



# A Needs Assessment of Rural SMEs: A Validation Study 2017

By

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## FOREWORD

This report was generated to serve as a reference document for Musika and its implementing partners. Musika Development Initiatives (Musika) is a non-profit company that works to stimulate private sector investment in rural agricultural markets. It does this by helping businesses develop mutually beneficial and transparent commercial relationships with smallholder farmers that integrate the provision of information and technology adoption, and provides long term incentives for farmers to invest in their farming businesses. It provides its clients with high quality, commercially focused technical advice and business model support and were relevant smart subsidies to bring down the initial risks of doing business with the smallholder market. Musika also supports innovative market-based solutions to environmental issues and strives to make sure women are key participants in improved agricultural markets. Musika acknowledges and appreciates the financial support from the Swedish Embassy in Lusaka.

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## **ACKNOWLEDGEMENTS**

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>BDS</b>	Business Development Services
<b>CSO</b>	Central Statistical Office
<b>FISP</b>	Farmer Input Support Programme
<b>GoZ</b>	The Government of the Republic of Zambia
<b>SME</b>	Small to Medium Enterprise

## EXECUTIVE SUMMARY

This study was conducted by Musika to gain a broader understanding on various factors that affect the operations of agricultural SMEs in Zambia. The study was designed to serve as a follow-up study to concretise some findings in an earlier study conducted by Musika “A Needs Assessment of Rural Agribusinesses: The Commercial Viability of SMEs”. The follow-up assessment involved self-administered structured questionnaires being issued to representatives of SMEs from all parts of the country during the 2017 FISP agro dealer meeting held at the Government complex in Lusaka. The data collected was then analysed for the variables of interest. Some of the key findings included the following:

1. Most SMEs deployed a diverse business model, with 58.85% of businesses operating more than one strand of business. The most common multi-strand operation was agro dealership and other businesses at 41.4% followed by agro dealership and commodity aggregation at 24%. Operating two or more models of operation makes the businesses more robust and is of greater value to the surrounding farming communities.
2. The majority of successful<sup>1</sup> SMEs had engaged much more in a diverse range of income generating activities than unsuccessful SMEs. This implies more entrepreneurial acumen, and ability to reduce risk, amongst the successful SMEs than the unsuccessful SMEs.
3. Successful SMEs had employed more staff than unsuccessful SMEs. Even though the earlier study did not compare performance of SMEs to work force, this finding on successful SMEs employing a bigger work force also attests to the role that SMEs can play in creating employment and wealth.
4. It was also noted that while the majority of both successful and unsuccessful SMEs had started their businesses with their personal finances, successful SMEs had also acquired loans and engaged investors much more than the unsuccessful SMEs. This might imply a more entrepreneurial mind-set for the successful SMEs than the unsuccessful SMEs who had engaged much more in obtaining gifts from family and friends as well as grants from NGOs.
5. The study further revealed that the most common problem with both successful and unsuccessful SMEs was the issue of coordinating their outlets. It was identified that lack of staff and management capacity was a challenge to effectively run each outlet; SME owners felt that they needed to be present to oversee unknowledgeable or unskilled personnel at various outlets.
6. Common issues which stood out for unsuccessful SMEs were challenges in staff capacity and record keeping. On the other hand, record management, an important skill necessary for growing enterprises to flourish, appears to be most important challenge for this category of SMEs.

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<sup>1</sup> SMEs were classified successful if they were financially viable, they generated enough revenue to cover their costs. Other than that an annual revenue of above ZMW400,000 was considered as a standard measure of income.

## 1.0 INTRODUCTION

### Background

SMEs both national and internationally have been found to play a key role in economic development. Such enterprises have also contributed towards poverty reduction at household level through job and wealth creation (GoZ, 2008). Thus agricultural SMEs<sup>2</sup> are key to Zambia's economic development, given that agriculture supports over 70% of the population. Moreover, SMEs could provide sustainable commercial linkages because not only do they buy and supply inputs but they have the potential to provide additional services such as agronomic information on commodities and agricultural inputs (Etyang, 2013). Hence the development of a robust network of agricultural SMEs could allow farmers to access a wide range of market services including information and improved technologies, thereby increasing their productivity and income.

Agricultural SMEs in Zambia have been in existence for a long time and continue to increase steadily in numbers. For instance, recent years have seen more agro dealerships being established in rural areas. The FISP E-voucher programme, which is now being implemented in all 109 districts, (MoA, 2017) has also contributed to the proliferation of agricultural SMEs in Zambia.

This study was conducted by Musika to validate some of the key findings from an earlier study "A Needs Assessment of Rural Agribusinesses: The Commercial Viability of SMEs", which was done by Musika and WFP. The current study was also necessitated by the need to also capture certain variables which the previous study had not captured.

Moreover, current literature on agricultural SMEs' operations and challenges remains limited and scanty. This has made it difficult for planning, policy formulation and development of interventions that would benefit this sub sector. This study therefore was necessary as it can help in identifying and documenting successes and challenges being faced by agricultural SMEs in Zambia.

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<sup>2</sup> Business entities that have invested in rural agricultural markets, and are engaging the smallholder farmers as suppliers, buyers or consumers.



## **Objectives**

The main aim of this study was to assess the operational performance of various forms of rural agribusinesses. Specifically, the study had the following as its objectives;

- 1) Establish the different business models employed by agricultural SMEs.
- 2) Validate the key traits of successful SMEs.
- 3) Establish the challenges that SMEs face.
- 4) Assess the revenue and available sources of credit to SMEs.
- 5) Determine the use of digital payment services by SMEs.
- 6) Assess the willingness of SMEs to pay for business consultancy services.

## **Methodology**

A Convenient sampling technique was used to interview participants. Self-administered structured questionnaires were issued to 384 agricultural SMEs who had gathered for a meeting on the FISP E-voucher scheme on 27<sup>th</sup> September, 2017 at Government Complex in Lusaka. The meeting had agricultural SME representation from all the 10 provinces of Zambia.

## **Data Collection and Analysis**

Hard copy paper questionnaires were used to collect basic information on the SME owners, general firm characteristics, and operational performance of the business in addition to other variables. The questionnaire had captured both qualitative and quantitative data. The data was then analysed by showcasing distributional graphs, tables, counts and means around variables of interest. The results were generated using Microsoft excel and Stata.

## 2.0 KEY FINDINGS

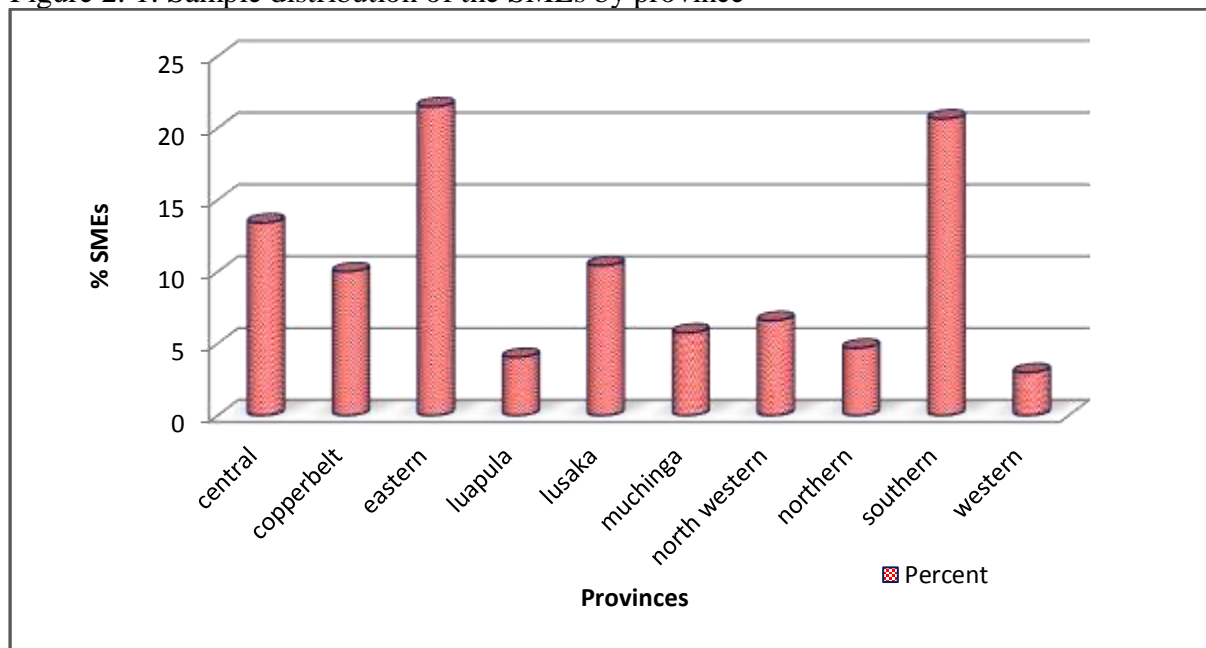
### 2.1 General characteristics

This section of the report presents the general characteristics of the SMEs who were interviewed.

#### *Sample distribution of SMEs by province*

Figure 2.1 outlines the spatial distribution across Zambia of the SMEs that participated in the survey. Eastern province had the highest representation of SMEs with 22% whilst Western province had the lowest with only 3%. The relatively low numbers of SMEs in provinces such as Northern, Luapula and Western provinces presents an opportunity for SMEs as the low numbers might translate into limited access to rural agricultural markets for commodities, improved farming inputs and technologies by smallholder farmers. According to CSO (2014) the aforementioned provinces have had the least participation in maize marketing between 1988 and 2014. Thus private sector development reforms as highlighted in the Seventh National Development Plan (7NDP) will need to be implemented in order to create an enabling environment for the private sector to seize the opportunities in such areas. This could increase farmer productivity and income, while benefiting the SMEs as well.

Figure 2. 1: Sample distribution of the SMEs by province



Source: agro dealer survey, 2017

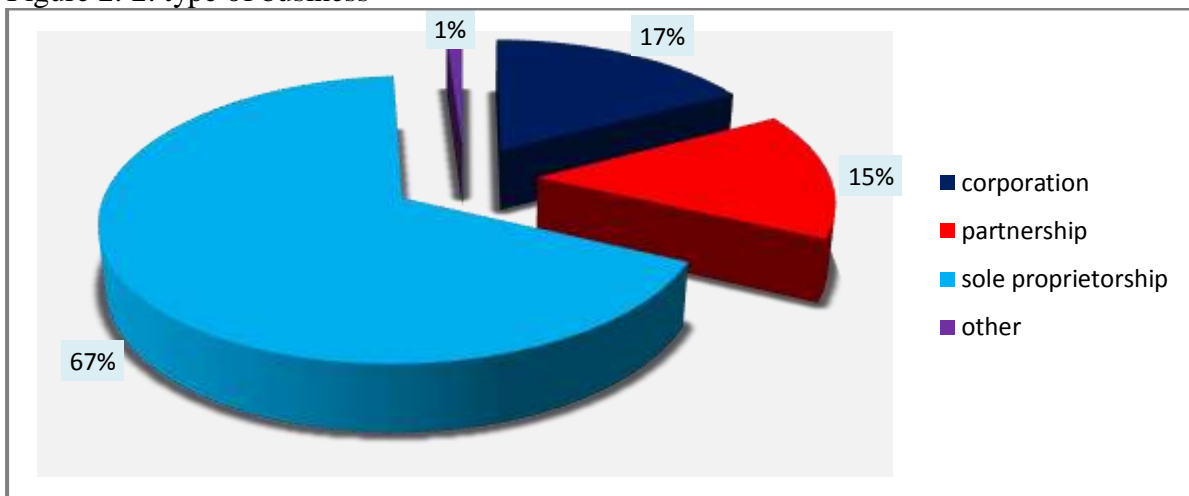
## 2.2 Business Models

This section discusses the different types of business models that SMEs use.

### *Type of business*

The majority of SMEs that participated in this study (67%) indicated that the type of business they operated were sole proprietorships, with 17% operating as corporations, 15% as partnerships and 1% employing other types. See figure 2.2.

Figure 2. 2: type of business



Source: agro dealer survey, 2017

The current status quo, where the majority SMEs are sole proprietors, poses a threat to the development and sustainability of the SMEs sub sector and the agriculture sector as a whole. This is because sole proprietorships unlike corporations are not independent from the owner. Hence in most cases the death of the owner result in the closure of the business. In such cases the knowledge, skills and experience is lost with the owner, and is ultimately a loss to the agriculture sector. Corporations on the other hand are legal entities that are independent of the owners and can exist from one generation to the next. Therefore, skills, knowledge and experience are passed on, ensuring sustainability and growth in the sub sector and agricultural sector as a whole. Hence there is need for deliberate policies which could encourage SMEs to operate as corporations.

## *Business models*

Most SMEs deployed a diverse business model, with 58.85% of businesses operating more than one strand of business. The most common multi-strand operation was agro dealership and other businesses at 41.4% followed by agro dealership and commodity aggregation at 24%. The more models an SME employs the more resilient they are. This is because when one model is not profitable in a certain season the other may prove otherwise. In addition, the more models SME employs the more services they are able to render to farmers. For example, those that operate as agro input suppliers as well as aggregators provide more value to the farmers. Therefore, agro dealer participation at multiple nodes of the agricultural value chain needs to be encouraged.

### **2.3 SME Success Characteristics**

This part of the report briefly describes the analytical approach that was used to identify characteristics of successful SMEs in the study sample. Whilst it is acknowledged that business success depends on numerous factors, this study used the revenue bracket and the capacity for the business to cover its costs as key factors which can lead to the success of an SME. The brackets that determine success are highlighted in **bold** in Table 2.1 below:

Table 2. 1: Success indicators<sup>3</sup>

<b>Revenue Bracket (ZMW)</b>	Did not cover all costs at this level of revenue	<b>Covered all costs at this level of revenue</b>
less than 50,000	10%	10%
50,001 to 100,000	8%	9%
100,001 to 200,000	4%	9%
200,001 to 400,000	5%	11%
<b>400,001 to 600,000</b>	3%	5%
<b>600,001 to 800,000</b>	1%	3%
<b>600,001 to 800,000</b>	1%	2%
<b>800,001 to 1000,000</b>	2%	4%
<b>above 1000,000</b>	3%	10%
Grand Total	36%	64%

Source: agro dealer survey, 2017

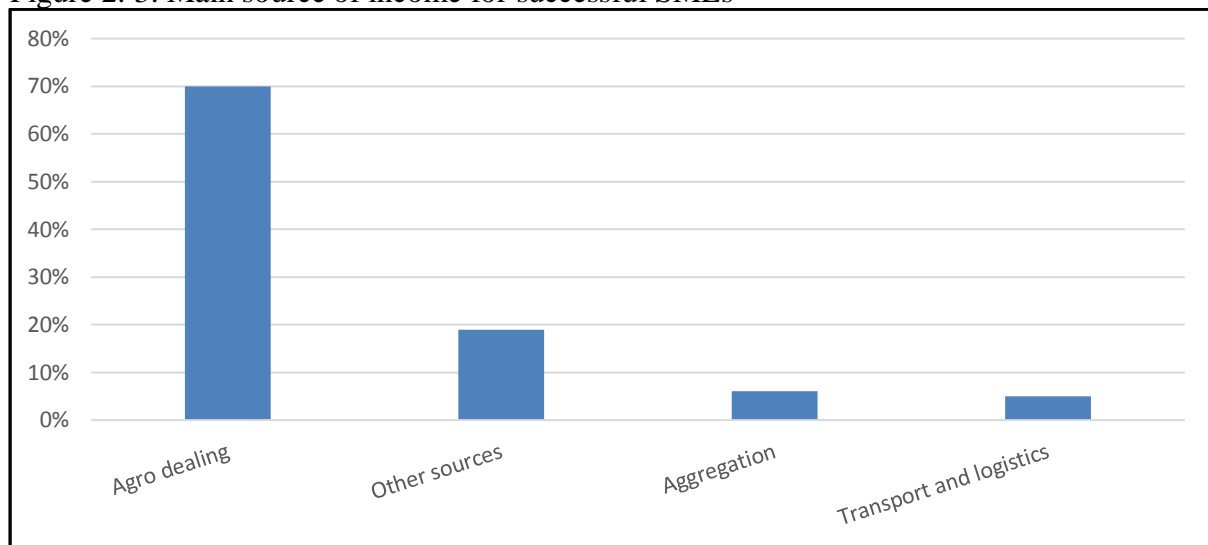
### *Sources of income*

The study found that the majority of successful SMEs had engaged in more than one economic activity, see figure 2.3. The study found that the majority of successful SMEs had engaged more in a diverse range of income generating activities than unsuccessful SMEs. This plays a big role in ensuring a stable cash flow for the SMEs as they are able to reduce the business risk

<sup>3</sup> These indicators were in conformity to the indicators used in the previous report

by engaging in a number of income generating activities. This conforms to the findings by Arneson *et al.*, (2017) who found a similar trend.

Figure 2. 3: Main source of income for successful SMEs



Source: agro dealer survey, 2017

### Management

Successful SMEs employed more staff than unsuccessful SMEs, see table 2.2. The finding on successful SMEs employing a bigger work force also attests to the role that SMEs can play in wealth and employment creation.

Other than that successful SMEs had business owners (or managers) with experience of more than five years in the business sector in general, see table 2.2. Therefore, SMEs need to consider hiring managers with a significant relevant work experience as this can have a positive effect on the performance of the business. This finding corroborates that of an earlier study by Arneson *et al.*, (2017) who found that experience of the managers was likely to determine the likelihood of success of an SME.

Table 2. 2: Average years in business and average number of employees

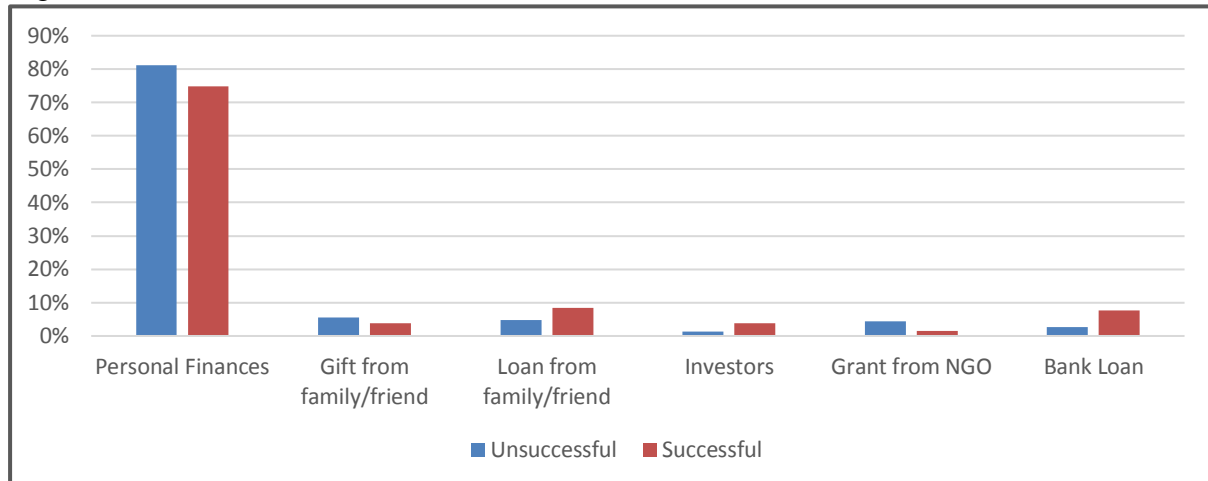
Category Of SME	Average Number of Employees	How long they have been running the business
Unsuccessful	5.0	4.8
Successful	13.4	7.6

Source: agro dealer survey, 2017

### Source of Finance for Starting the Business

It was noted that while the majority of both successful and unsuccessful SMEs had started their businesses with their personal finances, successful SMEs had also acquired loans, and engaged investors much more than the unsuccessful SMEs, see figure 2.4. This might imply a much more entrepreneurial mind-set for the successful SMEs than the unsuccessful SMEs who had resorted to obtaining gifts and grants from family and friends as well as NGOs.

Figure 2. 4: Sources of finance



Source: agro dealer survey, 2017

### Key Challenges faced by SMEs

The study revealed that the most common problem between successful and unsuccessful SMEs was the issue of coordinating their outlets, see figure 2.5. This finding is particularly similar to the findings in the earlier report by Arneson et al., 2017, where it was identified that lack of staff and management capacity was a challenge to effectively run each outlet; SME owners felt that they needed to be present to oversee unknowledgeable or unskilled personnel at various outlets.

Common issues which stood out for unsuccessful SMEs were challenges in staff capacity and record keeping. Staff capacity as alluded to earlier could relate to inadequate working knowledge of the employees. On the other hand, record management, an important skill necessary for growing enterprises to flourish, appears to be most important challenge for this category of SMEs.

Figure 2. 5: Score<sup>4</sup> on what SMEs felt were major problems in their businesses



Source: agro dealer survey, 2017

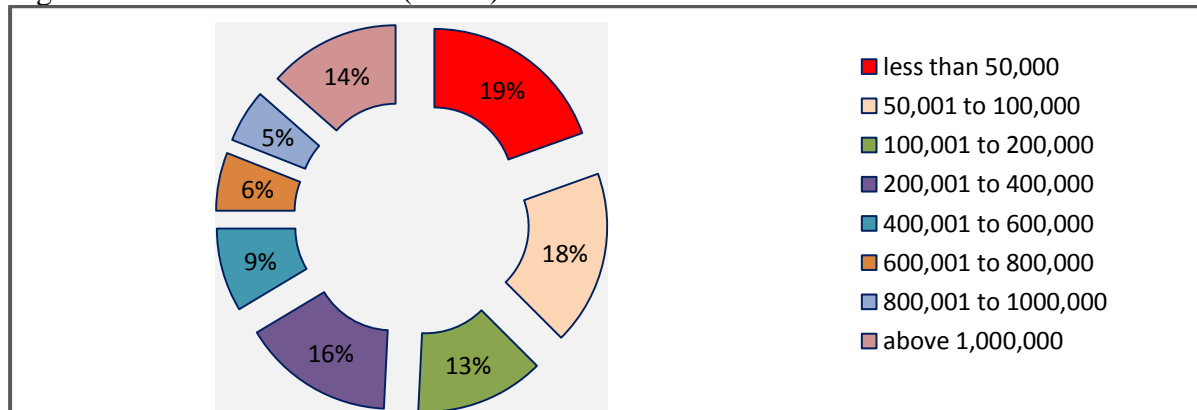
<sup>4</sup> SMEs were asked to rate a particular problem in their businesses with “1” to mean no problem and “5” to mean major problem

## 2.4 Generalized<sup>5</sup> Findings

### *Income bracket*

The study found that 64% of the SMEs had recorded improvements in their annual revenues in 2016/2017 farming season compared to the 2015/2016 season. Figure 2.6 below shows the categorization of SMEs' revenue in the 2016/2017 season.

Figure 2. 6: Revenue brackets (ZMW)



Source: agro dealer survey, 2017

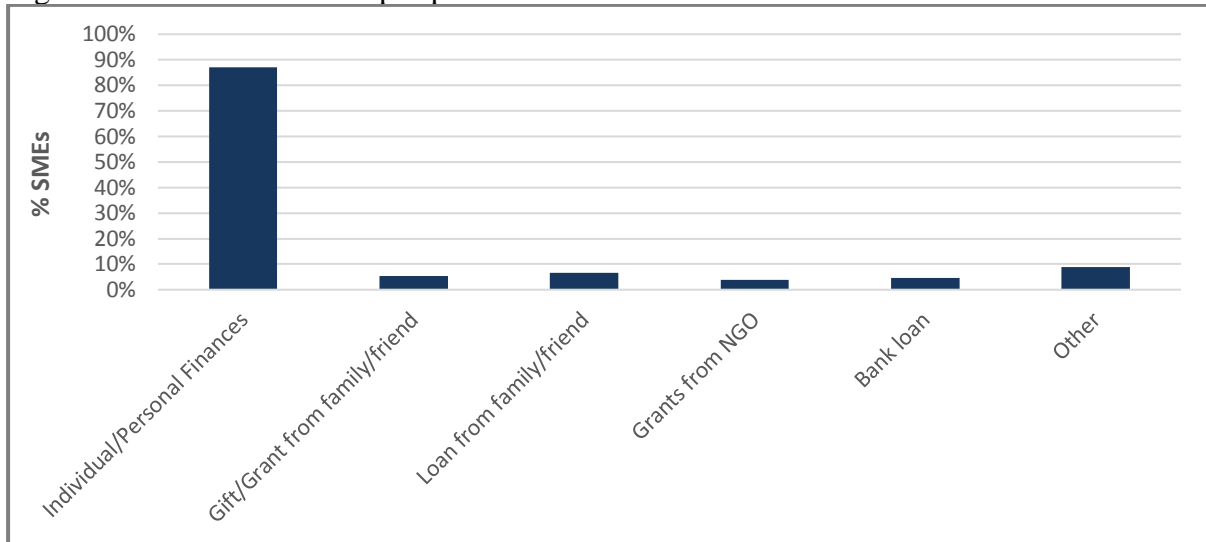
It was also observed that 64% of the SMEs were able to cover all their business operational costs, this percentage corresponds with the percentage of SMEs who reported an increase in revenue in the 2016/2017 agricultural season.

### *Source of capital*

SMEs were also asked to state their main source of start-up capital for their businesses. The majority of SMEs, 87%, indicated that personal capital was used, see figure 2.7. It was noted that only 5% of the SMEs had obtained bank loans as capital to start their businesses. This finding can be explained by the fact that most SMEs were operating as sole proprietorships, hence it is difficult for them to obtain capital from financial institutions. The low rate of use of banks for start-up capital raises concern as it limits SMEs sources of capital for business expansion. If the rate of development of agricultural SMEs and agriculture in general is to be increased there is need to increase access to capital from large and formal financial institutions such as banks.

<sup>5</sup> Additional findings are presented in the Annex

Figure 2. 7: Source of start-up capital

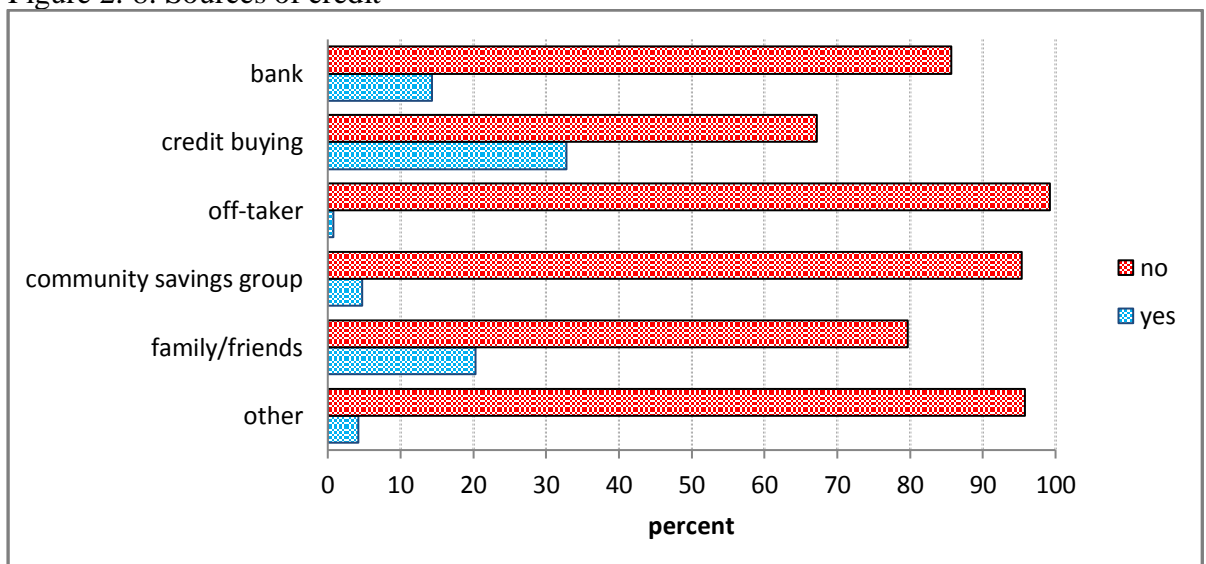


Source: agro dealer survey, 2017

### Access to credit

As SMEs grow, they require funds to finance growth in fixed assets and increase their working capital. SMEs therefore require long term credit in ever increasing amounts. Access to credit by SMEs greatly influences their performance (Muguchu, 2013). It was established from the study that the most common source of credit utilized by SMEs is credit buying<sup>6</sup> (33%), see figure 2.8. This was only followed by family/friends source whilst the least was off-taker.

Figure 2. 8: Sources of credit



Source: agro dealer survey, 2017

<sup>6</sup> This is inventory credit from suppliers: SMEs have consignment stock of agricultural inputs/products from suppliers.



### Use of e-payment services

The study further revealed that the most utilized e-payment service by SMEs is internet banking (53%) followed by mobile money transfer service (47%), see table 2.3. It was also found that 39% of the agro dealers had used an independent mobile money operator (Zoona).

Table 2. 3: E-payment services

	Mobile Money (Airtel/Mtn/Zamtel)	Zoona	Internet banking services
<b>Yes</b>	47.14	39.06	52.86
<b>No</b>	52.86	60.94	47.14
<b>Total</b>	100	100	100

Source: agro dealer survey, 2017

E-payment services are utilized for various types of transactions ranging from savings, paying salaries and receiving payments from customers to paying suppliers. It was established that 60% of the SMEs used e-payment service for ‘paying suppliers’. This was followed by ‘receipt of payments from customers’. Savings and paying salaries were least utilized, see figure 2.9.

Figure 2. 9: Types of transactions performed using e-payment services



Source: agro dealer survey, 2017

### Willingness to pay for business development services

SMEs were also asked about their willingness to pay for business development services. Less than half of the SMEs (42%) were willing to pay ZMW750 for training on a topic of choice.

The average amount they were willing to pay was ZMW416. On willingness to pay ZMW 10,000 for a technical expert to set up a data system, only 7% of the SMEs were willing to pay the amount. The average amount they were willing to pay for the service was ZMW 2,631.

*Willingness to pay for Business Development Services (BDS) against the revenue Bracket*

It was established that a statistically significant association exists between level of revenue and willingness to invest in business development services. The revenue bracket has a bearing on SMEs willingness to pay for business development services like technical advice on different topics as well as setting up of a data system. The highest percentage of participants who were willing to pay ZMW750 for training on a topic of choice (21%) were in the highest revenue bracket. A similar pattern was observed with regards to willingness to pay ZMW 10,000 for a technical expert to set up a data system, see table 2.4. On the other hand, the highest percentage of participants who were not willing to pay for business development services fell in the lowest revenue bracket.

Table 2. 4: SMEs willingness to pay for BDS against revenue bracket

Revenue Category	less than 50,000	50,001 to 100,000	100,001 to 200,000	200,001 to 400,000	400,001 to 600,000	600,001 to 1,000,000	above 1,000,000
SMEs Willing to pay ZMW750 for a topic of choice training (%)	10.63	16.25	11.88	15.63	11.88	13.13	20.63
SMEs Willing to pay ZMW10,000 for data system setup (%)	3.3	6.67	6.67	10	6.67	33.3	33.33

Source: agro dealer survey, 2017

The statistics on willingness to pay communicates the need to segment the service charges according to revenue categories, this could make it possible for the SMEs to afford the trainings. Adopting a price discrimination strategy may also serve as a remedy to the problem of SMEs affording trainings. In pure price discrimination, the service provider will charge each agro dealer the maximum price that an agro dealer is willing to pay.

## 2.5 Challenges Faced by SMEs

Below were some of the general challenges in addition to the ones indicated by SME category:

**Capital:** Many of the participants pointed to low business operating capital as a big challenge to the smooth operation of their businesses.

**Transport:** Lack of assets like vehicles to transport commodities and inputs from suppliers to their outlets was another major challenge the study participants stated. This was especially true for SMEs who had outlets in remote rural areas. However, a number of SMEs managed to buy trucks to use for commodity transportation.

**E-voucher:** SMEs also alluded to late and/or no activation of e-voucher cards as a problem they faced in the 2016/2017 agricultural seasons.

**Credit Buying:** a cadre of SMEs also complained about failure to secure credit buying deals with suppliers. This was mostly true for the SMEs that fell in the lowest annual revenue bracket.

### 3.0 CONCLUSIONS AND RECOMMENDATIONS

Musika and its implementing partners engage with SMEs on various interventions to stimulate investments in rural agricultural markets. In order to make these engagements more beneficial to all stakeholders, it is imperative that the characteristics, strengths and weaknesses as well as threats and opportunities that each stakeholder faces are well understood. This study was necessitated by the need to validate some of the key findings from a previous study done by Musika and WFP.

From the study, it was learnt that most SMEs deployed a diverse business model, the most common multi-strand operation being agro dealership and other businesses. The more models an SME employs the more resilient they are. This is because such SMEs are able to spread their risks. In addition, the more models SME employs the more services they are able to render to farmers.

Successful SMEs had employed more staff than unsuccessful SMEs. This finding on successful SMEs employing a bigger work force also attests to the role that SMEs can play in creating employment and wealth.

Furthermore, the majority of both successful and unsuccessful SMEs had started their businesses with their personal finances. However, successful SMEs had also acquired loans, and engaged investors much more than the unsuccessful SMEs. This might imply a much more entrepreneurial mind-set for the successful SMEs than the unsuccessful SMEs who had engaged much more in obtaining gifts and grants from family and friends as well as NGOs.

The study also revealed that the most common problem between successful and unsuccessful SMEs was the issue of coordinating their outlets. SME owners felt that they needed to be present to oversee unknowledgeable or unskilled personnel at various outlets. However, challenges in staff capacity and record keeping emerged as prominent problems amongst unsuccessful SMEs.

The study recommends that potential SME partners will need to promote agribusiness models amongst SMEs which are diverse as this could reduce business risk whilst broadening the range of services that SMEs provide to smallholder farmers.

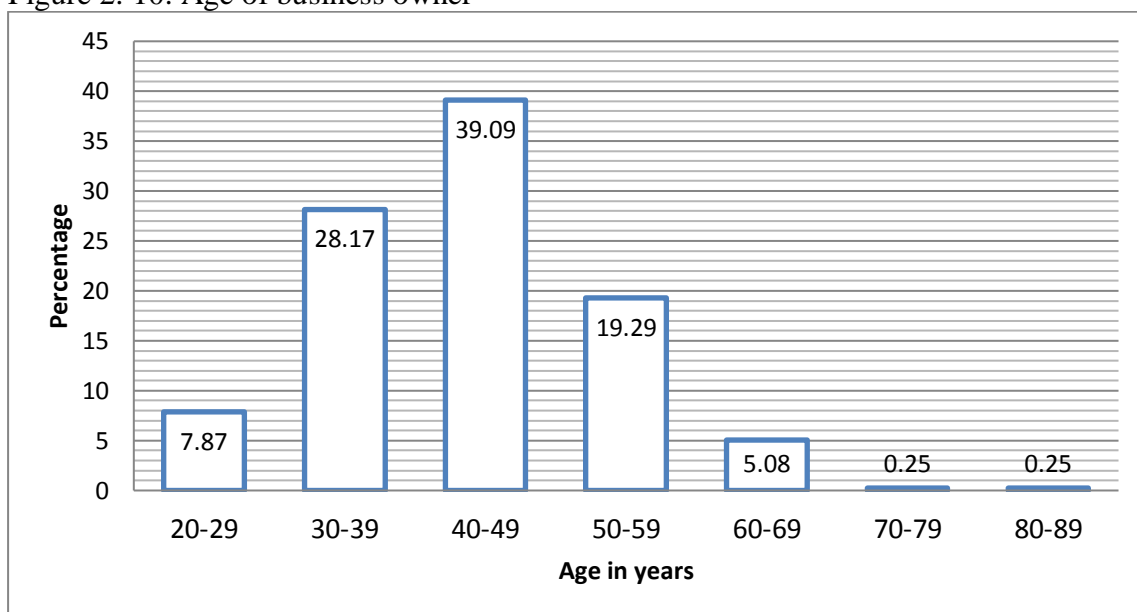
There is also a need to develop SMEs' capacity in business management as this emerged as a common problem with SMEs. Although prominent amongst unsuccessful businesses, staff capacity and record keeping are also key challenges which have the potential of affecting the performance of SMEs.

## Annex

### Age of business owners

It was established that the majority (39%) of SMEs that participated in this survey were owned by individuals aged between 40 and 49 years, see figure 2.10. The study also revealed that about 35% of the SME were owned by youths. There is great need for deliberate policies that can attract more youths to the agricultural sector in order to enhance its development and resilience in a world of fast changing technologies.

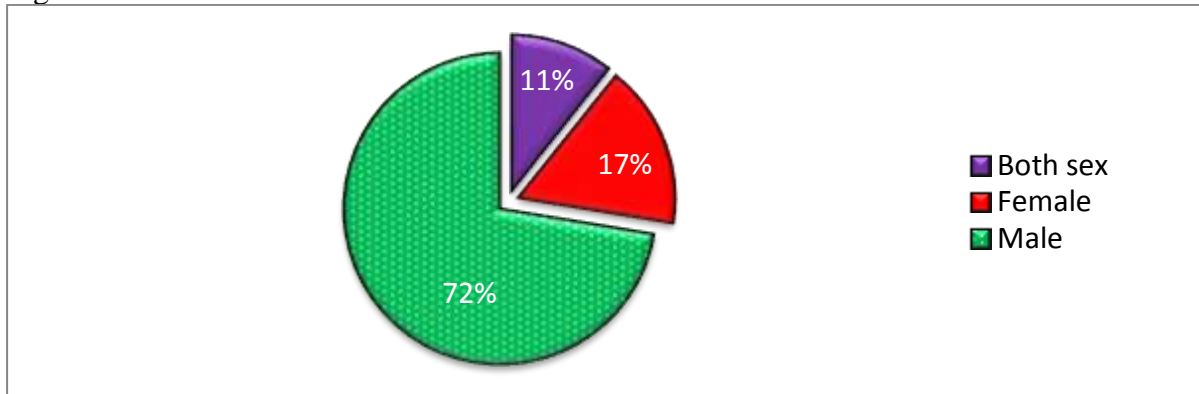
Figure 2. 10: Age of business owner



### Gender of business owner

The survey also established that SMEs were predominantly owned by males, See figure 2.11. The majority (72%) of the SMEs had indicated that they were owned by males. Only 17% were female owned and the remaining 11% were owned by both males and females. This echoes the need for interventions and policies that can encourage more women to become SMEs. Such policies would encourage female farmers to produce more as they would be more comfortable to consult from fellow women. This is very important given that agriculture supports the livelihoods of over 70% of the Zambian population, and that 78% of the women in Zambia are engaged in agriculture compared to 69% of males (Sitko, 2011).

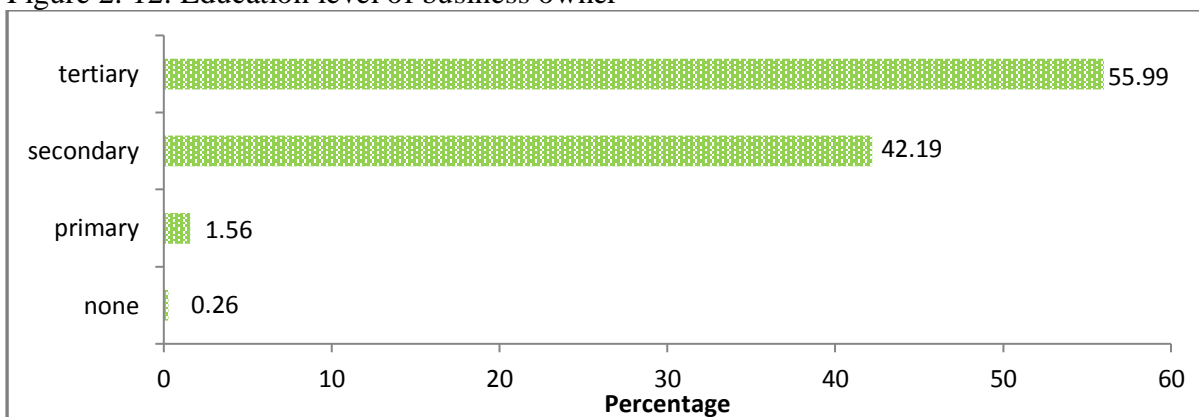
Figure 2. 11: Gender of business owner



#### *Level of Education of business owner*

Gauging the level of education attained by SMEs is key in devising the best extension approach as it may have a bearing on agro dealers' ability to assimilate information, receive technical advice and take up new technologies (Musika, 2017). Figure 2.12 shows the highest level of education attained by business owners. The results show that most of the owners (56%) had attained tertiary education and 42% had secondary education.

Figure 2. 12: Education level of business owner



#### *Period of business operation*

The study also captured information pertaining to the period that the business has been in operation. It was found that over half of the SMEs (64%) have operated between one and five years. This was followed by those who have operated between 6 and 10 years (25%). On the other hand, those who have operated between 11 and 20 years and those for more than 21 years constituted only 10% and 1% respectively.

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