

## Effects of Globalization on the Small and Medium Enterprises (SMEs) in the Manufacturing Sector in Zambia: A Case of Superior Milling Company Ltd., Sobi Industries Ltd., Bimbe Trading Company Ltd., Dulux Zambia, Phillips Specialized Systems Ltd., Tiger Animal Feeds Company Ltd., Manal Investments Limited, Zambia Development Agency

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### Abstract

Observations that have been made on the impact of globalization on certain sectors of Zambia's economy have attracted the attention of various researchers on the subject of globalization. This study centered on the effects of globalization on the manufacturing sector in Zambia. The study was carried out on the seven Small and Medium Enterprises (SMEs) and the Zambia Development Agency (ZDA). The study employed both qualitative and quantitative methods to sample respondents. The research used both primary and secondary data. Primary data was obtained using closed-ended questionnaires while secondary data was collected using the Internet, journals, and textbooks. Secondary data was obtained from various sources such as government publications, technical and trade journals, public records, diaries, letters, biographies, or work. Also, this study adopted a case study design that used multiple sources of evidence to analyze and evaluate specific phenomena or instance. Frequency tables, graphs, figures and pie-charts were used to analyze the qualitative and quantitative data. Data was also analyzed by the use of software; Statistical Package for Social Sciences (version 26) and Microsoft Excel (version 16). The study revealed that due to the use of improved technology in the manufacturing sector, globalization has enabled the SMEs to develop sufficient, reliable and modern infrastructure. This has contributed to increased production. The findings also indicated that there has been improved accessibility by SMEs to formal funding or finances. Quality of goods produced by SMEs has been enhanced as competitive indicators and quality assurance. The study therefore recommended that appropriate strategies, such as developing networking relationships with other firms, must be carefully designed and implemented in order to take advantage of global market opportunities and minimize the challenges from increasing competitive intensity. Furthermore, there is need for SMEs to embrace technology to streamline processes, increase efficiency, stay competitive, and consider e-commerce platforms for online sales if relevant to your industry.

**Keywords:** Globalization; Manufacturing Sector; Production; Small and Medium Enterprises (SMEs) and Technology.

### 1. Introduction

Globalization is a process by which the people of the world are unified into a single society. It is also the integration of national economies into the international economy through trade, foreign direct investment, capital flows, migration, and the spread of technology (David et al., 2016). Globalization entails the integration of industries, markets, economies, policy-making, and culture dispersing a wide geographical area. Thus, globalization describes the process in which national and regional economies have become integrated and interdependent through global network trade,

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immigration, communication, and transportation (Pare, 2016). In addition, globalization has opened up capital markets that allow developing countries to borrow money that covers the gap in domestic savings. Globalization has a powerful economic, political, cultural, and social dimension (Manfred, et al 2013). Small and medium enterprises (SMEs) are significant key drivers of economic development in most developing countries (IJEFM, 2015). Evidently, SMEs are responsible for sustainable growth through job creation, and the development of entrepreneurial skills and contribute significantly to export earnings (Saropa, 2014). Many researchers have highlighted various challenges faced by SMEs in the globalized environment (Ibid, 2013). The challenges range from difficulties in economic recessions, barriers from global sourcing, low productivity, and lack of financing as well as heavy regulatory burden. In addition, the stability of SMEs in the globalized environment is challenged by prerequisites for development in human capital, consistency in developmental policies, transparent monitoring, and better infrastructure (Moruff et al, 2017). The term business refers to an organization or enterprising entity engaged in commercial, industrial, or professional activities. The purpose of a business is to organize some sort of economic production of goods or services. Businesses can be for-profit entities or non-profit organizations fulfilling a charitable mission or furthering a social cause. Businesses range in scale and scope from sole proprietorships to large, international corporations. A business market is a method a company uses to sell products or services to a specific group of consumers. Typically, business markets facilitate sales from one business to another in cases where one business plans to reuse or resell another company's products or services (Chanda, 2023).

Globalization allocates the production in the countries where it is the most efficient and less costly for the global world. Developed countries become more concentrated on services and research and development. Since the 1980s modern globalization has spread rapidly through the expansion of capitalism and neoliberal policies that have ideologies. The implementation of neoliberal policies has allowed for the privatization of public industry, deregulation of laws or policies that interfered with the free flow of the market, as well as cutbacks to governmental social services. These neoliberal policies were introduced to many developing countries in the form of Structural Adjustment Programmes (SAPs) that were implemented by the World Bank and the International Monetary Fund (IMF). These programmes required that the country receiving monetary aid would open its markets to capitalism, privatize public industry, allow free trade, cut social services like health care and education, and allow the free movement of giant multinational corporations. In the process, the World Bank and IMF became global financial market regulators to promote neoliberalism and the creation of free markets for multinational corporations on a global scale (MCTI, 2007). In the late 19th and early 20th Centuries, the connectedness of the world's economies and cultures grew very quickly. There was a growing proliferation of popular culture and consumer values, the growing prominence of International Institutions like the United Nations (UN), and there was more attention on issues like sustainability of the environment and human rights. The collapse of the Soviet Union not only ended the Cold War World's division of the world – it also left the United States its sole policeman and an unfettered advocate of the free market. Other developments as dramatic was the internet becoming influential in connecting people across the world; as of June 2012, more than 2.4 billion people – over a third of the world's human population have used the services of the internet.

A survey conducted by the World Bank on Enterprise Development in Zambia in 2007 identified poor access to finance as a major impediment to investment and growth of SMEs in Zambia (World Bank, 2007). Further similar studies have found that barriers to entrepreneurship are due to lack of access to credit and lack of access to formal business and social networks. Moreover, SMEs are also dealing with intensified global challenges such as the new emerging technologies and production processes as well as increasing factor costs, which affect their export competitiveness (UNIDO, 2011). Other challenges that make SMEs in developing countries not thrive in a globalized environment are owed to the idle capacity of factors of production that are not fully utilized (James, 2014).

### **1.1. Statement of the Problem**

Most of the small-scale enterprises in Zambia are owned by local entrepreneurs and their contemporary economic analysis shows that most nations apparently depend, to a great extent, on globalized activities and processes. This implies that countries have made successful developments due to the support of international market integration and long-term capital flow. Today globalization is a major driver that has impacted nearly every business. The internalization of markets for sales and purchasing at least indirectly influences everyday business (Ndungu, 2014). The decision to globalize and to enter the export market calls for the determined and committed leadership of the enterprises with the necessary skills desired in strategic management. There has been limited interest by many researchers in studying the relationship between globalization and small-scale business development in Zambia. This has resulted in various challenges such as: a lack of operational government policies that encourage small-scale businesses firms to be globally formed and to be exposed to sound ideas of globalization's inability to produce and provide needed quality goods and services to the global market (Chanda, 2023). These challenges need to be addressed in order to develop theories necessary in the integration of small and medium enterprises in Zambia into the global economic world.

Globalization has enabled SMEs in the developing economies to be more relevant and innovative. However, despite the progress made, SMEs have faced many challenges due to inadequate finances, limited capital, and access to the international market (GRZ, 2005). SMEs must put in place good strategies that will bring about their survival. Despite many studies that have focused on the impact of globalization in literature, there is a need for more studies on how globalization affects SMEs in emerging economies such as Zambia. Understanding the risk and impact of globalization can help stakeholders to direct their scarce resources to mitigate the impact that would impinge on their success. Thus, this paper showed the effect of globalization on SMEs in the manufacturing sector with a focus on Zambia. It is because of the gap that the study wants to find a solution in eventually the impacts of globalization on emerging small and medium-scale businesses in Zambia.

### **1.2. The Purpose of the Study**

The purpose of this study was to assess the effects of globalization on the selected small and medium enterprises in the manufacturing sector in Zambia.

### **1.3. Research Objectives**

The objectives of the study were to:

- Establish whether globalization has helped Small or Medium Enterprises (SMEs) create job opportunities in the manufacturing sector.
- Assess the impact of modern technology on the performance of SMEs in the manufacturing sector.
- Institute whether globalization has helped SMEs to develop new technology and sufficient modern infrastructure

### **1.4. Conceptual Framework**

Globalization signifies a process of internalization and liberalization, in which the world has become a small village due to the concept of globalization. The competition has become intense in every field. Nations fight with a game plan to sustain their economy, by introducing new policies and announcing incentives to support mainly their economic indicators (ITC, 2014). After the world economy was open, many countries started to concentrate on the development of a small industrial base which has contributed positively to their country's GDP. Today's business environment is extremely dynamic and experiencing rapid changes as a result of technological improvement, increased awareness, and demands. Globalization is a phenomenon that cannot be ignored. The economic activities are saturated with the globalization process and the driving force of this process in small-scale business. Small-scale businesses are the backbone of the nations and they consist of the largest section of businesses in most economies as well as frequently offer the greatest potential for job creation. SMEs can be defined based on certain criteria which include, turnover, number of employees, profit, capital employed, market share, asset value, and relative size within the industry. According to Ghosh (2011), globalization is the process of opening up economies to the outside world.

### **1.5. Significance of the Study**

This study would provide necessary information to SME management on the benefits of SMEs forming international markets, for business growth and the success of the enterprises. The study would also help the government to develop policies that will guide the internationalization of SMEs and exploit the advantages and opportunities that come along with globalization. The results of this study would be of use to assess the women and youth's involvement in entrepreneurship. This would in turn assist our women and youths with entrepreneurial skills to start thinking about starting small-scale businesses in their local communities. The SMEs that are globally integrated serve the global market and make more profit which enables them to plough back their profits into social responsibility activities and able to pay tax to the government. It is this tax that contributes to an increase in national income. When businesses operate profitably, they create employment opportunities which increase the purchasing power of the society. The results of the study would add value to the existing literature on SMEs and will be of good reference for academicians and other researchers.

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## **2. Research methodology**

### **2.1. Study Design**

The research design used the descriptive approach. According to Kerlinger in Kombo and Tromp (2014) assets the descriptive approach may result in information of important principles of knowledge and solutions to

significant problems. The study included both qualitative and quantitative techniques. The research used both primary and secondary data. Primary data was obtained using closed-ended questionnaires while secondary data was collected using internet, journals, and text books. This study adopted a case study design that used multiple sources of evidence to analyze and evaluate a specific phenomenon or instance. One of the advantages of using a case study is that it provides an in-depth study of the case in its real-life context. The qualitative approach type of inquiry enabled the researcher to carry out research in a natural setting using interviews in words rather than statistics. The quantitative approach which is a formal and systematic process, collects numeric data to obtain information. The use of both quantitative and qualitative paradigms in a study was a way of reducing the biases that come with using one paradigm and also increasing the validity of the research findings.

## 2.2. Research Site

The research was conducted in small and medium enterprises in the manufacturing sector in Zambia.

## 2.3. Population, Sample and Sampling Procedure

The target population was 600 which included small and medium enterprises in the manufacturing sector in Zambia. The study targeted six (6) organizations from which one chief executive, one accountant, one engineer, one technician, one human resource manager, and five factory workers will be expected to complete the questionnaires. This implies that each organization received and completed 10 questionnaires giving a total of 60 respondents. SME business activities are largely in trading simple manufactured products in the SME sector including textile products, wood products, light engineering and metal fabrication, food processing, leather products, handicrafts, and ceramics to mention a few.

Purposive sampling procedures were used because the researcher wanted to focus on particular characteristics of the target population in order to best answer the questions. This helped to collect adequate and sufficient information.

## 2.4. Data Analysis

The researcher used questionnaires which gave respondents an atmosphere of confidence and data given to be confidentially treated. In this case, questionnaires comprised mainly of closed-ended questions. A thematic approach was used where data analysis started with the categorizing the themes from the survey. Data generated from the questionnaires was analyzed manually by using the Statistical Package for Social Sciences (version 26) and Microsoft Excel (version 16) to come up with frequency tables, pie charts, and bar graphs.

## 2.5. Ethical Issues

Pera and Van Tonder (1996) define ethics as a code of behavior considered correct. Hence, it is crucial that all researchers are aware of the research ethics. Ethics relates to two groups of people; those conducting research, who should be aware of their obligations and responsibilities, and upon who have basic rights that should be protected. The study therefore was conducted with fairness and justice by eliminating all potential risks. Careful choice of method for data collection was highly considered to ensure validity, and reliability which are two main requirements that must be met in all kinds of research. An informed consent was sought before collecting information from the informants and guaranteed them with security of the information they provided. Furthermore, the main objective of gathering such information was made clear to the respondents.

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## 3. Results and discussions

The following findings and discussions were presented according to set research objectives:

### 3.1. Does Globalization help Small or Medium Enterprises (SMEs) Create Job Opportunities in the Manufacturing Sector

The first research question sought to establish whether globalization has helped Small or Medium Enterprises (SMEs) create job opportunities in the manufacturing sector. This was rated with a degree of agreement or disagreement i.e. strongly agree (SA), Agree (A), Neither (N), Disagree (D), and Strongly Disagree (SDA).

#### 3.1.1. Organization has Developed Sufficient, Reliable, and Modern Infrastructure

Results from Table 1 below showed that 29.45% of respondents agreed that globalization had led to development of sufficient, reliable, and modern infrastructure on SMEs, 41.7% of respondents strongly agreed that globalization had led to the development of sufficient, reliable and modern infrastructure on SMEs, 4.4% of respondents were

not sure if that globalization had led to development of sufficient, reliable and modern infrastructure on SMEs, 16.1% disagreed that that globalization had led to development of sufficient, reliable and modern infrastructure on SMEs, and 8.3% strongly disagreed that globalization had led to development of sufficient, reliable and modern infrastructure on SMEs. Therefore, results indicated that globalization has led to the development of sufficient, reliable, and modern infrastructure for SMEs. This study revealed that globalization has led to the development of sufficient, reliable, and modern infrastructure for SMEs. These findings agree with the study done by Joshi, (2009) who found that globalization had an effect on the development of modern infrastructure in organizations. Based on this finding, it can be argued that globalization has enabled SMEs in developing economies to put up modern infrastructure development. Furthermore, it can be, therefore, argued that the effect of globalization is a dynamic concept and is seen as a process of permanent change closely related to the local context needs and local preferences. Globalization is a complex phenomenon which has a positive force for the economic benefit of people all over the world (Nicolas, 2019).

On the contrary, Bergsten. (2017) argue that SMEs are weak in Africa because of small local markets, entry of many firms into their markets with sometimes superior products, undeveloped regional integration, and very difficult business conditions, which include cumbersome official

procedures, poor infrastructure, dubious legal systems, and unattractive tax regimes - or difficult business conditions. That is, many firms stay small and informal and use simple technology that does not require great use of national infrastructure. This is a fact that hinders them from becoming competitive in the marketplace. However, the coming of globalization changed many avenues of SMEs. The study found that globalization improves accessibility to formal funding or finances on SMEs. For SMEs in developing countries, globalization has an effect on their finance in order to grow and sustain the business. According to the MoF (2005), economic globalization has created new opportunities for SMEs through funding their business, especially in low labor cost regions.

Besides, the study established that globalization enhanced the quality of products produced by SMEs through competitive indicators and quality assurance. According to Samuelson and Muthoka et al (2015), competitiveness refers to the extent to which a nation's goods can compete in the marketplace, which largely depends on the relative prices and quality of domestic vis-à-vis foreign goods and services. That is, a firm's products and services must have an edge over other competitors for continued survival in the marketplace. Today, globalization has increased competitive pressures on all firms. Together with rapid technological change, globalization has altered the environment in which firms operate. While globalization offers unprecedented opportunities for firms to act successfully, it simultaneously heightens the risks for firms lagging behind. Thus, in an open and liberalized world, increasing firm competitiveness has become a major challenge to the SMEs. Literature across the globe has revealed that globalization has led to competition among SMEs in developing countries and developing countries (Organization for Economic Co-Operation and Development [OECD], 2013). However, it has been observed that as SMEs find difficulty in achieving both these factors, it has been predicted the failure of SME competitiveness as globalization increases. While many SMEs have indeed given way to a decline in competitiveness, others have found ways to actually enhance their positions in the global markets. Therefore, to prevent SMEs from becoming victims of globalization, like their larger counterparts, they should deploy strategies to maintain and enhance their competitiveness in a globalizing economy. Most developing countries have begun to realize that the comparative advantage in the 21st century relies on knowledge-based economic activities rather than traditional factors of mass production (Organization for Economic Co-Operation and Development [Ibid], 2013).

**Table 1** The Organization has Developed Sufficient, Reliable and, Modern Infrastructure

| Frequency |                   |            | Percent      | Valid Percent | Cumulative Percent |
|-----------|-------------------|------------|--------------|---------------|--------------------|
| Valid     | Agree             | 53         | 29.4         | 29.4          | 29.4               |
|           | Strongly agree    | 75         | 41.7         | 41.7          | 71.1               |
|           | Neutral           | 8          | 4.4          | 4.4           | 75.6               |
|           | Disagree          | 29         | 16.1         | 16.1          | 91.7               |
|           | Strongly disagree | 15         | 8.3          | 8.3           | <b>100.0</b>       |
|           | <b>Total</b>      | <b>180</b> | <b>100.0</b> | <b>100.0</b>  |                    |

### 3.1.2. Improved Accessibility to Formal Funding or Finances

The study sought to find out if globalization has improved accessibility to formal funding or finances for SMEs and the findings were as shown in Table 2 below. Results showed that 29.4 of respondents agreed that globalization had improved accessibility to formal funding or finances, 41.7% of respondents strongly agreed that globalization had improved accessibility to formal funding or finances, 4.4% of respondents were neutral if globalization had improved accessibility to formal funding or finances, 16.1% disagreed that globalization had improved accessibility to formal funding or finances and 8.3% strongly disagreed.

**Table 2** Improved Accessibility to Formal Funding or Finances

| Frequency |                   |            | Percent      | Valid Percent | Cumulative Percent |
|-----------|-------------------|------------|--------------|---------------|--------------------|
| Valid     | Agree             | 53         | 29.4         | 29.4          | 29.4               |
|           | Strongly agree    | 75         | 41.7         | 41.7          | 71.1               |
|           | Neutral           | 8          | 4.4          | 4.4           | 75.6               |
|           | Disagree          | 29         | 16.1         | 16.1          | 91.7               |
|           | Strongly disagree | 15         | 8.3          | 8.3           | 100.0              |
|           | <b>Total</b>      | <b>180</b> | <b>100.0</b> | <b>100.0</b>  |                    |

### 3.1.3. Enhancing Quality of Products Produced by the Organizations as Competitive Indicators and Quality Assurance

Additionally, the study further sought to find out if globalization enhanced the quality of products produced by the organizations as competitive indicators and quality assurance and the findings were as shown in Table 3 below. Results showed that 29.4 5 of respondents agreed that globalization enhanced quality of products produced by the organization as competitive indicators and quality assurance, 41.7% respondents strongly agreed that globalization enhanced quality of products produced by the organization as competitive indicators and quality assurance, 4.4% of respondents were not sure if globalization enhanced quality of products produced by the organizations as competitive indicators and quality assurance, 16.1% disagreed that globalization enhanced quality of products produced by the organizations as competitive indicators and quality assurance, and 8.3% strongly disagreed that globalization enhanced quality of products produced by the organization as competitive indicators and quality assurance. Data indicated that globalization enhanced the quality of products produced by the organizations as competitive indicators and quality assurance. Furthermore, the study established that globalization increases the production of SMEs. The above findings are consistent with Gibson et al (2008) who concluded that globalization increases production in SMEs. Globalization of production is the sourcing of goods and services from countries around the globe to take advantage of national differences in the cost and quality factors of production. Zambia is a good example of emerging markets with low labor costs. Globalization has seen most firms moving their production centers to China to reduce costs and this has enhanced their economies of scale. By doing this, firms aim to gain a competitive advantage as globalization has resulted in increased competition in the global market. Globalization productions are not limited to giants like Boeing but smaller firms are getting into the act as they aim to lower costs and increase their profit margins.

**Table 3** Enhancing Quality of Products Produced by the Organizations as Competitive Indicators and Quality Assurance

| Frequency |                |    | Percent | Valid Percent | Cumulative Percent |
|-----------|----------------|----|---------|---------------|--------------------|
| Valid     | Agree          | 53 | 29.4    | 29.4          | 29.4               |
|           | Strongly agree | 75 | 41.7    | 41.7          | 71.1               |
|           | Neutral        | 8  | 4.4     | 4.4           | 75.6               |
|           | Disagree       | 29 | 16.1    | 16.1          | 91.7               |

|  |                   |            |              |              |              |
|--|-------------------|------------|--------------|--------------|--------------|
|  |                   |            |              |              |              |
|  | Strongly disagree | 15         | 8.3          | 8.3          | <b>100.0</b> |
|  |                   |            |              |              |              |
|  | <b>Total</b>      | <b>180</b> | <b>100.0</b> | <b>100.0</b> |              |

3.1.4. Promotes a Sense of Self-awareness and Enhance Quality Assurance

The study further sought to find out if globalization promoted a sense of self-awareness and enhanced quality assurance and the results were summarized in Figure 1 below. Results showed that 61.67% of the respondents agreed that globalization promoted a sense of self-awareness and enhanced quality assurance, 5.00% of the respondents strongly agreed that globalization promoted a sense of self-awareness and enhanced quality assurance, 9.44% of respondents were not quite sure if globalization promoted a sense of self-awareness and enhanced quality assurance, and 12.78% of the respondents disagreed that globalization promoted a sense of self-awareness and enhanced quality assurance, and 11.11% of the respondents strongly disagreed that globalization promoted a sense of self-awareness and enhanced quality assurance. Therefore, the study findings showed that globalization promoted a sense of self-awareness and enhanced quality assurance. In addition, the study also revealed that globalization promotes a sense of self-awareness and enhances quality assurance for SMEs. The study findings are in harmony with Ghosh (2011) who found that globalization promotes a sense of self-awareness and enhances quality assurance in organizations. This implies that SMEs promote self-awareness and enhance quality assurance due to globalization. The results of the analysis also indicated that the impact of globalization on SMEs had influenced a sense of self-awareness and enhanced quality assurance and the level of business activities in developing countries. This is potentially important since the level of international marketing in many developing countries still lags behind.

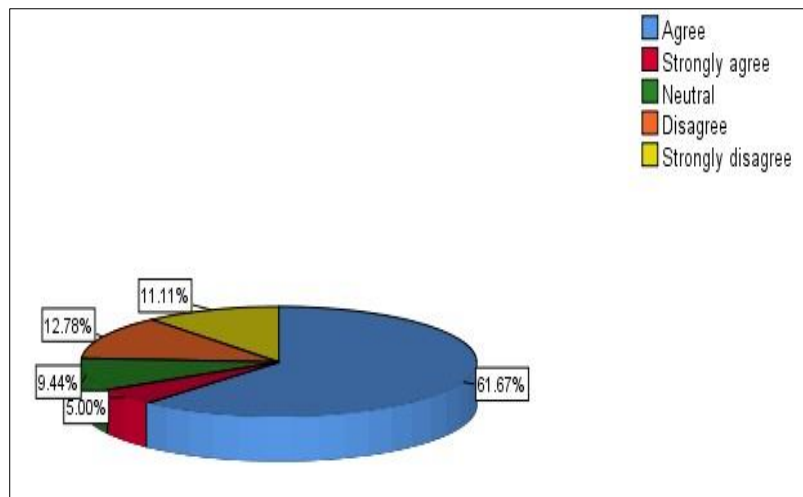


Figure 1 Promotes a Sense of Self-awareness and Enhance Quality Assurance

3.2. Impact of Modern Technology on the Performance of SMEs in the Manufacturing Sector

Research question two sought to establish if there is an impact of modern technology on the performance of SMEs in the manufacturing sector. Chi-square Test analysis was used in this research paper in order to test poor leadership and limited feedback. The findings are shown in Chi-square Test Table 1. The study findings showed that there is an impact of modern technology on the performance of SMEs in the manufacturing sector. Additionally, the study has further established that the linear-by-linear association value (0.002) is positive implying that the impact of modern technology on the performance of SMEs in the manufacturing sector is positive. The findings of this study resonate with the study done by Larsson (2001) who found a positive and statistically significant association between magnitude of the technological advancement and economic globalization. Regional inequality is more pronounced in countries with a greater degree of economic integration compared to the rest of the world. Although globalization enhances a firm's market opportunities, it also increases the amount and level of competition faced by such firms in the advancement of new technology. Trade liberalization, technological developments, and convergence of governmental macroeconomic

policies associated with globalization have made it easy for firms around the globe to enter different geographic markets, and thus, intensify the competitive atmosphere for firms around the world (Wolf, 2014).

**Table 4** The Impact of Modern Technology on the Performance of SMEs in the Manufacturing Sector

| Chi-Square Tests             |                    |                                   |                      |                      |
|------------------------------|--------------------|-----------------------------------|----------------------|----------------------|
| Value                        | df                 | Asymptotic Significance (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
| Pearson Chi-Square           | 0.043 <sup>a</sup> | 1                                 | 0.003                |                      |
| Continuity Correction        | 8.87b              | 1                                 | 0.46                 |                      |
| Likelihood Ratio             | 6.103              | 1                                 | 0.67                 |                      |
| Fisher's Exact Test          |                    |                                   |                      | 0.079                |
| Linear-by-Linear Association | 0.002              | 1                                 | 0.45                 |                      |
| N of Valid Cases             | 125                |                                   |                      |                      |

a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 19.00.; b. Computed only for a 2x2 table

The results from Table 4 showed a Pearson Chi-Square value of 0.043 which is statistically significant because the p-value (0.03) is less than alpha 0.05. Therefore, findings reveal that there is an impact of modern technology on the performance of SMEs in the manufacturing sector. Additionally, since the linear-by-linear association value (0.002) is positive, results reveal that the impact of modern technology on the performance of SMEs in the manufacturing sector is positive.

### 3.2.1. Globalization helped SMEs Develop New Technology and Sufficient Modern Infrastructure

The third research question sought to find out if globalization helped SMEs develop new technology and sufficient modern infrastructure. This was rated with a degree of agreement or disagreements i.e. strongly agree (SA), Agree (A), Neither (N), Disagree (D), and Strongly Disagree (SDA). Results from Table 5 shows that 14.4 % of respondents agreed that globalizations had led organizations to develop new technologies that increased production and enhanced quality assurance, 56.1% respondents strongly agreed that globalizations had led organizations to develop new technologies that increased production and enhanced quality assurance, 9.4% of the respondents were not sure if globalization had led organizations to develop new technologies that increased production and enhanced quality assurance, 7.2% of the respondents disagreed that globalization had led organizations to develop new technologies that increased production and enhanced quality assurance, and 12.8% of the respondents strongly disagreed that globalization had led organizations to develop new technologies that increased production and enhanced quality assurance. Therefore, the study found that organizations have developed new technologies to increase production and enhance quality assurance. Results of the study revealed that globalization has led organizations to develop new technologies that increase production and enhance quality assurance and globalization has led to the relevance and suitability of sufficient, reliable, and modern technology. Based on the findings, it can be argued that globalization has come with advancements in information technology which has resulted in the opening and exposure of the people of the world to more fronts than ever before. According to Bown & Melina (2018), a powerful force drives the world toward a converging commonality and that force is technology. It has facilitated communication, transport, and travel. Almost everyone everywhere wants all the things they have heard about, seen, or experienced via the new technologies.

However, it can be argued further that the change in technology has posed a great challenge to small and medium enterprises. Since the mid-1990s there has been a growing concern about the impact of technological change on the work of SMEs (Bakari, 2013). Even with changes in technology, many small businesses appear to be unfamiliar with new technologies particularly those in the less developed countries. On the contrary, foreign firms still remain at the forefront of accessing the new technologies. Most of African nations, including Zambia, the challenge of connecting indigenous small enterprises with foreign investors and speeding up technological upgrading still persists. As a researcher, I reiterate that there is a digital divide between rural and urban Zambia, and with no power supply in most of the rural areas, it is next to impossible to have Internet connectivity and access to information and networks that are core in any enterprise.

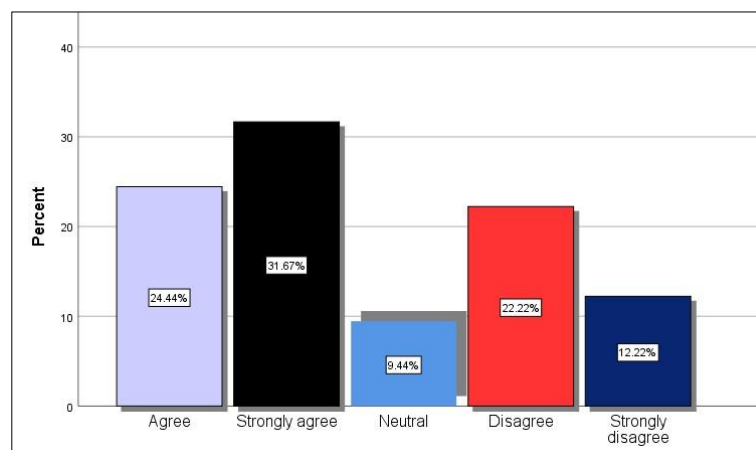


**Table 5** New Technology Increases Production and Enhance Quality Assurance

| Frequency |                   |     | Percent | Valid Percent | Cumulative Percent |
|-----------|-------------------|-----|---------|---------------|--------------------|
| Valid     | Agree             | 26  | 14.4    | 14.4          | 14.4               |
|           | Strongly agree    | 101 | 56.1    | 56.1          | 70.6               |
|           | Neutral           | 17  | 9.4     | 9.4           | 80.0               |
|           | Disagree          | 13  | 7.2     | 7.2           | 87.2               |
|           | Strongly disagree | 23  | 12.8    | 12.8          | 100.0              |
|           | Total             | 180 | 100.0   | 100.0         |                    |

### 3.2.2. The Relevance and Suitability of Sufficient, Reliable and Modern Technology

Additionally, the study further sought to find out if globalization had led to the relevance and suitability of sufficient, reliable, and modern technology. Results from Figure 2 showed that 24.44% of the respondents agreed that globalization had led to relevance and suitability of sufficient, reliable and modern technology, 31.67% of the respondents strongly agreed that globalization had led to relevance and suitability of sufficient, reliable and modern technology, 9.44% of respondents were not quite sure if globalization had led to relevance and suitability of sufficient, reliable and modern technology, 22.22% disagreed that globalization had led to relevance and suitability of sufficient, reliable and modern technology, and 12.22% strongly disagreed that globalization had led to relevance and suitability of sufficient, reliable and modern technology. Therefore, the study findings indicated that globalization had led to the relevance and suitability of sufficient, reliable, and modern technology, and the results were summarized in Figure 2 below.

**Figure 2** The Relevance and Suitability of Sufficient, Reliable and Modern Technology

## 4. Conclusion

The purpose of this study was to assess the effects of globalization on the selected small and medium enterprises in the manufacturing sector in Zambia. With regards to objective one which sought to establish whether globalization had helped Small or Medium Enterprises (SMEs) create job opportunities in the manufacturing sector, the study established that globalization had led to the development of sufficient, reliable, and modern infrastructure, improved accessibility to formal funding or finances on SMEs, enhanced quality of products produced by the organization as competitive indicators and quality assurance, increased production on SMEs, and promoted a sense of self-awareness and enhanced quality assurance. Research objective two sought to assess the impact of modern technology on the performance of SMEs in the manufacturing sector. The study findings showed that there is an impact of modern technology on the performance of SMEs in the manufacturing sector. Additionally, the study further established that the linear-by-linear association value (0.002) is positive implying that the impact of modern technology on the performance of SMEs in the

manufacturing sector was positive. With regards to research objective three which sought to establish whether globalization had helped SMEs to develop new technology and sufficient modern infrastructure, results also revealed that globalization had led organizations to develop new technologies that increased production and enhanced quality assurance and globalization had led to relevance and suitability of sufficient, reliable and modern technology.

### *Recommendations*

The following are actions that should be taken on the basis of the findings of this study:

- For SMEs to fully develop and use this potential, they need to have a global look, develop strategies for success, and improve ways of gathering information about the global market to ensure their competitiveness.
- There is a need for SMEs to develop a strong online presence through a well-designed website and active social media engagement.
- Appropriate strategies, such as developing networking relationships with other firms, must be carefully designed and implemented in order to take advantage of global market opportunities and minimize the challenges from increasing competitive intensity.
- There is a need for SMEs to embrace technology to streamline processes, increase efficiency, stay competitive, and consider e-commerce platforms for online sales if relevant to your industry.

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### **Compliance with ethical standards**

#### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

#### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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### Author's short biography

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