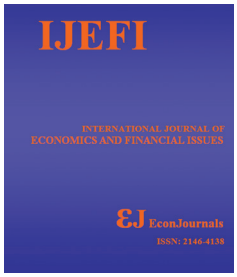

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Assuring the Sustainability and Growth of Small and Medium-sized Manufacturing Enterprises in Botswana: An Exploratory Study

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ABSTRACT

This paper explored the factors that impact the sustainability and growth of small and medium-sized manufacturing enterprises (SMEs) in Botswana. A self-administered structured questionnaire was used to survey 348 owners/managers of SMEs in the South Eastern District of Botswana. Descriptive and inferential statistics were generated from the gathered data using the Statistical Package for Social Sciences (IBM SPSS Version 27.0). Findings revealed that entrepreneurial factors, firm-specific factors and exogenous factors impacted the growth and sustainability of manufacturing firms in Botswana. In addition, government policies and guidelines, innovation and creativity, human capital development, access to finance, financial management skills and managerial skills were also confirmed as significantly contributing to the growth and sustainability of manufacturing small and medium-sized enterprises in Botswana. Key recommendations derived from these findings include the need for policymakers in the government of Botswana and private sector partners to upskill owners/managers of manufacturing enterprises on business planning, financial management, financial literacy, quality management, and market research skills. Furthermore, efforts should be accelerated to promote products manufactured in Botswana to regional and global markets.

Key words: Small and Medium Manufacturing Enterprises, Growth and Sustainability, Annual Revenue
JEL Classifications: O1, O12, O14

1. INTRODUCTION

Several factors impact the survival, growth and sustainability of manufacturing small and medium-sized manufacturing enterprises (SMEs) in Botswana. For example, Guruwo (2020) and Shemi and Procter (2018) assert that lack of financial support from both commercial banks and the government seem to be the most common cause of low SME survival 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 the survival and sustainability of SMEs.

Government support through financial incentives, infrastructure and 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 (Mutoko and Kapunda, 2017). Additional challenges that impact government efforts to support SMEs include a lack of infrastructure and human resources (CEDA, 2020; Monyake et al., 2020). The aforementioned implies that gaps exist in the growth and survival 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 (Tesfayohannes, 2017; Local Enterprise Authority [LEA], 2020; Oppong, 2023). This further points to additional factors that impact the sustainability

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of manufacturing SMEs in Botswana. These identified challenges highlight the importance of developing a theoretical framework for manufacturing SMEs to achieve a sustainable competitive advantage. 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.

2. LITERATURE REVIEW

SMEs refer to non-subsidiary, independent firms that are characterized by their financial assets and the number of employees upped and financial assets that define SMEs vary across countries and are contingent on the size of the domestic economy (OECD, 2005), as cited by Ndubisi et al. (2021). The aforementioned authors state that in the European Union, firms operating with less than 250 employees and an annual turnover of 50 million euros or less are classified as SMEs.

Whilst there is no commonly agreed definition of an SME, scholars have generally defined SMEs according to the number of employees, annual turnover, balance sheet, or total gross asset value (Mphela and Shunda, 2018; Ndubisi et al., 2021). 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 (2020) which is the umbrella body of SMEs in Botswana.

SMEs face several internal and external challenges when striving to achieve a sustainable competitive advantage. These include a combination of determinants of managerial skills, ability to access finance, innovation and creativity, human capital development, and availability of government support, firm size, internal resources, access to finance, and government support. Thus, it is important to develop a conceptual framework that helps to determine specific factors that lead to the success and sustainability of SMEs.

2.1. Firm-specific Factors Impacting the Growth and Sustainability of SMEs

Firm-specific factors relate to factors that are both internal and external to the firm. Internal factors that impact 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 environment-related factors such as competition, distribution channels, suppliers, and marketing strategy. Firm size is defined as the total number of employees in an SME (Bhorat et al., 2018). Several studies (Grondys et al., 2021; Namugenyi et al., 2019) have attributed firm size to the firm's efficiency, growth and profitability. For example, Mabandla and Makoni (2019) concluded that the size of a firm has a positive effect on a firm's financial performance. Grosse et al. (2022) 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. Adam and Quansah (2019) opined that an increase in a firm's debt ratio by one percent causes a decrease in firm profitability by almost one and a half percent. The amount of capital invested in an SME positively contributes to the survival growth and sustainability of these SMEs (Monyake and Kuruba, 2020). Capital helps a firm to grow by providing assets that are needed to generate more revenue. A firm that expands physically can acquire new technology to improve the production process. However, most SMEs, especially in developing countries face challenges in accessing capital and this affects their survival, growth and sustainability (Majukwa et al., 2020; Njanike, 2019).

The range of products and services available impacts the revenue generated by an SME. However, limited capital to increase product lines harms the profitability of SMEs, since they cannot increase their stock levels (Muchaendepi et al., 2019; Sathyamoorthi et al., 2019). Several studies have postulated that legally registered and licensed SMEs 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. The bottlenecks include low literacy levels of the SME owners/managers, corruption at registration and licensing service providers and the long process of registering businesses and acquiring trading licenses (Makiwa, 2018; Munga et al., 2021).

The availability of efficient distribution channels ensures that an SME can increase its sales volume and significant throughput and profits (Wakoli and 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) asserts that these challenges negatively impact the success and sustainability of SMEs. Creating value for customers through marketing is a strategy that is important for SMEs to generate revenue through sales. Studies by Das et al. (2020) and Wilson and Makau (2018) found that SMEs in developing countries face challenges of poor quality of produced goods, competition from established companies, lack of knowledge about the right platform to market their products and low levels of technology adoption. Samad et al. (2023) highlighted that organizational capability is one of the important factors for business organization strategies to achieve their goals, gain competitive advantage and performance. To further explore the above with respect to SMEs in Botswana, it is hypothesised that:

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

2.2. The Influence of Government Policies on SMEs

The critical role played by SMEs has spurred governments in both developed and developing economies to support them through the provision of finance, physical infrastructure and business advisory services. In most countries, governments have created strategic departments and Ministries to cater to the needs of SMEs (Bank of Botswana, 2017; Jones et al., 2018; Mutoko and Kapunda, 2017;

Sherriff and Muffatto, 2016). 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, 2020).

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 that ensures cohesion and linkages between the various programmes, ensure that the SME policy is effectively implemented and assessed against measurable objectives, reduce the 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 on 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, 2020). Other state-owned institutions that are linked to entrepreneurial development in Botswana are the 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 (Themba and Josiah, 2015).

Despite the above intervention strategies, several challenges continue to impact the sustainability of manufacturing SMEs internationally Hummel and Szekely, 2021), and 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 (Guruwo, 2020; Themba and Josiah, 2015). The local agency responsible for providing loans to Botswana citizens is also affected by a lack of resources and non-payment of loans by SMEs (CEDA, 2020). Additional challenges faced by SMEs in Botswana are a lack of business planning and creativity (CEDA, 2020). Business plans given to CEDA on loan applications are neither convincing nor comprehensive and local SMEs rely on consultants to prepare business plans which they (SMEs) do not understand (CEDA, 2020). Monyake et al. (2020) also point out that local SMEs are heavily dependent on the government for financial and technical support, which is always limited. Mutoko and Kapunda (2017) further state that the government prefers to conduct business with large established businesses that offer quality and timely delivered goods and services.

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.

2.3. The Influence of Innovation and Creativity on SMEs

Creativity and innovation are strategies that have been used by SMEs to generate new business ideas and plans through imagination, and implement such ideas to create new products and services (Monyake et al., 2020; Mofokeng et al., 2023). Stanbic Bank of Botswana, 2013). 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 can quickly act on new ideas. Other factors which contribute to the creativity and innovation of SMEs are flexibility and adaptability which are enhanced by their lean and simple organisational structure, together with a detailed focus on corporate strategy (Agyei, 2018; OECD, 2017).

Agyei (2018) further posit that larger enterprises generally take creativity more cautiously due to the damage that 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 a 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, 2018; OECD, 2017).

According to some researchers (Yang et al., 2019; Prieto-Sandoval et al., 2022; Kulkarni, 2022, Nimfa et al., 2021), innovative SMEs 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 exists evidence to suggest that SMEs are less innovative than large enterprises (OECD, 2017). Scholars have, however, argued that SMEs that 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 and Govender, 2020; Monyake *et al*., 2020).

The manufacturing sector SMEs in Botswana face the challenge of efficiently utilising 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 (Tesfayohannes, 2017; Themba and Josiah, 2015; LEA, 2020). Therefore, 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.

2.4. The Impact of Human Capital Development on SMEs

It is commonly agreed that human capital is a critical component of SME productivity and competitiveness (Matsongori and Mutambara, 2018; Muriithi, 2018; Pansiri and Yalala, 2017). 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 results in increased productivity (Muriithi, 2018; Okurut and Ama, 2018). SMEs are a major source of global employment, accounting for about 70.0% of jobs on average and are a major contributor to value creation (Domeher et al., 2021). In developing countries, SMEs contribute on average about 45.0% to employment and 33% to GDP (Mutoko and Kapunda, 2017). By improving the effectiveness and efficiency of human capital through education and training, SMEs can realise greater productivity and competitiveness.

Ama and Okurut (2018) argue 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 (Adom and Asare-Yeboah, 2016; Alnachef and Alhajjar, 2017). Through a skilled workforce, SMEs can create a pool of readily available employees who may leave or move up in the organisation from internal sources. 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 and Asare-Yeboah, 2016; Alnachef and Alhajjar, 2017).

The sustainability of manufacturing SMEs in Botswana is negatively affected by human capital problems. According to Ama and Okurut (2018), entrepreneurial human capital is one of the areas which should be developed for manufacturing SMEs in Botswana to be innovative. A study by Mutoko and Kapunda (2017) observed 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 to the sustainability of manufacturing SMEs. 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.

2.5. The Impact of Finance on SMEs

One of the major challenges to SME sustainability is the lack of access to finance (Guruwo, 2020; Korutaro Nkundabanyanga et al., 2017). The survival and growth of SMEs are 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 helps to ensure that an SME's entrepreneurial activities are boosted and the capacity to promote creativity and innovation is increased.

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 et al., 2016). 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 Nkundabanyanga et al., 2017) have concluded that to make informed decisions and also ensure that they are sustainable, SMEs require financial literacy. Financial literacy is required for SMEs to deal with challenges in the cutting-edge credit markets, diversify products and services and maintain adequate financial reserves (Eniola and Entebang, 2017). Inadequate financial literacy has been identified as one of the main barriers to the sustainable development of SMEs (Kotzè & Smit, 2018). The survival of SMEs has also been attributed to the presence or absence of financial literacy (Korutaro Nkundabanyanga et al., 2017). 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.

2.6. The Impact of Financial Management Skills on SMEs

Good financial management skills are critical for SMEs where insolvency is quite high (Ama and Okurut, 2018; Nyakudya, 2020). With financial management skills, SME owners/managers are able to make important decisions on planning inventory, pricing, and acquisition of assets leading to an increase in the overall value of a business. A study by Folajinmi and Peter (2020) on poultry 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. Mpofu and Sibindi (2022) supported the views of Folajinmi and Peter (2020) by revealing that financial management skills are positively correlated to the capability of an SME to access finance. These researchers further argue 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 (Mpofu and Sibindi 2022).

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 businesses. Aspects like budgeting, borrowing, expenditure and savings were not considered to be important by South African SMEs (Mbogo and David, 2021). These challenges negatively affected the growth and sustainability of firms (Fatoki, 2015). Eric (2016) also confirms a strong positive relationship between financial management skills and the financial performance of enterprises. 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.

2.7. The Impact of Managerial Skills on SMEs

The contribution of managerial skills to organisational success and sustainability has been investigated over the past several decades (Majama and Magang, 2017; Mutoko and Kapunda, 2017; Monyake et al., 2020). Several scholars continue to argue that management is affected by a lack of managerial knowledge, skills and experience. Majama and Magang (2017) identified a lack of formal recruitment and hiring procedures, a lack of human resource development policies and an 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 that are also problems affecting SME management in Botswana (Republic of Botswana, 2017). Tadu and Chiguvi (2019) argued that dependence on family members for labour and lack of well-trained employees 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 the survival of SMEs (Ama and Okurut, 2018; Muriithi, 2018). Josiah and Themba (2015) investigated the problems affecting SMEs and discovered that a lack of managerial skills, training, general education and practical experience affected SMEs the most. The challenges mentioned by the aforementioned scholars can only be overcome when organisational excellence exists within the SME's organisational structure. There is overwhelming concurrence among scholars that global competition requires managers who possess strategic planning, competitive strategy, benchmarking and information processing skills to ensure that their firms survive and sustain significant growth in the industries that they compete in (Mookodi and Ama, 2016; Muriithi, 2018).

The lack of managerial skills among manufacturing SME owner-managers in SMEs in Botswana has been widely researched (Majama and Magang, 2017; Mutokoa and Kapunda, 2017; Guruwo, 2020). A study by Mutoko and Kapunda (2017) concluded that owner-managers of manufacturing SMEs in Botswana lack the financial skills that could help them to sustain their businesses. The aforementioned 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.

The hypotheses were tested through the study conducted among a sample of manufacturing SMEs in Botswana by following the methodology described presented in the next section.

3. RESEARCH METHODOLOGY

Convenience sampling was used to select 348 manufacturing SME owners/managers who participated in the study by following the guidelines proposed by Krejcie and Morgan (1970), based on a population of 25,000 SMEs. Bhardwaj (2022) posits that this method can be used in quantitative research where the researcher accesses participants based on their fit for the criteria of the research question and the availability of individuals to participate in the study. Google Forms and Survey Monkey were used to administer the final revised questionnaire.

4. RESEARCH FINDINGS

Table 1 reflects the years that the SME owner/managers were in business, the nature of the premises and the type of ownership of business premises.

The findings in Table 1 indicate that the majority of manufacturing SME owners/managers (45.1%) have been in business for more than 5 years. Overall, the majority of manufacturing SME owners/managers (54.9%) have been in business for less than 5 years. The findings also reveal that the majority of the owners/managers (45.1%) operated their business from offices. It also became evident that the majority of manufacturing SME owners/managers (63.5%) did not own the business premises that they operated from.

Table 2 depicts the different sources of capital used to establish the SMEs.

Table 3 reflects that the majority of manufacturing SME owners/managers (69.8%) used their funds as capital to start their businesses. None of the respondents indicated that they accessed micro-finance, Young Farmers Fund, Joint Venture and US Embassy Self-Help Fund.

Table 4 reveals that the majority of manufacturing SME owners/managers (51.4%) were female, aged 35 to less than 40 years, and had a Bachelor's Degree.

Table 4 reflects that the majority of SMEs (66.4%) had 0 to 6 employees and 70.4% had an annual turnover of P0 to P60,000.

Table 1: Years in business, nature of premises and ownership of business premises

Variables	Categories	Frequency	Percentage frequency
Years in business	<1 year	68	19.5
	Between 1 year and <2 years	48	13.8
	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: Primary data

Table 2: Sources of capital

Source	Frequency (N=348)	Percentage frequency	Source	Frequency	Percentage frequency
Family funds	13	3.7	Young Farmers Fund	0	0.0
Own funds	243	69.8	Private sponsor	15	4.3
Commercial bank	11	3.2	Joint Venture	0	0.0
Micro-finance	0	0.0	US Embassy Self-Help Fund	0	0.0
Youth Development Fund	19	5.5	Covid-19 Relief Fund	0	0.0
CEDA loan	5	1.4	Another source	4	1.1
Total				348	100.0

Source: Primary data

4.1. Reliability of the Research Instruments

To test the reliability of the measurement instrument, Cronbach's Alpha of Reliability coefficient was computed for each group of factors using IBM SPSS (version 27.0). The results of the tests are presented in Table 5 below. A value greater than or equal to 0.70 indicates high internal validity (Mohamad et al., 2018).

4.1.1. Structural Equation Modelling

In this first phase of SEM, factor analysis was used to be used to reduce individual variables in the research into fewer dimensions based on the relationship between those variables. Table 6 reflects the outcome of factor analysis used to investigate the underlying structure of the entrepreneurial factors that impact the survival, growth and sustainability of manufacturing SMEs in Botswana. 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, Bartlett's test of sphericity confirmed 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. In summary, it became evident that the respondents 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.

With respect to the underlying structure of the firm-specific factors that impact the survival, growth and sustainability of manufacturing SMEs in Botswana, the results in Table 7 reveal that all 9 factors were accepted because they had a factor loading of at least 0.50. 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 8 reflects the outcome of factor analysis used to investigate the underlying structure of the exogenous factors that impact the survival, growth and sustainability of manufacturing SMEs in Botswana. 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 above factors show that manufacturing SME owners/managers in Botswana strongly believe that exogenous factors, especially financial support from commercial banks,

Table 3: Demographics of SME owners/managers

Variable	Categories (N=348)	Frequency	Percentage frequency
Gender	Male	169	48.6
	Female	179	51.4
	Total	348	100.0
Age	18–<25 years	47	13.5
	25–<30 years	56	16.1
	30–<35 years	52	14.9
	35–<40 years	68	19.5
	40–<45 years	39	11.2
	45–<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

Source: Primary data

Table 4: Size of SMEs

Variables	Categories (N=348)	Frequency	Percentage frequency
Number of employees	0–6 employees	231	66.4
	7–25 employees	68	19.5
	26–99 employees	37	10.6
	100 employees and above	12	3.4
	Total	348	100.0
Annual turnover	P0–P60,000	245	70.4
	P60,001–P1,500,000	66	19.0
	P1,500,001–P6 million	19	5.5
	More than P6 million	18	5.2
	Total	348	100.0

Source: Primary data

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.

With respect to government policies and guidelines, the factor analysis procedure in Table 9 revealed that all 12 factors were accepted because they had a factor loading of at least 0.50. In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that factors on government

Table 5: Cronbach's alpha test results

Measurement item	Number of items	Cronbach's alpha	Comment
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	Excellent
Innovation and Creativity Factors	12	0.777	Acceptable
Human Capital Development Factors	11	0.909	Excellent
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

Table 6: Factor analysis of entrepreneurial factors

Construct	Measurement variables	Final loading
Entrepreneurial factors	15 Age of Owner	0.740
	16 Gender of Owner	0.668
	17 Education of Owner	0.687
	18 Marketing Skills	00.758
	19 Managerial Skills	0.718
	20 Industry Experience	0.606
	21 Planning Skills	0.764
	22 Communication Skills	0.712
	23 Financial Skills	0.711
KMO=0.688		
Bartlett's test= P<0.05		
Cronbach's alpha=0.757		

Source: Primary data

Table 7: Factor analysis of firm-specific factors

Construct	Measurement variables	Final loading
Firm specific factors	24 Age of Firm	0.622
	25 Annual Revenue	0.683
	26 Number of Employees	0.661
	27 Location of Firm	0.547
	28 Skills of Employees	0.579
	29 Land Owned by Firm	0.639
	30 Machinery and Vehicles	0.794
	31 Quality of Products	0.537
	32 Level of Marketing	0.619
KMO = 0.770		
Bartlett's test = P<0.05		
Cronbach's alpha = 0.775		

Source: Primary data

policies and guidelines, especially enhancing networking and collaboration, providing export incentives, financial protecting local firms from outside competition, arranging business exhibitions, mentoring business owner/managers, and increasing access to finance is very important towards the success of their business.

4.2. Factor Analysis of Innovation and Creativity

Table 10 reveals the factor analysis results used to investigate the underlying structure of factors on innovation and creativity that impact the survival, growth and sustainability of manufacturing SMEs in Botswana. In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly

Table 8: Factor analysis of exogenous factors

Construct	Measurement variables	Final loading
Exogeneous factors	33 Availability of Funding	0.669
	34 Financial Support from Government	0.814
	35 Financial Support from Banks	0.833
	36 Level of Taxation	0.710
	37 Technology Adoption	0.694
	38 Workforce Training	0.645
	39 Company Registration	0.629
	40 Competition between Companies	0.704
	41 Access to Markets	0.816
	42 Exhibitions and Promotions	0.781
	43 Customer Concentration	0.805
	44 Availability of Information	0.787
KMO=0.856		
Bartlett's test= P<0.05		
Cronbach's alpha=0.893		

Source: Primary data

Table 9: Factor analysis of government policies and guidelines

Construct	Measurement variables	Final loading
Government Policies and Guidelines	46 Information Available	0.709
	47 Arranging Exhibitions	0.773
	48 Enhancing Networking	0.813
	49 Providing Incentives	0.787
	50 Facilitating Tendering	0.677
	51 Access to Finance	0.742
	52 Access to Technology	0.741
	53 Products of Botswana	0.697
	54 Mentoring of Owners	0.758
	55 Protecting of Firms	0.778
	56 Providing of Training	0.703
KMO=0.912		
Bartlett's test= P<0.05		
Cronbach's alpha=0.934		

Source: Primary data

Table 10: Factor analysis of innovation and creativity

Construct	Measurement variables	Final loading
Innovation and creativity	57 Collaboration between Partners	0.738
	58 Availability of Resources	0.710
	59 Adoption of Technology	0.734
	60 Encouraging Innovation	0.778
	61 Advancing Plans	0.738
	62 Motivating Employees	0.744
	63 Creating Flexibility	0.771
	65 Encouraging Risk Taking	0.712
	66 Adopting Profitability	0.753
	67 Investing in Research	0.708
	68 Training in Creativity	0.805
KMO = 0.910		
Bartlett's test = P<0.05		
Cronbach's alpha = 0.777		

Source: Primary data

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.

4.3. Factor Analysis of Human Capital Development

Table 11 reveals that all 12 factors were accepted because they had a factor loading of at least 0.50. 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.

4.4. Factor Analysis of Access to Finance

Table 12 reveals that concerning access to finance, all the 12 factors were accepted because they had a factor loading of at least 0.50. In summary, the above factors show that manufacturing SME owners/managers in Botswana strongly believe that factors on access to finance, especially ensuring the realisation of strategic objectives, cause sales and revenue to grow, increase 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 13 reveals that eleven (11) out of the 12 factors were accepted because they had a factor loading of at least 0.50. 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 a reduction in firm exposure to insolvency, and improve capacity to set product prices are very important towards the success of their business.

4.5. Factor Analysis of Managerial Skills

Table 14 reveals that 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. These 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 for the success of their business.

The SEM output in Table 15 shows the model fit summary with standardised root mean square residual (SRMR), the Squared Eucleadian Distance (d_ULS), the Geodesic Distance, the Chi-Square value (X^2), and the Normal Fit Index (NFI). The Model

Table 11: Factor analysis of human capital development

Construct	Measurement variables	Final loading
Human Capital Development	69 Productivity Increases	0.678
	70 Greater Competitiveness	0.784
	71 Significant Sales	0.613
	72 Survival Increase	0.709
	73 Workforce Expand	0.732
	74 Increase in Employees	0.773
	75 Opportunities in Technology	0.811
	76 Utilisation of Resources	0.628
	77 Confidence Improved	0.716
	79 Quality Improved	0.791
	80 Opportunities in Markets Realised	0.786
KMO=0.898 Bartlett's test= P<0.05 Cronbach's alpha=0.909		

Source: Primary data

Table 12: Factor analysis of access to finance

Construct	Measurement variables	Final loading
Access to finance	81 Enables Market Entry	0.737
	82 Improvement in Finance	0.640
	83 Employment Opportunities	0.602
	84 Retention of Employees	0.574
	85 Survival and Growth	0.672
	86 Increase in Capacity	0.728
	87 Boosting of Activities	0.739
	88 Promotes Investment	0.613
	89 Implement Financial Plans	0.738
	90 Realisation of Objectives	0.794
	91 Increase in Liquidity	0.743
	92 Revenue Growth	0.749
KMO=0.881 Bartlett's test= P<0.05 Cronbach's alpha=0.891		

Source: Primary data

Table 13: Factor analysis of financial management skills

Construct	Measurement variables	Final loading
Financial management skills	93 Exposure to Insolvency	0.685
	94 Decision Making	0.628
	95 Value Addition	0.787
	96 Growth and Sustainability	0.731
	97 Firm Productivity	0.689
	98 Capacity of Finance	0.616
	99 Improve Capacity of Product	0.651
	100 Improve in Inventory	0.645
	101 Measure of Sales	0.624
	102 Allocate Funds	0.482
	103 Financial Forecasting	0.640
	104 Strategic Objectives	0.726
KMO = 0.928 Bartlett's test = P<0.05 Cronbach's alpha = 0.914		

Source: Primary data

Table 14: Factor analysis of managerial skills

Construct	Measurement variables	Final loading
Managerial Skills	105 Employee Motivation	0.550
	106 Employee Training Skills	0.727
	107 Effective Communication	0.779
	108 Strategic Skills	0.808
	109 Financial Skills	0.764
	110 Business Management	0.778
	111 Conflict Management	0.810
	112 Delegation Skills	0.836
	113 Marketing Skills	0.823
	114 Future Planning Skills	0.865
	115 Coordinating Skills	0.778
	116 Conceptual Skills	0.765
KMO=0.916 Bartlett's test= P<0.05 Cronbach's alpha=0.954		

Source: Primary data

Table 15: Model fit summary

Fit index	Actual value	Ideal value	Comment
SRMR	0.0694	<0.08 (Hu and Bentler, 1999)	Acceptable model fit (<0.08)
d_ULS	0.2652	0.00 (Dijkstra, 2017: Schuberth et al., 2018)	Unacceptable model fit (Not close to 0.00)
d_G	0.0686	0.00 (Dijkrastra, 2017; Schuberth et al., 2018)	Acceptable model fit (Close to 0.00)
X^2	140.4593	< 5	Unacceptable model fit (>5)
NFI	0.8692	>0.90 (Bentler & Bonett, 1980)	Acceptable model fit (Close to 0.90)

Source: Primary data

Table 16: Decision on the hypotheses

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 (Exogenous 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

Fit summary reveals that it fits the data although one or more fit measures suggest a bad fit (Hu and Bentler, 1998). Tanaka (1993) further elaborates that there is no consensus amongst scholars about what constitutes a good fit. However, most scholars suggest that using a combination of fit measures leads to a model fit summary which is acceptable (Hu and Bentler, 1998; Shi and Maydeu-Olivares, 2020; Maydeu-Oliveres et al., 2018). Furthermore, Schlermelleh-Engel (2003) and Vandenberg (2006) criticize the use of the Chi-Square statistic because of its sensitivity to sample size.

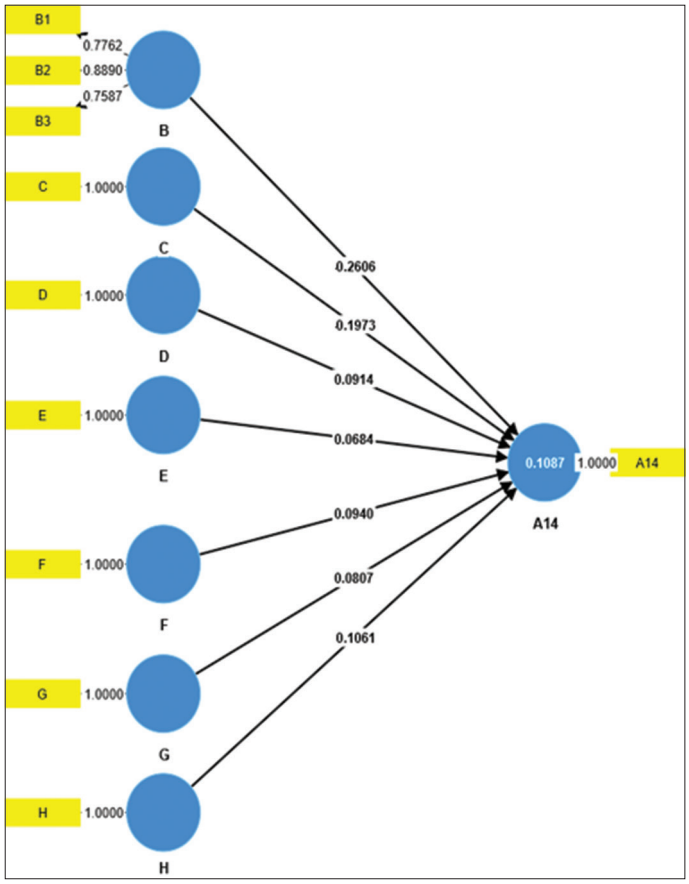
The second phase of the SEM involved the generation of the path model depicted in Figure 1 to reflect the relationships between the latent variables and the actual data which was captured and analysed.

Table 16 is an extract from the SEM output and confirms the standardized regression coefficients and p-values in Figure 1. The output shown in Figure 1 and standarised regression coefficients in Table 16 shows that the 7 null hypotheses cannot be rejected at a 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 SMEs in Botswana.

5. DISCUSSION OF THE RESEARCH FINDINGS

The results reveal that entrepreneurial factors have a weak positive but significant impact on annual revenue (ß = 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 for them to be successful. The findings are consistent with a study done by Svotwa (2019) who revealed that age was an entrepreneurial factor that impacted the

Figure 1: Path diagram showing hypthesised relationships amongst variables



Source: Primary data

success of an SME with older owners/managers leading more successful businesses than younger ones. Kalyongwe (2019) also 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) concluded that the educational qualifications of SME owners/managers were 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 the training and development of an entrepreneur is a differentiating factor in 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.

It became apparent that firm-specific factors have a weak but significant impact on annual revenue (ß = 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 endevour to succeed in their business. The findings are consistent with research by Ncube and Chimucheka (2019) and Diraditsil*e* et al. (2019) who reported that a business that has been in existence for a long period has higher chances of survival, growth and sustainability. The size of a firm has also been confirmed as a determining factor in the success of an SME with large firms possessing more entrepreneurial skills and capital assets to grow than small firms (Hoque et al., 2016; Ogench*e* et al., 2018).

The results of this study reveal that exogenous factors have a weak positive but significant impact on annual revenue (ß = 0.2606; T = 2.965; P = 0.000). The findings imply that exogenous factors can 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) who noted that registered firms have greater chances of accessing finance than those that are not registered. Another research by Kaylongwe (2019) 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 of the sustainability of SMEs (Okeke-Uzodike and Ndinda, 2018; Ledikwe, 2020). Adequate infrastructure helps in speedy transportation of raw materials to factories and finished goods to markets, including storage of goods and raw materials in transit.

Based on the findings of this study it may be concluded that government policies and guidelines have a weak positive but significant impact on annual revenue produced by SMEs 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.

The results indicate that innovation and creativity have a weak positive but significant impact on the annual revenue of SMEs (ß = 0.0940; T = 1.1915; P = 0.000). The findings imply that the innovation and creativity of SMEs can be used to explain 9.40% of the annual revenue that is generated by manufacturing firms in Botswana in their endevour to achieve growth and sustainability. The results are supported by Ama and Okurut (2018) and Monyake et al. (2020) who revealed that SMEs are key drivers of innovation and creativity, economic growth and job creation. Innovation and creativity also help SMEs ensure their survival, growth and sustainability. A study by Shemi and Procter (2018) confirmed that SMEs that embrace technology can 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).

The findings also confirm that human capital development has a weak positive but significant impact on annual revenue (ß = 0.0807; T = 2.592; P = 0.000). The implies that human capital development possibly accounts for 8.07% of the growth and sustainability of SMEs in Botswana. The findings are corroborated by Pansiri and Yalala (2017) and Matsongori and Mutambara (2018) acknowledge that, from an organisational perspective, human capital enables a firm to increase its productivity, profitability and growth. Furthermore, Muriithi (2018) states 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.

It became evident that access to finance has a weak positive but significant impact on annual revenue (ß = 0.0940; T = 5.43; P = 0.001). This 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) 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 attract little or no interest. Such funds are a convenient way of purchasing raw materials, equipment and machinery, and catering for administrative costs. Other sources of finance identified by researchers include business Angels (Monametsi et al., 2018; Eniola, 2016), commercial banks (Monyake et al., 2020; Msomi and Olarewaju, 2021), government schemes (Tadu and Chiguvi, 2020; Amoako-Adu and Eshun, 2018) and foreign direct investment (Magang and Magang, 2019).

It was established that financial management skills have a weak positive but significant impact on annual revenue (ß = 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 Ama and Okurut (2018) and Nyakudya (2020) 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, and 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 an optimal profit, both in the short and long term.

The findings revealed that managerial skills have a weak positive but significant impact on annual revenue (ß = 0.1061; T = 7.625; p = 0.015). This implies 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 to the success of SMEs. Moyo (2019) also confirmed the importance of planning as a critical managerial skill for 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.

6. CONCLUSIONS AND RECOMMENDATIONS

This research aimed to explore factors impacting the sustainability and growth of manufacturing SMEs in Botswana. In summary, the impact of firm-specific factors, government policies, innovation and creativity, human capital development, availability of finance, financial management and managerial skills, were investigated. Overall, there is evidence to confirm that entrepreneurial factors, firm-specific factors and exogeneous factors are the leading factors that positively impact on annual revenue of manufacturing SMEs in Botswana and therefore contribute to the growth and sustainability of manufacturing SMEs in Botswana. To a lesser but equally significant extent, it can be concluded that government policies, innovation and creativity, human capital development, finance, financial management skills and managerial skills also positively contribute towards the growth and sustainability of manufacturing SMEs in Botswana. The literature corroborated the contribution of these factors to the growth and sustainability of manufacturing SMEs in Botswana, but highlighted several shortcomings including lack of managerial and financial skills by manufacturing SME owners/managers. Additional deficiencies impacting on government intervention initiatives include a lack of resources by local funding agencies and cheap imports from China. Challenges like lack of research and development amongst manufacturing SMEs negatively impacted innovation and creativity, whilst lack of managerial and workforce skills continue to affect initiatives by the manufacturing SMEs in Botswana to achieve growth and sustainability. In addition, lack of collateral and financial literacy has been documented as major inhibitors on access to finance by manufacturing SMEs whilst lack of business management and entrepreneurial skills affect local SME owners/managers to efficiently manage their firms and realise growth and sustainability.

The findings are important because they can be used by policymakers in the Botswana government to incorporate skills development programs for manufacturing SME owners/managers to help them with areas like business planning, business proposal writing, financial literacy, quality management and market research. It is further recommended that local manufacturing SMEs should continue to be provided with more export incentives and the government should continue to promote and market locally manufactured products in regional and global markets.

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