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Impact of covid-19 on sustainable entrepreneurship in Zimbabwe. Case study of green SME's.

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Abstract. The advent of the Covid-19 pandemic has crippled 60% of Green Small and Medium Enterprises (SME's) and some have discontinued operations because they failed to adapt. The study evaluated the effects of the Covid-19 pandemic on Sustainable Entrepreneurship so as to encourage nascent and existing Green SME's to become sustainable enterprises. The study adopted mixed-method approach that includes both qualitative and quantitative components. Using purposive sampling, nine managers of Green sustainable enterprises participated in the qualitative study and data was analysed using content analysis. In the quantitative section, 176 managers and employees were selected using simple random sampling. Quantitative data was collected using a structured questionnaire and analysed using SPSS21. The study findings shows that the effects of COVID-19 has brought on new ways of conducting business, however it has also negatively affected growth of business by reducing sales and reduction in production in most enterprises. Furthermore, lack of funding and formalization has caused some SMEs to close operations. The study recommends SMEs to examine their core strengths, and redefine sustainable business models in a more intensive and timely manner as well as adopt to new technologies. Furthermore, government should consider subsidising Green SMEs in order to fund their operations and also support them through flexible policies in case of pandemics. Furthermore, future studies could focus on factors that influence the growth of small and medium-sized enterprises (SMEs) in other sectors and their sustainability.

Keywords: *Sustainable entrepreneurship, Green SME's, Marginalized communities, Innovations, enterprise*

1. Introduction

The Zimbabwean entrepreneurial sector has been hit hardest by the Covid-19 as most of the players have informal operations. Since the first Covid-19 case was recorded in Zimbabwe on 20 March 2020, the informal sector was the last to get a green light to resume operations. The once were sustainable entrepreneurs had to resort to buying and selling basic goods so as to keep afloat, which disrupted the sustainable enterprise's initiatives as most informal enterprises had resorted to the survival mode

Due to the Covid-19 pandemic, Green SMEs are highly exposed to the negative effects. This study evaluated the impact of Covid-19 on sustainable entrepreneurship efforts by Green SMEs. The results are critical in supporting the survival of these enterprises as this will aid in mitigating the economic systemic impact in Zimbabwe. In addition, the results will stimulate innovations leads to sustainable employment and creation of conditions needed for future growth and resistance to any future global crisis (COMESA Monetary Institute, 2020). Small and Medium Enterprises (SMEs) play pivotal roles in the economic growth and sustainable development of every country (Moore et al., 2008). SMEs are said to contribute more to the economy if they adopt green or -sustainable initiatives. Contrary to conventional entrepreneurship, which primarily focuses on economic profit maximisation, sustainable entrepreneurship's existence builds on the key premise that entrepreneurs are probable to create economic, social, and ecological value by means of their commercial activity (Rank-Martin and Binder, 2015). Based on Rank-Martin and Binder (2015) research, the study will empower the SMEs to be more thoughtful, preserve societal values, protect the environment as well as contribute to the economy.

Covid-19 posed a lot of challenges for the SMEs which put sustainable practices on hold. The public sector was the first to resume operations during the first Covid 19 lockdown. During the first phase of the Covid-19 lockdown, SMEs had less information than before, and the information that they do possess become less and less valuable as unpredictability increases dramatically due to the lockdown measure (Maritz et al., 2020).

The advent of the Covid-19 pandemic has crippled most SMEs including Green SMEs and some have discontinued operations because they failed to adapt. Some of the SMEs lack training on how to adapt in a pandemic to maintain sustainability due to the declining access to education evidenced by the research carried out by Societe Generale (2020). This study focuses on the opportunities and challenges that affected the sustainability of SMEs.

2. Literature Review

2.1. Definition of SMEs

The Ministry of Small and Medium Enterprises and Cooperative Development (2014) defined small business as all registered business enterprises or entities with at most 50 employees and medium enterprises as those business entities with number of employees that range between 75 and 100. Furthermore, the European Union (EU) (2016) defined SMEs as enterprises that employ less than 250 workers, with a turnover of EUR 50 million or less and the total assets not worth greater than EUR 43 million.

2.2. Definition of Green SMEs

Krylova (2021) defined Green SMEs as those small and business enterprises that are dedicated to the environmental sustainability principles in its activities by striving to use renewable resources so as to reduce hazardous environmental consequences emanating from its operations. The above definition meets the guidelines for environmental performance that include production and distribution of new goods and services or traditional products that reduces negative impact of the environment.

FORA (2010) define green business models as "business models which support the development of products and services (systems) with environmental benefits, reduce resource use or waste and which are economically viable. These business models have a lower environmental impact than traditional business models."

2.3. What is Green Entrepreneurship?

Dubey (2020) stated that Green Entrepreneurship is when a business entity or an individual is involved in business activities that nurtures the adoption of environmental sustainability practices. These include,

among other things, the adoption of a "green strategy" that enhances its business prospects. The business in most cases is aimed at offering a green product or service.

2.4. Justification for focusing on Green SMEs

According to the Eurostat (2014), Green SMES (GSMEs) signifies a win-win opportunity and they are key drivers of green revolution. The GSMEs have a significant impact on both developed and developed economies and the environment. The enterprises are committed to environmental sustainability through innovative green business models that more firms can adopt.

All over the world, SMEs play a crucial role and they are the most common business enterprises. The OECD (2017) report highlighted that in OECD member countries, SMEs are approximately 99 % of all companies and create around 70 % of total employment. The report further stated that in developing economies, SMEs account for 45% of employment and GDP of 33%. In addition, when the unregistered businesses are incorporated, small business provide above 50% contribution to employment and GDP. Similarly, Eurostat (2014) states that in the EU, SMEs contribute to 58.6% value added.

EU/OECD (2016) states that SMEs assists in reducing poverty and at the same time ensures inclusion by providing jobs to the low skilled workers from diverse segments. Some of the inexperienced workers have opportunities for upgrading their skills and some GSMEs provide access to social services and improved access to health care thereby closing the gap in service delivery.

In addition, it is vital to study GSMEs because the Santa Cruz Declaration on Local Green Enterprises (2020) acknowledges the important role that small enterprises perform in solving the global sustainability challenges. The Delhi Declaration on Local Green Enterprises also mentioned that there is now increase attention to focus on entrepreneurial ecosystems in support of green enterprises.

In June 2020, the international policy position with regards to a fair, green and transformative recovery prioritise SMEs, including those operating in the shadow economy, to speed up the private sector switch to greener practices. Likewise, the GEC and SEED organised a global policy roundtable in January 2021 that was centred on COVID-19 recovery & SMEs.

GEC/SEED Policy Roundtable concluded that SMEs are fundamental in driving green innovation, employment creation, green growth, social inclusion and transition to green practices. ILO (2020) reported that COVID-19 has hit Micro, Small and Medium Enterprises (MSMEs) resulting in over 75% suffering a decrease in incomes. The GEC/SEED Policy Roundtable also states that government stimulus packages and public spending is being made accessible to MSMEs and they are receiving minimum support.

In recent years, studies on sustainable entrepreneurship and sustainability have sparked wide interest from various global writers touching on different areas of the issues. According to Shane and Venkataraman (2010), "opportunities identification, evaluation, and exploitation are some of the entrepreneurship is activities entrepreneurs embark on, however, some entrepreneurial activities are a threat to the environment, pose risk to human and animal health, and may cause pollution to the ozone layer and may eventually lead to a global warming effect."

Studies conducted by the Global debates on Global warming reveal global effects that include climate change, ozone layer depletion, and disruption of aquatic life which have proved that some industrial activities do affect the globe in various ways (York and Venkataraman, 2010). Zimbabwe requires entrepreneurs who are conscious about the environment, society as well as economic contributions, given that the globe is still in a Covid-19 pandemic the enterprises have to acquire the ability to adapt and be sustainable in a pandemic. Southern Africa has experienced some environmental and economic degradation through some entrepreneurial activities which have resulted in soil erosion, pollution, and disease. In Sub-Saharan Africa, climate change, global warming, and rainfall deficit impacted negatively on crop production and food security and reduce national welfare as highlighted by Arndt et al., (2015) and Thompson et al., (2010). A further review of literature exposed sustainable entrepreneurship as a response to social and environmental issues. Sustainable entrepreneurial activities have been known to preserve ecosystems, counter climate changes, improve fresh air supply and agriculture practices, maintain biodiversity and improve economic development in Africa.

2.6. Effects of the Covid-19 on Green SMEs in Zimbabwe

The COMESA Monetary Institute (2020) conducted their first comprehensive report since the Covid-19 pandemic outbreak. The study seeks to dive into the insights on African businesses reactions and outlook to Covid-19. It is one of the first comprehensive survey on the Coronavirus disease (Covid-19) pandemic and its economic impacts across Africa. The study analysed the enterprises reactions and responses made by businesses, and the impact of the Covid-19 pandemic on their businesses. The survey was a product of the African Trade Policy Centre (ATPC) of the United Nations Economic Commission for Africa (UNECA) and International Economics Consulting Ltd and it was administered online for one week in April 2020. The table below shows some of the challenges faced by organisations during the Covid-19 pandemic.

Table 1: Top Challenges faced from highest (1) to lowest (10) by companies by main business sector

Ranking	Goods	Services
1.	Business closed	Lack of operational cash
2.	Lack of operational cash flow	Drop in demand for production/services
3.	Drop in demand for production	Reduction of opportunities to meet new customers
4.	Issues with changing business strategies and offering alternatives product/services.	Business closed
5.	Many workers cannot return to work	Issues with changing business strategies and offering alternatives product/services.
6.	Challenges in logistics and shipping of products	Many workers cannot return to work
7.	Difficulties in obtaining supply of raw materials essential for production.	Decline in workers productivity from working at home
8.	Reduction of opportunities to meet new customers	Challenges in logistics and shipping of products
9.	Decline in workers productivity from working at home.	Difficulties in obtaining supply of raw materials essential for production.

Table 2. Challenges Faced by Company size ranked from 1(highest) to 3 (lowest) by company size

Ranking	Micro	Small	Medium	Large
1	Lack of operational cash flow	Lack of operational cash flow	Business closed	Reduction of opportunity to meet new customers
2	Business closed	Drop in demand for products/ services	Drop in demand for products/ services	Issues with changing business strategies and offering alternatives product/services
3	Reduction of opportunity to meet new customers	Reduction of opportunity to meet new customers	Reduction of opportunity to meet new customers	Drop in demand for products/services

Table 2.1 Source, COMESA Monetary Institute (2020)

The World Bank (2020) report highlighted that the corona virus pandemic caused world-wide health emergency and slowed down economic activities. Zimbabwe was not an exception as the GSMEs sustainability was heavily affected. The achievement of some of the United Nations Sustainable Development Goals were also affected by Covid-19 as investment, trade and job creation were disturbed. The impact was worse in third world countries were the growth rate of MSMEs was

threatened significantly. Although there is no well documented number of GSMEs that closed operations in Zimbabwe, a substantial number were forced to close thereby causing high unemployment and economic stagnation. The report suggest that governments, in collaboration with private stakeholders should offer support to ensure sustainability of MSMEs.

The distribution channels used by the GMSEs were affected and this has a negative effect on both the demand and supply sides. Consumers lose their disposable income and the great uncertainty reduced consumption. The OECD (2020) report states that the higher levels of susceptibility and lower resistance levels linked to their size, SMEs were the most affected compared to larger firms.

3.0 Methods

This study adopted a mixed-method approach to data collection. The mixed methods research design allowed collection of both quantitative and qualitative data, integrating the two types of data, and applying unique designs to solve the problem at hand (Creswell and Guetterman, 2021). A survey was done using structured questionnaires on a sample of 176 SMEs randomly selected in the manufacturing sector within Harare, Zimbabwe. Furthermore, purposive sampling method was used to select 9 participants for interviews.

To address reliability and consistency, Cronbach's Alpha was used to show how well items in a set are positively correlated to one another. Cronbach's Alpha that is less than 0.6 are generally considered to be poor, those in the 0.7 range to be acceptable, and those over 0.8 to be good; the closer the reliability coefficient gets to 1.0, the better. Cronbach's Alpha for independent variables and the dependent variable were above 0.70. Data collected was considered to be internally stable and consistent. Tables, graphs, pie charts, line graphs, and frequency tables were used to present the data. Analysis of data was carried out with the help of the SPSS statistical software in order to generate more general notions from the interpretation of raw textual information.

4. Results

4.1 Effects of Covid-19 on Sustainable Green SMEs

From the discussions made by interviews, some cited that COVID-19 has had a good impact on their business's growth because the demand for online services has skyrocketed. The positive effects are also due to some businesses are introducing a click and collect service and partnering with other service providers. What are the effects of COVID 19 on sustainable entrepreneurship? This question looks at the effects of COVID 19 on sustainable entrepreneurship in maintaining and running their businesses. In this question, the study looked at the effects on business that the participants faced during the current settings.

Participant 1: *"The effects of COVID-19 and the changes it has brought on ways of conducting business has negatively affected growth of business by reducing sales and reduction in production in our company. For example, we used to generate USD$5000 from our small business but now due to limited operating hours we have reduced to close nothing. However, this situation has positively influenced our innovativeness in operations as we have looked at ways of making sells through digital marketing. This is a key issue on sustainability and for that we say the effects of COVID are 50 50 to my business."*

Participant 2: *"Being a manger of a small company that was operating here in Kaguvi recycling bottles COVID 19 has hit hard on us. We have stopped our processes and we cannot embrace technology of having robots pick plastic bottles from the streets it can't. We have lots our customers we supply and since reduced employees to just two people from fifteen workers. We have lost business.''*

Participant 3: *"At the beginning of my business I had borrowed money from the bank, now all that capital has been locked in raw materials and equipment. We can't operate, I will not be able to raise funds again in future."*

Participant 4: *"Poverty and lack of funding were barriers that have challenged our operation in Zimbabwe. Covid has since been a problem but for me it has hit hard where economic challenges had already affected so I don't think either way COVID-19 has affected our businesses maybe just worsened."*

Participant 5: *"Poverty has made it difficult for me to run a successful business because I cannot sit by and watch my people go hungry and without a home. I had anything I could hand over to them. Finally, I used money and items from my company to help them. It was difficult for me to distinguish between business and non-business expenses, especially in the first and second years. Kids were starting secondary school and needed money to pay their tuition. I took the money from the business and paid the fees. This has affected our sustainability not COVID."*

Participant 6: *"Government policies have been unstable even before COVID so remove it under COVID it's a problem on its own. "We have lost our international markets, the customers in Europe has since closed, this is so bad we have lost our links and business.''*

All the participants answered that they had challenges and threats to business sustainability however, some said they have experienced positive effects. The participants had to find threats of business not due to COVID 19 but economic hardships. The table below shows codes to show the effects both negative and positive businesses are facing due to COVID 19.

Code	No. of effects faced by participants	% of the type of effects faced by participant
Poverty and lack of funding	2	30
Government policies	1	15
Lost international markets	2	30
Lost our links and business''	2	30
Personal finance problems	2	30
Capital has been locked	2	30
Limited operating hours	1	15
Lost employees	1	15
Digital marketing	2	30
Innovativeness	2	30
Reducing sales and reduction in production	2	30

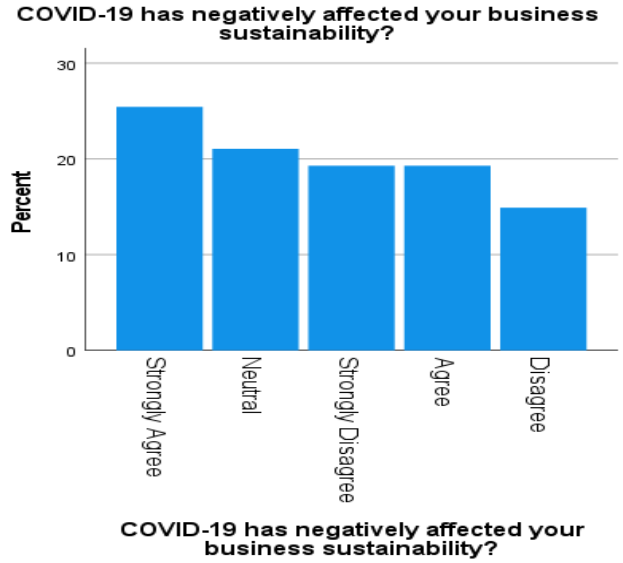
Quantitative data was collected using an online structured questionnaire using a 5-point Likert scale and captured using Statistical Package for Social Science (SPSS) version 22 for analysing quantitative data. One hundred and fifteen (115) participants responded to the study. Major components of the research findings were analysed and discussed. The descriptive statistics were prepared by the researcher using frequency tables, graphs and tables for clearer and understanding data presentation (Brink et al, 2018).

4.2. Assess the effects of Covid-19 on sustainable entrepreneurship.

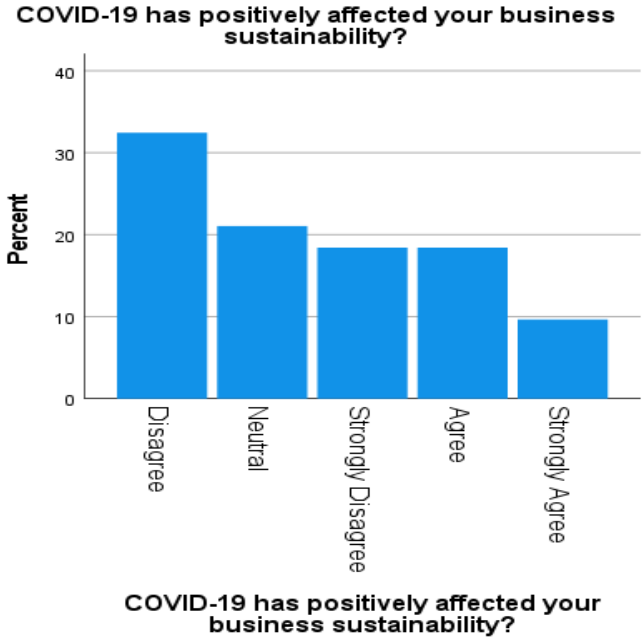
In order to assess the impact of COVID-19 on sustainable entrepreneurship, through the quantitative data collection instruments, respondents were asked whether COVID-19 has negatively affected their sustainability. As shown on Table below, majority of respondents strongly Agree 25.4% (n=29), followed by those who were neutral (n=24) 21.1%, strongly disagree 19.3% (n=22), Agree 19.3 %(n=22), Disagree 14.9% (n=17). This means that there is a statistically significant agreement COVID 19 has negatively affected businesses since n (114) =9.12, M=1.457, 3.17 SD and p >0.0005. The results are presented in Table 4.6 below.

COVID-19 has negatively affected your business sustainability?

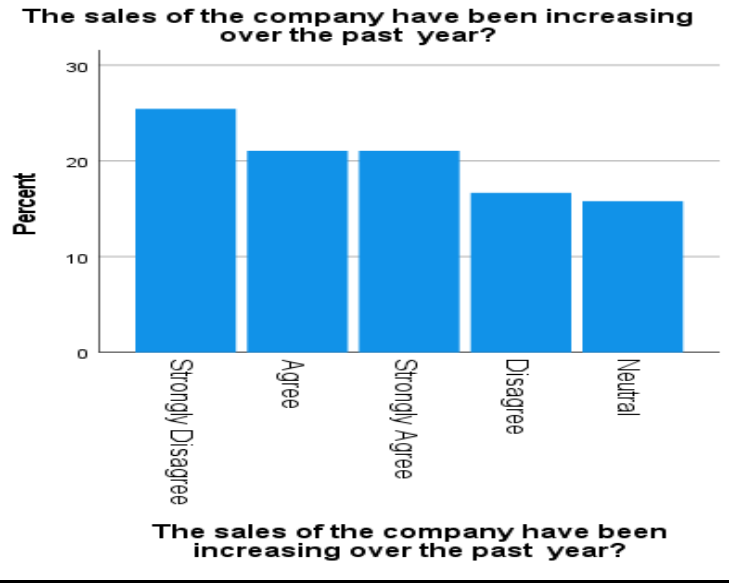
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	29	25.4	25.4	25.4
	Neutral	24	21.1	21.1	46.5
	Strongly Disagree	22	19.3	19.3	65.8
	Agree	22	19.3	19.3	85.1
	Disagree	17	14.9	14.9	100.0
	Total	114	100.0	100.0	



Respondents were also asked to assess whether COVID-19 has negatively affected their business. As shown on Table below, majority of respondents strongly Agree 25.4% (n=29), followed by those who were neutral (n=24) 21.1%, strongly disagree 19.3% (n=22), Agree 19.3 %(n=22), Disagree 14.9% (n=17). This means that there is a statistically significant agreement COVID 19 has negatively affected businesses since n (114) =9.12, M=1.457, 3.17 SD and p >0.0005. The results are presented below.



From the interviews, one respondent stated that, "*COVID-19 has had a good impact on my business's growth because the demand for online services has skyrocketed. We are introducing a click and collect service and partnering with other service providers, despite the fact that we still face logistical challenges due to poor road networks."*



4.3. Effects of Covid-19 on sustainable entrepreneurship efforts by Green SMEs.

4.3.1 Legal context and policy consistency

With regards to the challenges to sustainable entrepreneurship frameworks by Green SMEs during the Covid-19 pandemic, participants were asked to assess legal context and policy consistency as one of the challenges. The majority of participants were neutral with their response as large extent 28.1% (n=32) followed by those who answered not at all 21.1% (n=24) and moderate extent at 19.3% (n=22), very large extent with 16.7% (n=19) and lastly those who answered little extent were 14.9% (n=17). This means that there is a statistically significant agreement that is legal context and policy consistency a significant factors in determining the sustainability of SMEs during a pandemic since n (115) =11.01, M=2.35, SD=0.77, and p >0.0005. The results are presented in Table 4.6 below

Legal context

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Large extent	32	28.1	28.1	28.1
	Not at all	24	21.1	21.1	49.1
	Moderate extent	22	19.3	19.3	68.4
	Very large extent	19	16.7	16.7	85.1
	Little Extent	17	14.9	14.9	100.0
	Total	114	100.0	100.0	

4.3.2. Management's personal values

With regards to the challenges to sustainable entrepreneurship frameworks by SMEs during Covid-19 pandemic, participants were asked to assess Management's personal values as one of the challenges. The majority of participants were neutral with their response as little extent and large extent 22.8% (n=26) followed by those who answered moderate extent 21.9% (n=25) and very large extent at 16.7%

(n=19), and lastly those who answered not at all were 15.8% (n=18). This means that there is a statistically significant agreement that management's personal values contribution is a significant factor in determining the sustainability of SMEs during a pandemic since n (115) =11.01, M=2.65, SD=0.967 and p >0.0005. The results are presented Table 4.6 below

Management's personal values

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little Extent	26	22.8	22.8	22.8
	Large extent	26	22.8	22.8	45.6
	Moderate extent	25	21.9	21.9	67.5
	Very large extent	19	16.7	16.7	84.2
	Not at all	18	15.8	15.8	100.0
	Total	114	100.0	100.0	

4.3.3. Socio-cultural context

With regards to the challenges to sustainable entrepreneurship frameworks by SMEs during the Covid-19 pandemic, participants were asked to assess challenges due to the Socio-cultural context. The majority of participants were neutral with their response as moderate and very large extent 23.7% (n=27) followed by those who answered large extent 18.4% (n=21) and not at all 17.5% (n=20), and lastly, those who answered little extent was 16.7% (n=19). This means that there is a statistically significant agreement that there are socio-cultural context challenges contributing to the sustainability of SMEs during a pandemic since n (115) =9.01, M=2.15, SD=1.967, and p >0.0005. The results are presented in Table 4.6 below

Socio-cultural context

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderate extent	27	23.7	23.7	23.7
	Very large extent	27	23.7	23.7	47.4
	Large extent	21	18.4	18.4	65.8
	Not at all	20	17.5	17.5	83.3
	Little Extent	19	16.7	16.7	100.0
	Total	114	100.0	100.0	

4.3.4. Market forces

With regards to the challenges to sustainable entrepreneurship frameworks by SMEs during the Covid-19 pandemic, participants were asked to assess challenges associated with market forces. The majority of participants response was not all, 25.4% (n=29) followed by those who answered very large extent 23.7% (n=27), and little extent at 20.3% (n=23), moderate extent 19.3% (n=22) and lastly those who answered not at all were 11.4% (n=13). This means that there is a statistically significant agreement that there are challenges associated with market forces in determining the sustainability of SMEs during a pandemic since n (115) =9.01, M=2.23, SD=1.3967, and p >0.0005. The results are presented in Table 4.6 below.

Market forces

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	29	25.4	25.4	25.4
	Very large extent	27	23.7	23.7	49.1
	Little Extent	23	20.2	20.2	69.3
	Moderate extent	22	19.3	19.3	88.6
	Large extent	13	11.4	11.4	100.0
	Total	114	100.0	100.0	

4.3.5. Ownership management structure

With regards to the challenges to sustainable entrepreneurship frameworks by SMEs during the Covid-19 pandemic, participants were asked to assess challenges associated with the Ownership management structure of the firms. The majority of participants response moderate extent, 29.84% (n=34) followed by those who answered very large extent 21.9% (n=25), and not at all 17.5% (n=20), large extent 16.7% (n=19) and lastly those who answered little extent were 14% (n=16). This means that there is a statistically significant agreement that there are challenges associated with the ownership management structure of the firms in determining their sustainability during a pandemic since n (115) =8.01, M=3.23, SD=1.67, and p >0.0005. The results are presented in Table 4.6 below;

Ownership management structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderate extent	34	29.8	29.8	29.8
	Very large extent	25	21.9	21.9	51.8
	Not at all	20	17.5	17.5	69.3
	Large extent	19	16.7	16.7	86.0
	Little Extent	16	14.0	14.0	100.0
	Total	114	100.0	100.0	

4.3.6. Industry-sector characteristics

With regards to the challenges to sustainable entrepreneurship frameworks by SMEs during Covid-19 pandemic, participants were asked to assess challenges associated with Industry-sector characteristics. The majority of participants response was not all, 27.2% (n=31) followed by those who answered little extent 22.8% (n=26), large extent and very large extent at 17.5% (n=20) and lastly those who answered moderate extent 14.9% (n=17). This means that there is a statistically significant agreement that there are challenges associated with Industry-sector characteristics in determining the sustainability of SMEs during a pandemic since n (115) =9.21, M=2.33, SD=1.4967 and p >0.0005. The results are presented Table 4.6 below.

Industry-sector characteristics

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	31	27.2	27.2	27.2
	Little Extent	26	22.8	22.8	50.0
	Large extent	20	17.5	17.5	67.5
	Very large extent	20	17.5	17.5	85.1
	Moderate extent	17	14.9	14.9	100.0
	Total	114	100.0	100.0	

4.3.7. Financing

With regards to the challenges to sustainable entrepreneurship frameworks by SMEs during the Covid-19 pandemic, participants were asked to assess challenges associated with financing. The majority of participants response was not all, 25.4% (n=29) followed by those who answered very large extent 22.8% (n=26), and little extent at 20.2% (n=23), large extent 17.5% (n=20) and lastly those who answered moderate extent were 14% (n=16). This means that there is a statistically significant agreement that there are challenges associated with market forces in determining the sustainability of SMEs during a pandemic since n (115) =11.11, M=3.24, SD=1.367, and p >0.0005. The results are presented in Table 4.6 below.

Financing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not at all	29	25.4	25.4	25.4
	Very large extent	26	22.8	22.8	48.2
	Little Extent	23	20.2	20.2	68.4
	Large extent	20	17.5	17.5	86.0
	Moderate extent	16	14.0	14.0	100.0
	Total	114	100.0	100.0	

4.3.8. Firm size

With regards to the challenges to sustainable entrepreneurship frameworks by SMEs during the Covid-19 pandemic, participants were asked to assess challenges associated with Firm size. More than half of participants response was the little extent, 44.7% (n=51) followed by those who answered not at all 33.3% (n=38), and moderate extent at 21.9% (n=25). This means that there is a statistically insignificant agreement that there are challenges associated with Firm size in determining the sustainability of SMEs during a pandemic since n (115) =11.01, M=3.93, SD=1.667, and p <0.0005. The results are presented in Table 4.6 below;

Firm size

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Little Extent	51	44.7	44.7	44.7
	Not at all	38	33.3	33.3	78.1
	Moderate extent	25	21.9	21.9	100.0
	Total	114	100.0	100.0	

4.3.9. Adequacy and sufficiency of economic infrastructure

With regards to the challenges to sustainable entrepreneurship frameworks by SMEs during the Covid-19 pandemic, participants were asked to assess challenges associated with the Adequacy and sufficiency of economic infrastructure. The majority of participants' responses was moderate extent 35.1% (n=40) followed by those who answered not at all and little extent at 32.5% (n=37). This means that there is a statistically insignificant agreement that there are challenges associated with adequacy and sufficiency of economic infrastructure in influencing the sustainability of SMEs during a pandemic since n (115) =9.1, M=3.83, SD=1.97, and p <0.0005. The results are presented in Table 4.6 below;

Adequacy and sufficiency of economic infrastructure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderate extent	40	35.1	35.1	35.1
	Not at all	37	32.5	32.5	67.5
	Little Extent	37	32.5	32.5	100.0
	Total	114	100.0	100.0	

4.3.10. Government intervention

With regards to the challenges to sustainable entrepreneurship frameworks by SMEs during the Covid-19 pandemic, participants were asked to assess challenges associated with Government intervention. The majority of participant's responses were large extent 35.1% (n=40) followed by those who answered moderate extent 25.4% (n=29), and little extent at 21.1% (n=24), and lastly those who answered not at all were 18.4% (n=21). This means that there is a statistically significant agreement that there are challenges associated with market forces in determining the sustainability of SMEs during a pandemic since n (115) =9.12, M=2.43, SD=1.37, and p >0.0005. The results are presented in Table 4.6 below.

Government intervention

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Large extent	40	35.1	35.1	35.1
	Moderate extent	29	25.4	25.4	60.5
	Little Extent	24	21.1	21.1	81.6
	Not at all	21	18.4	18.4	100.0
	Total	114	100.0	100.0	

5. Discussion

The findings of this study found that the green SMEs were negatively impacted by the Covid-19 pandemic through restricted access to financial capital and markets. The majority of the respondents' foe the survey highlighted that the pandemic negatively impacted on the sustainability of their business. The pandemic impoverished many green business entrepreneurs in Zimbabwe and they find it difficult to sustain their families.

The results of this study confirm with the finding of other researches carried out on similar subject. The COMESA Monetary Institute (2020) found that SMEs were negatively affected by the pandemic through reduced access to operational capital, reduction of opportunities to meet new customers and challenges in obtaining supplies of raw materials essential for business operation. In addition the same study found that SMEs world-wide experienced reduction in the demand for their production as customers' disposable income was reduced. Workers productivity was also negatively affected. The World Bank (2020) concluded that the corona virus pandemic caused world-wide health emergency and slowed down economic activities of many companies including SMEs.

6.0 Recommendations

(a) Government policy

The government policies should take into consideration introducing incentive that encourages green innovations. Funding initiatives and capacity building in partnership with the trade associations should be put in place for GSMEs. Funding through the private sector should be encouraged through policy and there is need to equip the private financial institution with knowledge about GSMEs and their significance to sustainable development. Public financing institutions should offer soft loan facilities to the green enterprises at favourable interest rates.

They owners and employees of the green enterprises should be equipped with relevant business skills. The Zimbabwe government should invest in training programmes through the line ministry that deals with SMEs. The GSMEs lacks management skills and they also require financial literacy. The government should also provide incubation facilities to the small green businesses so that they grow their businesses. This will help motivating them to invest more in research and development so that more environmentally friendly products can be manufactured for the domestic and international markets.

There should be regulations that support green practices and they should address the needs of the small enterprises. The compliance by SMEs to environmental issues should be very supportive through

making everything clear. In other words, compliance processes should be accessible to green businesses with less amount of documentation and easy to follow information.

(b) Green SMEs collaboration with local authorities
The role that local authorities play in green business innovation cannot be underestimated. They should develop a clear environmental sustainability approach that aids GSMEs to access domestic and international markets, resources and human capital development. Local authorities should create new departments that work the green SMEs. This makes it easy for them to quickly respond to the needs of the SMEs especially during times of the pandemic.

7.0 Future research
Future research can focus on the significance of incubation programmes for developing a conducive environment for green business sustainability. Academic researchers can also look into the skill that the green SMEs are lacking and as such inhibiting their success and sustainability. Furthermore, it is vital to study the policy initiatives that can help reduce the different forms of pollution for existing SMES by promoting green activities.

8.0 Conclusion
In conclusion, as highlighted by results of the study the Covid-19 did not just present challenges to Green SMEs it also presented great opportunities for the enterprises that were quick to adapt to the new normal. Sustainable Entrepreneurship offers a well-rounded approach for organizational strategic development. Functional sustainable entrepreneurship contributes to the Zimbabwean economy and will add value to humanity, communities, and the environment as well as contribute significantly to economic development. The current efforts by most informal businesses are not sustainable for the Zimbabwean economy which is still recovering from the recession. The Covid-19 lockdown will inevitably pose a disruption of economic activity at a point when the Zimbabwean economy is already experiencing a significant slowdown. In responses from Green SMEs highlighted that enterprises responsiveness can determine the impacts of the Covid-19 pandemic and each organisation experienced the pandemic differently.

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