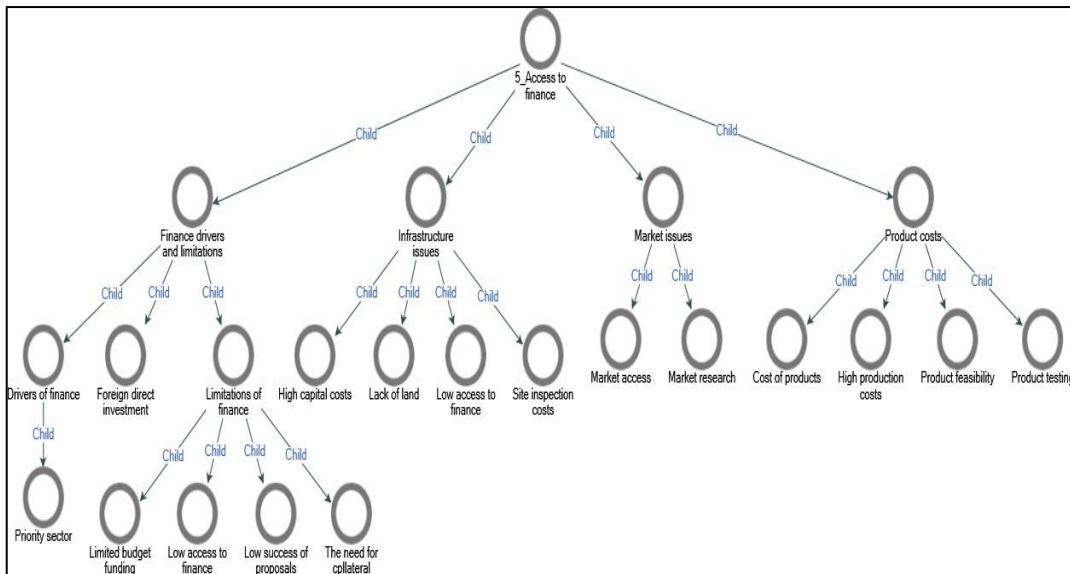


Figure 6.20: Access to finance

Source: Primary data

The views of key government informants on the extent to which access to finance impacts on the survival, growth and sustainability of manufacturing SMEs in Botswana led to the extraction of four broad themes, which are finance drivers and limitations, infrastructural issues, market issues, and product costs. Two sub-themes were extracted from the theme finance drivers and limitations, and they are drivers of finance and limitations of finance. Four sub-themes were extracted from the theme infrastructural issues, and they are high capital costs, lack of land, low access to finance, and site inspection. Two sub-themes were extracted from the theme market issues, and they are market access, and market research. Lastly, four sub-themes were extracted from the theme product costs, and they are cost of products, high production costs, product feasibility, and product testing.

The first component of the model illustrates the extent to which finance drivers and limitations affects the growth and sustainability of manufacturing SMEs. Figure 6.21 shows the outcome of the model representing the sub-themes finance drivers and limitations.

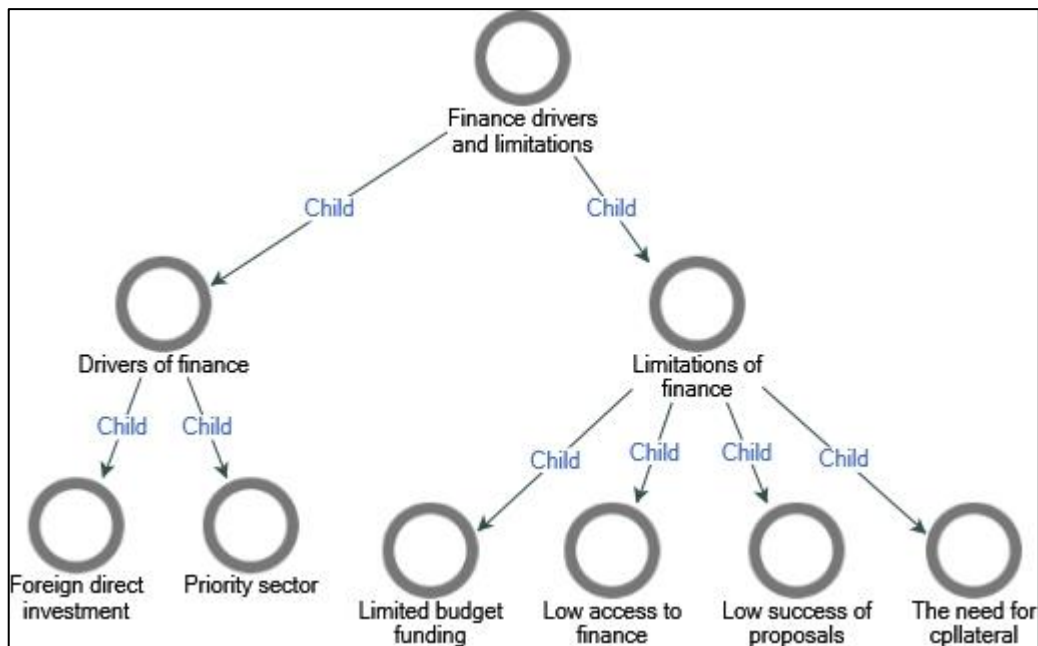


Figure 6.21: Finance drivers and limitations

Source: Primary data

Access to finance has been mentioned as a critical success to manufacturing SMEs (Lekhanya, 2016, p. 5; Dosumu *et al.*, 2017, pp. 51-62). However, most SMEs in developing countries face challenges when accessing finance and these challenges impact on their survival, growth and sustainability. Foreign direct investment is a major source of finance for local manufacturing SMEs in Botswana who get into joint ventures with multinational companies.

Participant 3 said:

“Our budget is limited so we encourage foreign firms to enter into partnerships with local entrepreneurs and in the end these foreign firms bring finance, technology and skills.”

Participant 4 concurred and affirmed:

“It is much safer to give additional funding to foreign firms which bring investment to Botswana because they have assets to give as collateral. They also have sound reputation in their markets.”

The Botswana government has made manufacturing and agriculture priority sectors in the country’s economy. This is making it easier for manufacturing SMEs to obtain loans from finance institutions.

Participant 3 consented:

"The recent revision of the CEDA guidelines has really assisted entrepreneurs. The issue of security has been relaxed for the priority of sectors. We have priority sectors for example manufacturing."

Participant 4 further elaborated:

"Initially, interest rate on loans was 7.6% and now it is as little as 3.5%. Previously, we required security for loans above P500,000 but now security is mandatory for loans above P5 million. This means for loans which are less than P5 million you can apply for loan without security. The same applies for loans which are P5 million or even P10 million for applications under the priority sector."

Participant 7 explicated:

"We give loan preference to applicants who give agriculture and manufacturing business proposals. We actually have an agribusiness centre within our bank to cater prospective and current entrepreneurs venturing in agriculture."

Loan applicants from the manufacturing sector also face many challenges:

Participant 5 explicated:

"There is actually a 70% deficit in SME funding in Botswana. Maybe when you look at CEDA and FNB alone, they will not be able to satisfy 30% of the total demand of SME funding in Botswana."

Participant 6 further revealed:

"The riskiness of SMEs makes it very difficult for commercial banks to offer finance to SMEs. In the end, not all applicants receive what they expect."

Participant 7 confirmed what Participant 6 commented on:

"Coupled with poor proposal writing skills of prospective loan applicants, it is always risky to provide SMEs with significant amount of cash. For larger amounts, we always ask for collateral, which they do not have. So, it is a vicious cycle."

In summary, key government informants confirmed that foreign direct investment and the preferential treatment of loan applicants for manufacturing were important drivers of finance for manufacturing SMEs in Botswana. However, challenges still existed due to the limited funding

budget for SMEs in Botswana, the riskiness of SMEs in general, poorly prepared business proposals, and the need for collateral, which in most cases is not available.

The second component of the model illustrates the extent to which infrastructural factors affects the growth and sustainability of manufacturing SMEs. Figure 6.22 shows the outcome of the model representing the sub-themes infrastructural factors.

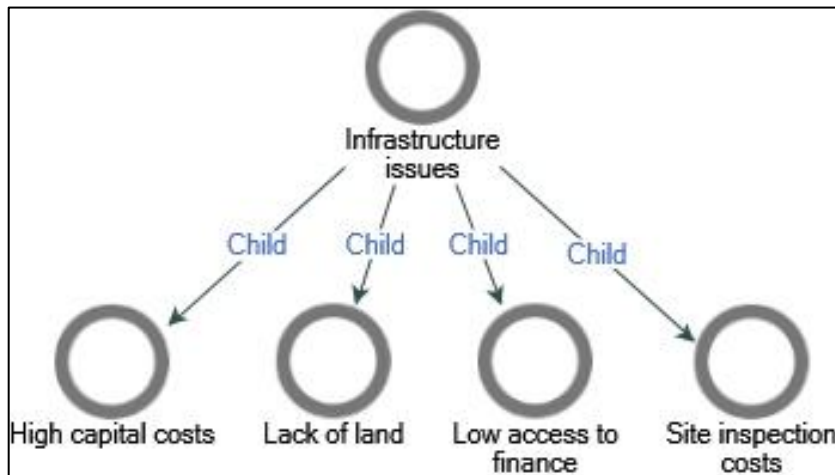


Figure 6.22: Infrastructural factors

Source: Primary data

The manufacturing sector involves the use of equipment and machinery which costs substantial financial investment. Key government informants highlighted infrastructural factors that impact on manufacturing SMEs in Botswana which included high capital costs, lack of land, site inspection costs and low access to finance.

On the issue of high capital costs:

Participant 1 said:

“We advised the textile firms to hire machinery and tailors in order to improve on the quality of garments. This was because these firms could not afford to buy their own machinery and staff turnover was very high.”

Participant 3 further elucidated:

“The importation ban will not result in immediate benefits for Batswana because most of them do not have farming equipment. Instead, it is the established South African companies which will set up business in Botswana and benefit.”

Participant 5 counteracted:

“It is true locals will not benefit in the short-term but you must also remember that it is the skills and technology imports which will be of benefit to the Botswana economy. Remember, these companies used to manufacture from South Africa but they have now relocated to Botswana.”

The scarcity of land was also reemphasized within the context of lack of infrastructure for manufacturing SMEs.

Participant 1 said:

“It is very difficult for young and prospective entrepreneurs to venture into manufacturing, especially in situations where they require land to operate from because land is very expensive in Botswana.”

Participant 5 concurred:

“The production capacity of SMEs is limited by the available amount of land which they have. Most SMEs have very little land to operate from and this impact on the amount of produce in their business. They are also severely constrained by running costs because they are spread over a small space of land, unlike with large enterprises which have more land.”

Participant 6 further pronounced:

“Most business proposals fail because applicants do not have their own land to operate from. Some submit lease agreements but again these will be unacceptable because they cover communal not commercial land.”

A significant number of manufacturing SMEs fail to take off due to prohibitive inspection fees of their premises.

Participant 2 expounded:

“Before we approve loans to these SMEs we ask them to have their products tested and their sites inspected by the City Council and Health and Safety authorities. Most of these SMEs cannot afford the testing and inspection fees because their loans will not have been approved.”

In summary, key government informants gave adverse feedback with regard to infrastructural issues which impacted on manufacturing SMEs in Botswana. The high acquisition costs for equipment and machinery are an impediment to the establishment of their businesses, coupled with lack of land. It is also very difficult for these SMEs to acquire finance to purchase

machinery and land, thus further disadvantaging them. The sites that they intend to operate from require prior inspection before they can get funding and inspectors must be paid for their service.

The third component of the model illustrates the extent to which market factors affect the growth and sustainability of manufacturing SMEs. Figure 6.23 shows the outcome of the model representing the sub-themes market factors.



Figure 6.23: Market factors

Source: Primary data

In order to reach out to the right customers, manufacturing SMEs need to conduct market research and also to convince the providers of financial services like loans that they have the capacity to access those markets. The views from key government informants on market factors which affect manufacturing SMEs are discussed in this section.

Participant 1 noted:

“We worked with BITC in order to ensure that the manufacturing firms that we helped were export ready. Markets of produce to Zambia and Zimbabwe were identified and we helped these companies with traceability certification.”

Participant 2 further explained:

“We always ensure that there is a market for the product before we approve proposals. We also refer these businesses to organisations that can assist them with market research.”

Participant 3 explained:

“The importation bans have created additional market for agricultural produce in Botswana and we are witnessing the submission of more applications for agribusiness loans in our organisation.”

Participant 5 affirmed:

“The relocation of some manufacturing companies from South Africa to Botswana has led to greater market opportunities, both locally and abroad, because excess supply from SMEs in Botswana can be exported to South Africa and beyond. The advantage is that foreign firms operating in Botswana have already established markets in South Africa and beyond.”

In summary, market access is very important for the survival, growth and sustainability of manufacturing SMEs in Botswana. Key government informants emphasised the need for thorough market research before funds can be made available. Foreign firms which have relocated to Botswana have also added business linkages including greater access to export markets.

The fourth component of the model illustrates the extent to which product costs affect the growth and sustainability of manufacturing SMEs. Figure 6.24 shows the outcome of the model representing the sub-themes product costs.

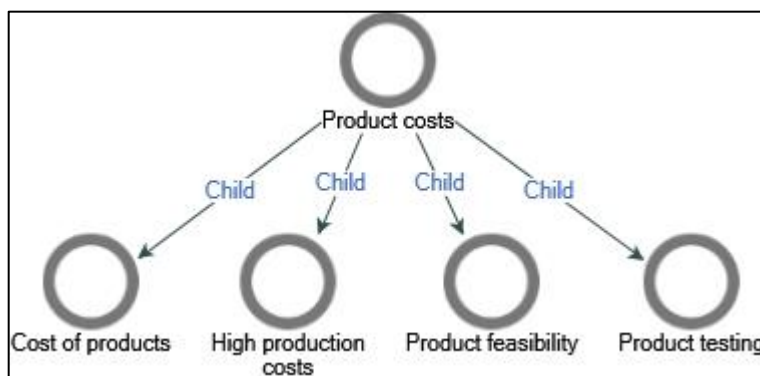


Figure 6.24: Product costs

Source: Primary data

The manufacturing industry involves the use of significant levels of funding to convert the raw materials into finished goods. The key government informants who participated in this study gave their views on the impact of product costs on the growth and success of manufacturing SMEs in Botswana.

Participant 1 admitted challenges with product costing:

“There was an agricultural project that we once assisted and the problem was under costing of the product. When you under cost a product, you get money but that will lead to a loss.”

Participant 3 consented:

“The manufacturing sector requires investment in machinery and most local SMEs cannot afford to acquire funds to purchase machinery. There are also high production costs within the sector and this is a major barrier to most SMEs that want to participate in manufacturing.”

Participant 4 acceded:

“We refer entrepreneurs to authorities who deal with product testing and site inspection. The process involves charges which must be borne by the SMEs before they have their loans approved, which is almost impossible to some of them.”

Participant 3 further elucidated:

“Before we approve loans, we need to verify that the product is feasible and market ready. This involves product testing and conducting a market research to confirm the acceptability of the product by the market.”

In summary, key government informants highlighted that cost of products, high production costs, product testing and product feasibility were production cost factors that impacted on the survival, growth and sustainability of manufacturing SMEs.

6.3.6 The specific financial management skills of SMEs

The research question addressed in this section is - How do financial management skills impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana? This sixth research question focused on obtaining the views of the sampled key government informants on how financial management skills impacted on manufacturing SMEs in Botswana. In order to accomplish this, the 7 informants were asked interview questions which solicited their views on how financial management skills impacted on manufacturing SMEs in the country. The main themes and sub-themes which were extracted are shown in a project map in Figure 6.25.

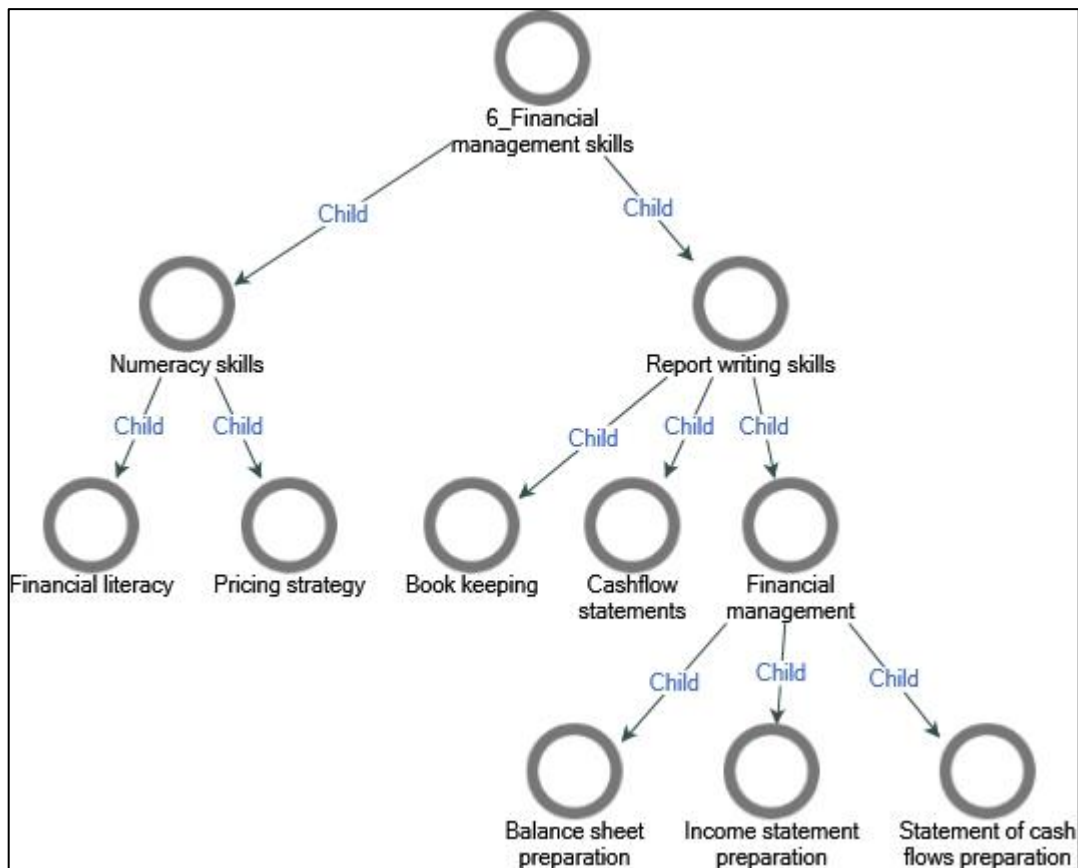


Figure 6.25: Financial management skills

Source: Primary data

The views of key government informants on how financial management skills impact on manufacturing SMEs resulted in the identification of two broad themes, which are numeracy related skills and report writing skills. Two sub-themes were extracted from the theme numeracy related skills, and they are financial literacy, and pricing strategy. Three sub-themes were extracted from the report writing skills theme, and they are book keeping, financial management statements, and cashflow statements.

The first component of the model depicts the impact of numeracy-related skills on the growth and sustainability of manufacturing SMEs. Figure 6.26 shows the results of the model representing the sub-themes numeracy-related skills.

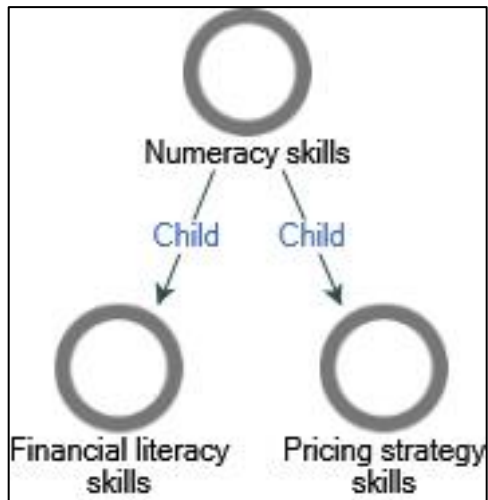


Figure 6.26: Numeracy-related skills

Source: Primary data

Access to finance is closely associated with financial management skills. As a result, it was important to delineate the specific financial management skills that SME owners/managers require in order for them to have the optimal readiness when seeking finance from government agencies and commercial banks. The most important financial management skills which were stated by key government skills as being important for manufacturing SME owners/managers in Botswana are financial literacy and pricing strategy skills.

Participant 5 expounded:

“Funding for manufacturing SMEs is available but the biggest challenge is financial literacy. Most entrepreneurs cannot compile convincing business proposals because they lack basic skills in bookkeeping, cashflow statements, etc.”

The observations by Participant 5 were reiterated by Participant 7:

“We mostly return proposals from SMEs on the grounds of lack of financial skills. We refer some of them to institutions like LEA for guidance and some seek specialist consultants to assist them. In most cases they are assisted and we approve their proposals and release funds when all other areas are also satisfied.”

The issue of pricing strategy keeps on resonating. Participant 5 acknowledged:

“It seems SMEs have challenges when it comes to the prices that they tag to their products. Initially they seem to be doing well but end up running losses when markets fluctuate and they fail to adjust their prices accordingly.”

In summary, there is evidence from key government informants to suggest that most manufacturing SMEs lack skills like financial literacy and pricing strategy.

The second component of the model depicts the impact of report writing skills on the growth and sustainability of manufacturing SMEs. Figure 6.27 shows the results of the model representing the sub-themes report writing skills.

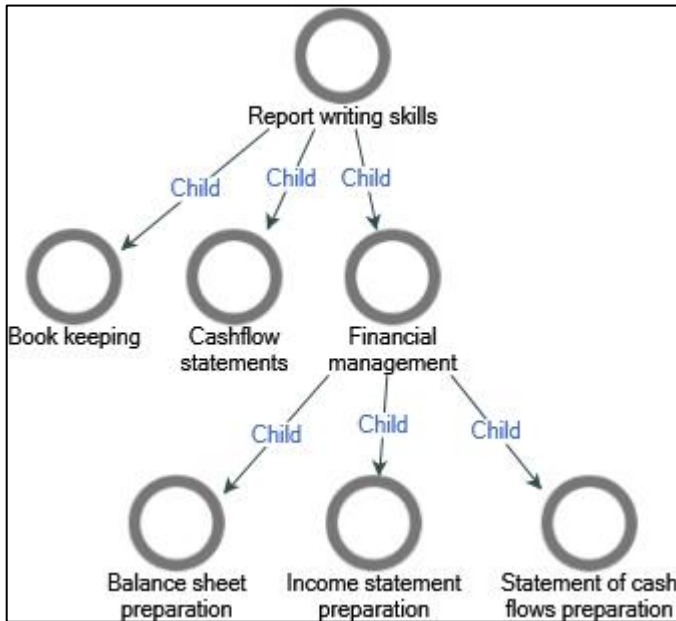


Figure 6.27: Report writing skills

Source: Primary data

SME owners/managers are expected to compile and submit certain reports when applying for finance and when they are also operating their businesses on a day-to-day basis. Some of these reports include business plans, cashflow statements, annual budgets, income statements and balance sheets. Key government informants highlighted that manufacturing SME owners in Botswana can become successful if they are capable of using cashflow statements, bookkeeping skills, and preparation of the reports: income statement, balance sheet, and statement of cash flow.

Participant 1 alluded to the deficiency of book keeping skills:

“SMEs are given factory shells for an incubation period of 2 to 3 years. The probation covers skills training like book keeping.”

Participant 5 also confirmed the same challenge:

“They normally come for business management skills courses like record keeping, customer service and retention and business planning.”

Preparation of cashflow statements is another skill which is lacking amongst SMEs. Participant 5 explained:

“The biggest challenge that we actually face is the precarious cash flow status of a lot of SMEs. We do not know whether it is a business management issue or a market-related problem,”

Key government informants also highlighted deficiencies in report writing in financial management.

Participant 2 elucidated:

"We refer our clients to Local Enterprise Authority who run periodic training and can actually work with them on a one-on-one basis right from the business plan to the proposal until it is ready for submission at our office or at any other venture."

Participant 3 concurred:

"LEA can take any SME and staff from scratch with business plans, market access and business incubation."

In summary, key government informants confirmed that most manufacturing SMEs face report writing challenges in book keeping, cash flow statements and financial management documents like balance sheets, income statements and statements of cash flow, which are either required during loan application or on an ongoing basis when business monitoring is performed after funds are allocated to the SMEs.

6.3.7 Specific managerial skills of SMEs

The research question addressed in this section is - Which managerial skills can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana? This seventh, and final, research question focused on obtaining the views of the sampled key government informants on how managerial skills impacted on manufacturing SMEs in Botswana. In order to accomplish this, the 7 informants were asked interview questions which solicited their views on how managerial skills impacted on manufacturing SMEs in the country. The main themes and sub-themes which were extracted are shown in a project map in Figure 6.28.

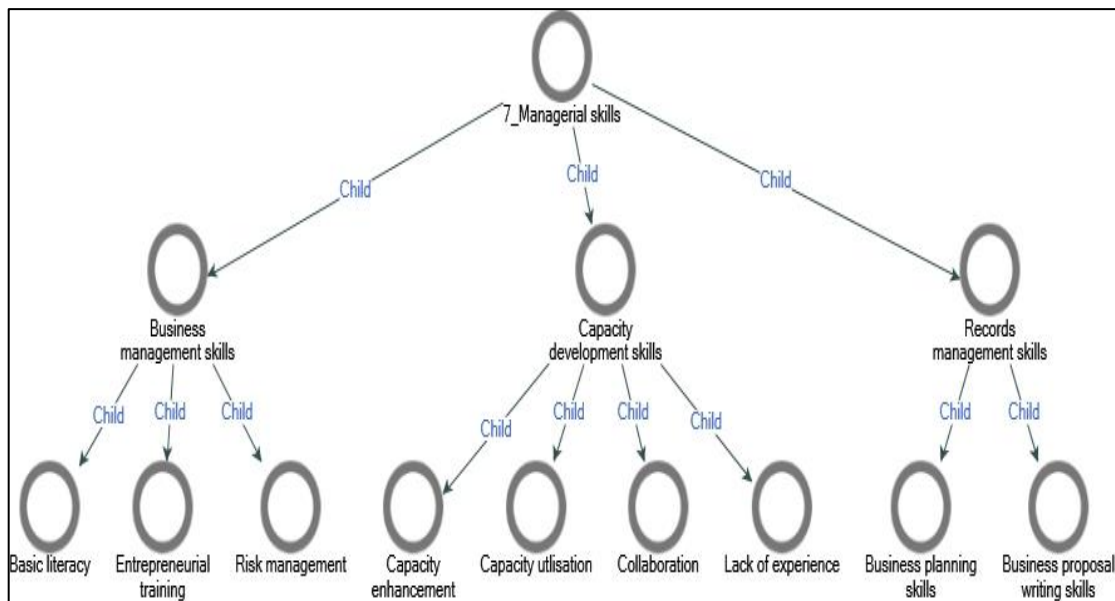


Figure 6.28: Managerial skills

Source: Primary data

The views of key government informants on managerial skills which can be employed by manufacturing SME owners/managers in order for them to survive, grow and achieve sustainable competitive advantage revealed three broad themes, which are business management skills, capacity development skills, and records management skills. Three sub-themes were extracted from the theme business management skills, and they are basic literacy, entrepreneurial training, and risk management skills. Four sub-themes were extracted from the theme on capacity development skills, and they are capacity enhancement, capacity utilisation, collaboration and lack of experience. Lastly, two sub-themes were extracted from the records management skills, and they are business planning skills and records management skills.

The first component of the model depicts the impact of capacity development skills on the growth and sustainability of manufacturing SMEs. Figure 6.29 shows the results of the model representing the sub-themes capacity development skills.

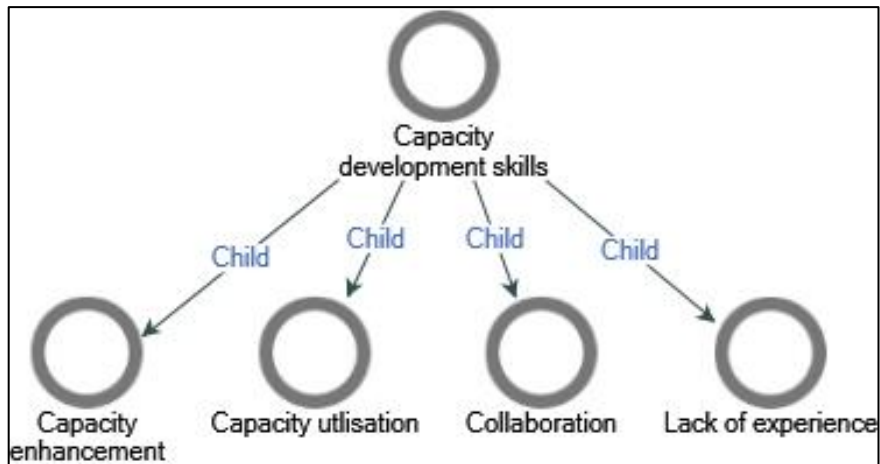


Figure 6.29: Capacity development skills

Source: Primary data

Manufacturing SME owners/managers are expected to continuously improve the skills and competencies of their employees through capacity development. Key government informants who participated in this research noted that manufacturing sector employees generally lack work experience. They also suggested that capacity development skills like capacity utilisation, capacity enhancement, and collaboration should be further developed by SME owners/managers in order to ensure that employees are more productive and strategic goals are fulfilled.

On capacity enhancement, Participant 5 commented:

“We provide capability enhancement where we focus on product development and good manufacturing practices.”

On capacity utilisation, Participant 6 explained:

“A number of SME have resources like manpower, equipment, and even funds but they fail to make productive use of these resources because they lack the capacity to do so. Institutions like LEA and CEDA can help with training of these SMEs so that they have the skills to increase their capacity to utilise available resources.”

Collaboration is a skill which is also important to the manufacturing sector. Participant 1 suggested:

“Textile firms lacking skills on finishing button holes can collaborate with those which have machine and experts and hire them to assist them.”

Participant 3 also concerted:

“We encourage local businesses to enter into joint ventures with foreign companies who bring in additional funds, skills and technology. This collaboration helps local businesses to boost their operations.”

Managerial skills are closely related to the experience of SMEs. Participant 2 elucidated:

“We cannot commit all funds to these SMEs at once because of their riskiness. They have to gain experience before we can allocate more funds for farming on additional hectares.”

Participant 5 corroborated the above views:

“We have factory shells which we inherited from FAP and we sublet them to new ventures at below market rates so that they can gain experience in managing their operations.”

In summary, key government informants explained that SME owners/managers lack capacity development skills in the areas of capacity enhancement, capacity utilisation, collaboration and lack of experience. However, there exist organisations which are making effort to ensure that SMEs improve in their capacity development skills.

The second component of the model depicts the impact of records management skills on the growth and sustainability of manufacturing SMEs. Figure 6.30 shows the results of the model representing the sub-themes records management skills.

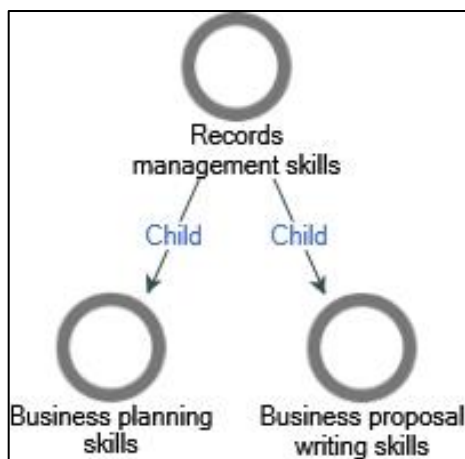


Figure 6.30: Records management skills

Source: Primary data

The availability of records equips manufacturing SME owners/managers with accurate decision making capabilities. It is, thus, imperative that SME owners/managers should develop and apply

their records management skills and cascade the skills down the organisational hierarchy. The key government informants who participated in this study identified business planning skills and business proposal writing skills as some of the critical records management skills that an SME owner/manager should possess.

Participant 5 expounded:

“SMEs come to us for business planning training because planning is important for expansion and growth. Funding for manufacturing SMEs is available but the biggest challenge is financial literacy. Most entrepreneurs cannot compile convincing business proposals because they lack basic skills in bookkeeping, cashflow statements, etc.”

In summary, key government informants stated that SME owners/managers have challenges with their records management skills, especially in business planning skills and business proposal writing skills.

The third component of the model depicts the impact of business management skills on the growth and sustainability of manufacturing SMEs. Figure 6.31 shows the results of the model representing the sub-themes business management skills.

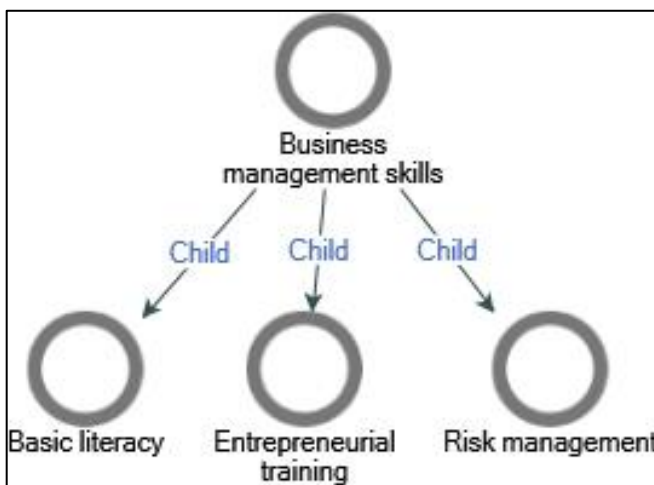


Figure 6.31: Business management skills

Source: Primary data

Business management skills are general management skills that every SME owner/manager should possess. Possession of business management skills results in revenue generation and business growth. Key government informants who participated in this study explained that basic literacy, entrepreneurial training and risk management were some of the critical skills falling under this category.

Participant 4 acceded on the issue of basic literacy skills:

“The quality of most loan applications is very poor due to the fact that entrepreneurs are not proficient in the English language and fail to put their ideas together in their applications. We mostly refer them to either LEA or other professional consultants.”

On the issue of training, Participant 1 highlighted that SME owners/managers lack entrepreneurial training and said:

“We help them with quality training so that they get prepare their goods for the export market.”

Participant 5 concurred and expounded:

“We are involved in business management and we have five courses that help entrepreneurs with capacity development.”

On risk management, Participant 5 remarked:

“I do not know if SMEs are able to ensure adequately to mitigate against the risk of those fluctuations.”

Participant 7 also acknowledged the challenge of risk:

“It is very difficult to approve loans to most applications because many entrepreneurs cannot convince us how they will deal with various risks which impact on their business. More so, most of them do not provide any collateral.”

In summary, key government informants stated that SME owners/managers lack the business management skills: basic literacy, entrepreneurial training, and risk management. However, there is significant effort from LEA and private consultants on making effort to improve these skills.

6.4 SUMMARY OF KEY QUALITATIVE FINDINGS

The following is a summary of the main findings from the qualitative phase of the research:

Table 6.2: Summary of key qualitative findings

Factors	Main findings
Firm-specific factors	Four broad themes were extracted: Business-related factors - the importation ban of certain products from South Africa has enabled local firms to establish more efficient business linkages with trading partners. On the downside, local firms experienced financial loss, high

	<p>rentals and were considered risky by commercial banks.</p> <p>Equipment-related factors – lack of equipment and high equipment cost impacted on the survival, growth of manufacturing firms in Botswana.</p> <p>Product-related factors – high cost of quality and productivity issues impacted on the survival, growth of manufacturing SMEs in Botswana.</p> <p>Environmental factors - competition from multinational companies, certification and mileage costs and lack of water rights affected the survival, growth and sustainable competitive advantage of manufacturing firms in Botswana.</p>
Factors of government policies and guidelines	<p>Four broad themes were extracted:</p> <p>Certification – manufacturing SMEs incurred high costs to conform to export standards and obtain certification.</p> <p>Economic reasons – manufacturing projects aligned with economic diversification attracted more funding. Entry-level firms are provided with subsidised office and factory shells to increase their survival and growth chances.</p> <p>Legal and political issues – overlapping mandates of some government agencies caused conflict. Import ban created additional challenge of low capacitation by local forms. Threat of political interference remains a challenge for manufacturing SMEs in Botswana.</p> <p>Procurement issues – survival, growth and sustainable competitive advantage of local manufacturing firms largely depends on them winning government tenders and these firms are affected by quality issues.</p>
Factors of innovation and creativity	<p>Three broad themes were extracted:</p> <p>Creativity – manufacturing SMEs are encouraged to create new business ideas and patent them with BIH. Additional support in training on process improvement and waste reduction helped manufacturing firms to reduce costs and increase their survival and growth chances.</p> <p>Innovation – product training and development of manufacturing firms in Botswana motivated them to generate new product ideas.</p> <p>Quality – manufacturing firms have benefitted from quality training and certification. However, a considerable number of firms still face challenges of accessing loans due to poor product quality.</p>
Factors of human capital development	<p>Four broad themes were extracted:</p> <p>Business development – poor business planning, poor proposal writing and poor records keeping impacted on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.</p> <p>Capacity development – the capacity of SME owners/manager was developed</p>

	<p>through business monitoring, business planning training, product remodeling and assessment of venture profitability.</p> <p>Skills development – challenges of skills shortage, high employee turnover and lack of employee training are being addressed through skills transfer by firms relocating from South Africa.</p> <p>Technology development – challenges of lack of technology in the manufacturing firms are being addressed through technology audits, technology awareness training and technology transfer through joint ventures.</p>
Factors of access to finance	<p>Four broad themes were extracted:</p> <p>Finance drivers and limitations – foreign direct investment and preferential treatment (priority sector) of manufacturing firms in Botswana are important drivers of access to finance. However, the riskiness of SMEs, limited funding and poor business planning are challenges on accessing finance.</p> <p>Infrastructure issues – high equipment/machinery cost, lack of land and inspection costs affect the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.</p> <p>Market issues – foreign direct investment has accelerated access to regional and global markets for local manufacturing firms.</p> <p>Product costs – high cost of products, high production costs, product testing and product feasibility impact on the survival, growth and sustainable competitive advantage of manufacturing firms in Botswana.</p>
Factors of financial management skills	<p>Two broad themes were extracted:</p> <p>Numeracy skills – most manufacturing SME owners/managers in Botswana lack numeracy skills like financial literacy and pricing strategy.</p> <p>Report writing skills - most manufacturing SME owners/managers in Botswana lack report writing skills like book keeping, cash flow statements, income statements and balance sheets. These challenges impact on their ability to access finance.</p>
Factors of managerial skills	<p>Three broad themes were extracted:</p> <p>Business management skills – Manufacturing SME owners/managers lack business management skills like basic literacy, entrepreneurial training and risk management.</p> <p>Capacity development skills – Manufacturing SME owners/managers lack capacity development skills like capacity enhancement, capacity utilisation, collaboration, and they lack experience.</p> <p>Records management skills – SME owners/managers lacked records management</p>

Source: Compiled by the Researcher

6.5 CONCLUSION

This chapter presented the findings from the qualitative phase of the research where data was gathered from 7 key government informants using face-to-face interviews. The purpose of these interviews was to solicit their views on the issues which helped to answer the research questions presented to them during the interviews. Data was analysed through themes and sub-themes generated using Nvivo 11. Project maps and were used to visually explore and present the findings indepth.

Key government informants expressed their views on firm-specific factors that impact on manufacturing SMEs, the influence of Botswana government policies, factors that influence innovation and creativity of SMEs, the extent to which human capital development impacts on SMEs, the impact of access to finance on SMEs, the specific financial management skills, and the specific managerial skills of SMEs. Key government informants highlighted progress that has been made in developing these factors and prevailing challenges that continue to hinder the survival, growth and sustainable competitive advantage of manufacturing firms in Botswana. The next chapter, Chapter 7, focuses on the presentation and discussion of the findings from manufacturing SME owners/managers.

CHAPTER 7 - FINDINGS FROM QUANTITATIVE STUDY

7.1 INTRODUCTION

This chapter presents the findings from survey conducted among manufacturing SME owners/managers.

Data was collected from 348 out of the initial 379 manufacturing SME owners/managers. This represented a response rate of 91.8%. This value of response rate is considered to be excellent according to Babie and Mouton (2001). In the first part of this chapter biographical details of the SME owners/managers is presented and discussed. The purpose of analysing the biographical details of these participants is to understand their profile and also to assess the representativeness of the sample which was chosen. Frequency tables, means, standard deviations and charts are used to present and discuss the biographical details.

The second part of the chapter presents the findings on the validity and reliability of the structured questionnaire that was used to gather data from the manufacturing SME owners/managers. The validity and reliability tests were conducted in order to ensure the integrity and quality of the questionnaire that was used, and to also ensure that accurate conclusions from the data gathered from participants would support strategic decision making. Validity and reliability testing also ensured the integrity and quality of the actual data that was gathered from manufacturing SME owners/ managers.

The third part of the chapter presented the findings from manufacturing SME owners/managers based on the study's research objectives, which are:

1. To evaluate firm-specific factors that impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
2. To critically review the influence of existing government policies and guidelines on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
3. To assess factors of innovation and creativity that influence survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
4. To analyse the extent to which human capital development affects the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
5. To assess the impact of access to finance on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

6. To evaluate the specific financial management skills which contribute towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
7. To identify the specific managerial skills that can be that can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.
8. To design a theoretical framework which can be implemented by SMEs in Botswana in order to survive, grow and achieve sustainable competitive advantage.

Frequency tables, means, standard deviations, charts/graphs and one-sample t-tests were used to present and discuss the findings in this section of the chapter. The frequency tables and one-sample t-tests were used to demonstrate the level of agreement or disagreement amounts the variables under each factor presented in the questionnaire. P-values were also computed in order to assess the statistical significance of the computed mean of each variable, and hence the importance of each item in the questionnaire.

The fourth section of the chapter analysed the relationship between annual turnover and key biographical details like manufacturing SME owners/managers age, educational qualification, ownership of business premises, and number of employees. These biographical details have been presented in the literature review as being critical towards the survival, growth and sustainability of manufacturing SMEs. The Kruskal-Wallis and Mann Whitney U tests were used to compute the statistics that were required to accomplish the objectives of identify the relationship between annual turnover and biographical characteristics of manufacturing SME owners/managers.

The fifth and last part of the chapter tests the proposed model using Structural Equation Model (SEM). Factor Analysis (FA) and Confirmatory Factor Analysis (CFA) are used to reduce individual variables and test the measurement model respectively.

7.2 BIOGRAPHICAL DATA OF THE OWNERS/MANAGERS

This section discusses the biodata of manufacturing SME owners/managers.

7.2.1 Demographics of SME owners/managers

Table 7.1 displays the demographic details of manufacturing SME owners/managers. These consist of gender, age and education of SME owners/managers and location of their firms.

Table 7.1: Demographics of SME owners/managers

Variable	Categories	Frequency	Percentage
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			Frequency
Gender	Male	169	48.6
	Female	179	51.4
	Total	348	100.0
Age	18 to less than 25 years	47	13.5
	25 to less than 30 years	56	16.1
	30 to less than 35 years	52	14.9
	35 to less than 40 years	68	19.5
	40 to less than 45 years	39	11.2
	45 to less than 50 years	49	14.1
	50 years and above	37	10.6
	Total	348	100.0
Education	No formal education	11	3.2
	Standard/Grade 7	29	8.3
	Junior Certificate	27	7.8
	Form 5/Cambridge	69	19.8
	Professional Certificate	48	13.8
	Professional Diploma	72	20.7
	Bachelor's Degree	81	23.3
	Masters Degree	8	2.3
	Doctorate/PhD	3	0.9
Total	348	100.0	
Location	Broadhurst	20	5.7
	Bus Rank	2	0.6
	Extension 12	11	3.2
	Fairgrounds Mall	12	3.4
	Gaborone West Industrial	32	9.2
	Gaborone West	43	12.4
	Game City	9	2.6
	Kgale View	9	2.6
	Old Naledi	15	4.3
	Main Mall	20	5.7
	Station	6	1.7
	Bus Rank	11	3.2
	CBD Mall	6	1.7
	River Walk	5	1.4
	Tlokwenj	48	13.8
	Old Lobatse Road	8	2.3
	Phakalane	5	1.4
	Gaborone North	2	0.6
	Mogobane	6	1.7
	Otse	14	4.0
Ramotswa	8	2.3	
Lobatse	11	3.2	
Other place	45	12.9	
Total	348	100.0	

Source: Primary data

The findings in Table 7.1 reveal that the majority of manufacturing SME owners/managers (51.4%) were female. This was followed by males at 48.6% which implies that the participation

of females in entrepreneurship in the selected areas is slightly more than that of males. The slightly higher proportion of women might also be attributed to the slightly larger proportion of females in Botswana's population age distribution.

Table 7.1 also reveals that the majority of manufacturing SME owners/managers (19.5%) were aged 35 to less than 40 years. This was followed by those aged 25 to less than 30 years (16.1%), followed by those aged 30 to less than 35 years (14.9%). The age group with the least percentage of SME owners/managers was from those aged 50 years and above (10.6%). These statistics might be a reflection of the rate of unemployment in Botswana where the highest proportion of unemployment is attributed to youths (aged up to 35 years old). These youths end up venturing into informal employment as a result.

With reference to the education level, the findings in Table 7.1 reveal that the majority of manufacturing SME owners/managers (23.3%) were in possession of a Bachelor's Degree. This was followed by those with a Professional Diploma (20.7%), followed by those with Form 5/Cambridge Certificate (19.8%). The qualification which had the lowest number of manufacturing SME owners/managers was Doctorate/PhD (0.9%). These statistics are a confirmation of the increasing literacy rate in Botswana following the introduction of 10 years of free education from Standard One to Form 3 and the localisation of tertiary education in the country since 2011. More candidates are being absorbed into tertiary education institutions as a result.

The findings in Table 7.1 reveal that the majority of manufacturing SME businesses were located in Tlokweng (13.8%). This was followed by those located in other places (12.9%), and followed by those located in Gaborone West (12.4%). The areas which had the least number of businesses in the study were Bus Rank and Gaborone North (both at 0.6%). These statistics naturally reflect locations which also have the highest population densities (Tlokweng and Gaborone West) and lowest population densities (Bus Rank and Gaborone North) in Gaborone City.

7.2.2 Years in business, type and ownership of business premises

Table 7.2 shows the years in business, type of ownership of business premises of manufacturing and source of capital of manufacturing SME owners/managers.

Table 7.2: Years in business, type and ownership of business premises and source of capital

Variables	Categories	Frequency	Percentage Frequency
Years in business	Less than 1 year	68	19.5
	Between 1 year and	48	13.8

	less than 2 years		
	Between 2 and 5 years	73	21.0
	More than 5 years	157	45.1
	Total	348	100.0
Type of business premises	Office	131	37.6
	Kiosk	18	5.2
	Warehouse	53	15.2
	Land/open space	95	27.3
	Other type of premises	41	11.8
	Total	348	100.0
Do you own the business premises?	Yes	127	36.5
	No	221	63.5
	Total	348	100.0
Source of capital	Family funds	13	3.7
	Own funds	243	69.8
	Commercial bank	11	3.2
	Micro-finance	0	0.0
	Youth Development Fund	19	5.5
	CEDA loan	5	1.4
	Young Farmers Fund	0	0.0
	Private sponsor	15	4.3
	Joint Venture	0	0.0
	US Embassy Self-Help Fund	0	0.0
	Covid-19 Relief Fund	0	0.0
	Other source	4	1.1
Total		348	100.0

Source: Primary data

The findings in Table 7.2 evince that the majority of manufacturing SME owners/managers (45.1%) have been in business for more than 5 years. This was followed by those who have been in business for between 2 and 5 years (21.0%), followed by those who have been in business for less than 1 year (19.5%), and lastly those who have been in business for between 1 year and less than 2 years (13.8%). Overall, the majority of manufacturing SME owners/managers (54.9%) have been in business for less than 5 years. This is confirmation of the documented high failure rate of SMEs where most SMEs do not survive beyond 5 years.

The findings in Table 7.2 also reveal that the majority of manufacturing SME owners/managers (45.1%) operated their business from offices. This was followed by those who operated their business from land/open space (27.3%), followed by those who operated their business from warehouses (15.2%), followed by those who operated their business from kiosks (5.2%). These findings are confirmation that a large proportion of SMEs (47.7%) cannot afford to rent or own their business premises.

With respect to ownership of the premises, the findings in Table 7.2 reveal that the majority of manufacturing SME owners/managers (63.5%) did not own the business premises that they operated from. This was followed by those who stated that they own the business premises that they operated from (36.5%). These statistics confirm the challenges that manufacturing SMEs face with regard to incurring costs for rentals, which are also generally high in Gaborone City.

The findings in Table 7.2 reflect that the majority of manufacturing SME owners/managers (69.8%) used their own funds as sources of capital to start their business. This was followed by those who used Youth Development Fund (5.5%), followed by those who used a private sponsor (4.3%), followed by those who used family funds (3.7%), followed by those who used a commercial bank (3.2%), followed by those who used CEDA loan (1.4%) and those who used other sources of funds (1.1%). There were no manufacturing owners/managers (0.0%) who had access to micro-finance, Young Farmers Fund, Joint Venture and US Embassy Self-Help Fund. These findings corroborate the findings of various studies which also confirmed that access to external sources of finance (for example, commercial banks and government funding agencies) is a challenge to a large majority of SMEs with most resorting to personal savings which are in most cases meager.

7.2.3 SME legal status and type sales/purchases

Table 7.3 shows the legal status and types of sales and purchases made by manufacturing SMEs.

Table 7.3: SME legal status and type sales/purchases

Variable	Categories	Frequency	Percentage Frequency
Legal status of SME	Registered business	189	54.3
	Business is not registered	90	25.9
	Paying tax	10	2.9
	Not paying tax	8	2.3
	Registered and paying tax	42	12.1
	Registered and not paying tax	4	1.1

	Not registered and not paying tax	1	0.3
	Not registered and not paying tax	4	1.1
	Total	348	100.0
Type of sales	Cash only	107	30.7
	Credit only	1	0.3
	Both cash and credit sales	240	69.0
	Total	348	100.0
Type of purchases	Cash only	113	33.5
	Credit only	3	0.9
	Both cash and credit purchases	232	66.7
	Total	348	100.0

Source: Primary data

The findings in Table 7.3 reveal that the majority of manufacturing SMEs (54.3%) were registered businesses. This was followed by those which were not registered businesses (25.9%), and followed by those which were registered and paying tax (12.1%). These findings might be a confirmation of the recent reduction of company registration bottlenecks and business training of entrepreneurs by government-funded agencies like LEA and CEDA.

The findings in Table 7.3 further reveal that the majority of manufacturing SMEs (69.0%) engaged in both cash and credit sales. This was followed by those who engaged in cash sales only (30.7%), and followed by those who engaged in credit sales only (0.3%). These statistics confirm the challenges that manufacturing SMEs face with cashflow and stock turnover. These firms resort to credit sales to clear their stock and end up making credit sales, which is also a risky option due to non-payment by some customers.

The findings in Table 7.3 also convey that the majority of manufacturing SMEs (66.7%) engaged in both cash and credit purchases. This was followed by those who engaged in cash purchases only (33.5%), followed by those who engaged in credit purchases only (0.9%). These findings indicate that most manufacturing SMEs lack adequate cash to make purchases and resort to credit purchases which may attract interest or result in loss of discounts and other incentives.

7.2.4 Size of SMEs and services utilised

Table 7.4 depicts the size of manufacturing SMEs and utilities and services they utilised.

Table 7.4: Size of SMEs and services utilised

Variables	Categories	Frequency	Percentage Frequency
Number of employees	0 to 6 employees	231	66.4
	7 to 25 employees	68	19.5
	26 to 99 employees	37	10.6
	100 employees and above	12	3.4
	Total	348	100.0
Annual turnover	P0 to P60,000	245	70.4
	P60,001 to P1,500,000	66	19.0
	P1,500,001 to P6 million	19	5.5
	More than P6 million	18	5.2
	Total	348	100.0
Utilities/services	Water (1)	2	0.6
	Electricity (2)	4	1.1
	Internet access (3)	0	0.0
	Telephone landline (4)	1	0.3
	Mobile phone (5)	12	3.4
	Laptop (6)	0	0.0
	Desktop (7)	1	0.3
	1,2	13	3.7
	1,2,3	3	0.7
	1,2,3,4	10	2.9
	1,2,3,4,5	7	2.0
	1,2,3,4,5,6	9	2.6
	1,2,3,4,5,6,7	58	16.7
	1,2,3,4,5,7	12	3.4
	1,2,3,4,6	1	0.3
	1,2,3,4,7	19	5.5
	1,2,3,5	10	2.9
	1,2,3,5,6	10	2.9
	1,2,3,5,6,7	19	5.5
	1,2,3,5,7	4	1.1
	1,2,3,6	2	0.6
	1,2,3,7	1	0.3
	1,2,4,5	4	1.1
	1,2,5	99	28.4
	1,2,5,6	4	1.1
	1,2,5,7	15	4.3
	1,2,7	10	2.9
	1,5	2	0.6
	1,6	2	0.6
	2,3,5	2	0.6
	2,5	6	1.7
	Total		348

Source: Primary data

The findings in Table 7.4 reveal that the majority of SMEs (66.4%) had 0 to 6 employees, followed by those which had 7 to 25 employees (19.5%), followed by those which had 26 to 99 employees, and followed by those which had 100 employees and above (3.4%). These findings

confirm that the majority of manufacturing SMEs in Botswana are categorised as small enterprises (0 to 6 employees) and face challenges of resource scarcity.

The findings in Table 7.4 also show that the majority of manufacturing SMEs (70.4%) had an annual turnover of P0 to P60,000, followed by those with annual turnover of P60,001 to P1,500,000, followed by those with an annual turnover of P1,500,001 to P6 million, and followed by those with P6 million and above. These findings tally with the categorization of small enterprises (0 to 6 employees and annual turnover of P0 to P60,000). This further confirms challenges of resource scarcity (workforce and access to finance).

The findings in Table 7.4 reveal that the majority of manufacturing SME owners/managers (28.4%) had water, electricity and mobile phones as utilities/services at their premises. This was followed by those who had all the utilities (water, electricity, Internet access, telephone landline, mobile phone, laptop and desktop) at their premises (16.7%), followed by those who had all utilities except telephone landline (5.5%), followed by those who had water, electricity, mobile phone and desktop (4.3%), and followed by those who had water and electricity only (3.7%). The rest of proportions were less than 3.5%. These results confirm that most manufacturing SMEs have access to basic utilities like water, electricity and Internet access.

7.3 FIRM-SPECIFIC FACTORS THAT IMPACT SME SURVIVAL AND GROWTH

The research objective addressed in this section is - To evaluate firm-specific factors that impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. The findings are subdivided into entrepreneurial factors, firm-specific factors and exogenous/market-related factors. Entrepreneurial factors are related to the individual characteristics of each manufacturing SME owner/manager. Firm-specific factors are related to the manufacturing business or company that is owned by the SME owner/manager. Exogenous or market-related factors are those factors that are external to both the manufacturing SME owner/manager and firm, and include funding, level of government intervention, marketing effort, technology and promotion of the business, among others.

7.3.1 Entrepreneurial factors

This section presents the findings on entrepreneurial factors related to the 348 SME owners/managers who participated in the research. Table 7.5 shows entrepreneurial factors that impact on manufacturing SMEs in Botswana. Descriptive statistics (means and frequencies) and one-sample t-tests were used to compile the table.

Table 7.5: Entrepreneurial factors

Item	Responses as frequency and percentage frequency (%)					Mean (SD)	T	DF	p-value
	N = 348								
	Not important at all	Not important	Somewhat important	Important	Very important				
15 Age Owner	112 (32.2)	26 (7.5)	42 (12.1)	87 (25.0)	81 (23.3)	3.00 (1.597)	.086	347	.973
16 Gender Owner	126 (36.2)	31 (8.9)	38 (10.9)	51 (14.7)	102 (29.3)	2.92 (1.691)	.091	347	.375
17 Education Owner	54 (15.5)	15 (4.3)	28 (8.0)	68 (19.5)	183 (52.6)	3.89 (1.473)	.079	347	.000
18 Marketing Skills	10 (2.9)	8 (2.3)	18 (5.2)	87 (25.0)	225 (64.7)	4.46 (.915)	.049	347	.000
19 Managerial Skills	11 (3.2)	7 (2.0)	33 (9.5)	74 (21.3)	223 (64.1)	4.41 (.967)	.052	347	.000
20 Industry Experience	7 (2.0)	5 (1.4)	32 (9.2)	95 (27.3)	209 (60.1)	4.42 (.870)	.047	347	.000
21 Planning Skills	12 (3.4)	1 (0.3)	19 (5.5)	90 (25.9)	226 (64.9)	4.49 (.890)	.048	347	.000
22 Communication Skills	6 (1.7)	2 (0.6)	10 (2.9)	72 (20.7)	258 (74.1)	4.65 (.727)	.039	347	.000
23 Financial Skills	11 (3.2)	4 (1.1)	13 (3.7)	71 (20.4)	249 (71.6)	4.56 (.878)	.047	347	.000

Source: Primary data

Table 7.5 displays the views of SME owners/managers on the importance of entrepreneurial factors towards the survival, growth and sustainability of their business. Factors on the values of means for all items, except for gender of manufacturing SME owners/managers were at least 3.00. The p-values for all items, except for age and gender of SME owners/managers, were less than 0.05. This means that there was significant agreement with all items except for SME owners/managers age and gender.

The above findings imply that all the factors given in Table 7.5, except manufacturing SME owners/managers age and gender, were important towards the survival, growth and sustainability of manufacturing SMEs. The most predominant entrepreneurial factors were communication skills (M = 4.65, SD = 0.727, T (347) = 42.344, p <0.05), financial skills (M = 4.56, SD = 0.878, T (347) = 33.138, p <0.05), planning skills (M = 4.49, SD = 0.890, T(347) = 31.136, p <0.05) and marketing skills (M = 4.46, SD = 0.915, T(347) = 29.820, p <0.05).

7.3.2 Firm-specific factors

Table 7.6 depicts the firm-specific factors that impact on manufacturing SMEs in Botswana. Descriptive statistics (means and frequencies) and one-sample t-tests were used to compile the table.

Table 7.6: Firm-specific factors

Item	Responses as frequency and percentage frequency (%)					Mean (SD)	T	DF	P-value
	N = 348								
	Not important at all	Not important	Somewhat important	Important	Very important				
24 Age Firm	52 (14.9)	26 (7.5)	60 (17.2)	85 (24.4)	125 (35.9)	3.59 (1.419)	7.747	347	.000
25 Annual Revenue	42 (12.1)	8 (2.3)	41 (11.8)	91 (26.1)	166 (47.7)	3.95 (1.333)	13.315	347	.000
26 Number Employees	27 (7.8)	28 (8.0)	42 (12.1)	100 (28.7)	151 (43.4)	3.92 (1.254)	13.678	347	.000
27 Location Firm	12 (3.4)	8 (2.3)	25 (7.2)	67 (19.3)	236 (67.8)	4.46 (0.973)	27.939	347	.000
28 Skills Employees	14 (4.0)	6 (1.7)	16 (4.6)	81 (23.3)	231 (66.4)	4.46 (0.964)	28.302	347	.000
29 Land Owned Firm	40 (11.5)	18 (5.2)	52 (14.9)	68 (19.5)	170 (48.9)	3.89 (1.368)	12.143	347	.000
30 Machinery Vehicles	24 (6.9)	6 (1.7)	46 (13.2)	21 (6.0)	194 (55.7)	4.18 (1.162)	19.013	347	.000

31 Quality Products	21 (6.0)	12 (3.4)	0 (0.0)	59 (17.0)	256 (73.6)	4.52 (1.023)	27.731	347	.000
32 Level Marketing	10 (2.9)	2 (0.6)	10 (2.9)	93 (26.7)	233 (67.0)	4.54 (0.829)	34.733	347	.000

Source: Primary data

Table 7.6 reflects the views of SME owners/managers on the importance of firm-specific factors towards the survival, growth and sustainability of their business. The values of means for all items were at least 3.00. The p-values for all items were less than 0.05. This means that there was significant agreement with all items related to firm-specific factors.

The above findings imply that all firm-specific factors in Table 7.6 were important towards the survival, growth and sustainability of manufacturing SMEs. The most dominant firm-specific factors in this study were level of marketing (M = 4.54, SD = 0.829, T(347) = 34.733, p <0.05), quality of products (M = 4.52, SD = 1.023, T(347) = 27.731, p <0.05), location of firm (M = 4.48, SD = 0.973, T(347) = 27.939, p <0.05), skills of employees (M = 4.36, SD = 0.964, T(347) = 28.302, p <0.05), and machinery and vehicles (M = 4.18, SD = 1.162, T(347) = 19.013, p <0.05).

7.3.3 Exogeneous/market-related factors

Table 7.7 depicts the exogeneous or market-related factors that impact on manufacturing SMEs in Botswana. Descriptive statistics (means and frequencies) and one-sample t-tests were used to compile the table.

Table 7.7: Exogenous/market-related factors

Item	Responses as frequency and percentage frequency (%)					Mean (SD)	T	DF	p-value
	N = 348								
	Not important at all	Not important	Somewhat important	Important	Very important				
33 Availability Funding	44 (12.6)	4 (1.1)	23 (6.6)	119 (34.2)	158 (45.4)	3.99	14.066	347	.000
34 Financial Support Govt	44 (12.6)	22 (6.3)	57 (16.4)	86 (24.7)	139 (39.9)	3.73	9.913	347	.000

35 Financial Support Banks	45 (12.9)	13 (3.7)	62 (17.8)	93 (26.7)	135 (38.8)	3.75	10.329	347	.000
36 Level Taxation	33 (9.5)	2 (0.6)	60 (17.2)	91 (26.1)	162 (46.6)	4.00	15.094	347	.000
37 Technology Adoption	16 (4.6)	2 (0.6)	15 (4.3)	78 (22.4)	237 (68.1)	4.49	28.872	347	.000
38 Workforce Training	17 (4.9)	2 (0.6)	27 (7.8)	99 (28.4)	203 (58.3)	4.35	25.071	347	.000
39 Company Registration	17 (4.9)	5 (1.4)	28 (8.0)	90 (25.9)	208 (59.8)	4.34	24.299	347	.000
40 Competition Companies	11 (3.2)	4 (1.1)	22 (6.3)	78 (22.4)	233 (67.0)	4.49	30.535	347	.000
41 Access Markets	12 (3.4)	2 (0.6)	24 (6.9)	81 (23.3)	229 (65.8)	4.47	30.041	347	.000
42 Exhibitions Promotions	8 (2.3)	16 (2.3)	25 (7.2)	84 (24.1)	215 (61.6)	4.39	26.723	347	.000
43 Customer Concentration	12 (3.4)	3 (3.9)	17 (4.9)	62 (17.8)	254 (73.0)	4.56	32.304	347	.000
44 Availability Information	8 (2.3)	7 (2.0)	11 (3.2)	76 (21.8)	246 (70.7)	4.57	34.735	347	.000

Source: Primary data

Table 7.7 reflects the views of SME owners/managers on the importance of exogeneous factors towards the survival, growth and sustainability of their business. The values of means for all items were at least 3.00. The p-values for all items were less than 0.05. This means that there was significant agreement with all items related to exogeneous factors.

The above findings imply that all exogeneous factors in Table 7.7 were important towards the survival, growth and sustainability of manufacturing SMEs. The most predominant exogeneous factors were availability of information ($M = 4.57$, $SD = 0.841$, $T(347) = 34.375$, $p < 0.05$), customer concentration ($M = 4.56$, $SD = 0.901$, $T(347) = 32.304$, $p < 0.05$), technology adoption ($M = 4.49$, $SD = 0.962$, $T(347) = 28.872$, $p < 0.05$), competition from other manufacturing

companies ($M = 4.49$, $SD = 0.909$, $T(347) = 30.535$, $p < 0.05$) and access to markets ($M = 4.47$, $SD = 0.915$, $T(347) = 30.041$, $p < 0.05$).

7.4 FACTORS OF GOVERNMENT POLICIES AND GUIDELINES ON SME SURVIVAL AND GROWTH

The research objective addressed in this section is - To critically review the influence of existing government policies and guidelines on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. Table 7.8 reveals the government policies and guidelines that impact on manufacturing SMEs in Botswana. Descriptive statistics (means and frequencies) and one-sample t-tests were used to compile the table.

Table 7.8: Government policies and guidelines

Item	Responses as frequency and percentage frequency (%)					Mean (SD)	T	DF	p-value
	N = 348								
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree				
45 Accelerating Registration	21 (6.0)	8 (2.3)	56 (16.1)	111 (31.9)	150 (43.1)	4.04 (1.112)	17.458	347	.000
46 Information Available	18 (5.2)	8 (2.3)	21 (6.0)	129 (37.1)	170 (48.9)	4.23 (1.031)	22.154	347	.000
47 Arranging Exhibitions	17 (4.9)	18 (5.2)	34 (9.8)	130 (37.4)	147 (42.2)	4.08 (1.082)	18.480	347	.000
48 Enhancing Networking	16 (4.6)	14 (4.0)	38 (10.9)	102 (29.3)	176 (50.6)	4.18 (1.081)	20.297	347	.000
49 Providing Incentives	24 (6.9)	17 (4.9)	37 (10.6)	101 (29.0)	167 (48.0)	4.07 (1.187)	16.753	347	.000
50 Facilitating Tendering	24 (6.9)	12 (3.4)	40 (11.5)	105 (30.2)	164 (47.1)	4.08 (1.164)	17.259	347	.000
51 Access Finance	15 (4.3)	16 (4.6)	67 (19.3)	82 (23.6)	166 (47.7)	4.06 (1.117)	17.708	347	.000

52 Access Technology	18 (5.2)	15 (4.3)	32 (9.2)	96 (27.6)	185 (53.2)	4.20 (1.110)	20.096	347	.000
53 Products Botswana	15 (4.3)	20 (5.7)	37 (10.6)	61 (17.5)	213 (61.2)	4.26 (1.131)	20.778	347	.000
54 Mentoring Owners	18 (5.2)	23 (6.6)	42 (12.1)	92 (26.4)	171 (49.1)	4.08 (1.160)	17.373	347	.000
55 Protecting Firms	22 (6.3)	19 (5.5)	36 (10.3)	76 (21.8)	193 (55.5)	4.15 (1.198)	17.910	347	.000
56 Providing Training	9 (2.6)	18 (5.2)	42 (12.1)	69 (19.8)	208 (59.8)	4.30 (1.039)	23.235	347	.000

Source: Primary data

Table 7.8 reflects the views of SME owners/managers on the contribution of government policies and guidelines towards the survival, growth and sustainability of their business. The values of means for all items were at least 3.00. The p-values for all items were less than 0.05. This means that there was significant agreement with all items related to government policies and guidelines.

The above findings imply that the Botswana government is positively contributing to the survival, growth and sustainability of manufacturing SMEs with regard to the above items in Table 7.8. The most predominant government policies and guidelines were providing training to owners/managers ($M = 4.30$, $SD = 1.039$, $T(347) = 23.325$, $p < 0.05$), marketing products inside and outside Botswana ($M = 4.26$, $SD = 1.131$, $T(347) = 20.778$, $p < 0.05$), making information and advice available ($M = 4.23$, $SD = 1.031$, $T(347) = 22.154$, $p < 0.05$), increasing access to technology ($M = 4.20$, $SD = 1.110$, $T(347) = 20.096$, $p < 0.05$) and enhancing networking and collaboration ($M = 4.18$, $SD = 1.081$, $T(347) = 20.297$, $p < 0.05$).

7.5 FACTORS OF INNOVATION AND CREATIVITY ON SME SURVIVAL AND GROWTH

The research objective addressed in this section is - To assess factors of innovation and creativity that influence survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. Table 7.9 shows the views on factors of innovation and creativity that influence SMEs in Botswana. Descriptive statistics (means and frequencies) and one-sample t-tests were used to compile the table.

Table 7.9: Innovation and creativity

Item	Responses as frequency and percentage frequency (%)					Mean (SD)	T	DF	P-value
	N = 348								
	I here is no influence at all	to a very little extent	Influence to a little extent	to quite some extent	Influence to a great extent				
57 Collaboration Partners	14 (4.0)	24 (6.9)	56 (16.1)	119 (34.2)	133 (38.2)	3.96 (1.091)	16.412	347	.000
58 Ability Resources	6 (1.7)	10 (2.9)	44 (12.6)	134 (38.5)	152 (43.7)	4.20 (0.894)	25.011	347	.000
59 Adoption Technology	4 (1.1)	11 (3.2)	32 (9.2)	93 (26.7)	206 (59.2)	4.40 (0.870)	30.019	347	.000
60 Encouraging Innovation	6 (1.7)	3 (0.9)	47 (13.5)	83 (23.9)	205 (58.9)	4.39 (0.880)	29.276	347	.000
61 Advancing Plans	11 (3.2)	4 (1.1)	27 (7.6)	114 (32.8)	190 (54.6)	4.35 (0.915)	27.490	347	.000
62 Motivating Employees	12 (3.4)	6 (1.7)	20 (5.7)	87 (25.0)	221 (63.5)	4.44 (0.941)	28.515	347	.000
63 Creating Flexibility	12 (3.4)	11 (3.2)	31 (8.9)	72 (20.7)	220 (63.2)	4.38 (1.012)	25.337	347	.000
64 Putting Regulations	10 (2.9)	13 (3.7)	17 (4.9)	95 (27.3)	208 (59.8)	4.69 (3.964)	7.904	347	.000
65 Encouraging Risk Taking	12 (3.4)	16 (4.6)	21 (6.0)	103 (29.6)	194 (55.7)	4.30 (1.015)	23.897	347	.000
66 Adopting Profitability	8 (2.3)	4 (1.1)	26 (7.5)	75 (21.6)	233 (67.0)	4.51 (0.866)	32.359	347	.000
67 Investing Research	7 (2.0)	9 (2.6)	26 (7.5)	79 (22.7)	225 (64.7)	4.46 (0.894)	30.413	347	.000
68 Training Creativity	11 (3.2)	16 (4.6)	23 (6.6)	54 (15.5)	242 (69.5)	4.45 (1.021)	26.334	347	.000

Source: Primary data

Table 7.9 shows the views of SME owners/managers on the extent to which factors on innovation and creativity impacted on the survival, growth and sustainability of their business. The values of means for all items were at least 3.00. The p-values for all items were less than 0.05. This means that there was significant agreement with all items related to the influence of innovation and creativity on the survival, growth and sustainability of manufacturing SMEs.

The most predominant factors on innovation and creativity were putting in place regulations to protect intellectual property (M = 4.69, SD = 3.964, T(347) = 7.904, p <0.05), adopting ideas that promote growth and profitability (M = 4.51, SD = 0.866, T(347) = 32.359, p <0.05), investing in research and development (M = 4.46, SD = 0.894, T(347) = 30.413, p <0.05), training on creativity and innovation (M = 4.45, SD = 1.021, T(347) = 26.334, p <0.05), motivating employees (M = 4.44, SD = 0.941, T(347) = 20.096, p <0.05) and adoption of appropriate technology (M = 4.40, SD = 0.870, T(347) = 30.019, p <0.05).

7.6 FACTORS OF HUMAN CAPITAL DEVELOPMENT ON SME SURVIVAL AND GROWTH

The research objective addressed in this section is - To analyse the extent to which human capital development affects the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. Table 7.10 shows factors on human capital that impact on SMEs in Botswana. Descriptive statistics (means and frequencies) and one-sample t-tests were used to compile the table.

Table 7.10: Human capital development

Item	Responses as frequency and percentage frequency (%)					Mean (SD)	T	DF	p-value
	N = 348								
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree				
69 Productivity Increases	10 (2.9)	1 (0.3)	40 (11.5)	160 (46.0)	135 (38.8)	4.18 (0.864)	25.450	347	.000
70 Greater Competitiveness	6 (1.7)	8 (2.3)	63 (18.1)	93 (26.7)	176 (50.6)	4.23 (0.943)	24.222	347	.000

71 Significant Sales	4 (1.1)	15 (4.3)	30 (8.6)	120 (34.5)	177 (50.9)	4.30 (0.887)	27.350	347	.000
72 Survival Increase	8 (2.3)	9 (2.6)	35 (10.1)	92 (26.4)	202 (58.0)	4.36 (0.932)	27.161	347	.000
73 Workforce Expand	8 (2.3)	10 (2.9)	55 (15.8)	105 (30.2)	167 (48.0)	4.20 (0.965)	23.032	347	.000
74 Increase Employees	15 (4.3)	33 (9.5)	64 (18.4)	84 (24.1)	150 (43.1)	3.93 (1.179)	14.643	347	.000
75 Opportunities Technology	4 (1.1)	14 (4.0)	46 (13.2)	131 (37.6)	151 (43.4)	4.19 (0.896)	24.668	347	.000
76 Utilisation Resources	5 (1.4)	7 (2.0)	49 (14.1)	112 (32.2)	172 (49.4)	4.27 (0.883)	26.758	347	.000
77 Confidence Improved	4 (1.1)	2 (0.6)	25 (7.2)	102 (29.3)	213 (61.2)	4.50 (0.755)	36.900	347	.000
78 Training Improvement	6 (1.7)	3 (0.9)	48 (13.8)	85 (24.4)	199 (57.2)	5.09 (6.020)	6.466	347	.000
79 Quality Improved	4 (1.1)	4 (1.1)	19 (5.5)	84 (24.1)	235 (67.5)	4.57 (0.752)	38.760	347	.000
80 Opportunities Markets Realised	2 (0.6)	4 (1.1)	51 (14.7)	54 (15.5)	235 (67.5)	4.49 (0.828)	33.507	347	.000

Source: Primary data

The results in Table 7.10 came from SME owners/managers when giving their views on the extent to which human capital development affects the survival, growth and sustainability of their business. The values of means for all items were at least 3.00. The p-values for all items were less than 0.05. This means that there was significant agreement with all items related to impact of human capital development on the survival, growth and sustainability of manufacturing SMEs.

The most predominant factors on human capital development were training and development resulted in improvement of marketing skills ($M = 5.09$, $SD = 6.020$, $T(347) = 6.466$, $p < 0.05$), product quality improved ($M = 4.57$, $SD = 0.752$, $T(347) = 38.760$, $p < 0.05$), confidence, communication and creativity are improved across the firm ($M = 4.50$, $SD = 0.755$, $T(347) =$

36.900, $p < 0.05$), opportunities to access new markets are realised ($M = 4.49$, $SD = 0.828$, $T(347) = 33.507$, $p < 0.05$) and the chances of firm survival increase ($M = 4.36$, $SD = 0.932$, $T(347) = 27.161$, $p < 0.05$).

7.7 FACTORS OF ACCESS TO FINANCE ON SME SURVIVAL AND GROWTH

The research objective addressed in this section is - To assess the impact of access to finance on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. Table 7.11 shows factors on access to finance that impact on manufacturing SMEs in Botswana. Descriptive statistics (means and frequencies) and one-sample t-tests were used to compile the table.

Table 7.11: Access to finance

Item	Responses as frequency and percentage frequency (%)					Mean (SD)	T	DF	P-value
	N = 348								
	No impact at all	Very low impact	Low impact	Moderate impact	High impact				
81 Enables Market Entry	12 (3.4)	3 (0.9)	31 (8.9)	111 (31.9)	189 (54.3)	4.34 (0.934)	26.586	347	.000
82 Improvement Finance	9 (2.6)	10 (2.9)	27 (7.6)	134 (38.5)	166 (47.7)	4.27 (0.916)	25.704	347	.000
83 Employment Opportunities	1 (0.3)	13 (3.7)	29 (8.3)	108 (31.0)	195 (56.0)	4.40 (0.818)	31.750	347	.000
84 Retention Employees	7 (2.0)	16 (4.6)	33 (9.5)	103 (29.6)	187 (53.7)	4.29 (0.959)	25.049	347	.000
85 Survival Growth	5 (1.4)	11 (3.2)	17 (4.9)	98 (28.6)	215 (61.8)	4.47 (0.845)	32.273	347	.000
86 Increase Capacity	5 (1.4)	12 (3.4)	26 (7.5)	78 (22.4)	223 (64.1)	4.46 (0.886)	30.539	347	.000
87 Boosting Activities	6 (1.7)	5 (1.4)	24 (6.9)	73 (21.0)	238 (68.4)	4.54 (0.827)	34.579	347	.000

88 Promotes Investment	0 (0.0)	8 (2.3)	35 (10.1)	79 (22.7)	224 (64.4)	4.50 (0.770)	36.240	347	.000
89 Implement Financial Plans	1 (0.3)	8 (2.3)	27 (7.8)	86 (24.7)	224 (64.4)	4.51 (0.762)	36.959	347	.000
90 Realisation Objectives	1 (0.3)	2 (0.6)	19 (5.5)	107 (30.7)	217 (62.4)	4.55 (0.654)	44.142	347	.000
91 Increase Liquidity	0 (0.0)	10 (2.9)	29 (8.3)	98 (28.2)	209 (60.1)	4.46 (0.769)	35.375	347	.000
92 Revenue Grow	2 (0.6)	6 (1.7)	24 (6.9)	65 (18.7)	249 (71.6)	4.60 (0.744)	39.939	347	.000

Source: Primary data

The results in Table 7.11 came from manufacturing SME owners/managers when giving their views on the extent to which access to finance impacts on the survival, growth and sustainability of their business. The values of means for all items were at least 3.00. The p-values for all items were less than 0.05. This means that there was significant agreement with all items related to impact of access to finance on the survival, growth and sustainability of manufacturing SMEs.

The most predominant factors on access to finance were that it causes sales and revenue to grow ($M = 4.60$, $SD = 0.744$, $T(347) = 39.939$, $p < 0.05$), ensures realisation of strategic objectives ($M = 4.55$, $SD = 0.654$, $T(347) = 44.142$, $p < 0.05$), results in boosting of entrepreneurial activities ($M = 4.54$, $SD = 0.827$, $T(347) = 34.579$, $p < 0.05$), makes it possible to implement financial plans ($M = 4.51$, $SD = 0.762$, $T(347) = 36.959$, $p < 0.05$) and that it promotes investment opportunities ($M = 4.50$, $SD = 0.770$, $T(347) = 36.240$, $p < 0.05$).

7.8 FACTORS OF FINANCIAL MANAGEMENT SKILLS ON SME SURVIVAL AND GROWTH

The research objective addressed in this section is - To evaluate the specific financial management skills which contribute towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. Table 7.12 shows factors on financial management skills that impact on manufacturing SMEs in Botswana. Descriptive statistics (means and frequencies) and one-sample t-tests were used to compile the table.

Table 7.12: Financial management skills

Item	Responses as frequency and percentage frequency (%)					Mean (SD)	T	DF	P-value
	N = 348								
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree				
93 Exposure Insolvency	10 (2.9)	21 (6.0)	26 (7.5)	100 (28.7)	189 (54.3)	4.26 (1.029)	22.838	347	.000
94 Decision Making	7 (2.0)	4 (1.1)	15 (4.3)	115 (33.0)	205 (58.9)	4.47 (0.806)	33.820	347	.000
95 Value Addition	4 (1.1)	6 (1.7)	26 (7.5)	123 (35.3)	187 (53.7)	4.40 (0.796)	32.609	347	.000
96 Growth Sustainability	0 (0.0)	8 (2.3)	17 (4.9)	73 (21.0)	248 (71.3)	4.62 (0.688)	43.823	347	.000
97 Firm Productivity	4 (1.1)	6 (1.7)	42 (12.1)	85 (24.4)	209 (60.1)	4.41 (0.854)	30.766	347	.000
98 Capacity Finance	2 (0.6)	10 (2.9)	31 (8.9)	105 (30.2)	198 (56.9)	4.41 (0.816)	32.097	347	.000
99 Improve Capacity Product	2 (0.6)	3 (0.9)	48 (13.8)	71 (20.4)	222 (63.8)	4.47 (0.806)	33.882	347	.000
100 Improve Inventory	0 (0.0)	1 (0.3)	27 (7.8)	102 (29.3)	215 (61.8)	4.54 (0.651)	43.924	347	.000
101 Measure Sales	2 (0.6)	20 (5.7)	83 (23.9)	241 (69.3)	241 (69.3)	4.62 (0.649)	46.457	347	.000
102 Allocate Funds	2 (0.6)	1 (0.3)	16 (4.6)	91 (26.1)	236 (67.8)	4.61 (0.646)	46.416	347	.000
103 Financial Forecasting	1 (0.3)	2 (0.6)	20 (5.7)	57 (16.4)	266 (76.4)	4.69 (0.632)	49.743	347	.000
104 Strategic Objectives	8 (2.3)	1 (0.3)	25 (7.2)	62 (17.8)	250 (71.8)	4.58 (0.828)	35.384	347	.000

Source: Primary data

The results in Table 7.12 came from manufacturing SME owners/managers when giving their views on the extent to which financial management skills impacts on the survival, growth and sustainability of their business. The values of means for all items were at least 3.00. The p-values for all items were less than 0.05. This means that there was significant agreement with all items related to impact of financial management skills on the survival, growth and sustainability of manufacturing SMEs.

The most predominant factors on financial management skills were that it helps to improve financial forecasting ($M = 4.69$, $SD = 0.632$, $T(347) = 49.374$, $p < 0.05$), results in growth and sustainability of firms ($M = 4.62$, $SD = 0.688$, $T(347) = 43.823$, $p < 0.05$), makes it possible to measure sales and revenue ($M = 4.62$, $SD = 0.649$, $T(347) = 46.457$, $p < 0.05$), improves capacity to allocate funds ($M = 4.61$, $SD = 0.646$, $T(347) = 32.097$, $p < 0.05$) and that it results in realisation of strategic objectives ($M = 4.58$, $SD = 0.828$, $T(347) = 35.384$, $p < 0.05$).

7.9 FACTORS OF MANAGERIAL SKILLS ON SME SURVIVAL AND GROWTH

The research objective addressed in this section is - To identify the specific managerial skills that can be that can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. Table 7.13 shows factors on managerial skills that impact on manufacturing SMEs in Botswana. Descriptive statistics (means and frequencies) and one-sample t-tests were used to compile the table.

Table 7.13: Managerial skills

Item	Responses as frequency and percentage frequency (%)					Mean (SD)	T	DF	p-value
	N = 348								
	Never used	Rarely used	Sometimes used	Often used	Always used				
105 Employee Motivation	4 (1.1)	7 (2.0)	28 (8.0)	82 (23.6)	225 (64.7)	4.49 (0.821)	33.858	347	.000
106 Employee Training Skills	9 (2.6)	16 (4.6)	29 (8.3)	62 (17.8)	230 (66.1)	4.41 (1.001)	26.208	347	.000
107 Effective Communication	9 (2.6)	4 (1.1)	5 (1.4)	61 (17.5)	267 (76.7)	4.66 (0.799)	38.569	347	.000

108 Strategic Skills	5 (1.4)	13 (13.7)	27 (7.8)	50 (14.4)	251 (72.1)	4.53 (0.898)	31.6 69	347	.000
109 Financial Skills	5 (1.4)	11 (3.2)	9 (2.6)	63 (18.1)	258 (74.1)	4.61 (0.810)	37.0 55	347	.000
110 Business Management	3 (0.9)	3 (0.9)	22 (6.3)	65 (18.7)	253 (72.7)	4.62 (0.721)	41.9 27	347	.000
111 Conflict Management	9 (2.6)	10 (2.9)	15 (4.3)	70 (20.1)	240 (69.0)	4.52 (0.910)	30.9 36	347	.000
112 Delegation Skills	12 (3.4)	6 (1.7)	29 (8.3)	79 (22.7)	220 (63.2)	4.41 (0.966)	27.2 16	347	.000
113 Marketing Skills	8 (2.3)	6 (1.7)	25 (7.2)	62 (17.8)	245 (70.4)	4.53 (0.882)	32.3 19	347	.000
114 Future Planning Skills	9 (2.6)	21 (6.0)	18 (5.2)	61 (17.50)	237 (68.1)	4.43 (1.014)	26.2 88	347	.000
115 Coordinating Skills	8 (2.3)	10 (2.9)	6 (1.7)	82 (23.6)	240 (69.0)	4.55 (0.857)	33.6 05	347	.000
116 Conceptual Skills	5 (1.4)	6 (1.7)	22 (6.3)	75 (21.6)	236 (67.8)	4.54 (0.811)	35.3 21	347	.000

Source: Primary data

The results in Table 7.13 came from manufacturing SME owners/managers when giving their views on the extent to which managerial skills impacts on the survival, growth and sustainability of their business. The values of means for all items were at least 3.00. The p-values for all items were less than 0.05. This means that there was significant agreement with all items related to impact of managerial skills on the survival, growth and sustainability of manufacturing SMEs.

The most predominant managerial skills that were always used by SME owners/managers were effective communication ($M = 4.66$, $SD = 0.799$, $T(347) = 38.569$, $p < 0.05$), business management skills ($M = 4.62$, $SD = 0.721$, $T(347) = 41.927$, $p < 0.05$), financial skills ($M = 4.61$, $SD = 0.810$, $T(347) = 31.055$, $p < 0.05$), coordinating skills ($M = 4.55$, $SD = 0.857$, $T(347) = 33.605$, $p < 0.05$) and conceptual skills ($M = 4.54$, $SD = 0.811$, $T(347) = 35.321$, $p < 0.05$).

7.10 RELATIONSHIP BETWEEN ANNUAL TURNOVER AND ENTREPRENEURIAL CHARACTERISTICS

The previous section focused on factors that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana. A one sample t-test was used to analyse the 9 groups of factors and the levels of agreement were discussed under each factor.

This section analyses the relationship between annual turnover and entrepreneurial variables (gender, age, education, location of business, years in business, type of business, ownership of business, source of capital, legal status of the business, type of sales, type of purchases, available services/utilities, and number of employees).

The Kruskal-Wallis test was used to test the relationship between annual revenue and the variables age category, education, location of business, years in business, ownership of business premises, type of sales, type of purchases and number of employees. A graphical illustration of the Kruskal-Wallis test is attached as Appendix H. The Mann Whitney U test was used to test the relationship between the gender of SME owner/manager and annual revenue. The assumptions of the two tests (See Table 7.14) were first checked before the actual tests were conducted.

Table 7.14: Assumptions of Mann-Whitney and Kruskal-Wallis tests

Assumptions of the Mann-Whitney test	Assumptions of the Kruskal-Wallis test
Both samples are random samples	The samples are random samples
The two samples are mutually independent	The samples are mutually independent
The measurement scale is at least ordinal	The measurement scale is at least ordinal, and the variable is continuous
The two distributions must be symmetrical	The distributions must be similar, apart from their location

Source: Roni *et al.*, 2021

The two sets of tests were fulfilled and the Mann-Whitney and Kruskal-Wallis tests were conducted. The findings of the tests are discussed in the following sections:

7.10.1 Relationship between SME owner/manager's age and annual revenue

The output from the Kruskal-Wallis test on the relationship between SME owners/managers is given below:

Table 7.15: Relationship between SME owner/manager's age and annual revenue

Ranks			
	2 Age	N	Mean Rank
14 Annual Turnover	18 to less than 25 years	67	175.10
	25 to less than 30 years	51	200.23
	30 to less than 35 years	47	152.78
	35 to less than 40 years	58	163.78
	40 to less than 45 years	39	163.72
	45 to less than 50 years	49	156.35
	50 years and above	37	217.74
	Total	348	

Source: Primary data

The findings in Table 7.15 reveal that the Mean Rank of annual revenue is highest for manufacturing SME owners/managers in the age category 50 years and above (Mean Rank = 217.74), followed by age category 25 to 30 years (Mean Rank = 200.23), followed by age category 18 to less than 25 years (Mean Rank = 175.10), with age category 30 to 35 years having the lowest Mean Rank of 152.78.

Table 7.16: Test statistic for age category of SME owner/manager

Test Statistics ^{a,b}	
	14 Annual Turnover
Chi-Square	23.397
df	6
Asymp. Sig.	.001
a. Kruskal Wallis Test	
b. Grouping Variable: 2Age	

Source: Primary data

The findings in Table 7.16 show that the relationship between annual turnover and age of manufacturing SME owners/managers is statistically significant (Chi-square = 23.397; DF = 6; $p = 0.001$). In this study, SME owners/managers aged 50 years and above have the greatest Mean Rank at 217.74.

In order to determine whether annual turnover is significantly different between the different age groups, the *post hoc* test was conducted and the following results were obtained. The complete post-hoc test for annual turnover versus age category of SME owners/managers is attached as Appendix I.

Table 7.17: Post hoc test for annual turnover versus age category of SME owners/managers

	Age group 1	Age group 2	p-value

Tukey HSD	25 to less than 30 years (Mean Rank = 200.23)	30 to less than 35 years (Mean Rank = 152.78)	0.018
	30 to less than 35 years (Mean Rank = 152.78)	50 years and above (Mean Rank = 217.74)	0.05
	35 to less than 40 years (Mean Rank = 163.78)	50 years and above (Mean Rank = 217.74)	0.042

Source: Primary data

The ANOVA (See Appendix H) showed significant there is a statistical significance ($F = 3.623$; $p = 0.002$) between annual revenue for the 7 age groups of SME owners/managers.

The *post hoc* test reveals that there are significant differences between the annual turnover of the age categories 25 to less than 30 years and 30 to less than 35 years ($p=0.018$), 30 to less than 30 years and 50 years and above ($p = 0.05$), and 35 to less than 40 years and 50 years and above ($p = 0.042$). These findings may help policy makers and funding organisations (for example, CEDA, commercial; banks) of manufacturing SMEs to focus more, for example, on the age categories 30 to 35 years and 35 to 40 years where the Mean Rank is significantly lower compared to other groups.

7.10.2 Relationship between SME owners/managers' annual turnover and education

The output from the Kruskal-Wallis test on the relationship between SME owners/managers education and the annual revenue is given below:

Table 7.18: Relationship between SME owner/manager education and annual revenue

Ranks			
	3 Education	N	Mean Rank
14 Annual Turnover	No formal education	11	141.00
	Standard/Grade 7	29	133.72
	Junior Certificate	27	151.80
	Form 5/Cambridge	69	173.81
	Professional Certificate	48	137.73
	Professional Diploma	72	195.23
	Bachelors Degree	81	199.89
	Masters Degree	8	188.94
	Doctorate/PhD	3	278.50
	Total	348	

Source: Primary data

The findings in Table 7.18 reveal that the Mean Rank of annual revenue is highest for manufacturing SME owners/managers in the educational qualification group Doctorate/PhD (Mean Rank = 278.50), followed by educational qualification group Bachelors Degree (Mean Rank = 195.23), followed by educational qualification group Professional Diploma (Mean Rank = 175.10), with educational qualification group Standard/Grade 7 having the lowest Mean Rank of 133.72.

Table 7.19: Test statistic for education of SME owner/manager

Test Statistics^{a,b}	
	14 Annual Turnover
Chi-Square	39.384
df	8
Asymp. Sig.	.000
a. Kruskal Wallis Test	
b. Grouping Variable: 3Education	

Source: Primary data

The findings in Table 7.19 show that the relationship between annual turnover and education of manufacturing SME owners/managers is statistically significant (Chi-square = 39.384; DF = 8;

$p = 0.000$). In this study, SME owners/managers who possessed a doctorate/PhD have the greatest Mean Rank at 278.50.

In order to determine whether annual turnover is significantly different between the different educational qualifications, the post hoc test was conducted and the following results were obtained. The complete post-hoc test for annual turnover versus education of SME owners/managers is attached as Appendix J.

Table 7.20: Post hoc test for annual turnover versus education of SME owners/managers

	Education level 1	Education level 2	p-value
Tukey HSD	Standard 7/Grade 7 (Mean Rank = 133.72)	Professional Diploma (Mean Rank = 195.23)	0.004
	Standard 7/Grade 7 (Mean Rank = 133.72)	Bachelors Degree (Mean Rank = 199.89)	0.05
	Junior Certificate (Mean Rank = 151.80)	Professional Diploma (Mean Rank = 195.23)	0.049
	Professional Certificate (Mean Rank = 137.73)	Professional Diploma (Mean Rank = 195.23)	0.001
	Professional Certificate (Mean Rank = 137.73)	Bachelors Degree (Mean Rank = 199.89)	0.001
	No Formal Education (Mean Rank = 141.0)	Doctorate/PhD (Mean Rank = 278.50)	0.029

Source: Primary data

The ANOVA showed significant there is a statistical difference ($F = 5.217$; $p = 0.000$) between annual revenue for the 9 education level categories of SME owners/managers.

The *post hoc* test reveals that there are significant differences between the annual turnover and educational qualifications - Standard 7 and Professional Diploma ($p=0.004$), Standard 7 and Bachelors Degree ($p = 0.05$), Junior Certificate and Professional Diploma ($p = 0.049$), Professional Certificate and Professional Diploma ($p = 0.001$), Professional Certificate and Bachelors Degree ($p = 0.001$) and No Formal Education and Doctorate/PhD ($p = 0.029$).

7.10.3 Relationship between annual turnover and ownership of business premises

The output from the Kruskal-Wallis test on the relationship between SME owners/managers annual revenue and ownership of business premises and is given below:

Table 7.21: Relationship between ownership of business premises and annual revenue

Ranks			
	7 Own Premises	N	Mean Rank
14 Annual Turnover	Yes	127	151.30
	No	221	187.83
	Total	348	

Source: Primary data

The findings in Table 7.21 reveal that the Mean Rank of annual revenue is higher for manufacturing SME owners/managers who do not own the business premises that they are operating from (Mean Rank = 187.83), and those who owned the business premises that they operate from had a lower Mean Rank of 151.30.

Table 7.22: Test statistic for ownership of business premises of SME owners/managers

Test Statistics ^{a,b}	
	14 Annual Turnover
Chi-Square	16.511
df	1
Asymp. Sig.	.000
a. Kruskal Wallis Test	
b. Grouping Variable: 7 Own Premises	

Source: Primary data

The findings in Table 7.23 show that the relationship between ownership of business premises and annual turnover of SME owners/managers is statistically significant (Chi-square = 16.511; DF= 1; p = 0.000).

Table 7.23: One-way ANOVA for relationship between ownership of business premises and annual turnover of SME owners/managers

ANOVA					
14 Annual Turnover					
	Sum of Squares	df	Mean Square	F	Sig.

Between Groups	8.813	1	8.813	13.647	.000
Within Groups	223.451	346	.646		
Total	232.264	347			

Source: Primary data

The one-way ANOVA output given in Table 7.23 confirm the significant difference between the annual turnover of manufacturing SME owners/managers who did not own their business premises and those who owned their premises ($F = 13.647$; $p = 0.000$). The *post hoc* test could not be performed in this area because of the two groups of premises ownership in the instrument items. The complete post-hoc test for annual turnover versus ownership of the business premises of SME owners/managers is attached as Appendix K.

7.10.4 Relationship between the SME's annual turnover and number of employees

Table 7.24 reflects the relationship between SME owners/managers' annual turnover and number of employees.

Table 7.24: Relationship between the number of employees and annual turnover

Ranks			
	13 Number Employees	N	Mean Rank
14 Annual Turnover	0 to 6 employees	231	152.54
	7 to 25 employees	68	199.65
	26 to 99 employees	37	231.19
	100 employees and above	12	280.00
	Total	348	

Source: Primary data

The findings in Table 7.24 reveal that the Mean Rank of annual turnover is highest for manufacturing SME owners/managers who have 100 employees and above (Mean Rank = 280.00), followed by those having 26 to 99 employees (Mean Rank = 231.19), followed by those having 7 to 25 employees (Mean Rank = 199.65), with those employing 0 to 6 workers having the lowest Mean Rank of 152.54.

Table 7.25: Test statistic for the number of employees of SME owners/managers

Test Statistics ^{a,b}	
	14 Annual Turnover
Chi-Square	62.434
df	3
Asymp. Sig.	.000
a. Kruskal Wallis Test	
b. Grouping Variable: 13NumberEmployees	
Source: Primary data	

The findings in Table 7.25 show that the relationship between number of employees and annual turnover of SME owners/managers is statistically significant (Chi-square = 62.434; DF = 3; p = 0.000). The complete post-hoc test for annual turnover versus number of employees of SME owners/managers is attached as Appendix L.

Table 7.26: Post hoc test for annual turnover versus number of employees of the SMEs

	Number of employees 1	Number of employees 2	p-value
Tukey HSD	0 to 6 employees (Mean Rank = 152.54)	7 to 25 employees (Mean Rank = 199.65)	0.000
	0 to 6 employees (Mean Rank = 152.54)	26 to 99 employees (Mean Rank = 231.19)	0.000
	0 to 6 employees (Mean Rank = 152.54)	100 employees and above (Mean Rank = 280.00)	0.000
	7 to 25 employees (Mean Rank = 199.65)	26 to 99 employees (Mean Rank = 231.19)	0.002
	7 to 25 employees (Mean Rank = 199.65)	100 employees and above (Mean Rank = 280.00)	0.000

Source: Primary data

The ANOVA showed significant there is a statistical difference ($F = 34.080$; $p = 0.000$) between the number of employees and the annual revenue of SME owners/managers.

The *post hoc test* reveals that there are significant differences between the annual turnover and employee categories 0 to 6 employees and 7 to 25 employees ($p=0.000$), 0 to 6 employees and 26 to 99 employees ($p = 0.000$), 0 to 6 employees and 100 employees and above ($p = 0.000$), 7

to 25 employees and 26 to 99 employees ($p = 0.002$), and 7 to 25 employees and 100 employees and above ($p = 0.000$).

In summary, manufacturing SME owners/managers biographical characteristics – age category, education level, ownership of business premises, and number of employees, were found to be having a statistically significant relationship with annual turnover. There was no significant statistical relationship between annual revenue and the biographical characteristics - gender, location of business, years in business, type of sales and type of purchases from the data gathered from the 348 manufacturing SME owners/managers in this study.

7.11 TESTING THE PROPOSED MODEL

This section analyses the data using Structural Equation Modeling (SEM). Exploratory Factor Analysis (EFA) was used to reduce individual variables in the research into a fewer number of dimensions based the relationship between those variables. FA explores underlying dimensions amongst several variables and eliminates those variables that are not related to variables in a given construct.

Since this research on achieving sustainable competitive advantage by manufacturing SMEs in Botswana has formulated seven (7) objectives and hypotheses, it was ideal to assess whether or not these 7 objectives and hypotheses were accomplished and also to answer the research questions presented in the research.

7.11.1 Checking underlying components against measurement variables

In this first phase of SEM, factor analysis was used to reduce individual variables in the research into a fewer number of dimensions based the relationship between those variables.

7.11.1.1 Factor analysis of entrepreneurial factors

Factor analysis was used to investigate the underlying structure of the entrepreneurial factors that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana (See Table 7.27). The Keiser-Meyer-Olkin (KMO) measure was greater than the minimum threshold of 0.50, which implies that the sample from which these data were collected was adequate. Furthermore, the Bartlett's test of sphericity confirmed that a statistically significant result ($p < 0.05$). All the 9 factors were accepted because they had a factor loading of at least 0.50. The value of Cronbach's alpha was 0.757 which implied high internal validity of the measurement instrument. The 9 factors were considered for the research objective and hypothesis, and the highest loading loadings were as follows:

- Planning skills are important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Marketing skills are important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- The age of owner/manager is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

The above three factors had statistically significant factor loadings of 0.764, 0.758 and 0.740 respectively. The second group of factors was as follows:

- Managerial skills are important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Communication skills are important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Financial skills are important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

These factors had statistically significant factor loadings of 0.718, 0.712 and 0.711 respectively.

In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that entrepreneurial factors, especially planning skills, marketing skills, age of owner/manager, managerial skills, communication skills, and financial skills are very important towards the success of their business.

Table 7.27: Factor analysis of entrepreneurial factors

CONSTRUCT	MEASUREMENT VARIABLES	FINAL LOADING
ENTREPRENEURIAL FACTORS	15 Age Owner	.740
	16 Gender Owner	.668
	17 Education Owner	.687
	18 Marketing Skills	.758
	19 Managerial Skills	.718
	20 Industry Experience	.606
	21 Planning Skills	.764
	22 Communication Skills	.712
	23 Financial Skills	.711
KMO	0.688	
Bartlett's test	p<0.05	
Cronbach's alpha	0.757	

Source: Primary data

7.11.1.2 Factors analysis of firm-specific factors

Factor analysis was used to investigate the underlying structure of the firm-specific factors that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana (See Table 7.28). The Keiser-Meyer-Olkin (KMO) measure was greater than the minimum threshold of 0.50, which implies that the sample from which these data were collected was adequate. Furthermore, the Bartlett's test of sphericity confirmed that a statistically significant result ($p < 0.05$). All the 9 factors were accepted because they had a factor loading of at least 0.50. The value of Cronbach's alpha was 0.775 which implied high internal validity of the measurement instrument. The 9 factors were considered for the research objective and hypothesis, and the highest loading loadings were as follows:

- Machinery and vehicles are important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Annual revenue is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- The number of employees is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

The above three factors had statistically significant factor loadings of 0.794, 0.683 and 0.661 respectively. The second group of factors was as follows:

- The land owned by the firm is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- The age of the firm is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- The level of marketing is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

These factors had statistically significant factor loadings of 0.639, 0.662 and 0.619 respectively.

In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that firm-specific factors, especially land owned by the firm, annual revenue, number of employees, skills of employees, age of the firm, and level of marketing are very important towards the success of their business.

Table 7.28: Factor analysis of firm-specific factors

FIRM SPECIFIC FACTORS	24 Age Firm	.622
	25 Annual Revenue	.683
	26 Number Employees	.661
	27 Location Firm	.547
	28 Skills Employees	.579
	29 Land Owned Firm	.639
	30 Machinery Vehicles	.794
	31 Quality Products	.537
	32 Level Marketing	.619
KMO	0.770	
Bartlett's test	p< 0.05	
Cronbach's alpha	0.775	

Source: Primary data

7.11.1.3 Factor analysis of exogeneous/market-related factors

Factor analysis was used to investigate the underlying structure of the exogeneous or market-related factors that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana (See Table 7.29). The Keiser-Meyer-Olkin (KMO) measure was greater than the minimum threshold of 0.50, which implies that the sample from which these data were collected was adequate. Furthermore, the Bartlett's test of sphericity confirmed that a statistically significant result ($p < 0.05$). All the 12 factors were accepted because they had a factor loading of at least 0.50. The value of Cronbach's alpha was 0.893 which implied high internal validity of the measurement instrument. The 12 factors were considered for the research objective and hypothesis, and the highest loading loadings were as follows:

- The level of financial support from commercial banks is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Access to markets is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Financial support from government is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

The above three factors had statistically significant factor loadings of 0.833, 0.816 and 0.814 respectively. The second group of factors was as follows:

- Customer concentration is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

- Availability of information and advice is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Exhibitions and promotions are important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

These factors had statistically significant factor loadings of 0.805, 0.787 and 0.781 respectively.

In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that exogeneous or market-related factors, especially financial support from commercial banks, access to markets, financial support from the government, customer concentration, availability of information and advice, and exhibitions and promotions are very important towards the success of their business.

Table 7.29: Factor analysis of exogeneous/market-related factors

EXOGENEOUS FACTORS	33 Availability Funding	.669
	34 Financial Support Govt	.814
	35 Financial Support Banks	.833
	36 Level Taxation	.710
	37 Technology Adoption	.694
	38 Workforce Training	.645
	39 Company Registration	.629
	40 Competition Companies	.704
	41 Access Markets	.816
	42 Exhibitions Promotions	.781
	43 Customer Concentration	.805
	44 Availability Information	.787
KMO	0.856	
Bartlett's test	p< 0.05	
Cronbach's alpha	0.893	

Source: Primary data

7.11.1.4 Factor analysis of factors of government policies and guidelines

Factor analysis was used to investigate the underlying structure of factors on government policies and guidelines that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana (See Table 7.30). The Keiser-Meyer-Olkin (KMO) measure was greater than the minimum threshold of 0.50, which implies that the sample from which these data were collected was adequate. Furthermore, the Bartlett's test of sphericity confirmed that a statistically significant result (p< 0.05). All the 12 factors were accepted because they had a factor loading of at least 0.50. The value of Cronbach's alpha was 0.934 which implied high

internal validity of the measurement instrument. The 12 factors were considered for the research objective and hypothesis, and the highest loading loadings were as follows:

- Enhancing networking and collaboration is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Providing export incentives is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Protecting local firms from outside competition is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

The above three factors had statistically significant factor loadings of 0.813, 0.787 and 0.778 respectively. The second group of factors was as follows:

- Arranging business exhibitions is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Mentoring of business owners/managers is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Increasing access to finance is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

These factors had statistically significant factor loadings of 0.773, 0.758 and 0.742 respectively. In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that factors on government policies and guidelines, especially enhancing networking and collaboration, providing export incentives, financial protecting local firms from outside competition, arranging business exhibitions, mentoring of business owner/managers, and increasing access to finance are very important towards the success of their business.

Table 7.30: Factor analysis of factors of government policies and guidelines

GOVERNMENT POLICIES AND GUIDELINES	46 Information Available	.709
	47 Arranging Exhibitions	.773
	48 Enhancing Networking	.813
	49 Providing Incentives	.787
	50 Facilitating Tendering	.677
	51 Access Finance	.742
	52 Access Technology	.741
	53 Products Botswana	.697
	54 Mentoring Owners	.758
	55 Protecting Firms	.778
	56 Providing Training	.703
KMO	0.912	

Bartlett's test	$p < 0.05$
Cronbach's alpha	0.934

Source: Primary data

7.11.1.5 Factor analysis of factors of innovation and creativity

Factor analysis was used to investigate the underlying structure of factors on innovation and creativity that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana (See Table 7.31). The Keiser-Meyer-Olkin (KMO) measure was greater than the minimum threshold of 0.50, which implies that the sample from which these data were collected was adequate. Furthermore, the Bartlett's test of sphericity confirmed that a statistically significant result ($p < 0.05$). All the 12 factors were accepted because they had a factor loading of at least 0.50. The value of Cronbach's alpha was 0.777 which implied high internal validity of the measurement instrument. The 12 factors were considered for the research objective and hypothesis, and the highest loading loadings were as follows:

- Training on creativity and innovation is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Encouraging owners/managers creativity and innovation is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Creating a culture that promotes flexibility and adaptability is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

The above three factors had statistically significant factor loadings of 0.805, 0.778 and 0.771 respectively. The second group of factors was as follows:

- Adopting ideas that promote growth and profitability is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Motivating employees is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.
- Collaborating with strategic partners is important for the survival, growth and sustainability of manufacturing SMEs in Botswana.

These factors had statistically significant factor loadings of 0.753, 0.744 and 0.738 respectively.

In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that factors on innovation and creativity, especially training on creativity and innovation, encouraging owners/managers creativity and innovation, creating a culture that promotes flexibility and adaptability, adopting ideas that promote growth and profitability,

motivating employees, and collaborating with strategic partners are very important towards the success of their business.

Table 7.31: Factor analysis of factors of innovation and creativity

INNOVATION AND CREATIVITY	57 Collaboration Partners	.738
	58 Ability Resources	.710
	59 Adoption Technology	.734
	60 Encouraging Innovation	.778
	61 Advancing Plans	.738
	62 Motivating Employees	.744
	63 Creating Flexibility	.771
	65 Encouraging Risk Taking	.712
	66 Adopting Profitability	.753
	67 Investing Research	.708
	68 Training Creativity	.805
KMO	0.910	
Bartlett's test	p< 0.05	
Cronbach's alpha	0.777	

Source: Primary data

7.11.1.6 Factor analysis of human capital development factors

Factor analysis was used to investigate the underlying structure of factors on human capital development that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana (See Table 7.32). The Keiser-Meyer-Olkin (KMO) measure was greater than the minimum threshold of 0.50, which implies that the sample from which these data were collected was adequate. Furthermore, the Bartlett's test of sphericity confirmed that a statistically significant result ($p < 0.05$). All the 12 factors were accepted because they had a factor loading of at least 0.50. The value of Cronbach's alpha was 0.909 which implied high internal validity of the measurement instrument. The 12 factors were considered for the research objective and hypothesis, and the highest loading loadings were as follows:

- More opportunities for technology adoption are realised through human capital development.
- Product quality is improved through human capital development.
- Opportunities to access new markets are realised through human capital development.

The above three factors had statistically significant factor loadings of 0.811, 0.791 and 0.786 respectively. The second group of factors was as follows:

- Greater competitiveness is realised through human capital development.
- There is an increase in the number of employees through human capital development.
- Workforce skills, knowledge and competencies expand significantly through human capital development.

These factors had statistically significant factor loadings of 0.784, 0.773 and 0.732 respectively.

In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that factors on human capital development, especially more opportunities for technology adoption are realised, product quality is improved, opportunities to access new markets are realised, greater competitiveness is realised, there is an increase in the number of employees, and workforce skills, knowledge and competencies expand significantly are very important towards the success of their business.

Table 7.32: Factor analysis of human capital development factors

HUMAN CAPITAL DEVELOPMENT	69 Productivity Increases	.678
	70 Greater Competitiveness	.784
	71 Significant Sales	.613
	72 Survival Increase	.709
	73 Workforce Expand	.732
	74 Increase Employees	.773
	75 Opportunities Technology	.811
	76 Utilisation Resources	.628
	77 Confidence Improved	.716
	79 Quality Improved	.791
	80 Opportunities Markets Realised	.786
KMO	0.898	
Bartlett's test	p < 0.05	
Cronbach's alpha	0.909	

Source: Primary data

7.11.1.7 Factor analysis of factors of access to finance

Factor analysis was used to investigate the underlying structure of factors on access to finance that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana (See Table 7.33). The Keiser-Meyer-Olkin (KMO) measure was greater than the minimum threshold of 0.50, which implies that the sample from which these data were collected was adequate. Furthermore, the Bartlett's test of sphericity confirmed that a statistically significant result ($p < 0.05$). All the 12 factors were accepted because they had a factor loading of at least 0.50. The value of Cronbach's alpha was 0.891 which implied high internal validity of the measurement

instrument. The 12 factors were considered for the research objective and hypothesis, and the highest loading loadings were as follows:

- Access to finance ensures realization of strategic objectives.
- Access to finance causes sales and revenue to grow.
- Access to finance results in an increased in cash liquidity.

The above three factors had statistically significant factor loadings of 0.794, 0.749 and 0.743 respectively. The second group of factors was as follows:

- Access to finance results in boosting of entrepreneurial activities.
- Access to finance makes it possible to implement financial plans.
- Access to finance enables market entry and expansion strategies.

These factors had statistically significant factor loadings of 0.739, 0.738 and 0.737 respectively.

In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that factors on access to finance, especially ensuring realisation of strategic objectives, causes sales and revenue to grow, results in an increase in cash liquidity, results in the boosting of entrepreneurial activities, makes it possible to implement financial plans, and enables market entry and expansion strategies are very important towards the success of their business.

Table 7.33: Factor analysis of factors of access to finance

ACCESS TO FINANCE	81 Enables Market Entry	.737
	82 Improvement Finance	.640
	83 Employment Opportunities	.602
	84 Retention Employees	.574
	85 Survival Growth	.672
	86 Increase Capacity	.728
	87 Boosting Activities	.739
	88 Promotes Investment	.613
	89 Implement Financial Plans	.738
	90 Realisation Objectives	.794
	91 Increase Liquidity	.743
	92 Revenue Grow	.749
KMO	0.881	
Bartlett's test	p< 0.05	
Cronbach's alpha	0.891	

Source: Primary data

7.11.1.8 Factor analysis of factors of financial management skills

Factor analysis was used to investigate the underlying structure of factors on financial management skills that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana (See Table 7.34). The Keiser-Meyer-Olkin (KMO) measure was greater than the minimum threshold of 0.50, which implies that the sample from which these data were collected was adequate. Furthermore, the Bartlett's test of sphericity confirmed that a statistically significant result ($p < 0.05$). Eleven (11) out of the 12 factors were accepted because they had a factor loading of at least 0.50. The value of Cronbach's alpha was 0.914 which implied high internal validity of the measurement instrument. The 11 factors were considered for the research objective and hypothesis, and the highest loading loadings were as follows:

- Financial management skills contribute towards value addition.
- Financial management skills result in growth and sustainability of firms.
- Financial management skills result in realisation of strategic objectives.

The above three factors had statistically significant factor loadings of 0.787, 0.731 and 0.726 respectively. The second group of factors was as follows:

- Financial management skills increase the firm's productivity.
- Financial management skills result in reduction in the firm's exposure to insolvency.
- Financial management skills improve capacity to set product prices.

In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that factors on financial management skills, especially contribution towards value addition, result in growth and sustainability of firms, result in realisation of strategic objectives, increase firm productivity, result in reduction in firm exposure to insolvency, and improve capacity to set product prices are very important towards the success of their business.

Table 7.34: Factor analysis of factors of financial management skills

FINANCIAL MANAGEMENT SKILLS	93 Exposure Insolvency	.685
	94 Decision Making	.628
	95 Value Addition	.787
	96 Growth Sustainability	.731
	97 Firm Productivity	.689
	98 Capacity Finance	.616
	99 Improve Capacity Product	.651
	100 Improve Inventory	.645
	101 Measure Sales	.624
	102 Allocate Funds	.482

	103 Financial Forecasting	.640
	104 Strategic Objectives	.726
KMO	0.928	
Bartlett's test	p< 0.05	
Cronbach's alpha	0.914	

Source: Primary data

7.11.1.9 Factor analysis of factors of managerial skills

Factor analysis was used to investigate the underlying structure of factors on managerial skills that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana (See Table 7.35). The Keiser-Meyer-Olkin (KMO) measure was greater than the minimum threshold of 0.50, which implies that the sample from which these data were collected was adequate. Furthermore, the Bartlett's test of sphericity confirmed that a statistically significant result ($p < 0.05$). All 12 factors were accepted because they had a factor loading of at least 0.50. The value of Cronbach's alpha was 0.954 which implied high internal validity of the measurement instrument. The 12 factors were considered for the research objective and hypothesis, and the highest loading loadings were as follows:

- Future planning skills are always used by manufacturing SME owners/managers in Botswana in order to achieve survival, growth and sustainability.
- Delegation skills are always used by manufacturing SME owners/managers in Botswana in order to achieve survival, growth and sustainability.
- Marketing skills are always used by manufacturing SME owners/managers in Botswana in order to achieve survival, growth and sustainability.

The above three factors had statistically significant factor loadings of 0.865, 0.836 and 0.823 respectively. The second group of factors was as follows:

- Conflict management skills are always used by manufacturing SME owners/managers in Botswana in order to achieve survival, growth and sustainability.
- Strategic planning skills are always used by manufacturing SME owners/managers in Botswana in order to achieve survival, growth and sustainability.
- Effective communication is always used by manufacturing SME owners/managers in Botswana in order to achieve survival, growth and sustainability.

These factors had statistically significant factor loadings of 0.810, 0.808 and 0.779 respectively.

In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that factors on managerial skills, especially future planning skills, delegation

skills, marketing skills, conflict management skills, strategic planning skills, and effective communication are very important towards the success of their business.

Table 7.35: Factor analysis of factors of managerial skills

MANAGERIAL SKILLS	105 Employee Motivation	.550
	106 Employee Training Skills	.727
	107 Effective Communication	.779
	108 Strategic Skills	.808
	109 Financial Skills	.764
	110 Business Management	.778
	111 Conflict Management	.810
	112 Delegation Skills	.836
	113 Marketing Skills	.823
	114 Future Planning Skills	.865
	115 Coordinating Skills	.778
	116 Conceptual Skills	.765
KMO	0.916	
Bartlett's test	p< 0.05	
Cronbach's alpha	0.954	

Source: Primary data

7.12 TESTING THE CONCEPTUAL MODEL

The final part of the analysis phase tested the conceptual model based on the outcomes of the hypotheses testing. This conceptual model constituted the framework that depicts key concepts, variables, relationships and assumptions that can be used by manufacturing SMEs in Botswana to achieve sustainable competitive advantage in their industry. To accomplish this, a model fit was computed in order to assess the feasibility of the proposed model with the empirical data. Inferential statistics were generated using SEM and the fit measures were compared ideal values. The SEM output (See Table 7.36) shows the model fit summary with standardised root mean square residual (SRMR), the Squared Euclidean Distance (d_ULS), the Geodesic Distance (d_G), the Chi-Square value (X^2), and the Normal Fit Index (NFI).

Table 7.36: Model Fit Summary

Fit index	Actual value	Ideal value	Comment
SRMR	0.0694	<0.08 (Hu & Bentler, 1999)	Acceptable model fit (Less than 0.08)

d_ULS	0.2652	0.00 (Dijkstra, 2017: Schuberth <i>et al.</i> , 2018)	Unacceptable model fit (Not close to 0.00)
d_G	0.0686	0.00 (Dijkstra, 2017: Schuberth <i>et al.</i> , 2018)	Acceptable model fit (Close to 0.00)
χ^2	140.4593	< 5	Unacceptable model fit (Greater than 5)
NFI	0.8692	>0.90 (Bentler & Bonett, 1980, p. 588)	Acceptable model fit (Close to 0.90)

Source: Primary data

The Model Fit Summary shown in Table 7.36 demonstrates that it fits the data although one or more fit measures suggest a bad fit (Hu & Bentler, 1998). Tanaka (1993) further elaborate that there does not exist consensus amongst scholars about what constitutes a good fit. However, most scholars suggest that using a combination of fit measures lead to a model fit summary which is acceptable (Hu & Bentler, 1998; Shi & Maydeu-Olivares, 2020; Maydeu-Olivares *et al.*, 2018). Furthermore, Schermelleh-Engel (2003) and Vandenberg (2006) criticise the use of the Chi-Square statistic because of its sensitivity to sample size.

The second phase of the SEM involved the generation of the path model which depicts the relationships between the latent variables and the actual data which was captured and analysed (See Figure 7.1).

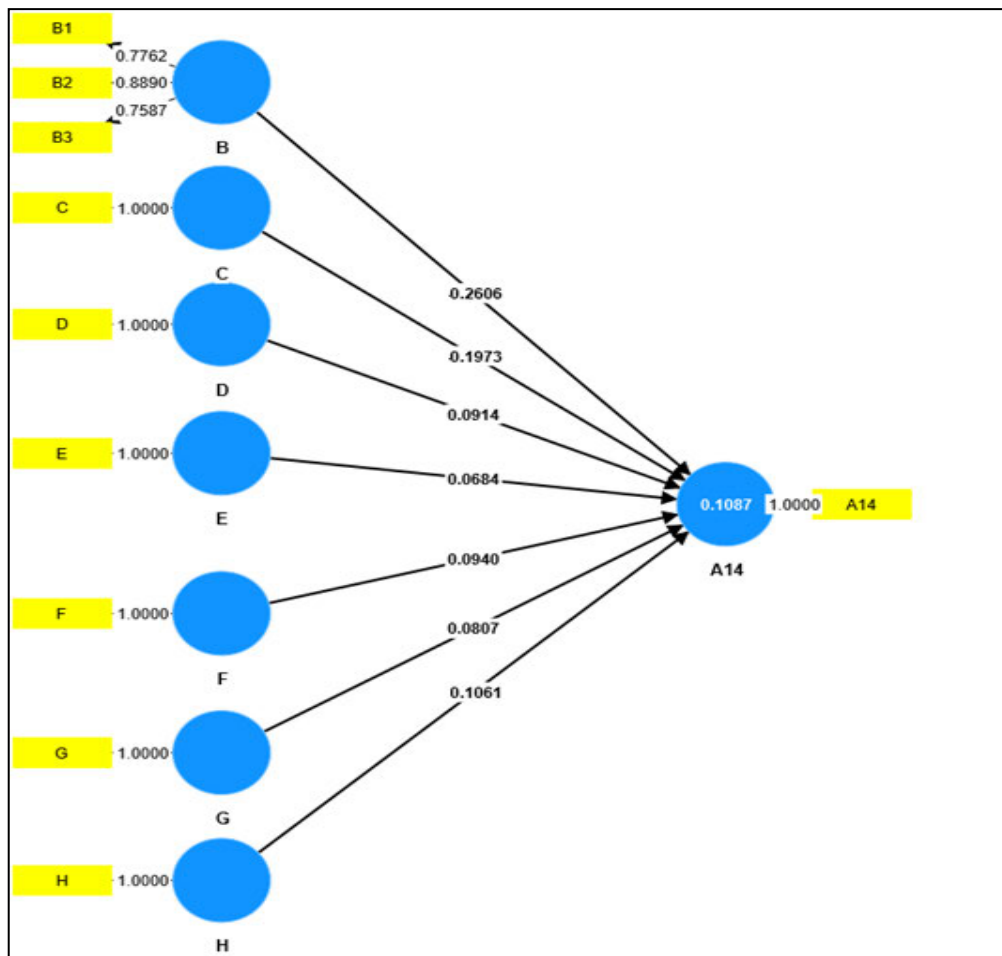


Figure 7.1: Path diagram showing hypothesised relationships amongst variables

Source: Primary data

Table 7.37 is an extract from the SEM output and confirms the standardized regression coefficients and p-values in Figure 1.1.

Table 7.37: Estimates of regression coefficients from correlations output

Independent variable	Dependent variable	Standardised regression coefficient	P-value	Comment	Decision
B1(Entrepreneurial factors) →	Annual revenue	0.2606	0.000	Relationship is significant	Accepted
B2 (Firm-specific factors) →	Annual revenue	0.2606	0.000	Relationship is significant	Accepted
B3 (Exogeneous factors) →	Annual revenue	0.2606	0.000	Relationship is significant	Accepted
C (Government policies) →	Annual revenue	0.06840	0.000	Relationship is significant	Accepted

D (Innovation and creativity)	⇒	Annual revenue	0.0940	0.049	Relationship is significant	Accepted
E (Human capital development)	⇒	Annual revenue	0.0807	0.000	Relationship is significant	Accepted
F (Access to finance)	⇒	Annual revenue	0.0940	0.001	Relationship is significant	Accepted
G (Financial management skills)	⇒	Annual revenue	0.0807	0.049	Relationship is significant	Accepted
H (Managerial skills)	⇒	Annual revenue	0.1061	0.015	Relationship is significant	Accepted

Source: Primary data

The output shown in Figure 7.1 and standardised regression coefficients given in Table 7.37 shows that the 7 null hypotheses formulated in Chapter 1 cannot be rejected at 5% level of significance. This confirms the significance of independent variables given in this study in their contribution towards the survival, growth and sustainability of small and medium-sized manufacturing enterprises in Botswana.

7.13 SUMMARY OF THE RESEARCH FINDINGS

Factor analysis was used to identify the seven significant determinants of survival, growth and sustainability of manufacturing SMEs in Botswana which are entrepreneurial factors, firm-specific factors, exogeneous factors, government policies and guidelines, innovation and creativity, human capital development, access to finance, financial management skills and managerial skills. The analysis utilised the research hypotheses and annual revenue which is a quantifiable determinant of the success of an SME (Hoqu, Sultana & Thalil., 2016; Sirotin, Arkhipova & Egorov, 2017; Khanie, 2020, p. 19). The following sections discuss the findings based on the factor analysis.

7.13.1 Entrepreneurial factors and annual revenue

The results reveal that entrepreneurial factors have weak positive but significant impact on annual revenue ($\beta = 0.2606$; $T = 4.416$; $p = 0.000$). The findings imply that entrepreneurial factors in manufacturing SMEs in Botswana account for 26.06% of the annual revenue that they generate in order for them to be successful.

The findings are consistent with a study done by Sivotwa (2019, pp. 64-68) who revealed that age was an entrepreneurial factors that impact on the success of an SME with older owners/managers leading more successful businesses than younger ones. Kalyongwe (2019, p. 125) affirmed that gender was a key determinant of the sustainability of SMEs with male-owned

businesses performing better than female owned businesses. Another study by Njanike (2019, p. 13) concluded that the educational qualifications of SME owners/managers was important in determining the success of a business with more educated owners/managers performing better than less educated owners/managers. Msomi and Olarewaju (2021) revealed that training and development of an entrepreneur is a differentiating factor on the growth and sustainability of a business. The findings of Msomi and Olarewaju (2021) are corroborated by Ndlovu and Ndlovu (2021) who observed that training equips managers with skills to motivate employees and increase the overall productivity of the firm.

7.13.2 Firm-specific factors and annual revenue

It has been determined that firm specific factors have a weak but significant impact on annual revenue ($\beta = 0.2606$; $T = 8.395$; $p = 0.000$). The findings mean that firm-specific factors can explain 26.06% of annual revenue generated by SME owners/managers in Botswana in their endeavour to succeed in their business.

The findings are consistent with those of a research by Ncube and Chimucheka (2019) and Diraditsile *et al.* (2019, pp. 171-176) who revealed that a business that has been in existence for a long period of time has higher chances of survival, growth and sustainability. The size of a firm has also been confirmed as a determining factor on the success of an SME with large firms possessing more entrepreneurial skills and capital assets to grow than small firms (Hoque *et al.* 2016; Ogenche *et al.*, 2018).

7.13.3 Exogeneous factors and annual revenue

The results of the study reveal that exogeneous factors have a weak positive but significant impact on annual revenue ($\beta = 0.2606$; $T = 2.965$; $p = 0.000$). The findings mean that exogeneous factors can possibly explain 26.06% of annual revenue that is generated by SMEs in their effort to become successful in their operations.

The results are supported by previous studies by Mafoko (2019, p. 28) who noted that registered firms have greater chances of accessing finance than those that are not registered. Another research by Kalyongwe (2019, p. 194) also highlighted the importance of technology on the success of an SME with firms that have access to technology performing better than those that do not. Good infrastructure was also observed to be a significant determinant on the sustainability of SMEs (Okeke-Uzodike & Ndinda, 2018; Ledikwe, 2020, p. 4). Adequate infrastructure helps in speedy transportation of raw materials to factories, finished goods to markets, including storage of goods and raw materials in transit.

7.13.4 Factors of government policies and guidelines and annual revenue

There is evidence based on the findings of the study to conclude that government policies and guidelines have a weak positive but significant impact on annual revenue produced by SMEs in order for them to grow and become sustainable. These results imply that government policies and guidelines account for 6.84% of the annual revenue created by SMEs.

The results are corroborated by Ifekwem (2019) who explained that government interventions help to boost the performance of SMEs leading to higher levels of employment creation, poverty alleviation and an increase in the tax base of the government. Another study by Baji *et al.* (2019) concluded that governments provide the basic infrastructure for SMEs to utilise and offer business development support to SMEs.

7.13.5 Factors of innovation and creativity and annual revenue

The results indicate that innovation and creativity has a weak positive but significant impact on annual revenue of SMEs ($\beta = 0.0940$; $T = 1.1915$; $p = 0.000$). The findings imply that innovation and creativity of SME can be used to explain 9.40% of the annual revenue that is generated by manufacturing firms in Botswana in their endeavour to achieve growth and sustainability.

The results are supported by Monyake *et al.* (2020b, p. 457) and Nyamaka *et al.* (2020) who revealed that SMEs are key drivers of innovation and creativity, economic growth and job creation. Innovation and creativity also helps SMEs to ensure their survival, growth and sustainability. A previous study by Shemi and Procter (2018) confirmed that SMEs that embrace technology are able to utilise the opportunities that come with the technology and grow faster than traditional start-ups. The existence of effective firm-specific factors like age, market access and managerial skills is also a driver of creativity and innovation in SMEs (OECD, 2017; Nyamaka *et al.*, 2020; Kraermer-Mbula & Lorenz, 2022).

7.13.6 Factors of human capital development and annual revenue

The findings confirm that human capital development has a weak positive but significant impact on annual revenue ($\beta = 0.0807$; $T = 2.592$; $p = 0.000$). The findings mean that human capital development possible accounts for 8.07% of the growth and sustainability of SMEs in Botswana.

The findings are corroborated by Bomani *et al.* (2019, pp. 1-15) and Matsongori and Mutambara (2018) acknowledge that, from an organisational perspective, human capital enables a firm to increase its productivity, profitability and growth. Furthermore, Oluwatobi *et al.* (2020) accede that when employees in a firm are developed through training and education, they

become more productive, creative and innovative and this leads to firm growth, success and sustainability.

7.13.7 Factors of access to finance and annual revenue

The findings confirm that access to finance has a weak positive but significant impact on annual revenue ($\beta = 0.0940$; $T = 5.43$; $p = 0.001$). This finding implies that access to finance can explain 9.40% of SMEs' ability to access funds and the annual revenue that they generate in their desire to become successful in their business.

The findings of this study are corroborated by Tadu and Chiguvi (2019, pp. 113-118) and Musvoto (2020) who observed that most SMEs use personal savings or seek financial assistance from family and friends as a quick and convenient form of raising finance and attracts little or no interest. Such funds are a convenient way of purchasing raw materials, equipment and machinery, and catering for administrative costs. This helps to ensure takeoff of the business and possibly sustainability of the business. Other sources of finance outlined by scholars include business Angels (Monametsi, Mkwizu & Swai, 2018), commercial banks (monyake *et al.*, 2020b, p. 466; Msomi & Olarewaju, 2021), government schemes (Tadu & Chiguvi, 2020, p. 1-8; Amoako-Adu & Eshun, 2018, p. 151) and foreign direct investment (Magang & Magang, 2019).

7.13.8 Factors of financial management skills and annual revenue

It was established that financial management skills have a weak positive but significant impact on annual revenue ($\beta = 0.0807$; $T = 2.509$; $p = 0.049$). This finding means that financial management skills possibly explain 8.07% of the revenue that SMEs in Botswana create in their effort to achieve growth and sustainability.

The findings are consistent with a study by Nyakudya (2020, p. 251) and Mbogo and David (2021) who ascertained that good financial management skills are critical to SMEs where the exposure to insolvency is quite high. With financial management skills, SME owners/managers to make important decisions on planning inventory, pricing, acquisition of assets leading to an increase in the overall value of a business. The main objective of financial management in an SME is to realise optimal profit, both in the short and long term.

7.13.9 Factors of managerial skills and annual turnover

The findings indicate that managerial skills have a weak positive but significant impact on annual revenue ($\beta = 0.1061$; $T = 7.625$; $p = 0.015$). This finding means that managerial skills can explain 10.61% of the annual revenue that is generated by SMEs in Botswana when aiming to achieve survival, growth and sustainability.

The results are supported by Rankhumise and Letsoalo (2019) and Mashek (2021) who confirmed that managerial skills like planning, interpersonal skills, communication skills and computer skills are critical towards the success of SMEs. Moyo (2019) also confirmed the importance of planning as a critical managerial skill on the success of SMEs. Technical skills were also identified by Shaikh *et al.* (2021) were important skills for the effective performance and success of SMEs.

7.14 SUMMARY OF KEY QUANTITATIVE FINDINGS

The following is a summary of the main findings from the quantitative phase of the research:

Table 7.38: Summary of key quantitative findings

Factors	Main findings
Factors of characteristics of SME owners/managers	There was close agreement with all factors of characteristics of SME owners/managers, except age and gender of SME owners/managers. The most predominant entrepreneurial factors were communication skills, financial skills, planning skills and marketing skills.
Firm-specific factors	There was significant agreement with all items of firm-specific factors. The most predominant firm-specific factors were level of marketing, quality of products, location of firm, skills of employees, and machinery and vehicles.
Exogeneous/market-related factors	There was significant agreement with all items of exogeneous or market-related factors. The most predominant factors were availability of information, customer concentration, technology adoption, competition from other manufacturing companies, and access to markets.
Factors of government policies and guidelines	There was significant agreement with all items of government policies and guidelines. The most predominant factors were providing training to owners/managers, marketing products inside and outside Botswana, making information and advice available, increasing access to technology, and enhancing networking and collaboration.
Factors of innovation and creativity	There was significant agreement with all items of factors of innovation and creativity. The most predominant factors were putting in place regulations that protect intellectual property rights, adopting ideas that promote growth and profitability, investing in research and development, training on creativity

	and innovation, motivating employees, and adoption of appropriate technology.
Factors of human capital development	<p>There was significant agreement with all items of factors of human capital development.</p> <p>The most predominant factors were training and development resulted in improved marketing skills; product quality improved; confidence, communication and creativity are improved across the firm; opportunities to access new markets are realised; and the chances of firm survival and growth increase.</p>
Factors of access to finance	<p>There was significant agreement with all items of factors of access to finance.</p> <p>The most predominant factors were it causes sales and revenue to grow, ensures realisation of strategic objectives, results in boosting of entrepreneurial activities, makes it possible to implement financial plans, and promotes investment opportunities.</p>
Factors of financial management skills	<p>There was significant agreement with all items of factors of financial management skills.</p> <p>The most predominant factors were it helps to improve financial forecasting, results in growth and sustainability of firms, makes it possible to measure sales and revenue, improves capacity to allocate funds, and results in realisation of strategic objectives.</p>
Factors of managerial skills	<p>There was significant agreement with all items of factors of managerial skills.</p> <p>The most predominant factors were effective communication, business management skills, financial skills, coordinating skills, and conceptual skills.</p>

Source: Compiled by the Researcher

7.15 CONCLUSION

The focus of this chapter was to present and discuss the findings from the 348 manufacturing SME owners/managers who participated in this research. Frequency tables, descriptive and inferential statistics, one sample t-tests, Kruskal-Wallis and Man Whitney U tests, and Structural Equation Model were collectively used in the analysis and description of the quantitative data gathered from the SME owners/managers. The purpose of the data analysis in this chapter was to confirm agreement or disagreement of the nine groups of factors that were aligned to the research objectives.

The findings of this research confirmed agreement of all entrepreneurial factors (except age and gender), firm-specific factors, exogenous or market-related factors, factors of government policies and guidelines, factors of innovation and creativity, factors of human capital development, factors of access to finance, factors of financial management skills, and factors of managerial skills. The Kruskal-Wallis and Mann-Whitney tests were conducted to confirm or refute the relationship between firm-specific characteristics (age, education, ownership of business premises, and number of employees) and annual revenue.

The results of the tests confirmed strong positive correlation between age, education, ownership of the business premises, and the number of employees. Mature and more educated SME owners have greater chances of generating more revenue for their business than young and less educated owners/managers. SME owners who rented, rather than owned, their business premises had greater chances of realising more annual revenue for their business and SME owners/managers with more employees had greater opportunity to generate more revenue than those with fewer employees.

Factor analysis was performed in order to test the proposed model by assessing whether or not the 7 objectives and hypotheses of the research were accomplished and also to answer the research questions that were presented in the study. The results of the factor analysis confirmed that all the objectives were accomplished and the hypotheses proved to be correct (See Table 7.40). The next chapter, Chapter 8, presents the key findings, conclusions and recommendations of the study.

CHAPTER 8 – DISCUSSION OF FINDINGS

8.1 INTRODUCTION

The purpose of this chapter is to discuss the findings from both the qualitative and quantitative data that was gathered and analysed in this research. The chapter compares and contracts the findings from both the literature review and the empirical study and additional comments are provided based on what has been found in both the literature review and empirical findings. The research objectives of the study are used to sequence the discussion of the findings and the focus is on the various factors that impact on the achieving of sustainable competitive advantage of manufacturing SMEs in Botswana.

8.2 DISCUSSION OF FINDINGS ACCORDING TO RESEARCH OBJECTIVES

The following sections discuss the findings of the study based on research objectives presented in Chapter 1.

8.2.1 To evaluate firm-specific factors that impact on SMEs

The first research question examined firm-specific factors that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana. The findings from the qualitative phase of the study involving key government informants affirmed the business-related factors: business linkages, funds, space to operate their business from, and risk as important towards the survival and growth of manufacturing SMEs in Botswana. These findings are consistent with those of Monyake and Kuruba (2020, p. 1) who confirm that networking enables SMEs to share knowledge about markets and suppliers when they network or form associations. They are also able to share transportation, advertising and other costs when they work together.

The riskiness of SMEs was a factor which was negatively impacting on manufacturing SMEs in Botswana on issues like loan application. The element of risk is confirmed by Monyake *et al.* (2020b, p. 467) and Msomi and Olarewaju (2021) who concur that commercial banks are traditionally conservative when it comes to lending money to SMEs because of the credit risk associated with them. Key government informants highlighted that land is very expensive in Botswana and most manufacturing SMEs cannot afford it. The option of renting offices or warehouses is also expensive and this impacts on the survival and growth of these firms. Firms that use free open spaces face problems of unavailability of utilities. Whilst institutions like LEA provide subsidised factory shells, these are not available to all SMEs who face challenges of space and such factory shells are only provided for a limited period.

The findings from key government informants also revealed important information about environmental factors that impact on the success of manufacturing SMEs in Botswana. These are competition from multinational corporations (OECD, 2017; Simon *et al.*, 2020), access to export markets (World Economic Forum, 2019; CEDA, 2020b, pp. 34-54), and water rights (Gondo & Kolawole, 2020; Badimo *et al.*, 2021, p. 102963; Motho, 2021; Tshabatau, 2021). In order to help manufacturing SMEs deal with competition, both the Botswana government and the private sector have devised strategies to assist these firms to succeed. The Botswana government gives preferential treatment to local producers and buys their products after fulfilling conditions like quality and availability of the products. Large established retail business also provides shelf space to products from SMEs to market and sell their products when circumstances allow. The issue of lack of water rights is a major drawback, especially to youths who want to establish a business in Botswana. The process of applying for water rights is also long and cumbersome and most youth applicants end up giving up.

Key government informants explained that product-related factors also impact on the survival and growth of manufacturing SMEs in Botswana. The factors that they gave are high cost of quality (Ledikwe, 2020, p. 15; CEDA, 2020b, p. 30) and productivity issues (Ama & Okurut, 2018, p. 7; Chen & Zhang, 2017, pp. 201-205). Local manufacturing SMEs spend significant amount of money implementing quality in their products. However, they end up losing business to competitors who do not invest in quality and charge lower prices for their products. Key government informants also revealed that manufacturing SMEs were not capable of charging the right prices when selling their products and end up not breaking even.

Factors related to equipment were also given by key government informants as being important towards the survival, growth and sustainability of manufacturing SMEs in Botswana. The factors which they gave are high maintenance costs (Mpondori, 2020; Rasetapa, 2022, p. 13) and lack of equipment (Magang & Magang, 2019).

The first research objective and hypothesis focused on identifying factors that impact on the growth and sustainability of manufacturing SMEs in Botswana. Quantitative data was gathered from manufacturing SME owners/managers and analysed using a statistical package. A one sample t-test was conducted to investigate relationship between the success of manufacturing SMEs and entrepreneurial factors (except age and gender of the owner), firm-specific factors and exogenous factors. The findings confirmed that there is a positive significant relationship between the success of manufacturing SMEs and entrepreneurial, firm-specific and exogenous factors.

The results from Factor Analysis (See Tables 7.25 to 7.27) corroborate those from the one sample t-test (See Tables 7.3 to 7.5). In all the three groups of factors, the values of KMO were acceptable (KMO >0.60), the values of Bartlett's test of sphericity confirmed statistically significant results ($p < 0.05$), and Cronbach's alpha values implied high internal validity of the measurement instrument ($\alpha > 0.700$).

Multiple scholars have confirmed have significant relationships between entrepreneurial (Muriithi, 2018; Njanike, 2019, pp. 9-13; Sivotwa, 2019, pp. 64-68), firm-specific (Diraditsile *et al.*, 2019, pp. 171-176; Ncube & Chimucheka, 2019; Ng'andu, 2022) and exogeneous factors (Taimu *et al.*, 2017; Kalyongwe, 2019, p. 125; CEDA, 2020b, pp. 34-54) and the survival and growth of SMEs. The results from the quantitative study confirm first hypothesis which states that firm-specific factors are positively associated with the ability of the manufacturing SMEs in Botswana to survive, grow and achieve sustainable competitive advantage.

8.2.2 To review the influence of existing government policies on SMEs

The second research question reviewed the influence of existing government policies and guidelines on the survival, growth and sustainability of manufacturing SMEs in Botswana. The results from the qualitative stage of the research from key government informants confirmed the factors pertaining to government policies and guidelines: certification of products; economic factors like diversification and subsidies; legal factors like overlapping of mandates and protection of local products; political interference; and procurement-related factors like dominance of Botswana government, over-reliance on Botswana government and support for local production as important towards the success of manufacturing SMEs. Several scholars also concluded that government policies and guidelines help to promote the success of manufacturing SMEs (Marandu & Thomas, 2017; Selelo *et al.*, 2017; Shemi & Procter, 2018; Maziriri & Chivandi, 2020; Ledikwe & Roberts-Lombard, 2022).

The requirements for product certification and traceability issues by countries that imported products from manufacturing SMEs in Botswana was a barrier towards the attempt by these firms to penetrate export markets. These challenges were also corroborated by Marandu and Thomas (2017) and Khani (2018). However, these firms were assisted by some organisations in Botswana to get the certifications and deal with traceability issues, although mileage problems were never resolved.

The findings from key government informants confirmed that the Botswana government intervened on the operations of manufacturing SMEs by formulating policies and guidelines in order to deal with the economic challenges faced by these firms. These include the high rentals

charged by owners of premises like offices and factory shells or warehouses. The Botswana government intervenes by offering subsidised rentals through LEA.

The Botswana government also helps manufacturing SMEs as a way of diversifying away from diamond mining. The manufacturing sector also receives preferential treatment from the government because it is considered a priority sector. Scholars like Diraditsile *et al.* (2019, pp. 171-176) and Maziri and Chivandi (2020) also confirmed the importance of government intervention through the formulation of appropriate policies and guidelines to help manufacturing SMEs to become successful.

Key government informants also revealed that the Botswana government intervened in order to promote production by local manufacturing SMEs. These observations are concurred by Chigora and Zvavahera (2017, pp. 1-17), Okeke-Uzodike *et al.* (2018) and Ledikwe (2020, p. 15). However, challenges like political interference and overlapping of mandates of certain governments agencies responsible for supporting manufacturing SMEs remain critical issues.

Procurement-related factors were also additional reasons why key government informants suggested the Botswana government intervened in the operations of manufacturing SMEs. The Botswana government has devised policies and guidelines which give preferential treatment to local manufacturing firms when bidding for tenders. The Botswana government has also put in place measures which promote purchase of locally produced goods in order to boost the growth and sustainability of manufacturing SMEs in the country. Research by Magang and Magang (2019) and Ledikwe & Roberts-Lombard (2022) confirm the importance of government intervention policies and guidelines in order to help manufacturing SMEs to become successful in their operations. However, the over-reliance on sale of their products to Botswana government is also a constraint to those manufacturing companies which cannot gain competitive edge in the tendering process and these firms end up collapsing.

The second research objective and hypothesis focused on identifying factors related to existing government policies and guidelines that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana. Quantitative data was gathered from manufacturing SME owners/managers and analysed using a statistical package. A one sample t-test was conducted to investigate relationship between the success of manufacturing SMEs and factors related to government policies and guidelines currently in place to support manufacturing SMEs in Botswana. The findings confirmed that there is a positive significant relationship between the success of manufacturing SMEs and the formulation of appropriate government policies and guidelines that supported manufacturing SMEs in Botswana.

The results from Factor Analysis (See Tables 7.28) corroborate those from the one sample t-test (See Tables 7.6). The values of KMO were acceptable (KMO >0.60), the values of Bartlett's test of sphericity confirmed statistically significant results ($p < 0.05$), and Cronbach's alpha values implied high internal validity of the measurement instrument ($\alpha > 0.700$).

Scholars have confirmed have significant relationships between government support through the formulation of appropriate policies and guidelines (Simon *et al.*, 2020; Musabayana *et al.*, 2022b, p. 21) and the survival and growth of SMEs. The results from the quantitative study are corroborated by the second hypothesis which states that existing government policies are positively associated with the survival, growth and sustainability of manufacturing SMEs in Botswana.

8.2.3 To assess factors of innovation and creativity among SMEs

The third research question examined factors of innovation and creativity that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana. The findings from the qualitative phase of the study involving key government informants affirmed factors on innovation and creativity: creativity, which consists of ideas, processes and training, and waste reduction; innovation, which consists of product training and development, registration of patents, and use of indigenous raw materials; and quality, which consists of product quality and quality standards as important towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

These findings are consistent with those of Soni and Govender (2018), Sekonopo *et al.* (2019) and Nyamaka *et al.* (2020) who also confirmed that innovation and creativity are important towards the success of manufacturing SMEs. The findings from key government informants confirmed the continued existence of challenges like lack of access to finance due to inadequate product quality specifications, poor quality of products, and flawed production processes.

The third research objective and hypothesis focused on identifying factors on innovation and creativity that impact on the growth and sustainability of manufacturing SMEs in Botswana. Quantitative data was gathered from manufacturing SME owners/managers and analysed using a statistical package. A one sample t-test was conducted to investigate relationship between the success of manufacturing SMEs and factors on innovation and creativity. The findings confirmed that there is a positive significant relationship between the success of manufacturing SMEs and factors on innovation and creativity given in the study.

The results from Factor Analysis (See Tables 7.29) corroborate those from the one sample t-test (See Tables 7.7). The values of KMO were acceptable (KMO >0.60), the values of Bartlett's

test of sphericity confirmed statistically significant results ($p < 0.05$), and Cronbach's alpha values implied high internal validity of the measurement instrument ($\alpha > 0.700$).

Scholars have confirmed a significant relationship between factors on innovation and creativity (Svotwa, 2019, p. 66; Nyamaka *et al.* 2021; Saker, 2021) and the survival and growth of SMEs. The results from the quantitative study are corroborated by the third hypothesis which states that innovation and creativity will positively impact the survival, growth and sustainability of manufacturing SMEs in Botswana.

8.2.4 To analyse the extent to which human capital development affects SMEs

The fourth research question examined how human capital development positively contributes to an increase in on the survival, growth and sustainability of manufacturing SMEs in Botswana. The results from the qualitative stage of the research from key government informants confirmed the factors pertaining to human capital development: business development, capacity development, skills development, and technology development as important towards the success of manufacturing SMEs. The importance of human capital development was also corroborated by scholars (Matsongori & Mutambara, 2018; Muriithi, 2018; Mafoko, 2019, pp. 1-33; Rudhumbu *et al.*, 2020; Corbett & Thompson, 2021).

The findings from key government informants reveal that most manufacturing SMEs in Botswana lack capacity development skills like business planning, proposal writing, product modeling, business management, and records keeping. Some manufacturing SMEs also lacked capacity to design and implement efficient workflows within their operations. Whilst organisations like LEA helped these SMEs with these skills, challenges always exist, especially with entry-level applicants for finance at government funding agencies or commercial banks.

The preceding section highlighted the challenges of skills on the part of manufacturing SMEs in Botswana. Key government informants confirmed that they often recommend manufacturing SMEs to experts in order to help them to fill skills gaps in their firms. The other strategy was to encourage local manufacturing SMEs to enter into joint ventures with multinational corporations in order to facilitate skills transfer during these joint ventures. However, this was not always successful because not all local manufacturing firms could identify partners to enter into joint ventures with.

The feedback from key government informants confirmed that technology was scarce within the manufacturing firms in Botswana. This is despite the fact that technology, including automation and robotics, helped manufacturing SMEs to reduce production costs and also improve the quality of finished products. Organisations like LEA frequently assisted manufacturing SMEs

with technology audits, technology awareness and technology transfer in order to ensure that the adoption and usage of technology increases within manufacturing SMEs. Another driver of technology transfer has been the recent relocation of some manufacturing companies from South Africa as a result of the recent ban of the importation certain products from the country.

The fourth research objective and hypothesis focused on identifying factors on human capital development that contribute to an increase in the survival, growth and sustainability of manufacturing SMEs in Botswana. Quantitative data was gathered from manufacturing SME owners/managers and analysed using a statistical package. A one sample t-test was conducted to investigate relationship between the success of manufacturing SMEs and factors related to human capital development. The findings confirmed that there is a positive significant relationship between the success of manufacturing SMEs and the development of human capital factors that supported manufacturing SMEs in Botswana.

The results from Factor Analysis (See Tables 7.30) corroborate those from the one sample t-test (See Tables 7.8). The values of KMO were acceptable (KMO >0.60), the values of Bartlett's test of sphericity confirmed statistically significant results ($p < 0.05$), and Cronbach's alpha values implied high internal validity of the measurement instrument ($\alpha > 0.700$).

Scholars have confirmed a significant relationship between human capital development (Mmapula & Diraditsile, 2019; Eresia-Ekek & Okerue, 2020, p. 350; Sarker, 2021) and the survival and growth of SMEs. The results from the quantitative study are corroborated by the fourth hypothesis which states that human capital development positively contributes towards an increase in the survival, growth and sustainability of manufacturing SMEs in Botswana.

8.2.5 To assess the impact of access to finance on SMEs

The fifth research question reviewed the association between factors on access to finance and the survival, growth and sustainability of manufacturing SMEs in Botswana. The results from the qualitative stage of the research from key government informants confirmed the factors pertaining to access to finance: finance drivers and limitations; infrastructure factors; market factors; and product costs factors as important towards the success of manufacturing SMEs. These findings have also been confirmed by scholars like Dosumu *et al.* (2017, pp. 51-62), Kunda (2018, pp. 52-56), Ndinda 2021, and Msomi and Olarewaju (2021).

The findings from key government informants reveal that key drivers of finance to manufacturing SMEs in Botswana were foreign direct investment and the designation of manufacturing as a priority sector by the Botswana government. However, limited budget funding by commercial banks and government supported funding agencies, low access to

finance by manufacturing SMEs, low success rate of proposals from manufacturing SMEs and the need for collateral continue to be major barriers towards access to finance by manufacturing firms in Botswana.

The feedback from key government informants revealed that manufacturing SMEs in Botswana are affected by different infrastructural challenges, including high capital costs, lack of land to establish their business, low access to finance to buy machinery and land, and site inspection costs before they can begin to operate their business. All these infrastructural challenges negatively impacted on their survival, growth and sustainability.

The other group of factors that impacted on access to finance by manufacturing SMEs is related to market issues. Key government informants confirmed that in order to manufacturing SMEs to access findings, they needed to convince funding organisations that they have conducted adequate market research and they have the means to penetrate the identified markets. Several organisations exist in Botswana to assist manufacturing SMEs in this endeavour and they have largely been successful in this regard. The ban on importation of certain products from South Africa has also created greater demand for certain locally produced goods and led to the formation of new joint ventures between local manufacturing companies and multinational corporations from South Africa.

Key government informants confirmed that manufacturing SMEs in Botswana face high product costs since the manufacturing sector requires the purchase of raw materials to produce finished goods. The sector also requires equipment, machinery and technology, including automation and robotics to produce finished goods. Accessing finance to acquire raw materials, together with equipment and machinery, including automation and robotics was a challenge to most manufacturing SMEs in Botswana and this impacted on their success.

The fifth research objective and hypothesis focused on identifying factors on access to finance that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana. Quantitative data was gathered from manufacturing SME owners/managers and analysed using a statistical package. A one sample t-test was conducted to investigate relationship between the success of manufacturing SMEs and factors on access to finance that supported the success of manufacturing SMEs in Botswana. The findings confirmed that there is a positive significant relationship between the success of manufacturing SMEs and access to finance by manufacturing SMEs in Botswana.

The results from Factor Analysis (See Tables 7.31) corroborate those from the one sample t-test (See Tables 7.9). The values of KMO were acceptable ($KMO > 0.60$), the values of Bartlett's

test of sphericity confirmed statistically significant results ($p < 0.05$), and Cronbach's alpha values implied high internal validity of the measurement instrument ($\alpha > 0.700$).

Scholars have confirmed a significant relationship between access to finance (Mutoko & Kapunda, 2017; Khumalo *et al.*, 2019, p. 783; Ledikwe, 2020, p. 4; Ndinda, 2021) and the survival and growth of SMEs. The results from the quantitative study are corroborated by the fifth hypothesis which states that access to finance is positively associated with the survival, growth and sustainability of manufacturing SMEs in Botswana.

8.2.6 To evaluate the specific financial management skills which impact on SMEs

The sixth research question examined the relationship between financial management skills and the survival, growth and sustainability of manufacturing SMEs in Botswana. The results from the qualitative stage of the research from key government informants confirmed the factors connected to financial management skills: numeracy skills, including financial literacy and pricing strategy; and report writing skills, including, book keeping, cashflow statements, and financial management as important towards the success of manufacturing SMEs. Several scholars also concluded that financial management skills help to promote the success of manufacturing SMEs (Obaji *et al.*, 2019; Nyakudya, 2020, p. 251; Mbogo & David, 2021).

The findings from key government informants confirmed that manufacturing SMEs in Botswana lacked financial management skills and this negatively impacted on their ability to compile successful business proposals when they are applying for loans. They also lacked skills to determine the most optimal prices for their products which led them to make losses in their business.

The responses from key government informants further confirmed lack of bookkeeping skills by manufacturing SMEs when they attempted to compile reports like business proposals. Manufacturing SMEs also lacked financial management skills and could not compile reports like balance sheets, income statements, and statement of cash flow. All these challenges impacted on their ability to become successful in their business.

The sixth research objective and hypothesis focused on identifying financial management skills that manufacturing SMEs should possess in order for their business to survive, grow and become sustainable. Quantitative data was gathered from manufacturing SME owners/managers and analysed using a statistical package. A one sample t-test was conducted to investigate relationship between the success of manufacturing SMEs and factors related to possession of financial management skills by manufacturing SMEs in Botswana. The findings confirmed that there is a positive significant relationship between the success of manufacturing SMEs and

possession of financial management skills by manufacturing SME owners/managers in Botswana.

The results from Factor Analysis (See Tables 7.32) corroborate those from the one sample t-test (See Tables 7.10). The values of KMO were acceptable (KMO >0.60), the values of Bartlett's test of sphericity confirmed statistically significant results ($p < 0.05$), and Cronbach's alpha values implied high internal validity of the measurement instrument ($\alpha > 0.700$).

Scholars have confirmed a significant relationship between possession of financial management skills (Obaji *et al.*, 2019; Ledikwe, 2020, p. 15; Nyakudya, 2020, p. 251) and the survival and growth of SMEs. The results from the quantitative study are corroborated by the sixth hypothesis which states that possession of financial management skills is positively associated with the survival, growth and sustainability of manufacturing SMEs in Botswana.

8.2.7 To identify managerial skills that can be employed by SMEs

The seventh research question reviewed the impact of managerial skills on the survival, growth and sustainability of manufacturing SMEs in Botswana. The results from the qualitative stage of the research from key government informants confirmed the factors pertaining to managerial skills: business management skills, capacity development skills, and records management skills as important towards the success of manufacturing SMEs. Several scholars also concluded that managerial skills help to promote the success of manufacturing SMEs (Lekhanya, 2016, p. 133; Muriithi, 2018; Wang *et al.*, 2020).

The key government informants explained that manufacturing SMEs in Botswana lacked the business management skills: basic literacy, entrepreneurship training, and risk management and this negatively impacted on the success.

The feedback from key government informants also revealed that manufacturing SMEs in Botswana lacked experience in the business ventures that they wanted to enter into. Their capacity development skills like capacity enhancement, capacity utilisation, and collaboration are also under-developed. However, organisations like LEA were at the forefront in ensuring that these skills are developed through training of both new and established SME owners/managers.

Challenges of business planning skills and business proposal writing skills were also highlighted by key government informants as critical setbacks which impacted on the success of manufacturing SMEs in Botswana. Again, institutions like LEA were also making efforts to ensure that these skills are imparted to these SME owners/managers through appropriate training.

The seventh research objective and hypothesis focused on identifying managerial skills that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana. Quantitative data was gathered from manufacturing SME owners/managers and analysed using a statistical package. A one sample t-test was conducted to investigate relationship between the success of manufacturing SMEs and managerial skills required by manufacturing SME owners/managers. The findings confirmed that there is a positive significant relationship between the success of manufacturing SMEs and the possession of specific managerial skills by SME owners/managers in manufacturing firms.

The results from Factor Analysis (See Tables 7.33) corroborate those from the one sample t-test (See Tables 7.11). The values of KMO were acceptable ($KMO > 0.60$), the values of Bartlett's test of sphericity confirmed statistically significant results ($p < 0.05$), and Cronbach's alpha values implied high internal validity of the measurement instrument ($\alpha > 0.700$).

Scholars have confirmed a significant relationship between managerial skills of manufacturing firm SME owners/managers (Khanie, 2020, p. 1; Muriithi, 2018; Wang *et al.*, 2020) and the survival and growth of SMEs. The results from the quantitative study are corroborated by the seventh hypothesis which states that improved managerial skills are positively associated with the survival, growth and sustainability of manufacturing SMEs in Botswana.

8.3 TRIANGULATION OF THE FINDINGS

This section compares and contrasts the results of the study based on the two methodologies that were used to collect, analyse and interpret the findings. Qualitative data and quantitative data were gathered from key government informants and SMEs respectively. The discussions in this section follow the order of the research objectives.

8.3.1 Factors that impact on manufacturing SME survival and growth

Key government informants noted that education and training of SME owners/managers were important but lacking on many SMEs in Botswana (Diraditsile *et al.*, 2019, pp. 171-176; Ncube & Chimucheka, 2019). This facilitated the intervention of government strategies that promoted training and education of SMEs when they apply for loans to start their business. The views of SMEs helped to corroborate the findings from key government informants. They also highlighted that SMEs lack marketing, managerial, planning, communication and financial skills. Their feedback helped to identify the skills gaps of SMEs which led to the formulation and implementation of strategies to improve these skills through specific measures, for example through training and mentoring programs by government-funded agencies. On the other hand, the views of SMEs helped to pinpoint the specific factors which were more relevant than others. In this study, SMEs concurred that the most important skills were communication, financial,

planning and marketing skills. However, SMEs also agreed that age and gender of owners/managers were not important towards the sustainability of their businesses. These findings imply that triangulation of results helped to integrate both qualitative and quantitative data, leading to a more holistic and integrated perspective of factors that impact on the growth and sustainability of SMEs in Botswana.

On firm-specific factors, the qualitative findings focused on establishment of business linkages as a driver of SME sustainability. The qualitative study also noted that financial loss or theft, high level of risk and high rentals negatively impacted on the success of SMEs. On the other hand, the findings from the quantitative study expressed agreement on the importance of all firm-specific factors as being important towards the success of SMEs, including level of marketing, quality of products, location of firm and possession of machinery and vehicles. The findings from the qualitative study helped in identifying the problems that are faced by SMEs and this could lead to the formulation of measures to solve these problems. These two different findings helped in obtaining a more detailed insight into factors that positively contribute towards the sustainability of SMEs and those that negatively impact on SMEs at the same time. Thus, triangulation of findings helped with obtaining of a fully-rounded impression of firm-specific factors.

On equipment-related factors, the qualitative study revealed the challenges that impact on the success of SMEs like high maintenance costs of machinery and equipment and lack of equipment. On the other hand, the quantitative study confirmed these findings by revealing that machinery and vehicles were important in ensuring that their firms achieve growth and sustainable competitive advantage. Their close agreement on the importance of quality products may also imply that high maintenance costs and lack of equipment cited by key government informants was hindering their success. The qualitative study therefore helped to identify the specific challenges that SMEs face whilst the quantitative study delineated those firm-specific factors which were most important in their effort to achieve success. These findings helped to extract the challenges faced by SMEs on one side and the agreement by SMEs in the importance of these factors on the other side.

8.3.2 The influence of existing government policies and guidelines on SME survival and growth

The main themes which were identified on the influence of existing government policies and guidelines were certification, economic reasons, legal factors, political factors and procurement factors (Selelo *et al.*, 2017; Shemi & Procter, 2018, Ledikwe & Roberts-Lombard, 2022). The qualitative study explained the importance the provision of ISO certification and assistance with traceability issues as areas that the Botswana government was making efforts to increase access

to markets for SMEs. The qualitative study corroborated these findings by agreeing that the provision of export incentives was an important incentive that SMEs expected from the government. The marking of products inside and outside Botswana was also concurred by SMEs as an important driver in accessing local and foreign markets. These incentives from the Botswana government helped SMEs to become more sustainable.

Economic diversification is another strategy that is used by the Botswana government to divert the country's economy away from diamond mining (CEDA, 2020b, p. 8). The qualitative study confirmed that the manufacturing sector in Botswana is a priority sector as far as economic diversification is concerned. The quantitative study confirmed the findings of the qualitative study by revealing that measures like increasing access to finance and technology and protecting local firms from outside competition were critical incentives that SMEs could capitalise on if the government provided to them.

Another government policy that helped SMEs to achieve growth and sustainability was the provision of subsidised rentals during the business incubation period (Maziri & Chivandi, 2020). The qualitative results confirmed that LEA provided subsidised rentals to start-up firms in order to ensure their survival and growth. These findings are confirmed by SMEs when their views in the quantitative research noted the importance of mentoring of business owners/managers during the business incubation period. There is concordance in both the qualitative and quantitative studies on the positive influence of government intervention through policies that helped SMEs to survive and grow through subsidised rentals and business incubation.

The qualitative study differs from the quantitative study on two new issues that were raised by key government informants. The first issue dealt with the challenge of overlapping mandates of a government agency that provided loans to SMEs and another one which helped with business training and mentoring. The second issue which was revealed by one of the key government informants was political interference arising from either government officials or politicians attempting to force SMEs into joint ventures with them. It may not have been possible for these two challenges to be identified if only quantitative data was gathered and analysed in this study. This shows that the use of triangulation may help to give new insights into a problem being observed through the use of open-ended and probing questions.

8.3.3 Factors of innovation and creativity on SME survival and growth

The qualitative study identified the themes - ideas, process and training, wastes reduction, innovation, product quality and quality standards (Sekonopo *et al.*, 2019; Nyamaka *et al.*, 2020). Key government informants explained that they assist SMEs with the registration and protection

of innovative business ideas. SMEs also received training on how to identify and exploit business opportunities in their sectors. The results of the qualitative study were corroborated by the views of SMEs in the quantitative study when they noted that encouraging a risk-taking culture that promotes generalisation of new ideas influenced them to become more innovative and creative. The collaboration with new strategic partners also helped SMEs to seek and share new ideas. The findings of the two studies help to integrate the results and obtain a more coherent overview of the issues being addressed.

The qualitative study revealed that key government informants assisted SMEs with registration of patents through CIPA and also encouraged SMEs to achieve sustainable competitive advantage by identifying and utilising indigenous raw materials to produce goods in their locations. SMEs agreed with key government informants because they stated that training on creativity and innovation helped them to identify new ways of manufacturing and patenting new products. They also concurred that creating a culture that promotes flexibility and adaptability was a factor that contributes towards their innovation and creativity. These two studies confirm that triangulation of research findings has the benefit of improving things like the accuracy and truth of research data. This, in turn, helps to improve overall data reliability and validity.

Key government informants revealed that SMEs in Botswana face challenges of lack of quality products and flaws in their production processes. This impacted on the innovation and creativity of SMEs. As a solution, SMEs highlighted that challenges of quality could be dealt with by investing in research and development. There was also agreement by SMEs on the adoption of appropriate technologies as a solution to the challenge of quality which was revealed by key government informants. In this context, triangulation of research methods helped to identify problems in a study using one method of data collection and also propose solutions to those problems using a different method of data collection. This helped to obtain a more in-depth overview of the findings.

8.3.4 The extent to which human capital development impacts on SME survival and growth

The qualitative study identified the themes – business development, capacity development, skills development and technology development (Matsongori & Mutambara, 2018; Rudhumbu *et al.*, 2020; Corbett & Thompson, 2021). Key government informants explained that business development strategies that they helped SMEs include business planning, proposal writing and records keeping. SMEs confirmed the benefits of these business development strategies from the qualitative study by further corroborating that business development helped them to increase their sales and provided them with opportunities to access new markets. In this scenario, the triangulation of research findings has helped to identify strategies that are used by one group of

participants and their effect or advantage on the other group. Thus, triangulation can be used to explore the effect of using one method of data collection and corresponding results of the same method using another method of data collection. This complementarity of research approaches could not have been discovered using only one method of data collection and analysis.

Business monitoring and improvement of manufacturing practices are additional measures that are used by key government informants to ensure that SMEs achieve sustainable competitive advantage. The effect of these measures is explained by SMEs in the quantitative study when they confirm that their productivity increases and there is more efficient utilisation of firm internal resources through capacity development from key government informants. Again, the use of both qualitative and quantitative studies in one research helps with the identification of an intervention strategy and the results of such an intervention strategy in the same study. A more in-depth insight of the findings is obtained as a result and this increase the validity and reliability of the findings.

Skills development is another area that key government informants stated as an intervention strategy that they used to improve the human capital of SMEs in Botswana. Specifically, measures like skills gap analysis and skills transfer were revealed as important areas that benefitted SMEs in enhancing their human capital. SMEs corroborated the findings from the qualitative study by stating that capacity development helped them to increase the number of their employees and that their workforce skills, knowledge and competencies expanded significantly. These findings imply that triangulation of research findings can help identify and apply an intervention strategy using one method of data collection and analysis and then use a different method to identify corresponding merits of the intervention strategies. This may not have been possible with the use of one method of data collection and analysis.

8.3.5 The impact of access to finance on SME survival and growth

The study drew four main themes on how access to finance impacted on the survival and growth of SMEs and they are financial drivers and limitations of access to finance, infrastructure issues, market issues and product cost (Dosumu *et al.*, 2017, pp. 51-62; Kunda, 2018, pp. 52-56; Msomi & Olarewaju, 2021)). The qualitative study concluded that FDI brought the much-needed finance in order for SMEs to acquire raw materials, equipment and machinery. The quantitative study also concurred on the impact of access to finance by revealing that finance resulted in boosting of entrepreneurial activities by SMEs leading to their achievement of sustainable competitive advantage. Additionally, the qualitative study explained that the manufacturing industry in Botswana is a priority sector and the government priorities the allocation of project funding to the sector. The quantitative study also corroborated the findings by highlighting the impact of access to finance on making it possible to implement financial

plans. In this case, triangulation helped with the integration of findings from both the qualitative and quantitative studies to produce a more holistic view of the issues being investigated.

The qualitative study revealed limitations that SMEs face when they make efforts to access finance, including limited budget funding, low access to finance, low success rate of proposals by SMEs and the limitations of collateral requirements when SMEs access finance. These challenges could only be identified in the qualitative study. This means that research triangulation has the advantage of generating new insights using the qualitative study but such insights could possibly not have been discovered if only the quantitative study was used.

The quantitative study explained that SMEs concurred that access to finance helped them to implement their financial plans and also contributed towards their realisation of strategic objectives. However, the qualitative findings cautioned that SMEs face challenges of infrastructure due to the nature of the manufacturing sector. Key government informants also explained that SMEs require finance to deal with high capital costs and site inspection costs which attract significant finance. In this situation, triangulation of the research findings was useful in the sense that the quantitative results helped to identify the benefits of SME access to finance whilst the qualitative results provided a reciprocal list of challenges that are faced by SMEs because they could not access finance. Through triangulation of research findings, it is possible to advance possible solutions to problems that SMEs face when they access finance.

The quantitative research observed that access to finance impacted on SMEs' capacity to realise survival and growth. Access to finance also resulted in an increase in innovation and creativity. Whilst SMEs confirmed that could utilise finance promote sales and revenue growth in their business, key government informants noted that SMEs have challenges of low access to finance. Triangulation in this situation helped the research to identify the benefits of access to finance using quantitative data and to identify corresponding challenges that are faced by SMEs in accessing finance using qualitative data. A broad perspective of merits and shortcomings related to finance could thus be obtained.

8.3.6 The contribution of specific financial management skills to SME survival and growth

Two broad themes were identified on the specific financial management skills and are – numeracy skills and report writing skills (Ngibe & Lekhanya, 2019, p. 1; Obaji *et al.*, 2019; Mbongo & David, 2021). Whilst the qualitative research identified numeracy skills that were lacking on SMEs, the quantitative study helped to express the agreement or disagreement of SMEs based on a list of financial management skills that were given. For example, SMEs highlighted on the importance of financial management skills on helping to reduce firm

exposure to insolvency. On the other hand, key government informants countered by noting that SMEs lacked financial skills to achieve the objective of reducing exposure to insolvency.

Furthermore, SMEs agreed that financial management skills improved capacity to set product prices but key government informants retorted by suggesting that SMEs were weak in skills on setting optimal prices on their products and this impacted on their success. The use of both qualitative and quantitative methods helped to identify the benefits of financial management skills on their sustainability using quantitative data whilst the qualitative data helped to expose the challenges that are faced by SMEs to achieve those objectives. In this case, triangulation of the research findings helped to obtain a more holistic portrayal of the results, thus increasing the validity and reliability of the findings.

The quantitative findings accentuated that financial management skills helped SMEs to boost their capacity to access finance. However, the qualitative study contrasted these views by countering that SMEs lacked bookkeeping and cashflow management skills required to increase their ability to access finance. Additionally, the quantitative findings underscored the importance of financial management skills by SMEs by helping them to improve financial forecasting but the qualitative findings retorted by explaining that SMEs lacked skills on preparation of balance sheet preparation and income statements. In this situation, the triangulation of research findings helped to probe the specific skills that SMEs would utilise to achieve sustainable competitive advantage and the corresponding challenges that SMEs face realising such goals. The findings obtained in this section can be useful on future research that focuses how financial management skills deficits can be addressed.

8.3.7 The contribution of specific managerial skills on SME survival and growth

The qualitative study identified three broad themes pertaining to managerial skills, which are business management skills, capacity development skills and records management skills (Ngibe & Lekhanya, 2019, p. 1; Wang *et al.*, 2020; Gyedu *et al.*, 2021). The quantitative research findings highlighted the importance of financial skills on SME business activities. Despite the importance of financial skills, the qualitative research findings countered that SME slack literacy skills which are also used to acquire financial management skills. On the other hand, the quantitative study underscored the useful managerial skills brought forward by SMEs are effective communication, conflict management skills and conceptual skills. However, the observations from the qualitative study acknowledged that start-up SMEs lacked entrepreneurial skills and required training in order to acquire these skills and achieve sustainable competitive advantage. The triangulation of the research findings helped to explore the challenges and intervention strategies by the Botswana government on SME managerial skills. The use of one

method alone could not have resulted in the identification of complimentary views of the two different groups of participants.

Related to the above views, the qualitative study helped to identify capacity development skills challenges affecting SMEs and current intervention strategies by the Botswana government through LEA. The findings from the quantitative study corroborate on the effectiveness of these strategies by stressing that capacity development skills result in employee motivation and acquisition of employee training skills. The qualitative study also revealed that SMEs lacked records management skills in their endeavour to realise sustainable competitive advantage. These views are corroborated by SMEs in the quantitative study who accentuated the contribution of future planning skills and strategic planning skills in ensuring that their businesses become successful. The triangulation of research findings in this case helped to integrate the findings of both quantitative and qualitative data and provide more in-depth visualization of managerial skills required by SMEs, and intervention strategies that are currently available to impart these skills on SMEs.

8.4 METHODOLOGICAL IMPLICATIONS AND CONCLUSION

The discussion on triangulation of research findings has methodological implications on the study from various perspectives. Triangulation helped to promote the integration of the two data types in order to obtain detailed insight of the findings (Forero *et al.*, 2018; Saunders *et al.*, 2019). Since this study was exploratory in nature, gathering and analysing qualitative data helped with obtaining previously unexplored areas on the survival, growth and sustainability of manufacturing SMEs in Botswana. New knowledge was obtained in the process, thus contributing the body of knowledge on the factors that contribute towards the sustainability manufacturing SMEs in Botswana. The findings also helped to identify the challenges that are faced by manufacturing SMEs and also provided possible solutions in the process. The views of the two groups of participants helped in ensuring the validity and reliability of the findings of the research.

This research also involved collecting data from two groups, namely, key government informants and SME owners/managers. The key government informants selected to participate in the study had in-depth information on the factors that impact on the survival, growth and sustainability of manufacturing SMEs from various perspectives. Each research question addressed these perspectives, for example, views on entrepreneurial factors, firm-specific factors, factors on innovation and creativity, government policies and guidelines, access to finance, financial management skills and managerial skills. The views of key government informants were based on their in-depth knowledge and experience gathered when working with

manufacturing SMEs. The SMEs selected to participate in the study provided their views with regard to their agreement or disagreement of what key government informants stated. The researcher then compared and contrasted the two sets of findings. This approach helped to obtain a more detailed and coherent understanding of the phenomenon being observed (Forero *et al.*, 2018; Saunders *et al.*, 2019).

The use of either method in isolation had its shortcomings. For example, using interviews alone in this study had limitations on generalisation of the findings to other geographical areas or industries under the same context and settings because of the small sample size of 7 participants. The sole use of interviews also exposed the findings to higher levels of researcher bias, thus affecting the validity and reliability of the study. The use of the questionnaire alone could have affected the quality and depth of the data that was collected and analysed. Questionnaires also have limitations of potential low response rate which in turn has the possibility of affecting the validity of the findings. Therefore, use of triangulation of the instruments helped to ensure that the flaws of one method were compensated by the strengths of the other method (Forero *et al.*, 2018; Saunders *et al.*, 2019).

In summary the triangulation of gathered data, instruments used, data analysis methods and participants helped to obtain a broader overview of the findings and this helped to answer the research questions in a more objective manner.

The purpose of this chapter was to discuss the findings of the research on achieving sustainable competitive advantage by manufacturing small and medium enterprises in Botswana. The study gathered qualitative data from key government informants which were then integrated with quantitative data from manufacturing SME owners/managers in Botswana. Comparisons between the findings from the two groups of participants have been made in this chapter, including identifying areas where similarities and differences existed on the data gathered from key government informants and manufacturing SME owners/managers. Significant weight has been placed on the contribution of key government informants since this was an exploratory study which sought to gather first-hand information on the phenomenon under observation.

The chapter also critiqued the mixed methods strategy which was used to collect, analyse and interpret data from the 7 key government informants and the 348 manufacturing SME owners/managers. Whilst key government informants provided first-hand information about the phenomenon under observation, the views of manufacturing SMEE owners/managers were used to corroborate or refute the opinions of key government informants. Using this approach of triangulation, the researcher was able to obtain a more holistic understanding and interpretation of the findings. Using one method alone could have resulted in flawed interpretation and

conclusion of the findings. The next chapter, Chapter 9, focuses on conclusions and recommendations of the study, including areas of further research and implications of the findings from different perspectives.

CHAPTER 9 – CONCLUSIONS AND RECOMMENDATIONS

9.1 INTRODUCTION

This chapter presents the conclusions and recommendations of the study on achieving sustainable competitive advantage by small and medium-sized manufacturing enterprises in Botswana. The chapter evaluates the extent to which each research objective given in the first chapter has been achieved. The chapter also explains the implications of the findings on the basis of theory, practice, policy, and methodology. The limitations of the study are also presented together with areas of future research should time and resources be available in future.

9.2 SUMMARY OF CHAPTERS

Chapter One presented the topic under investigation, including the background and statement of problem of the study. The specific objectives, which also helped to determine the research questions and research questions were to evaluate firm-specific factors that impact the survival and sustainable competitive advantage of manufacturing SMEs in Botswana, to critically review the influence of existing government policies on the survival and sustainable competitive advantage of manufacturing SMEs in Botswana, to assess factors of innovation and creativity that influence the survival and sustainable competitive advantage of manufacturing SMEs in Botswana, to analyse the extent to which human capital development affects the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana, to assess the impact of access to finance on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana, to evaluate the specific financial management skills which contribute towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana, and to identify the specific managerial skills that can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

The chapter also contextualises the key terms that are used in the research, including the definition of SME, sustainability, sustainable competitive advantage and SME growth. The chapter also highlights the interdependency between firm survival, growth and sustainable competitive advantage.

Chapter Two presents the literature review of the study. This chapter reviews literature based on the first four objectives of the research, which are - to evaluate firm-specific factors that impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana, to critically review the influence of existing government policies and guidelines on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana, to assess factors of innovation and creativity that influence survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana, and to analyse the extent to which human capital development affects the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana.

Theoretical concepts on small and medium-sized manufacturing enterprises, including their impact on economies of countries are explained the chapter. The chapter also explains the importance of manufacturing SMEs in terms of employment creation, poverty alleviation, economic diversification, realisation of foreign currency through exports and contribution to the GDP. Literature is critiqued against each objective with views from different scholars compared and contrasted. The research gaps which justified the conducting of this study are presented in this chapter before a summary of the chapter concludes the literature review.

Chapter Three focuses on the literature review that is aligned to the last three objectives of the study, which are - to assess the impact of access to finance on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana, to evaluate the specific financial management skills which contribute towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana, and to identify the specific managerial skills that can be that can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. Research gaps are also identified in order to justify why it is important for an empirical study should be conducted to fill these gaps and contribute towards new knowledge and understanding on the survival, growth and sustainable competitive advantage of manufacturing SMEs.

The focus of Chapter Four is on developing the theoretical and conceptual framework of the study. Different theories underpinning the study are presented and justified. These include the resource-based theory, value chain model, social network theory, human capital theory, the perking order theory, and the scientific management theory. A conceptual model is subsequently developed using the study's research hypotheses. This model's purpose is to provide an understanding of the study being conducted, including data collection, data analysis and interpretation.

Chapter Five deals with the research methodology of the study. The chapter provides a blueprint on how the entire study is conducted from problem formulation, through to conclusions and recommendations. In this chapter, the pragmatist research philosophy is presented and justified based on the qualitative and quantitative data that is collected and analysed in the same study. The study adopts the use of face-to-face interviews to gather data from key government informants and a structured questionnaire to collect data from manufacturing enterprises owners/managers. Issues of data analysis, validity and reliability and ethical considerations are also given in this chapter.

The focus of Chapter Six is on analysing the qualitative data from the seven key government informants. The research questions were used to develop the interview schedule which was used in the research. The captured data was coded using a qualitative data analysis package, NVivo 11, and themes and sub-themes were identified from the coded data. Project maps were used to describe the collected data in detail.

Chapter Seven focuses on analysing the quantitative data from the 348 manufacturing SME owners/managers. The research objectives were used to develop the structured questionnaire which collected data from SME owners/managers. Descriptive and inferential statistics were generated using IBM SPSS version 27.0 and SEM was used to analyse structural relationships amongst the study variables. A combination of factor analysis and multiple regression analysis was used to analyse structural relationship between the measured variables and latent constructs.

The purpose of Chapter Eight is to discuss the findings from both the qualitative and quantitative components of the study. The findings from key government informants' interviews and SME owners/managers' completed questionnaires were integrated by comparing and contrasting the different views from both the empirical research and literature review. The discussion of the two sets of findings is intended to provide a holistic understanding and interpretation of the factors that impact on sustainable competitive advantage of small and medium-sized manufacturing enterprises in Botswana.

The last chapter, Chapter Nine, presents the conclusions and recommendations of the research on achieving sustainable competitive advantage by small and medium-sized enterprises in Botswana. The chapter also presents implications of the study including contribution to knowledge, areas of further research and limitations of the study.

9.3 SUMMARY OF FINDINGS

This section presents a summary of key findings from both the literature review and empirical research. Research objectives are used to discuss the summary.

9.3.1 Literature findings

This section summarises the findings from the literature review according to the research objectives of the study.

9.3.1.1 Research objective 1 – To evaluate firm-specific factors that impact on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

The literature review identified three categories of firm-specific factors, which are characteristics of the SME owners/managers, characteristics of the SME and exogenous or market-related factors. Several studies (Pansiri & Yalala, 2017; Muriithi, 2018; McFarlin, 2019; Mabandla & Makoni, 2019; Monyake & Kuruba, 2020, p. 1) have confirmed the contribution of characteristics of SME owners/managers like age, gender, education level and years of experience in business. Specific characteristics of SMEs like number of years in operation, size of business, location of business and ownership determined the survival and growth of SMEs (Diraditsile *et al.*, 2019, pp. 171-176; Kaylongwe, 2019, p. 69; Ncube & Chimucheka, 2019; Nga'ndu, 2022). Contextual or market-related factors (for example, financial records given to parties that offer loans, registration status of business, technology adoption, government support and access to finance) are closely associated with the survival, growth and sustainable competitive advantage of firms (Lekhanya, 2019, p. 15; Sivotwa, 2019, pp. 150-155; CEDA, 2020a, p. 86; Ledikwe, 2020, p. 4).

SMEs face numerous challenges in ensuring that they can access and utilise resources that can be used to survive, grow and realise sustainable competitive advantage. A study by Lekhanya (2019, p. 4) established that SMEs lack the capacity to capitalise of certain opportunities and this impact on the survival and growth. Businesses which are located in towns and cities have higher chances of survival than those in rural areas (Kaylongwe, 2019, p. 125). A study by Mafoko (2019, p. 22) confirmed that most SMEs fail to access finance because they are not registered. Sivotwa (2019, p. 221) concluded that most SMEs fail to survive because they lack resources to adopt up-to-date technology.

9.3.1.2 Research objective 2 – To critically review the influence of existing government policies and guidelines on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Governments across offer different forms of support to SMEs, including access to finance and markets, training and development, business incubation and provision of infrastructure. This interest by governments in SMEs is motivated by the contribution of SMEs to employment

creation, contribution to GDP, industrialisation, economic diversification and poverty alleviation (Baji *et al.*, 2019; Ifekwem, 2019; Ledikwe, 2020, p. 4; Botha *et al.*, 2021, pp. 153-174).

Despite contributing towards SME growth, challenges like ineffectiveness of available support, lack of link between education system and entrepreneurship, , lack of skills by SME owners/managers and bureaucracy and red tape (Sibiya & Kele, 2019; Musabayana & Mutambara, 2020a; Paya, 2020). For example, a study by Bary (2019, pp. 5-6) on Egyptian SMEs established that the government does not offer any meaningful support to SMEs on areas of access to finance, product development, market identification and exports promotion. Another study by Musabayana and Mutambara (2020, p. 10) highlighted that the climate for small business operation in Zimbabwe is affected by lack of government support.

9.3.1.3 Research objective 3 – To assess factors of innovation and creativity that influence survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

SMEs are responsible for the majority of innovation and creativity that occurs. The development of technological tools like computers, e-commerce, Internet of Things and other high-end computer devices and systems is mainly attributed to SMEs (Monyake *et al.*, 2020b, p. 466). The use of information technology has helped SMEs to scale very quickly and share knowledge and information with trading partners (OECD, 2018; Ngibe & Lekhanya, 2020b, p. 16). The size of an SME is an important factor on the level of innovation and creativity. Networking and collaboration are closely related to innovation and creativity, with SMEs possessing vertical linkages realising greater chances of growth and survival (Nyamaka *et al.*, 2020).

Several challenges impact on factors of innovation and creativity of SMEs, including lack of resources to support innovation, lack of effective intellectual rights strategies, lack of knowledge about the impact of innovation and creativity on the growth and sustainability of SMEs, lack of government support on SME innovation and creativity, and competition from large enterprises (Letsholo & Matenge, 2019; Ledikwe, 2020, p. 3; Simon *et al.*, 2020).

9.3.1.4 Research objective 4 – To analyse the extent to which human capital development affects the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Human capital enables a firm to increase its productivity, profitability and growth. Development of management and employees through training and further education results in more

production, innovation and creativity leading to survival, growth and sustainable competitive advantage of the firm (Muriithi, 2018; Ding & Murinde, 2020, pp. 45-56; Wach, 2020). A study by Eresia-Eke and Okerue (2020, p. 350) revealed that efficient utilisation of human capital yields higher performance in SMEs, including those in the manufacturing sector.

In spite of the advantages of developing human capital for the benefit of SMEs, many scholars have observed specific challenges that impact on SMEs' endeavour to draw benefits from the effort (Jongman, 2020; Rudhumbu *et al.*, 2020). These challenges include focusing on short-term financial gains at the expense of investing in strategic management skills for long-term goals of the firm, lack of internal feedback and performance management systems in SMEs, lack of training and education, and the small size of SMEs (Pansiri & Yalala, 2017; Chundu *et al.*, 2020, p. 1896; Musabayana *et al.*, 2022a, p. 1).

9.3.1.5 Research objective 5 – To assess the impact of access to finance on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Access to finance is one of the most important factors that impact on the survival, growth and sustainable competitive advantage of SMEs. Through finance, SMEs are able to innovate, improve efficiency and quality, enter new markets, and provide millions of jobs (Abisuga-Oyekunle *et al.*, 2020, pp. 415-419; Urban & Moreno; Teixeira *et al.*, 2023).

Despite the importance of finance towards the survival and growth of SMEs, there is sufficient evidence to point out that the majority of SMEs collapse as a result of lack of access to finance. Many SMEs fail to access finance from commercial banks and government funding agents and rely on personal savings which are limited in quantity. Commercial banks and other funding agencies also consider SMEs to be risky partners and demand collateral which SMEs cannot avail. The default rate of loan repayment of SMEs is also very high. This further worsens the situation of these firms (CEDA, 2020b, p. 127; Monyake *et al.*, 2020b, p. 466; Tadu & Chiguvi, 2020, pp. 1-8; Msomi & Olarewaju, 2021).

9.3.1.6 Research objective 6 – To evaluate the specific financial management skills which contribute towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Financial management skills help SMEs to make important decisions on planning inventory, pricing, acquisition of raw materials and assets leading to an increase in the overall value of the firm. Financial management skills like budgeting, capital structure management and working

capital management have a significant positive effect on the productivity of the firm (Mbogo & David, 2021; Nyakudya, 2020, p. 251; Mpofo & Sibindi, 2022).

There appears to be significant gaps between financial management skills and their contribution towards SME requirements. For example, Mbogo and David (2021) conducted a research on the impact of financial literacy of SMEs and concluded that SME owners/managers lack the requisite literacy skills to sustain their business. Another study by Mpofo and Sibindi (2022) explained that lack of financial management skills lowers the chances of SMEs acquiring loans from formal finance institutions causing firms to remain stagnant or collapse in the end.

9.3.1.7 Research objective 7 – To identify the specific managerial skills that can be that can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Managerial skills are critical towards the survival, growth and sustainability of SMEs. These skills include communication skills, business management skills, customer relationship management skills, strategic leadership skills, marketing skills, business planning skills and technical skills (Obaji *et al.*, 2019; Ledikwe, 2020, p. 15; Mongwaketse, 2021; Mashavira *et al.*, 2022). These skills perform various functions that sustain firms. For example, effective communication skills help in information sharing, providing feedback and seeking new opportunities (Obaji *et al.*, 2019; Ledikwe, 2020, p. 15). Strategic leadership skills help SME owners/managers to streamline processes, increase the level of strategic productivity, promote the degree of innovation and creativity and cultivate an environment which promotes higher levels of employee productivity (Pansiri, 2019; Tadu & Chiguvu, 2019, pp. 113-118).

Despite the importance of managerial skills in SMEs, a considerable number of firms struggle to acquire and maintain these skills. The challenges that they encounter include lack of knowledge and benefits of these skills, lack of strategic skills to deal with competition, lack of marketing skills, lack of financial literacy skills and the high cost of technology and infrastructure (Folajinmi & Peter, 2020, p. 90; Corbett & Thompson, 2021; Mbogo & David, 2021; Shaikh *et al.*, 2021).

9.3.2 Empirical findings

This section presents a summary of empirical findings according to research objectives of the study.

9.3.2.1 Research objective 1 - To evaluate firm-specific factors that impact the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Key government informants explained factors that impact manufacturing SMEs in Botswana based on four categories, which are business-related factors, equipment related factors, product-related factors, and environmental factors. The creation of business linkages and promotion of access to foreign markets are factors that positively impact on the sustainable competitive advantage of manufacturing enterprises in Botswana. However, financial loss and theft; high rentals; competition from multinational companies; lack of water rights, especially for youth-owned enterprises; high maintenance costs; lack of equipment; high cost of quality; and productivity issues were factors that negatively impacted on sustainable competitive advantage of manufacturing SMEs in Botswana. It is apparent from the views of key government informants that negative factors far much outweigh positive factors and this implies that the survival, growth and sustainability of manufacturing SMEs in Botswana is threatened by multiple factors.

The views from manufacturing SME owners/managers confirm that there is a positive significant relationship between the success of manufacturing SMEs and entrepreneurial, firm-specific and exogenous factors. However, the views of key government informants indicate that there exist many challenges that impact on the success of manufacturing SMEs in Botswana.

9.3.2.2 Research objective 2 - To critically review the influence of existing government policies and guidelines on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Key government informants critically reviewed the influence of existing Botswana government policies. There is ample evidence to conclude that the Botswana government has put various policies in place to promote manufacturing SMEs, including policies that promote exports, enhance access to finance, promote economic diversification, and support locally produced goods. The government of Botswana has also established organisations that help new manufacturing SMEs with subsidized rentals, and ISO certification and traceability issues. The manufacturing sector in Botswana is also designated a priority sector, which means that it is given better terms on access to finance and promotion of manufactured goods in export markets. Despite these efforts from the government, some significant challenges still exist. For example, there exist issues of mileage of locally produced products in foreign countries, political interference and over-reliance on the Botswana government on business through tenders by manufacturing firms.

The findings from manufacturing SME owners/managers indicate that there is a significant positive relationship between the influence of existing Botswana government policies and the success of manufacturing enterprises. Whilst there seems to be a balance between positive efforts from the government and existing setbacks, it appears that these challenges have a significant impact on the survival, growth and sustainability of manufacturing SMEs in Botswana.

9.3.2.3 Research objective 3 - To assess factors of innovation and creativity that influence survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Key government informants expressed their views on factors of innovation and creativity that influence manufacturing SMEs in Botswana. Manufacturing SMEs are creative in opportunity capitalisation, seeking new ideas, gaining knowledge on patents and process improvement. Key government informants acknowledged that SMEs were innovative in matters on product training and development, registration of patents and use of indigenous raw materials. On the downside, key government informants highlighted quality issues pertaining to lack of quality product, poor process quality, waste and lack of adherence to quality standards like Kaizen were negatively affecting the survival, growth and sustainability of manufacturing SMEs. Lack of access to finance by some manufacturing SMEs exacerbated these challenges.

The findings from manufacturing SMEs confirmed the importance of innovation and creativity in their endeavour to succeed in their business by adopting specific innovation and creativity methods. The findings show a significant positive correlation between innovation and creativity and success of manufacturing SMEs. These findings corroborate those from key government informants who revealed that manufacturing SMEs in Botswana were innovative and creative, despite the existence of certain challenges.

9.3.2.4 Research objective 4 - To analyse the extent to which human capital development affects the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Key government informants gave their views on the extent to which human capital development impacts on manufacturing SMEs in Botswana. Key government informants explained that they assisted manufacturing SMEs by engaging them in business development, capacity development, skills development and technology development. These are critical human capital development strategies that are important to the manufacturing sector but are lacking in most of these firms. Concerted effort is regularly made by key government informants to ensure that manufacturing SMEs are equipped with these core skills. Most SMEs lack these skills when

they start their businesses and periodic collaboration with government sponsored organisations helps these SMEs to develop these competencies.

The findings from manufacturing SME owners/managers confirmed that there is a positive significant relationship between the success of manufacturing SMEs and the development of human capital factors that supported manufacturing SMEs in Botswana. These findings imply that human capital development is considered to be important towards the success of manufacturing SMEs. However, challenges exist especially on new SMEs because they start their business without these important skills which are related to human capital development.

9.3.2.5 Research objective 5 - To assess the impact of access to finance on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Key government informants gave their perspective on the impact of access to finance on manufacturing SMEs in Botswana. The findings from key government informants show that there were some factors which acted as drivers of access to finance whilst some factors were barriers to access to finance by manufacturing SMEs. Specific drivers of access to finance were the fact that the manufacturing sector in Botswana is designated a priority sector where collateral restrictions are relaxed and that loan limit is also higher compared to other sectors. Manufacturing SMEs also have incentives for entering into joint ventures with multinational corporations which raises their ability to access finance from foreign firms. However, certain barriers to access to finance also exist in the form of limited budget funding from commercial banks and government-sponsored organisations funding SMEs, general low access to finance by SMEs, low success rate of proposals from SMEs and the continued requirement for collateral. Manufacturing SMEs also faced high capital costs because the sector requires significantly high levels of financial investments in purchase of land, machinery and equipment, including automation and robotics. Key government informants also highlighted that market access and market research were important factors when funding manufacturing SMEs. Product-related costs negatively affected the survival, growth and sustainability of manufacturing SMEs, including cost of products, high production costs, and costs related to product feasibility and product testing.

The findings from manufacturing SMEs confirm that there is a positive significant relationship between the success of manufacturing SMEs and access to finance by manufacturing SMEs in Botswana. These findings imply that access to finance is considered to be important towards the success of manufacturing SMEs. However, challenges like limited budget funding, high capital costs, lack of land and high production costs negatively impact on the success of manufacturing SMEs in Botswana.

9.3.2.6 Research Objective 6 - To evaluate the specific financial management skills which contribute towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Key government informants pointed out specific financial management skills that are lacking in manufacturing SMEs in Botswana. The most critical skills identified are numeracy skills, including financial literacy and pricing strategy; report writing skills, including bookkeeping, cashflow statements, and preparation of financial management reports like balance sheets, income statements, and statements of cash flows. Lack of these skills impacted on the ability of manufacturing SMEs to prepare accurate business proposals for loan applications and preparation of regular reports to different stakeholders. Lack of these skills also impacted on the day-to-day operations of manufacturing SMEs. Whilst measures have been put in place to help manufacturing SMEs to be equipped with these skills through training and workshops, it is apparent that lack of these skills is affecting a significant number of SMEs, especially those that will have commenced their operation.

The findings from manufacturing SMEs confirm that there is a positive significant relationship between the success of manufacturing SMEs and possession of financial management skills. However, the findings from key government informants conclude that most manufacturing SMEs in Botswana, especially new entrants, lack financial management skills and this negatively impacts on their survival, growth and sustainability.

9.3.2.7 Research objective 7 - To identify the specific managerial skills that can be that can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Key government informants presented their views on specific managerial skills that impact on the success of manufacturing SMEs in Botswana. They confirmed that manufacturing SMEs lack a variety of skills, including business management skills, capacity development skills and records management skills. The specific business management skills that are lacking are basic literacy, entrepreneurial skills, and risk management. The specific capacity development skills that are lacking are capacity enhancement, capacity utilisation, collaboration and lack of experience. The specific records management skills that are lacking are business planning skills and business proposal writing skills. Significant effort is being made by key government informants and their organisations to address these skills gaps because lack of these skills hampers the survival, growth and sustainability of manufacturing SMEs in Botswana.

The findings from manufacturing SMEs confirm that there is a positive significant relationship between the success of manufacturing SMEs and possession of specific managerial skills. These findings are corroborated by key government informants who indicated that lack of managerial skills is negatively affecting the success of a significant number of manufacturing SMEs in Botswana.

9.4 RELATIONSHIP BETWEEN LITERATURE REVIEW AND EMPIRICAL FINDINGS

The reason for compiling and reviewing literature in this research was in order to enable the linking of literature findings with empirical findings from the primary research. The data which was collected from the 7 key government informants and 348 manufacturing SME owners/managers was compared and contrasted with the literature review in order to capture trends, bridge identified gaps, present new gaps and build more consolidated understanding and knowledge on the topic under investigation. This linkage between literature and empirical findings is presented below according to the research objectives.

9.4.1 Research objective 1 - To evaluate firm-specific factors that impact the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

The literature findings explained that firm-specific factors (characteristics of SME owners/managers, characteristics of the SME and exogenous or market-related factors) impact on the survival, growth and sustainable competitive advantage of SMEs. Challenges related to firm-specific factors like low qualifications, lack of managerial skills, lack of experience, small firm size, location of business, low technology adoption, registration status of the business, lack of access to finance and lack of government support resulted in low survival and growth chances of SMEs (Kaylongwe, 2019, p. 54; Moyo, 2019; Njanike, 2019, p. 12; Ledikwe, 2020, p. 4; Nyakudya, 2020, p. 122).

The findings from the qualitative phase of the research revealed that manufacturing firms in Botswana have benefitted from the recent importation ban of certain products from South Africa and overseas. However, these firms continue to experience challenges high rentals, lack of access to finance from financial institutions, high equipment costs, high cost of quality, competition from multinational companies, and certification and mileage costs when exporting their products.

The findings from the quantitative phase of the research confirmed both the literature and qualitative findings. However, gender was not statistically significant with regard to the survival, growth and sustainable competitive advantage of firms that participated in this study.

The use of mixed methods helped to both corroborate the findings from key government informants and SME owners/managers, and also provide new insight on firm-specific factors impacting on the survival and growth of manufacturing firms like benefits derived from importation ban of certain products, certification and mileage costs and lack of water rights (especially for youth-owned firms).

9.4.2 Research objective 2 - To critically review the influence of existing government policies and guidelines on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

The findings from literature presented intervention strategies afforded to SMEs, including provision of infrastructure, easing of registration requirements for SMEs, tax relief, providing access to markets, providing access to markets, providing training and development, and providing subsidised rentals to SMEs. This is in consideration of the role played by SME like employment creation, contribution to GDP, economic diversification, industrialisation, innovation and creativity, and poverty alleviation. Despite these measures, firms continue to experience challenges such as lack of access to finance and markets, cultural norms and stereotypes, low implementation of entrepreneurship in the education system, lack of skills and low technology adoption (Baji *et al.*, 2019; Sibiya & Kele, 2019; CEDA, 2020b, pp. 34-54; Ledikwe, 2020, p. 4; Monyake *et al.*, 2020b, p. 466; Botha *et al.*, 2021, pp. 153-174; Moffat & Kapunda, 2023, p. 205). All these challenges led to low survival and failure of SMEs.

The findings from the qualitative research established that significant effort has been made by the government of Botswana in terms of supporting manufacturing firms, including increasing access to finance, promotion of local products, export incentives, business training and development, and business monitoring and incubation. Despite these efforts, manufacturing firms in Botswana still face challenges of high cost of product certification during exports, overlapping of mandates of some government-funded agencies, low capacitation of firms following import ban, threat of political interference when running their business, and overdependence on the government for tenders and sale of products.

The qualitative phase of the research helped to provide new insight into the challenges facing local manufacturing firms like product certification and mileage when exporting products, and low capacitation following the export ban of certain products from outside the country. The quantitative phase of the research confirmed what has been presented in both the literature and

qualitative findings. This helped in obtaining a holistic overview of the problem under observation.

9.4.3 Research objective 3 - To assess factors of innovation and creativity that influence survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

The factors of innovation and creativity highlighted in the literature review include training and development of management and workforce, technology adoption, registration of intellectual property, networking and collaboration, market structure, and available resources. The literature review also presented the challenges that firms experience on innovation and creativity, including low investment in research and development, low technology adoption, lack of skills, lack of resources, poor strategies to manage intellectual property and competition from large enterprises (Molefe, 2020, p. 28; Indrawati, 2020; Oduro, 2020; Abisuga-Oyekunle, *et al.*, 2020, pp. 415-419; Molefi, 2021, p. 69; Chipambwa *et al.*, 2023b, pp. 4-5). These challenges lead to the low survival and growth of firms and failure to achieve sustainable competitive advantage.

The findings from the qualitative phase of the research indicated that significant progress has been made in order to promote innovation and creativity amongst manufacturing firms in Botswana, including training on intellectual property registration through BIH, training on process improvement to reduce waste and costs, and quality training and certification. Despite these positive results, manufacturing firms still face challenges of accessing loans due to poor product quality and face challenges of networking and collaboration with established enterprises to promote their products.

The findings from the quantitative phase of the research confirmed the results from both the literature and qualitative findings. Current developments on innovation and creativity by local manufacturing firms have been explained together with prevailing challenges that need to be addressed going forward.

9.4.4 Research objective 4 – To analyse the extent to which human capital development affects the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

The literature review explained the contribution of human capital development towards the survival, growth and competitive advantage of SMEs. Specific factors that impact on human capital development were presented as skills training and development, workshops and seminar attendance, linkage with the education sector, available infrastructure, available resources, government support, and access to finance. The literature findings outlined the challenges that firms continue to encounter with regard to human capital development, including small size of

firms, lack of financial resources, high staff turnover, and lack of skills capacity development (Oluwatobi *et al.*, 2020; Philippou, 2020; Wach, 2020; Adesina, 2021, pp. 303-319; Ngepah *et al.*, 2021; Khan *et al.*, 2022; Mashavira *et al.*, 2022; Teklewold, 2023).

The findings from the qualitative phase of the research revealed that the government of Botswana has placed measures to equip manufacturing SME owners/managers with capacity development skills in areas like business planning, business proposal writing and records keeping in order to improve their productivity and increase access to finance. The importation ban also resulted in skills transfer to local manufacturing firms. Despite these positive steps, manufacturing firms in Botswana still face challenges of poor business planning skills, poor proposal writing skills, poor record keeping skills, skills shortage, high employee turnover, lack of technology and lack of employee training. The issue of lack of technology is being addressed through technology transfer initiatives following the relocation of some firms from South Africa as a result of importation ban on certain products from South Africa and overseas.

The findings from the qualitative research revealed new insights into the factors of human capital development in Botswana manufacturing firms, including developments like skills and technology transfer to improve human capital development in local manufacturing firms. The findings from the quantitative research confirmed those from both the literature review and qualitative research. In the end, a more consolidated view of factors of human capital development on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana was obtained.

9.4.5 Research objective 5 – To assess the impact of access to finance on the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Access to finance is the most important issue on the survival, growth and sustainable competitive advantage of SMEs. The literature review identified factors of access to finance, including level of government support, collateral requirement, interest rate, source of startup finance, riskiness of SMEs, and SME owners/managers training and development. The challenges influencing access to finance by SMEs were also given as lack of collateral because of the small size of SMEs, lack of SME owners/managers formal education and financial literacy, high default rate of SMEs, high risk associated with providing loans to SMEs, incomplete financial records when applying for loans, short grace period given to firms by financing institutions and bad reputation of SMEs (Molokwane, 2019; CEDA, 2020b, p. 58; Kubanji *et al.*, 2021 pp. 330-348; Molefi, 2021, p. 5; Msomi & Olarewaju, 2021; Oxili, 2021; Sivotwa *et al.*, 2022, p. 1; Urban & Moreno, 2022; Teixeira *et al.*, 2023). These challenges impact on access to finance and subsequently, their survival, growth and sustainable competitive advantage.

The findings from the qualitative phase of this research presented both positive and negative issues that impact on access to finance by manufacturing SMEs in Botswana. Joint ventures between local firms and multinational companies resulted in significant cash inflows which improved access to finance. The foreign direct investment in local manufacturing firms boosted their production and created new markets for their products, locally and abroad. Manufacturing firms are also considered a priority sector in Botswana and realise advantages of low interest rate and relaxed collateral arrangements when they apply for loans at CEDA.

On the downside, manufacturing firms are still affected by traditional challenges that impact firms, including high risk perceptions, limited funding budget, poor business planning, high equipment cost, high cost of products, high cost of quality, and product testing and product feasibility impact costs. Manufacturing firms are also affected by unique challenges like high equipment/machinery costs; inspection costs and lack of land, which may not be experienced by other sectors (for example, service sectors like tourism, IT and education) to a large extent.

The findings from the quantitative phase of the research helped to confirm literature and qualitative findings. However, the literature findings also helped to reveal new insights into the research, including the benefits of foreign direct investment following the recent importation ban of certain products from South Africa and overseas and disproportionately high costs (compared to other sectors) experienced by manufacturing costs like inspection costs, equipment/machinery costs and lack of land.

9.4.6 Research Objective 6 – To evaluate the specific financial management skills which contribute towards the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

Factors of financial management skills were presented in the literature review, including the contribution of these skills towards the survival, growth and sustainable competitive advantage of firms. Literature findings revealed specific factors like government support, skills training and development, financial resources, level of financial literacy in firms. SMEs face multiple challenges related to financial management skills, including lack of requisite financial literacy skills, overlooking the importance of financial management skills by business owners, low technology adoption, lack of finance to acquire digital technologies that augment financial management skills, and lack of training and development support for financial management skills (Folajinmi & Peter, 2020, p. 90; Mbogo & David, 2021; Owusu, 2021; Tebetso, 2021; Mpofu & Sibindi, 2022; Obasi, 2023).

The findings from the qualitative study noted that the Botswana government is continuous making effort to ensure that manufacturing SME owners/managers are trained by agencies like

CEDA and LEA on report writing skills (for example, book keeping, cash flow statements, and business proposal) and numeracy skills (pricing strategy, and financial literacy). In spite of these efforts, manufacturing SMEs continue to experience challenges such as lack of numeracy skills, poor pricing strategy and lack of report writing skills. These problems threaten the survival and growth chances of these firms since they have minimal chances of successfully applying for finance.

The findings from the qualitative research contribute to more knowledge in a field which has not been widely researched in Botswana, financial management skills. Various studies have only focused on managerial skills without actually delineating the importance of financial management skills from an accounting and finance perspective. The findings from the quantitative research confirmed and corroborated the literature and qualitative findings.

9.4.7 Research objective 7 - To identify the specific managerial skills that can be that can be employed by manufacturing SMEs management to ensure the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana

The importance of managerial skills with regard to planning, directing and executing business processes, motivating employees, communicating and collaborating with trading partners and making critical decisions has been outlined. Literature findings emphasised the factors of managerial skills that impact on the survival, growth and sustainable competitive advantage of firms and consist of effective communication, collaboration and networking skills, strategic leadership skills, project and risk management skills, business management skills, marketing skills, interpersonal skills, business planning skills, financial management skills, and customer relationship management skills (Fatoki, 2014, p. 922; Mutoko & Kapunda, 2017; Olausu & Jumbo, Rankhumise & Letsoalo, 2019; Abisuga-Oyekunle *et al.*, 2020, pp.415-419; Ledikwe, 2020, p. 15; Mongwaketse, 2021; Tebetso, 2021).

The findings from the qualitative research affirmed that manufacturing firms in Botswana receive government support in the form of business management skills, capacity development skills, and records management skills. Despite this effort, manufacturing firms continue to face challenges of business management skills like business management skills, entrepreneurial training and risk management. These firms are also affected by lack of capacity development skills like capacity enhancement, capacity utilisation and collaboration. Furthermore, they encounter challenges in the form of poor records management and business proposal writing skills.

The findings from the quantitative research corroborated the findings from the qualitative research and literature findings. However, qualitative research findings managed to pinpoint

challenges which specifically affect manufacturing firms in Botswana and this resulted in greater understanding and generation of knowledge in the subject matter.

9.5 DEVELOPED FRAMEWORK

The aim of this study was to identify how different factors impact on sustainable competitive advantage of small and medium-sized manufacturing SMEs in Botswana and develop a framework for the survival, growth and sustainability of manufacturing SMEs in Botswana. The findings with respect to the various hypotheses which were accepted have contributed to the framework (See Figure 9.1).

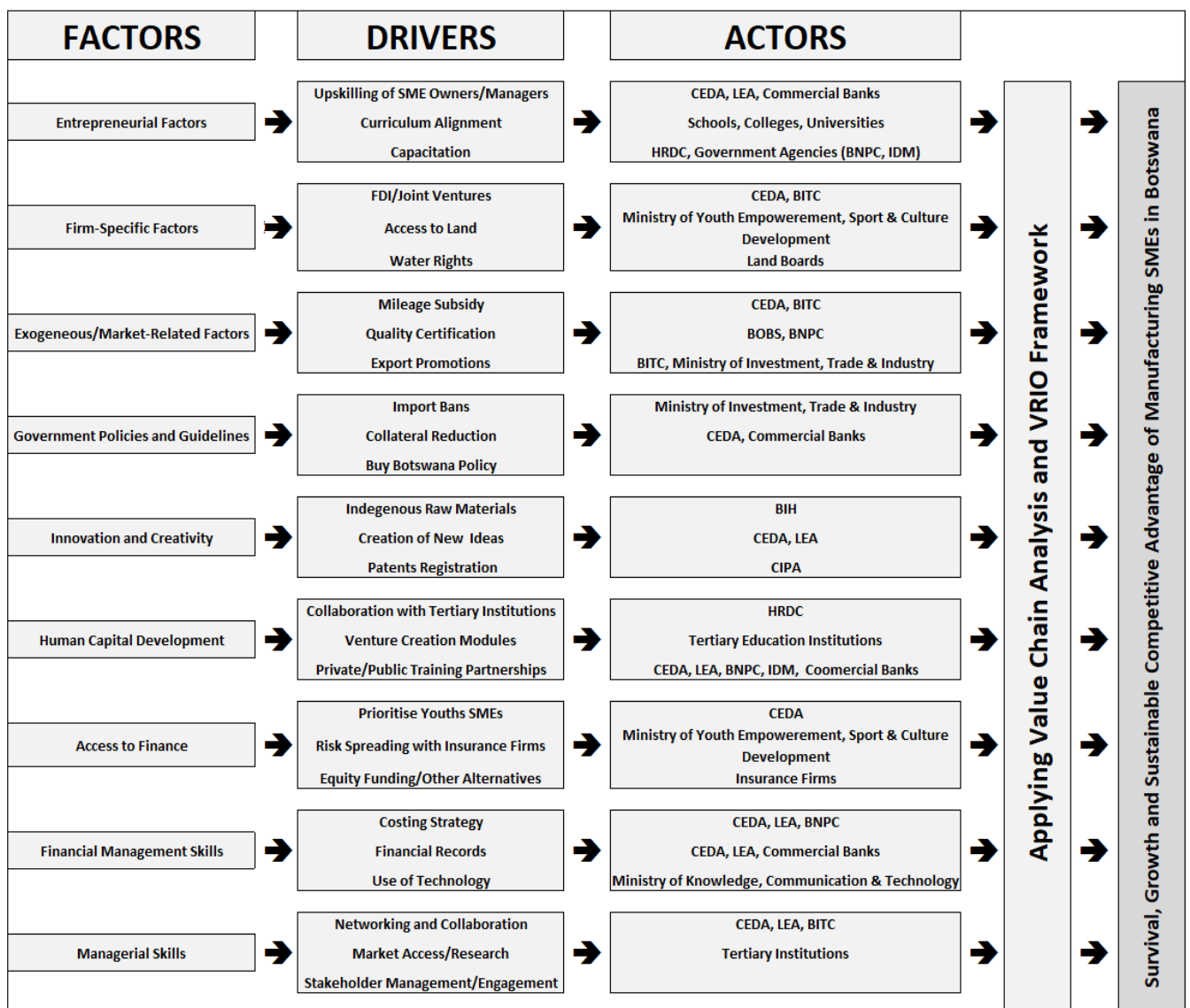


Figure 9.1: Proposed Framework

Source: Developed from the Research Findings

The study was underpinned by the Resource-Based Theory (RBT) which assumes that proposes that firms should concentrate on leveraging their internal resources and capabilities to gain competitive advantage, instead of depending only on external factors. It is through identifying and utilising their own talented and internal resources, firms can realise a differentiated market position that sets them apart from their competitors (Ariyani & Daryanto, 2018, pp. 9-14; Holford, 2018; Khattak & Ullah, 2021, pp. 1619-1637).

The findings of this study confirmed the existence of specific internal resources and capabilities that small and medium-sized manufacturing enterprises possess and utilise in order to achieve sustainable competitive advantage. However, there also exist numerous impediments which impact on the capacity of manufacturing SMEs to fully utilise these resources and capabilities. The findings from both key government informants and small and medium-sized manufacturing enterprises have exposed these factors and challenges that manufacturing firms in Botswana experience.

This research also integrated RBT with the Value Chain Model (da Luz Peralta *et al.*, 2020, pp. 725-746; Panggabean *et al.*, 2021; Ngorima & Msweli, 2022) which postulates that a firm can identify suitable strategies that enhance its productivity whilst keeping costs down. This model fits within the manufacturing sector since firms convert raw materials into finished products through systematic processes that ensure that resources are efficiently utilised in order to realise maximum return to the firm. The findings of this study identified challenges of quality, process flaws, high production costs, lack of skills and lack of technology as factors that impact on the value chain of manufacturing SMEs in Botswana.

The proposed framework in Figure 9.1 helps to understand the components and processes that manufacturing SMEs in Botswana undergo when they utilise their resources and capabilities in order to achieve sustainable competitive advantage.

9.6 RECOMMENDATIONS

The following recommendations are made based on the findings of the study:

9.6.1 Ensuring greater access to natural resources

Access to land and water poses serious challenges towards the sustainability of manufacturing SMEs in Botswana. Land in Botswana, whether for purchase or for rent, is quite expensive. The manufacturing sector is process-driven and requires adequate land and water in order to set up factory shells and also to convert raw materials into finished products. Since the manufacturing sector has been designated a priority sector, there is need for the Botswana government to give

preferential consideration for projects that require land in the sector. This can be through short-term and long-term subsidies for rentals.

The process for applying for water rights is long and involves a lot of paperwork. The semi-arid condition of Botswana makes it very difficult for authorities to efficiently allocate water rights to individual and organisational applicants. Water development efforts in Botswana like construction of dams and setting up pipelines should target manufacturing SMEs. National policies on water allocation in Botswana should also be formulated on the basis of water demand approaches rather than the current water supply approaches. This approach will benefit manufacturing SMEs which currently face challenges of resource scarcity.

9.6.2 Managing risk among manufacturing SMEs

The riskiness of manufacturing SMEs has been mentioned as one of the factors that impact on their sustainability. Several risks have been mentioned, including poor loan repayment, lack of collateral and poor management of manufacturing SMEs leading to their eventual collapse. Greater monitoring and supervision of manufacturing SMEs can help to reduce the risk associated with giving funds to these firms. This will be a risk acceptance strategy which covers watching and monitoring the risk. This suggestion was given by one of the key government informants.

Commercial banks can also be protected against financial loss to SMEs through default of loan payments by having the funds that they give to SMEs insured by loan insurance protection companies. This will be a risk transferring measure by commercial banks. Joint ventures with established multinational companies can also help to reduce the riskiness of local manufacturing firms. These joint ventures result in enterprises which are more financially stable.

Additional funds can also be sourced from commercial banks and government-sponsored agencies on better terms since these joint ventures will be having collateral in the form of equipment and machinery, including commercial land in some cases. This will be a risk reduction strategy where local enterprises have their risk absorbed through the mergers with multinational corporations. This will help manufacturing firms to expand in their operations and achieve sustainable competitive advantage.

9.6.3 Alleviating costs related to machinery, equipment and quality

Most manufacturing firms in Botswana are small in size, that is, they employ 6 employees or less and have an annual revenue turnover of P60,000 or less. This implies that they have scarce financial resources to purchase machinery and equipment. This is despite the fact that the manufacturing sector demands significant investment in machinery and equipment. As a

recommendation, the government of Botswana should establish mechanisms for emerging manufacturing firms to hire equipment and machinery at subsidised rates.

Manufacturing firms can also be encouraged to form consortiums and combine their financial resources and purchase machinery and equipment which they can share and realise growth and sustainability. Government initiatives should also involve the promotion of use of robotics and automation by manufacturing SMEs in Botswana to improve quality, reduce production costs and energy usage. The use of robotics and automation will also reduce waste and environmental pollution, especially when suitable measures are put in place to ensure that the production processes are efficient and sustainable energy sources are employed.

Participants revealed that the implementation of quality is quite expensive for manufacturing SMEs in Botswana and they end up producing substandard and low-quality goods. In order to reduce product-related costs, including quality issues, there is need for quality to be embedded as part of the entire value chain within the manufacturing sector, from proposal writing, training of entrepreneurs and enforcing quality standards throughout the production process. Organisations like the Botswana Bureau of Standards (BOBS), through government support, can help manufacturing SMEs with training on quality standards and also certify their products on a preferential and subsidised basis. The Botswana government, as the largest buyer of goods and services in the country can also put preferential clauses that promote trade with manufacturing SMEs which implement quality standards in their production process and products.

9.6.4 Improving specific government policies and guidelines

There is adequate evidence to confirm that indeed the government of Botswana has taken significant measures to promote entrepreneurship in Botswana, including manufacturing SMEs. Manufacturing SMEs, in particular are designated a priority sector and collateral requirements from the sector has been revised downwards. Several other incentives like export incentives, ISO certificates, subsidised rentals, promotion of local products and the government's diversification strategy have all contributed towards the desire for entrepreneurship by Botswana citizens.

There are, however some challenges that still require improvement. The overlapping mandates of some government-sponsored agencies, especially on areas of mentoring, monitoring and control is a possible conflict of interest and duplication of effort. It would be desirable for one agency to focus only on training, mentoring and incubation of businesses, and the other agency focuses only on proposal and loan approvals. This would improve operational efficiency of the

two most important organisations that deal with SMEs in Botswana by clearly separating their mandate.

The issue of political interference and dominance of Botswana government on tender awards for goods and services are additional areas that need to be improved. One strategy that can be used to dissuade politicians and other stakeholders with political power in the operation of SMEs is continuous education of office bearers in both government and the private sector. Restrictions should also be placed that bar individuals wielding influence from entering into joint ventures or partnerships with SMEs since this will impact on the operation of SMEs and also result in loss of foreign direct investment since Botswana will be considered an unstable destination for investors.

9.6.5 Accelerating innovation and creativity of SMEs

There are many positive results on issues of innovation and creativity by manufacturing SMEs in Botswana. There is need for government bodies like Botswana Innovation Hub (BIH) and the Companies and Intellectual Property Authority (CIPA) to continue raising awareness of the services that they offer to SMEs in areas like company registration and training on patents. Whilst these services are important, there seem to be lack of awareness of these services to most SMEs in Botswana, including manufacturing firms. This awareness can be done when entrepreneurs approach organisations like LEA for business training purposes. BIH and CIPA can also raise awareness through print and electronic media, and also during consumer shows when most SMEs rent stands to market their products.

There also seems to be evidence of support for products which are manufactured using indigenous raw materials. Future innovation and creativity initiatives should promote the use of indigenous raw materials in order to manufacture unique products which are both cheap and sustainable. Use of indigenous raw materials may also help to reduce costs associated with acquiring raw materials since these raw materials will be locally available. Such initiatives may also help to create employment and reduce poverty, thus contributing to economic and social development of Botswana.

9.6.6 Addressing the human capital development gaps

The findings of the study exposed multiple gaps on human capital development in the manufacturing sector in Botswana. Issues of capacity development, including business monitoring and improvement of manufacturing practices by SMEs were identified as existing human capital development challenges. There is need for organisations like LEA to continue devising effective strategies that help different types of manufacturing firms to improve in their

business monitoring and streamlining of their manufacturing practices so that they produce less waste and upgrade the quality of their products.

The manufacturing sector requires different types of skills, including hard and soft skills. The findings from the study confirm that there is a serious skills shortage within the sector. This shortage can be alleviated by conducting a skills gap analysis for different categories within the sector. Various industry players like tertiary and training institutions can be consulted in order for them to align their skills training with the needs of the local manufacturing industry in Botswana.

Local manufacturing firms should also take advantage of the reimbursement of training levy by the Botswana Human Resource Development Council (HRDC) on completion of staff training in various skills. Creating awareness through LEA and other methods and linking SMEs with HRDC may also help to accelerate skills development within the manufacturing sector. Joint ventures between local manufacturing SMEs and multinational corporations can also help with skills transfer and equip local SMEs with the right skills to improve their capacity.

9.6.7 Improving access to finance by SMEs

Despite being designated a priority sector, considerable challenges face manufacturing firms in Botswana. There is need to continue to promote joint ventures between local manufacturing SMEs and multinational companies since the later will bring the much-needed foreign currency. Funds from these joint ventures will also help to complement the limited budget funding from government-funded bodies like CEDA and commercial banks. Another measure which can be taken by manufacturing SMEs is to use non-banking sector like insurance companies who can offer surety bonds as forms of alternative sources of finance. The main advantage of this strategy is that surety bonds pose less risk to both the insurer and SMEs since there is a risk cover against the bonds. Micro lenders can also be additional sources of loan finance for manufacturing SMEs in Botswana. The issue of popularity of SME surety bonds and microfinance will need to be dealt with by raising awareness of these alternative sources of finance, including selling their advantages and disadvantages.

9.6.8 Upskilling SMEs financial management and managerial skills

Organisations that deal with training and development of SMEs should continue to focus on skills development, especially in the areas of numeracy skills, report writing skills, business management skills, capacity development skills, and records management skills. These skills should be imparted onto new SMEs before they start their operations and assistance should be based on the specific industry that SMEs are based in. Secondary and tertiary education should also incorporate entrepreneurial education in order to ensure that prospective entrepreneurs are

equipped with basic financial management and managerial skills before they venture into their business.

Issues like curriculum evaluation at national level should also be considered so that entrepreneurship is considered as an alternative source of employment and wealth creation, especially considering the fact that jobs are scarce. The importance of emerging disciplines like data science, automation and robotics as new and more efficient cost-saving alternatives to human expertise should be emphasised and incorporated within the education sector.

Upskilling of financial management and managerial skills of entrepreneurs will help SME owners/managers to be equipped to the right skills that will help their businesses to survive, grow and become sustainable in the sectors that they operate in. This upskilling should also be complemented by allocation of specific budget to cater for procurement of technology to support financial and managerial skills. This is in consideration of the merging of technology and most processes within firms and other economic sectors.

9.7 IMPLICATIONS OF THE FINDINGS

The findings of the study have the following implications:

9.7.1 Implications for research on SMEs

The findings of the study will contribute towards the body of knowledge and understanding of strategies which are used by manufacturing SMEs to achieve sustainable competitive advantage by identifying and efficiently utilising scarce internal resources and capabilities. Several factors have been identified and analysed using thematic analysis together with descriptive and inferential statistics in order to assess the most important ones that contribute towards the success of manufacturing SMEs (See Table 9.1).

Challenges that are encountered by manufacturing SMEs were also identified and recommendations put across in order to help manufacturing SMEs which participated in the study. Future researchers can also benefit from the literature and theoretical framework that was developed in this research. New insights and understandings of the working relationships between key stakeholders within the manufacturing sector in Botswana have also been uncovered and explained. This new information can be used by scholars, policy makers and practitioners in the manufacturing sector to identify and implement additional strategies that can improve the sustainability of manufacturing industry in Botswana and beyond. The study has also confirmed extant literature on factors that impact on the survival, growth and sustainability of SMEs, this time from the perspective of manufacturing SMEs.

Table 9.1: Summary of contribution of findings to knowledge and understanding

Key findings	Contribution to knowledge and understanding	Related studies which collaborate the findings
1. Youth-owned firms are not performing well compared to those managed by older SME owners/managers	This finding confirms previous findings by other scholars. This is possibly attributed to lack of resources, inexperience, lack of land and water rights.	Mafoko, (2019, p. 29), Bosire and Muturi, (2020, pp. 55-63), Ejejigbe, (2020, p. 12); Gondo and Kolawole, (2020); Badimo <i>et al.</i> , (2021, p. 102963)
2. The educational qualifications of SME owners/managers are a critical success factor on the sustainability of manufacturing SMEs	This finding confirms previous findings by other scholars. SME owners/managers who have higher qualifications generated more sales and revenue than those with lower qualifications.	Diraditsile <i>et al.</i> , (2019, pp. 171-176), Ngibe and Lekhanya, (2020b, p. 1), Chipambwa <i>et al.</i> , (2023b, p. 9), Onwe <i>et al.</i> , (2024, p. 101)
3. The location of a business has no direct impact on profitability and annual revenue of a business	This finding contradicts findings by other scholars. Previous scholars have established that areas where there crime, remote rural areas and remote shopping malls negatively impact on survival, growth and sustainable competitive advantage of SMEs.	Katrodia <i>et al.</i> , (2018, p. 132), Kaylongwe, (2019, p. 163), Moyo, (2019)
4. The experience of a business has no direct impact on profitability and annual revenue of a business	This finding contradicts findings by other scholars. The more experienced a business, the greater its chances of survival, growth and sustainable competitive advantage.	Moyo, (2019), Njanike, (2019, p. 13), Nyakudya, (2020, p. 174), Msomi and Olarewaju, (2021)
5. Ownership of business premises does not necessarily translate to profitability and sustainability of a firm.	This finding confirms previous findings by other scholars. Owned premises can be a liability if they are located in residential areas or far away from customers. At the same time, owned premises can cheaper since no rent is paid and this leads to sustainable competitive advantage if customers for the business are abundant.	Lekhanya, (2016, p. 152), Kalyongwa, (2019), Alsaaty and Makhoulf, (2020, pp. 908-916)
6. Most manufacturing SMEs in Botswana are at the low end with most employing between 0 to 6 employees and having annual revenue of between P0 and P60,000.	This finding confirms previous findings by other scholars. Most SMEs, especially in developing countries lack adequate resources, including lack of access to finance,	Lekhanya, (2016, p. 5), Kalyongwa, (2019), Alsaaty and Makhoulf, (2020, pp. 908-916), Mazikana, (2020),

	low skills, lack of access to markets and are considered to high risk. This leaves them on the low-end of the sector that they operate in.	Mokwana, (2021), Mongwaketse, (2021), Munga <i>et al.</i> , (2021, p. 21). Grosse <i>et al.</i> , (2022, p. 1), World Bank Open Data, (2024)
7. Youth-owned manufacturing SMEs are more affected by lack of water rights when making applications for finance than those owned by older SME owners/managers.	This is new information and seems not to have been confirmed by previous scholars in Botswana.	Primary data
8. Use of indigenous raw materials is one way in which local manufacturing firms can achieve sustained competitive advantage.	This is new information and seems not to have been confirmed by previous scholars in Botswana.	Primary data
9. The banning of importation of certain products has the potential to increase the sustainability and growth of local manufacturing firms, including bringing foreign direct investment, skills and technology transfer and business linkages.	This is new information and seems not to have been confirmed by previous scholars in Botswana.	Primary data
10. The riskiness of manufacturing SMEs in Botswana and challenges of access to finance can be alleviated by the exploitation of the untapped SME surety bonds market.	This is new information and seems not to have been confirmed by previous scholars in Botswana.	Primary data

Source: Compiled by the Researcher

9.7.2 Implications on policies that guide the support and growth of SMEs

The findings of the study have revealed many challenges that impact on manufacturing SMEs in Botswana and these obstacles can be used by different organisations that deal with manufacturing firms to formulate or improve policies that support and help manufacturing SMEs to become sustainable. There is need for continuous improvement on policies that guide access to finance by manufacturing SMEs, especially on issues on collateral, riskiness of SMEs, joint ventures, access to markets and export incentives. These policies will spur organisations like CEDA, BEDIA, LEA, and several government departments that support SMEs to incorporate additional measures to promote manufacturing firms. Specific policy deficiencies include overlapping mandates of some organisations supporting SMEs in Botswana and over-reliance of Botswana government for purchase of goods and services by local firms, including manufacturing SMEs. Closing the gaps on these deficiencies may improve policies that promote SMEs in Botswana.

9.7.3 Implications on practice that guide practitioners in the manufacturing sector

The findings of this study will be of infinite help to manufacturing SME owners/managers in Botswana because the research has exposed specific factors that can help them to survive, grow and achieve sustainable competitive advantage in the areas that they operate in. The study mainly adopted the RBT which assumes that when firms identify and efficiently utilise their internal resources and capabilities then can realise sustainable competitive advantage over their rivals. This study revealed the specific entrepreneurial, firm and exogeneous resources which contribute towards the sustainability of manufacturing SMEs in Botswana.

The findings of the study will contribute towards the operations of key government informants and other stakeholders in their effort to assist manufacturing SMEs in Botswana. The findings of the study have provided one coherent repository of new knowledge and information that can be used by key government informants to initiate and promote measures that equip SMEs with new skills, resources, ideas and technology to use in their business and achieve sustainable competitive advantage.

9.7.4 Implications on the methodology that was used in the study

This study adopted an exploratory and descriptive research design where qualitative data was initially gathered from key government informants dealing with manufacturing SMEs in Botswana using face-to-face interviews. This was followed by the collection of quantitative data from manufacturing SME owners/managers using a structured questionnaire. Whilst this approach was lengthy and cumbersome, the findings helped to obtain an in-depth understanding of factors that impact on the survival, growth and sustainability of manufacturing SMEs in Botswana. New insights into the operations of manufacturing SMEs and their interactions with key government informants were unearthed using a unique way which probably could not have been possible using only qualitative data or quantitative data.

The use of software tools in the form of NVivo 11 and IBM SPSS version 27.0 helped in obtaining a holistic picture of the phenomena under observation. The use of project Maps, one sample t-test, Mann Whiney U test, Kruskal-Wallis test and SEM tools (factor analysis and multiple correlations) helped to both visualize the presentation of the findings and simplified the interpretation of these findings. The combination of methodological tools which were used in this study were probably a pioneering experience as far as research on manufacturing SMEs in Botswana is concerned. The methodology and subsequent findings will help future research on similar topic with useful literature on survival, growth and sustainability strategies used by manufacturing SMEs in a developing country like Botswana.

9.8 LIMITATIONS OF THE RESEARCH AND AREAS OF FURTHER STUDIES

This study was without limitations. A major limitation to this study was the short time frame for data collection since the time horizon was cross-sectional. A large number of participants decided not to complete the research instrument and this had the potential to impact on data quality and validity and reliability of the findings.

The sampling method chosen to identify potential manufacturing SME owners/managers was convenience sampling since there was no list of all manufacturing SMEs operating in Botswana. In mitigation, the researcher recruited and trained three research assistants to help with telephonic follow ups on SME owners/manager in order to increase the success rate of completing the structured questionnaire. The researcher also made follow ups on key government informants in order for them to participate in face-to-face interviews.

The focus of the study was on achieving of sustainable competitive advantage by small and medium-sized manufacturing enterprises in Botswana. The study adopted an exploratory descriptive research design where both qualitative and quantitative data was gathered and analysed sequentially in one study. Despite its merits, the use of mixed method was complex to carry out, expensive and time consuming. The method required additional expertise to gather and analyse data, and interpret the findings.

New software packages and tools in the form of NVivo 11 and AMOS for IBM SPSS version 27.0 were used to code and analyse the gathered data. Significant time was invested in learning and applying these tools. It was also difficult to integrate the findings from the two sets of data but in the end a comprehensive and meaningful thesis report was compiled. Future research may focus on the use of quantitative methodology since sufficient literature has been gathered during this exploratory research. Future quantitative research may help with generalisation of the findings of this study, including extrapolation of results to other sites with similar settings and context.

The findings were confined to manufacturing SMEs from the research site in Gaborone and surrounding townships and villages. It may be difficult to generalise the findings to different areas and other sectors where SMEs are involved, for example construction and retail industries. Different locations, sampling methods, sample sizes and target industries may not produce the same findings when the same methodology is applied to new settings and context. This may require the conducting of future research using other methodologies aligned to those sites and samples.

Another area of future research may be the impact of joint ventures on manufacturing SMEs in Botswana following the banning of certain imports from South Africa into Botswana. Preliminary findings in this study highlighted benefits of the banning of certain manufactured imports, including skills and technology transfer, extension of business linkages to South Africa and beyond, and injection of foreign direct investment into local manufacturing SMEs. Such future research will assess the effect of these import bans on the survival, growth and sustainability of manufacturing SMEs in Botswana.

The issue of skills training and development of human capital for manufacturing SMEs in Botswana is another area of future research which may help to identify important gaps that can be identified and accelerate skills development of SMEs in Botswana across the entire education supply chain. Currently there seem to be gaps in both secondary schools and tertiary institutions as far as skills training and human capital development which prepares students for entrepreneurship is concerned. Various schools of thought have noted that the current curriculum in Botswana is more academic than practical and this is a setback to future entrepreneurs. A needs analysis should be conducted by future researchers so that they are able to match what is offered in schools and tertiary institutions and industry expectations, especially for manufacturing SMEs.

The manufacturing sector is heavily reliant on the use machinery and technological tools like automation, robotics, and emerging technologies like data science, machine learning, artificial intelligence and robotics. However, the contribution of these tools towards the sustainable competitive advantage of manufacturing SMEs in Botswana has not been thoroughly investigated in this and previous studies, despite the mention of some of these tools in this research. Future studies on the contribution of these tools may help to further bridge gaps related to factors like human capital development, innovation and creativity, financial and managerial skills since technology is rapidly being incorporated into these disciplines.

9.9 CONCLUSION

This study focused on exploring how manufacturing small and medium enterprises in Botswana achieve sustainable competitive advantage. In order to answer the research questions and to fulfill the research objectives, face-to-face interviews were conducted with 7 key government informants and structured questionnaires were also administered to 348 manufacturing SME owners/managers in Botswana. The findings of the research managed to evaluate different categories of factors that impact the survival, growth and sustainability of manufacturing SMEs in Botswana through face-to-face interviews with key government informants. These findings were integrated with the feedback given by manufacturing SME owners/managers.

The findings from key government informants identified firm-specific factors that impact on the survival, growth and sustainable competitive advantage of manufacturing firms in Botswana. New insights were obtained from the key government and corroborated with the views of the SME owners/managers. The findings from key government informants identified government policies and guidelines that influence the survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. The key government informants also expressed new insights into the phenomenon and the views of the manufacturing SME owners/managers were used to confirm the qualitative and literature findings.

The key government informants explained factors of innovation and creativity that influence survival, growth and sustainable competitive advantage of manufacturing SMEs in Botswana. Their views offered more informed understanding and new knowledge on the subject matter. These views were also confirmed by manufacturing SME owners/managers. The issue of human capital development on the survival, growth and sustainable competitive advantage of manufacturing SME owners/managers was also explained by key government informants. In-depth information on the phenomenon was presented which resulted in new knowledge and understanding. SME owners/managers also concurred with the views of key government informants.

The key government informants explained the challenges of access to finance and their impact on manufacturing SMEs in Botswana. Specific measures which are being taken to assist SMEs were also explained and corroborated by manufacturing SMEs. The latest developments on the effects of the importation ban of certain products from South Africa and overseas, together with their advantages and disadvantages were also presented by key government informants. New insights were also gathered in the process. Lastly, the impact of financial management skills and managerial skills on the survival, growth and sustainable competitive advantage of manufacturing SMEs was discussed with key government informants. The issues of technology and skills transfer were also highlighted. Manufacturing SME owners/managers also confirmed the findings from both the literature review and key government informants.

A framework was developed (See Figure 9.1) for utilisation by manufacturing SME owners/managers, government agencies dealing with manufacturing SMEs, scholars and strategists researching on manufacturing SMEs, and consultants in parastatals and the private sector. It is postulated that the framework will contribute towards strategies, policies and guidelines that will ensure that manufacturing SMEs in Botswana increase their survival and growth chances and achieve sustainable competitive advantage. The developed framework and the preceding chapters focusing on literature review, theoretical framework, data analysis and

discussion of the findings is a confirmation that the aim and objectives of the current research have been achieved.

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APPENDICES

APPENDIX A - INFORMATION SHEET AND CONSENT TO PARTICIPATE IN THE STUDY



UNIVERSITY OF KWAZULU NATAL

School of Management, IT and Governance

Research Project: PhD Management

Researcher: Tadios Munodawafa (+267 7178 2954)

Supervisor: Professor M. J. Naude (+27 33 260 6181)

Supervisor: Professor K. K. Govender (+27 81 333 3712)

UKZN HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HSSREC)

APPLICATION FOR ETHICS APPROVAL

For research with human participants

Information Sheet and Consent to Participate in Research

Date: 30 November 2022

Greetings;

My name is Mr. Tadios Munodawafa. I am a PhD student at the University of KwaZulu Natal in the School of Management, IT and Governance. My contact number is (+267 7178 2954) and my email address is (221068848@stu.ukzn.ac.za). I am conducting a research as part of my Doctoral Degree requirements.

You are being invited to consider participating in my study entitled: **Achieving sustainable competitive advantage: The case of small and medium manufacturing enterprises in Botswana**. The aim and purpose of the study is to explore the relationship between a firm's internal resources and how management of such a firm can efficiently utilise these internal resources to achieve sustainable competitive advantage. The study will focus on selected

manufacturing small and medium enterprises in Botswana. The study is anticipated to include SME owners and managers of manufacturing small and medium enterprises in Botswana and key government informants who work with manufacturing small and medium enterprises in Botswana.

The study is expected to enroll a total of 390 participants (10 key government informants and 379 owners/managers of manufacturing small and medium enterprises in Botswana). The key government informants will be drawn from Botswana Institute for Development Policy Analysis (BIDPA), Botswana Institute for Technology Research and Innovation (BITRI), Citizen Entrepreneurial Development Agency (CEDA), Local Enterprise Authority (LEA), National Development Bank (NDB) and Ministry of Investment, Trade and Industry (specifically Department of Industrial Affairs and Botswana Investment and Trade Centre (BITC)). The 379 manufacturing owners/managers will be selected from the South-Eastern district of Botswana which includes Gaborone, Lobatse, Otse and Tlokweng.

A combination of face-to-face and online interviews through Zoom will be used to gather data from key government informants and structured questionnaires will be administered (in person or through Google forms) to SME owners/managers. Interviews are expected to take about 30 to 40 minutes and completing the structured questionnaire is expected to take between 20 to 30 minutes. The choice of personal or online contact to collect data will depend on the convenience and availability of the participants.

It is anticipated that through your participation in this study, there will be a better understanding of the specific challenges that are faced by small and medium manufacturing enterprises in Botswana and how owners/managers of these firms can devise strategies to better manage their internal resources in order to achieve sustained competitive advantage. The findings of the study may also help the Botswana government to further diversify the country's economy by developing the manufacturing sector.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number HSSREC/00005291/2023).

In the event of any problems or concerns/questions you may contact the researcher at (+267 7178 2954) or the researcher's supervisors Professor Micheline Juliana Naude at (+27 33 260 6181) or Professor Krishna Kistan Govender at (+27 033 260 6487) or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

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Participation in this study is voluntary and you can withdraw from the study at any point and time. In the event of your refusal/withdrawal to participate, you will not be asked for reasons for doing so and you will not be penalised or mistreated or be deprived of any benefits as a result of doing so. However, your withdrawal from participating in the study will be a missed opportunity to obtain your input on the topic being explored.

Your personal details (names, physical address, telephone number, email address, or any details that may be used to positively identify you) will not be captured or recorded in the actual interview schedule or questionnaire. Your individual input during the data collection procedure will not be shared with third parties. However, a final report on this research will be published and will only include summarised data from the study.

The collected data from both interviews and questionnaires will be securely locked for a period of 5 years. All data will be destroyed after this period.

If you have any further questions, please contact me or my research supervisors at the contacts given above.

Yours sincerely,

Tadios Munodawafa



(Researcher's name and signature)

CONSENT

I (Name) _____ have been informed about the study entitled **Achieving sustainable competitive advantage: The case of small and medium manufacturing enterprises in Botswana** by Tadios Munodawafa.

I understand the purpose and procedures of the study.

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher Tadios Munodawafa at +267 7178 2954 or 221068848@stu.ukzn.ac.za.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

**HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS
ADMINISTRATION**

Research Office, Westville Campus

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4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to:

Audio-record my interview / focus group discussion YES / NO

Video-record my interview / focus group discussion YES / NO

Use of my photographs for research purposes YES / NO

Signature of Participant

Date

Signature of Witness
(Where applicable)

Date

Signature of Translator
(Where applicable)

Date

APPENDIX B–DRAFT INTERVIEW GUIDE

[For key government informants – CEDA, LEA, BIDPA, NDB]

1. Survival challenges faced by manufacturing SMEs in Botswana
 - What challenges do manufacturing SMEs in Botswana face?
 - For how long have these manufacturing SMEs been experiencing these challenges?
 - Please explain the causes of these challenges?
 - Are other businesses in the same industry facing the same challenges?
 - Please explain the effects of these challenges on manufacturing SMEs in terms of profitability
 - Please explain how these challenges impact on manufacturing SMEs in terms of delivery quality goods and services
 - What are the effects of these challenges on manufacturing SMEs in terms of revenue generation?
 - What are the effects of these challenges on manufacturing SMEs in terms of customer satisfaction?
 - What are the effects of these challenges on manufacturing SMEs in terms of competitiveness?
 - Please explain how these challenges can be overcome by manufacturing SMEs.
 - How is your organisation assisting manufacturing SMEs to overcome these challenges?
 - To what extent have you succeeded in your effort?
 - What challenges does your organisation face when attempting to assist manufacturing SMEs?
2. Impact of existing government policies and guidelines on the sustainability of manufacturing SMEs in Botswana
 - Please explain the challenges that manufacturing SMEs in Botswana face as a result of lack of assistance from the government?
 - Describe any problems that manufacturing SMEs in Botswana face when registering their businesses?
 - In what ways is the government of Botswana helping local manufacturing SMEs to identify markets for manufacturing SMEs business products/services?
 - Explain how the government of Botswana protect local manufacturing SMEs against unfair competition (for example, copying of products/brands/processes)?
 - What are your views on the existing recruitment and training laws with regard to the operation of SME business?
 - Explain the contribution of existing government policies on helping manufacturing SMEs in Botswana to increase their performance?

- In what ways do existing government policies help manufacturing SMEs in Botswana to increase the satisfaction of their customers?
 - Comment on how existing government policies help manufacturing SMEs in Botswana to increase their profitability?
 - Explain how existing government policies help manufacturing SMEs in Botswana to increase their revenue?
 - Explain the contribution of government policies towards sales made by manufacturing SMEs in Botswana.
 - Give your views on how government policies help manufacturing SMEs in Botswana to increase their market share.
 - In what ways do the current government policies help manufacturing SMEs in Botswana to increase their survival in their markets?
 - Please explain how existing government policies help manufacturing SMEs in Botswana to increase their long-term growth?
3. The role of innovation and creativity on the sustainability of manufacturing SMEs in Botswana
- Is it easy for SME owner/managers or employees to create new ideas or new ways of producing goods and services?
 - How often do SME owners/managers or employees contributed towards the design of the products or services that you are offering?
 - Explain the different ways in which manufacturing SMEs differentiate their products or services.
 - How easy is it for manufacturing SMEs to convert new ideas into actual products or services?
 - Please explain the various ways in which your organisation rewards manufacturing SMEs for coming up with new ideas?
 - When was the last time that someone you know in an SME created a new idea?
 - Can you please explain whether or not the idea was successfully implemented?
 - What were the effects of the new idea on customer service and profits of the SME?
 - How easy is it for competitors of manufacturing SMEs to copy new ideas?
 - What do you do to protect SME business's unique products/services?
4. Contribution of human capital development towards the sustainability of manufacturing SMEs in Botswana
- Please explain the extent to which manufacturing SMEs depend on employees who have any unique skills, knowledge or experience
 - How easy it is for these skills, knowledge and experience to be copied by their competitors?
 - How serious is the problem of staff turnover on loss of critical skills and knowledge in manufacturing SMEs?

- What measures do you put in place to ensure that manufacturing SMEs retain critical skills and knowledge in their business?
 - What strategies do you use to encourage manufacturing SMEs owners/managers attend training courses?
 - What measures do you take to ensure that SME employees attend training on a regular basis?
 - In what ways does the training contribute to their business?
 - Please explain whether or not the government gives manufacturing SMEs any refund after training?
5. Impact of access to finance for manufacturing SMEs in Botswana towards the sustainability of manufacturing SMEs in Botswana
- What is the common sources of initial funds for manufacturing SME business?
 - What exactly do manufacturing SMEs use the money for?
 - Please explain whether or not manufacturing SMEs continue to seek for extra funding after initial financial assistance
 - What is the usually purpose of this extra finding if it is still needed?
 - How often do manufacturing SMEs in Botswana considered seeking funds from CEDA?
 - Please explain any challenges that manufacturing SMEs faced when they try to seek these funds
 - In what ways does the funding obtained by manufacturing SMEs result in the sustained growth of their business?
6. Impact of financial management skills on the survival, growth and sustainability of manufacturing SMEs in Botswana
- Please explain the specific financial management skills that are appropriate for the management of manufacturing SMEs in Botswana?
 - Can you please explain the level of financial management skills available in manufacturing SMEs?
 - Do you think the current level of financial management skills available in manufacturing SMEs is adequate to ensure the survival growth and sustainability of manufacturing SMEs in Botswana?
 - Please explain how SME owners/managers of manufacturing SMEs in Botswana make use of financial management skills available to operate their business.
 - Please explain the contribution of financial management skills towards the survival, growth and sustainability of manufacturing SMEs in Botswana.
 - What strategies can be employed to ensure that financial management skills of manufacturing SMEs in Botswana are developed.
7. Intervention strategies that can be employed by SME management in order to ensure the sustainability of manufacturing SMEs in Botswana

- Please describe the different types of skills, knowledge and experience that SME owners/managers in Botswana possess.
 - Can you describe the various strategies which are used by SME owners/managers to check their internal strengths and weaknesses?
 - Is there any effort to help these manufacturing SMEs to ensure that they can check their internal strengths and weaknesses?
 - In what ways do these skills contribute towards better performance of these manufacturing SMEs ?
 - Please explain how these skills contribute towards better customer satisfaction of these manufacturing SMEs
 - Explain how these skills contribute towards better profitability of these manufacturing SMEs
 - How do these skills contribute towards the long term-survival of these manufacturing SMEs ?
 - Please explain any other skills that manufacturing SMEs require in order for them to become sustainable.
8. Please explain any other views on what measures manufacturing SMEs in Botswana should do in order to improve on their competitiveness and performance?

APPENDIX C- DRAFT STRUCTURED QUESTIONNAIRE

[For SME owners/managers]

SECTION A – BIOGRAPHICAL DETAILS OF MANUFACTURING SME OWNERS/MANAGERS

Please complete your biographical details in the following sections. You can use a tick (✓) or cross (X) to indicate your answer.

1. Gender

Male		Female	
------	--	--------	--

2. Age

18 to less than 25 years		25 to less than 30 years	
30 to less than 35 years		35 to less than 40 years	
40 to less than 45 years		45 to less than 50 years	
50 years and above			

3. Education

No formal education		Standard/Grade 7	
Junior Certificate		Form 5/Cambridge	
Professional Certificate		Professional Diploma	
Bachelor's Degree		Masters Degree	
Doctorate/PhD			

4. Location of business

Broadhurst		Bus rank	
Extension 12		Fairgrounds Mall	
Gaborone West Industrial		Gaborone West	
Game City		Kgale View	
Old Naledi		Main Mall	
Station		Bus Rank	
CBD Mall		River Walk	

Tlokweng		Old Lobatse Road	
Phakalane		Gaborone North	
Mogobane		Otse	
Ramotswa		Lobatse	
Other place (Specify)			

5. Years in business

Less than 1 year		Between 1 year and less than 2 years	
Between 2 and 5 years		Above 5 years	

6. Type of business premises

Office		Kiosk	
Warehouse		Land/open space	

7. Do you own the business premises?

Yes		No	
-----	--	----	--

8. What is your source of capital? (Select all that applies to you)

Family funds		Own funds	
Commercial bank		Micro-finance	
Youth Development Fund		CEDA Loan	
Young Farmers Fund		Private Sponsor	
Joint Venture		US Embassy Self-Help Fund	
Covid-19 Relief Fund		Other Source (Please specify)	

9. What is the legal status of your business?

Registered business		Business is not registered	
Paying tax		Not paying tax	

10. Type of sales

Cash only		Credit only	
Both cash and credit sales			

11. Type of purchases

Cash only		Credit only	
Both cash and credit purchases			

12. Utilities/services available

Water		Electricity	
Internet access		Telephone landline	
Mobile phone		Laptop	
Desktop			

13. Number of employees

0 to 6 employees		7 to 25 employees	
26 to 99 employees		100 employees and above	

14. Annual turnover

P0 to P60,000		P60,001 to P1,500,000	
P1,500,001 to P6 million		More than P6 million	

SECTION B – FACTORS THAT IMPACT ON MANUFACTURING SMES

Please indicate the importance of the following factors towards the survival, growth and sustainability of your business activities. You may indicate your response by marking (e.g. circle or tick) the digit next to each statement.

Using: 1 = Very important, 2 = Important, 3 = Somewhat important, 4 = Not important, 5 = Not important at all

ENTREPRENEURIAL FACTORS						
		1	2	3	4	5
15.	Age of owner/manager					
16.	Gender of owner/manager					
17.	Education and training of owner/manager					

18.	Marketing skills					
19.	Managerial skills					
20.	Industry experience					
21.	Planning skills					
22.	Communication skills					
23.	Financial skills					
FIRM-SPECIFIC FACTORS						
		1	2	3	4	5
24.	Age of firm					
25.	Annual revenue					
26.	Number of employees					
27.	Location of firm					
28.	Skills of employees					
29.	Land owned by the firm					
30.	Machinery and vehicles					
31.	Quality of manufactured products					
32.	Level of marketing					
EXOGENEOUS FACTORS						
		1	2	3	4	5
33.	Availability of start-up funding					
34.	Level of financial support from government					
35.	Level of financial support from commercial banks					
36.	Level of taxation					
37.	Technology adoption					
38.	Workforce training					
39.	Company registration process					
40.	Competition from other manufacturing companies					
41.	Access to markets					
42.	Exhibitions and promotions					
43.	Customer concentration					
44.	Availability of information and advice					

SECTION C – GOVERNMENT POLICIES AND GUIDELINES

Please rate the extent to which you agree or disagree with the statements below. You may indicate your response by marking (e.g. circle or tick) the digit next to each statement.

Using: 1 = Strongly agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = Strongly disagree
--

	STATEMENT	1	2	3	4	5
	Government policies and guidelines contribute to my business activities					

	by...					
45.	Accelerating company registration process					
46.	Making information and advice available					
47.	Arranging business exhibitions					
48.	Enhancing networking and collaboration					
49.	Providing export incentives					
50.	Facilitating preferential tendering policies to local firms					
51.	Increasing access to finance					
52.	Increasing access to technology					
53.	Marketing products inside and outside Botswana					
54.	Mentoring of business owners/managers					
55.	Protecting local firms from outside competition					
56.	Providing training to owners/managers					

SECTION D – INNOVATION AND CREATIVITY

Please indicate how the factors given below influence innovation and creativity on the survival, growth and sustainability of your business. You may indicate your response by marking (e.g. circle or tick) the digit next to each statement.

Using: 1 = Influence to a great extent, 2 = Influence to quite some extent, 3 = Influence to a little extent, 4 = Influence to a very little extent, 5 = There is no influence at all.

	STATEMENT	1	2	3	4	5
57.	Collaboration with strategic partners					
58.	Ability to utilise internal strategic resources					
59.	Adoption of appropriate technology					
60.	Encouraging owners/managers creativity and innovation					
61.	Advancing ideas and plans that enhance imagination					
62.	Motivating employees					
63.	Creating a culture that promotes flexibility and adaptability					
64.	Putting in place regulations to protect t intellectual property					
65.	Encouraging a risk-taking culture that promotes generation of new ideas					
66.	Adopting ideas that promote growth and profitability					
67.	Investing in research and development					
68.	Training on creativity and innovation					

SECTION E – HUMAN CAPITAL DEVELOPMENT

Please indicate your agreement or disagreement on the extent to which human capital development affects the survival, growth and sustainability of your firm. You may indicate your response by marking (e.g. circle or tick) the digit next to each statement.

Using: 1 = Strongly agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = Strongly disagree

	STATEMENT	1	2	3	4	5
69.	Productivity increases					
70.	Greater competitiveness is realised					
71.	There is significant increase in sales					
72.	The chances of firm survival increase					
73.	Workforce skills, knowledge and competencies expand significantly					
74.	There is an increase in number of employees					
75.	More opportunities for technology adoption are realised					
76.	There is more efficient utilisation of firm internal resources					
77.	Confidence, communication and creativity are improved across the firm					
78.	Training and development resulted in improvement of marketing skills					
79.	Product quality is improved					
80.	Opportunities to access new markets are realised					

SECTION F – ACCESS TO FINANCE

Please indicate your views on the extent to which access to finance impacts on the survival, growth and sustainability of your firm. You may indicate your response by marking (e.g. circle or tick) the digit next to each statement.

Using: 1 = No impact at all, 2 = Very low impact, 3 = Low impact, 4 = Moderate impact, 5 = High impact

	STATEMENT	1	2	3	4	5
	Access to finance...					
81.	Enables market entry and expansion strategies					
82.	Results in improvement in utilisation of finance					
83.	Leads to employment opportunities					
84.	Leads to retention of employees					
85.	Results in survival and growth					
86.	Leads to an increase in capacity of innovation and creativity					
87.	Results in boosting of entrepreneurial activities					
88.	Promotes investment opportunities					

89.	Makes it possible to implement financial plans					
90.	Ensures realisation of strategic objectives					
91.	Results in an increase in cash liquidity					
92.	Causes sales and revenue to grow					

SECTION G – FINANCIAL MANAGEMENT SKILLS

Please indicate your views on how financial management skills impact on the survival, growth and sustainability of your business. You may indicate your response by marking (e.g. circle or tick) the digit next to each statement.

Using: 1 = Strongly agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = Strongly disagree

	STATEMENT	1	2	3	4	5
	Financial management skills...					
93.	Result in reduction in firm exposure to insolvency					
94.	Assist in decision making on financial issues					
95.	Contribute towards value addition					
96.	Result in growth and sustainability of firms					
97.	Increase firm productivity					
98.	Boost capacity to access finance					
99.	Improve capacity to set product prices					
100.	Improve inventory planning					
101.	Make it possible to measure sales and revenue					
102.	Improve capacity to allocate funds					
103.	Help to improve financial forecasting					
104.	Result in realisation of strategic objectives					

SECTION H – MANAGERIAL SKILLS

Please indicate how the following managerial skills are used at your business. You may indicate your response by marking (e.g. circle or tick) the digit next to each statement.

Using: 1 = Always used, 2 = Often used, 3 = Sometimes used, 4 = Rarely used, 5 = Never used

	STATEMENT	1	2	3	4	5
105.	Employee motivation					
106.	Employee training skills					
107.	Effective communication					
108.	Strategic planning skills					
109.	Financial skills					
110.	Business management skills					
111.	Conflict management skills					
112.	Delegation skills					

113.	Marketing skills					
114.	Future planning skills					
115.	Coordinating skills					
116.	Conceptual skills					

Thank you very much for your time and effort in completing the questionnaire.

Tadios Munodawafa

APPENDIX D – RESEARCH PERMIT

TELEPHONE: 3950100
FAX: 3956086
TOLL FREE: [REDACTED]



MINISTRY OF FINANCE
PRIVATE BAG 008
GABORONE

Ref: CMoF1/19/2 II (8)

2nd March 2023

TO: Mr. Tadios Munodawafa

Dear Sir

REQUEST FOR RESEARCH PERMIT - YOURSELF

1. Reference is made to your letter dated 20th February 2023 on the above subject.
2. You are herewith granted permission to undertake research on **"Achieving sustainable competitive advantage: The case of small and medium manufacturing enterprises in Botswana"**.
3. The following conditions must be complied with subsequently;
 - 3.1 Upon completion of the project, you must submit a copy of your research paper to the Ministry Library.
 - 3.2 You are to conduct the research taking into consideration legal instruments governing the affected Institution.
 - 3.3 Kindly note that this permission is valid for a period of two (2) months, effective the day of the receipt of this letter.
 - 3.4 Failure to comply with the above will result in immediate cancellation of the permit given.
4. Thank you.

Yours faithfully

[REDACTED]

Dineo Champagne
For/Permanent Secretary

APPENDIX E – PROOF READING LETTER

TTM ICT CONSULTANCY (Pty) Ltd

Tel/Fax: + [REDACTED] + [REDACTED]

Email: [REDACTED]

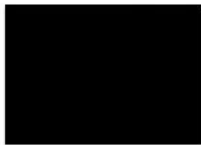


SUITE FF5, [REDACTED]
P O Box [REDACTED] BOTSWANA VAT: C25437701113

16 October 2023

This letter serves to confirm that I have performed the professional editing, including language and grammatical editing, and adjustment of the layout and structure of the PhD thesis with the title **"Achieving sustainable competitive advantage: The case of small and medium-sized enterprises in Botswana"** by Tadios Munodawafa, student number 221068848. I would also like to confirm that I am satisfied with the final editing work performed on the thesis and all effort has been made to ensure that language and grammatical errors have been removed.

Yours faithfully,



Mr. Tirelo Tshukudu

MBA (General), BA (Honours), Advanced Diploma in Risk Management

Mobile: + [REDACTED] E-mail: [REDACTED]

APPENDIX F – STATISTICAL ANALYSIS CONFIRMATION LETTER

Letter from the Statistician

20 September 2023

This is to confirm that I have performed statistical data analysis on the thesis “**Achieving sustainable competitive advantage: A case of small and medium-sized enterprises in Botswana**” by Tadios Munodawafa, student number 221068848.

Yours faithfully.



Deepak Singh



APPENDIX G- ETHICAL CLEARANCE LETTER



13 March 2023

Tadlos Munodawafa (221068848)
School Of Man Info Tech & Gov
Pietermaritzburg Campus

Dear T Munodawafa,

Protocol reference number: HSSREC/00005291/2023

Project title: Achieving sustainable competitive advantage: The case of small and medium-sized enterprises in Botswana

Degree: PhD

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 07 February 2023 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 13 March 2024.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Yours sincerely,



Professor Dipane Hlalele (Chair)

/dd

Humanities and Social Sciences Research Ethics Committee

Postal Address: Private Bag X54001, Durban, 4000, South Africa

Telephone: +27 (0)31 360 8150/4557/3587 Email: hssrec@ukzn.ac.za Website: <http://research.ukzn.ac.za/Research-Ethics>

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

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APPENDIX H – AMMENDED ETHICAL CLEARANCE LETTER



24 May 2024

Tadlos Munodawafa (221068848)
School Of Man Info Tech & Gov
Pietermaritzburg Campus

Dear T Munodawafa,

Protocol reference number: HSSREC/00005291/2023

Project title: Achieving sustainable competitive advantage: The case of small and medium-sized enterprises in Botswana

Amended title: Achieving sustainable competitive advantage: The case of small and medium-sized manufacturing enterprises in Botswana

Degree: PhD

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 22 May 2024 has now been approved as follows:

- Change in title

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Best wishes for the successful completion of your research protocol.

Yours faithfully



.....
Professor Dipane Hialele (Chair)

/dd

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Durban Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8358 / 4557 / 3587
Website: <http://research.ukzn.ac.za/research-ethics/>
Funding Campus: Edgewood Howard College Medical School Pietermaritzburg Westville

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