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An investigation of the savings habits among maize farmers in Zimbabwe. Case study of Lion's Den in Makonde District, Mashonaland West Province.

A dissertation submitted in partial fulfilment of a Bachelor Honours degree in Banking and Finance 2022

Supervisor: Dr Mauchi

DECLARATION

I Tanatswa Elroi Mashizha, do hereby proclaim that this dissertation is the outcome of my own study and research, except to the extend specified in the Acknowledgements, References and by comments encompassed in the body of the research document, and that it has not been previously submitted in part or in full for any other degree at any other university.

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APPROVAL FORM

The undersigned endorse that they supervised the student Mashizha Tanatswa's dissertation titled "An investigation of the savings habits among maize farmers in Zimbabwe. Case study of Lion's Den in Makonde District, Mashonaland West Province." submitted in partial fulfilment to the requirements of the award of a Bachelor of Commerce Honours Degree in Banking and Finance at Bindura University of Science Education.

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DEDICATION

This research document is a dedication to my parents Mr and Mrs Mashizha and my sister Tavimbanashe. Thank you for the support and encouragement.

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I would like to thank the Almighty God for the strength he gave me throughout this project. For, “I can do all things through Christ who gives me strength.” (Philippians 4:13)

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ABSTRACT

The main focus of this study was to investigate the savings habits among maize farmers in Zimbabwe. This is so because the majority of maize production is being done on a subsistence basis by resource constrained farmers who basically leave from hand to mouth. Maize is a staple food crop that is widely grown in Zimbabwe mainly by communal and newly resettled farmers. The study used survey data from 195 smallholder communal and resettled farmers, and agribusiness firms dealing with maize. Data was collected through the issuing of questionnaires with the sampled farmers and firm representatives. The study also explores the way the small grains have been marketed and the extent of field crop contracting in Zimbabwe. In addition, literature on determinants of market participation for other commodities was reviewed. Recommendations were then drawn on strategies for improved market participation for smallholder farmers. Transaction cost related factors are an important component of marketing that determines the extent of market participation for smallholder farmers. Results of the multiple regression and the probit models showed that transaction cost related factors, such as previously agreed prices (PRICEAGREE), confidence and trust in the buyer (CONFIDENCE), the difference in price knowledge (PRICEKNOW) and delayed payment for sold grain (DELAYPAY) have a significant impact on the quantity of grain sold and the extent of smallholder farmer participation in the market. Discriminant analysis was used to identify factors discriminating maize sellers and non-sellers. The division was made according to whether or not a household sold maize during the period 2004/05 to 2006/07. Of the fourteen potential discriminating variables, six explained group differences with statistical significance. The six important variables in the discriminant function analysis were: number of donkeys owned by a household, crop production levels, source of household income, method of transporting grain to the market, district and area cultivated. Five of the six discriminating variables point to wealth-ranking factors (household asset endowments) implying that poorer households are unable to participate in markets effectively.

The conclusion is that small grains are important food crops for smallholder farmers in drier environments but their productivity is low. Hence, to enhance farmer access to markets, it is necessary to increase the productivity of maize and thus, enable smallholder farmers to produce adequate marketable surplus. Interventions by government and private sector should aim at addressing the major factors that determine market participation. Important to note is that, if poorer households are unable to effectively participate in markets, then interventions to increase households' productive assets or the public goods that support agricultural production and marketing may be necessary.

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CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION

This chapter focuses on the background of the study, the problem statement, the objectives of the study, research questions and justification of the study. The significance and the delimitations to the study are also highlighted in this chapter. It brings out key terms used in the research.

1.1 BACKGROUND OF THE STUDY

Being able to create savings is seen as the only spring board to improved productivity and growth in any sector of the economy (Murray 2012: Gonzales-Vega 2003). Research established that savings enable farming resources to be increased both quantitatively and qualitatively, as they help to increase efficiency in physical and human capital (Welcoz et al., 2020). It does not need to be overemphasized that savings catalyses capital creation such that they are a major force enabling economic growth and development (Hunter M. 2012). Successful maize farming for hunger and poverty eradication in Zimbabwe does depend on farmers' ability to accumulate savings and their way the farmers spend the generated capital. The aim of this research is to investigate the savings habits among maize farmers in Zimbabwe's Lion's Den resettlement farms in Makonde District under Mashonaland West Province.

In this research, savings are defined as any part of farm produce or income that is not immediately consumed, but is reserved for future farm investments, consumption, or unforeseen expenses (Wieliczko, 2020). The ability to generate savings is therefore a vital component of the farmer's decision-making process in farms. Savings created influence farming decisions and is directly related to the type of farming the farmer conducts as well as the level of affluence of the farmer's household. (Gokhale 2019) echoes that savings perform two basic functions which are provision of economic security and wealth accumulation for improved their living standards by the farmer and the household.

Global demand for maize is rising yearly such that estimated project a 24% shortfall in maize supply by 2050 (FAO, 2022). To meet this demand there is need to increased yearly savings by farmers so that they can be able to invest in farming practices that can overcome the impending farming challenges caused by climatic changes and increased crop disease burden. Global statistics indicate increasing maize production in Asia but a&% decline in production in southern Africa. Maize production in Africa is said to be held back by several factors with poor financial savings by farmers being the major one (Alexandratos, N. and Bruinsma, J., 2012). Research laments that maize production in Africa, continue to be overdependant on rainfall as the farmers cannot drill bore holes or construct dams due to lack of saving hence 25% of maize production is threatened by frequent drought, pests and diseases imaging due to climate change (Jones, P. and Thornton, P 2003) other causes include deteriorating soil quality as farmers lack financial savings required for the purchase of soil aiding inputs (Ray, D. et al 2013).

Commenting on Zimbabwe (FAO 2021) reiterated that maize cultivation is hindered by a lack of resources and training by the predominantly smallholder farmers involved in maize production. Poor financial savings impose constraints maize farmers which include reduced access to improved varieties, limited access to agrochemicals, poor mechanisation as well as post-harvest losses due to poor storage. Shambare (cited in Herald, 10th Aug, 2022) pointed out that low productivity remains a serious challenge in most farms resettlement farms. He (ibid) added that low productivity caused by low capital among other factors is a serious cause for concern as Zimbabwe needs diligent farmers that can create savings, invest more in farming and be able to feed the nation. Minister Mashongera, (2019) concurred with Shambare, highlighting that out of the 1.4 million hectares of maize, the country is realising only less than one million tonnes of maize which is an average yield of less than 0.2 to 0.8 tonnes per hectare, way below the expected average of about 5 tonnes per hectare.

Lack of savings results in farmers facing challenges in sending their soil samples for analysis in national laboratories to determine the type of fertilizer needed on their farms for crop production. As result every household in Lions den engarges in maize cropping however failures in crop productivity clearly depicting the relative importance of capital creation through savings (Cutts & Hassen, 2003). According to AGRITEX (Agritex, 2012), the Zimbabwean agricultural sector is largely characterised by small-scale farming and low productivity. This low productivity is partly due to a multiplicity of

social, economic, environmental, institutional and cultural challenges influencing financial savings by maize farmers (FAO, 2012) hence this research aims at unearthing the main causes of the poor savings.

1.2 Statement of the problem

Maize is a staple food crop that is widely grown in Zimbabwe mainly by communal and newly resettled farmers. Estimates indicate that Zimbabwe requires 2.2 million tons of maize per annum (FAOstat, 2022). However, the majority of maize production is being done on a subsistence basis by resource constrained farmers who basically leave from hand to mouth as they struggle to come up with savings. Given the fact that maize is stable food crop, the importance of maize famers being able to come up with savings cannot be over emphasized as it is the key for eradicating hunger and poverty and for the achievement of sustainable development in Zimbabwe (Chisi, 2018). Researchers lament that lack of savings by maize farmers is the major reason why maize continue to be in short supply, creating food insecurity in zimbabwe (Kiriwaggulu, 2021;; Rohrbach,2019 Barrett, 2008Lack of savings by maize farmers is resulting in overdependence on government handouts by an increasing portion of the Zimbabwean population, and soaring debt that threatens the financial integrity of both the farmers themselves and the economy at large. Literature survey indicate that there is limited or no data on Zimbabwe's maize farmers saving culture, savings methods, the social, economic, environmental, institutional and cultural challenges influencing financial savings by maize farmers . This research is therefore aimed at investigating the saving culture, challenges and ways of improving savings by resettled farmers in Lions Den, Zimbabwe)

1.3 Objectives of the study

The study is there to critically analyse the savings habits among maize farmers in Zimbabwe.
Specifically, the study sought to;

1. To identify the savings culture of resettled farmers in Lions Den, Zimbabwe

2. To examine the savings methods used by farmers in Lions Den, Zimbabwe

3. To determine the social, economic, environmental, institutional and cultural challenges influencing financial savings by maize farmers in Lions Den resettlement farming area in Zimbabwe.

4. To evaluate the impact of various maize marketing strategies used by resettled farmers in Lions Den, Zimbabwe

1.4 Research questions

1. What are the characteristics of Lions den farmers in relation to their savings culture?

2. What are the the social, economic, environmental, institutional and cultural challenges influencing farmers in savings culture and methods?

3. Which savings methods are used by farmers in Lions Den? Are they effective?

1.5 Significance of the study

An investigation of the savings habits among maize farmers in Zimbabwe assist in farming planning, policy formulation, as well as decision making about interventions that are tailor-made for farmers particularly small holder farmers, given the fact that they constituet the majority of farmers in Zimbabwe. In recent years, Food shortages and survival through donor food aid or government food hand-outs have become a common feature. It is therefore prudent to develop policies and strategies targeting small holder farmers through evidence based research and practice to enable savings creation for improved maize productivity. Thus, this study would serve as a point of reference, input and contribute towards the local and national efforts that demonstrate understanding of the farmers' savings habits, their challenges and ways to improve them. This will in turn guide ways of establishing or strengthening farmers financial savings that are both comprehensive and user friendly to all. In the local Lions Den farming area, this research is going to be beneficial for enhancing understanding, building awareness of the specific poor saving habits and good saving habits coping strategies. Consequently, this would serve as a point of reference for building farmer resilience, and the educational foundation upon which farmers challenges can be overcome. The study will allow the researcher to develop competent skills in undertaking future studies. The student will also benefit by obtaining a chance to acknowledge meaningful data interpretation for similar researches in the future. For Bindura University Of Science Education. The research will provide literature for use by other scholars.

1.6 limitations of the study

Time constraint: The researcher will simultaneously engage in this study with other academic work. This consequently will cut down on the time devoted to the research work. In undertaking the

research, the following challenges are likely to be encountered; Access to confidential information, however the researcher intends to make use of other research material. Respondents might be reluctant to participate. However, in such a case the researcher shall make use of internal sources of information.

The researcher is constrained by lack of funds in terms of accessing printing and photocopying services for the research. However the researcher hopes to get assistance in order to carry out the research.

1.7 Definition of terms

Savings habits - Loibl, C?zilia, (2011), defines Savings habits as frequently practiced behaviors, done without a particular sense of awareness, with the goal of freeing up funds for saving or debt reduction.

Savings – defined as income that is earned in the current period but consumed in the next (Scholtens, 2005; Virani, 2012).

1.8 Chapter summary

The chapter covered background of the study, the problem statement; also some research questions as well objectives of the research. The significance of the study is also included in the chapter that is a summary of how this research will be or help to different organizations and institutions and then lastly the chapter summary.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter focuses on the review of related literature and it discusses the importance of saving in analysing the performance of farmers in practice. The chapter also discusses the role of Savings Habits in individual farmers, the relationship between savings habits and financial literacy. It also focuses on the impact of savings habits on the performance of farmers. Lastly the chapter looks on how farmers can improve on their Savings habits.

2.1 Conceptual Framework

This proposal is there to show or highlight the importance of saving in analysing the performance of farmers in practice. In this proposal, I am focusing on maize farmers in Zimbabwe. By the research conducted, attitudes towards saving, perceived financial capacity and tendency to save of farmers were investigated. Also, it was researched if they are familiar with the types of savings offered by financial institutions of the Republic of Croatia. Finally, it is analysed how farmers are saving. Due to importance of saving for personal finances and standard of living for individual but also for the whole economy it is necessary to adopt savings habits at an earlier age. Accordingly, it is crucial to research how maize farmers are saving, the reasons of their saving and are they capable of saving and prone to saving. The oldest members of this generation are just finishing their education, entering the labour market and earning their own income. To improve the saving structure of a young people, increase their awareness of savings and introduce them savings products, it is necessary to explore their savings habits.

Global statistics show that on the average, East Asia saves more than 35 per cent of gross national disposable income while sub-Saharan Africa saves less than 15 per cent (Brandywine Global, 2016). Further, in Northern Europe, average national savings range from 30 to 38 per cent (Brandywine Global, 2016). It is also worth noting that regional differences in saving have been increasing. Over the last three decades, saving rates have doubled in East Asia and Europe but have generally been stagnant in sub-Saharan Africa, Latin America and the Caribbean. Through a rapid upsurge in

aggregate saving, the social value of saving can exceed its private value in many developing countries, thus the saving behaviour of citizens is critical to an economy (Chow et al., 2012). This corresponds mostly with the development trends in these economies and the general welfare of citizens.

Private savings is the main domestic source for founding of capital investments, the primary initiator of long term economic growth. It is also important for the financial stability of the household. The importance of saving is in ensuring a certain standard of living in the future, realization of the financial goals and creating of a fund for emergency and crisis (Barbić and Lučić, 2018). Due to importance of saving for the economy and personal finances, it necessary to examine maize farmers' attitudes towards saving and whether they can understand importance of saving in the context of personal finances and, consequently, present and future.

2.2 Theoretical framework

Financial literacy can be defined as the level of financial knowledge and the capacity to apply the knowledge to improve financial status Lusardi and Mitchell (2014).

Lusardi and Mitchell (2014) in their study, came up with a life cycle saving model that brings out the role played by financial literacy. The model incorporates issues to do with borrowing constraints, demographic factors, demographic factors, stock market returns and health shocks. Consumers will invest in obtaining financial knowledge up to the level where their costs are at the same level with the positive results. These assumptions show that consumers who obtain education in financial issues will develop their ability to deal with their finances as compared to those who do not receive financial education.

2.3 Empirical literature

The purpose of studying the theoretical and empirical research is to prove the content validity of this study. The reviews are organized in chronological order.

2.3.1 Patti J. Fisher and Sophia T. Anong (2012): Relationship of Saving Motives to Saving Habits

Fisher (2012) carried out a study on how saving motives are related to saving habits using Katona's (1975) psychological classification of saving, where households save regularly (discretionary), save irregularly (residual), or do not save. Saving habits have been examined mostly with lenses focusing on how they influence levels of savings or savings guidelines for different asset accounts (Anong & DeVaney, 2010; DeVaney & Chien, 2001). Saving habits have also been included as independent variables in studies of retirement adequacy (Malroutu & Xiao, 1995), in which the saving habit was based on whether respondents were saving at the current time. Rha, Montalto, and Hanna (2006) studied self-control mechanisms and saving behaviors where the saving habits variable was used as an independent variable. The purpose of the current study is to investigate how saving motives are related to household saving habits in the United States. Using a nationally representative dataset, the 2007 wave of the Survey of Consumer Finances (SCF), we focused on how households' self-reported saving motives were related to whether they generally save regularly, save irregularly, or do not save. These three saving habits were constructed from survey responses by households that they either: (a) do not save; (b) save whatever is left over at the end of the month (no regular plan); (c) save the income of one family member and spend the other; (d) spend regular income and save other income; or (e) save regularly by putting money aside each month. We included other socio-demographic and attitudinal determinants mainly as control variables because of the expected influence on household savings behavior as established in prior research.

Katona (1975) proposed three categories of saving habits among average persons: (a) contractual saving, where one makes routine installment payments for an asset like a home mortgage, which is forced or obligatory saving; (b) discretionary saving, where one deliberately saves; and (c) residual saving, where one does not spend all of income and therefore saves by default. This categorization in

Katona's (1975) behavioral or psychological approach to saving is the basis for two of the saver groups compared in this study with the aim of better understanding the factors associated with discretionary and residual saving. Households engaged in discretionary saving are considered to be saving regularly in the present study because they regularly put aside a portion of their income. Residual saving is referred to as saving irregularly, where consumers save by default because they do not spend all their income and save whatever is left over. Contractual saving is not used as a basis to construct a saving habit due to a lack of such a measure in the saving habit construct available in the data, but homeownership and wealth accumulation, which more than likely result from contractual saving, are incorporated as independent variables to predict the likelihood of having one saving habit over another. The third category is those who do not save. Some people do not save deliberately or by default by spending all of their income (Carroll, 1997; Wärneryd, 1999). Therefore, we compare self-reported regular saving with irregular saving and non-saving.

Keynes (1936) identified eight saving motives, and Browning and Lusardi (1996) added another, providing a title for each motive: (a) precautionary motive, (b) life-cycle motive, (c) intertemporal substitution motive, (d) improvement motive, (e) independence motive, (f) enterprise motive, (g) bequest motive, (h) avarice motive, and (i) down payment motive. Katona (1975) offered six more general saving motives: (a) for emergencies, (b) to have funds in reserve for necessities, (c) for retirement or old age, (d) for children's needs, (e) to buy a house or durable goods, and (f) for holidays. These six motives are included as independent variables in the empirical model to investigate the relationship between saving motives and saving habits. Previous studies have focused mostly on the relationship between savings motives and the values contributed to or held in accounts as well as consumption patterns. For example, a reported retirement saving motive was associated with higher 401(k) plan contributions in terms of both the flat amount and percentage of salary contributed (Xiao,

1997). The current study examines the predictive influence of saving motives on saving behavior based on Katona's discretionary and residual saving classifications. Saving motives are not necessarily mutually exclusive (Dynan, Skinner, & Zeldes, 2004; Smith, 1999). For example, households may save for precautionary reasons but expect any unspent balances to be left as a bequest. It is unlikely that one motive will be sufficient for all members of a population at a given time or for the same person over a long period of time, and many motives are complementary. In recent years, the importance of co-existing saving motives in research on saving has been noted (e.g., Canova, Rattazzi, & Webley, 2005). Some studies have utilized Maslow's (1954) human needs theory proposing a hierarchy of saving motives (e.g., Xiao & Noring, 1994). Xiao and Noring (1994) and Xiao and Anderson (1997) found saving motives to be related to financial resources. With an increase in income, the priority saving motive of families expands from daily necessities to saving for precautionary or emergencies to children, retirement, and holidays. Xiao and Fan (2002) compared the saving motives of Chinese and American workers and found that the Chinese workers were more likely to identify motives for daily expenses, emergencies, children, and investment while Americans were more likely to report saving for major purchases and retirement. These studies and others examined the determinants of the six saving motives proposed by Katona (1975). DeVaney et al. (2007) examined the factors likely to influence progression from lower order saving motives to higher order needs on a hierarchy based on Maslow's human needs theory. However, the analysis did not examine how progress upwards on the hierarchy of savings motives could be related to saving patterns such as having a regular saving discipline which would be just as necessary as having the ability to save.

Other Variables include: Age, income, income uncertainty, wealth, risk tolerance, saving horizon, homeownership, household composition, health status, education, race/ethnicity, self-employment, and unemployment have all been linked to some aspect of saving. Researchers have found that saving

increases with age (Chang, 1994; Katona, 1975; Mirer, 1979). Furnham (1985) found age to be strongly and linearly related to respondents' attitudes toward saving, and age has been found to determine how regularly a household saves, where a household saves, and why a household saves. Yuh and Hanna (2010) found the predicted probability of saving to be the highest among respondents under age 30, with the predicted probability generally decreasing with age. Saving and income are positively related, with saving increasing with income (Chang, 1994; Foster, 1981; Hefferan, 1982; Lee et al., 2000; Yuh & Hanna, 2010). In the real world, uncertainty about future income affects household saving or net worth accumulation (Yuh & Hanna, 2010). Some researchers have reported that households facing higher income risk are more likely to save (Carroll, 1994; Deaton, 1991; Lusardi, 1998; Sandmo, 1970; Zeldes, 1989), while others have found no significant relationship between income uncertainty and saving behavior (Fisher, 2010). Both positive and negative links have been found between household wealth and saving. Hefferan (1982) found a positive effect of wealth on both the decision to save and the level of saving. Rha et al. (2006) and Xiao and Malroutu (1994) found a positive relationship between net assets and saving. In Yuh and Hanna (2010), net worth had a positive effect on household saving practices. However, Chang (1994) argued that increases in wealth have a negative effect on personal saving, holding all else equal, finding initial net non-housing assets to be negatively related to non-housing asset accumulation. Fisher and Montalto (2010, 2011) did not find wealth and household saving to be related. Households with a high level of risk tolerance accumulate more non-housing wealth than those with low risk tolerance (Chang, 1994). Avery and Kennickell (1991) found that households expressing a willingness to bear high risks have much higher levels of saving. Fisher and Montalto (2010b) found that low risk tolerance decreased the likelihood of saving, and Finke and Huston (2003) found that greater risk tolerance was associated with higher net worth and financial assets. Economists, psychologists, and sociologists have also discussed the importance of "time horizon" in intertemporal choices (Lea, Webley, & Walker, 1995). Rabinovich and Webley (2007)

argue that saving horizon is one of the most robust covariates of saving behavior in previous research, and aids in predicting saving behavior. Lusardi (2000) found a positive relationship between planning and saving, and Lee et al. (2000) and Fisher and Montalto (2010, 2011) found that a long-term financial planning horizon is positively related to saving. Households that are willing to have their money tied up for longer periods of time have been found to have higher levels of saving (Avery & Kennickell, 1991), and individuals with a relatively high "subjective discount rate" (Friedman, 1957) were expected to be more likely to save (Lea et al., 1995). Ainslie (1975, 1992) provided a detailed review of the history and implications of time horizon. Researchers have found that saving is higher among homeowners (Avery & Kennickell, 1991; Bosworth, Burtless, & Sabelhaus, 1991; Browning & Lusardi, 1996; Rha et al., 2006; Yuh & Hanna, 2010) and Chen and DeVaney (2001) found homeownership was positively related to the adequacy of quick, comprehensive emergency funds. Bosworth et al. (1991) found saving to vary by marital status and the presence of dependent children, with single-head households with children having the lowest saving rates in the population. Other researchers also found that single parents had the lowest saving rates in the population, while married couples with no children had the highest saving rates (Avery & Kennickell, 1991; Bosworth et al., 1991; Chang, 1994; Yuh & Hanna, 2010). Lee et al. (2000) found that younger couples without children and older households without dependent children were more likely to save than younger single households or households with dependent children. Single female householders were significantly less likely to save as compared with comparable married households, and single females were also significantly less likely to report spending less than income than single males (Yuh & Hanna, 2010).

Saving behavior is affected by an individual's health status (Davies, 1981; Palumbo, 1999), and Kennickell and Lusardi (2005) argued that it is important to model health risks in studies of consumption and saving. Several researchers have found that health affects total wealth accumulation

(National Bureau of Economic Research, 2000; Smith, 1999; Wu, 2003), and Fisher and Montalto (2010, 2011) found a negative relationship between poor health and saving. However, Yuh and Hanna (2010) found that households with poor health are more likely to save than households with fair or excellent health. We expect that different saving motives will have varied influence on the likelihood of saving on a regular basis, saving irregularly, or not saving at all. Several studies have shown that having incentives or motives is related to higher contributions or value in saving accounts designated for different goals such as for retirement, children's education, or down payments for major purchases (Anong & DeVaney, 2010; Center for Retirement Research, 2000; DeVaney & Chien, 2001; Xiao, 1997). Certain motives led to typical saving behavior, such as saving regularly for retirement through automatic payroll-deduction programs (e.g., 401k). Despite evidence of hierarchical saving and given the complexity of mental accounting and pursuing competing goals simultaneously, it is difficult to predict a directional influence for each of the six categories of motives. Families with different socioeconomic characteristics may have different primary savings motives and other saving related dispositions. We control for expected variation due to the influence of socioeconomic and other saving related factors. We conceptualize that lacking an incentive or specific saving motive may affect the likelihood of being a regular saver, irregular saver, or non-saver (see DeVaney et al., 2007; Fisher & Montalto, 2010). Therefore, households identifying one or more of the six saving motives as a primary reason for saving at the time of the survey are co pared to the reference group of those who had no particular reason to save or said they were non-savers. The following hypotheses regarding the relationship between saving motives and a household's saving habit are proposed: H1. Holding all other demographic and other saving-related factors constant, households with a specific saving motive are more likely to save regularly than to not save. H2. Holding all other demographic and other saving-related factors constant, households with a specific saving motive are more likely to save irregularly

than to not save. H3. Holding all other demographic and other saving-related factors constant, households with a specific saving motive are more likely to save regularly than irregularly.

Precautionary and retirement motives increased the likelihood of saving regularly or irregularly as compared with not saving, but only the retirement motive separated the regular savers from irregular savers. A long-term planning horizon and higher income increased the propensity for regular or irregular saving as compared with not saving, and for saving regularly as compared with irregularly, while low risk tolerance had the opposite effect. Financial advisors, educators, and policymakers should facilitate short- to long-term goal seeking with frequent saving by individuals and families.

2.3.2 Shallone K. Chitungo, Simon Munongo (2012) DETERMINANTS OF FARMERS' DECISION TO ACCESS CREDIT: THE CASE OF ZIMBABWE

Munongo (2012) carried out a study to look at the determinants of rural households' decision on credit. Agricultural credit has been variously defined by authors. According to Nwaru (2004): Agricultural credit is the present and temporary transfer of purchasing power from a person who owns it to a person who wants it, allowing the later the opportunity to command another person's capital for agricultural purposes but with confidence in his willingness and ability to repay at a specified future date. It is the monetization of promises and exchanging of cash in the present for a promise to repay in future with or without interest. Without the willingness and ability to repay, the promise to repay at a future date would be futile. Credit can be in cash or in form of agricultural inputs. Agricultural household models suggest that farm credit is not only necessitated by the limitations of self-finance, but also by uncertainty pertaining to the level of output and the time lag between inputs and output (Kohansal and Mansoori, 2009). In Masvingo region of Zimbabwe where rainfall is erratic Agriculture is a risky business and output is uncertain thus facilitation of access to credit for the rural poor plays a role in alleviating rural poverty. Thus, in order to increase agricultural productivity especially among the rural

poor and to assist rural households in maintaining food security, many NGOs and private companies in Zimbabwe and in other developing countries initiated credit programmes including contract farming with the idea that rural smallholder farmers will have access to formal sources of credit and thus improve their welfare (Munongo 2012). Agricultural lending has become a vital function in financial operations as it facilitates the economic growth, agricultural development and improves efficiency. For a farmer to derive benefits from any institutional credit, the size of the loan, the process of granting such loans, timeliness in disbursement and repayment are very important (Nweze, 1991). In Zimbabwe the Bankers Association reported that in 2012 Agriculture received the greater share of loans and combined with the traditional contract farming programmes in most rural communities Agriculture in Zimbabwe receive substantial private funding. Few studies which have dealt with the credit problems of limited-resource (small) farms have basically studied their attitudes toward borrowing, without exploring the economic validity of such attitudes (McManus; Otto; Snell, Hopkins, and Barnett; Spitze and Bevins; Spitze and Romans; Wise; Woodworth, Comer, and Edwards). The general consensus that emerges from these studies is that relatively few operators of small farms use credit. This problem is also visible in Masvingo where few rural households take credit and this has reduced the pace of growth in rural banking and financial services. Bagi (1983) argues that conventional methods of estimating the demand for credit use information from only those farmers who have actually used credit and neglect the information from farmers who have not borrowed. Such studies cannot account for farmers' initial decisions about whether or not to borrow; consequently, valuable information is wasted. Omitting non borrowers from the sample also distorts the properties of the original sample. Thus in this study we seek to determine the factors that determine the decisions by farmers to enter credit deal by looking at complete data including the factors that causes non participation.

The demand of credit is influenced by several factors such as personal attributes of the individual, area specific attributes and credit source attributes (Udoh, 2005). These attributes influence individuals differently irrespective of their gender such that what might determine the demand for credit by a particular female farmer might be different from what determines credit demand by another farmer. For instance, in studying informal lenders and formal credit groups in Madagascar, Zeller (1994) indicated that informal lenders and group members obtain information about the wealth, indebtedness and income potential of loan applicants and hence ration loan demands an in-depth view of total household wealth and leverage of the household. Nwaru (2004) examined rural credit markets and resource use in arable crop production in Imo State, Nigeria. The study concluded that credit demand was significantly influenced by interest rate, educational level of farmer, amount borrowed previously, farm size and gross savings, while gross income of lender, total cost of lending, source of loan (whether formal or informal), worth of loan application and previous loan repayment significantly influenced credit supply. We wish to carry a similar study in the Masvingo province of Zimbabwe with the view of helping government and the private sector on how they can assist in improving rural household agricultural output and welfare.

The smallholder agricultural sector plays an essential role in ensuring food security, economic growth and employment creation. Therefore financing smallholder farmers becomes an important undertaking for poverty reduction in developing countries, especially those in Sub-Saharan Africa (Made 2000). The smallholder sector is characterized by diversified farming of crops and livestock. Specialization of commodities is minimal, for example some smallholder farmers specifically grow sugar cane under irrigation. Food crops are grown right alongside cash crops, for example maize, cotton and vegetables. The Agricultural market was liberalised in 1990 at the inception of The Structural Adjustment Programme (ESAP) in Zimbabwe. Trade liberalisation in the Agricultural sector from this period

involved reduction of government direct involvement in the production, marketing and distribution of agricultural commodities. There was also removal of agricultural price controls and subsidies. There was also transformation of Agricultural marketing boards into independent entities with governments having limited shareholding. Zimbabwe is also a signatory to the World Trade Organisation which requires opening up of the agricultural sector. The major aim of this liberalisation was to create entrepreneurship in smallholder agriculture in the view to increase output and improve food security. The liberalisation thus brought the profit motive in the Zimbabwean Agricultural sector and thus the credit market in agriculture also started to be visible from this period. In Masvingo region this is the period where the production of cash crops such as cotton, paprika, wheat and sugarcane as households sought to enhance their earnings from agriculture. The creation of independent agricultural marketing entities also led to the growth of the credit market in Agriculture as most firms introduced contract farming to enhance their business. Some companies engaged in certain agricultural commodities have resorted to financing smallholder farmers for a specific crop. One example is the Cotton Company of Zimbabwe, which operates an input-credit scheme for cotton farmers. Loans are recovered from the proceeds of the next season's crop. This method of financing has proved to be effective for farmers.

Multilateral and bilateral aid has been the most common forms of financing smallholder farmers in the developing world and in Zimbabwe it is also visible. These come as either grants or loans. This form of aid has come about through the recipient governments signing multilateral or bilateral agreements with aid agencies. Through this aid, farmers benefit from large investments, such as dam construction, irrigation facilities, machinery and other equipment. They also benefit from the transfer of technology and other 'softer' sides of financing, such as management and organizational skills (Made 2000). Central governments have the role of ensuring that there is an equitable allocation of resources for development, especially of marginalized people. Apart from allocating funds from aid agencies,

governments in developing countries have made efforts to assist smallholder farmers by financing from their own resources programs such as: 1. Essential infrastructure for agricultural development, including dams, irrigation, roads and provisions of inputs 2. Credit has been subsidized, to some extent, for smallholder farmers, whereby the interest rates are lower than those charged for commercial farmers. In the case of Zimbabwe, the credit has been provided through the Agricultural Finance Corporation. This institution provides short term, medium term and long term credit. 3. In most developing countries, and especially in Sub-Saharan Africa, the government provides research and extension services for smallholder farmers. 4. Decentralization of functions to regional levels has resulted in the empowerment of the local authorities, including the allocation of resources for development projects However, more often than not, the local authorities lack the necessary capacity to generate more income and finances in order to meet demand from their communities In the end, they still rely on the central government. 5. In most cases, both central and local governments are constrained in terms of resources and are unable to meet the financing requirements of the majority of smallholder farmers. Commercial financial institutions comprise the conventionally accepted financial service sources, such as commercial banks and financial houses. The loans offered by these institutions are charged at market related interest rates and require loan guarantees in the form of immovable assets, shares, savings, land, etc. Due to these conditions, most smallholder farmers are not eligible for the loans, and they are considered a high-risk group in terms of repayment. This research will look at the determinants of the household decision to get agricultural credit which includes contract farming and direct loans.

The study concluded that the type of crop, household size and gender of household head positively affected the decision by households to borrow while age squared negatively affects decision to borrow.

2.3.3 David M. Njamweah (2018) Factors influencing saving behavior among coffee farmers

Njamweah (2018) carried out a study to establish factors influencing saving behaviour among coffee farmers in coffee cooperative societies; to determine how farmers' income level influence saving behaviour among coffee farmers; to establish how governance in coffee societies influence saving behaviour among coffee farmers; to examine how farmers financial education influence saving behaviour among coffee farmers and to establish how individual future expectations influence saving behaviour among coffee farmers in coffee cooperative societies in Manyatta Sub-county in Kenya. According to Lusardi and Browning (1996) the distribution of saving across income groups shows a very strong positive relationship between income and saving. In particular, a large proportion of total saving is due to families in the top part of the income distribution." This is supported too by Avery and Kennickell (1991), an overwhelming proportion of total saving is due to top income decile of families. The same finding is reproduced in Bosworth, Burtles & Sabelhaus (1991) where they find that saving is usually negative for the first and second income quintile and highest in the top quintile. The aforementioned studies show that income is positively related to individual saving, simply because people have or should have more money to save. So they may be able to save more, or at least have some saving. A rising income will often be accompanied by increased saving, and a falling income by decreased saving, on a greater scale at first than subsequently. Increases in current income increase both consumption and saving. Because the marginal propensity to consume the fraction of additional income consumed is less than 1. Higher expected future income raises current consumption even at the same current income level, so current saving declines (Modigliani & Brumberg, 1954).

On Farmers income level and saving behaviour among coffee farmers, Katona (2008) states that the effects of income on savings decisions can be summarized into 3 different hypotheses. Hypothesis I: A decline in income will tend to lead to a reduction in the amounts saved or to a change from saving to dissaving. This will be the case particularly if those whose income declined are optimistic (consider

the decline in their income temporary). Hypothesis 2: An increase in income, and especially a large increase, may result in a reduction of the amounts saved or even in a change from saving to dissaving. In place of a smooth adjustment to the new income level, such behavior may occur especially if people believe that their financial situation improved permanently or if they anticipate further income increases. Hypothesis 3: Expected income declines will tend to increase the amounts saved, irrespective of past income changes. These hypotheses have the advantage of linking the analysis of the consumption function with business cycle theory. This means, however, that they must be tested at different phases of the cycle, so that the conditions under which they are valid may be determined.

In the case of governance in coffee cooperatives and saving behaviour among coffee farmers, Cooperative governance can be viewed in terms of the management committee who are elected members of the cooperative society and the cooperative manager who is an employee of the cooperative society and not necessarily a member of the cooperative society. The Management Committee is the highest elected executive institution in a cooperative enterprise. Members of the cooperative society are eligible for election into the management committee which acts on behalf of the members. These factory farmers' representatives form the cooperative society management committee which manages the affairs of the society on behalf of the members. Everything done in the cooperative must be approved by the management committee (Koopmans, 2006). The management committee ensures that decisions taken can in fact be executed. The Management committee must guarantee a close correlation between theory and practice, between decision and execution. It is always good management policy to view every decision action in the context of the total activities of the enterprise, present and future. In this case, the management committee must seek to discover the correlation between current actions and their future consequences (Hussi, Murphy, Lindberg & Brenneman, 1993). The cooperative Manager is a paid officer in the enterprise (Kegonde, 2005). Most farmers have become more business-minded as their own farm operations grow. They give more attention to their cooperative's management. They employ managers with more training and expect them to improve their knowledge and skills. Also, a growing number of cooperative managers seek to become more proficient in managing the affairs of their cooperatives (Porvali, 1993). Public concern about food safety, pollution control, health and the environment, monopoly, standardization procedures and related issues focuses attention on the competence, integrity, and behavior of cooperative managers. As a result, cooperatives are becoming more aware of the need to indemnify cooperative managers who are subject to increased legal exposure. The growing impact of world markets, even on the individual family operation, is changing the management perspective from the local cooperative level. The local is being viewed less and less as an

independent entity and more and more as part of a system (Lindberg, 1993). Poor governance and inefficiencies in cooperatives result in delays in supplying inputs to farmers, credit processing and payment to farmers for their produce. High costs of fertilizer and pesticides has, in some cases, forced the farmers to reduce application of these inputs, resulting in delivery of low quality cherries and substantial loss of small cherries during pulping stage in processing. The farmers get their earnings once a year, making it difficult for them to meet periodic expenses they incur both at the farm and at personal levels. In addition, there is still tight regulation in today's Kenyan coffee sector. The regulations not only all require smallholders to process their coffee through a cooperative, but prohibit direct purchase from farmers. Farmers also have limited information on the coffee market and existing member associations are structurally weak to act as feedback mechanism to farmers (Chege, 2012).

On the aspect of Farmers financial education and saving behaviour among coffee farmers, it is hypothesized that education level has a positive impact on individual saving. Higher education levels imply that people have a better understanding of their personal financial matters, so they will be better able to make financial decisions and have more ability to plan for their future. There is evidence to show that more educated people can manage their money in terms of insuring, investing, saving and budgeting (Hogarth & Hilgert, 2002). Results of a study by Lusardi and Mitchell (2007) show that people with a low level of education, females, African-Americans and Hispanics, demonstrate low levels of financial literacy, which subsequently affect financial decision-making. Results of the study found that these groups of respondents fail to plan properly for their retirement period, have less participation in the stock market, and have poor borrowing behavior, possibly due to lack of knowledge in basic financial concepts. Another study conducted on financial literacy of Malaysian degree students,

explored student's background, financial attitude and knowledge (Ibrahim, Harun, &Isz, 2010). The study found that most of the students required more proper practice on money management skills.

Chen and Volpe (1998) examined financial literacy amongst more than 900 students in 14 American universities. By linking the scores to individuals' socioeconomic and demographic attributes, results showed that young females with non-business majors and little work experience have very low degrees of financial literacy. In a survey of an Australian regional university, most of the participating students scored well for financial literacy and knowledge. Business students scored better in comparison with other majors (Delpachitra& Beal, 2010). From the above literature, it can be clearly seen that there is a strong correlation between one's education level and their financial decision-making capabilities. It seems the higher one goes academically the better their financial decision-making skills.

Lastly, on Individual future expectations and saving behaviour among coffee farmers, According to Keynes (1937) people save for the following reasons to build up a reserve against unforeseen contingencies, to provide for an anticipated future relationship between the income and the needs of the individual, to enjoy interest and appreciation, to enjoy gradually increasing expenditure, to enjoy a sense of independence, bequeath a fortune, to satisfy pure miserliness and to accumulated deposits to buy houses, cars and other durables which is the most common. Saving money is rooted in the psychological need and desire to be financially stable and having the ability to purchase and fulfil one's needs or desires. The security that accompanies saving is one of the motivational principles of behind saving money for the things one wants and needs. Various reasons for saving money motivate individuals to make certain that money is budgeted accordingly, and savings are kept earmarked for use later. Home ownership is one of the motivations for saving money stemming from the desire to become a homeowner. The cost associated with purchasing a home is usually high; requiring you to

save to help ensure home ownership can become a reality. The down payment required to purchase a home can run to more than 20% of the selling price which in some cases is usually high. (Porpiglia, Martha, &Ziegelmeyer, 2017). Another reason is usually retirement. The desire to retire with enough money saved up is a motivation for many people's savings. You need to save money to ensure that once you stop working, you will have enough money in the bank or in investments to fund your lifestyle for the rest of your life. Many people are motivated to save money for retirement so that they can afford the things they both want and need (Luu, Lowe, Butler & Byrne, 2017). Travel and luxury are motivations for some people. Motivation for

saving comes because they want nice things. Not everyone craves luxury items or travel. However, for those who enjoy such things, saving money may be a necessity. Planning for a big trip or a large purchase, such as a boat or car, can provide the motivation one needs to be disciplined in terms of saving money (Freshman & Clingen, 2017). Older parents demonstrate a strong desire to help their children and grandchildren through important or difficult transitions to "build or rebuild secure lives and futures". Those with young children are motivated by the prospect of that child eventually going off to college. The rising cost of a college education drives people to save money so that a child can attend college without having to worry about finances. Some parents also are motivated to save for other things for their children such as a car, braces, a wedding or helping grown children buy a home. (Ploeg, Campbell, Denton, Joshi & Davies, 2004) Unexpected events and situations can arise at any time. Situations such a as a job loss, sickness, long-term illness and even economic issues can all cause a financial shift. Having a healthy savings account at the ready can help you get through challenging financial situations and health situations (Smith, 1999).

The study concludes that most of the respondents saved one way or the other be it formal or informal. Their trust in financial institutions played a major role too in where they saved. Many of the respondents believed that their individual expectation, income level and financial literacy levels played a critical role towards their savings behaviour. The study recommends that there is a still need for coffee cooperatives continue providing financial literacy programs which can encourage the respondents to save.

2.3.4 Hassen Beshir (2017): factors affecting savings as means of economic growth in Ethiopia

Beshir (2017) carried out a study on factors affecting savings as a means of economic growth in Ethiopia and found out that the standard household survey may well understate saving. The concept of income is itself extraordinarily complex, and most people in developing countries have little reason to distinguish

between business and personal cash transactions" (Deaton, 1989). Aryeetey and Udry (1999) also noted that in the case of sub-Saharan Africa, non-financial assets (livestock, stocks of goods for trading, grain and farm inputs) dominate their asset portfolios, which in essence are used to smooth out consumption over time. What is more, due to distortions in the trade sector that result in illegal capital outflow (via over-invoicing of imports and under-invoicing of exports, for instance), saving will be underestimated when calculated as the sum of trade and government surpluses and domestic investment (Deaton, 1989).

He observed a high relationship between GDP and Gross Domestic Savings (GDS). A small percentage change in GDP would result in a higher amount as well as percentage change in domestic savings. However, there is a high financing gap, which is the difference between gross domestic savings and gross domestic investment. This gap is financed mainly through loans and aid.

He undertook theoretical Aspects of Saving Behavior namely: saving growth, saving and consumption within, saving and external sector as well as saving and micro economic policies. On saving and growth, he summarized the following stylized facts: higher saving leads to higher investment, and higher investment leads to economic growth. The presumption of this reasoning is that, at least in a closed economy, ex-post domestic saving must equal ex-post domestic investment. According to the above theories, investment is directly related to output growth via the incremental capital output ratio (ICOR), at least during the transition to its steady state level or in the short run. The more recent endogenous growth theories go even further by asserting that saving and investment (combined with technological progress and human capital) induce both short-term and long-term economic growth (Romer, 1986; Lucas, 1988). The implication of the above theories is that, as Schmidt-Hbbel et al. (1996) noted, "Saving is automatically translated into capital accumulation and, hence, growth, and that this translation is simply the mechanism underlying the positive correlation between saving and growth that is observed in practice." Caroll and Weil (1994) argue that the positive correlation observed between saving and growth

is partly due to the fact that growth precedes saving even under the assumption that saving is automatically translated into investment. Not incorporating this two-way causality between saving and growth would, therefore, overestimate the contributions of saving to growth. Such a finding makes the policy implication complex as it is difficult to determine which one to target - saving or growth. In sub-Saharan Africa, Elbadawi and Mwega (1998) argue that regardless of the direction of causation (i.e. even if saving follows economic growth), focusing on policies that enhance private savings is important for at least two reasons. First, even if saving is the result and not the cause of economic growth, empirical evidence suggests that sustaining a high rate of growth requires a high level of accumulation of capital, which requires a high level of saving. Second, due to the limited external resources of sub-Saharan African countries (limited ability to borrow from international capital markets and the conditionality imposed when borrowing from multilateral financial institutions), mobilizing national saving to maintain a high rate of investment and, hence, growth is essential.

On saving and consumption smoothing, he iterates that given that saving is a postponed consumption, it has always been examined in relation to consumption smoothing behavior. This is because a decision by households or individuals to consume or save is a joint decision. This decision is the main determinant of national savings. The relationship between saving and consumption could be summed up in the predictions of the two popular models of consumption behavior - namely, the permanent income hypothesis and life-cycle models of consumption. These two models are based on the premise that the motive for saving is to average out consumption over an infinite time horizon (in the case of the permanent income hypothesis) or a finite time horizon with overlapping generations (in the case of the life-cycle model). In general, both theories predict that consumption is determined by life-time resources rather than incomes in particular periods. This suggests that, in the absence of borrowing constraints, saving or dissaving is used as a mechanism to adjust the optimal consumption over the life-time horizon. However, the view that demographic factors affect savings is not shared by all researchers. For instance, Koskela and Viren

(1989), Kennickell (1990), and Caroll and Summers (1991) question the significance of age structure in determining saving behavior. Kennickell, and Caroll and Summers, in particular, argue that differences in age-consumption profiles are too small for demographic factors to significantly affect saving rates. Regardless of the merits of the above theories in explaining the saving behavior in developed countries, the determinants of saving in developing countries are likely to differ in many significant ways. Deaton (1989) documents some of the features that may influence household saving behavior in developing countries. These features include the following: there are a large number of households who are poor; the economy is dominated by agriculture; households face an uncertain income flow and have different demographic structures; and liquidity constraints are binding. Given these features, therefore, how households smooth consumption over time and decide on how much to save is likely to differ from the basic predictions of the above- discussed inter-temporal models of consumption and saving behavior. In explaining the motives for saving in developing countries, which exhibit the above features, Birdsall et al. (1999) argue that since households operate in a multigenerational context, the need to save for retirement is not important as adults expect that their children will support them during old age. Further, due to the uncertainty of income (say, owing to the volatility of agricultural output), such households may not be able to predict future income and, hence, plan consumption and saving over a long-time horizon. Life-cycle models, which are based on an inter-temporal decision scheme, are, therefore, likely to have little explanatory power in predicting the saving behavior in poor countries.

As more recent theories emphasize, the main motives for saving in poor income countries are likely to be precautionary (against random decreases in income as short-run buffering) or to finance private investment since availability of credit for such purposes tends to be scarce. At a policy level, this implies that high rates of return on investment will encourage saving (Birdsall et al., 1999). This, of course, is only true if the rate of return on investment is higher than the rate of time preference. But as Birdsall et al. (1999) noted, given the subsistence nature of such economies, the rate of time preference is relatively high since

there are not many goods (luxuries, for instance) that could be removed from the consumption bundle. The above arguments suggest that, in addition to a concerted effort to provide access to credit facilities to increase investment, designing tax and other policies to ensure the profitability of investment will be required to encourage saving. Further, a common consideration in the context of consumption smoothing and saving is the impact of interest rates on savings. Theoretically, the impact of the real interest rate on savings is ambiguous. This is because a change in interest rate implies both substitution and income effects. For instance, an increase in income implies that tomorrow's consumption becomes relatively cheaper (or the opportunity cost of current consumption increases), which in turn implies a positive impact on savings. On the other hand, an increase in expected income (resulting from high interest rate income) will lead to an increase in current consumption and, therefore, a decrease in current savings. The usual assumption is that the substitution effect dominates and, therefore, an increase in real interest rates (above the rate of time preference) will have a negative impact on consumption and a positive impact on savings. Even though, as will be discussed in the empirical evidence section, the impact of real interest rates in the case of developing countries is very little, if at all, many theories pay a significant attention to it as a determinant of savings. It has to be noted, however, that the evidence regarding the effect of real interest rates on savings is mixed at best. For instance, Giovannini (1985) and Schmidt-Hebbel, Webb and Corsetti (1992) found no significant impact of real interest rates on savings, while Ogaki, Ostry, and Reinhart (1995) found positive effects that are small and very sensitive to income levels.

In the case of open economies on saving and external Sector, the determinants of savings are more complex. For instance, even ex-post savings may not equal investment as long as there is no constraint to capital flow across national boundaries. For instance, capital inflows in the form of concessional loans and foreign aid have an impact on national savings. As noted earlier, the usual rationale for granting aid or concessional loans has been augmenting domestic savings. But if, instead, as many researchers (Elbadawi and Mwega, 1998; Dayal-Gulati and Thimann, 1997; Schmidt-Hebbel et al., 1996; and Masson et al.,

1995) noted that foreign aid is used to smooth out consumption instead of investment, it will have a crowding-out effect on domestic savings. That is, foreign aid is a substitute and not complementary to national savings. Recent empirical evidence seems to support the crowding-out effect of foreign aid on national savings more than the complementarity hypothesis (For more details, see Dayal-Gulati and Thimann, 1997; Schmidt-Hebbel et al., 1996; Global Coalition, 1993). A related issue usually considered in the literature as influencing saving behavior is changes in terms of trade, otherwise known as the Harberger- Laursen-Metzler effect. At a theoretical level, this effect is examined in an inter-temporal optimization model. Accordingly, this theory predicts that a temporary improvement in terms of trade would lead to an increase in savings by increasing temporary income or wealth. But the effect of permanent changes in terms of trade on savings is ambiguous (Dayal-Gulati and Thimann, 1997; Schmidt-Hebbel et al., 1996). Mwega (1997) argues that the effect of terms of trade is important in SSA countries due to their narrow export base and the price volatility of primary exports. He cites some evidence that this, indeed, was the case in Kenya in which coffee producing rural households were able to save about 60 per cent of their windfall during the 1976-1977 coffee booms.

Lastly, on saving and Macroeconomic Policies, government policy could have a potentially significant influence on national savings either by directly increasing public savings or implementing policies that increase private savings. Such policies include "revenue policy (tax structure, tax incentives), expenditure policy (transfers, income redistribution), and the degree of government saving".

2.3.5 Emmanuel BUABENG , Opoku ADABOR , and Nadia Karen OHENE-POKU (2021) Determinants of Savings Habits Among Cocoa Farmers in Ghana: A Case Study of Atwima Nwabiagya District of the Ashanti Region

Buabeng et al carried out a study in Ghana to identify the motives for saving as well as the barriers to saving, and to examine the factors which influence cocoa farmers to save. Choices made by individuals

and households about saving determine national savings. Savings data shows that household savings forms a larger part of the national savings volume and therefore it is the main source of investment funds. In this study, the saving habits of cocoa farmers in Ghana was the focus. This group makes up about 60 per cent of the agricultural base of the economy in terms of employment (Cocoa Initiative, 2017). Cocoa is Ghana's main cash crop as well as its main agricultural export. Consequently, it is subject to regular policy interventions by the government. Cocoa has a long production cycle, far longer than many other tropical crops, which has an implication for the financial security of those involved in its production (Mondelez International, 2015). A poor saving culture has been identified as a major problem in cocoa communities in Ghana and this worsens the farmers' financial insecurity (Mondelez International, 2015). Determinants of saving by cocoa farmers are therefore of great importance, because the ability, willingness and opportunity to save and invest can significantly influence the rate and sustainability of farming activities leading to economic growth in Ghana. Several researches have been conducted on cocoa farmers in Ghana. Most of these studies have investigated their challenges, access to credit and extension services among others (Boateng et al., 2017; Dormon et al., 2004; Knudsen, 2007; Awuah-Gyawu et al., 2015). Existing studies which focus on the financial behaviour of cocoa farmers have concentrated on their level of financial literacy and knowledge (Akoto, 2015; Adu-Asare, 2018). There are two cocoa seasons in Ghana: the major and the minor seasons. Farmers therefore, earn their incomes in these periods and are able to spend them throughout the year. This makes the farmers very vulnerable financially during the off-season periods, without savings or non-cocoa income. There is, therefore, the need for cocoa farmers to save during the cocoa season. There is a dearth of studies on saving habits in Ghana devoted to cocoa farmers. It has become imperative therefore to investigate the factors that influence cocoa farmers to save.

Several theories exist that explain the saving habit of individuals and households. Among these are: life cycle hypothesis (LCH), relative income hypothesis (RIH) and Keynes absolute income hypothesis (AIH). The life cycle hypothesis was proposed by Franco Modigliani and his student, Richard Brumberg, in 1963

(Modigliani and Brumberg, 1954). This theory attempts to explicate the consumption pattern of people. It is an economic theory that is built on the expenditure and saving behaviour of individuals during their lifetime. The main premise of this theory is that individuals strive to preserve an established lifestyle. The theory argues that individuals do not spend their total income but instead save for periods when their income levels may experience a reduction, primarily in the course of retirement (Modigliani & Brumberg, 1954). The theory proposes that there is a connection between the wealth of an economy and the retirement period. Population growth is greater among young people compared with their older counterparts. A greater proportion of young people will consequently save whilst the older population, the majority of whom may be in retirement, will use their savings to fund their expenses. Based on this, the higher savings among the young and the middle-aged will dominate the low savings by the older population, which results in a net positive savings (Modigliani & Brumberg, 1954). The relative income theory (RIH) was established in 1949 by James Duesenberry. It stresses that a person's consumption and saving pattern is controlled by his or her income in relation to those of other people. The fraction of a person's income that goes into consumption is dependent on his or her percentile location in the income distribution and not reliant on his or her level of affluence. Moreover, the RIH posits that patterns of consumption are not rescindable. That is to say, as far as an individual accomplishes a level of consumption, it becomes tough for him or her to go below that specific level. In order for a person to sustain his or her spot in the income distribution, his or her consumption arrangement would have to grow relative to the consumption arrangements of other folks contained in the distribution. Consequently, earnings in excess of what is required for an individual's consumption so as to sustain his or her spot in the percentile distribution will be put into savings. These saved earnings may then be used as a supplement for consumption during periods when income reduces (Dusenberry, 1949). Keynes developed the concept of marginal propensity to save in 1936. The absolute income hypothesis (AIH) studies the connection between consumption and income and emphasizes that the level of consumption of a family greatly depends on its absolute level or

present level of income. As income rises, the theory stresses that consumption is also likely to rise, but not fundamentally at the same rate. The core notion behind this theory is that saving turns out to be promising when individuals have more than is sufficient to cater for their basic needs. This points out that individuals can merely save the excess of income after they have satisfied their basic needs (Keynes, 1936).

Similarly, using a sample of 2,246 workers in Malaysia, Delafrooz and Hj-Paim (2011) reported that financial management and financial literacy considerably affect saving behaviour positively. However, there was no statistically significant relationship found between financial stress and saving behaviour. In a related study conducted in Visakhapatnam district, Gedela (2012) documented that the gender and age of household heads, total number of dependents, expenses on medicals and income were significantly connected to saving behaviour. The study further showed that there was a positive relationship between the age of the head of a household and saving. It was also revealed that male-headed households saved more than female headed households. Further, using a sample size of 160 households from Ho Municipality of Ghana, Komla (2012) revealed a positive relationship between the age of the household head and insurance, knowledge of saving and insurance and family size and difficulty in savings. Similarly, a study by Nayak (2013) in Sundergarh district of Odisha, India revealed that the majority of the rural households had low levels of education which led to low saving. The study further indicated that households were stimulated to save in financial institutions with the expectation that there would be additional income added to their savings. Also, a study on Nigeria by Nwibo and Mbam (2013) revealed that accessibility to credit facilities can boost saving behaviour as some of these facilities need customers to save up to a specified period before credit can be freed up. A similar study carried out in Idanre area of Ondo State in Nigeria by Osundare (2013), which focussed on 120 cocoa farmers, also revealed that the age of the household head and the size of a household had a negative effect on saving and investment and the amount saved. However, farming experience and farm size were positively related to saving and investment. In a related study on Zimbabwe, Chikoko et al. (2013) employed the logit model to show that

gender, age, marital status and educational background reduce the probability of saving by households. To be precise, young adult households are usually more active compared to their older counterparts and therefore save more, confirming the paradox of thrift. The study also indicated that income level increases household heads' likelihood of saving. Also, using a sample of 150 households from Nigeria, Ike and Umuedafe (2013) reported that rural farmers' farm income, non-farm income, years of experience in a saving programme, age of the farmer and the distance to formal financial institution determine the volume of saving among households. It was further revealed that lack of access to financial credit and low productivity were also main constraints to the accumulation of savings. In a related study on Ghana, Anang et al. (2015) found that females saved more compared to males. The study also established a negative relationship between age and saving and a positive connection between being married and the saving habit. Again, using the ordinary least squares technique, Tandoh and Tandoh (2015) revealed a positive link between older people, higher income, higher educational levels and saving. A negative relationship between household size and saving was also revealed whereas a positive but insignificantrelationship was found between being employed, married people and saving. Further, on Ghana, Addai et al. (2017) used the probit model to show that age, gender and income are the major determinants of savings. The study also revealed that providing for children's social and economic needs, purchasing of assets, investment and precautionary purposes were the major reasons individuals save. In addition, Olowoyeye et al. (2018) analysed the determinants and savings propensity of women in Ekiti State, Nigeria. The study showed that the marginal propensity to save (MPS) was at 0.254. The MPS of the respondents for every income generated was N= 0.254. The results also showed that age, education, household size and processing experience were negatively related to saving, whereas annual income, membership of an association and the amount of garri processed were positively related to saving.

The study recommends that the saving culture of cocoa farmers should be enhanced. Specifically, this can be achieved through financial literacy programmes, financial education and awareness on the importance

of saving. Also, the cocoa farmers should be educated on the benefits of saving a portion of their income through the pension funds by the district Ministry of Food and Agriculture.

2.4 Research gap

There are many savings and investment accounts suitable for short- and long-term goals. Almost all banks offer automated transfers between your checking and savings accounts. There is lack of government support in Zimbabwe for production, processing, and use of crops that are ecologically compatible with semi–arid areas. Some have enough money to keep buying hybrid seeds and fertilizer, or else are skeptical of the shift to small grains, which are often viewed as “poverty crops” because they’re usually donated as food aid during floods and droughts. Therefore, the main objective of the study was to bring knowledge to maize farmers on savings habits with the motive to assist them in crafting methods of making a budget which can be implemented to revive the poor savings culture obtaining in Zimbabwe.

2.5 Chapter Summary

The chapter covered what other scholars say. It looked on the role of Savings Habits among individual farmers, the link between savings habits and financial literacy. The chapter also discussed the impact of savings habits on performance of farmers. Lastly the chapter covered some suggestions on how farmers can improve on their savings habits. The following chapter will look at the research methodologies.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter will focus on the research design, research approach, and research methodologies and give a critical analysis on why the methodologies were adopted. It will also look at the population of the study, some techniques used for sampling and the research instruments that were used by the researcher to do the research. This chapter also describes the sources of data used in this study, the study areas, the sampling procedure and data collection methods and this chapter also gives a detailed description of the socio-economic characteristics of the sampled households to give an understanding of the type of communities that were studied.

3.1 Research Design

According to Nachmias in Ncube (2015), research design can be explained as a compilation of instruments that give guidelines on how to collect, examine and interpret observations. Research design can also be defined as a logical and systematic way through which a research can be planned and directed. A research design is for the purpose of conducting a research or study in an effective way and ensuring that the research problems are answered with little difficulty. This is supported by Kumar (2011) who postulates that the research design should allow the researcher to obtain information from which a valid conclusion can be drawn. After the considering the importance of a research design the researcher then chose to use descriptive survey design. The researcher chose descriptive design because it considers both qualitative and quantitative approach; hence the researcher used quantitative approach.

Descriptive research design allows one to have an observation of what is happening within a group of people. Chiromo in Ziona (2015) point out that descriptive survey explains that which is seen far beyond the imagination and applying it to draw conclusions about the whole population. The researcher also chose descriptive survey method because it provokes one to ask “what” questions. This makes the researcher to ask what is going on among maize farmers in Zimbabwe where there is lack of savings habits and also what will happen to the population if savings motives are introduced to enhance performance of the population.

Labaree (2013) says that descriptive survey makes it possible for the researcher and the respondent to interact. This will then allow respondents to provide their own views. Thus the research had to choose descriptive survey design because it gave an opportunity of using questionnaires and interviews for collecting data Leedey in Marufu (2014). The researcher also found descriptive survey design most suitable because it gives room for the qualitative and quantitative approach to the research

However in this study descriptive survey design had some limitations, Musavengana (2014) argues that information obtained by using descriptive survey can be difficult to ascertain whether or not the information provided by the respondent is true or false. This was observed in that the respondents were made to follow stipulated rules and guide lines when they were providing information, they just acted

according to those guidelines and provided information which would get along with the given guidelines. The researcher had to use different research methods so as to do away with this limitation.

3.2 Research approach

Saunders, et al. (2009) highlighted that research approaches are categorized into either a deductive approach or inductive approach. The deductive approach involves the development of a theory that is subjected to a rigorous testing. As such, it is the dominant research approach in the natural sciences, where laws present the basis of explanation, allow the anticipation of phenomena, predict their occurrence and therefore permit them to be controlled (Collis & Hussey, 2003).

An alternative approach to conducting research is DIY (Do It Yourself). For example to understand a shop employee absenteeism would, require one to go on to the shop floor and interview a sample of the employees and their supervisors about the experience of working at the store. The purpose here would be to get a feel of what was going on, so as to understand 37 better the nature of the problem. The alternative approach has been termed the inductive approach (Saunders, et al., 2009).

This research is more inclined towards the inductive approach in that it seeks get a feel of what was going on, so as to understand better the nature of the problem. Induction has been adopted insofar as guiding the sampling decision of residence of Lion's Den to which questionnaires were sent with the aim of establishing how their day today lives have been affected by farmers. The researcher's task then was to make sense of the collected data by critically analysing it. The result of the analysis was therefore formulation of theory discussed in the findings section of this report, drawn from the perceived implications of savings habits on the surrounding people and the environment.

3.3 Research Methods

The researcher made use of quantitative research analyses. According to Lillis (1999) the credibility and veracity of work depends on the attention to the rigorous, complete and impartial analysis of the available data. Data can be presented in a number of ways. For the purpose of this study, tables, bar charts, graphs and pie charts were made used of in the presentation of data and comments were given after presentation.

3.4 Sources of Data

The data used in the analysis were obtained from primary sources. The research was targeted at maize farmers in Lion's Den, Zimbabwe.

Primary data

Primary sources of data were used in order to collect current first hand data from farmers. The primary data was obtained through the use of questionnaires. Primary data helped in that it made way for personal interaction with the problem and allowed the researcher to have first-hand information. Primary

data was collected from smallholder maize producers (a mix of grain sellers and buyers), some of whom already are involved in marketing of maize at different scales of operation, and processors and other commodity firms who are currently buying from these farmers. Research was conducted in two phases. The first phase involved a reconnaissance survey after which a formal survey was conducted. The reconnaissance survey involved use of a checklist with the different firms/companies while the formal survey involved administration of structured questionnaires. Due to the relatively high illiteracy levels among smallholder farmers and lack of records at the farm level, a hand delivered questionnaire was seen as the best data collection method since these farmers' ability to respond to a mail questionnaire was limited.

3.5 Research instruments

Research instruments refer to tools or methods used to collect data. The researcher made use of self-administered questionnaires. Each instrument would complement the weakness of another.

3.5.1 Questionnaire

Questionnaires are a series of research questions that are a means of obtaining information from respondents. Robinson (2013) defines questionnaire as "a group of written down questions used to gather information from respondents in written form." The use of questionnaires enabled the researcher to gather large amounts of data within a short space of time. The researcher used open as well as closed ended questions in gathering of information.

The questionnaires were easy to analyze and inexpensive. Some of the farmers would opt not to answer some of the questions they thought were difficult and attended to the simple ones. The researcher used questionnaires because they were easy to administer and the data gathered by questionnaire was easy to analyze. These were issued out among farmers, in order to make sure that the farmers do not leave out some of the questions the researcher explained the importance of the research to the respondents and also got assistance from the Grain Marketing Board in monitoring the respondents as they were completing the questionnaires.

The questionnaire was constructed in a closed-ended questions format, including single choice and rating levels using the 5-point Likert-scale rating. The components below were considered in the questionnaire:

· Age - Is the age of individual farmers a factor in their savings habits?

· Education - Is there a link between the level of education and saving habits?

· Culture – Do farmers in their community educate children about the importance of saving?

· Level of income – Does the farmer's level of saving increase as income increases?

Saunders, et al. (2009) argued that the questionnaire's greatest use with business and management research is made with the survey research strategy, although they also note that both the experiment and case study research strategies can employ the questionnaire approach.

The questionnaire is defined by deVaus (2001), as quoted by Saunders, et al. (2009) as a general term to include all techniques of collecting data in which each person is asked to respond to the same set of questions in a predetermined order.

The questionnaire can be administered in various ways, broadly categorized into self-administered questionnaires and interviewer administered questionnaires. Self-administered questionnaires can be distributed via the internet and intranet media, posted to the respondents or delivered and collected by the researcher in person. On the other hand interviewer administered questionnaires usually take the form of asking questions over the phone or can be administered by way of structured interviews.

Saunders, et al. (2009) further argue that the choice of a questionnaire as a research instrument is usually affected by a variety of factors related to any research's questions and objectives.

These factors include:

1. The characteristics of the sample from which data will be collected;

2. The essence of reaching particular respondents;

3. The importance of the respondents' responses not being distorted

4. The size of the sample, in relation to the likely response rate, and

5. The nature and number of questions that the researcher would need to ask to collect the desired data.

Advantages of using a questionnaire as a research instrument

Questionnaires were used because of the following advantages:

1. With questionnaires, respondents were given room to respond to questions at the time convenient to them. Respondents had the flexibility of completing the questionnaires at home, during weekends or during the spare time they created, and this enabled collection of meaningful and thoughtful data.

2. Questionnaires also enabled respondents to provide answers without bias that often arise when engaging in face-to-face conversations.

3. The use of questionnaires also enabled the researcher to cover a large proportion of the sample within a short period of time since no time was spent asking questions to respondents as in face to face interviews or through observing respondents.

Disadvantages of using a questionnaire as a research instrument

Despite being the main instrument used in research, the questionnaire came with its own weaknesses that affected the results of the research. These weaknesses are summed as follows:

1. Some questions were left unanswered as the researcher was not present at the time of completion of the questionnaire to verify if all questions had been completed.

2. Questionnaires do not allow for further probing as is the case with face to face interviews.

Thus the researcher could not seek clarification of issues at the time when respondents were completing the questionnaire.

3. Distribution of questionnaires proved a costly exercise from printing to the distribution of the questionnaires.

4. Spaces provided on the questionnaire were not enough for the respondents to put all their detailed responses, resulting in collection of partial responses.

In carrying out this research, both the self-administered and interviewer administered questionnaire were used to collect the needed data. The questionnaires for the respondents from local community were interviewer administered given the inherent limitation of literacy in the rural areas. The questionnaire was used as the interviewer guide during data collection. The questionnaires for the respondents from Lion's Den were self-administered and were mostly hand delivered to the respondents. The questionnaires were used on the 10 selected samples. One questionnaire was designed for both the local community and the farmers.

3.6 Population

The target population are the Lions den subsistence farmers. There are more than 1000 practising farmers in this area.

3.7 Sample

I will choose a representative sample from the population. From the expected above 1000 farmers, in this research the population comprised of 100 male farmers and 100 female farmers giving a total of 200 farmers. According to Piroska Bisits Bullen (2022), A good maximum sample size is usually around 10% of the population, as long as this does not exceed 1000. For example, in a population of 5000, 10% would be 500. In a population of 200,000, 10% would be 20,000. This exceeds 1000, so in this case the maximum would be 1000.

3.8 Sampling procedure

The chosen 200 male and female farmers were randomly chosen. According to Barratt (2009), "Each individual is chosen entirely by chance and each member of the population has an equal chance, or probability, of being selected. One way of obtaining a random sample is to give each individual in a population a number, and then use a table of random numbers to decide which individuals to include. For example, if you have a sampling frame of 1000 individuals, labelled 0 to 999, use groups of three digits from the random number table to pick your sample. So, if the first three numbers from the random number table were 094, select the individual labelled "94", and so on."

3.9 Data validity

Kumar (2011), suggest that an instrument is valid when it measures that which it is meant to measure. The research instrument must ensure that data gathered is free from error and bias. To ensure validity of the data collected, the researcher made use of instruments that gave the respondent time to devote a greater degree of concentration and interest throughout. The research questions were designed in such a way that it provided a true measure of what they were designed to measure.

3.10 Data reliability

This is the extent to which an observable measure represents a theoretical concept that is predictable, stable and accurate. Kumar (2011) points out that if there is consistence in results being observed it entails that there will be higher levels of reliability. According to Boddy (2016) reliability can be defined as the consistency between independent measurements of the same event. The researcher conducted a pilot study to test the questionnaires.

3.11 Data Collection Procedure

In this research, questionnaires were a means through which information was obtained. These were conducted at individual level at the time when the respondent will have indicated that they will be free. The purpose of this was so as to maintain confidentiality. This allowed the respondents to express their views freely as they had the assurance these were private and confidential. The research was conducted with ease, through the assistance from Bindura University of Science Education, as the researcher had permission from school authorities to conduct the research hence information could be gathered without any problem. The researcher had to communicate with the head of departments to seek permission to make the research. Chiromo cited in Ziona (2015) suggests that the respondents must be informed about the purpose of the research before they decide to participate in the research. So the explanations about the purpose of the research to the respondents made it very easy for the researcher to get data which are next to reality.
Questionnaires were administered at an individual basis that is the respondents were given individually and they answered individually. This was done so that the respondents will not give similar answers but different ones.

3.12 Data presentation and analysis procedures

The researcher made use of quantitative research analyses. According to Lillis (1999) the credibility and veracity of work depends on the attention to the rigorous, complete and impartial analysis of the available data. Data can be presented in a number of ways. For the purpose of this study, tables, bar charts, graphs and pie charts were made used of in the presentation of data and comments were given after presentation.

Table 3 shows the district wards, villages and sample sizes selected for the survey.

Table 3: District wards and villages selected for the study

District	Ward	Village	Number of respondents
Makonde	Ward 8	Old stands	23
		New stands	26
	Ward 15	Shackleton	26
		S 24 stands	24
Total respondents			99

Stratified random sampling was used to select from existing feed, food and brewery industries; commodity brokers, financial institutions, agricultural retailers, NGOs and seed houses that source their raw material from smallholder farmers. This sampling method ensured that the different groups are represented in the sample. Initially, all stockfeed, food and brewery industries; financial and seed houses; retailers; and NGOs; in the survey districts and in Bulawayo and Harare were listed. Two firms were then chosen randomly from each stratum for questionnaires. The number of firms per stratum was limited by the budget and time available for the questionnaires. Table 4 shows the assortment of companies that were visited. These companies are involved in maize one way or another in their day-to-day business.

Table 4: Companies visited by type of business and location in Zimbabwe, 2008

Industry	**Company name**	**Location**
Grain trading Food milling	Grain Marketing Board	Chiredzi Bulawayo
Agricultural retailer	Farm & City Centre	Bulawayo
Food milling	National Foods (Mealie meal production)	Harare
Stockfeed milling	Agrifoods	Bulawayo
	National Foods (Stockfeed production)	Bulawayo
Brewery	Chibuku Breweries	Chiredzi Bulawayo
	Ingwebu Breweries	Bulawayo
Finance	AGRIBANK	Bulawayo
	CBZ Limited (Agribusiness unit)	Harare
Commodity broker	Origen Agriculture/Staywel	Harare

Seed house	Agricultural Seeds and Services	Harare
	Pannar Seeds	Harare
NGO	Lutheran Development Services	Bulawayo
	Care International in Zimbabwe	Harare

Throughout the course of the reconnaissance survey, the various agribusiness institutions were consulted regarding their support to smallholder small grain producers, the agro-industry, or both. Information about current supplies of small grains, the likelihood of increased usage of maize as raw materials, constraints or challenges in dealing with smallholder farmers as suppliers and policy implications to utilization of maize was collected.

The questionnaire took about forty-five minutes to administer. Data from farmers comprised household characteristics like status of household, age of household head, educational level attained by household head and five major household income sources; types of crops grown, area under each crop, production levels by crop, major challenges in maize production; numbers by type of livestock owned; membership to farmer groups/associations; extent of market participation in terms of grain quantities sold, road access, major grain buyers, main sources of marketing information, existing production and marketing contracting arrangements, and constraints to both production and marketing. Enumerators to assist in data collection were thoroughly trained prior to commencement of the exercise. The enumerators used were competent in the languages spoken in the sampled villages. They also had extensive experience of conducting surveys in Zimbabwe and part of the team commonly used by ICRISAT in its surveys. Among districts that fall in the Makonde District, three districts were purposively selected based on the following criteria (i) maize is widely grown, (ii) ICRISAT already has ongoing projects, such as conservation agriculture projects and on-farm trials for various crops including maize, and (iii) some farmers are already selling their produce . The selected district underwent a reconnaissance survey. However, due to similarities in farming practices among farmers in this district and proximity to ICRISAT location, only Lions Den was included in the formal survey. Within the selected district are administrative wards where ICRISAT's ongoing projects are located, and wards 8 and 15 in Lions Den. In each ward, two villages were randomly selected. This required sampling frames listing all villages in each district. The sampling frames were obtained from local agricultural extension officers. The third and final stage of the sampling procedure was selection of the actual respondents. Household listings were used as sampling frames. These were provided by the local/traditional leadership. Traditional leaders normally keep records of the households in their respective villages. Household listings for the selected villages were requested from each of the traditional village leaders. The lists were verified to ensure they were as exhaustive as possible. All the households on the list were numbered and SPSS was used to pick a random sample of twenty-five (25) farmers from each village. The author's previous

village research experience has shown that a village has an average of 250 households. Twenty five farmers constituted a tenth of the population. Since an unrestricted random sampling was being used, each household had an equal probability of being included in the sample; the sample is considered representative of the population according to socio-economic theory of sampling methods (Medhi, 1996; Agrawal, 2003). This sampling method was used since data on the population variance and mean was unavailable for the population intended to be studied and will obtain the highest possible precision of sample estimates within the available time and budget. An additional five households per village were selected as reserves in case some of the selected households would not be available on the day of the questionnaires.

3.13 Ethical considerations

Fouka and Mantzorou (2011) suggests that, “research ethics involve requirements on daily work, the protection of dignity of subjects and the publication of the information in the research.” This is to say that each researcher must follow these considerations. The researcher made sure that he had to follow some guidelines in the sense that she informed the subjects about the purpose of the research and made sure that no private information was disclosed that was obtained from the respondents. Fouka and Mantzorou (2011) goes on to say that in a research participants must decide on their own to take part in a research and they must not be forced. This is the same as what the researcher did, no one was forced or pushed to give out information and thus following research ethics.

3.14 Chapter Summary

This chapter looked at the research design used, research instruments, and methodology used by the researcher in collecting data for the research. It also looked at the research instruments that was used in the research which were questionnaires. The chapter also highlighted data collection procedures and data analysis procedures.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter provides a detailed explanation of how the study objectives were addressed by the methods used. The two economic theories that formed the basis of this study; the transaction costs and the collective action theories are reflected in econometric models. To recommend suitable strategies for improving market participation of smallholder farmers, it is necessary to understand the factors that influence market participation. These factors are identified by surveying or measuring all those that could be influencing the situation and then using statistical tests to identify the ones that are significantly related to the assessed indicator of market participation. This chapter presents a description of three analytical techniques that were used to address the different objectives of this study. The chapter also highlights other studies that applied similar approaches. The final section describes the estimation procedure and gives a definition of the variables used in the regression models.

4.1 Characteristics of Lions den farming area in relation to their savings culture

Lions Den is one of the small farming towns in the Makonde district in Mashonaland west of Zimbabwe characterized by highly variable mean annual rainfall of 400mm. The growing season is less than 90 days, making it unsuitable for rain-fed cropping. Most of the communal areas are located close to Magunje. National park and conservancies thereby increasing the human, wildlife and livestock conflicts. The livestock wildlife interactions have meant the district is very susceptible to foot and mouth disease (FMD) outbreaks. The district also has smallholder irrigation schemes. Craft making is an important source of livelihood for the households in the west. Agriculture is the main source of livelihood with the south having higher potential for livestock and the north with potential for both cropping and livestock. The south (drier half) therefore grows more small grains than its northern counterpart.

Household characteristics are important determinants of economic activities, livelihood strategies and decisions undertaken by households. They are also important in assessing the vulnerability of different households to economic, political and socio-psycho-cultural shocks. Specifically for this study, an understanding of household characteristics was useful in crafting recommendation domains for the marketing approaches to be promoted for the small volumes of small grains they produce. The key household characteristics investigated were; size of the households, gender and age of household heads, literacy level of household heads and membership to farmer associations.

Table 5 shows the description of households by district and status of households. More than 50percent of the sampled households were male headed in the district. A considerable proportion of the sampled household heads (over 30 percent in the district) were over 60 years of age. The majority of them (62 percent) are male heads. These high proportions give an indication of an aging agricultural labour force, which is less ambitious compared to their younger counterparts and may have little interest in market participation since their primary focus is food security.

There is a high literacy level of more than 80 percent among household heads in the surveyed district. Literacy level of the household head is important in as far as it affects assessment and adoption of new technologies and marketing decision–making by smallholder farmers. Male heads had higher literacy levels when compared to female heads, even if the difference was not significant. Although male heads had a higher proportion of the illiterate, among household heads with at least primary education more than 50 percent were male heads. Historically the girl child has been disadvantaged as priority on resources allocated for educational purposes has been placed on males. Literate farmers are highly receptive to new ideas; therefore male headed households are likely to participate more in markets than their female counterparts when only literacy is considered.

The average household size is seven for the district. Most resident household members worked full time on the farm. Household size, if taken as a proxy for availability of labour resources, shows that households would not have a serious problem of farm labour and are likely to adopt labour intensive technologies when only labour resources are considered. From the whole sample, female headed households had smaller household sizes (six members) compared to male headed households (seven members).

About 41 percent of the households which responded to the questionnaires were members of farmer groups/institutions in their area. This is a significant proportion indicating recognition of the importance of collective action within farming communities. Of these, 41 percent were female headed while 59 percent were male headed households.

Table 5: Characteristics of sampled households by district and gender of household head

Variable	Description	Household status	
		Male headed	Female headed
Sample size	Number of respondents		
Household headship	Male head (%)	59	
	female head (%)		41
Age	Age of household head (%)		
	21-30 years	4	5

	31-40 years	12	18
	41-50 years	15	8
	51-60 years	10	7
	>60 years	18	3
Education	Highest education level attained by household head (%)		
	Illiterate	30	18
	Primary	11	16
	Secondary	10	5
	Advanced/Tertiary	8	2
Labour	Mean household size	7.0	6.0
Institutions	Membership to farmer groups/associations (%)	24	16

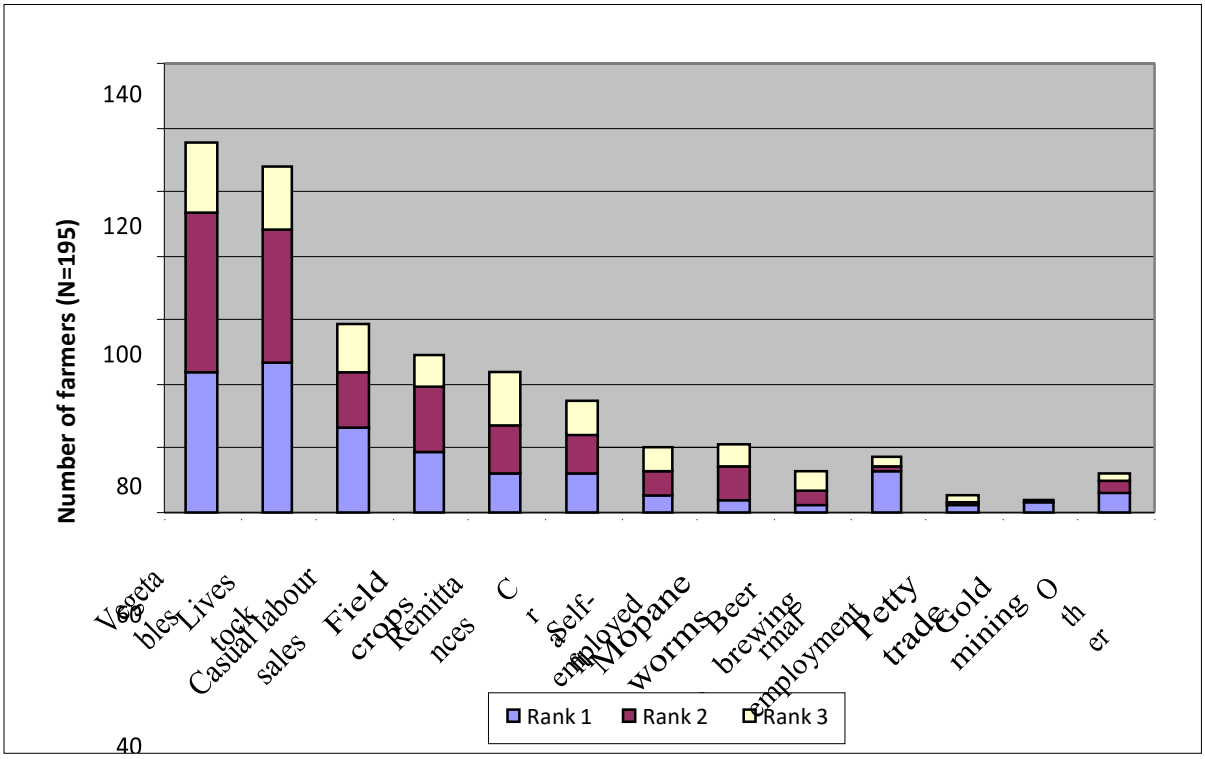
More than 40 percent of the households were female headed. Migration, a key driver of the socio-economic situation, with perceived employment opportunities in urban areas and neighbouring countries stimulating movement of people, particularly men, explains this trend. For example, people migrate to South Africa and Botswana in search of jobs. This has resulted in a number of socio-economic changes in households. In at least 16 percent of the households, women take full responsibility for household issues while men seek employment (defacto female headed households) (confirmed in the CPWFP1 Baseline report, 2007).

The proportion of dejure female heads is due largely to the impact of HIV/AIDS, which has led to death of mostly male heads migrating between countries in search of employment leaving women to run the day-to-day affairs of the family; besides those women who never married or are divorced.

4.2 Challenges influencing farmers in savings culture and methods

4.2.1 Sources of household income

Households obtained household income from a diversity of sources. The five major sources of household income are vegetables, livestock, casual labour sales, field crops and remittances (Figure 5). Farmers were also asked to rank the three top most important income sources and livestock emerged on rank number one the most. This illustrates the importance of crop and livestock production in household income generation. Figure 6 confirms the importance of field crops for income generation for those farmers who sold some grain during the three seasons studied. Thirty four percent of the grain sellers depend on crops for their livelihood followed by livestock (23 percent) and vegetable (11 percent) sales.



(1) Petty trade = selling fish, *mahewu*, home tailored clothes, thatching grass
(2) Other = pension, butchery business, builder, carpentry, faith healer, orchard, women's money clubs

Figure 5: Ranked sources of income for sampled households

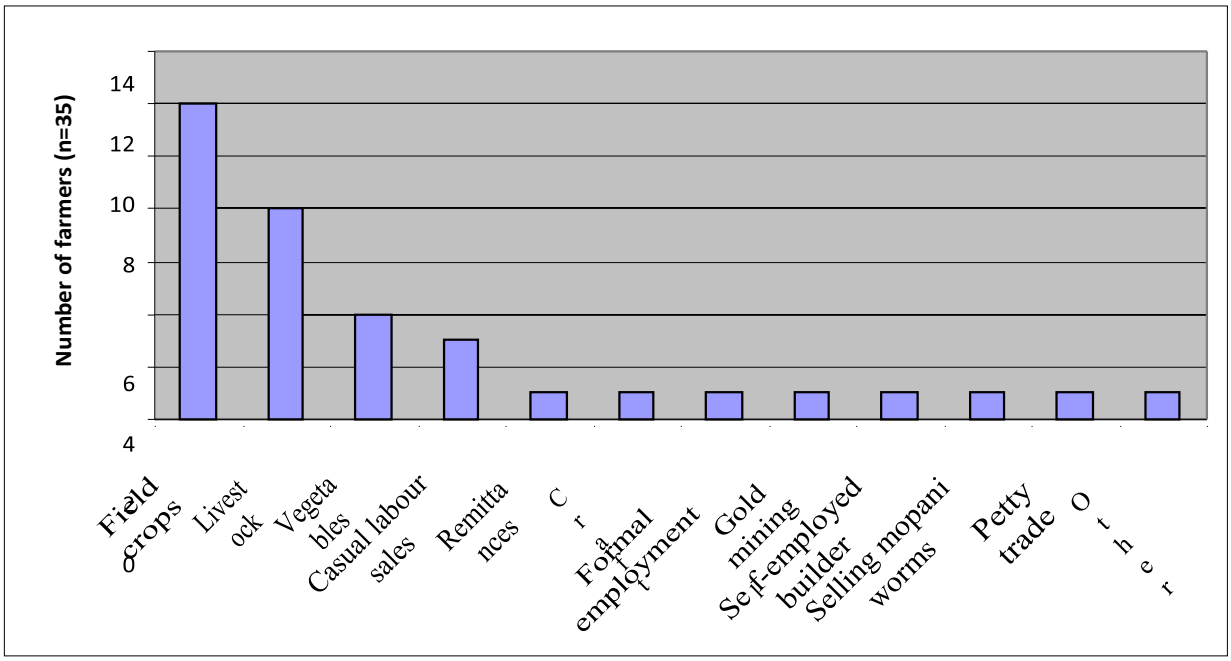


Figure 6: Major income sources for sampled households who sold grain

Figure 7 shows income sources by gender of household head. Male headed households relied more on livestock, casual labour sales, vegetables and field crops for household income, in that order of importance.

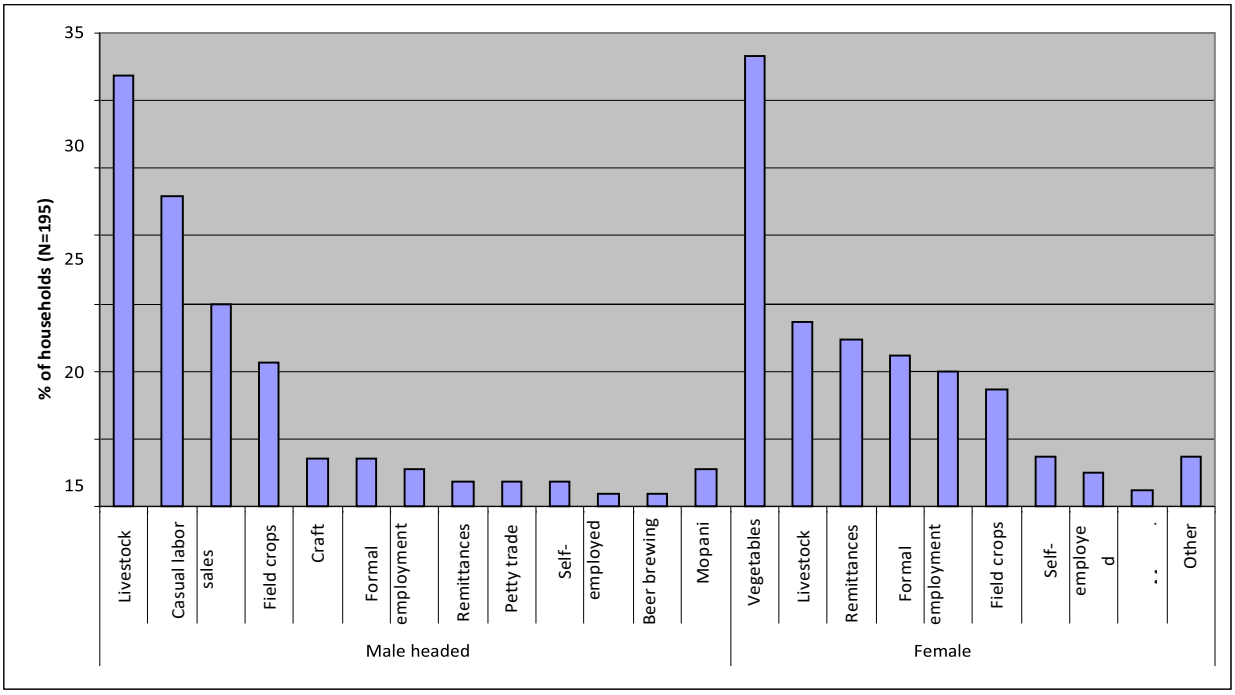


Figure 7: Income sources for sampled households by gender of household head

Female headed households on the other hand are dependent on vegetable sales and livestock is second followed by remittances. Vegetable gardening has always been associated with women. Women also own limited numbers of livestock compared to men. The *de facto* female headed household would receive more remittances from their spouses working away from home.

4.2.2 Sources of information on prices and marketing of grain

Market information is crucial to enable farmers and traders to make informed decisions about what to grow, when to harvest, to which markets to sell their produce and whether or not to store the grain for future sales. Smallholder farmers also need better access to information about input and output markets (CPWF, 2003).

In this study, households obtained information on marketing and grain prices from various sources

that included neighbours, the GMB, other farmers in nearby irrigation schemes, grain traders, the Agricultural Technical and Extension service (AGRITEX), nearby towns and local shops (Figure 9). The importance of neighbours as the most common source of information on marketing and prices demonstrates the significance of farmer-to-farmer knowledge pathways. Other notable sources of information are the GMB, nearby irrigation farmers who produce specifically to sell and grain traders, respectively. Communal farmers used prices from the irrigation scheme farmers and from GMB as their benchmark prices whenever they wanted to sell. The buyer was free to bargain around that standard price.

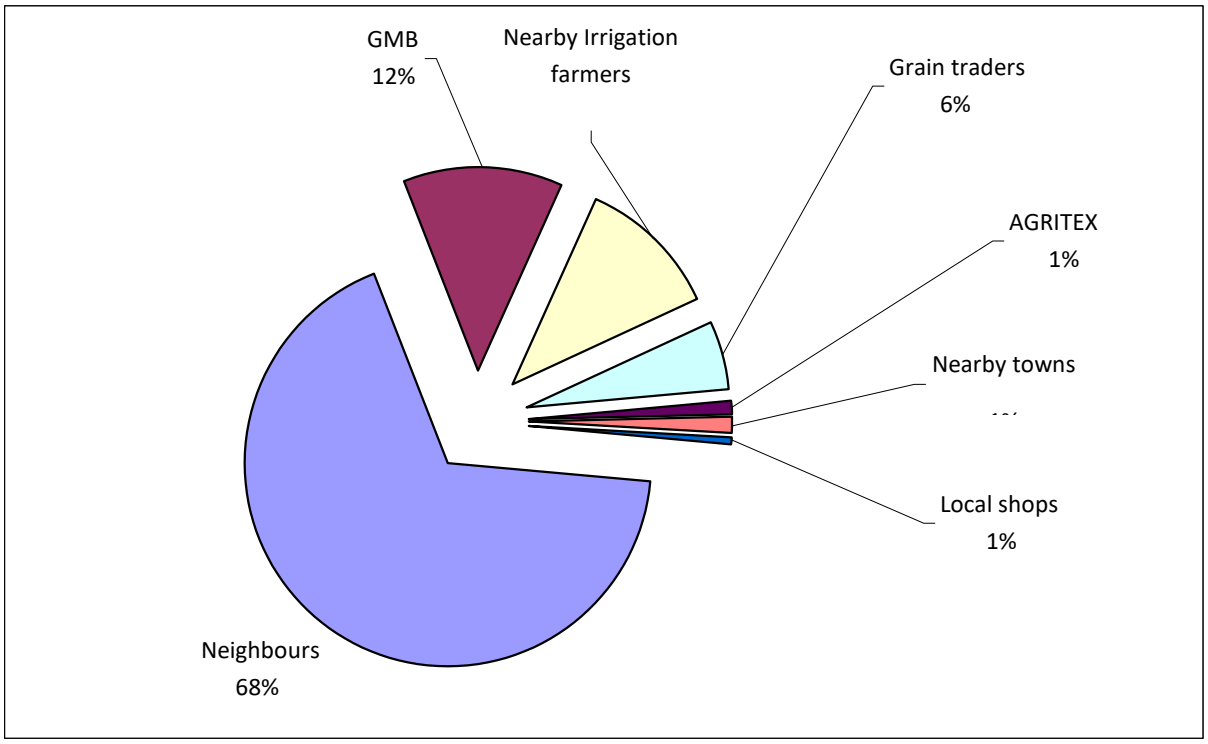


Figure 9: Sampled households' sources of information on prices and marketing (% households) (N=200)

Although neighbours were the overall most common source of information, an analysis of sources of information by gender of household head (Table 14) showed that male headed households received most of their marketing information from other farmers in irrigation schemes and from traders while female headed households got most information from AGRITEX and nearby towns. Neighbours came third for both male and female headed households, as a source of information.

Table 14: Sampled households' sources of information by gender of household head (%

households) (N=200)

Source of information	Male headed households	Female headed households
Irrigation farmers	73	27
Grain traders	67	33
Neighbours	57	44
GMB	52	48
AGRITEX	50	50
Nearby towns	50	50

4.2.3 Constraints *to maize production*

Farmers face constraints in the production of maize, and the most commonly cited constraint was quelea birds (Table 9). The threat of quelea birds on maize has acted as a major deterrent to production of these crops. Drought and pests (such as armoured crickets and aphids, and grain storage pests) were cited as the second and third most common challenges, respectively, in the production of small grains. The fourth challenge was unavailability of seed. The country experienced a severe seed shortage in the 2004/05 season and most farmers had problems accessing the quantities and types of seed they required. Regarding small grains, certified seeds are generally inadequate because of the limited number of seed houses dealing with these crops. As a result some farmers use pure grain as seed and some use retained seed, which compromises germination rates hence low productivity of the crops.

Other constraints included eating and trampling of crops by baboons, witch weed occurrence, shortage of fertilizer, shortage of draft power, lack of farming equipment, shortage of manure and shortage of labour. Literature has shown that very few farmers practised any soil fertility improvement and this is confirmed by the low proportions of farmers who mentioned shortage of fertilizer and manure as a problem. This is primarily because of the limited rainfall received in the area Processing of small grains is also a complex and labour-intensive exercise and it has been another major disincentive to small grain production. Manual threshing of maize produces pollens that causes severe itching of the skin and this has discouraged many farmers from producing these

crops.

Table 9: Challenges faced by sampled households in the production of maize (% households)

Challenge	Total sample (N=200)	District (n=96)
Quelea birds	30	76
Drought	17	46
Pests	11	26
Seed unavailability	10	14
Baboons	10	50
Witch weed	8	30
Shortage of fertilizer	4	9
Shortage of draft power	4	8
Lack of farm equipment	2	2
Shortage of manure	2	2
Shortage of labour	2	1
Other[6]	2	2

4.3 Saving methods used by farmers

4.3.1 Membership to farmer groups

Collective action was mainly in the form of membership to farmer groups/institutions that community members voluntarily join and in some instances paid joining and subscription fees. Of the 41 percent households who were members of farmer groups, 41 percent were female headed while 59 percent were male headed households. Three quarters (75 percent) of the farmers joined farmer groups in the period 2001-2008 while the other 25 percent
joined between year 1980 and 2000. The increase in the number of people joining farmer groups after year 2000 might have been due to increased sensitization among farmers after they started experiencing crop failure due to droughts and floods. NGOs also intensified their relief activities within rural communities hence the formation of farmer groups.

Most of the farmer group activities were agricultural related (Figure 8). The benefits from these activities included labour pools during periods of peak labour requirements, on-farm trials with NGOs promoting certain crop varieties or cropping technologies, crop production specifically for sale to increase household income, loaning each other draft power, livestock rearing at a central kraal to help poor farmers restock, NGOs distributing seed and teaching farming skills and conservation agriculture. In addition to agricultural activities, farmers provided financial and labour assistance during funerals, and farmer groups acted as savings clubs for future cash requirements.

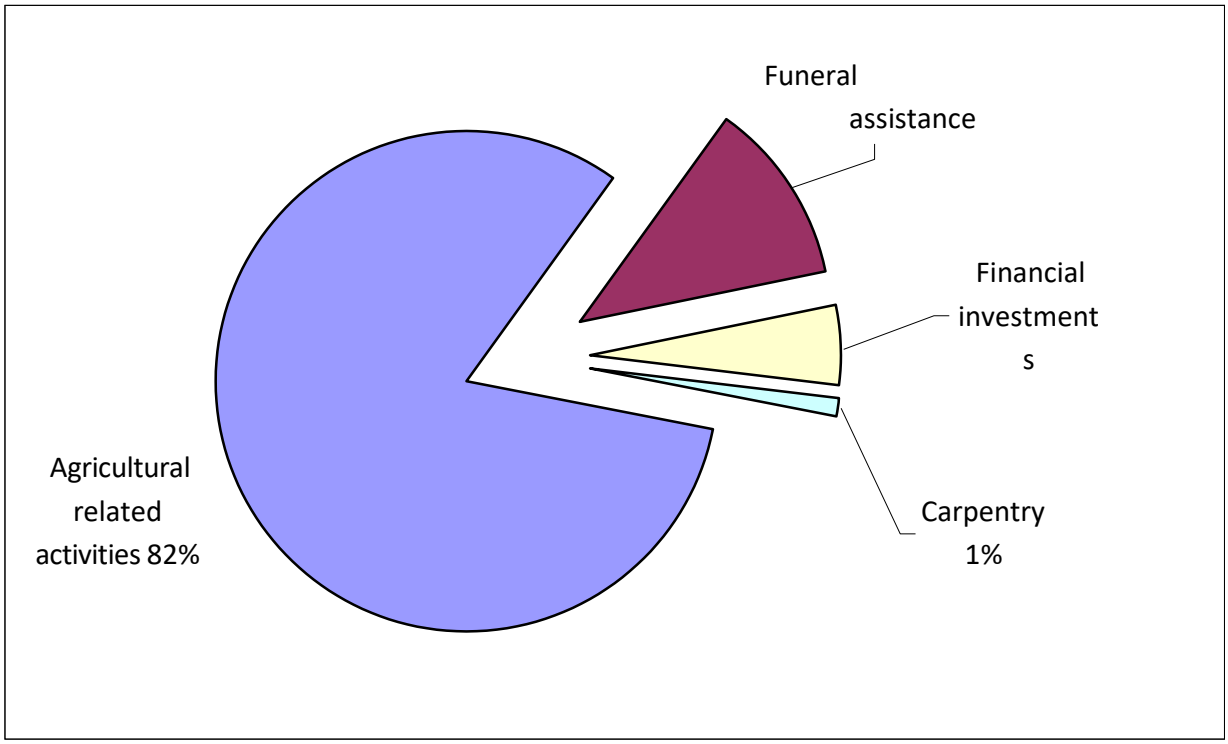


Figure 8: Benefits derived from farmer groups in the sampled districts (n=80)

Those farmers who were not members of any group were asked for reasons why they did not join farmer groups. Table 12 gives the various reasons why. Thirty five percent did not have any group to join in their area. Some farmers felt too old to join farmer groups while some preferred working individually. Notably is the five percent who were unable to raise the required joining and subscription fees. The reasons given by 59 percent of farmers who did not belong to groups reveal a lack of awareness about the importance of farmer associations. There is therefore need for education about the benefits of collective action.

Table 12: Reasons for sampled households not joining farmer groups

	Households (%) (n=200)
No groups in the area	35
Too old	18
Prefer working alone	14
Farmer too busy	8
Group dissolved	6
Cannot afford joining fees & subscriptions	5
Sickness	3
Groups have enough members already	3

Other[7]	7

Of the 80 farmers that were members of farmer groups, only 21 percent participated in markets. Further descriptive analysis of the quantity of grain sold, area cultivated and production levels for these farmers showed that 65 percent of the households sold between 1 and 20 kg of grain, 18 percent sold between 30 and 50 kg of grain and another 18 percent sold more than 50 kg of grain (Table 13). The mean total area cultivated by group members was 2.4 ha and one farmer cultivated 6.9 ha. The mean total production level was 676 kg with a maximum of 5310 kg of grain produced by one farmer.

Table 13: Amount of grain sold by farmer group members in the sampled districts

Amount of grain sold	**Households (%) (n=17)**
1-10 kg	47
11-20 kg	18
21-30 kg	0
31-40 kg	6
41-50 kg	12
>50 kg	18

4.3.2 Crop production

In Makonde district, maize was the most planted crop (96 percent), followed by sorghum (91 percent), groundnuts (87 percent), wheat (64 percent), and millet (53 percent). The six major crops grown varied by district (Table 6). Sorghum, ground nuts and millet are grown during the same season with maize to cushion the possibility of drought. Wheat on the other hand is grown off-season (winter in particular) as a saving cushion to the proceeds made during the on-season in preparation for the coming season as well as a subsidy. Generally, the majority of farmers in the district preferred maize.

Table 6: Six major crops grown by sampled households

Crops	Households (%)	
Maize	96	
Millet	53	
Sorghum	91	
Groundnuts	87	
Wheat	64	

4.3.2 Crop production for farmers from different age groups and different education levels

An analysis of the types of crops grown by farmers from different age groups shows that all age groups grow the same type of crops and there are no significant differences in the types of crops grown by all farmers. There is, however, a significant difference at one percent level of significance in the farmers who grew millet, groundnuts and wheat by highest level of education attained. Between 2004 and 2007, maize had the highest mean crop production, followed by sorghum and millet (Table 8). These findings are consistent with those of previous studies that maize is preferred to small grains, although production levels are low for all the crops (FAO, 2004b). To note is that the 2004/05 season was not a good season and it started late and this could be the explanation for low mean values since some households were not able to establish a crop.

Table 8: Mean total production for the sampled households (2004/05-2006/07 seasons) (N=200)

	Sorghum	**Millet**	**Maize**	**Groundnuts** (unshelled)	**Cowpeas** (shelled)	**wheat** (unshelled)
Mean total production (kg)	124 (122.78)	101 (176.38)	209 (362.74)	75 (187.84)	12 (24.98)	34 (48.17)

Figures in parenthesis are standard deviations

4.3.3 Livestock production

In addition to crops, smallholder farmers' livelihood depends on livestock production. The low rainfall in the Zambezi river basin areas of Zimbabwe makes livestock production more viable than cropping. Cattle, donkeys, goats and chickens are the common livestock. Survey results show, however, that at least 40 percent of the households in the district did not own any cattle and about 17 percent did not own donkeys (Table 10). This is an indication of the proportion of households without access to draft power in the studied areas. A higher proportion

of households owned cattle and sheep. At least 90 percent of households in the district owned goats. The district had the highest proportion (96 percent) of households owning goats. Twenty one percent of the households owned sheep. About 98 percent had chickens. Goats, sheep and chickens are a common source of income for most rural households as they are easily traded. They are also an important source of meat, milk and manure. Farmers have taken advantage of these animals as a savings culture. Failure to get outputs for the maize season push farmers to sell some of these animals to cover up the gap.

There are important gender differences in the ownership and control of livestock. The ownership of cattle and sheep was slightly skewed towards male headed households. Contrary to the case with cattle and sheep, a higher proportion of female headed households owned goats compared to male headed households. The ownership of donkeys and chickens was not significantly different across male and female headed households.

Table 10: Proportion of sampled households owning livestock by type, district and gender of household head

Type of livestock	Total sample (N=200)	District		Gender of household head
		(n=96)	Male headed (n=113)	Female headed (n=82)
Cattle	83	63	65	53
Donkeys	21	25	27	12
Goats	92	96	92	93
Sheep	60	85	87	78
Chickens	98	99	99	96

Table 11 shows mean numbers of livestock by district. The most reared type of livestock is goats and has a higher mean number of cattle than while the mean number of sheep is the same. Both cattle and sheep figures indicate a relatively adequate availability of draft power in this district, which could be exploited for increased crop production.

Table 11: Mean number of livestock owned by sampled households by type and district

	Cattle	Sheep	Goats	Donkey	Chickens
tal sample	6 (12.06)	4 (3.40)	12 (11.49)	2 (4.68)	11 (9.08)

Figures in parenthesis are standard deviations

Access to draft power is very critical for households to achieve food security. The household that owned the largest head of cattle (100) was male headed in the district. This household had 13 donkeys and cultivated 8.9 ha of land. This scenario indicates the relationship that exists between access to draft power and level of production.

4.4 Summary

In most case, those who are in the middle class are benefiting and majority who are poor are not accessing

the loans thus societies in Makonde district remain in need of food aid. Data collected from respondents through questionnaires was presented and analyzed using pie charts and tables. Conclusions were drawn from the respondents in relation to literature. Findings and recommendations from the research are presented in chapter 5.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents a summary of the study. Relevant conclusions are deduced and recommendations are made.

5.1 Summary

5.1.1 Background of the study

Maize is an important traditional cereal crop in Africa. It accounts for 23 percent of the cereal production of the Southern African Development Community (SADC) countries. These crops are important in marginal areas of southern Africa where other cereal crops such as sorghum and wheat would normally fail. The marginal areas are characterised by high temperatures, low and poorly distributed rainfall. The fertility of the soil is generally poor in these areas. Maize is largely grown on a subsistence level and by smallholder farmers as well as commercial farmers. They are usually grown without the application of major inputs like fertilizers. With the exception of a few countries such as Sudan, these crops are consumed by disadvantaged groups and hence the reason for being referred to as "poor people's crops". Maize is not generally traded in international markets or even in local markets in many countries. Therefore, smallholder farmers seldom have an assured market in the event of surplus production. Though small grains have good potential for domestic and industrial uses, they have to compete with sorghum. There is, therefore, a need to look into the possibilities of improving marketing of maize.

5.1.2 Data sources

The survey was targeted at smallholder communal farmer households in the Makonde district in Zimbabwe and agribusiness firms that are involved with maize in Zimbabwe. The research was a reconnaissance survey with selected agribusiness firms.

Primary data was used for this thesis. Primary data was collected from smallholder communal maize producers (a mix of grain sellers and buyers), some of whom already are involved in marketing maize at different scales of operation, and processors and other commodity firms who are currently buying from these farmers.

One district was purposively selected for the research. Their selection was based on the following criteria (i) maize is widely grown, (ii) ICRISAT already has ongoing projects, such as conservation agriculture projects and on-farm trials for various crops including maize, (iii) some farmers are already selling their produce. All the district underwent a reconnaissance survey. However, due to similarities in farming practices among farmers in this district and proximity to ICRISAT location, was included in the formal survey. Within the selected district, administrative wards were selected (Ward 8 and Ward 15). Two villages were randomly chosen in each ward. A total of 195 households, belonging to eight villages, were randomly selected for the formal survey.

Stratified random sampling was used to select smallholder farmers. This sampling method ensured that the different groups are represented in the sample, which was limited by the budget and time available for the reseacher. A total of 200 farmers were picked.

Some of the observations made in the research include aspects of literacy levels in their household heads; most of whom are males. Because of outlined social, economic, environmental, institutional and cultural challenges, the majority of farmers have opted for joining membership to farmer groups, other crops production as well as animal production as their savings methods.

5.1.2 Data analysis

Empirical analysis was based on the primary data collected in a formal survey of the 200 randomly selected maize smallholder producers. A combination of econometric methods was used to analyze the data. The factors influencing participation in markets by smallholder farmers was estimated using two econometric models, namely, the multiple regression model used to estimate the effect of transaction cost related factors on quantity sold and the probit model used to estimate the probability of a farmer selling some grain. A discriminant function analysis was run to determine discriminating variables between the two groups of maize sellers and non-sellers. To determine the nature of the discrimination between the two groups of farmers, descriptive analysis was employed.

5.1.3 Major findings of the study

Results of the multiple regression model estimating the effect of transaction cost related factors on quantity sold showed that previously agreed prices (PRICEAGREE) influence the quantity of grain sold significantly. Road access (ROADACCESS), confidence and trust in the buyer (CONFIDENCE) and membership to a farmer group/institution (MEMBERSHIP) were not significant yet have a significant impact on the quantity of grain sold.

The probit model results showed that pooled transportation to the market (POOLING), loss of grain through transportation (LOSS) and membership to farmer groups/institutions (MEMBERSHIP) did not influence the probability of farmers savings methods.

5.1.4 Strategies for improving savings methods of smallholder farmers in the production of maize

Farmers identified issues that need to be addressed for maize production and marketing to be

improved. These included seed unavailability, lack of access to draft power, lack of access to fertilizer, establishment of irrigation schemes, provision of transport to the market, production of marketable surplus and establishment of a local market. All these suggestions point to the need for external assistance to farmers, which according to literature, can be secured through contracting. Contracting would ensure input provision, competitive product pricing, improved production technology, access to information, consistent grain quality and supply, and hence improved savings habits.

5.2 Conclusions and recommendations

Based on the research findings, the researcher concludes that although maize is important food crops for smallholder farmers in the Makonde district, their savings habits are very low. This prompts questions about the future savings habits of maize production. The low productivity suggests that crop production in the basin may not be sustainable given the social, economic, environmental, institutional and cultural challenges. However, judging from successes in maize production, improvements in production technology can dramatically change the comparative advantage of maize savings methods. Agricultural development and food security initiatives for the Makonde district must therefore focus on maize production systems. Increasing productivity, to ensure adequate food supply that satisfies the family daily food requirements first, could improve the surplus position of maize saving habits. Households often sell grain that is not used for subsistence or sell out of distress to meet pressing cash needs. Participation in maize savings habits would therefore rely on the net position of the household after family food needs are met. Technology and policy options that will enhance incentives to increase production will have a great, though indirect, impact on motivating savings habits.

Six predictor variables were found to be major discriminating features between maize sellers and non-sellers. The variables that were important included; the number of donkeys, household's level of crop production, source of household income, the way a household transports grain to the market, the district in which the household is located and the total area that the household cultivated. The identified predictors can be viewed as marketing constraints, which when addressed would ensure improved market participation. Most of these discriminating variables point to wealth-ranking factors or household asset endowments implying that poorer households are unable to participate in markets effectively.

Farmers identified issues that need to be addressed for maize production and marketing to be improved. The major issues included; seed unavailability, lack of access to draft power, lack of access to fertilizer, establishment of irrigation schemes; provision of transport to the market, production of marketable surplus and establishing a local market. All these point to the need for external assistance to farmers. A review of literature has shown that contracting can offer smallholder farmers strategic benefits. Well managed contract farming has proved to be an effective way to coordinate and promote production and marketing in agriculture. For contracting to succeed, it is necessary to improve maize productivity with an assured quality of the grain. Therefore, there is need to improve the production technologies for the small grains and disseminate the knowledge to the rural smallholder farmers. It is only in this way that small grains can compete with maize.

Interventions by government and private sector in maize marketing should aim at improving productivity, reducing the transaction costs that farmers incur, and addressing the major factors that discriminate grain sellers from non-sellers. Important to note is that, if poorer households are unable to effectively participate in markets, then interventions to increase households' productive assets or the public goods that support agricultural production and marketing may be necessary.

5.2.1 Key intervention ingredients for selective partnering with groups of farmers in different wealth rankings

- Selective partnering with smallholder farmers because smallholder farmers are a heterogeneous group whose resources, livelihood patterns and income sources are quite diverse. Because they are not homogenous, their needs are also different. Depending on their income sources, their location, other socio-

economic and demographic factors, and the variety of costs they come across in their day to day living, they often have different responses to changes in economic variables and policy actions. In the formation of commodity associations, the poorer farmers (according to the community's wealth ranking criteria) should be classified differently from the relatively wealthy farmers to avoid the risk of exclusion and crowding out of savings habits.

- Each group should be attached to a specific financial broker who would engage them on an input credit scheme prescribed collectively by the farmers and the contractor. This would also avoid unnecessary expenditure on inputs that some farmers can afford on their own. For example, for those farmers who do not have adequate draft power, tillage could be provided by a large commercial farmer who is located in close proximity to the smallholder farmers and is contracted and paid by the contractor to provide the vital service. This approach has been proven to work well by renowned farmers in their grain production contracts.

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APPENDICES

Appendix A: Questionnaire Cover Letter

Faculty of Commerce

Department of Banking and Finance

P.O. Box 741

Chimurenga Road Off Trojan Road

Bindura

Dear Respondent

My name is Tanatswa Mashizha, I am a BAF Final Year Student at the main campus, Faculty of Commerce, Bindura University of Science Education.

I am currently conducting a Dissertation Research Project entitled ".An investigation of the savings habits among maize farmers in Zimbabwe. Case study of Lion's Den in Makonde District, Mashonaland West Province." to be submitted in partial fulfilment of the requirements of Bachelor of Commerce Honours Degree in Banking and Finance. I am kindly asking your co-operation in carrying out the research by responding to the questions asked herein.

Answers to the questions will strictly be used for the purposes of this research only and shall be treated as confidential.

Please feel free to answer all questions as honestly and objectively as possible. The questionnaire takes approximately 20 minutes or less to complete. The questionnaire does not require you to reveal your identity. If a question appears to be difficult to answer, kindly provide your best guess.

For further information and/or any questions you might have, please feel free to contact the researcher, Tanatswa Mashizha, on mobile number 0786022065, e-mail addresses mashtanelroi@gmail.com.

Your effort in taking time to attend to this questionnaire is unreservedly appreciated.

Yours faithfully

……..…….

Tanatswa Mashizha

Appendix B: Questionnaire administered to Lions Den Farmers

I am a student at Bindura University. In fulfilment of my studies, I am required to carry out a research project of my choice. In due compliance with this requirement, I have chosen to do a research entitled;

"***An investigation of the savings habits among maize farmers in Zimbabwe. Case study of Lion's Den in Makonde District, Mashonaland West Province.***

I am collecting data through this questionnaire and your voluntary cooperation in answering the questions below will be greatly appreciated. Information gained through this research is private and confidential. No names are required so that the respondent remains anonymous.

SECTION A

Socio-demographic characteristics

1. Gender. Male ☐ female ☐

2. Age

20-30	31-40	41-50	51-60	61+

3 Highest education level achieved (tick)

Primary	O'level	A'level	Diploma/certificate	degree	Other (specify)

A: Household Characteristics

1. Status of farmer in household (*tick appropriate*)

Dejure Female head (single/widowed) 1

Defacto Female head (husband away) 2

Male head 3 Child head 4

1. What is the **age** of the farmer *(in years)*? *(Tick appropriate)*

1< 20	**2**=21-30	**3**=31-40	**4**=41-50	**5**=51-60	**6**>60

2. What is the highest **educational level** attained by the farmer?

1*=illiterate,* ***2****= primary education,* ***3****=secondary education,* ***4****= advanced/Tertiary,* ***5****=other (SPECIFY!)*....

3. Total number of permanent household members *(members stayed for 3 or more months continuously)*

Section B: Factors influencing financial savings

B: Crop Production

4. What are the six major crops grown and area under each *(Complete table below)*

Crop grown	**Area** *(record Acres/Ha as given by farmer)*	**Total production** *(record units given by farmer)*		
		2004/05 season	**2005/06 season**	**2006/07 season**

C: Livestock Production

5. **How many animals, by type** do you currently own *(complete table below)*?

	Cattle	**Goats**	**Sheep**	**Donkeys**	**Poultry**
Breeding females					
Young females					
Males (intact & castrated)					
Calves/kids lambs					

D: Collective Action

6. Are you a member of any association or farmer group? **1**=Yes **0**=No

(If No, skip to Que. 11)

7. If yes, what is the name of the group? .....

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8. When did you join the group *(year and month)*? ----------

9. Why did you join that group? .....

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10. What are the group's activities? .....

---

11. If No, why are you not a member of any group? ----------

E: Maize marketing

12. Do you normally sell your maize? **1**=Yes **0**=No

12(a) If yes, who usually buys your grain *(list all buyers)*? ----------

---

12(b) For how long have you been selling maize (years)? ----------

---

12 © Do you sometimes exchange maize for other commodities? **1**=Yes **0**=No

13. How much did you sell, each year, for the past 3 years (kg)?

Maize sold (kg)		
2004/05 season	**2005/06 season**	**2006/07 season**

14. How long do you have to travel to your most important market/buyer *(km/walking time)*?

---

15. How do you transport your grain to the market? **0=**Individually **1=**Coordinated transport
16. If coordinating with other farmers, how often did you do that in the past 3 years?

0=Never/few times **1=**Usually/Always

17. Would you rate your road access to the market to be poor or good? **0=**Poor **1=**Good
18. Do you experience any grain losses when you transport grain to the market? **1**=Yes **0**=No 18 (a) If yes, how would you rate amount of grain lost?

0= Significant amount**1**=Insignificant amount

Section C : Impact of maize marketing strategies

19. Do you usually know about grain prices before going to the market? **1**=Yes **0**=No

19 (a) If yes, where do you get information about prices *(list all market information sources)*?

---

19 (b) Is the actual price at time of sale usually the same as the one you know?

1=Yes **0**=No

20. If no, why?.....

---

21. Who determines the selling price? .....

---

22. Do you usually agree with the buyer on the price of your product? **1**=Yes **0**=No 22(a) If yes, at what point do you agree with your buyers on the price?

0=At time of sale **1=** By previous agreement

23. Do you sometimes have to approach the buyer to negotiate prices? **1**=Yes **0**=No

23(a) If yes, how many times in the past 3 years have you had to approach the buyer to negotiate prices before selling *(complete table below)*?

Maize sales		
2004/05 sales	**2005/06 sales**	**2006/07 sales**

24. Have there been delays in payments for sold grain? **1**=Yes **0**=No

24(a) If yes, how many times did you have to approach the buyer for payment in the past 3 years *(complete table below)*?

Maize sales		
2004/05 sales	**2005/06 sales**	**2006/07 sales**

25. Have there been delays in sales at the market? **1**=Yes **0**=No

25(a) If yes, what was the cause of the delays? ----------

---

26. How long do you normally wait to sell produce in the market?

0=Very quickly **1**=More than 2 hours

27. How often did you fail to sell/ return home with your grain in the past 3 years?

0=None **1**= Several times *(If none, skip to Que. 30)*

28. What were the reasons? ***1****=price too low,* ***2****= too few/no buyers available,* ***3****=grain quality rejected,* ***4****= sale postponed,* ***5****= Other (specify)*----------

29. Do your buyers recognize quality of grain? **1**=Yes **0**=No

30. Do your buyers sign out receipts for the grain? **1**=Yes **0**=No

30(a) If No, why not?..

---

31. How confident are you in your buyers? **0**=Low **1**=High

31 (a)Explain...

---

32. What are the major costs you incur in selling your grain? ***1****=transport,* ***2****= packaging,* ***3****= grain threshing and cleaning,* ***4****= costs while waiting at the market* *(e.g. food, accommodation, etc),* ***5****= Other (specify)*.....

33. Did you have production and/marketing contracts with any company for maize in the past 3 years? **1**=Yes **2**=No

33(a) If yes, describe your arrangement .....

33(b) If no, why not? .....

---

34. Have you ever had any production/marketing relationship with processors or commercial buyers of small grains since you started selling grain? **1**=Yes **2**=No

36 a) If yes, what was it about? .....

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35. What marketing problems/challenges do you encounter when you sell your grain?----------

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36. Do you think there is a ready market for maize in our country? **1**=Yes **2**=No

36(a) If yes, explain? .

36(b) If no, explain? ...

---

37. What do you think can be done to improve production of maize? ----------

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38. What do you think can be done to improve marketing of maize? ----------

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F: Sources of Household Income

39. Where do you get household income? Rank your income sources in order of importance *(complete table below).*

1*= livestock,* ***2****=field crops,* ***3****=vegetables,* ***4****= remittances,* ***5****=craft,* ***6****= casual labor sales,* ***7****=formal employment,* ***8****=Other (SPECIFY)*

Rank	Income source
1	
2	
3	
4	
5	

40. Any other comments/suggestions? .....

THANK YOU