An evaluation of the factors that affect Small and Meduim Enterprises (SMEs) digital services industry in facililitating economic development in Zambia

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ABSTRACT

Small and Medium Enterprises have over the years played a role in the economic growth of many countries. Advancements in technology and digital transformation of economies has resulted in the increased use of ICT in the service industry. This research paper examines the factors that affect SMEs in the digital services industry in facilitating economic development. A mixed methods research design was adopted for the study. The primary data was collected using Questionnaires and Interview guide targeting a sample of about 100 SMEs in Zambian digital services industry. The study adopted the ARDL model to assess the casual relationship between SMEs growth and economic development using quantitative data, which can be used as a model for economies like Zambia. ARDL model results indicated a strong relationship between the variables SMEs growth and economic development. Other findings of the study are that SMEs in Zambia face difficulties in accessing loans due to high interest rates and collateral requirements. This lack of financial capital hinders their ability to expand their businesses. However, innovations such as ICTs provide affordable and efficient platforms for marketing, feedback, and learning in the digital service industry. The regulatory burden for SMEs is high, and government policies and programs are limited by challenges such as bureaucracy, and lack of resources. SMEs need to focus on financial planning, innovation, community engagement, and compliance with regulations to improve competitiveness, while governments can support digital service SMEs through funding opportunities, policies for innovation, social-economic initiatives, and favourable regulatory environments.

Keywords: Small Medium Enterprises; Digital Service Industry; SME growth; Innovation, SME Financing

1   Introduction

The Small and Medium Enterprises (SMEs) are vital for ensuring sustainable economic development of a country through employment creation, increasing trade, development of entrepreneurial skills and contribution to export earnings and tax revenue (ILO, 2012). Consequently, the performance of the SMEs sector is closely associated with the performance of the nation economic development and poverty alleviation. SMEs exist in almost every industry. They can range from convenience stores to small manufacturing plants. Additional types of small-scale enterprises can include privately owned restaurants, law firms, bakeries, architectural and engineering firms,

dry cleaners, coffee shops and construction contractors. Such enterprises are generally privately owned and operated as sole proprietorships, corporations, limited companies or partnerships. SMEs are notably the engines that drives economic development (Chittithawom, Islam, Keawchana, & Yusuf, 2011).

SMEs are regarded by many as the backbone of every country's economy. Most of the large corporations of today were developed from SMEs. SMEs do not only serve as the backbone of a county's economy but also support the larger corporations in a form of sub-contractors, suppliers of manufacturing materials or customers (ILO, 2012).

According to the United Nations (2013) SMEs remain as one of the significant economic contributors in global development. Many developing countries endeavor to put in place structure and frameworks to support the growth of SMEs. The Government of the Republic of Zambia (GRZ) is alive to the fact that SMEs play an important role in its economic development and it is committed to creating an enabling environment required for the growth of SMEs. This was shown through the creation of a new ministry called the Ministry of Small and Medium Enterprises Development that is spearheading SMEs growth in Zambia.

Advancements in Information and Communication Technology (ICT) have penetrated the traditional service industry. The merging of the SMEs service industry and digital technologies has created new opportunities such as allowing more efficient business processes, supporting improved managerial decisions with richer, faster and sounder information, developing deeper relationships with customers, adding value to products, personalizing the offerings, and value co-creation (Peillon & Dubruc, 2019). Digital tools bring other significant benefits for SMEs such as Mobile Money payments through mobile phone and greater reach to customers through social media platforms that include FaceBook, WhatApp, Twitter, Instagram and TikTok.

The Organization for Economic Cooperation and Development (OECD, 2021) observes that despite the many benefits of digital technologies and tools, many SMEs continue to lag in adoption of digital technologies and tools in the service and manufacturing industry. The adoption of digital services among SMEs in Zambia and other developing economies in Sub-Sahara Africa remains low, with many challenges hindering their uptake (Gondwe, 2018).

SMEs are faced with the challenge of limited financial resources to plan, and the expertise and know-how to implement digitalization projects (Stich, 2020). The European Union (2022) states that it is commonly accepted that there is a need for action to foster digital transformation, especially in SMEs and traditional sectors. The digital transformation and drive towards digital services must be backed by important amendments in culture, leadership, skills, and innovative processes.

The development of SMEs is seen by many governments as accelerating the achievement of wider economic and Socio-economic objectives, including poverty alleviation. However, there is need to understand the factors that affect digital service SMEs' in Zambia and their impact on economic development. Prior research has identified various factors that influence SMEs' digital adoption, such as firm size, technological infrastructure, access to finance, and digital skills (Ghobakhloo, Hong, & Sabouri, 2016). However, the context-specific factors that affect SMEs in Zambia require further investigation. Findings from such an investigation on SMEs in Zambia can be applied in a wider context to other developing economies.

This paper aims to evaluate the factors that affect SMEs in the digital service industry in facilitating economic development in Zambia. The paper presents an investigation of the factors: Financial capital, socio-economic factors; innovation; and government policies; of Small and Medium Enterprises (SME) on facilitating economic growth in Zambia. The study will draw on existing literature and primary data collected through surveys and interviews with SMEs in the country. The findings will contribute to the existing knowledge on the role of digital services in SMEs' economic development and provide insights for policymakers, entrepreneurs, and investors in the digital services industry.

2   LITERATURE REVIEW

Small and Medium sized enterprises' role in development process continues to be in the forefront of policy debates in developing countries. The benefits that are claimed to come from the SMEs vary, and these include: they can easily be established and put into operation to produce quick returns; they have a greater likelihood to utilize labour intensive technologies and thus have an immediate impact on employment generation; the encouragement of entrepreneurship; they can encourage the process of regional decentralization; and, they may well become a countervailing force against the economic power of larger enterprises.

Staley and Morse (2001) identified a developmental approach to SMEs promotion which has its objective as the creation of economically viable enterprises which can stand on their own feet without perpetual subsidy and can make a positive contribution to the growth of real income and therefore to better living levels. This approach emphasises the importance of efficiency in new SMEs. Small producers must be encouraged to adopt new methods, move into new lines of production and in the long run, wherever feasible they should be encouraged to become medium or even large scale producers.

According to Masese & Munene (2013) the remedy for problems of economic growth in developing economies often reside in developing of small-scale industries. The establishment of those industries has been the centerpiece of industrial development of many countries. It is expected that the gains to be derived from the establishment of small-scale industries ought to be translated into the generation of employment at a low investment cost. These industries will also be able to harness raw materials locally and serve as raw inputs to the large-scale industries.

The contribution of SMEs to national development cannot be over emphasized. SMEs for instance have the highest capital: employment ratio and are a source of income for a larger proportion of the population (Shah, 2011). In addition UNPD (2004) indicates that development of SMEs is viewed as one sustainable way of reducing the levels of poverty and improving the quality of life of households through wealth and job creation. The contribution of SMEs to employment, growth, and sustainable development of a country is a widely acknowledged fact.

Furthermore, SMEs tend to deepen the manufacturing sector, promote competitiveness and help in achieving a more equitable distribution of the benefits of economic growth thus assisting in alleviating problems associated with uneven income distribution through; generating more employment for limited capital investment, acting as a platform for the development of entrepreneurial talent, playing an important role of training people to run enterprises, and supplying the lower income groups with affordable goods and services.

The Zambian government recognized the need to diversify its economy and reduce over-dependency on mining exports through promoting the production of non-traditional export products and creation of the SMEs (National Assembly, 2015). To mitigate the challenges the SMEs sector was facing, the government enacted the Small Industries Development (SID) Act of 1981, through which the Small Industries Development Organisation (SIDO) was established with the aim of enhancing effectiveness of the SMEs sector (Ministry of Commerce, Trade & Industry, 2008).

In addition, the Fourth National Development Plan of 1989 was developed which among other things focused on providing infrastructure for operations of SMEs, promoting access to credit by SMEs with growth potential, and to improving production capacities of SMEs with the objective of increasing income and employment levels. The SMEs sector was government driven until the economic reforms of the early 1990s (National Assembly, 2015).

Several studies have highlighted the importance of digital services in SMEs' economic development, including increased revenue, improved competitiveness, and reduced operational costs (Ghobakhloo et al., 2016; Hansen et al., 2019; Orellana-Rodriguez et al., 2021). However, research on the factors that affect SMEs' adoption of digital services in Zambia remains limited, hindering policymakers, entrepreneurs, and investors' ability to design and implement effective strategies to support SMEs' growth.

2.1   SME Financing in the Digital Service Industry

Small and medium-sized enterprises (SMEs) in the digital service industry have been shown to have a strong dependence on financial capital for growth. Financial capital can play a significant role in the development of digital service SMEs, as it can provide the resources necessary for these companies to innovate, enter new markets, and scale their operations (Goyal & Kanaya, 2018). The source of finances for SMEs start-up, growth, and sustainability are very cardinal. More than half of the formal SMEs lack access to formal credit and rely only on internal funds. A survey in 135 countries by GPFI (2020) indicate that approximately 131 million of formal SMEs have access to finance as their serious obstacle.

A literature review of several studies reveals the following findings: Access to financial capital is a critical factor for the growth of SMEs in the digital service industry (Chung & Song, 2019); SMEs in the digital service industry require financial capital to invest in research and development, marketing and technology, and to expand operations (Kahler & Turillo, 2018); Financial capital can help SMEs in the digital service industry to overcome obstacles, such as market entry barriers and competition, that may impede growth (Bruche & Geiger, 2017); Lack of access to financial capital can hinder the growth of SMEs in the digital service industry, as these companies may not have the resources to invest in growth opportunities (Awasthi & Rau, 2020).

Waweru and Spraakman (2012), conducted a study on how the microfinance institutions performance impact the communities. The results in the study showed that the microfinance institutions played a great responsibility on impacting development in the communities through the promotion of SMEs. It was observed that

many SMEs projects in the rural and urban set up based on innovation were funded by microfinance institutions. Hermes, Lensink and Meesters (2011) agree with the finding by Waweru and Spraakman (2012) in their study, which revealed that microfinance institutions were observed to be efficient in the participation innovative initiatives. This implies that the microfinances provide the accessibility of funds to innovative SMEs as opposed to the standard banks that only focus on the wealthy or large businesses that have collateral for their microloans. Microfinance institutions are, therefore, able to spur the growth and sustainability of innovative SMEs. Additionally, microfinances have also greatly improved their functions and services through group lending. This helps individuals to come together and form SMEs, this greatly help the communities as well the economy grow.

2.2   SMEs Innovation and Access to Finance in Zambia

Innovation in the SMEs service industry has become increasingly important for SMEs in Zambia as they look to compete in a rapidly changing digital service industry. However, access to innovative technologies and resources remains a challenge for many SMEs in the country. Innovation in digital service industry enables firms to create new products and services, enter new markets, and increase efficiency and competitiveness. A study by the World Bank (2020) found that innovation is a key driver of productivity and economic growth, especially in the digital service sector. The study found that firms that invest in innovation and R&D are more likely to experience rapid growth and success in the digital service industry.

A study by the United Nations Development Programme UNDP (2019) found that SMEs in Zambia face several barriers to innovation, including limited access to financing, lack of technological skills, and limited access to market information. The study found that many SMEs in Zambia struggle to keep up with technological advancements and to adopt new and innovative technologies, which limits their competitiveness in the market.

In a study conducted by the Zambian Financial Sector Deepening Limited (FSD) (2021) revealed three key insights: first, Zambians were more likely to raise money informally through friends and family, than through banks or the public sector. Secondly, the businesses that managed to succeed during the pandemic became more and more concentrated in the service sector over time. Third, Zambia's micro- and small businesses did not make the leap into digital sales or payments to address shortfalls in revenue.

Another study by the Small Enterprise Development Agency SEDA (2018) found that SMEs in Zambia are facing a significant digital divide, with many businesses lacking the resources and knowledge to take advantage of new digital technologies. The study found that SMEs in Zambia often struggle to stay ahead of the competition, and that many are unable to offer innovative digital services that meet the demands of their customers.

To address these challenges, the Zambian government has implemented several policies aimed at promoting innovation in the SME sector. These policies include tax incentives for businesses investing in innovative technologies, and the establishment of innovation hubs to support the development of new and innovative technologies. However, a study by the African Development Bank ADB (2019) found that these policies have had limited impact on the innovation landscape for SMEs in Zambia. The study found that there is a need for further reforms to improve access to financing, technology, and market information for SMEs.

2.3   Socio-economic factors influencing SMEs Growth

Small and medium-sized enterprises (SMEs) play a significant role in driving economic growth and innovation, especially in the digital service industry. The growth of SMEs in this industry is influenced by various socio-economic factors, identified as; access to financing, education and skill levels, technological infrastructure, and government support.

Education and skill levels play a significant role in the growth of SMEs in the digital service industry. According to a study by the Organisation for Economic Co-operation and Development (OECD) (2019), high-skilled workers and entrepreneurs with strong technical backgrounds are crucial for the success of SMEs in the digital service sector. The study found that countries with higher levels of education and training opportunities for entrepreneurs and workers in the digital sector tend to have a more dynamic and successful SME sector.

Technological infrastructure is another important socio-economic factor affecting the growth of SMEs in the digital service industry. A study by the United Nations Conference on Trade and Development (UNCTAD) (2020) found that access to reliable and fast broadband internet, cloud computing services, and data centers is

crucial for the success of SMEs in the digital service sector. The study found that countries with well-developed technological infrastructure tend to have more successful and innovative SMEs in the digital service sector.

Finally, government support is a critical socio-economic factor affecting the growth of SMEs in the digital service industry. A study by the European Commission (2021) found that government support, in the form of tax incentives, grants, and support for innovation and entrepreneurship, is crucial for the success of SMEs in the digital service sector. The study found that countries with more supportive government policies tend to have a more dynamic and successful SME sector in the digital service industry.

Other factors such as age, gender, and individual background for instance, education and former work experience have an impact on entrepreneurial intention and endeavor. Khan (2018) found that human capital or human resources such as age, gender, education, and experience is a further influence on the decision to become self-employed.

A study by Tahir and Inuwa (2019) examined socio-economic factors affecting Micro, Small and Medium Scale Enterprises Performance in Maiduguri Borno State, Nigeria. From this study, it was shown that insecurity and inadequate infrastructural facilities are the most significant factors affecting MSMEs performance in Borno state. Therefore, it was recommended in the study that governments provide better security and improve infrastructural facilities such as power supply in order to enhance MSMEs performance.

A study by Indarti and Langenberg (2014) revealed that economic gain is the most important reason for starting small industrial units. High demand for the product perceived, was the most encouraging factor. The basic rationale of developing MSMEs is that they provide additional employment opportunities and ensure more equitable distribution of income and better standard of living. Giacomin, Janssen, Pruett and Shinnar (2011) found out that the socio-economic characteristics of a potential entrepreneur influence the opportunity or necessity dynamics to which the entrepreneurial process obeys. Aswathappa (2009,) states that the influence exercised by factors such as people's attitude to work and wealth, role of family, marriage, religion and education; ethical issues and social responsiveness of business and the social and cultural environment is highly relevant for a business unit as the variety of goods the firm produces, the type of employees the firm gets and its obligation to society depends on the cultural milieu in which the firm operates.

Jainani (2019) suggests that the more educated society becomes, more inter-dependent it becomes, and more discretionary the use of its resources, more marketing will become enmeshed in social issues. El Bilali, Strassner, & Hassen (2021) stated that the social indicators may underlie economic development success and they have also identified the importance of socio-economic factors i.e. demographic patterns, size of the population, population growth rate, age composition, life expectancy, family size, spatial dispersal, occupational status, employment pattern, ethical issues and social responsiveness of business, people's attitude to work and wealth, role of family, marriage, consumption habits of the people, their language, beliefs and values, customs and traditions, tastes and preferences and education.

A few authors have conducted studies on the socio-economic factors affecting SMEs growth in Zambia.

The Impact of Digital Technology on Small and Medium Enterprises (SMEs) in Zambia: A Study of Selected SMEs in Lusaka by Chimuka et al. (2017) provided insights into the impact of digital technology on SMEs in Zambia, including the challenges they face and the opportunities they can take advantage of.

Socio-Economic Factors Influencing Small and Medium Enterprises (SMEs) Growth in Zambia by Lungu et al. (2018) – This study explores the socio-economic factors affecting the growth of SMEs in Zambia, including access to finance, human capital, and market access.

Challenges and Opportunities for Small and Medium Enterprises (SMEs) in Zambia: A Study of Selected SMEs in Lusaka by Chansa (2015) – This study provides an overview of the challenges and opportunities faced by SMEs in Zambia, with a focus on the information and communication technology (ICT) sector.

Therefore, this paper contributes to the scientific body of knowledge on the social-economic factors, innovation, access to financial capital, and government regulations affecting the growth of SMEs and their contribution to economic development.

2.4 Government Policy affecting SMEs

The role of government policies on the growth of Small and Medium Enterprises (SMEs) and the digital service industry has been widely researched in the literature. SMEs play a significant role in the economy, contributing to job creation and economic growth. The digital service industry, including Information and

Communication Technology (ICT), has been growing rapidly in recent years, providing new opportunities for SMEs to reach a global market.

Government policies play a crucial role in promoting the growth of SMEs and the digital service industry. According to a study by the World Bank (Klapper, Laeven, & Rajan, 2016), the creation of favorable business environments, such as reducing bureaucracy and providing access to finance, can have a positive impact on the growth of SMEs. The study found that government policies aimed at improving the business environment can lead to increased entrepreneurship, higher levels of innovation, and increased access to markets.

In addition, government support for the development of digital infrastructure and services can also play a key role in promoting the growth of the digital service industry (Chaffey & White, 2015). This includes providing support for the development of new technologies, such as high-speed broadband networks, and encouraging the adoption of digital technologies by SMEs. A study by the European Commission (2017) found that government support for the development of digital infrastructure and services can lead to increased productivity, competitiveness, and innovation, which in turn can drive economic growth.

However, the impact of government policies on the growth of SMEs and the digital service industry can be hindered by several factors. According to a study by the International Monetary Fund (2019), the effectiveness of government policies in promoting the growth of SMEs and the digital service industry can be influenced by factors such as the level of competition in the market, the availability of skilled labour, and the overall state of the economy. The study found that government policies aimed at promoting the growth of SMEs and the digital service industry need to be tailored to the specific needs of each country, considering these factors.

Assets are the core of every business, and every business requires assets such as land, infrastructural facilities, vehicles for transportation (Awasthi & Rau, 2020). In addition, Olu (2009) explains that SMEs are able to grow and thrive when they have access to necessary finance that can be used to purchase all sorts assets that they require, but licensing and registration costs, interest rates, and tax have a high effect on SMEs manage they funds. To enhance growth, the government ought to offer subsidies and other incentives to certain sectors that may enable SMEs perform positively and eventually develop.

Governments world over play a key role in the running of the companies and welfare of the workers both public and private, they usually set up a limit for which a business or a company can pay their employees called the minimum wage and since it is the government that sets up the minimum wage, it usually puts companies in difficult situations as standard set sometimes never meet with the cost requirements of the company.

Wijesiri, Yaron, and Meoli (2017) shows that microfinance institutions have enabled businesses to expand their assets regardless of their size. In this regard, businesses of any size are all given the opportunity to buy assets that they desire. This makes it easy for businesses to develop and expand their scope. Wijesiri et al., (2017), continue to argue that businesses remain successful if they keep growing and expanding. Therefore, it is easy for the entrepreneurs to find an easy pathway through which to access funds and thus grow their business.

Lack of good governance policies in a country is a recipe for creating barriers in information exchange, mistrust among nationals not to mobilize resources and create suspicion. This would simply result into unequal treatment in areas of basic support needed and diverse groups could be undermined. What kind of confidence can the investors have, if a country like Zambia continues to suffer from issues like lack of the good governance? The World Bank (2020) reported that developing countries are usually more heavily regulated in terms of policy. This implies that in these countries struggling MSMEs have one of two options: compliance with regulation or operating in the informal sector. None of the two options is strategically beneficial for small businesses and enterprises as the options fail to meet the basic needs and requirements of small firms (Indarti & Langenberg, 2014).

Muchoka (2020) study on SMEs in Kabwata, Zambia recommended that the government should start offering basic business and financial management skills as this will enable entrepreneurs to make informed investment decisions as well as enhance their entrepreneurial skills that enable them to recognize and exploit the available business opportunities.

3 RESEARCH METHODOLOGY

The research design, adopted for this study, involved a mixed method approach using both qualitative and quantitative methods that align with the pragmatist research philosophy. To carry out the quantitative research, the primary research method utilized was structured questionnaires that allowed for interactions with respondents who had knowledge of SME business activities. This aligned with the deductive research approach. The mixed method

approach used in the study yielded a more comprehensive set of results by triangulating between the qualitative and quantitative research methods. This approach widened the scope of the research, resulting in a more in-depth evaluation of the results and more robust findings.

The questionnaires were administered both physically and electronically (using Google Forms). The two distribution methods were chosen because they allowed the questionnaires to be distributed quickly and cover a wide range of SMEs. This method saved resources too and helped in a well representation of the population. The questionnaires were being administered together with together with the consent forms. To respect the participants right to privacy, they were not required to attach their names to the questionnaires.

The target respondents are 100 SMEs specifically drawn from the service delivery industry.

The study further aimed to examine the casual link between SMEs in service delivery and economic growth using data from 2010 to 2020.

Small and Medium Enterprises (SMEs) are an essential contributor to the Gross Domestic Product (GDP) of many countries. In the context of the study, the employment rate (EMP) of SMEs was considered a crucial factor in explaining their contribution to the GDP.

SMEs Corporate Income Tax (CIT) is another vital factor used in this study to in explaining SMEs' contribution to the GDP. A study by Awaludin, Purwaningrum and Lestari (2021) found that lowering the corporate income tax rate for SMEs could increase their profitability and competitiveness, leading to increased contribution to GDP.

Finally, SMEs turnover (TVR) is also a critical factor in their contribution to the GDP. As reported by the Organisation for Economic Co-operation and Development (OECD, 2019), SMEs' turnover can directly affect their contribution to the GDP, as it reflects their level of activity and revenue generation.

The employment rate (EMP), corporate income tax (CIT), and turnover (TVR) are crucial factors in explaining SMEs' contribution to the GDP. These factors highlight the significance of SMEs to the economy and the need to create an enabling environment for their growth and development. Hence the study adopted the above factors (GDP, EMP, CIT and TVR) to make inferences on the relationship between Economic growth and SMEs growth.

3.1 Study Population

The population of this study for primary data was taken from the SMEs in Zambia. According to World Bank Group (WBG), (2020) Zambia has a Population of 1,020,000 Informal and Formal SMEs. A selective sampling process was used to identify SMEs in the digital service industry in Zambia. Secondary data was gathered from different published reports by government SMEs regulating agency known as Zambia development Agency (ZDA), PACRA, Bank of Zambia, Zambia Statistics Agency (Zamstats), and Zambia Revenue Authority (ZRA).

3.2 Sample Size Determination and Sampling

The sample size was determined by using the confidence interval of 10% and an estimated population size of SMEs in Zambia. The sample size was therefore calculated by using the Taro Yamane's Statistical formula below:

$$n = \frac{N}{1+N(e)^2} \quad ....Equation\ 1$$

Where:

      i. n = *the required sample size from the population under study.*
      ii. N = *population under study. (= estimated 84,000 SMEs)*
      iii. e = *0.1= acceptable sampling error (which is usually 0.10, 0.05, or 0.01)*

$$n = \frac{1,020,000}{1 + 1,020,000(0.1)^2}$$
$$n = 100$$

It is almost impossible to collect data from the entire population hence, the need to select a sample from the population. To draw valid conclusions from the results, there is need to carefully decide how to select a sample that is representative of the group. Cooper and Schindler (2014) described sampling techniques as methods that considers how a sample is selected. This study used Purposively sampling technique as this involved the author using their expertise to select a sample that is most useful to the purposes of the study. Tromp and Kombo (2006) argue that the method helps target a group suitable to bring out rich information related to the central issue being studied for in-depth analysis.

3.3 Data Analysis

The study uses both quantitative and qualitative data analysis methods. The data analysis process applied the descriptive statistics which is composed of Standard deviation, Mean, Frequency, Multiple Regression, and

Correlation. To effectively run the analysis, Statistical Package for Social Sciences (SPSS), Microsoft Excel and Eviews were used.

The degree of relationship between SME and economic growth was evaluated using bivariate correlation and regression analysis. Pearson Correlation (r), the most frequently used bivariate correlation technique, was employed to estimate the association between these two quantitative variables.

Additionally, bivariate regression analysis was used to investigate the relationship between the independent and dependent variables and predict the score of the dependent variable based on the independent variable.

$$y = \alpha_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon_t \quad \text{......................Equation 2}$$

$$GDP = \alpha_0 + \beta_1 EMP + \beta_2 CIT + \beta_3 lnTVR + \varepsilon_t \quad \text{................Equation 3}$$

The a priori expectation about the signs of the parameters of the independent variables is stated thus: β_1, β_2, $\beta_3 > 0$.

To estimate the relationship of the variables, this study used the Autoregressive Distributed Lag (ARDL) to cointegrate proposed by Pesaran, Shin and Smith (2001). Since the variables in this study were either I(0) or I(1) this approach was therefore relevant to study as it provides valid results whether the variables are I(0) or I(1) or mutually co-integrated and it also provided very efficient and consistent estimates in small and large sample size.

The ARDL model can be specified as follows:

$$\Delta FPII = \beta_0 + \Sigma_{t=1}^{k} \beta_{1i} \Delta FPII_{t-1} + \Sigma_{t-i}^{k} \beta_{2i} \Delta SMD_{t-1} + \Sigma_{t-i}^{k} \beta_{3i} \Delta SML_{t-1} + \Sigma_{t-i}^{k} \beta_{4i} \Delta lnTNI_{t-1} + \varepsilon_{1t} \quad \text{..........Equation 4}$$

To test the significance of the coefficient of the lagged variables, the F-test was conducted to assess the long-run relationship among the variables. To test if the estimates of the model are independent, the Breusch-Godfrey serial correlation LM will be applied. Furthermore, to test whether the independent variables move together in the long-run to influence the dependent variable, the Wald test was used.

Table 1. Objectives and Measurements

Objectives	Measurement
Financial Capital	The number of SMEs saving, receiving loans, and making payments/ those receiving empowerment funds.
Government Policies	Amount paid Registrations/licences, Taxes, and Duties.
Innovation development	Revenues received from innovation developed services and products.
Socio-economic factors	Revenues received as a result of training on business management

3.4   Reliability and Validity

The objective of the research was to produce results that were free from biases and errors. Results that contain biases and errors cannot effectively address the research questions and may raise doubts about their validity. To ensure the credibility of the results, the researcher took steps to safeguard them. Although it is challenging to quantify biases and errors in qualitative research, the researcher tried to minimize them to an acceptable level. In quantitative research, the p-value of a test can determine the presence of bias and errors. In this research, the terms "validity" and "reliability" were employed to reduce these factors to a minimum level.

Therefore, the researcher prioritized the aspects of reliability and validity in the study. To ensure reliability, the researcher took several measures. Firstly, adequate time was allocated to designing the questionnaire and interview questions. The researcher aimed to be precise and avoid ambiguity, as well as maintaining standardization in both the interviews and questionnaire. The questionnaires were distributed to the respondents and later collected after a review to correct any mistakes. The interviews were conducted according to the scheduled time agreed with the interviewees. Furthermore, the researcher tested the questionnaire before the final data collection to ensure its effectiveness.

4   RESULTS AND DISCUSSION

4.1   Model of SMEs Contribution to Economic Development

4.1.1   Unit Root Test

As per-test criteria, the study employed the Unit root test using ADF to assess the order of integration of the series. The table shows the results with the critical values indicted above. At level, the null hypothesis for the presence of unit root for GDP was rejected and the alternative hypothesis accepted. This is because the absolute value of test statistic is greater than the critical value. GDP is therefore stationary at I(0).

At level the null hypothesis for CIT, EMP and lnTVR is not rejected as the absolute test statistics value is less than the critical value. After having a difference of one, the null hypothesis can however be rejected as the absolute test statistic becomes greater than the critical value. CIT, EMP and lnTVR are stationary at I(1).

Table 2. Unit Root Test Results

Variables	Level	1st Difference
GDP	-4.137087	-
CIT	-0.477984	-4.075307
EMP	-2.441072	-8.539429
TVR	-2.456551	-4.251637

Test critical value at level: 1% = -3.530030, 5% = -2.904848, 10% = -2.589907
Test critical value at 1st Diff: 1% = -3.527045, 5% = -2.903566, 10% = -2.5089227

4.1.2   Bound Test and Long Run Form

Having established that the variables are of I(0) and I(1) the study proceeded to test for Cointegration. Since the F-statistic value (8.875101) from the Table 3 below is greater than the critical bound values both on I(0) and I(1) it can was concluded that there is cointegration in the variables.

Table 3. Bound Test and Long Run Form

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	8.875101	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66
		Finite Sample: n=70		
Actual Sample Size	68			
		10%	2.482	3.31
		5%	2.924	3.86
		1%	3.916	5.088
		Finite Sample: n=65		
		10%	2.492	3.35
		5%	2.976	3.896
		1%	4.056	5.158

4.1.3 Long Run ARDL Cointegration Analysis

Table 4 above represents the ARDL long run estimates of the relationship between CIT, EMP, TVR and GDP. From the result, the R2 value of 0.7045 show that about 70.45 percent of the variations in the GDP have been explained by the independent variables (stock market development, turnover ratio, and total new issues) in the long run. Furthermore, the F-Statistics showed that the model is significant at 5 percent. With this the study proceeds to examine whether the model is free from serial correlation in the long run using the Breusch-Godfrey Serial Correlation LM test. The CointEq(-1) is negative (-0.762789) and significant, the model is stable and returns to equilibrium after a shock. The speed of adjustment is 76.28 percent within a quarter of a year.

Table 4. Bound Test and Long Run Form

ARDL Error Correction Regression
Dependent Variable: D(GDP)
Selected Model: ARDL(3, 4, 4, 1)
Case 2: Restricted Constant and No Trend
Date: 02/25/23   Time: 16:33
Sample: 1 72
Included observations: 68

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	0.368441	0.111979	3.290275	0.0018
D(GDP(-2))	0.392742	0.116951	3.358184	0.0015
D(CIT)	3.51E+12	2.76E+12	0.000000	0.0000
D(CIT(-1))	-5.58E+12	3.41E+12	0.000000	0.0000
D(CIT(-2))	2.62E+12	3.43E+12	0.000000	0.0000
D(CIT(-3))	-9.66E+12	2.99E+12	0.000000	0.0000
D(EM)	7.035983	7.133696	0.986303	0.3286
D(EM(-1))	-8.949025	8.422578	-1.062504	0.2929
D(EM(-2))	-2.308516	8.421038	-0.274137	0.7851
D(EM(-3))	-35.26264	8.477202	-4.159702	0.0001
D(TVR2)	-376141.5	284451.5	-1.322339	0.1918
CointEq(-1)*	-0.762789	0.110342	-6.912959	0.0000

R-squared	0.704545	Mean dependent var		24162.42
Adjusted R-squared	0.646509	S.D. dependent var		441323.2
S.E. of regression	262389.2	Akaike info criterion		27.95183
Sum squared resid	3.86E+12	Schwarz criterion		28.34351
Log likelihood	-938.3622	Hannan-Quinn criter.		28.10703
Durbin-Watson stat	2.143535			

4.1.4 Serial Correlation

Table 5. Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.760411	Prob. F(2,50)	0.4728
Obs*R-squared	2.007265	Prob. Chi-Square(2)	0.3665

From the results in Table 5, the prob chi square (2) is above 5 percent, it is 36.65 percent, meaning that the null hypothesis no serial correlation cannot be rejected. It therefore means that the model is free from serial correlation.

4.1.5 Heteroskedasticity Test

Table 6. Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.814845	Prob. F(15,52)	0.0576
Obs*R-squared	23.36632	Prob. Chi-Square(15)	0.0767
Scaled explained SS	22.23940	Prob. Chi-Square(15)	0.1017

Given the Chi square (15) in Table 6 (5 percent), 7.67 percent meaning we fail to reject the null hypothesis and conclude that the model is free heteroskedasticity.

4.1.6 Stability and Reliability Test

The study tested for the stability of the estimates by using the CUSUM test, the result is presented below:
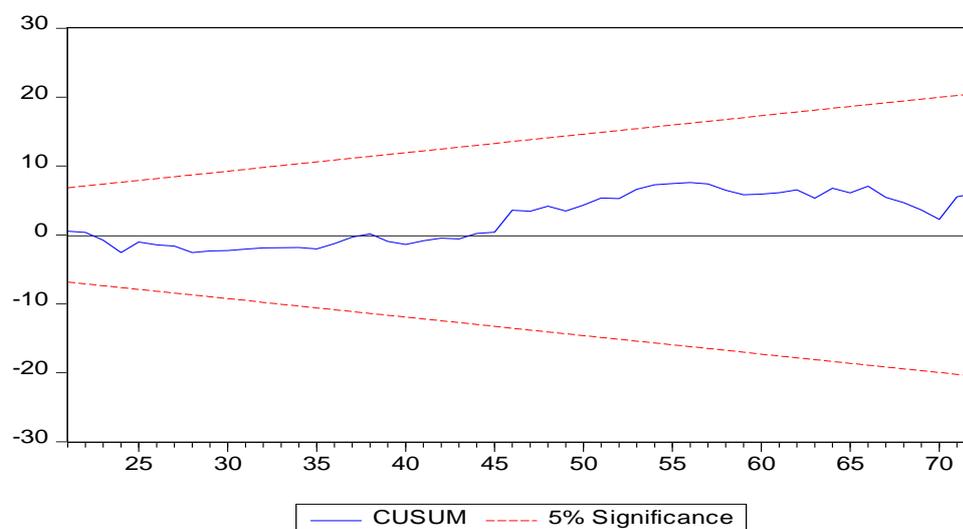
Figure 1. Stability and Reliability Test of the Model.

From the results in Figure 1, it could be seen that the blue line lies in between the two red lines. This means that the estimates of the model are stable and reliable.

4.2   Survey Results

The general objective of the study was to evaluate factors that that affect SMEs in the digital service sector on facilitating Economic Development in Zambia. The first objective of the study was to analyse the impact financial capital has on the growth of SMEs in the digital service industry. The second objective of the study was to investigate evaluate the importance innovation has on growth and sustainability of SMEs in the digital service industry. The third objective was to investigate the influence of socio-economic factors on the growth of SMEs. The last and fourth objective was to investigate the role of government policies on growth of SMEs in the digital service industry.

4.2.1 Profiles of the Respondents

The participants from the survey questionnaires were classified according to their gender and age. The process of profiling the respondents was guided by the items on the research instruments utilized in the study. The aim was to ensure that the sample was representative of the population.

The key informants in this study comprised of both women and men from key institutions. The institutions were the Ministry of Small and Medium Enterprises, PACRA, CEEC, ZDA, and a commercial bank. To protect their right to privacy, they identities were withheld, and codes were assigned to the key informants. The following codes were assigned: Ministry of Small and Medium Enterprises were assigned MSME1, PACRA was assigned PAC1, CEEC was assigned CE1, ZDA was assigned ZD1, and from the bank was assigned CB1.

Figure 2 shows that out of the 95 who participated in the study, 36 percent were women whereas the remaining 64 percent were male.
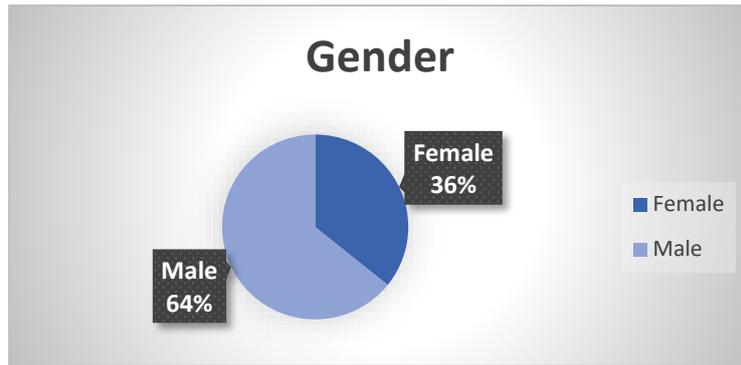
Figure 2. Gender of Survey Participants.

The age groups were categorized into four groups; 18 to 25 years, 26 to 35 years, 36 to 45 years, and those who were above the age of 45 years.

Table 7. Distribution of the respondents by age.

	Frequency	Percent	Valid Percent	Cumulative Percent
18 - 25	8	8.4	8.4	8.4
26 - 35	58	61.1	61.1	69.5
36 - 45	22	23.2	23.2	92.6
Above 45	7	7.4	7.4	100.0
Total	95	100.0	100.0	

The majority of the respondents fell under the age group of between 26 and 35, representing 61.1 percent. Those that were above the age 45 were 7 taking a share of 7.4 percent from the total number of the respondents. The age group between 26 and 35 also had 22 participants who also represented a share of 23.2 percent. Those that fell in the age group of 18 to 25 had a percentage of 8.4.

It was important for the study to learn how long the businesses had been in operation. This information provides insights on survival of SMEs as well as the rate at which SMEs are open. The respondents were asked to indicate the duration of running their business.
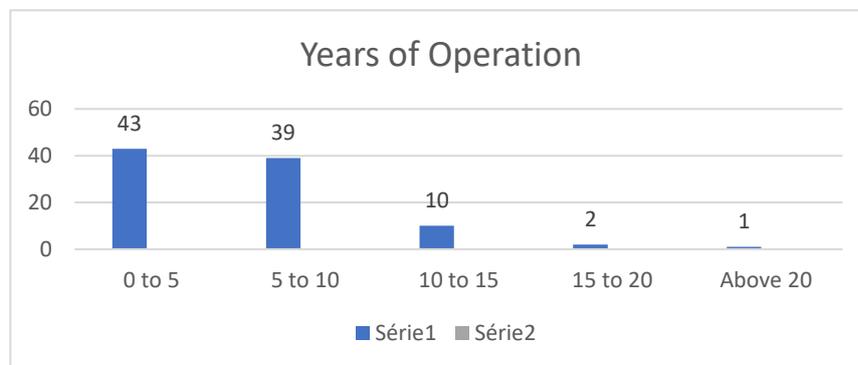

Figure 3. Years of Operation of the respondents SMEs.

Figure 3 above shows that from the 95 SMEs, a total of 43 respondents had been running their business between 0 and 5 years, 39 SMEs had been in business between 5 and 10 years. 10 SMEs had in business between

10 to 15 years whereas only 2 SMEs had been running between 15 and 20 years. Only one SMEs had been operating for more than 20 years.

4.2.2 Financing of Digital Service SMEs

To find out how the business was financed as it was being established, it was important that the study collect data on the source of financial capital.
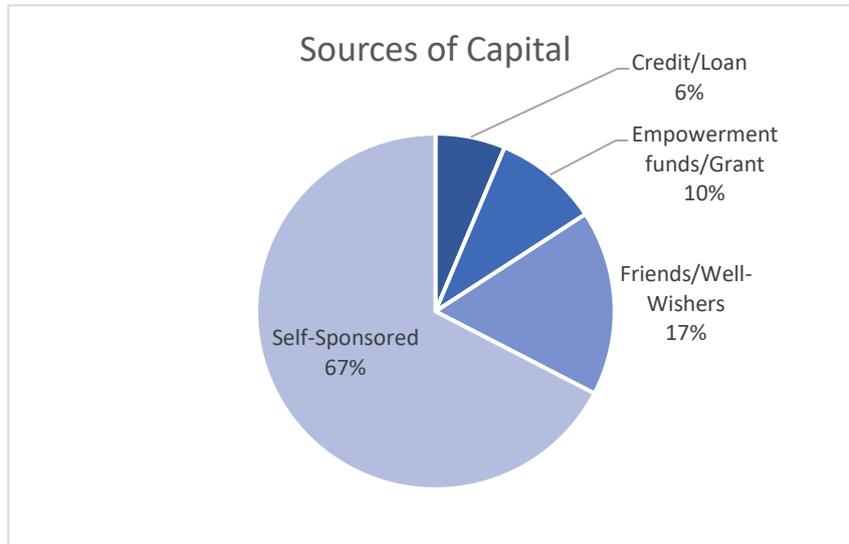
Figure 4. Source of Capital to fund SMEs.

As shown in Figure 4 above, 67 percent of the SMEs were self-sponsored, 17 percent of the SMEs had their financial capital from friends and well-wishers. 10 percent of SMEs had access to either empowerment funds or grants as they were starting their business. Only 6 percent used credit or loans as the means of financial capital. Following the request to indict their source of financial capital, the respondents were required to indicate if loans or credit was easily accessible for their business both for start-up and the operation of the business after being established. Figure below shows their responses.
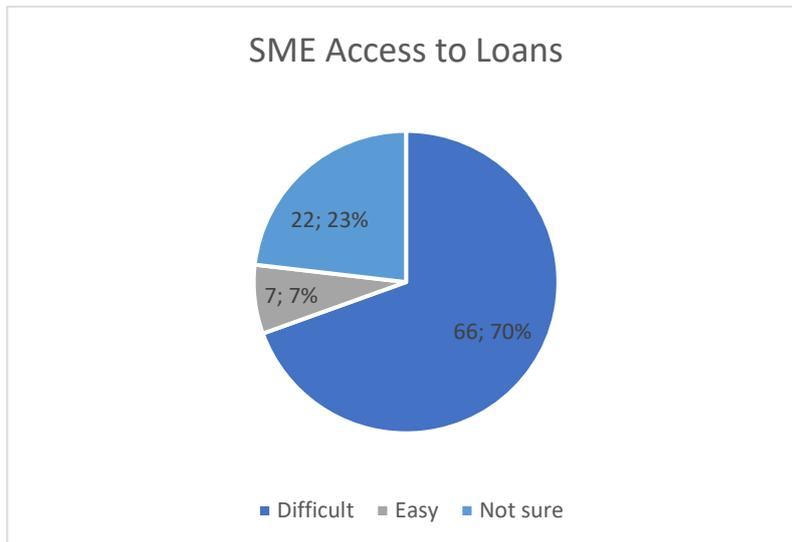

Figure 5. SMEs Access to Loans.

A total of 66 respondents representing 70 percent of the SMEs indicated that it was difficult to access loans or credit as an SME. 23 percent of the SMEs (22 respondents) were not sure if loans were easily accessible or not, these represented a portion of the SMEs that never tried to obtain a loan. The remaining 7 percent of the SMEs indicated that loans were easily accessible.

Table .8 Descriptive Statistics for Financial Capital.

Descriptive Statistics

|	N	Minimum	Maximum	Mean	Std. Deviation
Digital SMEs need external financial support to help the grow	94	1	5	2.05	1.149
External financial support is easily accessed for digital SMEs even without collateral	95	1	5	4.14	1.027
Loan interest rates have a negative impact on the growth of SMEs	95	1	5	2.44	1.335
Inability to access credit is a major obstacle to SMEs expansion	94	1	5	2.12	1.056
Valid N (listwise)	93				

Digital SMEs needing external financial support for growth had a mean of 2.05 and a standard deviation of 1.149. Access to external for digital SMEs had a mean of 4.14 and a standard deviation of 1.027. The impact of loan interest on the growth of SMEs had a mean of 2.44 and a standard deviation of 1.335. Challenges of accessing loans for SMEs had a mean of 2.12 and a standard deviation of 1.056.

Credit or loans are usually collateral based, that is one needs surety to access a loan, but several times SMEs fail to provide collateral. This is what prompted the study to ask the respondents to state if loans are given to SMEs in the digital service industry without collateral. The figure below illustrates the findings.
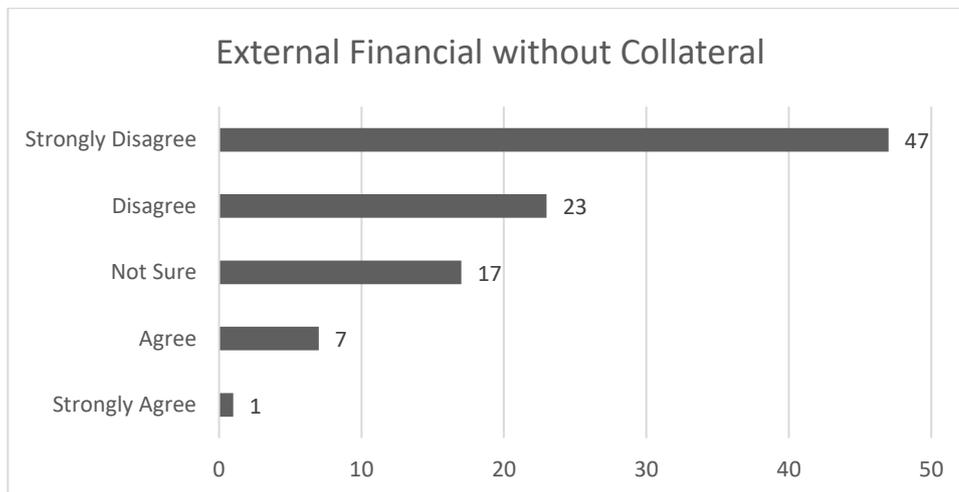
Figure 6. External Financial Capital without Collateral

As shown in Figure 6, 47 respondents, with a 49 percent of the SMEs strongly disagreed and 23 respondents representing 24 percent of the SMEs disagreed that SMEs in the digital industry are given loans without collateral whereas 17 (18 percent of the SMEs) indicated that were not sure if loans are given with collateral or not. According to the 7 percent of the SMEs, SMEs in the digital service industry do receive loan without collateral and the 1 percent of the SMEs strongly agreed.
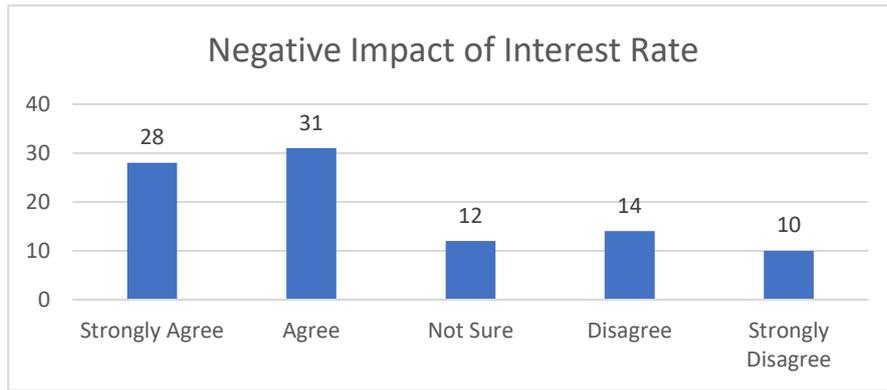
Figure 7. Impact of high Interest Rate on access to Loans.

According to the respondents, 29 percent of the SMEs (28 respondents) strongly agreed that interest rates on loans negatively affected the operations of the business and the reduced the pace at which SMEs grow, 33 percent of the SMEs (31 respondents) also agreed to this. In contrast, 15 percent of the SMEs (14 respondents) disagreed that interest rates on loan were a drawback in the growth of the business, and these were supported by the 11 percent of the SMEs (10 respondents) who strongly disagreed. 13 percent of the SMEs (12 respondents) were not sure about loan interest rates influence on the growth of the SMEs.

4.2.3 Innovation of SMEs

The study sought to understand whether the SMEs made use of the ICTs platform to advertise and spread their business to their clients.

Table 9 shows that 86.3 percent of SMEs used ICTs and digital platforms to reach out to their customers, and the remaining 13.7 percent did not make use of the digital platform to serve their customers.

Table .9 Use of Information and Communication Technologies.

Do you make use of ICTs to spread your business and reach out to your customers?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	13	13.7	13.7	13.7
	Yes	82	86.3	86.3	100.0
	Total	95	100.0	100.0	

It was revealed that 38 percent of the SMEs had just been improving the already existing products and services whereas, 32 percent of the SMEs had been introducing new products and services. 30 percent of the respondents did neither introduce new products and services or improve the already existing products and services.
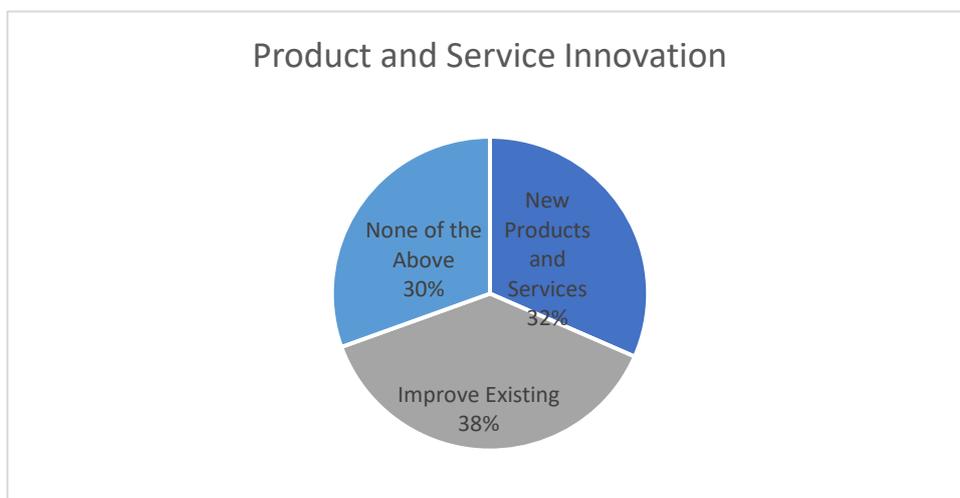
Figure 8. Product and Service Innovation

Table 10 below shows the descriptive statistics for innovation of SMEs. Innovation making it easy to penetrate the market had a mean of 1.87 and a standard deviation of 0.948. Diversity in the digital on enhancing SME growth had a mean of 1.92 and a standard deviation of 0.859.

Table .10 Factors affecting Innovation of SMEs in the Digital Service Industry

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Innovation makes it easy to penetrate the market as information about the market dynamics and trends is readily available	95	1	5	1.87	.948
Diversity in the digital world enhances SME growth and sustainability	95	1	5	1.92	.859
Lack of exposure and experience negatively affect the business	94	1	5	2.14	1.123
Digital infrastructure facilities are key to business development	95	1	5	1.97	.893
Training staff on new and innovative ways of business help the business develop	95	1	5	1.87	.992
Valid N (listwise)	94				

Exposure and experience on affecting business had a mean of 2.14 and a standard deviation of 1.123. Digital infrastructure facilities in developing business had a mean of 1.97 and a standard deviation of 0.893. Training stuff on new and innovative ways of business had a standard deviation 0.992 and a mean of 1.87.

4.2.4 Influence of Socio-economic factors

Survey respondents were asked to state whether their business or the role they play in a business was inspired by what they learnt in school. Table 11 below shows the results collected.

Table .11 Business Inspiration

Is your business inspired by what you studied in school?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	1.1	1.1	1.1
	No	51	53.7	53.7	54.7
	Yes	43	45.3	45.3	100.0
	Total	95	100.0	100.0	

51 respondents representing 53.7 percent of the SMEs indicated that their business or role they play in the business is not the career path that resulted from their school qualifications. 43 of respondents representing 45.3 SMEs indicated that their business or the role they play in the business was because of what they studied in school.

The table below shows the descriptive statistics of the socio-economic factors that affect SMEs.

Table .12 Descriptive Statistics for socio-economic factors

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
To enable growth, the business needs to be integrated well within the community	95	1	5	1.80	.929
Culture influence affects the acceptance and growth of new and innovative SMEs	95	1	5	2.09	1.042
Social inequalities negatively affect business	95	1	5	2.13	.866
Insecurities has a negative impact on SME performance	95	1	5	2.15	.825
Digital knowledge of the community plays an important role	95	1	5	1.97	.805
Valid N (listwise)	95				

Table 12 shows that having to integrate the business in the community for growth had a mean of 1.80 and a standard deviation of 0.929. Culture's influence on new and innovative SMEs had a mean 2.09 and a standard deviation of 1.042. Social inequalities on business had a mean of 2.13 and a standard deviation of 0.866. Insecurities impact on SMEs performance had a mean of 2.15 and a standard deviation of 0.825. Digital knowledge of the community on innovative SMEs had a mean of 1.97 and a standard deviation of 0.805.

4.2.5 Government Policies

Government policies are important if a business is to thrive as they set a tone for development or hunger for progress. The respondents were asked to state whether the current government policies are well placed in helping digital services grow.

Table .13 Government Policies to promote Digital service SMEs.

Are the government policies well placed in helping digital services business?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	59	62.1	62.1	62.1
	Yes	36	37.9	37.9	100.0
	Total	95	100.0	100.0	

More than half of the respondents (59) representing 62.1 percent of SMEs indicated that the current government policies are not well suited in improving and developing SMEs. The remaining 37.9 percent of the SMEs indicted that the current policies are good in helping SMEs development.

The Government of Zambia recently created a new Ministry to help develop SMEs. The respondents were asked if the new Ministry was already setting an atmosphere that would help flourish SMEs.
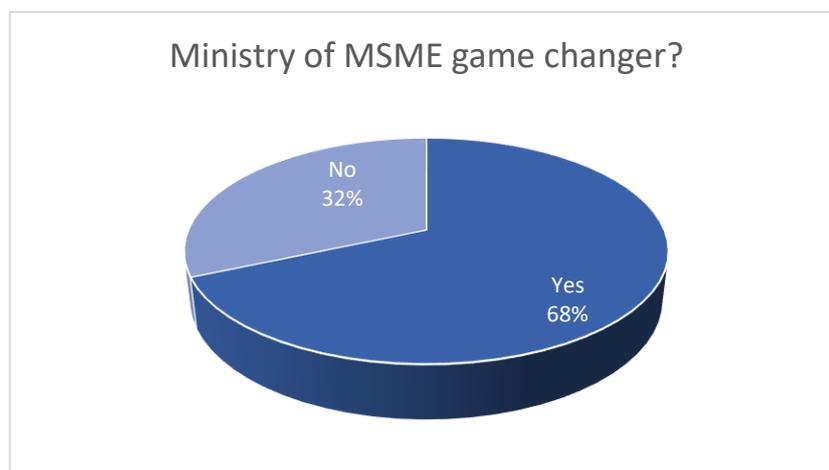
Figure 9. Introduction of Ministry of MSME a game changer?

Figure 9 reveals that 32 percent of the SMEs respondents did not believe the new Ministry is well set to influence development the SMEs. 68 percent of respondents, however, believed the Ministry has the potential to help SMEs grow.

Table .14 Descriptive Statistics for Government Policies to promote Digital service SMEs.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Social security and risk mitigation incentives are adequate	95	1	5	2.84	1.249
Taxes and license rates are favorable	94	1	5	3.54	1.152
Adequate Technology upgrading programs are available	94	1	5	3.45	1.232
Easy business registration process	94	1	5	3.04	1.217
Favorable Government policy and regulations	94	1	5	3.43	1.112
Valid N (listwise)	94				

Table 14 above shows the descriptive statistics of the government policies on SMEs in the digital service industry. Social security and risk mitigation incentives had a mean of 2.84 and standard deviation of 1.249. Tax rates and licenses had a mean of 3.54 and a standard deviation of 1.152. Upgrading Technology programs had a mean of

3.45 and a standard deviation of 1.232. Business registration process had a mean of 3.04 and a standard deviation of 1.217.

The respondents were asked if the taxes, registration, and license fees were favourable for their businesses. Figure 10 below highlights the results.
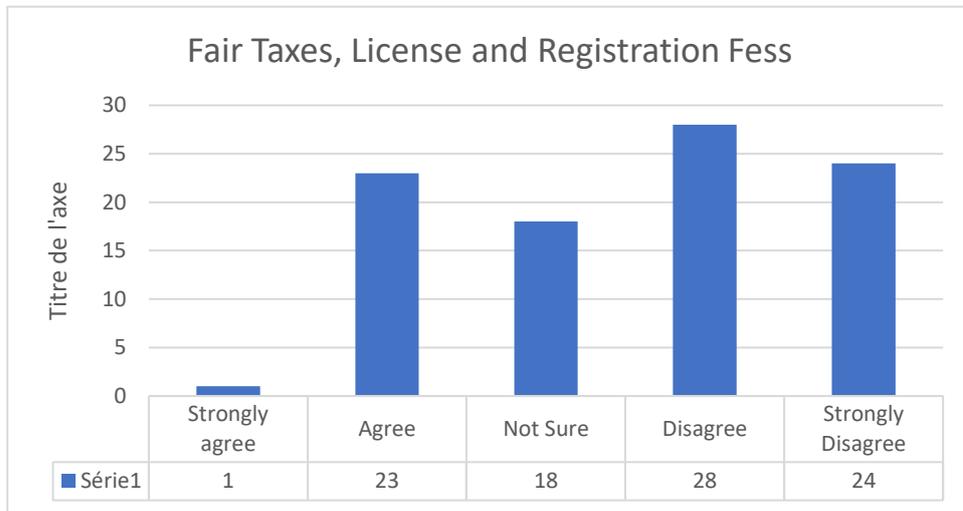
Figure 10. Government Regulations, Fair Taxes, Licenses and SMEs Registration Fees

The respondents were asked to state if were adequate technology upgrading programs provided by the government.
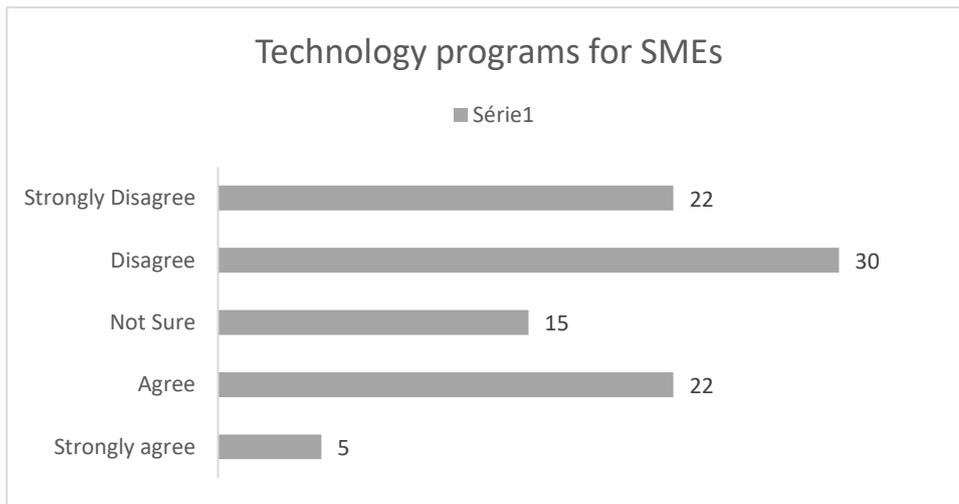
Figure 10. Technology programs for SMEs

5 survey respondents representing a share of 5.3 percent of the SMEs strongly agreed to having adequate technology upgrading programs. 22 respondents representing 23.2 percent of the respondents agreed to government's involvement in upgrading technology in SMEs sector. 15 respondents (15.8 percent of the SMEs) were not sure. 30 respondent's 31.6 percent) disagreed to having adequate upgrading programs and 22 respondents (23.2 percent) Strongly disagreed.

4.3   Discussion of Results

4.3.1 SMEs Growth and Economic Development

To estimate the degree of the relationship between SMEs growth and Economic development the ARDL model was used as the variables are I(0) and I(1), the ARDL provides very efficient and consistent estimates in small and large sample size. The following are the results obtained:

1. Cointegration analysis proves that a long-term relationship between the Economic Development and SMEs growth exist.
2. Corporate Income Tax, SMEs Employment rate and SMEs Turnover are all significant long-run determinants of Gross Domestic Product in Zambia
3. The coefficient of CointEq (-1) (-0.762789) was negative and significant, this implied that the model is stable and returns to equilibrium after a shock. The speed of adjustment is fast because equilibrium is restored within a quarter of a year.
4. The Wald test suggest that there is no significant long run association between SMEs growth and GDP (Economic growth) this means the SMEs sector is underperforming.

The findings of the study, presented above in the ARDL model are consistent with Ayyagari, Beck and Demirguc-Kunt, (2007) and Carree and Thurik (2010) , there is a positive relationship between SMEs growth and economic development, as SMEs contribute to job creation, innovation, and overall economic growth. The research study by Ayyagari, Beck and Demirguc-Kunt, (2007) found that the growth of SMEs is positively associated with economic growth, as SMEs create jobs and promote innovation. Carree and Thurik (2010) also emphasized the importance of SMEs in economic development, stating that SMEs are the backbone of many economies and are responsible for a significant portion of employment and economic growth.

Furthermore, SMEs have a significant impact on the overall competitiveness of a country. They contribute to the development of new products and services, foster competition, and drive productivity growth (OECD, 2019). In addition, SMEs help to reduce income inequality and poverty by providing employment opportunities to individuals who may not have access to other forms of employment (Ayyagari et al., 2007).

4.3.2 Profile of the SMEs

The study found that most of the SMEs owners were youths between the ages of 25 and 35 and a larger port of them were Male. The study revealed that lack of employment led to an increase in the number of the SMEs being established however, high unemployment rates made it more difficult for SMEs to succeed. When there are fewer job opportunities available, consumers tend to have less disposable income to spend on products and services offered by small businesses. The findings are similar to Parker (2009) who suggested that SMEs may be more likely to emerge during periods of high unemployment as individuals may be more inclined to start their own businesses when traditional employment opportunities are limited.

4.3.3 The impact financial capital has on the growth of SMEs in the digital service industry.

Most of the SMEs in this study were self-sponsored as this was recorded to the majority with 67 percent of the SMEs and those that used loans as financial capital recorded the least with 6 percent. Most survey respondents in the study, (29 percent of the SMEs strongly agreed and 33 percent agreed) agreed that interest rates on loans negatively affected the operations of the business and the reduced the pace at which SMEs grow. Further, several respondents (70 percent) found it difficult to access loans.

There were several reasons why many SMEs choose to self-fund rather than seeking loans and grants and these findings are similar to the findings in the study carried out by Beck & Demirguc-Kunt (2006) which disclosed that SMEs face constraints in accessing finances due to lack of transparency, lack of trading history, and high risk of failure, among other constraints.

A study by International Finance Corporation IFC (2017) found that many SMEs are reliant on personal savings and informal sources of financing, such as family and friends, which limit their ability to grow and expand. This study revealed the following reasons why many SMEs choose to self-fund:
Self-funding allowed business owners to maintain complete control over their businesses, without being beholden to lenders or grantors. They can make decisions about how to allocate funds without having to consider the input or restrictions of outside parties.

Not all SMEs are eligible for loans and grants. Some SMEs do not meet the criteria set by the lender or grantor, or they may not be able to provide the necessary collateral or documentation. Loans often come with high interest rates that can be difficult for small businesses to pay back, especially if they are not generating substantial revenue yet. According to CEIC (2023) Zambia Bank lending rate is 24.980 which is high compared to countries with thriving SMEs, in Malaysia and USA the lending rates are 5.014 and 7.750, respectively. The SMEs were therefore required to indicate if the interest rate on loans had a negative impact on the operations of SMEs.

The World Bank Group (2020) also highlighted the issue of limited access to finance for SMEs, particularly in low-income countries. They noted that many SMEs lack the necessary financial history, documentation, and creditworthiness to obtain loans from banks. SMEs seeking a loan typically had to meet several conditions before they can be approved for funding. The study revealed conditions that lenders typically consider included the creditworthiness of the SME is a critical factor in the loan application process. Lenders typically evaluate the credit history and credit score of the business, as well as the personal credit history of the business

owners. Lenders also require the SME to present a business plan, including financial projections and information about the industry and market. The plan needs to demonstrate the feasibility of the business and its ability to repay the loan.

SMEs are required to provide collateral to secure the loan, such as inventory, equipment, or real estate. Beck, Demirguc-Kunt, & Martinez Peria (2008) also indicated that one of the main barriers faced by SMEs is the lack of collateral or credit history, which makes it difficult for banks to assess their creditworthiness.

Our study found that as an alternative to loans the Zambian government implemented various policies and programs aimed at supporting SMEs. However, there were still significant challenges that SMEs faced, including access to finance, infrastructure, markets, skills, and regulatory burdens.

One notable initiative by the Zambian government is the National Small and Medium Enterprises Policy, which aims to provide a conducive environment for the growth and development of SMEs. The policy outlines various interventions, including access to finance, capacity building, technology transfer, and regulatory reforms. The government also established the Citizens Economic Empowerment Commission (CEEC) to promote economic empowerment and entrepreneurship among citizens, particularly SMEs. The CEEC provides various forms of support to SMEs, including access to finance, training, and mentorship.

4.3.4 The importance innovation has on growth and sustainability of SMEs in the digital service industry.

The study found that innovation is critical for the growth of SMEs in the digital service industry because it enables firms to create new products and services, enter new markets, and increase efficiency and competitiveness. It was observed that in today's fast-paced business environment, it is essential to continually innovate and come up with new products or services to stay ahead of the competition. A study by the world bank (2020) equally concluded that innovation is a key driver of productivity and economic growth, especially in the digital service sector. The study disclosed that introducing new products or services help SMEs diversify their revenue streams, making them less reliant on any one product or service.

In this study, we found most of the SMEs respondents either improved already existing products and services or just used ordinary products and services, just like it was found by International Finance Corporation (IFC) (2017) that SMEs in the digital service industry often face challenges in accessing financing, which limits their ability to invest in innovation.

It was further observed that innovation indeed made it easier for SMEs to penetrate the market, as it allowed them to stay abreast of market dynamics and trends. This finding agreed with Salamzadeh, Elahi, & Moradi (2020) and Erickson (2019) who concluded that Innovation has the potential to enable SMEs penetrate new markets and compete with larger firms. Innovation in the form of new technologies, such as big data analytics and artificial intelligence, provide SMEs with access to valuable information about consumer behaviour, market trends, and competitor strategies. This information will help SMEs make better-informed decisions and stay ahead of the competition.

The study showed that diversity in the digital world enhance SME growth and sustainability. It was also observed from respondents that when SMEs diversify their customer base and reduce their reliance on any one market, the SMEs experiences growth. Digital technologies facilitate collaboration and innovation, enabling SMEs to work with partners and customers around the world. This help SMEs develop new products and services more quickly and efficiently stay ahead of the competition.

Digital infrastructure facilities are indeed key in SME development as shown in this study. Digital infrastructure, such as high-speed internet and e-commerce platforms, can provide SMEs with access to global markets. This can help SMEs reach new customers and increase their sales and revenue. Digital infrastructure help SMEs improve their operational efficiency by automating processes, streamlining communication, and reducing paperwork. This can free up resources that can be invested in innovation and growth. Equally, Nguyen and Lee (2019) argue that digital infrastructure is essential for SMEs to compete in the modern economy. They note that access to digital technologies such as high-speed internet, cloud computing, and mobile devices can help SMEs to streamline business processes, increase productivity, and reach new customers.

Digital infrastructure was proven to help SMEs to be more resilient and adaptable to changing market conditions and disruptions. For instance, cloud-based storage and collaboration tools enable SMEs to work remotely and continue business operations during a crisis, and on this note, Kweka, Mzava & Kimaro (2020) emphasized the importance of digital infrastructure in enabling SMEs to thrive. They highlighted the role of digital platforms in facilitating access to finance, markets, and business support services. They noted that digital infrastructure help to reduce transaction costs, facilitate communication and collaboration, and improve access to information.

Our study revealed that training staff on new and innovative ways of business does help SME growth as was the findings by Khan (2018) and Lusiani, Rullani & Rinallo (2020). It was shown that training staff on new

and innovative ways of doing business improved their productivity and effectiveness. This in turn help SMEs get more done with the resources they have and enable them to compete more effectively in their market. Training staff on new and innovative customer service techniques gives SMEs a platform to provide better service to their customers. This helps SMEs build a loyal customer base and increase customer satisfaction.

Training staff on new and innovative ways of doing business can help SMEs generate new ideas and approaches. Khan (2018) concluded that training programs should be tailored to the specific needs of employees and should focus on developing skills that are relevant to the organization's goals. This help SMEs develop new products and services and stay ahead of the competition. Providing training and development opportunities can help SMEs attract and retain top talent in agreement with Lusiani, Rullani & Rinallo (2020) who emphasized on the importance of training in enabling employees to adopt new technologies and innovative practices. They noted that training helps to build awareness and understanding of new technologies and can provide employees with the skills they need to use these technologies effectively. They also argued that training programs should be designed to encourage experimentation and innovation and should provide opportunities for employees to apply new skills and knowledge in real-world situations. This help SMEs build a skilled and motivated workforce that is committed to the company's success.

4.3.5   The influence of socio-economic factors on the growth of SMEs.

The data from the study revealed that being well integrated within the community help SMEs build brand recognition and awareness. This finding is in line with Kim, Jun & Lee (2019) and Pustovrh & Šírca (2019) whose studies articulated that being well integrated within the community help small and medium-sized enterprises (SMEs) to build brand recognition and awareness. This help SMEs attract new customers and increase their sales and revenue. Being well integrated within the community provide SMEs with networking opportunities with other businesses, organizations, and community leaders. This helps SMEs establish partnerships and collaborations that can drive growth and success.

The survey results from respondents showed that culture influence indeed affects the acceptance and growth of new and innovative SMEs. This finding is backed by Guiso, Sapienza & Zingales (2015) and Hossain & Islam (2016), who concluded that culture has a significant influence on the growth and success of small and medium-sized enterprises (SMEs). It was shown that cultural barriers such as language, values, beliefs, and social norms affects the acceptance of new and innovative SMEs. These barriers make it difficult for SMEs to communicate their ideas and products to potential customers and partners.

Culture also influences market demand for new and innovative products and services. SMEs need to understand the cultural context of their target market in order to develop products and services that meet the needs and preferences of customers. Culture influences the entrepreneurial mind-set and attitudes towards risk-taking, innovation, and entrepreneurship. In some cultures, entrepreneurship may be more highly valued and supported, while in others it may be less understood or respected. Culture also affects the availability and effectiveness of support networks for SMEs, including government programs, business incubators, and industry associations.

Guiso, Sapienza & Zingales (2015) argued that culture affects the willingness of individuals to take risks and start new businesses. They suggested that individuals from cultures that are more risk-averse may be less likely to start new ventures or to pursue growth opportunities, which could limit the growth potential of SMEs in those cultures.

Hossain and Islam (2016) also noted the influence of culture on SME growth, but from a different perspective. They argued that cultural values and beliefs shape the way that SMEs approach innovation and change. For example, cultures that place a high value on tradition and stability may be less likely to adopt new technologies or business practices, which could limit their growth potential.

Other finding from our study is that social inequalities have negative effects on SMEs in the digital service industry. Social inequalities such as race, gender, and socio-economic status limit access to resources such as funding, education, and networks. This makes it difficult for SMEs to start and grow their businesses, particularly in the digital service industry where technological knowledge and resources are crucial. Discrimination based on race, gender, or other factors also affect SMEs in the digital service industry. This makes it difficult for SMEs to access opportunities, build partnerships, and gain the trust of potential customers and clients.

Social inequalities also limit innovation in the digital service industry. A lack of diversity in the industry limits the range of perspectives and ideas that are brought to the table, which can result in less innovative solutions and services. Social inequalities affect talent retention in the digital service industry. A lack of diversity and inclusion lead to a high turnover rate of employees who feel undervalued and marginalized. According to López-Nicolás, Meroño-Cerdán, and Sánchez-Fernández (2011) study, social inequality in terms of access to technology and digital literacy can limit the ability of small and medium-sized enterprises (SMEs) to compete in the digital service industry.

Digital knowledge of the community also inspire innovation in SMEs in the digital service industry. Understanding the needs and preferences of the community help SMEs develop new products and services that better meet their needs. According to Mähring and Eriksson (2017), SMEs can act as knowledge hubs, sharing their expertise and best practices with other businesses and individuals in the community. Digital knowledge of the community leads to partnership opportunities for SMEs in the digital service industry. For example, collaborations with local organizations or influencers can help SMEs reach a wider audience and build credibility.

4.3.6 The role of government policies on growth of SMEs in the digital service industry.

This study found that it is important for SMEs to have access to social security and risk mitigation incentives to support their development. Lemaître and Patureau (2020) in their study found social security programs to be helpful in providing a safety net for entrepreneurs and small business owners, allowing them to take risks and pursue opportunities without fear of losing everything. Access to social security benefits such as healthcare, retirement plans, and disability insurance help SMEs attract and retain employees, which is essential for growth. However, according to the study, many SMEs struggle to provide these benefits due to cost and administrative burdens.

This study further showed that mitigating risks such as market volatility, financial instability, and natural disasters are crucial for SMEs to survive and thrive. Government programs and insurance policies may help SMEs manage these risks, but their effectiveness depend on factors such as eligibility criteria and premium costs. In a study by Karabag and Berggren (2019) it was revealed that cybersecurity insurance provides SMEs with financial protection in the event of a cyberattack. Other types of risk mitigation incentives may include tax credits or subsidies for investments in cybersecurity or other risk mitigation measures.

It was also found that despite the availability of social security and risk mitigation incentives, some SMEs still struggle to access them due to a lack of information or limited resources. In some cases, the incentives were not tailored to the specific needs of SMEs, leading to inefficiencies or gaps in coverage.

The survey responses from our study showed that high taxes, registration fees, and license fees had a negative impact on SMEs in the digital service industry. High taxes, registration fees, and license fees create a significant financial burden for SMEs, especially those that are just starting out. This limits their ability to invest in growth and innovation. SMEs that operate in highly regulated environments face a competitive disadvantage compared to larger firms with more resources to navigate these regulations.

Compliance with complex tax and regulatory requirements was found to be challenging and time-consuming for SMEs, diverting their attention from other business activities. It was further shown that high taxes and fees also encourage informality in the SME sector, as some entrepreneurs may opt to operate without registration or licenses to avoid these costs. These findings agree with a study by the European Commission (2017) that found that government support for the development of digital infrastructure and services led to increased productivity, competitiveness, and innovation, which in turn drive economic growth. The study further showed that inadequate technology upgrading programs have a negative impact on SMEs in the digital service industry.

SMEs that do not keep up with the latest technology trends are at a competitive disadvantage compared to their peers who have invested in upgrading their technology infrastructure. Upgrading technology enables SMEs to innovate, improve efficiency, and increase productivity. Without access to the latest technology, SMEs struggle to keep pace with changes in the market and customer demand.

Upgrading technology is costly, especially for SMEs that have limited resources. Inadequate technology upgrading programs can exacerbate this issue by limiting access to financing and other resources to support technology upgrades.

The study found that adopting new technologies requires a skilled workforce, which can be a challenge for some SMEs. Inadequate technology upgrading programs may not provide sufficient training and support for SMEs to develop the skills needed to implement and use new technologies effectively, this is in agreement with a study by the International Monetary Fund (2019) that stated that the effectiveness of government policies in promoting the growth of SMEs and the digital service industry can be influenced by factors such as the level of competition in the market, the availability of skilled labour, and the overall state of the economy

5 CONCLUSION AND RECOMMENDATIONS

The study was aimed at evaluating the factors that affect Small and Medium Enterprises (SMEs) in the digital services industry in facilitating economic development in Zambia. A mixed methods approach was used to investigate the variables of financial capital, innovation, social-economic, and government regulations and policies. The qualitative data was obtained by means of questionnaires (100 participants) and interview guides. The ARDL model was applied to secondary data to assess the casual relationship between SMEs growth and Economic development. The findings from the ARDL model indicted a strong relationship between the two variables. Other key findings of the study were that SMEs encounter difficulties in obtaining loans or grants, which

often have unfavorable conditions such as high interest rates. Many SMEs in Zambia struggle to access affordable finance with Banks requiring collateral, which many SMEs do not have. The study further revealed that Innovations such as Information and Communication Technologies (ICTs) provide SMEs with an affordable and efficient platform to market their products and services and expand into the digital service industry.

The regulatory burden on SMEs in Zambia is high, with complex and time-consuming procedures for starting and running a business, the process of registering and running a formal SME is also expensive. This is a barrier for SMEs, particularly for those in the informal sector. While the Zambian government has implemented policies and programs to support SMEs, the impact of these interventions is limited by challenges such as bureaucracy, and lack of resources. The findings from the study can be applied to other countries who are facing similar challenges as Zambia. These include developing economies in Sub-Sahara Africa.

5.1   6.2 Limitations of the study

The study's scope was restricted to examining the factors that influence the economic development of Small and Medium Enterprises in the digital services industry in Zambia. However, it encountered some limitations during its implementation. Firstly, the study's small sample size restricted the generalizability of the findings to the broader population of small and medium enterprises in Zambia's digital services sector. Secondly, the reliance on self-reported data from the participants could lead to bias and not accurately depict the actual situation. The study employed basic statistical techniques, which might restrict the depth of analysis and may not entirely capture the complex interrelationships among variables.

Additionally, the research focused only on a specific period, and the outcomes may not be applicable to the present or future scenarios in Zambia's digital services industry as the industry continues to grow at a fast pace. Moreover, the study may have overlooked cultural differences that could influence the attitudes and behaviors of small and medium enterprises. Lastly, the study may not have fully considered external factors such as political, economic, and environmental conditions that could impact the development of small and medium enterprises in Zambia's digital services industry.

5.2   6.3 Recommendations

Small and Medium-sized Enterprises (SMEs) face many challenges, and survival can be a significant concern. However, there are several strategies that SMEs can use to increase their chances of survival:

SMEs can expand their offerings to appeal to a broader customer base and mitigate the impact of market fluctuations. SMEs can also leverage technology to streamline their operations, improve customer engagement, and expand their reach. Creating a website, or utilizing social media platforms, and implement strategies to improve their online visibility and attract more customers in the digital service industry.

Financial capital is a critical factor for small and medium-sized enterprises (SMEs) in the digital service industry, as it is often required for the development and growth of their businesses. Here are some recommendations made by the study that may help SMEs in the digital service industry maximize the impact of financial capital:

Develop a clear financial plan: SMEs in the digital service industry should have a clear financial plan that outlines their revenue streams, costs, and profitability projections. This plan should be reviewed regularly to ensure that the business is on track and to identify any potential financial issues.

Prioritize investment in technology: SMEs in the digital service industry must prioritize investment in technology to remain competitive. This investment may include developing new software, upgrading existing systems, or purchasing new hardware. These investments can help SMEs improve their efficiency, increase productivity, and reduce costs.

Leverage available financial resources: There are several financial resources available to SMEs, such as loans, grants, and crowdfunding. SMEs in the digital service industry should explore these options to access additional capital that can be used to expand their businesses rather than solely relying on self-sponsored capital investments.

Diversify revenue streams: SMEs in the digital service industry should consider diversifying their revenue streams to reduce their reliance on a single source of income. This can help them mitigate the risk of losing revenue if one source of income is disrupted.

Innovation is a critical factor for small and medium-sized enterprises (SMEs) in the digital service industry, as it enables them to stay ahead of the competition, improve their products and services, and meet the evolving needs of their customers. SMES in the digital service industry should; foster a culture of innovation, stay up to date with emerging technologies, collaborate with partners, embrace Agile development methodologies.

Regulatory environment: The regulatory environment can impact the growth of SMEs in the digital service industry. SMEs should stay up to date with the regulatory requirements in their industry and comply with all relevant laws and regulations to avoid penalties and legal issues.

Government policies can play a significant role in supporting the growth of small and medium-sized enterprises (SMEs) in the digital service industry. Here are some recommendations that may help governments

create policies that can support the growth of SMEs in this sector; Simplify regulatory compliance, create funding opportunities, Promote innovation through establish innovation hubs in strategic regions of the country, Promote access to digital infrastructure. By implementing these recommendations, governments can create policies that support the growth of SMEs in the digital service industry, helping to create jobs, spur innovation, and drive economic growth.

Despite these initiatives, there is still room for improvement. The government could do more to reduce the regulatory burden on SMEs, streamline procedures for accessing finance, and provide more targeted support to specific sectors and regions. Moreover, the implementation of policies and programs could be more effective, with a focus on creating tangible impacts on SMEs. Overall, while the Zambian government had taken steps to support SMEs, more needs to be done to address the challenges faced by SMEs and create a conducive environment for their growth and development.

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