

AN EXPLORATION OF BARGAINING POWER STRATEGIES BY SMALL SCALE FARMERS IN MAIZE MARKETING IN MAPANGAZHYA FARMING BLOCK, CHIKANKATA DISTRICT, ZAMBIA.

By

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DECLARATION

I do hereby declare that this dissertation is my own work and effort and that it has not been submitted anywhere for any other award. Due acknowledgments have been done where other sources of information have been used.

Signature.....

Date

CERTIFICATE OF APPROVAL

We do hereby declare that this thesis is from the student’s own work and effort and all other sources of information used have been acknowledged. This thesis has been submitted with our approval.

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DEDICATION

I dedicate this work to Wife, Zondiwe, and my four children, namely Exildah, Enock, Edinah and Esther for their tremendous support and encouragement. My brothers and sisters, especially Judith, for the encouragement and support.

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Abstract

The purpose of this study was to explore the bargaining power strategies used by small scale farmers in marketing of maize produce in Mapangazhya farming block of Chikankata district. The study draws from collective action theories to explain the phenomenon under observation. The target population included all small scale farmers in Mapangazhya farming block in Chikankata district. Small scale farmers were the main respondents whereas key respondents were included Agricultural Extension Officers, Civic and Traditional Leaders and the District Agricultural Coordinator (DACO).

A simple random sampling method was used to select three agricultural camps in Mapangazhya farming block, while a purposeful sampling method was used to pick small scale farmers, and key informants. A sample size of 50 small scale farmers was used for the study, with an additional 10 key informants.

Qualitative research design was used to collect. Both primary and secondary data was used in the study.

Interview schedules were used to collect data from small scale farmers as well as key informants, Participant observation was also used.

Data analysis was done thematically and by categorization. Tables were generated showing relationships between the variables.

The main findings included the following;

Availability of market for maize produce

The study revealed that maize market availability and access among small scale farmers was still a challenge as evident from the 32 % of the respondents who said maize market was either rare or completely unavailable. However, 68% and 47.5% of the respondents acknowledged the availability and accessibility of the maize market in Mapangazhya farming block of Chikankata district.

Organization of small scale farmers to bargain for marketing of maize produce

The study showed that none of the small scale farmers were organized in groups to influence enhance their bargaining power in maize marketing. Instead, the small scale farmers sold their maize individually, thereby resulting weak bargaining power hence compelling them to sell their maize produce often at a none economic price.

Bargaining strategies used by small scale farmers in marketing of maize produce

The study revealed that 92% of the small scale farmers had weak bargaining power while 8% of them observed that their bargaining power was moderate. The study further showed that none of the small scale farmer respondents applied any bargaining strategies in the marketing of their maize produce. This was attributed to heavy reliance on maize as the main source of income, lack of crop diversification, vulnerability due to ignorance and poverty levels, pressing socio-economic demand requiring money, such as school fees, hospital charges to mention a few.

Profitability of maize price on the local market

The study findings showed that generally maize marketing was rarely profitable. This perception is evident from the 88% and 92% respondents who said that maize prices were not profitable in during the most of the marketing seasons under review.

Key Recommendations

- Government should facilitate in establishing market linkages for maize produce both locally and internationally within the regional markets to enable small scale farmers obtain high returns on their maize produce.
- Agricultural technocrats should sensitize small scale farmers and establish farmer groups to improve the bargaining power for maize marketing in Mapangazhya farming block of Chikankata.
- Agricultural technocrats should teach small scale farmers on bargaining strategies in order to improve the selling price of their maize produce.
- Small scale farmers should apply bargaining strategies communally to increase demand for the maize produce.
- Agricultural technocrats should teach small scale farmers to practice crop diversification and grow high value crops to improve returns on their agricultural crop production investment.

CHAPTER ONE

INTRODUCTION

1.0 Overview

The chapter gives a background of the study, and statement of the problem which highlights knowledge gap for which the study was aimed to address. The main and sub research questions as well as the significance of the study are covered in this section, including the study delimitation and limitations. The theoretical framework and operational definitions marks the end of this chapter.

1.2 Background

The agricultural sector plays a significant role in the development of any nation, as it not only provides raw materials required in agro related industry, but also offers a market for manufactured products such as fertilizers, and agro related chemicals to mention a few. In view of the foregoing scenario, the agriculture industry substantially contributes to national development especially in the developing and least developed countries. This sentiment was also echoed by Gollin (2010) and Loayza and Raddatz, (2010) who stated that the growth of the agricultural sector of the economy has a significant bearing on economic growth in many underdeveloped countries and that it also has the largest contribution to poverty reduction .This is so particularly because in the developing world, the majority of the rural population's main economic activity is agriculture.

According to Diao et al., (2010), in the early stages of development, the growth of the agricultural sector is key for achieving development objectives. This is so because it provides the much needed agro-related raw materials for use in the manufacturing industry. Furthermore, agriculture provides a market for the manufacturing industries producing agro- related products such as fertilizer, agro chemicals to mention a few. In fact, backward and forwarded linkages anchored around the agricultural industry are advocated as it forms a firm foundation for economic development, in the developing countries, Zambia inclusively.

Zambia is endowed with abundant arable land and water resources. Out of the country's landmass of approximately 752,000 square kilometers, 56 percent is arable land (42 million hectares).CSO, 2010.

The country has about 35 percent of the fresh water resources in the SADC region, which if properly utilized, could make agriculture a main stay of the economy.

From independence, the country has strived to enact various laws and policies to improve the agricultural sector. These measures focused on agriculture have been aimed at improving food security and increase agricultural production. They included the introduction of input price controls and subsidies, formation of co-operatives and establishment of parastatal organizations for the purpose of buying and marketing agricultural produce and also for ensuring availability of enough stock for food security. The measures promoted the participation of government in the economy, rather than mere regulation. In the initial phase, it resulted into an increase in food production particularly maize due to an increase in the area under cultivation and improved farming technologies. However, the continued escalation of the cost arising from these policies were not sustainable, as evident from subsequent the poor economic performance, which saw the rise in inflation, shortages of essential commodities, erosion of the national currency, high poverty levels and ultimately general discontent among the citizens. These factors lead to the change of government in 1991.

When new government took over the realms of power in 1991, a number of policy changes were made. These included liberation of the economy, which encouraged private participation in industry. In the agriculture sector, maize marketing was liberalized, price controls were removed, with the hope that market forces would determine the price equilibrium for maize and other agricultural produce. The government tried to limit its role to that of policy making, and provision of an enabling environment.

The role played by the agriculture sector in Zambia cannot be over emphasized. It is evident from the fact that majority of the rural population is dependent on agriculture for their economic livelihood. The situation is quickly changing, extending to the urban population who are turning to the agricultural sector to not only for the purpose of food security, but also as a source of income generation.

Agriculture has become an increasingly important contributor to Zambia's economy and exports. In the period between 1993 and 2001, Agriculture accounted for an average share of 22 percent of GDP, an increase of about 6 percent from 16 percent recorded between 1965 and 1992. Agriculture exports grew nearly 14 percent over the same period, with sales of agriculture

products accounting for 19 percent of total earnings from merchandise exports in 1999, up from just 2 percent in 1990. Agro-processing industries account for about 84 percent of manufacturing output, and are more than five times larger than the next largest group, textiles and leather products (both of which rely on agricultural raw materials). This is according to the 7th National Development Plan.

According to the World Bank report (2013), the agriculture sector in Zambia contributed an aggregated value of USD 22.38 billion to GDP.

Peasant farmers, who are scattered throughout the country, hold nearly two-thirds of Zambia's agricultural land, and a large share of the national livestock herds, typically on less than five hectares. They grow staple food, including about 60 percent of the country's maize, 90 percent of sorghum, 85 percent of groundnuts and virtually all the cassava and other starchy staples (roots and tubers), primarily for their own consumption. The country's agricultural activities particularly among peasant and small scale farmers are predominantly focused on food crops mainly maize, and other crops such as sorghum, cassava, millet and groundnuts (The IDL Group, 2002).

While Zambian peasant yields average about 50 percent of those realized by commercial farmers, the possibility for improved agricultural exports is clear evident in these higher commercial yields. The small farms occupy mainly land held under traditional tenure systems, managed by local chiefs. Some 60-70 percent of smallholder farmers have not benefited from the liberalization reforms of the 1990s because they live far from markets where inputs can be obtained at reasonable cost and where farm output can be sold at a profit.

Some peasant farmers, who are more commercially oriented than the typical smallholder, grow staple foods and cash crops such as sugarcane and tobacco; they occupy both state land under long-term leases and land under traditional tenure systems. While they use hybrid seed and fertilizer to grow their crops, like other peasant farmers they rely on rain rather than irrigation and use animal-powered plows and machines.

Large commercial farms allocated mainly along major transport routes and near population centers, occupy state land under 99-year leases, using modern technology, machinery, irrigation, fertilizer and pesticides and produce most of the country's agricultural exports and about 80 percent of milk, 75 percent of wheat and 70 percent of soybeans and poultry.

In 2015, the sector contributed 8.5 percent to the GDP and approximately 9.6 percent of national export earnings (CSO, 2015; World Bank, 2016). Agricultural sector is key in reducing poverty as it has both forward and backward linkages, essential for boosting economic development.

Agricultural activity involving crops cultivation is mainly dependent on seasonal rain-fed, with maize being the most dominant crop grown especially among small scale farmers for both consumption as well as for sale to raise income to meet various socio-economic needs.

Like any other developing country, growth in the agricultural sector is the clearest avenue through which Zambia can achieve sustainable economic growth and poverty reduction.

According to Jayne et al (2007), maize cultivation has been the most dominant crop among small scale and peasant farmers. For instance, during the 1990/91 farming season, maize cultivation accounted for about 76% of the total value of smallholder crop production, while cassava was around 10%, with all other crops trailing below 3%. Matandiko (2010) observed that the over dependency on maize mono cropping in the country has compromised the anticipated growth in the agriculture sector owing to increased costs of maize production.

Marketing of agricultural produce, particularly maize among small scale farmers is necessary if the farmers are to raise financial resources from this main source of income. Historically, the Government of Zambia adopted maize marketing reforms as part of loan conditionality agreements with the World Bank and IMF in the late 1980s while facing extreme fiscal pressure. However, starting in 1993 the government reversed some of these reforms and progressively re-introduced a number of measures to control food prices and supplies. By 1995, a new parastatal, the Food Reserve Agency (FRA), was formed to hold strategic food reserve.

Jordan Blekking (2017) paper entitled “Who Gains From Rural Agricultural Cooperative Membership? Empirical Evidence from Rural Zambia” observed that from the 1970s and 1980s, policy makers across the globe looked to agricultural cooperatives as a means through which food insecurity would be more effectively mitigated. Policy makers regarded cooperatives as a means of bringing smallholders together in an attempt to leverage the benefits of collective action. Cooperatives often take on the role of serving as a bridge between smallholders and agricultural input producers, in order to increase the use of Green Revolution inputs by the rural poor. Aggregating farmers into cooperatives for the purpose of acquiring resources and or

marketing of crops can more efficiently provide benefits on a group scale as compared to individual farmers interacting with private markets. This is the supply side of the marketing equation. However, on the demand side of the equation, Zambia used institutions namely the national Marketing Board in the 1980s, later the Food Reserve Agency from early 2000 to-date to procure agricultural produce, especially maize from farmers.

The performance of the agricultural sector in general has been hampered by the poor state of feeder roads and other communication infrastructure, lack of rural electrification, inadequate credit facilities, fluctuations in rainfall patterns and poor agricultural marketing systems as well as fluctuation in the floor price, despite the continued escalation prices of agro inputs, which have negatively affected the profitability of farm inputs, particularly maize produce.

Small scale farmers in Mapangazhya farming block of Chikankata district need to market and sell their maize produce at a profitable price to raise income to meet their socio-economic needs. They need to bargain and sell their maize at a profit to sustain production and improve their socio economic welfare. However, the strategies used by small scale farmers to bargain for marketing of their maize produce in Mapangazhya farming block of Chikankata are not known.

This study was conducted to explore the bargaining power strategies used small scale farmers in maize marketing of maize produce in Mapangazhya farming block in Chikankata district.

1.3 Statement of the Problem

Agriculture is one of Zambia's main pillars of economic development and main stay of the livelihood of the large population particularly the rural population, comprising small scale farmers. According to Chapota A. and Chisanga B. (2016), IAPRI: Zambia Agriculture Status Report, the sector provides economic livelihood to about 49% of the population). Hambulo (2009), in an article entitled "*The Agriculture Sector can help Zambia move towards Sustainable Economic Development*", about 90 percent of Zambia's rural population is dependent on agriculture, as their main source of livelihood.

Small scale farmers in Mapangazhya farming block of chikankata, equally rely on agriculture for their economic livelihood, mainly focussed on maize production. Maize production is associated with huge production costs stemming from high cost of agricultural inputs, land preparation, weeding or herbicides spraying, harvesting, shelling as well as transportation to the market, due to its bulky nature.

Small scale farmers need to market and sell their maize produce, and at a profitable price to achieve high returns on their investment, if they are to sustain their agricultural production, raise income and alleviate poverty. Small scale farmers have recorded maize bumper harvests from time, but have not realized desired returns on their maize production investment on account of the uneconomic low price of maize, hence perpetuating poverty.

According to the Zambia National Farmers Union (2016) news bulletin report on the 2015- 2016 farming season, the Food Reserve Agency pegged a 50 kg bag of maize at K85, where as in 2016-17 marketing season, the same 50kg bag of maize fetched k60, despite the none reduction in the cost of inputs for maize production in the farming season under review.

Private buyers in Mapangazhya farming block were observed buying a 50kg bag of maize as low as from k42 to k50, an exploitative price indeed. A report by Ministry of Agriculture and Cooperatives (MACO 2017), annual bulletin, maize was the lowest priced cash crop at K1.92/ kg in 2016 compared to K1.28 / kg in 2017 marketing seasons.

The bargaining power strategies used by small scale farmers in the marketing of maize produce in Mapangazhya farming block of chikankata are not known.

Therefore, this study sort to explore the bargaining power strategies used by small scale farmers in the marketing of maize produce in mapangazhya farming block of chikankata district.

1.4 Purpose of the Study

- To explore the bargaining power strategies used by small scale farmers in the marketing of their maize produce in Mapangazhya farming block of Chikankata district.
- 1.4 .1 Specific objectives
- To establish availability of a market for maize produce in Mapangazhya farming block, in Chikankata district.
- To ascertain how the small scale farmers are organized to bargain in the pricing of maize produce on the market in Mapangazhya Farming Block of Chikankata district?
- To explore the bargaining power strategies used by small scale farmers in the marketing of their maize produce in Mapangazhya farm Block of Chikankata District.
- To assess the profitability of the bargained maize price on the market in Mapangazhya farming block, Chikankata district.

1.5 Research Questions

1.5.1 Main Research Question

What bargaining power strategies do small scale farmers use in the marketing of their maize produce in Mapangazhya farming block of Chikankata district.

1.5.2 Sub Research Questions

- What is the availability of maize market for small scale farmers in Mapangazhya farming block in Chikankata district
- How are small scale farmers organized to leverage their bargaining in the marketing of maize produce in Mapangazhya Farming Block of Chikankata district?

- What bargaining strategies do small scale farmers use to market their maize produce in Mapangazhya farm Block of Chikankata district?
- How profitable is the bargained maize price obtained by small scale farmers in the marketing for maize produce in Mapangazhya farming block in Chikankata district?

1.6 Significance of the Study

The research findings and recommendations may inform policy makers to design appropriate policies aimed at enhancing the bargaining power among small scale farmers in the marketing of maize produce. The study may enable Agricultural Extension Workers understand the knowledge and skills gaps among small scale farmers in the bargaining of maize price in Mapangazhya farming block of Chikankata district, hence diverse more effective strategies to enhance and sustain effective bargaining capabilities among small scale farmers, for improved returns on their maize sales.

In the case of small scale farmers, the study may help them realize their knowledge and skills deficiencies and enable them become more receptive to tailored technical support on how to bargain for marketing of maize produce, hence improve their returns on their agricultural investments.

This study may also add to the body of knowledge on the bargaining power strategies used by small scale farmers in the marketing of their maize produce not only in Mapangazhya farming block of Chikankata district , but Zambia as a whole, and may be applied to solve problems in other regions facing similar agricultural challenges.

1.7 Delimitation of the Study

Delimitation is the process of reducing the study population and area to a manageable size. This study was delimited in terms of the scope. It only targeted Small scale farmers, Agricultural Extension Officers, Traditional and Civic Leaders as well as the District Agricultural Coordinator in Mapangazhya farming block in Chikankata District in Southern Province.

1.8 Limitation of the Study

Limitations are conditions beyond the control of the researcher that may place limitations on the conclusion of the study and their application to other situations. The limitations included accessibility challenges to small scale farmers because the study was conducted in the rainy season which is the busiest period in the farmers' calendar. Small scale farmers were busy

preparing their fields and planting as well as weeding their farm land. Financial and time constraints also limited the scope of the study.

In view of these challenges, the sample was small hence the findings may not be generalized. However, the knowledge generated from this study may be useful in addressing similar challenges faced by small scale farmers in South Province and other parts of the country. Furthermore, the generated knowledge may still inform other regions beyond Zambia's borders facing similar agricultural challenges.

1.9 Theory of Collective Action

The study was based on the modern theory of collective action. Gyau et al, (2012) defined collective action as the action taken by a group either directly or indirectly in pursuit of members' perceived shared interests. Todd S. (1992), added by saying that it arises when people collaborate on joint action and decisions to accomplish an outcome which involves their common interest

The theory was developed to address the free rider problem and design cooperative solutions for management of common problems.

The study used theory of collective action for the simple reason that it attempts to build the spirit of team work, a strategy which strengthens bargaining power, when it comes to marketing of maize produce by small scale farmers in the competitive economic environment.

According to J.F. Kirsten et al (2009), the notion of collective action has been applied to group activities that directly or indirectly enhance the production and marketing of agricultural and food products, and reflects a global trend caused by the increased market competition and integration, and marginalization of minorities into modern markets.

1.10 Operational Definitions

Collective action refers to action taken by a group either directly or indirectly in pursuit of members' perceived shared interest, and arises when people collaborate on joint action and decisions to accomplish an outcome which involves their common interest

Small scale farmers: Farmers who cultivate between 0 and 5 hectares.

Crop diversification refers to the shift from the regional dominance of one crop to regional productivity of a number of crops, which takes into account the economic returns from different value-added crops with complementary marketing opportunities (Hazra, 2002).

Market: a place where buyers and sellers meet. Suppliers offer their goods; consumers/ buyers look, compare and buy. The market can be centrally located in a village or region, in an area where people can come together at fixed times to buy and sell.

Bargaining Power - the bargaining power refers to the ability to negotiate for price which yields appreciable returns on investment.

Bargaining Power Strategies – these are tactics or actions employed to stimulate demand for a product, hence increase the price of a product.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 OVERVIEW

This chapter presents a review of literature by different scholars on the bargaining power strategies used by small scale farmers in marketing of their maize produce. Literature reviewed looks at the Global, Africa as well as Local Perspective of each of the thematic areas namely the Availability of market for maize produce; Organization of Small Scale Farmers in marketing of maize produce, Bargaining Strategies used by small scale farmers in the marketing of maize produce and; the Profitability of Price of Maize produce. The literature review also showed knowledge gap on the subject under discussion.

2.2 GLOBAL PERSPECTIVE

A number of studies have reviewed on the bargaining power strategies used in marketing of farm produce, with emphasis on maize produce. The following were some of the studies reviewed at global level;

2.2.1 Availability Of Market For Maize Produce

The need for marketing of any farm produce by small scale farmers is of paramount importance. This is because the aim of any producer is to deliver the produce to the final consumer. This sentiment was echoed by Chemonics (2010) in a paper entitled "Staple food value chain analysis, Nairobi, Kenya country Report." Having done so, the supplier would be anticipating to get higher returns on such investments, or else there would be no need to embark on a particular economic activity.

According to Kohls (1985), agricultural marketing is the performance of all business activities involved in the flow of goods and services from the point of initial agricultural production until they are in the hands of the ultimate consumer. It is only when there is availability of a market that small scale farmers are able to sell their farm produce to get the much need income to meet their socio-economic needs.

A market can be defined as a place where buyers and sellers interact in conducting business transactions. It is a place where buyers and sellers meet. Suppliers offer their goods; consumers/

buyers look, compare and buy. The market can be centrally situated in a village or region, in an area where people can come together at fixed times to buy and sell.

In a study by Heinemen P.A (2002), entitled “ Relationship making in the new economy, the reason why most rural communities cannot improve their living standards,” it was observed that rural communities remain trapped in poverty due to lack of access to markets. This study has in common with the current study the market availability concept under exploration. The situation regarding accessibility of market for maize produce in Mapangazhya farming block is yet to be established, hence this study.

2.2.2 Organization Of Small Scale Farmers

A number of literature exist on organization of small scaler farmers in relation to acquisition of farming inputs as well as when it comes to marketing of their farm produce. When small scale farmers belong to an organization, they can embark on collective action to increase their bargaining ability for market access. This is not easily achieved when they are fragmented and as the case happens to be most often.

Gyau A et al (2012), in a study entitled Farmers perception of collective action in kola supply chain: cluster analysis results” defined collective action as action taken by a group either directly or indirectly in pursuit of members’ perceived shared interest,

Collective action is a strategy where members of a group or cooperative come together to share market knowledge, sell together and develop business opportunities

Going by an adage that one thumb cannot not kill a lice, the need for collective action in the production and marketing of maize produce cannot be over emphasized.

A study by Birthal et al (2008) entitled “Linking farmers to markets for high value agricultural commodities, carried out in India, explored the use of cooperatives and contract farming strategies in marketing of farm produce, to increase returns on investment. This study is similar to the current study in that both focus on marketing of farm produce.

However, the current study is looked at the bargaining strategies used by small scale farmers in specifically in maize marketing, in Chikankata district in Zambia.

A study by Jon Hellin et al (2006), entitled Farmer Organization, Collective Action and Market Access for small scale farmers in Mexico and Central America, explored farmer organization and collective action in enhancing market access.

This paper looked at maize and high value vegetables marketing respectively. According to the study, the benefits of farmer organization were more evident in the vegetable sector characterized by high transaction costs associated with market access. The research suggests that farmer organizations established by and directly linked to supermarkets may be more economically sustainable as opposed to organizations supported by non-governmental organizations.

However, the study did not bring out issues pertaining to the level of bargaining power among the farmers when it came to determination of prices for their farm produce.

According to the Food and Agricultural Organization report (FAO 2004:24), it stated that one of the better known farmer organization was engaged in the milk industry in India. The organization supplied more than 70 percent of India's milk produced by households who owned only one or two milk animals. These producers formed part of a nationwide network of dairy cooperatives.

This report is similar to the current research as it looks at the farmer organization in the marketing of farm produce.

However, the study does not shed light on the marketing arrangements involved, especially the level of bargaining applied by both the small scale farmers and the buyers of farm produce, which is the main focus of the current study.

A study by Sokchea and Culas [2010], entitled Impact of Contract Farming with Farmer Organizations on Farmers' Income: A Case Study of Reasmey Stung Sen Agricultural Development Cooperative in Cambodia, using a survey involving 75 farmers indicated that contract farming with farmer organizations significantly raises farmers' income. It is a strategy where farmers enter into a contract with the buyers on clear terms agreed upon by both parties. This study is similar to the current study as both are focusing on bargaining strategies such as contract farming and cooperative strategy, as means to enhance small scale farmers 'ability to effectively bargain for their farm products.

The study shows that contract farming with Farmers Organizations has a significant impact on farmers' income. In terms of benefit of such a strategy, the study showed that Contract farmers earned 84.07% greater income than noncontract farmers.

Farmer organizations such as Cooperatives have strong collective bargaining power and strong business networks. Hence, Cooperatives can bargain for good returns of profit through contract farmers' collective business, attracting high returns. This goes to demonstrate the bargaining power ability for better price for farm produce of a group as opposed to individual farmers' engagement with buyers on the market.

However, no studies have been done on bargaining strategies used by small scale farmer in Mapangazhya farming block, in Chikankata district, hence the current study.

Similar studies conducted such as such as by Birthal et al. [2008], titled contract farming involving organized farmer groups, the case of contract farming of Alimentos Congelados, S.A. [ALCOSA] in Santiago, indicated that contract farming raises farmers' income.

These studies showed that contract farming helps smallholder farmers to improve their cultivation and marketing of agricultural produce. Cai et al., (2008) observed that contract farming enables Farmers to access agricultural inputs, agricultural equipment and machinery, credit, and technical knowhow. Contract farming also reduces the risk of uncertainty of their earnings from farming business. This view is supported by Bolwig et al., (2009; Cai et al. (2008); Glover, (1984) as well as by Sethboonsarng, (2008).

However, there are some critics of contract farming who argue that if not handled prudently, contractors might execute their power to manipulate the contract by raising the quality standards to control the volume of produce purchased; changing price, or even cheating, thus disadvantaging the innocent small scale farmers. This according to Baunann, (2000); Glover, (1984), and Jyotishi, (2008), to mention but a few.

The above reviewed studies are have similar focus to the current study in terms of looking at strategies such as contract farming to enhance marketing for farm produce, and subsequently improve the income base arising from better bargaining ability for their produce.

It can generally be said that, the power arising from small scale farmers coming together to bargain for better market price cannot be over emphasized.

However, no such studies have been conducted in Mapangazhya farming block. Hence the current study seeks to explore the existence of organized farmer groups when it comes to

marketing of their maize produce such collective action in Mapangazhya farming block, in Chikankata district.

2.2.3 Bargaining Strategies Used By Small Scale Farmers To Market Their Maize Produce

There are a number studies conducted on the bargaining strategies used by small scale farmers, in the bid to improve their prospects of bargaining ability for their farm produce. Some of the studies conducted included the use of groups or group membership in form of cooperatives, others engage in contract farming, while some may opt to use strategies such as withholding or delaying the sale of maize produce till the price of the commodity improves. Other still would consider exploration of markets outside the catchment areas and even beyond international boundaries, where possible.

William Van Caenegem et al (2015), in a study titled “Collective Bargaining in the agricultural sector, in Canberra, Australia, focused on reasons for under-utilization of the collective bargaining provisions of the competitive law. The study analyzed economic, social, cultural and legal factors impacting on uptake of collective bargaining opportunities across a wide range of food crops. The study is closely related to the current study in that both are looking at collective bargaining concept in the marketing of farm produce. However, the current study is specific to maize marketing as opposed to broad range of crops marketing targeted the earlier study.

2.2.4 . Profitability Of Maize Price

Profitability of a price of a commodity on the market translates into the amount of returns a small scale farmer would have on his investment. The pricing level would equally determine the competitiveness of a particular product brand on the market.

A study by Eugene G.S et al (2014) titled “Private sector profitability of maize production in the Bajio region of Guanajuato, Mexico, on 2,996 participants in the high yield maize assessment program, using the Policy Analysis Matrix methodology, showed that maize producers were competitive.

Nonetheless, the study did not explicitly show how the farmers bargained in the marketing of their maize produce, which the current study hoped to elucidate.

2.3. AFRICA PERSPECTIVE

Maize Marketing

In perfectly competitive markets, characterized by price-taking where the producers and consumers of goods and services are assumed to trade at publicly known prices, the allocations of goods and services in the economy is efficient. This is according to Svensson J. and Drott D. (2010), in a publication entitled: Tuning in the market signal: the impact of market price information on agricultural outcomes.

However, the real situation in the African agricultural context is contrary to the above expressed sentiment. The environment is characterized by information asymmetries amongst various actors. There's on one hand a party in the know in terms of what is obtaining on the market about a particular commodity, and on the other hand, we have another party with no knowledge about the same product. These sentiments are supported by Svensson J et al (2009) in a study namely: Getting prices right: the impact of the market information service in Uganda and another study by Tollens E. (2006), called the " Market Information Systems in Sub-Sahara Africa Challenges and Opportunities" , in Gold Coast Australia. Both studies demonstrate the information gaps between interacting parties in the economy.

Smallholder farmers, mostly resident in rural areas, often do not have access to information regarding prices in urban areas; they mostly sell at farm-gate prices to traders who may have more knowledge on existing economic prices and other market information prevailing in other markets.

Most production systems in Africa are done on a small scale and, hence, farmers acting individually are not able to participate in new markets such as supermarkets where larger quantities and standardization of products are often required.

Robbins P. (2011), in the paper entitled " Review of the role of commodity exchanges in supporting smallholder farmer market linkages and income benefits suggests that because individual farmers offer small quantities of produce for sale, they have little bargaining power with traders and most often accept almost any price offered.

On the contrary, large-scale farmers produce in large quantities with consistent quality and, hence, are able to attract buyers willing to buy their products at true market prices. Transaction

cost economics stipulates that information asymmetry is the main reason for poor markets performance and high transaction costs.

In Africa, maize dominance in the agro industry has a historical connotation. According to a historian and African Studies specialist, James C. McCann (2005), in a literature entitled *Maize and Grace: Africa's Encounter with a New World Crop*, he describes "maize's historical encounter with the landscapes of Africa" from introduction to its current status as Africa's dominant food crop. Maize cultivation was found to suit Africa, and was well embraced by the population hence the dominance influence of maize growing among the citizenry in Africa as a whole.

2.3.1 Availability Of Market For Maize Produce

A study by K.D. Karani and J. Wanjohi (2017), namely "Factors influencing marketing of agricultural produce among small-scale farmers: a case of sorghum in Giaki location, Meru county Kenya" found out that 89.5% of the farmers used middlemen to market their sorghum produce, while 86.5% respondents expressing dissatisfaction on the profitability of using this marketing strategy. This study showed the marketing challenges with regard to selling of cash crops in Africa.

The current study was yet to establish whether or not the use of middlemen was pronounced in the marketing of maize produce in Mapanzazhya farming block of Chikankata district.

In a study, by R. Mukwevho and F. D. K. Anim (2014) on *Factors Affecting Small Scale Farmers in Accessing Markets: A case study of cabbage farmers in the Vhembe District Limpopo Province of South Africa*, involving 29 cabbage farmers, established that farmers who had access to market were more educated than those who did not. This finding concluded that the level of education played a critical role in appreciation of information on marketing, hence help reduce the problem of information asymmetry.

Education was vital in the marketing of farm produce as it helped reduce high transaction costs. Other factors such as distance from farm to markets were also said to contribute to market availability generally. Furthermore, it was observed that the distance from the farm to the market place is negatively correlated to market availability and access with the resulting reduction in the sale of produce. In view of distance constraints, small scale farmers may not be able to access

lucrative markets due to lack of transportation logistics and the presence of market information asymmetry.

The study is related to the study underway as both have a marketing dimension being analyzed in maize sale.

However, the reviewed studies did not explore the how small scale farmers marketed their maize produce, nor did it show the bargaining strategies used by small scale farmers when it came to market maize produce, hence this study.

The study did not explore the bargaining power strategies used by small scale farmers in the marketing of maize produce, which was the focus for this study.

2.3.2 Organization Of Small Scale Farmers

It is generally agreed among development practitioners and academics that improving market access for smallholders will lead to improvement in income and food security. Notwithstanding this fact, market failures often limit smallholders' ability to be linked to markets. To resolve these challenges in africa, market interventions such as collective action is often proposed as a strategy to reduce the risks of market participation.

A study by Amos Gyau¹ et al (2013) entitled "Collective action to improve market access for smallholder producers of agroforestry products: key lessons learned with insights from Cameroon's experience" showed that market interventions such as collective action can be used to address market imperfections which will subsequently lead to increased market participation and improve livelihoods. Furthermore, the study showed that Collective action is likely to succeed when internal factors, including favorable group size, group norms and voluntary cooperation among members exist. All these need to be put in the context of an enabling environment, which includes favorable policies and regulations, and supporting institutions such as market information.

The establishment of farmer organizations incurs transaction costs which, if too high, may mean that farmers are better off not joining such organization. Such costs may come in the form of membership fees to meet the running costs of such organizations. Successful farmer associations require management and entrepreneurial skills, i.e. 'soft' assets that many small producers with

little education are less likely to have. Suffice to say, that the formation of such farmer organizations is one thing, and successful operation of such institutions is another.

String fellow et al. (1997) identify three key factors that determine whether or not successful farmer cooperation for marketing is likely to take place: a) a match between the existing skills/experience of members and what is required to undertake joint activities; b) internal cohesion and a membership driven agenda; and c) successful, commercially oriented, integration of the organization into the wider economy.

According to Verhofstadt et al (2014), in a case study of cooperatives in Rwanda, found out that cooperative membership led to greater use of modern inputs, market access, and ultimately increased revenue. The overall effect of cooperative membership within the study was strong and positively influenced farm productivity, however maize farmers received greater benefits as compared to horticulturalists. This study looked at the influence of cooperative strategy in the production and marketing of farm produce, while the current study narrowed its focus to the cooperative organization influence on marketing of farm produce.

A study by Abebaw and Haile (2013) and Fischer and Qaim (2011) on cooperative engagement by smallholders in Ethiopia and Kenya, respectively, found out that the farmer organization had a significant, positive effect on the adoption of fertilizers. The reviewed studies share the focus areas with the current study regarding the farmer organization such as cooperatives strategy in enhancing bargaining of small scale farmers in marketing their farm produce. On the contrary, the past studies above looked at the effect of cooperative farmer organizations in relation to crop production, whereas us the current study focusses on analysis of farmer organization in relation to marketing of farm produce.

No study has been conducted in Mapangazhya farming block on the influence of farm organization strategy in relation to the marketing of maize produce in the area.

2.3.3 Bargaining Strategies Used By Small Scale Farmers To Market Their Maize Produce

The ability to get a favourable deal in a business transaction is to a large extent dependent on the ability to effectively bargain for a profitable price. This is only possible if small scale farmers become cooperative and stick to uniform pricing of their goods and services.

However, even in some instances where farmers are organized into cooperatives, problems arising from mistrust set in, weakening the bargaining power of the small scale farmers.

A study by Masakure and Henson (2005), on farmer organization in Zimbabwe noted that, mistrust among small scale farmers was the major cause of group disintegration among the local farming groups.

The psychological catalytic ingredient is necessary to a successful group cohesion, if bargaining power is to be enhanced.

2.3.4 Profitability Of Bargained Maize Price

The Profit of a farm produce, according to Nieberg & Offermann (2003), was defined as the net return to the family's own labor, land and capital. According to traditional agricultural economic theory, advanced by Ilberry & Hornby (1983), farmers are regarded as profit maximizers. Mathematically, the equation for profit can be written as: $NP = H - S - F - PC - LC$, where NP is Net profit, which is equal to H, the monetary value of the harvest, minus S, the value of Seed, minus F, the value of Fertilizer minus PC, the Ploughing Cost minus LC, the Labor Cost. The study above focused on the profit maximization but did not elaborate on the bargaining strategies used by small scale farmer which influenced such profit margins.

A study by Ozor, M.U, et al (2018), on the Analysis of price spread, profitability and constraints to dry maize marketing in Southeast, Nigeria, involving 225 respondents, selected using Multi-stage sampling method, estimated the profitability of dry maize marketing; and identified constraints to dry maize marketing in the area. Using the mean marketing and budgetary margin techniques to analyze the primary data obtained by questionnaires, the study showed that the profitability namely the net marketing income, return on investment as well as net return on investment were higher for yellow maize than for white maize.

The study is similar to the current study as both studies looked at marketing of farm crop. However, unlike the former study which focused on profitability of two varieties of maize produce, the current study looked at the bargaining strategies applied by small scale farmers in the marketing of maize produce.

According to Binswanger et al (1986), study called Behavioral and material determinants of production relations in agriculture, the decision making on how much and what to grow was mainly driven by the desire to maximize net profit. The study looked at the profit motive influencing the engagement of small scale farmers in farm production. Although this study looks at the returns on investment, like the current study, the point of departure is that the reviewed

study looked at the production part of the farming equation, while the current study has focused on the marketing aspect of the farming equation. It can be seen from the foregoing that the objective of the current study is different as it seeks to explore the level of participation in bargaining for better prices of maize produce on the market among small scale farmers, particularly in Mapangazhya farming block of Chikankata district.

A study by K.D. Karani and J. Wanjohi (2017), entitled factors influencing marketing of agricultural produce among small-scale farmers: a case of sorghum in Giaki location, Meru county Kenya on 138 sorghum farmers, revealed that 89.5% of the farmers used middlemen to market their sorghum produce, while 86.5% respondents expressing dissatisfaction on the profitability of using middlemen marketing strategy. Given the existing information asymmetry in the marketing of farm produce, all the respondents expressed the desire to have improved access to information sector as it would positively impact on the marketing of sorghum produce in Giaki location. This study as well as the current study have looked at marketing of farm produce.

The reviewed study did not however look at how organized these farmers were to bargain for maize marketing, as well as on the other marketing strategies used by small scale farmers to obtain better price for their maize investment, which the current study hoped to establish.

Another study by Mwanga Cosmore (1992), focused on maize losses resulting from inefficient marketing. The study revealed an annual loss of 10.5% of the total marketed maize in the district. According to this study, the major causes of losses in maize marketing were: transportation 0.3%; rains 39.2%; theft 35.4%; pests and spillages 1.6%; and moisture migration 23.5 %. These studies have shown the likely problems to be encountered in maize marketing by the small holder farmers which may discourage maize production and ultimately reduce the producers' as well as consumers' welfare. The common denominator between the reviewed study and the current study is that both directed attention on crop marketing aspect of farming.

However, the reviewed study did not look at the profitability of the bargained maize price, nor did it cover the bargaining strategies used by small scale farmers in maize marketing in Mapangazhya farming block of Chikankata, which is the focus for the current study.

2.4 ZAMBIA PERSPECTIVE

Zambia's economy is primarily driven by mining, agriculture, construction and communication to mention but a few sectors. Zambia's agriculture sector has been identified as key to unlocking economic growth and it provides the main support for Zambia's rural economy. About 48.9 percent of the Zambian population depends on agriculture, primarily through smallholder production for their livelihoods and employment, and the sector is estimated to contribute 4.8 percent to the Gross Domestic Product (GDP) in 2017.

Zambia recognizes that agriculture is one of the key priority sectors in achieving sustainable economic growth and poverty reduction as outlined in the Second National Agricultural Policy (SNAP) and the Seventh National Development Plan (7NDP), and evidence showing crop, and fisheries and livestock (Figure 1) suitability countrywide. The potential for agricultural growth in Zambia is staggering. The country is uniquely endowed with resources rich for agricultural development, which if harnessed fully, would enable the country to become the breadbasket of East and Southern African region.

According to CSO (2010), Out of 1,540,390 households countrywide, 1,527,061 households grew crops. At national level, maize was the most common grown crop, accounting for 87.8% of crops grown by small scale farmers, seconded by groundnuts at 64.5%.

The Agriculture, Livestock and Fisheries sector profile entitled AGRICULTURE, (2011) report, Zambia is endowed with a large land resource base of 42 million hectares of which only 1.5 million hectares is cultivated every year. The country accounts for has 40 percent of the water in Central and Southern Africa, abundant for irrigation.

The average Zambian smallholder typically produces only enough to sustain their household and a small surplus for sale. With roughly 1.5-million smallholders nationwide (about 9% of the population), smallholders are responsible for the majority of maize production (CSO/MAL 2014 as cited in Resnick and Mason 2016). Dorosh et al. (2009) noted that about 87% of all smallholders cultivate the crop, which constitutes 60% of the country's caloric intake. According to Hambulo (2009), 90 percent of Zambia's rural population are dependent on agriculture, as their main source of livelihood.

Whereas the reviewed documents give extensive details on the significance of agricultural industry and its players in relation to economic development, the bargaining strategies employed in the marketing of agricultural produce, particularly maize, not much is mentioned on the

bargaining strategies employed by small scale farmers in maize marketing in the competitive economic environment. Hence the focus for this study.

2.4.1 Availability Of Market For Maize Produce

Markets play a fundamental role in influencing what farmers grow and hence the lack of uncertainty of the market for crops may negatively affect its production. In Zambia, in spite of the expressed drive towards a market oriented economy, there is still an invisible hand of Government at play, which influences the availability and pricing levels of agricultural products, especially maize, a crop with political connotation.

Mangaba (2017)'s study termed "The impact of the farmer input support program on crop diversification among small-scale farmers in Zambia": A case study of Nega-Nega agricultural camp indicated that the government had a marketing system for non-staple food crop produce. Whereas there may be a market for farm produce, there is still numerous challenges with regard to marketing and sell of maize produce at a profitable price in Mapangazhya farming block.

A study by Juliet Chikopela (2014), titled "Livelihood strategies of small scale farmers in Nakanga camp of Kafue district, Zambia, involving 60 small scale farmers maize growers, showed that food security is a challenge in the district.

This study relates to the current study in that both are exploring some economic activities which small scale farmers are engaged in. On the contrary, Chikopela study did not highlight the bargaining strategies employed by small scale farmers when it came to marketing of their farm produce, which is the focus for the current study.

According to IAPRI (2016) report, the Government department entrusted with the responsibility of buying farm produce particularly maize, the Food Reserve Agency, announced the buying price of K85 per 50kg bag during the 2016 marketing season.

The prevailing information on the ground indicated that on average, the private traders were buying from smallholders at prices above FRA and paying on the spot. In some cases, prices were as high as K112 per 50kg, which was profitable (approximately US\$224/tonne).

The 2016 IAPRI report showed that about 63 percent of the total reported maize surplus was bought by the Private buyers from the smallholder farmers, while FRA only managed to purchase about 260,000 metric tonnes (27% of total purchases from smallholder farmers),

In spite of the ever continued skyrocketing of agricultural inputs, maize price has been fluctuation on the market. In 2017 marketing season, the FRA pegged a price of 50 Kilogram bag of white maize at 60 Kwacha, which was below the previous crop marketing season tonnes (Lusakatimes.com).

No study has been conducted on the availability of maize market in Mapangazhya farming block in Chikankata district, hence this study.

2.4.2 Organization Of Small Scale Farmers

Organization of small scale farmers such as cooperatives play a vital role in marketing of farm produce. Cooperatives increase farm income in a number of ways. These include: (1) Raising the general price level for products marketed or lowering the level for supplies purchased; (2) reducing per-unit handling or processing costs by assembling large volumes, i.e., economies of size or scale; (3) distributing to farmers any net savings made in handling, processing, and selling operations; (4) upgrading the quality of supplies or farm products handled; and (5) developing new markets for products.

By pooling supply purchases, sales, and handling and selling expenses, cooperatives can operate more efficiently-at lower costs per unit-than farmers can individually. This principle also can be applied to succeeding levels in terminal marketing of commodities and in wholesaling and manufacturing of supplies.

Over the last decade and a half, Zambia has pursued an agricultural policy centered on the promotion of modern inputs and agricultural cooperatives for smallholder use across the country. Mason et al. (2013), argued that this policy has had limited success in overcoming nation-wide food insecurity, even so the policy remains throughout the country.

Empirical studies by Mason et al. (2016) known as *The Political Economy of Fertilizer Subsidy Programs Africa: Evidence from Zambia* examined the effect of subsidized agricultural inputs throughout Sub-Saharan Africa including Zambia, with little reference about how cooperative membership may impact smallholders ability to bargain for farm produce marketing, the main focus for this study.

Much of the literature is on activities of cooperatives in relation to agricultural inputs acquisition especially the Government subsidized inputs.

There is scanty information existing on the role of farmer organizations in relation to marketing of crops particularly maize. Hence, this study aims at exploring how small scale farmers are organized to bargain for marketing of maize produce in Mapangazhya farming block of Chikankata.

2.4.3 Bargaining Power Strategies

There are a number of bargaining strategies which small scale farmers can employ to enhance their bargaining power. According to Bernstein (2010), study entitled” *Class dynamics of agrarian change* (Vol. 1)”, bargaining strategies may include forming farmer groups such as Cooperatives.

Bernstein further noted that cooperatives amongst smallholders facilitate the bridging of technical divides, as well as the enhancement of productivity. Agricultural cooperatives allow for individual households to organize themselves into collective units, so as to improve their bargaining power and enhance economies of scale, hence become more effective and efficient. In short, agricultural cooperatives in the developing world are pursued as a way to meet individual desires through group formulation and collective action.

The bargaining strategies used by small scale farmers to market their maize produce in Mapangazhya farming block of Chikankata district is unknown, hence this study.

2.4.4 Profitability Of Bargained Maize Price

Small scale farmers depend on mainly maize cultivation for income generation, apart from being food secure. As such, Farming business, like any other business needs to be profitable to sustain the operations involved in farming. A small scale farmer needs to market and sell his or her maize produce at a profit to remain competitive on the market.

According to CSO 2016-2017 report, the price levels of the common crops grown were as shown in the table below:

Crop	Average Price in 2016 Per Kg (Zmk)	Average Price in 2016 Per Tonne (Zmk)	Average Price in 2017 Per Kg (Zmk)	Average Price in 2017 Per Tonne (Zmk)
Maize	1,92	1,920		1,275

			1.28	
Sorghum	2.05	2,050	1.55	1,550
Rice	1.88	1,880	1.75	1,750
Millet	2.1	2,100	3.45	3,450
Sunflower	2.8	2,800	2.60	2,600
Groundnuts	4.5	4,500	4.00	4,000
Soya beans	4.95	4,950	2.75	2,750
Seed Cotton	3.2	3,200	3.70	3,700
Virginia Tobacco	0		2.85	2,850
Burley Tobacco	0		1.70	1,700
Mixed Beans	6.5	6,500	7.50	7,500
Wheat	2.234	2,234	-	

Source: Ministry of Agriculture and Cooperatives, 2016-2017 Annual Report

It can be seen from the above table that maize price is the lowest compared to other crops shown in the table.

According to a survey by William J. Burke, (2011) titled :The Cost of Maize Production by Smallholder Farmers in Zambia , it was observed that the Food Reserve Agency pan-territorial pricing policy does not reflect the wide geographic differences in costs and even among farmers in the same village.

Geographic variation in production costs follow differences in agro-ecological suitability for maize production and input costs. The average production cost per bag in 2010 varied from as low as ZMK 34,000 in the Eastern and Northern Provinces (representing 35% of national production) up to ZMK 53,000 in the Copper belt and Western Provinces (10% of national production). Within-village production cost differences arise due to differences in farmer ability and knowledge and the various management decisions they make.

The next most productive 20% of farmers produced maize at ZMK 29,078 per bag. Mean production costs for the third and fourth quintiles of production costs were ZMK 42,776 and ZMK 64,341 per bag, respectively. The least productive maize farmers' production costs were well over ZMK 100,000 per bag, which in many cases likely reflected unexpected events leading to partial or near total crop losses. In such cases, production expenses are extremely high when expressed relative to bags produced. The wide variations in production costs per bag are due to variations in farmers' production costs per unit of land planted, but especially due to variations in farmers' yields.

The second key observation from the analysis of 2010 production costs is that 86% (2.06 million MT) of Zambia's total maize output was produced at a total cost lower than the ZMK 65,000 FRA buying price. The mean cost of production per bag was ZMK 40,739. Cash expenditure on inputs per bag was ZMK 18,630 on average.

These sources of variation result in a wide range of production costs in Zambia, which leads to the conclusion that there is no single "cost of maize production". This analysis reports the range of production costs for all maize farmers surveyed in the 2010 Crop Forecast Survey. The most productive 20% of farmers in the 2010 CFS produced maize at a mean of ZMK 15,567 per bag.

Thirdly, the majority of Zambian maize could be sold at a profit competitively in regional markets.

At the beginning of the 2010 harvest season, the export parity price (the landed cost of maize in Lubumbashi, Democratic Republic of Congo (DRC), minus transfer costs from Kabwe to Lubumbashi) was roughly ZMK 59,000. Meanwhile, 1.8 million metric tons of Zambian maize was produced at costs lower than 50,000 ZMK/bag. It was found that smallholder households selling or expecting to sell maize produced maize at somewhat lower costs than the average (roughly 38,000 ZMK/bag). Among this group, 76-82% of the maize produced could have been competitive in regional export markets.

According to Ademola Braimoh et al (2018) study entitled "Increasing Agricultural Resilience through Better Risk Management in Zambia" stated that the Price volatility was the most significant market-related risk facing farmers and other players in the agricultural value chains in Zambia. Investing in productivity- enhancing and income raising technologies and practices—which can be instrumental in enabling smallholders to overcome poverty traps—is inordinately risky in contexts in which output prices are highly unpredictable.

Change in international prices, for instance in cotton price was often rapidly transmitted onto the local cotton market and affected its production the following year. There has also been volatility of maize prices from one year to year, though it has lessened dramatically since the early 1990s.

In the 2017–18 marketing season, for example, when maize prices crashed. The export ban introduced the previous year led to a large carry-over stock of maize, leading to oversupply of maize, hence the farm-gate prices collapse.

It was further noted that the unpredictable involvement of the Food Reserve Agency in procuring and disposing of strategic maize reserves tends to cause price uncertainty as well. The study has similar focus areas with the current study as both are analyzing crop marketing.

2.5 SOUTHERN PROVINCE

Agriculture is the primary economic activity in the Southern Province with a mix of small holder and commercial Maize farms.

Maize is the most common crop grown. The province does not only supply maize produce to the local population, but also across international boundaries to the neighbouring countries subject to export permit authority.

According to CSO (2010), Maize was the most common crop grown all provinces except Muchinga, Luapula and Northern Provinces. Comparison of provinces showed that Eastern Province accounted for 19.8% of all households growing maize, followed by Southern Province at 14.4%. In terms of productivity by Province, Eastern Province topped the list at 22.1% of total maize produced, followed by Southern province at 19.3% of total national maize production.

2.5.1 Availability Of Market For Maize Produce

According to the Indaba Agricultural Policy Research Institute (2016) research paper, on Zambia, it was observed that the availability and access to markets tends to positively influence crop diversification.

A study by Darlington (2017), titled “The impact of farmer support program on crop diversification among small scale farmers in Zambia, A case study of Neganega agricultural camp, on 245 respondents, looked at Government’s participation in the provision of market for the staple food crop, primarily maize produce.

According to the Food and Reserve Act, Cap. 225 of the Laws of Zambia, the Food Reserve Agency is mandated to purchase agricultural commodities, more especially maize produce and ensure food security in the country.

This study endeavored to determine the availability of market for maize in Mapangazhya farming block in Chikankata District.

2.5.2 Organization Of Small Scale Farmers

The concept of Farmer organization in form of cooperatives is more pronounced and evident when it comes to dealing in agricultural input subsidy programmes, popularly known as FISP. Similarly, the small scale farmers engaged in milk production are organized in cooperatives and supply milk to mostly Parmalat group of companies. This is evident from a dairy farmer in Kalomo, who said “most of the parts in Southern Province have built cooperatives, supplying milk to Parmalat”. The Parmalat Group is a global player in the production and distribution of milk and other dairy products (<http://www.daily-mail.co.zm/small-scale-farmers-key-poverty-reduction>).

However, unlike in dairy industry, the organization of small scale farmers when it comes to marketing of maize produce is unknown, hence the study.

2.6 CHIKANKATA PERSPECTIVE

Mapangazhya farming block in Chikankata district is known for being Zambia’s maize production powerhouse after Kalomo. According to the Chikankata District Agricultural Annual Report (2017), maize is the most commonly grown crop in Mapangazhya farming block in

Chikankata District. The reported practice of maize growing dominant in Chikankata is as documented at provincial and national level.

However, the reports do not shed light on the bargaining power strategies used by small scale farmers in marketing of maize produce.

Therefore, this study explored the bargaining power strategies used by small scale farmers in Mapangazhya farming block in Chikankata district.

2.7 Research Gaps And Conclusion

It was clear from the literature reviewed that in spite of the studies undertaken, maize produce is among the most lowly priced compared to other cash crops. Despite this fact, maize is the most commonly grown crop for income generation among small scale farmers, besides it being the staple food. There is an information gap in terms of the bargaining power strategies used by small scale farmers in marketing maize produce in Mapangazhya farming block of Chikankata district. It was still not clear what bargaining strategies small scale farmers use when it comes to bargaining for prices during the sale of maize produce in Mapangazhya farming block, of Chikankata, hence the focus of this study.

Summary

Literature review was done according to thematic areas and segmented on the basis of the perspective from which it was being looked at. Literature was reviewed from the perspectives namely global, Africa, Regional and local country level.

Despite a number of studies conducted on maize cultivation and marketing, there exists an information gap on the bargaining strategies used by small scale farmers in the marketing maize produce to improve profitability of the agricultural venture in Mapangazhya farming block of Chikankata district, hence the focus of the study.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Chapter overview

This chapter covers research methodology to use in the study. The kind of research design used in this study will be mentioned, as well as the study area and the study population. Information on the sample size, and the selection techniques used will be shared in this chapter. The chapter will also cover data collection methods and instruments. Other information to be contained in this chapter is on data analysis and ethical considerations in relation to the study.

3.2 Research Design

Orodho (2003), in a book entitled “Essentials of Educational and Social Sciences Research Methods” defined Research Design as a scheme or outline or plan that is used to generate answers to research problems. In a book entitled “Proposal and Thesis Writing”, Donald Kisilu Kombo and Delno L.A. Tromp (2016) defined research design as the structure of research or aglue that holds together all the elements in a research project.

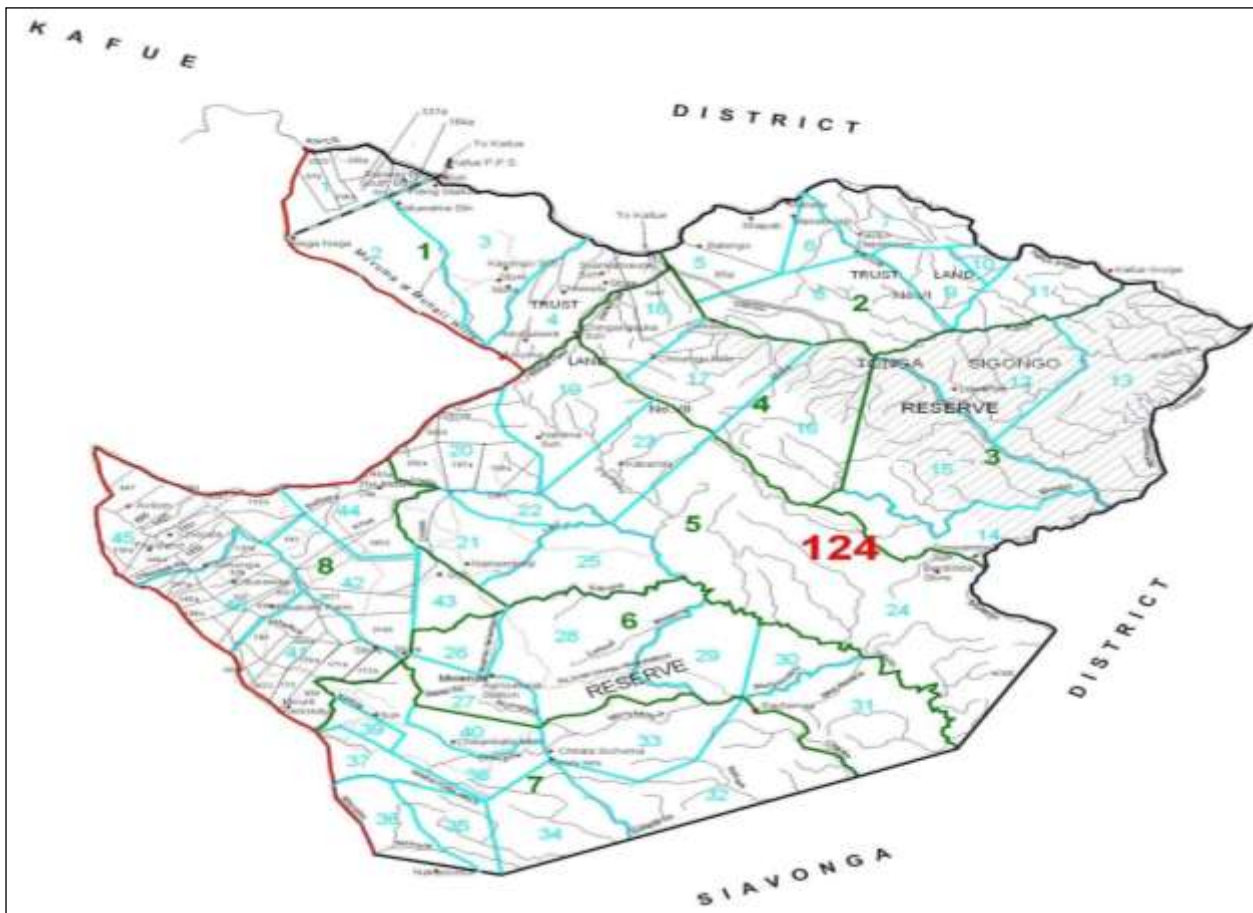
A research design can be defined as a conceptual structure within which research is conducted. It is research design is the planning of the research from first to last step and a programme to guide research. Thus, research design is needed because it facilitates the smooth sailing of the various research operations.

This study employed a case study research design, an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between the phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (Yin, 1984, p.23).

A qualitative approach was used to collect data from the respondents. Kalof et al (2008) suggests that the goal of qualitative research is to understand processes, experiences and meanings people assign to things. Thus, qualitative data was obtained through the use of focus group discussions, open-ended questions through interviewer-administered interview guides. This was done for the purpose of getting detailed understanding of the responses.

3.3 Study Area

Chikankata district is situated along the Livingstone- Lusaka road. Chikankata is the Gateway district to the Southern Province of Zambia. It shares boundaries with a number of districts which include Mazabuka district on the west), Kafue District on the northern part, and Siavonga



on the east.

Source: Central Statistics Office, 2010.

The district is located in the Agro Ecological Region II characterized by average altitude of 1200 meters above sea level of mostly plateau topography.

The district consists of two farming blocks namely Mapangazhya and Neganega farming blocks. Each of the farming blocks comprises five agricultural camps each manned by an Extension Officer. The district two is home to two Chieftdoms namely, Chieftainess Mwenda and Chief

Naluama. Its Inhabitants are predominantly Tonga speaking people whose main source of livelihood is agriculture.

The study was conducted in 3 agricultural camps in Mapangazhya farming block in Chikankata District.

3.4 Study Population

The study population involved all small scale farmers in Mapangazhya farming block in Chikankata District. The main respondents were small scale farmers. Key informants namely the Agricultural Extension Officers, selected Civic and Traditional Leaders and the District Agricultural Coordinator (DACO) were part of the study population.

3.5 Sample Selection, Size and Technique

According to literature, it is said that too large a sample size could become a problem. It is recommended that sample sizes between 30 and 500 is advisable, depending on the type of study to be undertaken. A sample size of 50 small scale farmers comprising both farming blocks were selected for the study.

A simple random sampling method was used to select three agricultural camps in Mapangazhya farming block. This was to avoid biasness and to achieve a high level of representativeness. A purposeful sampling method was used to pick small scale farmers for focus groups discussion. Extension Officers as well as the Civic and Traditional leaders were also selected using purposefully sampling. The District Agricultural Coordinator was also purposefully selected.

Validity of the instrument

To ensure the validity of the data collection instruments, the researcher employed content validity concept where the instruments were tested before the real study was conducted, a process called instruments pre-testing. Consultations with the supervisor on whether the instrument was valid were also done and various amends were done to improve clarity and eliminate on ambiguous questions. It is important to note that responses which were obtained from the pre-testing study were not included in the final report.

Reliability of the instrument

Reliability can be defined as a consistency of one's measurement or the degree to which an instrument measures the same way each time if the instrument is used under the same conditions with the same subjects (Trochim, 2006). In this study the reliability of the instruments was checked using the test-re-test technique because it's easier to administer and understand this technique refers to the test of consistency among different administrations to determine the coefficient for this type of reliability; the same data collection instrument was administered to a sampled population in pilot study on two occasions in a different localities away from the study area. The interview schedule was administered to the farmers on two weeks difference.

3.6 Interview Sampling and Data Analysis

The Researcher and Research Assistants carried out an extensive fieldwork to collect data. Data was collected according to themes contained in the 'Research Design'. This approach to social inquiry enables researchers to get in depth information and to comprehend social situations and phenomena with regard to both their complexity and their natural contexts (Hird, 2003).

In this study, we drew upon data gathered from a range of actors through interview schedules to build a comprehensive picture of existing situation concerning the bargaining power strategies used by small scale farmers in maize marketing in Mapangazyha farming block of Chikankata district.

The Researcher chose focus group discussions and interviews guide because these enable the researcher to determine in advance the broad topic and themes around which questions might be asked, but did not restrict the researcher or the participant to a specific interview script or range of questions (Lindlof & Taylor 2002). Such techniques also allow flexibility within the interview, in that supplementary questions based on the context-specific discussions between the researcher and the interviewee may be asked (Saunders et al. 2003). Thus, for interviews of this nature, the questions tend to be open-ended rather than closed (Leonard 2003). Given the nature of the research topic, FDG and interview guides were the most suitable research methods considered to be used.

3.7 Data Collection Methods and Instruments

The study used both primary and secondary data collection methods as discussed below.

3.7.1 Primary Data

The researcher collected primary data from the respective respondents using various methods. Focus group discussion was used to get data from the main respondents, the small scale farmers. Information from key informants such as the District Agricultural Coordinator, Agricultural Extension Officers, Civic Leaders and Traditional Leaders was collected using interview guides. Participant observation was also applied to collect supplementary information.

3.7.2. Secondary Data

Secondly data was collected from the existing literature such as journals, books, electronic books and newspaper articles.

3.7.3 Document Analysis

The researcher obtained maize related records from the Ministry of Agriculture Head Quarters, Central Statistics Office and the District Agriculture Coordinator in the area. The aim was to gain insight into the Bargaining Power Strategies used by Small Scale Farmers in marketing of maize produce in Mapangazhya farming block of Chikankata district. The documents scrutinized included: Maize yield records, CSO annual Reports, MACO Annual reports, Vision 2030, as well as the 7th National Development Plan, as well as a number of Studies on similar topic, to mention a few.

3.7.4 Data Analysis

The data was analyzed using categorization and thematic, according to the category of respondents. The interview guides were coded by the researcher personally, to ensure confidentiality and privacy. Based on the responses, tables were generated to show relationships between the variables.

3.8. Ethical Considerations

Ethics in research is concerned with the researcher's responsibility to research participants with regard to matters of privacy, informed consent and harm. Ethical clearance was obtained before embarking on the study.

With respect to privacy, the researcher took field notes without disclosing the identity of individual respondents. Care was taken to ensure restricted access to the data collected in order

to ensure the privacy of the research participants. Therefore, in order to establish rapport and foster cooperation, the researcher sort for permission from all the appropriate authorities and the participants. The researcher dispelled fears about security issues the participants had prior to conducting interview or focus group discussion.

In addition, in the case of those informants from organizations most especially, the researcher sort prior permission in the event that a need arose to quote them in the research because of the difficulty of ensuring anonymity in their case. Codes were used to enhance anonymity and confidentiality.

In order to get informed consent, the researcher availed the research participants with the necessary information about the essence of the research and their role in the research.

There was clear definition and execution of roles by all the research participants and the researcher in order to reduce biases in the study. The researcher endeavored to share the findings of the study with all the stake holders.

Summary

The study used a case study research design, with qualitative approach. The study was conducted in Mapangazhya farming Block, of Chikankata district, targeting small scale farmers. 50 small scale farmers participated, including 10 key informants.

Data collection was done through focus group discussions and individual interviews using interview guides.

Data analysis was done by categorization and according to themes. Ethical considerations were upheld throughout the study period.

CHAPTER FOUR

4.0 ANALYSIS AND INTERPRETATION OF DATA

Introduction

This chapter presents findings of the research in line with the objectives and the research questions. The analysis has been divided thematically according to the four research objectives and questions with the main respondents being 50 small scale farmers as well as interview schedules with the civic leaders, traditional leaders the agriculture extension officers and district agriculture coordinator.

4.1 PART A: RESPONDENTS CHARACTERISTICS

4.1.1 Age of Respondents

The following were the proportions of the small scale farmers who took part in the study according to the age groups. From the study, it was discovered that majority 46 % of the respondents were aged 18 -25 and another 46 % were in between 26-35 years, while 36 % were aged 36-45 years, while 17.4 % of the respondents were aged between 46 and 55 years. The remaining 13% of the respondents were over 55 years. Table below shows the age ranges and categories of respondents.

Table1: Distribution of the age groups according to the categories of the respondents

Age Range	Small scale farmers	Civic Leaders	Traditional Leaders	Agriculture Extension Officers	District Agriculture Coordinator	Total
18- 25	13					13
26 -35	14			1		15
36 -45	11			2		13
46 -55	7	1	2	1		11
> 55	5	1	1		1	8
Total	50	2	3	4	1	60

Source: Field Data 2018

Majority of respondents in the study were males, accounting for 64.6% of the total respondents.

Small Scale Farmers

Most small scale farmer respondents (64.3%) were males, while the rest, 35.7% were females.

Agriculture Extension Officers

25 % of the respondents in the category of Extension officers were females, while the rest were males. **DACO**

The District Agriculture Coordinator was a male.

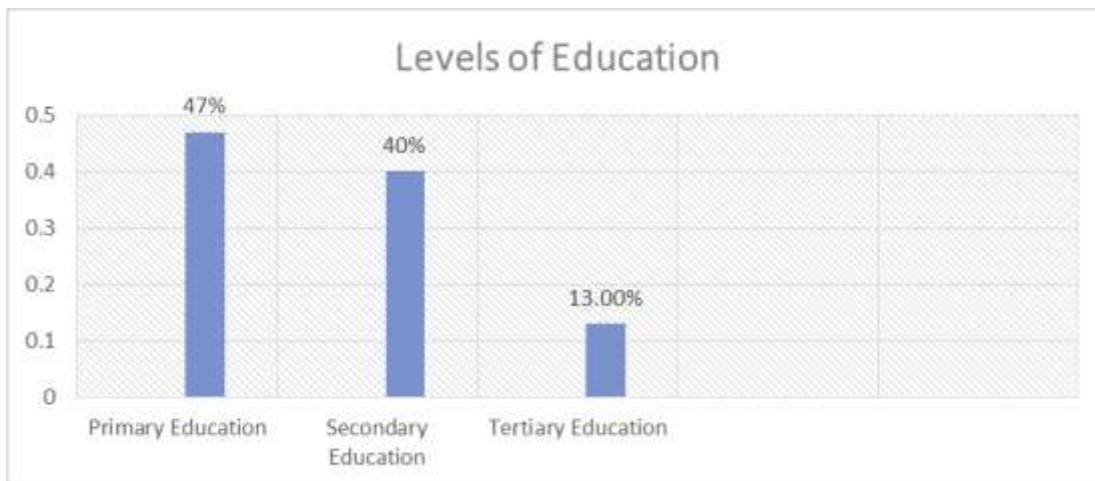
Civic and Traditional Leaders

The civic leaders consisted of 66.5% males and 33.5% females. They comprised the Council Chairperson and selected councilors. All traditional leaders were males.

4.1.2 Education Level

47% of the respondents, highest level of education attainment was primary education. This category included majority of the small scale farmers, while 40% had attained an education up to secondary. The remaining 13% of the respondents had tertiary education. These respondents were mainly professional staff.

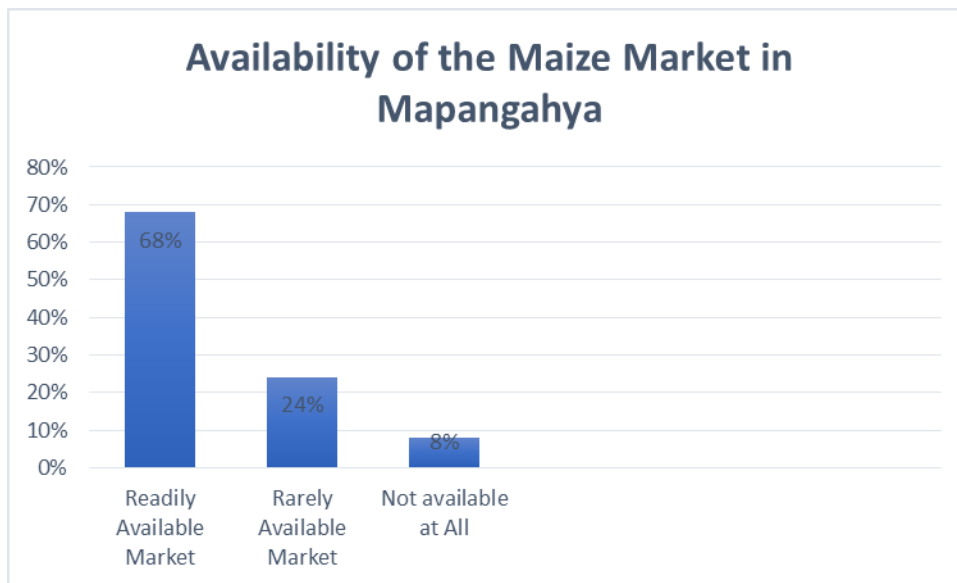
Figure 1: Levels of Education



Source: Field Data 2018

4.2 PART B: AVAILABILITY OF MARKET FOR MAIZE PRODUCE

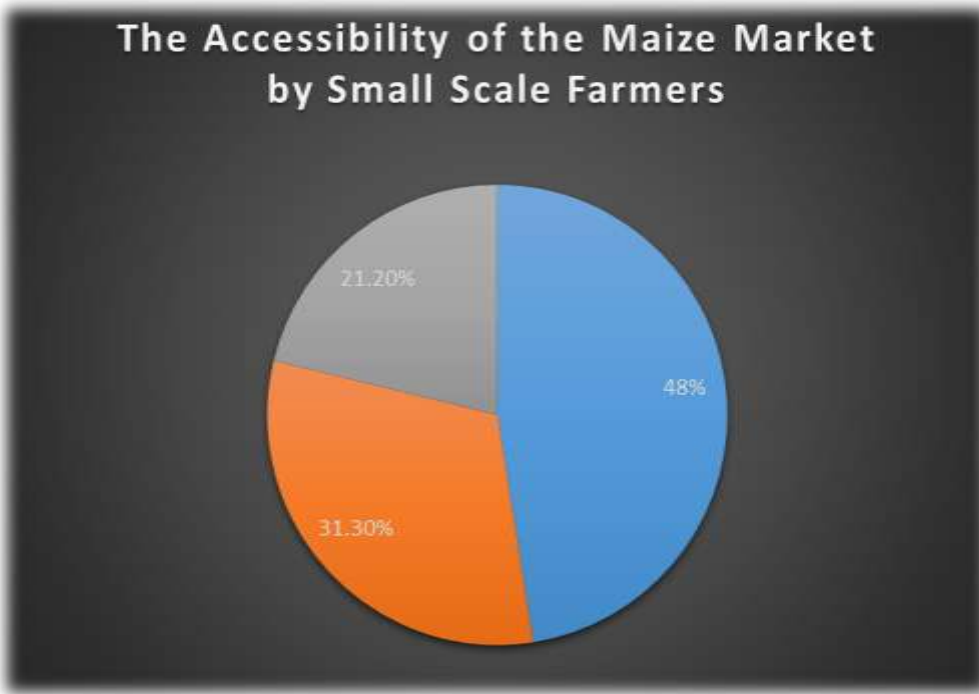
Figure 2: showing the availability of the maize market in Mapangazhya district



Source: Field Data 2018

When the respondents were asked about the availability of the market for the maize produced in Mapangazhya farming block of Chikankanta district, 68% of the small scale farmers mentioned that the market for maize was readily available while 24% of them revealed that the market for maize was rarely available with a minority 8% saying that there was no market at all.

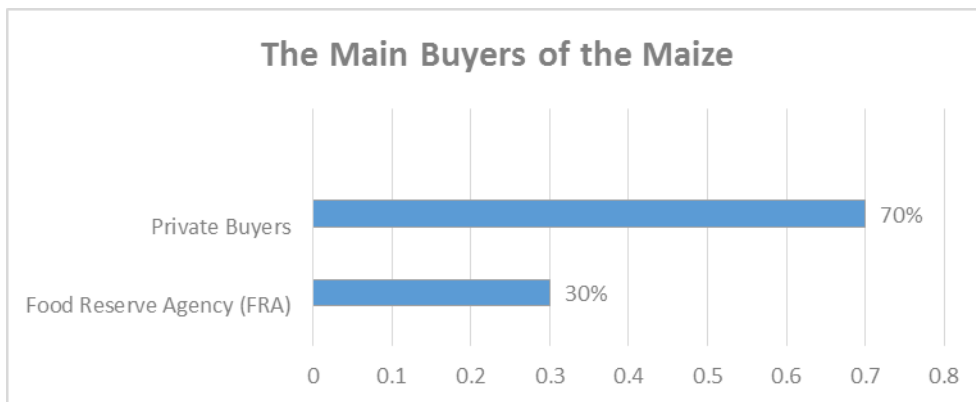
Figure 3: Accessibility of the market for the maize



Source: Field Data 2018

Furthermore, when the respondents were asked to determine the accessibility of the market in order for them to sale the maize in the district, 47.5 % of the small scale farmers were of the view that the market for maize produce was easily accessible, while 31.3% of them said that it was rather difficult to access the market for the maize and a further minority of 21. 2% expressed view that it was not accessible at all in the district as can be seen in pie chart above.

Figure 4 :Main Buyers of the Maize in Mapangazhya Farming Block



Source: Field Data 2018

Small Scale Farmers

When asked about the main buyer of their maize produce, the study revealed that majority (70%) of the small scale farmers stated that the private buyer also known as brief case buyers were the main buyers of their maize, while a minority comprising 30% cited the Food Reserve Agency (FRA) as the main buyer for their maize as can be seen in figure 3 above.

Civic and Traditional Leaders

100% of civic leaders sampled said the market for maize was readily available compared to that of other cash crops in the district. Similar sentiments were expressed by traditional leaders. Main buyers for maize produce were the Government through the Food and Reserve Agency, with the remaining produce being bought by the private sector. Both the civic and traditional leaders said that there was easy access to maize market in Mapangazhya farming block.

Agriculture Extension Officers

On the question of availability of the market, all of the respondents said market for maize produce was readily available in Chikankata district, hence the concentration on maize farming.

The Agricultural Extension Officers mentioned that the main buyers of maize produce was the government through the food and reserve agency, as well as, private buyers, though at exploitative price. Small scale farmers have to meet the cost of transportation of the produce to the market.

The law of supply and demand was said to have a bearing on who met the transportation cost between buyers and sellers. In times of scarcity, it was reported that buyers travelled to households to buy the produce. However, in times of bumper harvest, the opposite was the case.

DACO

The DACO generally noted that the law of supply and demand played a critical role in the activity of the market. In times of bumper harvest, supply exceeds demand, hence the small scale farmers had to meet the transportation costs to ferry their produce to the market. The respondent also acknowledged the availability of maize market in Mapangazhya farming block.

4.2 PART C: ORGANIZATION OF SMALL SCALE FARMERS TO BARGAIN FOR MARKETING OF MAIZE PRODUCE

Table 2: Small Scale Farmers membership to a Maize Marketing Farmers Group

	Category	Proportion of Respondents
1	Small Scale Farmers Organized in Marketing Groups	0%
2	Small Scale Farmers Not Organized in Marketing Groups	100%

Source: Field Data 2018

Small Scale Farmers

When an enquiry was made to ascertain how organized the small scale farmers were in the marketing of their maize produce, so as to have influence on the pricing of their maize produce, all the farmers mentioned that they were not organized in groups , hence none of them belonged to any such group. Instead, the small scale farmers sold their maize individually.

Reasons given for this state of affairs included ignorance on the need to form such groups, pressing individual needs requiring money to meet the daily needs, maize growing being the main source of income among small scale farmers.

Civic and Traditional Leaders

All the Civic and Traditional leaders said that small scale farmers were not organized in marketing groups when selling their maize produce.

Agriculture Extension Officers

All the respondents said there was no formal organization of small scale farmers, when it came to marketing of their maize produce. Hence, small scale farmers sold their maize produce at individual level. “The only way they participated in the market, was by comparing the most

attractive price offered by the buyers, also subject to availability of competitors buying the maize produce” added one Agriculture Extension Officer.

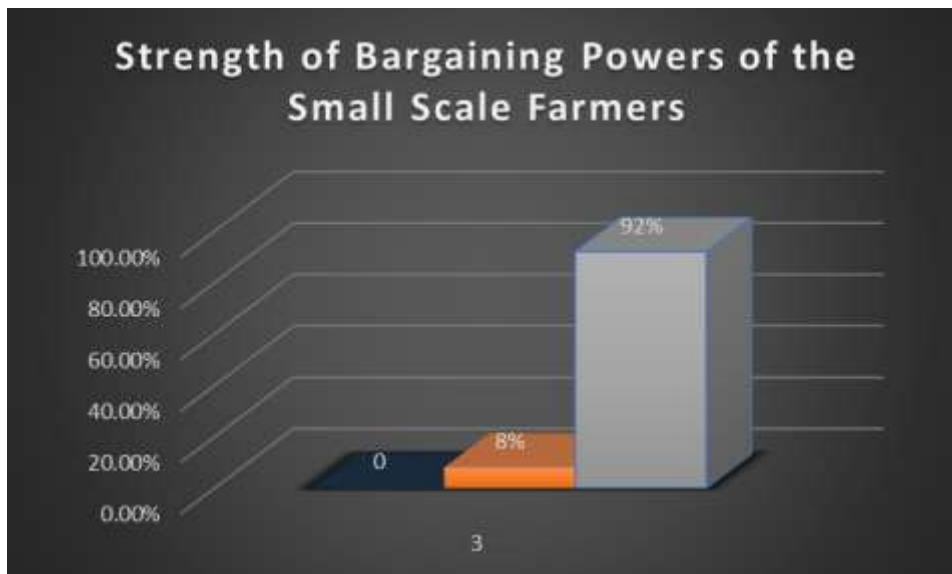
DACO

The District Agricultural Coordinator said small scale farmers are not formally organized into marketing groups such cooperatives. They don't belong to any cooperative or marketing group to bargain for sell of their maize produce except when it came to acquisition of agricultural inputs particularly the beneficiary of FISP input subsidy.

This situation may be attributed to the small scale farmers not seriously considering farming as a business. Small scale farmers were reported not to be market oriented, as evident from their engagement in maize growing without advance exploration of probable target markets. Farming was said to be viewed as a way of life, and a main means of achieving food security, and only considered sale of surplus maize.

4.3 PART D: BARGAINING POWER STRATEGIES USED BY SMALL SCALE FARMERS IN MARKETING OF MAIZE PRODUCE

Figure 5 : Strength of Bargaining Power of the Small Scale Farmers



Source: Field Data 2018

When asked about how much bargaining power the small scale farmers had in terms of bargaining for maize produce, 92% of the respondents said they had weak bargaining power while 8% of them observed that their bargaining power was moderate.

Bargaining Power Strategies used by Small Scale Farmer

The study revealed that none of the small scale farmers respondents applied any bargaining strategies in the marketing of their maize produce. The reasons given for this situation ranged from heavy reliance on maize as the main source of income, lack of crop diversification, vulnerability due to ignorance and poverty levels, pressing socio-economic demand requiring money, such as school fees, hospital charges to mention a few.

Agriculture Extension Officers

All the Agriculture extension officers said small scale farmers had weak bargaining power to influence pricing of maize, hence did not apply any bargaining power strategies when marketing for their maize produce. Instead, they were said to be price takers.

When they were asked about how the price of maize was arrived at, all the respondents said small scale farmers were price takers, hence only participated in comparing the highest prices obtaining on the market.

The market price was to a lesser extent dictated by the theory of demand and supply, although the FRA played a critical role, by the announcing the price at which the Government was buying the commodity.

It was observed that since there was no collusion among the maize buyers in setting the purchase price, small scale farmers were therefore at liberty to compare the obtaining prices being offered on the market, before deciding to sell to a particular maize buyer. The buyers were price setters, while small scale farmers were price takers.

It was noted that since small scale farmers mostly relied on maize selling to raise income, the urgency with which they needed to meet socio –economic needs influenced the price at which they would sell their maize produce.

Civic and Traditional Leaders

When asked about the bargaining power strategies used by small scale farmers to market their maize, all the respondents said small scale farmers had weak bargaining power to influence the price at which to sell their maize produce. It was also mentioned that no particular strategy was used, apart from merely comparing the prevailing price levels being offered on the market, and to settle for the highest price. Instead, they sold their maize produce at the prices offered by the buyers.

One traditional leader wondered why a small scale farmer was a price taker when buying maize agricultural inputs as well as when it came to marketing and selling his/ her maize produce on the market.

Given the nature of information asymmetry when it came to maize trading, like any other trade, the respondents were curious about the accuracy of the weighing scale particularly for those maize dealers who offered higher prices on the market.

DACO

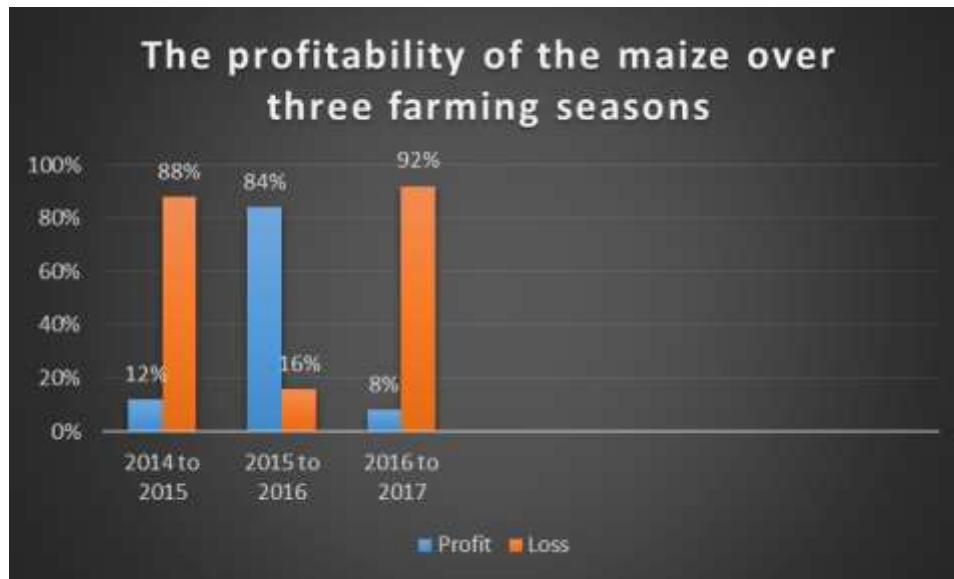
The DACO mentioned that small scale farmers had no bargaining power when marketing of their maize produce. They were merely price takers. This was partly due to their inability to take farming as a business. The DACO noted that the majority of small scale farmers' focus was mainly on growing food for consumption, and only sold their surplus.

Due to lack of crop diversification, small scale farmers could not apply the withholding strategy to sell maize later when the commodity price improved. They were in a hurry to sell even at a loss just to raise money to meet socio-economic needs, such as sending children to school. Even the strategy of depositing their maize grain on the commodity exchange market, to get money at a future date, was not practical, due to small volumes of surplus grain, earmarked for sell.

By and large, almost all small scale farmers have no registration certification of their maize farming business, to be able to benefit from the advantages accrued by virtue of the business registration.

4.5 PART E: ESTABLISH THE PROFITABILITY OF MAIZE PRODUCE ON THE LOCAL MARKET

Figure 6 : Profitability of Maize Price over three Marketing Seasons



Source: Field Data 2018

Small Scale Farmers

When small scale farmers were asked about the profitability of the maize prices at which they sold to buyers over the past three consecutive marketing seasons which ranged from 2014 to 2015 then 2015 to 2016 and 2016 to 2017 respectively, the following results were revealed.

The results revealed that from 2014 to 2015 marketing season, majority (88%) of the small scale farmers cited making losses while the remaining 12% cited making profits. During the 2015 to 2016 marketing season, 92% of the small scale farmers stated having made losses while 8% of them cited having made profits. However, during the 2016 to 2017, majority (84%) of the small scale farmers cited having made profits while a minority 16% maintained to having made a loss.

Chapter Summary

The findings of the study on the four thematic areas were as follows;

Availability of market for maize produce

The majority of the respondents acknowledged availability of maize market. However, most of them expressed sentiments on its inaccessibility to small scale farmers. The study further revealed that private buyers accounted for most of the maize bought from small scale farmers.

Organization of small scale farmers to bargain for marketing of maize produce

The study showed that small scale farmers were not organized in groups to be able to have a strong bargaining power during the marketing of their maize produce.

Bargaining power strategies used by small scale farmers in marketing of maize produce

Over 90% of the respondents mentioned that they had weak bargaining power. The study also showed that small scale farmers did not use any bargaining strategies in the marketing and sell of their maize produce. Instead, they are price takers- meaning that they sold at whatever price is obtaining on the market.

Establish the profitability of maize produce on the local market

The study sought for opinion among respondents on the profitability of maize production over the past three marketing seasons. Majority of respondents expressed sentiments that maize was not profitable particularly during two of the three marketing seasons. General sentiments were that maize was not as profitable compared to other crops.

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS

This section discusses the findings from the current study.

5.1 Availability of Market for Maize Produce

Various responses were advanced by different categories of respondents on the availability of market for maize and other crops. There is still a challenge in market for maize produce, as evidenced by 68% of the small scale farmers who expressed difficulties in the maize market in Mapangazhya farming block. This is attributable to among other things, poor road infrastructure to the market, poor market linkages for maize produce locally and within the region, long distance due to inadequate maize selling points availability in the remote areas of Mapangazhya farming block. It is generally observed that maize market challenges are more pronounced in rural areas as opposed to those along the main road. The dominance of the private sector in maize marketing, with the sole motive of profit maximization, unlike the Government agency, even though has helped improve the market situation, it has instead worsened the pricing of maize owing to the tendency by the private sector to ripe maximum profit. Contrary to the FRA which purchased maize on credit, with no guarantee to pay small scale farmers on time, the Private maize buyers engaged in cash transactions, which attracted maize growers to sell their maize produce.

The study also identified the level of education as contributing to information asymmetry in the maize market. Analysis of data show a positive correlation between the level of education and the availability of market for maize products. This is demonstrated from the identified relationship in terms of the proportion of respondents who acknowledged the availability of market for maize produce and the proportion of respondents with higher level of education, such as tertiary level. The small scale farmers with higher level of education seemed to have been able to get much information on maize marketing as compared those with lower level of education. This revelation suggests that the variation in information in maize marketing among the various respondents is influenced by the different levels of educational attainment. The current study shows that level of education has an influence on accessibility and availability of maize market.

These findings are similar to a study, by R. Mukwevho and F. D. K. Anim (2014) on Factors Affecting Small Scale Farmers in Accessing Markets: A case study of cabbage farmers in the

Vhembe District Limpopo Province of South Africa, which established that farmers who had access to market were more educated than those who did not. This finding concluded that the level of education played a critical role in appreciation of information on marketing, hence help reduce the problem of information asymmetry.

Although almost half the respondents acknowledged the availability of maize market, general observation is that there exists maize marketing challenges among small scale farmers growing maize in the study area.

The existence of maize market availability challenges revealed in the current study agrees with Heinmen P.A, (2002) study, which acknowledged the challenge, and went on to express the need for improvement in access to market to improve the living standards of the rural communities.

The current study further established that farmers opted to sell to private buyers because they offered cash on delivery as opposed to the FRA, which bought maize produce on credit, and delayed paying the farmers.

However, the District Agricultural Coordinator argued that the market was dependent on the law of supply and demand for the produce, hence the fluctuation in the market demand for maize from one marketing season to another.

On the question about the major buyer of maize from small scale farmers, all the respondents said, the Private Buyers were the main buyers of maize, and not the Food Reserve Agency. One small scale farmer added by saying “private buyers come to our door step to buy maize, we do not struggle to pay transport to take to FRA “.

These findings are somewhat contrary to a study by Darlington (2017), titled “The impact of farmer support program on crop diversification among small scale farmers in Zambia, A case study of Neganega agricultural camp which revealed that the government is the major provider of market for the staple food crop maize.

The current study showed the private buyers in the maize market have become more aggressive and innovative as evident from the fact that they increased selling points into the remote areas as well as the act of going to buy maize produce at the household level.

This paradigm shift in-terms of level of participation by the various players in the maize marketing business is a lesson to the Food Reserve Agency, the custodian of the country food reserve to become more innovative, or risk failing to procure enough maize stocks to meet the country's annual maize requirements.

5.2 Organization Of Small Scale Farmers To Bargain For Marketing Of Maize Produce

Analysis on the organization of small scale farmers in the marketing of maize produce showed that there was no organized farmer groups actively engaged in the marketing of maize produce. All the small scale farmers engaged buyers at individual level, hence making them weak and vulnerable to exploitation, manipulation and failure to obtain sufficient returns from their maize produce investment.

Some of the highlighted reasons may include among other things, the low level of education to comprehend farming as a business as well as to appreciate the significance of groups bargaining strategy when it comes to enhancing bargaining power in maize marketing among small scale farmer.

Other findings related to the mistrust as one of the causes of lack of organization among small scale farmers is similar to a study by Masakure and Henson (2005) in Zimbabwe, which attributed the disintegration of local farming groups to mistrust among small scale farmers.

No matter how this issue is looked at, the strength associated with group bargaining cannot be over emphasized. The small scale farmers groups can decide to delay the sale of their maize, hence create a fall in supply of maize product on the market, hence trigger an increase in the demand and consequently an increase in the price of maize produce, which increases the socio economic welfare of the small scale farmers. In this manner, the high level of poverty existing among the rural population would be reduced. Therefore, it is incumbent among the agricultural experts and policy makers to devise ways to strengthen group collaboration when it comes to marketing of their maize produce.

The current study findings on the significance of small scale farmer organization such as cooperatives is supported by a study by Amos Gyau¹ et al (2013) entitled "Collective action to improve market access for smallholder producers of agroforestry products, which showed that market interventions such as collective action can be used to address market imperfections which will subsequently lead to increased market participation and improve livelihoods. In order to

achieve the spirit of collective actions, it is mutual trust among small scale farmers is a prerequisite. In the absence of mutual trust, no collective action can be achieved. This view is echoed in a study by Masakure and Henson (2005), on farmer organization in Zimbabwe, who noted that, mistrust among small scale farmers was the major cause of group disintegration among the local farming groups.

In a another study by Verhofstadt et al (2014), in a case study of cooperatives in Rwanda, it was disclosed that cooperative membership led to greater use of modern inputs, market access, and ultimately increased revenue. The overall effect of cooperative membership within the study was strong and positively influenced farm productivity as well as improved marketing of farm produce.

5.3 Bargaining Strategies Used By Small Scale Farmers In Marketing Of Maize Produce

A close analysis of the bargaining strategies used by small scale farmers in the maize marketing, revealed that the majority (92%) of small scale farmers had weak bargaining power with a minority proportion of respondents (8%) consenting that they had moderate bargaining power, with no respondent expressing the fact that they had strong bargaining power. The study also brought to light the fact that small scale farmers never used any deliberate bargaining strategy when marketing for maize produce. They were merely price takers, meaning they sold at the price offered on the market, without them negotiating with the maize buyers.

This scenario could be attribute to their low education levels, lack of farmer groups, failure to withhold maize produce till the prices improved, on account of lack of alternative source of income. Lack of income options further linked to lack of crop diversification, putting pressure on maize trade to meet urgent socio-economic needs.

These findings are in line with a study by Robbins P (2011), in the paper entitled “Review of the role of commodity exchanges in supporting smallholder farmer market linkages and income benefits which attributed the little bargaining power of small scale farmers to small quantities of farm produce which they individually sold to traders and thereby left with no choice but to accept almost any price offered by traders on the market.

Another study by Bernstein (2010) in support of the current study noted that collective action by small scale farmers in form of cooperatives facilitate the bridging of technical divides, as well as

the enhancement of productivity. Agricultural cooperatives allow for individual households to organize themselves into collective units, to amplify their bargaining power and enhance economies of scale.

5.4 Establish The Profitability Of The Bargained Maize Price On The Local Market

The study looked at the profitability of the bargained maize price. It revealed that the price of maize produce offered by both the Private buyers and Government through the Food Reserve Agency maize was not profitable, taking into account the cost of production.

Though , there are claims suggesting that small scale farmers financed under FISP, make profit from the prevailing selling price, this is not entirely true considering the meagre quantity of input supported under FISP coupled by the need for taking into account the maize quantity required to store for domestic consumption. These findings are in agreement with the CSO 2016-2017 report on the price levels of the common crops grown, which showed that maize was the least priced crop on the market. This was despite the high cost of production associated with the crop production. This implies that maize is not as profitable on the market as compared to other crops such as soya beans.

The profitability of maize produce is further affected by the price fluctuations on the market. This observation agrees with study by Ademola Braimoh et al (2018) study entitled "Increasing Agricultural Resilience through Better Risk Management in Zambia" which stated that the Price volatility was the most significant market-related risk facing farmers and other players in the agricultural value chains in Zambia.

The price fluctuation in the marketing of farm produce did not spare the maize market. For instance, according to Anthony Chapoto & Brian Chisanga (2016), IAPRI report: Zambia Agriculture Status Report, the Food Reserve Agency announced the buying price of a 50kg bag of maize was K85 during the 2016 marketing season. However, the private traders were buying from smallholders as high as K112 per 50kg in form of cash transaction, which was profitable (approximately US\$224/tonne).

The report showed that about 63 percent of the total reported maize surplus was bought by the Private buyers from the smallholder farmers, while FRA only managed to purchase about 260,000 metric tonnes (27% of total purchases from smallholder farmers),

However in the 2017, the price of maize plummeted to K60 per 50kg bag of maize in spite of the ever continued skyrocketing of agricultural inputs (Lusakatimes.com).

The revelation from the study further suggests maize price fluctuation, with small scale farmers incurring more loss than profit from maize marketing during the past three marketing seasons.

The failure to record profit could be attributed to failure by the small scale farmers to scan the economic environment and decide on what to crop to invest in. This finding is similar to Nshindano (2017), who echoed on the existence of knowledge gap among small scale farmers on determining the profitability of crops. Nshindano noted that there have been problems in determining profitable prices for the crops by individual farmers which make them unable to bargain and strike a balance between the cost of production and the profit.

Nshindano 's findings showed that small scale farmers lacked information on the profitability of different crops such as cowpeas which fetched k4.5n/kg compared to maize at k1.5n/kg during the 2016-17 marketing season.

Given this situation, there is need for focused training or education of small scale farmers on how to project and estimate the profitability of a crop to be grown, and indeed to know the marketing strategies to be employed to enhance the bargaining power among small scale farmers.

Another study in support of the current study on the profitability of maize growing by Mwanga Cosmore (1992), focused on maize losses resulting from inefficient marketing, revealed sources of major losses marketed maize, which: transportation (0.3%); rains (39.2%); theft (35.4%); pests and spillages (1.6%); and moisture migration (23.5 %). These studies have shown the likely problems to be encountered in maize marketing by the small holder farmers which may discourage maize production and ultimately reduce the producers' as well as consumers' welfare

It can be deduced from the foregoing that small scale farmers need to diversify and grow other high value crops such as soya beans, if they are to accrue maximum benefit from their crop agro businesses. For those who still choose to stick to maize growing, they ought to take precautionary measures to mitigate against major sources of losses in maize marketing.

Summary

Availability of Market for Maize Produce

The study showed that there was maize market challenge in Mapangazhya farming block in Chikankata district. This was attributed to among other things, poor road infrastructure to the

market, long distance to market. Other impediments included low level of education to grasp information on the availability of the maize market. The private sector dominated the maize market, though offering exploitative prices to small scale farmers.

There is need to improve market linkages for maize produce locally and within the region to improve small scale farmers' returns on agricultural investment.

Organization of small scale farmers to bargain for marketing of maize produce

The study showed that there were no organized farmer groups actively engaged in bargaining for maize price on the market. All the small scale farmers engaged buyers at individual level, hence weakening their bargaining power and increasing their vulnerability to exploitation, manipulation, hence the failure to obtain satisfactory returns on their maize produce investment. The strength associated with collective action in bargaining of maize price cannot be over emphasized.

Agricultural experts and policy makers ought to devise ways to strengthen group collaboration among small scale farmers.

Bargaining strategies used by small scale farmers in marketing of maize produce

The majority (92%) of small scale farmers acknowledged having weak bargaining power. They were merely price takers, as they had no definite strategies to improve the bargaining power.

This scenario could be attribute to their low education levels, lack of farmer groups, failure to withhold maize produce till the prices improved, on account of lack of crop diversification, hence lack of alternative source of income.

Sensitization of small scale farmers Strategies as well as improvement of their literacy levels was crucial if bargaining powers were to be enhanced. Other strategies would include withholding the sale of their maize to stimulate demand for maize, improved literacy levels among small scale farmers as well as practicing crop diversification to mention a few.

Establish the profitability of the bargained maize price on the local market

The study small scale farmers were not price setters. They were instead price takers. The study further revealed that the price of maize produce offered by both the Private buyers and

Government through the Food Reserve Agency maize was not profitable, and occasionally experienced a downward trend, despite ever skyrocketing cost of production.

The failure to record profit could also be attributed to failure by the small scale farmers to scan the economic environment and lack of crop diversification. Small scale farmers need focused training or education to embark on crop diversification and other strategies to improve the market price of the maize price.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter contains conclusive remarks based on each of the thematic areas covered in the study. Key recommendations are also highlighted marking the end of this chapter.

6.1 Conclusion

The study which was focused at exploring the bargaining power strategies used by small scale farmers in the marketing of their maize produce in Mapangazhya farming block of Chikankata district revealed a number of pertinent issues requiring further action and exploration.

Availability of Market for Maize Produce

The study showed the existence of maize market challenge attributed to poor road infrastructure to the markets; long distance to market; low level of education to identify potential maize markets both locally and in the region; Poor market linkages; and lack of crop diversification among other things.

To address these challenges, calls for collaborative efforts from all stake holders if a win – win situation is to be achieved.

Organization of small scale farmers to bargain for marketing of maize produce

The study revealed that small scale farmers were not organized in groups to strengthen their bargaining power in the marketing of maize produce. This made them weak, hence prone to exploitation by the unscrupulous maize buyers, commonly referred to as briefcase business men and women.

Small scale farmers need to be employ effective strategies such as formation of marketing cooperatives to improve their bargaining ability, hence strive to sell their maize produce at an economic price. They need technical guidance from relevant government agencies to realize such aspirations.

Bargaining strategies used by small scale farmers in marketing of maize produce

The study exposed the fact that small scale farmers did not employ any definite bargaining strategies in marketing for maize produce. They were price takers, selling at the obtaining market price, largely dictated by buyers.

This situation is attributed to low education levels, lack of farmer groups, failure to withhold maize produce, lack of crop diversification, among other things. Appropriate strategies are required to counteract the mentioned limitations, if bargaining power among small scale farmers is to be enhanced.

Establish the profitability of the bargained maize price on the local market

The study revealed that the market price offered for maize produce is uneconomic, exploitative, hence subject small scale farmers to perpetual poverty despite hard labour and substantial amount of financial resources invested in maize cultivation annually.

6.2 Recommendations

- Government should facilitate in establishing market linkages for maize produce both locally and internationally within the regional markets to enable small scale farmers obtain high returns on their maize produce.
- Government should improve road infrastructure to increase accessibility of maize markets in Mapangazhya farming block.
- Agricultural technocrats should sensitize small scale farmers and establish marketing cooperatives to strengthen their bargaining power for maize marketing in Mapangazhya farming block of Chikankata.
- Small scale farmers should apply bargaining strategies communally to increase demand for the maize produce in order to the profitability of maize produce on the market.
- Agricultural technocrats should teach small scale farmers to practice crop diversification and grow high value crops which fetch higher prices on the market to improve returns on their agricultural investment.
- Small scale farmers should improve their literacy levels in order to make rational business decisions.

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APPENDIX 1: WORKPLAN

ACTIVITY	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
Proposal development & finalization											
UNZA Research Ethics Clearance											
Carry out Data Collection, Data entry & Cleaning											
Data Analysis											
Report writing											
Submit a Draft report											
Submission of Final Report											
Dissemination of results											

APPENDIX 2: BUDGET

S/N	PARTICULARS	QUANTITY	UNIT COST	TOTAL COST
	Stationery			
1	Flash Disc	1	150.00	150.00
2	Bond Paper	5	50.00	250.00
3	Pens	10	5.00	50.00
4	Pencils	5	2.00	10.00
5	Rubber	4	2.00	8.00
6	Note Books	5	20.00	100.00
7	Tipex	1	50.00	50.00
8	Stapler	1	50.00	50.00
9	Staples	1 box	20.00	20.00
	Sub total			688.00
	Human Resource costs			
1	Lunch allowance – Principal Researcher	5	85.00	425.00
2	Lunch allowance –Research Assistants	15	85.00	1275.00
	Sub total			1700.00
	Miscellaneous Services			
1	Ethics Clearance	1	300	300.00
2	Photo copying	5	500	2500.00
3	Binding	5	150	750.00
4	Dissemination of Results	1	2000	20000.00
	Subtotal			5550.00
	Contingency 10%			788.80
	GRAND TOTAL			8676.80

APPENDIX 3: INTERVIEW GUIDE FOR SMALL SCALE FARMERS IN MAPANGAZHYA FARMING BLOCK IN CHIKANKATA DISTRICT

The purpose of this questionnaire is to gather information about factors influencing maize production among small scale farmers in Chikankata District.

Please answer the questions freely. The information you provide will be treated with utmost Confidentiality and will only be used for academic research purposes by the researcher himself.

PART A: Personal Details.

Put a tick [] or fill with appropriate response(s)

1. What is your gender? Male Female

2. Age.

18-35

35-50

50-65

65 and Above

3. Highest level of education attained.

Primary

Secondary

College

University

Post graduate

4. Marital status

Single

Married

Part B: Availability and Accessibility of Market for Maize produce

5. How available is the market for Maize in Mapangazhya farming block of Chikankata district?

Item	Readily Available	Rarely Available	Not Available
Maize			

6. Explain who buys you Maize produce.....

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7. How accessible is the market for maize and other cash crops in Chikankata district?

Crop	Easily Accessible	Difficult to Access	Not Accessible
Maize			

Part C: Organization of Small Scale Farmers

8. Do you have an organized farmers group which market the sale of maize in your area?

- i) Yes
- ii) No

If yes,

9. Do you belong to an organized famers group to market your maize produce?

- i) Yes
- ii) No

10. If yes, how do you participate in bargaining of the market price for your maize produce?

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11. If you don't belong to an organized farmers group to market your maize produce, how do you bargain for market price for your maize produce?.....

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Part D: Bargaining Strategies used by Small Scale Farmers

12. How much bargaining power do you have when marketing for your maize produce on the market?

- i Strong
- ii Average
- iii Weak

13. What bargaining strategies do you use to bargain for marketing of your maize produce?

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Part E: Profitability of Bargaining for Maize market Price

14. What are the market pricing strategies do you use in price your maize produce on the market?

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15. Who determines the price of maize produce on the market in Mapangazhya farming block in Chikankata district?

GRZ Food Reserve Agency	
Private Buyers	
Small Scale Farmers Groups	
Individual Small Scale Farmers	

16. How profitable has been the bargained market price of maize on the market in Chikankata District in the last 3 farming seasons

	2017-2018	2016-2017	2015-2016
Maize Price			
Loss			
Profitable			

17. What do small scale farmers do when they are not satisfied with the set price of maize on the market in Mapangazhya farming block?

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18. What challenges do small scale farmers face in bargaining for maize marketing in Mapangazhya farming block in Chikankata district?

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19. In your own opinion, how can the small scale farmers bargaining power be enhanced or sustained to achieve high returns on maize agro investment?.....

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THANK YOU VER MUCH FOR PARTICIPATING IN THE INTERVIEW

END OF INTERVIEW

APPENDIX 4: INTERVIEW GUIDE FOR AGRICULTURE EXTENSION OFFICERS IN MAPANGAZHYA FARMING BLOCK IN CHIKANKATA DISTRICT

The purpose of this questionnaire is to gather information about factors influencing maize production among small scale farmers in Chikankata District.

Please answer the questions freely. The information you provide will be treated with utmost Confidentiality and will only be used for academic research purposes by the researcher himself.

PART A: Personal Details.

Put a tick [✓] or fill with appropriate response(s)

1. What is your gender? Male Female

2. Age.

18-35

35-50

50-65

65 and Above

3. Highest level of education attained.

Primary

Secondary

College

University

Post graduate

4. Marital status

Single

Married

Part B: Availability and Accessibility of Market for Maize produce

5. How available is the market for Maize in Mapangazhya farming block of Chikankata district?

Item	Readily Available	Rarely Available	Not Available
Maize			

6. Explain who buys you Maize produce.....

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7. How accessible is the market for maize and other cash crops in Chikankata district?

Crop	Easily Accessible	Difficult to Access	Not Accessible
Maize			

Part C: Organization of Small Scale Farmers

8. Do you have an organized farmers group which market the sale of maize in your area?

iii) Yes

iv) No

If yes,

9. Do you belong to an organized famers group to market your maize produce?

iii) Yes

iv) No

10. If yes, how do you participate in bargaining of the market price for your maize produce?

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11. If you don't belong to an organized farmers group to market your maize produce, how do you bargain for market price for your maize produce?.....
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Part D: Bargaining Strategies used by Small Scale Farmers

12. How much bargaining power do you have when marketing for your maize produce on the market?
i Strong
ii Average
iii Weak

13. What bargaining strategies do you use to bargain for marketing of your maize produce?
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Part E: Profitability of Bargaining for Maize market Price

14. What are the market pricing strategies do you use in price your maize produce on the market?
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15. Who determines the price of maize produce on the market in Mapangazhya farming block in Chikankata district?

GRZ Food Reserve Agency	
Private Buyers	
Small Scale Farmers Groups	
Individual Small Scale Farmers	

16. How profitable has been the bargained market price of maize on the market in Chikankata District in the last 3 farming seasons?

	2017-2018	2016-2017	2015-2016
Maize Price			
Loss			
Profitable			

17. What do small scale farmers do when they are not satisfied with the set price of maize on the market in Mapangazhya farming block?

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18. What challenges do small scale farmers face in bargaining for maize marketing in Mapangazhya farming block in Chikankata district?

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19. In your own opinion, how can the small scale farmers bargaining power be enhanced or sustained to achieve high returns on maize agro investment?.....

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THANK YOU VER MUCH FOR PARTICIPATING IN THE INTERVIEW

END OF INTERVIEW

APPENDIX 5: INTERVIEW SCHEDULE FOR DISTRICT AGRICULTURAL COORDINATOR IN CHIKANKATA DISTRICT

The purpose of this questionnaire is to gather information about factors influencing maize production among small scale farmers in Chikankata District.

Please answer the questions freely. The information you provide will be treated with utmost Confidentiality and will only be used for academic research purposes by the researcher himself.

PART A: PERSONAL DETAILS.

Put a tick [√] or fill with appropriate response(s)

1. What is your gender? Male Female

2. Age.

18-35

35-50

50-65

65 and Above

3. Highest level of education attained.

Primary

Secondary

College

University

Post graduate

4. Marital status

Single

Married

Part B: Availability and Accessibility of Market for Maize produce

5. How available is the market for Maize in Mapangazhya farming block of Chikankata district?

Item	Readily Available	Rarely Available	Not Available
Maize			

6. Explain who buys you Maize produce.....

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7. How accessible is the market for maize and other cash crops in Chikankata district?

Crop	Easily Accessible	Difficult to Access	Not Accessible
Maize			

Part C: Organization of Small Scale Farmers

8. Do you have an organized farmers group which market the sale of maize in your area?

v) Yes

vi) No

If yes,

9. Do you belong to an organized famers group to market your maize produce?

v) Yes

vi) No

10. If yes, how do you participate in bargaining of the market price for your maize produce?

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11. If you don't belong to an organized farmers group to market your maize produce, how do you bargain for market price for your maize produce?.....
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Part D: Bargaining Strategies used by Small Scale Farmers

12. How much bargaining power do you have when marketing for your maize produce on the market?
i Strong
ii Average
iii Weak

13. What bargaining strategies do you use to bargain for marketing of your maize produce?
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Part E: Profitability of Bargaining for Maize market Price

14. What are the market pricing strategies do you use in price your maize produce on the market?
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15. Who determines the price of maize produce on the market in Mapangazhya farming block in Chikankata district?

GRZ Food Reserve Agency	
Private Buyers	
Small Scale Farmers Groups	
Individual Small Scale Farmers	

16. How profitable has been the bargained market price of maize on the market in Chikankata District in the last 3 farming seasons

	2017-2018	2016-2017	2015-2016
Maize Price			
Loss			
Profitable			

17. What do small scale farmers do when they are not satisfied with the set price of maize on the market in Mapangazhya farming block?

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18. What challenges do small scale farmers face in bargaining for maize marketing in Mapangazhya farming block in Chikankata district?

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19. In your own opinion, how can the small scale farmers bargaining power be enhanced or sustained to achieve high returns on maize agro investment?.....

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THANK YOU VER MUCH FOR PARTICIPATING IN THE INTERVIEW

END OF INTERVIEW

APPENDIX 6: INTERVIEW GUIDE FOR CIVIC AND TRADITIONAL LEADERS IN MAPANGAZHYA FARMING BLOCK , CHIKANKATA DISTRICT

The purpose of this Interview is to gather information about factors influencing maize production among small scale farmers in Mapangazhya Farming Block, in Chikankata District. Please answer the questions freely. The information that will be provided will be treated with utmost confidentiality and will only be used for academic research purposes by the researcher.

Agricultural **Camp**.....
Date:.....
Title **of** **Key** **Informant**.....
Moderator.....

PART A: Personal Details.

1. Age and Sex of Respondents
 Age..... Sex.....
2. Education Levels

Part B: Availability and Accessibility of Market for Maize produce

5. How available is the market for Maize in Mapangazhya farming block of Chikankata district?

Item	Readily Available	Rarely Available	Not Available
Maize			

6. Explain who buys you Maize produce.....

.....

7. How accessible is the market for maize and other cash crops in Chikankata district?

Crop	Easily Accessible	Difficult to Access	Not Accessible
Maize			

Part C: Organization of Small Scale Farmers

8. Do you have an organized farmers group which market the sale of maize in your area?

- i) Yes
- ii) No

If yes,

9. Do you belong to an organized famers group to market your maize produce?

- i) Yes
- ii) No

10. If yes, how do you participate in bargaining of the market price for your maize produce?

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11. If you don't belong to an organized farmers group to market your maize produce, how do you bargain for market price for your maize produce?.....

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Part D: Bargaining Strategies used by Small Scale Farmers

12. How much bargaining power do you have when marketing for your maize produce on the market?

- i Strong
- ii Average
- iii Weak

13. What bargaining strategies do you use to bargain for marketing of your maize produce?

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Part E: Profitability of Bargaining for Maize market Price

14. What are the market pricing strategies do you use in price your maize produce on the market?

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15. Who determines the price of maize produce on the market in Mapangazhya farming block in Chikankata district?

GRZ Food Reserve Agency	
Private Buyers	
Small Scale Farmers Groups	
Individual Small Scale Farmers	

16. How profitable has been the bargained market price of maize on the market in Chikankata District in the last 3 farming seasons?

	2017-2018	2016-2017	2015-2016
Maize Price			
Loss			
Profitable			

17. What do small scale farmers do when they are not satisfied with the set price of maize on the market in Mapangazhya farming block?

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18. What challenges do small scale farmers face in bargaining for maize marketing in Mapangazhya farming block in Chikankata district?

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19. In your own opinion, how can the small scale farmers bargaining power be enhanced or sustained to achieve high returns on maize agro investment?.....

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THANK YOU VER MUCH FOR PARTICIPATING IN THE INTERVIEW

END OF INTERVIEW