

**SAVINGS BEHAVIOUR OF HOUSEHOLD HEADS IN RURAL  
COMMUNITIES. A CASE STUDY OF SHAMA DISTRICT IN THE WESTERN  
REGION OF GHANA.**

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## DECLARATION

I hereby declare that this submission is my own work towards the Master of Business Administration (Finance option) Degree and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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## **ABSTRACT**

The research was to examine the savings behaviour of household heads in rural communities, a case study of Shama district. Questionnaire was administered to 120 household heads. The household heads that were studied were both males and females. Logistic regression model was used to analyse the primary data collected to estimate and discuss the factors that influence the savings behaviour of household heads in Shama. The result of the logit regression shows that income, education, and access to financial institutions were significant and had a positive influence on the probability of household heads to save. However, age, transportation cost and household asset were also significant but had a negative influence on probability of household heads to save.

Kendall's coefficient of concordance (W) was also used to establish the extent of agreement among household heads regarding the benefits household heads derive from savings. Eight(8) issues were identified as benefits that household heads in Shama derive from savings, among which accumulation of capital for investment, paying of school fees, pay off debt, meet unexpected emergencies, enjoy at retirement age, buy asset and interest on savings were their major benefits in order of importance. The result of Kendall's indicates that there is agreement among household heads regarding the benefits household heads derive from savings.

Descriptive statistics particularly percentages was also employed to describe the forms in which household heads in Shama save. The result shows that household heads save in either financial or non-financial forms. Financial form of saving identified includes depositing cash with financial institutions as well as buying of treasury bills. The nonfinancial form identified includes farmland, livestock, poultry, crops, houses and other consumer durables. Recommendations put forward from the research include the deployment of mobile banking services at the rural communities since transportation cost has a negative effect on the probability of household heads in Shama to save.

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## DEDICATION

I dedicate this work to the Almighty God, who has kept me till now with His unending love, guidance and protection which made this research a success. All that I have to say is that MAY THY NAME BE PRAISED AND HONOURED.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Overview**

This chapter offers an outline of the study. It focuses on the background to the study, the statement of the problem, and the research questions. Furthermore, it outlines the research objectives, its importance, the limitations and scope (delimitations), organization of the study and explanation of the key concepts of the research.

### **1.1 Background to the Study**

The economy of Ghana is anticipated to dwindle down for the fourth consecutive year to an estimated 3.9% growth rate in 2015, due to a severe power crisis, unsustainable domestic and external debt burdens, and deteriorated macroeconomic and financial imbalances. Provisional gross domestic product (GDP) figures issued by Ghana Statistical Services (GSS) further suggest that the economy expanded by 4.2% in 2014, less than the growth of 7.3% recorded in 2013. The service sectors continue to be the driver of growth, followed by industry and agriculture which constitute 50.2%, 28.4% and 19.9% of the economy respectively. The growth in the budget deficit resulted in public debt increasing from 55.8% of GDP in December 2013 to 67.1% of GDP by the end of December 2014. To deal with the increasingly unsustainable fiscal and current account imbalances, the Ghanaian authorities started negotiations for a stabilisation programme with the International Monetary Fund (IMF) that was expected to begin in early 2015 (Okudzeto, Mariki, Senu and Lal, 2015).

Savings is the fraction of income not spent on current expenditures but put aside to take care of uncertainties in the future since it is very difficult to determine what will happen in the next second. Money should be saved or invested into liquid asset to be able to pay for unanticipated events or emergencies such as illnesses, accident and natural disasters like flood and many more. Savings play a vital role in capital accumulation for investment at both micro and macro levels (Sutton and Jenkins, 2007; Jacqueline, 2010 cited in Mumin et al, 2013). Savings have not only been described as an important economic and financial issue but also correspond to a fundamental driving tool of economic growth and development at large. Basically, at the micro level, savings also serve as a means of mobilising financial resources as capital to start up new or expand existing businesses.

Financial services are essential to economic growth and development in every country especially in the rural communities. To ensure development impact on a country's economy, financial services providers tend to concentrate on sectors within countries that need financial resources as capital to expand existing businesses or start up new. This has contributed to the national output of countries as well as combating unemployment rate which most countries face. Financial sector ensures this through giving out adequate loans on reasonable terms to private sector clients as a startup capital for investment. This emphasis on underserved frontier market leads to greater exposure to human risk. Generally, countries, sectors and projects are not being served by private capital market due to political, environmental and social challenges that go beyond the risk tolerance of the private sector financiers. The financial sector offers many different products to savers and investors through a number of institutions such as; banks, cooperatives, insurance companies, finance companies, mutual funds and other institutions. In some countries,



institutions are segmented along project lines and regulated separately. These institutions provide services such as savings, investment, debt and equity funding, safeguard against uncertainties, build credit, enable business to start up, increase efficiency and enable firms to compete in the international market (Suttons and Jenkins, 2007). Mobilisation of savings by financial institutions for individuals' increase the capital accumulation base of individuals which further leads to increase in investment thereby resulting in increasing national output of most countries. Also, services provided by insurance companies enable private individuals as well as companies to protect their businesses against uncertainties. Financial services to the informal sector have been made accessible largely through nonbank financial institutions, many of whom started operations in the mid-1990s, and the rural banks. Some banks are generally reluctant to give credit, especially to those starting business without proper collateral. Small businesses especially farming are being denied credit due to insufficient guarantee or perceived risks. In order to access credit facilities and to improve the financial services brought about the introduction of non-bank financial institutions. As at December 2013, the Bank of Ghana had registered twentyfive (25) Finance Houses, three (3) Credit Reference Bureau, twenty-four (24) Savings and Loans, two (2) Leasing Companies, three (3) Finance and Leasing Companies and one (1) Mortgage Finance. In all we have fifty-eight (58) non-bank financial institutions registered nationwide (PricewaterhouseCoopers Ghana Limited 2014). With the entry of non-bank financial institutions, particularly the deposit-taking ones, into Ghana's financial services industry, businesses and individuals that were hitherto considered unbankable simply on account of being an informal sector or low-income player, now have access to finance and credit through the country's non-bank financial institutions. And the sector has produced remarkable results in recent years through their all-important role of providing financial



intermediation to Ghana's informal sector which accounts for the biggest piece of the pie in terms of the nation's economic activity.

The contribution of financial sector to economic development cannot be underestimated in Ghana as well. Financial institutions in Ghana give loans and provide financial advice to entrepreneurs and individuals. This is done through provision of start up and working capitals to businesses. They also provide training and advisory services to businessmen with regards to lucrative areas to invest. They accept deposit from the general public which serve as capital accumulation for individual and business that provides potential for economic development.

Despite the remarkable role played by financial sector in Ghana's development, the sector is still faced with some challenges. Among these is unwillingness of savers to invest in long term instruments due to high rate of inflation. Over the years, Ghana's inflation rate has been unstable and high (Alagidede, Baah-Boateng and NketiaAmponsah, 2013). This discourages savers from embarking on long term investments due to the negative impact of inflation on the face value of their investment. This high degree of uncertainty associated with investment affects the size and quality of financial sectors in Ghana and also the poor power situation has had a declining effect on savings. This occurs through loss of customers as well as unavailability of capital to meet their minimum capital requirement.

In 2003, institutional restructuring in the financial sector was launched with the ultimate aim of establishing new institutions and this was to encourage competition within the financial sector and also to make financial sector in Ghana more viable towards savings mobilisation. For example a lot of rural banks were established as small unit banking operations (Amit el at, 2003) with the intention of ensuring mobilisation of rural savings

to support agriculture. These rural banks are to be community owned and managed by the community members so that it will boost the confidence of households within the community to save. Financial sector in Shama has the potential to mobilise savings. However, these potentials have not been fully exploited. In this study, an attempt is made to investigate into the saving behaviour of household heads in Shama.

## **1.2 Statement of the Problem**

Shama district houses the largest fishing community in Ghana with a lot of economic activities going on within the district. It is a great achievement for the district and its easy to perceive that, most of the households within the district should be financially sound and therefore making the district assembly self sustaining with respect to mobilization of funds to meet their current expenditures but this is not the case. The people within Shama are considered poor and one would wonder the reason for such discrepancy. There is the need to give more attention into the savings behaviour of household heads as a possible solution to this problem. The study is geared towards filling that gap.

Again, major trend in savings in Ghana shows that it is relatively low (Andrea and Francisco 1998 cited in Mumin et al), which raised questions as to whether households especially those in the rural communities derived benefits from savings. The spread of micro finance institutions especially unregistered financial institutions and Susu collectors have become a debate as to whether savings made by households are always secured. This is because some financial institutions and Susu collectors mobilise savings and escape with it. This leads to loss of principal sum saved and interest earned on savings which is abscond by these unregistered institutions. Accumulation of wealth and pay off debt were examined in literature as some benefits households derive from savings (Annamaria, 2000).

However, there exist limited knowledge and studies on the benefits household heads in the rural communities derive from savings.

There have been several perceptions as to what actually constitute savings. Earlier researches emphasize on depositing money in one's savings account as savings (Mark and William, 2005). On the other hand, non financial assets such as farmland, grinding mill, livestock, crops, poultry, houses and other durables as well as depositing in one's savings account were found from empirical evidence as forms in which households save (Haruna, 2011). This has led to pending argument as to what forms households actually save. This is because in recent times, households in the farming communities in general have particularly become doubtful as to the various forms of savings available to them due to the above perceptions. With reference to the above empirical evidence, it is clear that most households are uncertain about the various forms of savings available which Shama is not an exception. However, this study seeks to address these issues appropriately.

### **1.3 Research objectives**

The main aim of this study is to assess the savings behaviour of household heads' in rural communities to save with financial institution in Ghana: a case study of Shama district of the western region. Specifically, the study seeks;

- To estimate and discuss factors that influence saving behaviour of household heads in Shama.
- To assess the forms in which household heads in Shama prefer to save.
- To analyze the benefits household heads in Shama derived from saving.

#### **1.4 Research questions**

The above discussions lead to the emergence of the following relevant research questions which the study seeks to find answers to the following questions:

- What are the factors that influence the saving behaviour of households in Shama?
- What are the benefits household heads in Shama derive from savings?
- What are the forms in which household heads in Shama prefer to save?

#### **1.5 Justification of the study**

This study will give support to policy makers to devise appropriate strategies to tap the potentials of the financial system in the rural communities. It will also serve as a reference and guidance material for researchers in the non-bank financial service and other area of academia. Most of the agricultural activities are found in the rural communities. Ghana's greatest opportunity to industrialize and also to create new jobs lies in agriculture. Agriculture is the backbone of Ghana's economy and the mainstay for the large majority of the population. It directly employs 60% of the total labor force and provides the main source of income for 90% of the population. Our small scale farmers must empower themselves. They are Ghana and Africa's main line of defense in ensuring food security. The Agriculture sector is the main backbone of the Shama District employing about 65% of the active population in the District; the activities identified in the Agriculture sector include fishing, livestock rearing and food crop production. The dominance of Agriculture in the local economy calls for farm-based interventions to improve productivity and incomes of farmers. (Ghana Statistical Service, 2014)

The economic development of Shama is a critical issue to be considered by the government, policy makers and the entire community. There is therefore the need to study their saving behaviour, forms in which they save and the benefits they derived from



savings. The research is therefore intended to provide in-depth knowledge to financial policy makers as well as development planners for possible intervention. This will also serve as reference and guideline materials for researchers in banking, finance and economics. The information to be provided by the study will be useful to financial institutions such as commercial banks, rural banks and savings and loans companies, Susu collectors among others. It will also serve as material for further research as well as providing information to business men and women on the appropriate businesses to establish in order to maximize profit.

However, it will be of need to assess the various factors that influence the savings behaviour of household heads such factors include; access to financial institution, the level of education, income, the household size, the type of occupation among others. With this, the research seeks to identify the current level of savings as a result of its influencing factors. Also, base on the current level of savings it will help to estimate the future savings level of the people in Shama. The stakeholders for instance the financial institutions base on this research can design projects and programs which will induce the individuals to save, hence it will help to extend financial services and establishment of more financial institutions in the community. Also, the community on the other hand base on the projects and programs by the financial institutions will increase their savings level and hence capital accumulation for effective investment. To the government, as investment increases as a result of savings mobilization the national output will increase which will further improve the living standards of the people.

Furthermore, benefits households derive from savings cannot be out looked or underestimated. Benefits such as holiday purposes, buy durables, buy improved and



upgrade homes, pay off debts, retirement, education as well as in case of unemployment have being identified by some researchers as why people save. Also other benefits expected to be identified by the study include; accumulation of capital to cater for uncertainties, pay school fees among others. This study will not only advance knowledge in savings but also inform the current debate on the effectiveness of savings, incentives on the effects of social security and on the consequences of different pension schemes. This will help the various financial institutions to be strategic in designing their savings portfolio so as to attract the people to increase their level of savings through the high interest rate on their savings. This will then increase the competition among various financial institutions. Hence to the community, they are then expose to quality, beneficial and attractive services and this induce them to increase their savings level.

In addition, the study intends to describe the various forms in which household heads save. Forms of savings can be classified into; financial and non financial. This will enable individuals to have knowledge about the various forms of savings to enhance the conversion into either asset or liquid, or any of the forms in which they wish to save. It will create awareness to individuals about the various forms of savings opportunities available. Investors having knowledge about the forms, will be able to invest in the most tradable and profitable form of savings by the people.

The government will be able to allocate or channel resources to support and promote the form of savings that will contribute much to Gross Domestic Product (GDP). The theoretical justification for this research is that the wage earning household which offers only its labour services to the factor market, savings includes an allocation between present

and future consumption, a decision regarding the maintenance of the existing stock of human capital and the increment in that stock is very vital for household survival.

Furthermore, the study will help in awareness creation to the individual as to what form they can maximize savings since it will provide information on the various forms of savings. The study again is intended to provide information to the government on the need to formulate appropriate tax policy since information will be provided on the impact of income level on savings.

Finally, it is believed that when this research is conducted effectively and with intervention of various stakeholders, it will go a long way to improve the living standards of households in Shama as well as the most rural communities.

### **1.6 Scope of the Study**

This study will be carried out to assess the savings behaviour of household heads in rural communities: a case study of Shama district of the western region. The research could have been conducted at all rural communities in Ghana, for want of time and finance; it had to be focused on selected areas within Shama Districts in the western region of Ghana. The selected areas were Aboadze, Abuesi and Shama

### **1.7 Limitations of the study**

This study examined the savings behaviour of household heads in rural communities. Some of the problem encountered by the researcher has to do with completeness of the questionnaires by respondents. Some of the respondents partially filled the questionnaires due to busy schedules of household heads. Funds is the number one limiting factor for the successful completion of this research as the person embarking on this research is a student and does not have in his disposal grants which may help in a small way for its successful

completion. Another factor may be time. Time is too short to complete the work of this magnitude. This work would require that one reads through hundreds of journals and write a review on each, but due to deadline given to complete the work; one may not have the time to read through all the vital journals. Being that as it may, the researcher will do the best to make sure that the impact of these afore mentioned limitations are limited and strive to come out with a fantastic research work.

### **1.8 Organisation of the Study**

The study is presented in five chapters; chapter one shows briefly background to the study, statement of the problem, research questions, and significance of the study, scope and limitations of the study. The chapter two captures the literature review which looks at empirical review, theoretical review and methodological review. Chapter three gives an explanation to the research process and the methods adopted for collecting and analysing data. Chapter four deals with analysis of the major data and results discussion while the fifth chapter presents the summary of the study as well as conclusions derived from the analysis and recommendations of the study.

### **1.9 Explanation of Concepts**

The saving rate of any economy is its saving divided by income. The saving of an economic unit is closely related to its wealth or the value of assets minus its liabilities. Assets are anything of value that one owns, either financial or real. Examples of financial assets that household might own include cash, checking accounts, stocks and bonds whereas as real assets include home, real estates, consumer durables, jewelry, livestock among others. Liabilities on the other hand are the debts one owns. Examples are; credit card balances, agro loans and mortgages.

Real interest rate is the rate at which real purchasing power of a financial assets increase over time. The real interest rate is equal to the markets or nominal interest rate minus inflation rate. Inflation rate on the other hand is persistent and a continuous increase in the general price level of goods and services usually measured by consumer price index, Household size according to this research will be measured according to the number of people who have the same cooking arrangement.

Household assets are the total value of assets thus both physical and financial of households. However, for the purpose of this research household assets will be viewed as non- financial assets of household heads.

Educational status for the purpose of this research is the highest educational attainment of household heads. This will be measured according to the number of years household heads spent in formal education.

Age is the number of years attained by the household heads as at the time research was carried out.

Income according to the research is the total monthly receipts from all sources of production of goods and services by household heads.

Gender is the sex of the household heads (male or female).

Transportation cost in this research is the cost incurred by household heads to and from financial institutions.



Access to financial institutions in this study is the ability of household heads to have savings account with financial institutions.

Occupation for the sake of this research has to do with various ways households earn a living.

A household head is an individual or person within family scenery who is responsible for providing basic needs and actual support to one or more individuals who are related to him or her through marriage, blood or adoption.

Financial services are the economic services provided by the finance industry, which encompasses a broad range of businesses that manage money, including credit unions, banks, credit card companies, insurance companies, accountancy companies, consumer finance companies, stock brokerages, investment funds, real estate funds and some government sponsored enterprises.

Empirical review includes studies carried out by earlier researchers and their results.

Theoretical review contains definition of terms and concepts as well as theories surrounding the savings.

Methodological review comprises methodologies employed by earlier researchers.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Overview**

This chapter of the study deals with the findings of other works in relation to the subject matter. It also consists of theories around the topic as well as definitions of relevant concepts. The literature review was organized into five main sub-sections. Sub-section 2.0



consists of overview. Sub-section 2.1 represents theoretical review which further consists of savings, theories of savings, categories of savings, forms of savings and definitions of concepts and variables. Sub-section 2.2 comprises empirical review which was further categorized into empirical evidence with regards to factors that influence the savings behaviour of households, benefits households derived from savings and forms in which households save. Sub-section 2.3 represents methodological review.

## **2.1 Theoretical Review**

### **2.1.1 Savings**

Savings can be defined as disposal income less consumption (Issahaku, 2011). Disposable income is the total income of households less taxes paid or sometimes plus government transfers. Transfer payments on the other hand can be explained as payments the government makes to the public for which it receives no current goods or services in return. A theory suggests that there is a direct relationship between disposable income and savings but the savings is smaller proportion of disposable income (Mankiw, 2001 pg 500). This implies that when households consume a smaller proportion of disposable income, as disposable income increases then they must be saving a larger proportion.

Savings can also be defined as income not spent or deferred consumption (Frank and Bernanke, 2001 pg 707). Savings can be done in numerous ways such as putting money aside in a bank or pension plan or reducing expenditure such as recurrent cost in terms of personal finance. Savings specifies low risks reservation of money in deposit accounts, versus investment where risks are higher. There are some disagreements about what counts as savings. For example, the part of personal income that is spent on mortgage loan repayment is not spent on present consumption and is therefore savings by the above definition.

Savings can also be defined to go beyond disposable income less consumption to include acquisition of durable goods (Issahaku, 2011). Examples of durable goods are; furniture, decoration, textile and home accessories, appliances, computer, equipment and accessories, musical instruments, motor bikes, boats and outboard motors, fishing equipments among others.

Savings can be defined beyond disposable income less consumption and durable goods to incorporate investment in human capital (Andrea and Francisco (1997 and 1998). Investment in human capital include; medical products, apparatus and equipments, professional health services, hospital care, health insurance, encyclopedia and dictionaries, school enrollment and so forth.

Savings in other dimension can be defined as deposits in savings accounts which are done with banks, microfinance institutions, Susu groups and saving avenues. With regards to this definition, savings is considered as increase in one's assets, an increase in the net worth which is usually deposited in savings account. Within personal finance, the act of saving corresponds to nominal preservation of money for future use. A deposit account that pay interest is typically used to hold money for future need, which is an emergency fund to make capital purchase or to give someone else.

In primitive agricultural economy, saving can be viewed as holding back the best of the crop harvest as seed crops for the next planting season. If the whole crops are consumed, the economy will deteriorate to hunting and gathering in the next season.

However, it must be emphasized that the study focus on deposit in savings account specifically financial savings held by banks, micro finance institutions and other saving avenues.

### **2.1.2 Theories of Savings**

**Traditional view of savings capacity:** They purport the idea that rural households cannot save because they are poor. Rural savings and mobilization efforts are thus deemed futile and useless.

**New view of savings capacity:** They suggest that rural households have the capacity and the desire to save and would respond to saving opportunity and incentives

**Absolute income hypothesis:** It postulates that current level of income determines savings

**The permanent income hypothesis:** Posits that savings is dependent not on current income but on permanent and the transitory component of income: It suggests that marginal propensity to save out of transitory income should be greater than that of permanent income. Permanent income is defined as the level of income a household expect to receive over a long period.

**Transitory income:** This represents spurts in income which households experience occasionally.

### **2.1.3 Categories of savings**

Savings can be viewed from two broad categories; these are private savings and public savings. Private saving is done by the private sector of the economy. Private saving is further divided into two; Personal savings or household savings and Business saving.

Household savings refers to saving done by families and individuals, whereas business savings refers to the purchases of new capital equipments or the expansion of its operations. Public saving on the other hand, is the saving done by the government sector including state and local government as well as federal government.

However, it must be noted that the research focus on household saving at Shama which is savings done by families and individuals specifically household heads.

#### **2.1.4 Forms of Savings**

Saving in broad sense consists of two major forms; financial and non financial forms of savings. Financial forms of savings include; deposit accounts, treasury bills, bonds and other securities. Non financial forms of savings on the other hand also include non financial assets such as; farmland, grinding mill, livestock, crops, poultry, houses and other consumer durables.

For the sake of this research the emphasis is on financial forms of savings especially deposit in savings account.

### **2.2 Empirical Review**

#### **2.2.1 Factors that influence the savings behaviour of households**

Haruna (2011) employed multiple linear regression analysis in determining the influence of various factors on savings behaviour. He found out that income level, educational status, assets of household heads, age and occupation have positive significant impact on household savings behaviour. However, household size turns to have negative significant impact on household savings. On the other hand, Qiuxia (2004), researched into the impact of rural enterprise on household savings in China. He used logit regression analysis and found no significant impact of age on household savings.



Mark, et al (1999), researched into determinants of household savings in Australia. They used probit model to analyze the effects of various factors that influence household savings behaviour. The empirical results they arrived at were that, gender has significant impact on household savings. They stated specifically that male has positive significant impact on savings thus males save more than women and the vice versa. They also found out that interest rate has no significant effect on household savings. However, income level, age and household asset were found to have positive significant effect on savings. Household size was also found to have negative significant effect on savings.

Qiuxia (2004), in his survey data used descriptive statistics in analyzing the impact of rural enterprise on household savings in three selected areas in China; Jiangsu, Shandong and Sichuan. The empirical result shows that income seems to be important determinant of savings. He saw a positive correlation between income and savings rate. Household size was found to have negative effects on savings rate but insignificant. He further used logit regression analysis and found that education level has positive impact on savings thus the higher the educational level, the higher the saving and the vice versa.

Lawrence, et al (2009), employs multiple linear regression in analyzing determinants of household savings in rural areas of Kenya. The findings were that education, interest rate, income, occupation and services provided by financial institutions have positive significant impact on savings whereas transport cost and household size were found to have negative impact on savings. Also, further results show that gender has significant impact on savings. They concluded male turns to save more than women. The research indicates that future demand for credit motivates households to forego some current



expenditure, thereby compelling them to save. It has been a pre-condition that households must save a portion of their current income in order to access credit from financial institutions (Mercy, 2009). This encourages households to save in order to meet the requirements for accessing loan(s). The above importance associated with savings provides evidence that poor people in most part of the world accord high importance to savings.

Touhami et al (2009), used multiple linear regression analysis in their micro econometric analysis on household savings in Morocco. The results were that, savings rate impacts positively on household income in rural and urban areas. They saw household size to have negative effect on savings in urban areas whereas in rural areas household size has no impact on savings. They stated that, gender as a variable seems to be important in influencing household saving behaviour, specifically, they found out that men save more than women. Further empirical results from their study indicate that age and assets of households have no impact on household savings behaviour.

Annmaria (2000), in gaining insights into household saving behaviour and in explaining the differences in patterns of accumulation in United States of America. In his further analysis, regression analysis was used and the results indicate that households whose head has a higher education have higher savings. Again they found out that household who experience negative shocks in the past end up having lower wealth. On the other hand, households who receive inheritances or other transfers have higher savings. Another finding was that households who have large pension save more and households who do not plan for retirement have low savings. Finally, he concluded that lack of planning for retirement is an important determinant of low savings among many American households.

John and Grant (1998), in their series of cross sectional surveys rather than a true panel data used a regression model to separate out the effects of age, birth year, cohort and year on savings rate in order to have insight into household savings behaviour in New Zealand. They found out that, age of a household head has a positive significant effect on household savings. Specifically, they stated that savings rate peaks in decade after household heads reaches age 50 and then declines somewhere in the age 60's but still remain well above zero. The further results indicate that, income and education have positive significant impact on household savings. However, household size was seen to have negative effect on savings.

Andrea and Francisco (1998 and 1997), in employing income quintiles they found no correlation between permanent income and savings rate. They use analysis of variance to confirm that the total variance in savings rate is better explained by differences in current income. They concluded that permanent income is not an important determinant of savings rate.

Alma and Richard (1988) in their attempt to analyze savings behaviour among rural household in the Philippines regressed income on savings. They found out that, income is the most important economic variable affecting rural savings. They also saw that, mobilization of voluntary rural savings is necessary for economic development. Their further result shows that household size and transaction cost negatively influence household savings. However, educational attainment, assets of household and interest rate positively influence savings. They further regressed permanent characteristics of households on current disposable income in order to predict permanent income. The results

were that value of physical assets, financial assets, household size and occupation has positive significant impact on disposable income where as education has negative significant impact on disposable income.

Kelly and Williamson (1968), in their attempts to research into household savings behaviour in developing economics in Indonesia, estimated savings functions and the result was that the government employee with the highest income in the group has very low average and marginal savings rate; part of this behaviour may be explained by the group's high educational level. They concluded that income level and educational level have significant impact on savings rate. They further employed regression analysis and the result indicated that the marginal and average savings rate increase with increasing degrees of land ownership. They also found out that age of household head is an important determinant of household savings thus, the marginal propensity to save rose as the household heads grow older because current and prospective income from employment declines as a share of total resources. However, Schulz (2005) who researched into demographic determinants of savings in Asia found no significant impact of age composition on savings.

Mark and William (2005), in their attempt to research into household saving in Russia during transition, made use of panel data to investigate into households characteristics that explain savings during the period of extreme dislocation. In using panel analysis, they found out that savings rate fall with household age but then rise with the trough occurring at approximately 43 years. They also established negative significant relationship between asset of household and household savings, thus conditional on income, asset-poor households may be more disposed to accumulate wealth so as to buffer themselves against

future income shocks. They also found out that, composition of household income has an important impact on saving behaviour. They concluded, relative to regular income, a higher percentage of income from private -transfers' raises savings rate. They also saw occupation to be important determinant of household savings, the empirical result was that those with more adults experiencing arrears in both pension and wage payment are shown to save significantly less. On the other hand, those that have more unemployed individual have lower savings. Finally, they concluded that household savings is significant, particularly among the young and relatively well-off.

### **2.2.2 Benefits households heads derived from savings.**

Haruna (2011), researched into determinants of household saving and investment in Nadowli in the Upper West region of Ghana. He found out that households save due to the following reasons; to cope with unexpected emergencies, to buy some assets, pay for unpredictable expenses, allow for future consumption, accumulate enough funds for investment, to make provisions for retirement, employ teaming unemployed youth, to reap higher returns and for luxury.

Mark, et al (1999), researched into determinants of household savings in Australia. They found the main benefits derived from savings by households to be; provision for retirement, holiday, to buy, improve and upgrade homes, pay- off debt, education, buy durables, and bequest motives.

Annmaria (2000), in gaining insights into household savings behaviour and in explaining the differences in patterns of accumulation in United States of America found the



following benefits of household savings; pension and social security, accumulate wealth, past economic circumstances, expectations about the future and preferences.

### **2.2.3 Forms in which households save**

Haruna (2011), use descriptive statistics to describe the forms in which households' save. He found out that households save in two major forms, thus financial and non financial forms of savings. Financial forms include savings with depository banks whereas non financial forms include farmlands, houses, livestock etc.

### **2.3 Methodological review**

Haruna (2011), used 60 household heads as a sample size in examining determinants of household savings and investment in Nadowli. He used stratified sampling techniques with the help of interviews and discussions to collect cross sectional data. In his analysis, he employed linear multiple regression in analyzing factors that influence household savings behaviour.

Mark et al (1999), In an attempt to examine determinants of household saving in Australia sampled 17,700 households .They collected time series data with the help of telephone interview and questionnaires..They used descriptive statistics in analysing reasons of savings. They used an ordered probit estimation method.

Qiuxia (2004), to describe the impact of rural enterprise on household saving in China sampled 2,200 households with the help of interview and questionnaire to collect cross sectional data. He used Descriptive statistics to compare the saving rate for the three selected areas of their study (Jiangsu, Shandong and Sichuan). He employed Linear

multiple regression to analyse determinants of household saving. They further employed logit regression analysis of the determinants of households financing.

Lawrence et al (2009), in an attempt to examine determinants of household savings, a sample of 359 households were used with multi- stage sampling method. Cross sectional primary data were used with face to face interview method. A linear savings function was used in testing whether there is a linear relationship between the variables in subject.

Tohami (2009), in analysing households' savings determinants in morocco, employed cross sectional data and a representative sample size of 300 households each in urban area and rural area. Descriptive statistics such as graphs and percentages were used in analysing income, poverty and household savings. Linear multiple regression was further employed to assess factors that influence the level of household savings behaviour.

Annmaria (2000), in explaining the differences in patterns of accumulation in United States of America used sample of US households whose respondents were between 1931 and 1941. He adapted OLS regression analysis to examine some factors that explain differences in pattern of savings.

John and Grant (1998), in their objective to assess the household savings behaviour in New Zealand used series of cross sectional survey rather than the true panel data. A sample of 840 households was taken as sample size. In order to separate the effects of age, birth year, cohort and year on savings rate to have insight into household saving behaviour regression model was used.

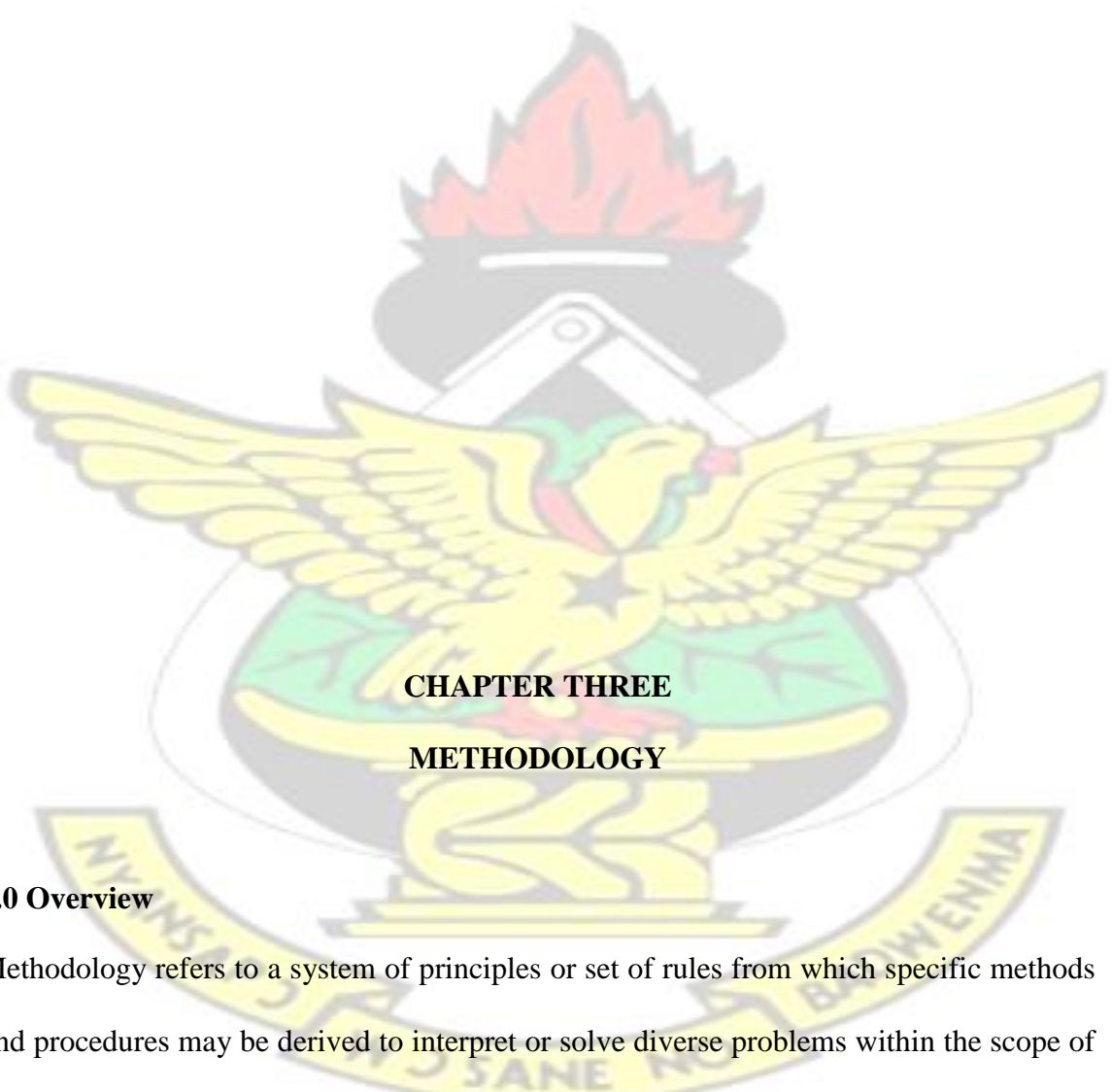
Andrea and Francisco (1997 and 1998), in assessing household savings in Chile used sample size of 5,076 in first survey and 8,445 in the second survey. The information was used for cross-sectional analysis in order to examine the savings rate distribution. Descriptive Statistics (bar chart) was used. Also, Quintile was employed to estimate the correlation between savings rate and income level. ANOVA (Analysis of Variance) analysis was used to calculate what proportion of the total variance in savings rates is explained by each classification. Pie chart was also adapted to illustrate the various forms of savings (human capital durable goods, saving interest). Line graphs were used to project the trend of relationship between age and savings for respective years. For example line graph was used to establish relationship between savings and households with or without transfers as money.

Alma and Richard (1988), in an attempt to analyze savings behaviour in the Philippines, a total of 980 households were randomly selected as sample size with the help of interview. Stratified Sampling was used to select respondents from various provinces. Cross-sectional data was collected. Descriptive Statistics was used to analyze the demographic characteristics of households which have significant impact on savings mobilization. Linear multiple regression was estimated with the help of OLS to estimate the coefficients of the explanatory variables. The dependent variable was savings while the explanatory variables were current, permanent and transitory incomes, wealth, dependency ratio, education, occupation, age and transaction cost.

Kelly and Williamson (1968), in an attempt to investigate into Households savings behaviour in developing economies, case study in Indonesia collected cross-sectional data comprises of sample survey of 490 households. Data was collected on income,

consumption, savings, source of income and the age, sex, place of birth, education, employment status of the household head and other selected economic and demographic information. In order to measure savings directly from family asset and liability data, they estimated savings functions.

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The logo of the Kwame Nkrumah University of Science and Technology (KNUST) is centered in the background. It features a yellow eagle with its wings spread, perched on a green shield. Above the eagle is a red and orange flame. Below the eagle is a yellow banner with the text 'NYANSANJA SANE NUTU BAWENMA'.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Overview**

Methodology refers to a system of principles or set of rules from which specific methods and procedures may be derived to interpret or solve diverse problems within the scope of a particular field. Chapter three outlines the research procedures used to obtain pertinent data or information on the savings behaviour of household heads in Shama. An Inductive research approach where data are collected and a theory developed from the data analysis was implored. This chapter basically talks about the methods of gathering information



relevant to the study thus the population, sampling procedures and techniques, data collection and tools used in analysing the data. . It was organised into seven sections. Section 3.0 consists of overview. Section 3.1 talks about the research design and tools. Section 3.2 gives a description on the population. Section 3.3 represents sampling techniques, sample size and data collection. Section 3.4 represents tools and methods of data analysis. Section 3.5 represents software for data analysis. Finally, section 3.7 community profile.

### **3.1 Research Design**

Research Design can be explained as a blueprint that directs the researcher to achieve the goals or objectives of the study. The research approach in this study was chosen based on the purpose and the research objectives to be addressed. Descriptive statistics was used in the analysis. It deals with presentation of numerical facts on data in either tables or graphs and with methodology of analyzing the data. Descriptive statistics is preferred because it summarizes essential features of data such as; central tendencies, variability and distribution specifically percentages was used in the analysis with the help of tables in the presentation.

#### **3.1.1 Research Tools**

The Research tools are the means which the researcher used to collect data for this study. The research tools to be used are the questionnaire and interview.

Self administered questionnaire was used to ascertain information from literate household heads specifically open ended and close ended questions were used. This was to ensure moderately high measurement validity. A questionnaire is a document containing questions and other type of items designed to solicit appropriate information for analysis.

Open ended questions were used because some questions demanded from the respondents, were to express their opinion. Closed ended questions were also used because some questions require specific response. The questionnaire was designed to encompass four main sections; profile of the household heads, factors that influence saving behavior of households, benefits households derive from savings and forms in which households save.

Face- to- face interview was also used to ascertain information from illiterate household heads. Interview guide was designed as a guide to speed up interview process. Face to face interview is a social interaction between an interviewer and interviewee, where interviewer poses questions and record the answers given by the interviewee. This instrument has the tendency of providing in-depth information on the topic. It also allows the probing and posing of follow up questions by the interviewer. Face- to -face interview ensures relatively high response rate which are often attainable.

### **3.2 Population**

Population is the entire group of individuals or items from which a sample may be selected for statistical measurement. It refers to any person or group of people who can be part of the study. The population is a complete set of subject having common observable characteristics;

The District population currently stands at 81,966 with the females' population being 43,262 representing about 52.78% while the males population is about 38,704 representing 47.22% with a growth rate of 3.2%. About 68.3% of the population of the Shama District Area falls within the economically active group (that is 15-64).

(Source: Ghana Statistical Service).

The research population consisted mainly of all household heads in Shama district.

#### **□ Target Population**

In this research the target population was all household heads in Shama district. Due to limitations of time and funds, the target population in this research covered household heads in Shama which is the district capital. Shama was designated as the target research population to study savings behaviour of household heads.

### **3.3 Sampling Technique, Sample Size and Data Collection**

Sampling technique describes how a researcher selects or chooses the people who should be part of the study. The data collected for this study was from primary data and secondary information. The secondary information includes profile and Map of Shama from Shama District Assembly. Also, theses of earlier researchers were obtained from internet for empirical literature review. Books and journals were also resorted to for theoretical literature review. The primary data include profile of respondents, transportation cost, access to financial institution, value of household assets, benefits of savings and the forms of savings were obtained from household heads. Data type collected was cross-sectional data. A sample unit (1,435) for household heads was collected from Shama district assembly. Simple random sampling technique was used to determine the sample size of 120 household heads through balloting where each household head had the chance of being selected. Purposive sampling was used to interview household heads. This was used because the research was targeted at ascertaining data from only household heads.

### **3.4 Tools and techniques for data analysis and presentation**

#### **3.4.1 Factors that influence the saving behaviour of household heads**

Logistic regression analysis (logit model) was used in the analysis that is inspired by Qiuxia (2004). Logistic regression analysis is uni/multivariate technique which allows for estimating the probability that an event occurs or not, by predicting a binary dependent

outcome for a set of independent variables. It was used because of the non linearity of the effect of independent or explanatory variables on the dependent variable. The aim of this objective is to find out the effects of factors that influence saving behaviour of households. This was used because it provides results which can easily be interpreted and the method is also simple to analyze. However, some weaknesses associated with logit model include; the disturbance term may be heteroscedastic as compared to linear probability model. However, this problem will be catered for by the use of software (STATA). As in linear probability model the conventionally measured  $R^2$  is of limited value to judge the goodness of it. It is difficult for interpretation when the sample size is small.

The specification of this model is of the form

$$sav = \beta_0 + \beta_1 Age + \beta_2 Educ + \beta_3 Inc + \beta_4 Prx + \beta_5 Hasset + \beta_6 Afin + \mu$$

Where *Sav* = Savings behaviour of household heads,

*Age* = Age of the household head,

*Educ* = Educational attainment of the household head,

*Inc* = Income of the respondent, *prx* = proximity measured by transportation cost incurred to and from financial institution where the respondent saves,

*Hasset* = Household asset of the respondent,

*Afin* = Access to financial institutions and  $\mu$  is the error term.

$\beta_0$  refers to the intercept,  $\beta_1$  is the coefficient of Age,  $\beta_2$  is the coefficient of Education,  $\beta_3$  is the coefficient of Income,  $\beta_4$  is the coefficient of proximity  $\beta_5$  is the coefficient of Household Asset and  $\beta_6$  is the coefficient of Access to financial institution. Savings behaviour of household heads is the dependent variable. The independent variables are Age, Education, Income, Transportation cost, Household asset and Access to financial institution.



**Table 3.1: Descriptions and Measurement of the variables**

Variable	Measurement	Apriori
<b>Level of education</b>	Number of years spent schooling	+
<b>Income</b>	Monthly income of household heads in Ghana cedi	+
<b>Access to financial institution</b>	Dummy: 1= Access to loan, account, savings and favorable conditions 0= Otherwise	+
<b>Proximity</b>	Amount of cost incurred in Ghana cedi	-
<b>Age</b>	Number of years attained by household heads	+/-
<b>Household assets</b>	Value of household asset in Ghana cedi.	+/-

**3.4.2 Benefits household heads derive from savings.**

This objective intends to identify the benefits household heads derive from savings.

Hence, this was done by using Kendall's coefficient of concordance (W) to establish whether there is agreement or disagreement among household heads regarding benefits household heads derive from savings. With this, benefits were ranked from the most preferred to the least preferred, where benefit with the least total rank score is the most preferred and the one with the highest total rank score is the least preferred. The range of (W) cannot exceed one (1) and cannot be lower than zero (0). One (1) means perfect agreement and zero (0) means perfect disagreement. The table below represents benefits household heads derive from savings and the expected ranks.

**Table 3.2: Benefits of savings**

Benefits	Mean rank	Sum of scores	Ranking
<b>Support wards' education</b>	XX	XXX	1 <sup>st</sup>
<b>Pay off debt</b>	XX	XXX	2 <sup>nd</sup>

Capital accumulation	XX	XXX	3 <sup>rd</sup>
Meet unexpected emergencies	XX	XXX	4 <sup>th</sup>
Buy and upgrade homes	XX	XXX	5 <sup>th</sup>
Buy asset(s)	XX	XXX	6 <sup>th</sup>
Interest on savings	XX	XXX	7 <sup>th</sup>
Retirement benefit	XX	XXX	8 <sup>th</sup>
Kendall's W	XXX		
Chi-square	XXX		
Asymp. sig.	XXX		

Source: Field Survey, 2015.

In this regard, there was the need for testing hypothesis to establish the significance of the (W). The hypothesis was;

$H_0$ : There is no agreement among household heads regarding benefits they derive from savings.

$H_1$ : There is agreement among household heads regarding benefits they derive from savings.

The F-test was used to test the significance of the value ( $w$ ). With this, the F-calculated is compared with the F-critical and a decision is made.

For F-calculated and F-critical:  $F_{cal} = \frac{(m-1)W}{1-W}$  and  $F_{cri} = \frac{\text{numerator DF}}{\text{denominator DF}}$

Where numerator  $DF = (n - 2) - \frac{2}{m}$  and the denominator  $DF = m - 1 \left\{ \frac{(n-1)-2}{m} \right\}$

or the chi, Where;  $W = \frac{12\{\sum T^2 - (\sum T)^2/n\}}{nm^2(n^2-1)}$  and  $T$  is the sum of ranks for each item being

ranked, where  $m$  = number of rankings (participants) and  $n$  = number of issues being ranked.

### **3.4.3 Forms in which household heads save**

The aim of the objective is to find out the various forms of savings available to household heads. Percentages was used in the analysis, frequency distribution table was used in presentation.

### **3.5 Software for data analysis.**

SPSS (statistical package for social scientists) was used as software in analyzing the data. SPSS is a statistical package designed to help in data analysis. The SPSS was preferred to other software due to the following reasons; it is user friendly for making complete tables and graphs, it has a nice routine in their logic regression model for testing interactions. It includes variety of charts and graphs such as categorical charts, quality control charts, scatter plots, density charts, diagnostic and explanatory plots, probability plots, autocorrelation and partial autocorrelation function plots, cross correlation function plots, multiple use charts etc. It also provides many types of analysis which are not available in other package programmes. However, SPSS has the following limitations; the graph editor is not very versatile, automatic scaling makes it difficult to present different charts using the same scale for comparisons. Thus, need for fast processor for work with charts, lacks many regression analysis techniques. It is also difficult to edit output using SPSS.

STATA was also used in analyzing factors that influence household heads savings behaviour. This was chosen in addition to the SPSS because there was the need to correct for heteroscedasticity which SPSS could not cater for. There was also the need to compute for marginal effect which SPSS could not provide.

### 3.6 Community profile

Shama is the capital of Shama district. Shama lies within the low-lying areas of the country with the elevation in most parts less than 80 meters above sea level. The highest elevation ranges between 150 and 200 meters above sea level. There are areas, mainly the valleys of the main river Pra that does not exceed 150 meters above sea level (mofa.gov.gh). The estimated total population as at 2010 is 17,200 with an annual growth rate of 3.6%. Total number of households present in Shama is 1,435 with average household size of 8. The settlement pattern of the town is nucleated.

Fishing activities are clustered into eight main zones: Shama Apo, Shama Bentsir, Anlo Beach, Samanadze, Abuesi-Abuesi, Amena Ano, Kesewo Kan and Broni-Bema landing beach. However, Aboadze, Abuesi and Shama are the main landing beaches with 1500 registered sea worthy canoes. Crop production is mainly on subsistence basis and very few farmers are medium scale producers. The major crops grown are cassava, plantain, cocoyam, maize, rice, oil palm and vegetables. Oil palm is the major cash crop produced in the District. The average farm size is about one acre per farmer.

The District is sub-divided into four agricultural zones. Land availability; unfavourable land tenure; erratic rainfall; high cost of labour; weak farmer based organisations; high cost of inputs; lack of micro irrigation schemes; high post-harvest losses and high incidence of pest and diseases are the major challenges to crop production in the ShamaAboadze/Abuesi zone. Nonetheless, There is a potential investment in agriculture in

Shama given their annual production per ton and conditions necessary to make Agriculture viable. The following has been captured by the Ministry of Food and Agriculture (MoFA, 2013): as potential investment avenues: Export of fish,



Development of cold storage and fishing preservation facilities, Oil palm plantation, Large Scale Production of Rice and Coconut Plantation.

There is one main financial institution in the District; Lower Pra Rural Bank with branches in Aboadze and Abuesi with its head office in Shama. There are four nonfinancial institutions comprising of Shama Cooperative Credit Union and three (3) Micro-finance institutions Stone quarrying and sand-winning activities are also being carried out on commercial basis employing about 1.5% of the active labour force (Source: Shama District Assembly 2015).

There are various mineral deposits in the District that are not being mined; the Assembly is however planning to enter into partnership with private investors to mine these minerals which would help maximise the benefit of the minerals and to also create employment for the citizenry.

This table shows the type of minerals and their locations in the District;

**Table 3.3: Type of minerals and their locations in the District**

S/N	Type of Mineral	Location in the District
1	Gold	Along river Pra and its valley
2	Salt	Anlo beach, Abuesi, Aboadze, Krobo and Bosomdo
3	Clay	Inchaban, Aboadze, Komfueku and Ituma
4	Kaoline	Apimenyim, Ohiamadwen and Anto
5	Quarry Stones	Aboso, Supomu-Dunkwa, Anto, Apimenyim, Bosomdo etc.

Source: 2014 – 2017 Medium Term Development Plan

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**Figure 3.1 District Map of Shama**

Source: Ghana Statistical Services:GIS

## **CHAPTER FOUR**

### **ANALYSIS, RESULTS AND DISCUSSIONS**

#### **4.0 Overview**

This chapter focuses on the research findings and analysis of data from field survey. The data analysis and presentation was organized into five main sections. Section 4.0 consists of overview. Section 4.1 consists of socio demographic characteristics of the household heads (respondents). Section 4.2 represents analysis of factors that influence the savings behaviour of household heads. Section 4.3 represents analysis of benefits household heads derive from savings. Finally, Section 4.4 consists of analysis of the various forms in which household heads save.

#### **4.1 Socio-demographic characteristics of the household heads**

This section gives a brief discussion of the socioeconomic characteristics of the respondents used for the study that is the household heads of Shama.

##### **4.1.1 Descriptions of the characteristics of some variables**

The table 4.1 below shows the mean values, minimum, maximum and standard deviation of the variables that impact on the savings behaviour of household heads in Shama. The average household size in terms of number of people was 9.2250 and 1 as the minimum and 48 as the maximum household size. Further analysis shows that, most household heads incurred average transportation cost of GH¢2.40 to and from the financial institution in which they save. The average year in terms of educational attainment was 6 years with those having the highest educational attainment to be 16 years. Considering the monthly income of household heads, the average monthly income was found to be GH¢100.00 with



the minimum income of GH¢50.00 and maximum of GH¢4,000.00. Further analysis indicates that, average household asset in value was GH¢6,340.00. It was further realized that, some households do not have assets at all whiles the maximum household assets in value was GH¢99,600.

**Table 4.1 Descriptions of the characteristics of some variables**

Variable	Mean	Minimum	Maximum	Standard Deviation
<b>Household size</b>	9.2250	1	48	6.33712
<b>Proximity</b>	2.4083	0	10	0.97443
<b>Household asset</b>	6340	0	99600	32.9037
<b>Income</b>	100	50	4000	16.34244
<b>Education</b>	6	0	16	1.19215
<b>Age</b>	35	20	60	2.68406

Source: Field survey, 2015

#### **4.1.2 The ages of the household heads**

From the age sex distribution below, the analysis reveals that, most respondents were males (70%) with female (30%) forming the minimum. Further analysis indicates that, most of the respondents (20%) were in the 60 and above age groups whiles the minority of the respondents (0.8%) were in the 45-49 age groups. Rural-urban migration is a major worry and concern to most people in the Shama district. The 60 and above age group constituted majority of household heads because, most people within that age group seems to be aged and for that matter do not migrate to other places. On the hand, the 30-39 age groups

constituted the least because most of youth within this age limit migrate to urban areas with the intention to accumulate quick and enough wealth to meet the needs of their family.

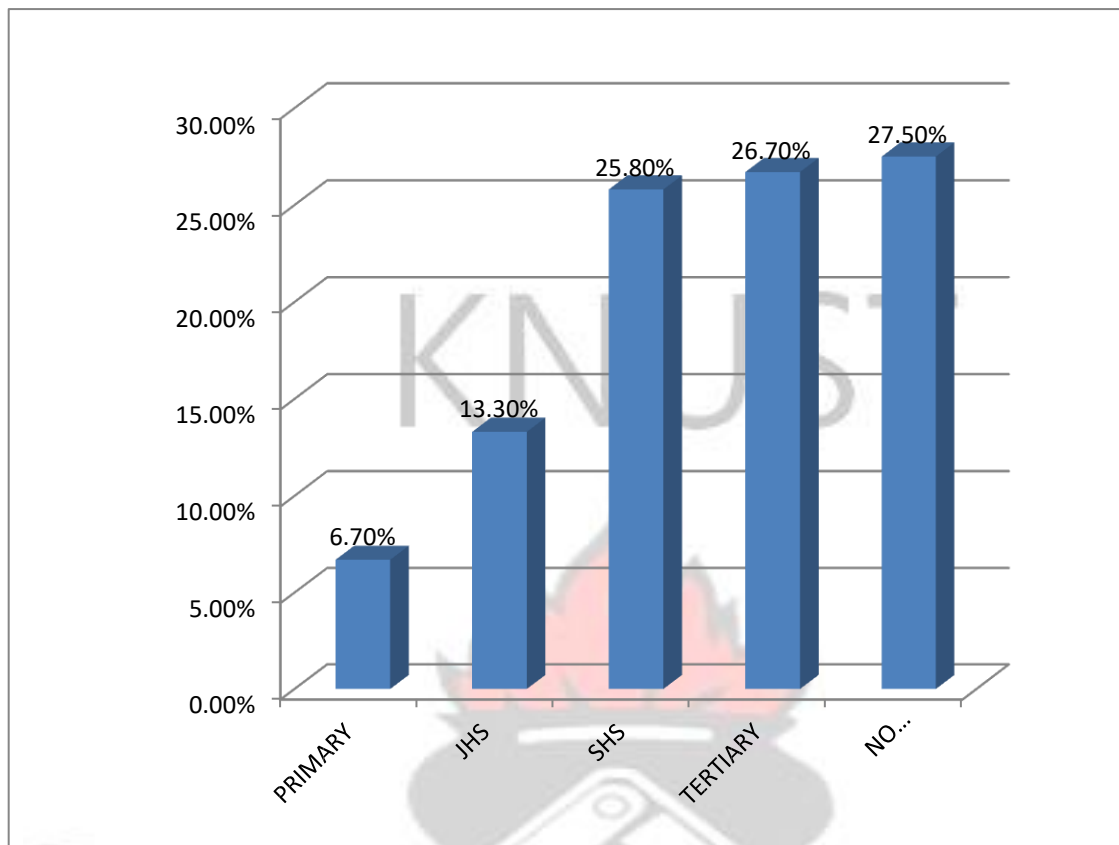
**Table 4.2 Age- Sex distribution of respondents**

Age	Sex				Total	
	Male		Female			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
20-24	4	3.3	3	2.5	7	5.8
25-29	15	12.5	7	5.8	22	18.3
30-34	1	0.8	0	0	1	0.8
35-39	1	0.8	0	0	1	0.8
40-44	8	6.8	2	1.7	10	8.5
45-49	15	12.5	8	6.6	23	19.1
50-54	12	10	6	5	18	15
55-59	9	7.5	5	4.2	14	11.7
60 and above	19	15.8	5	4.2	24	20.0
Total	84	70	36	30	120	100.0

**Source: Field Survey 2015**

#### **4.1.3 Educational attainments of household heads.**

Figure 4.1 show that, most of the household heads had no education representing 27.5%. Also, 26.7% of the respondents had tertiary education such as universities, polytechnics, teacher training colleges and other professional tertiary educational institutions. However, 6.7% of household heads had primary education forming the minimum. Even though household heads in general were not highly educated, they seemed to have understanding on savings. Education enables them to have in-depth knowledge on the need to save.

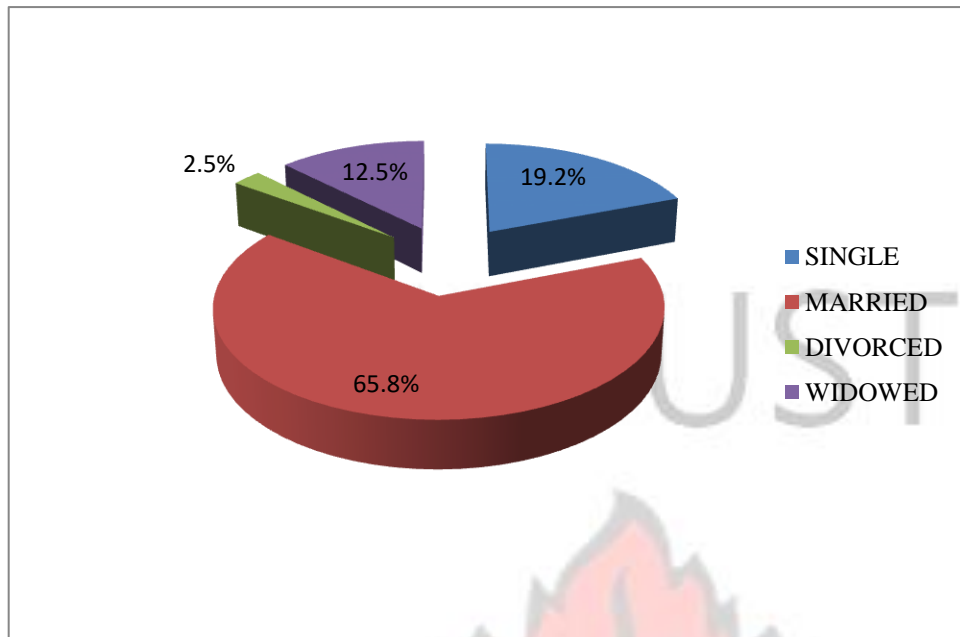


**Figure 4.1: Highest educational level of the household heads**

**Source: Field Survey 2015**

#### **4.1.4 Marital status of the household heads.**

Results figure 4.2 below shows that, most of the respondents (65.8%) were married while others represented as follows; single (19.2%), divorced (2.5%) and widowed (12.5%). The married formed the maximum because they seem to have people who depend on them while the divorced constitute the minimum as a result of their inability to look after their wards.



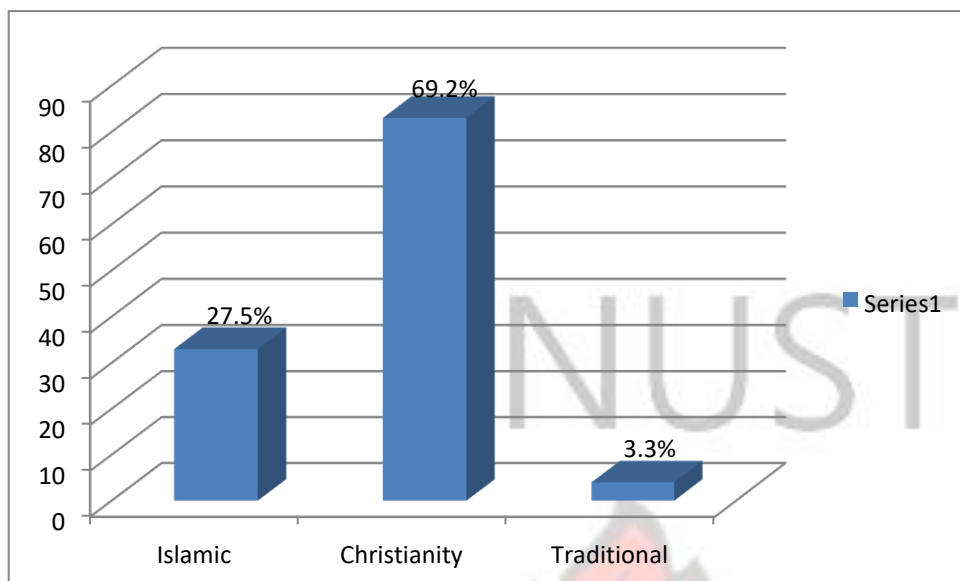
**Figure 4.2 Marital Status of household heads**

**Source: Field Survey 2015**

#### **4.1.5 Religion of the respondents.**

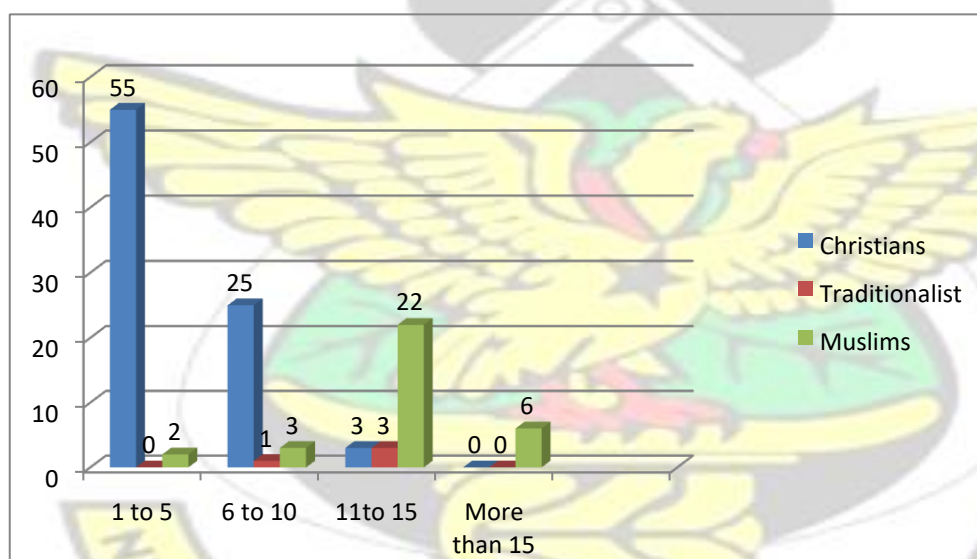
The figure below shows the various religious backgrounds of the respondents. Most household heads who were interviewed were Christians representing 69.2% while traditionalists represented 3.3% of the respondents (household heads). The Christians dominance was due to the fact that, the community under study is a Christian community and further analysis also indicated that religion has an impact of the number of household size. On an average, most of the Christian households' size are between one to five while that of the Muslim household heads had an average household size of eleven to fifteen members.





**Figure 4.3: Religious background**

**Source: Field survey, 2015**



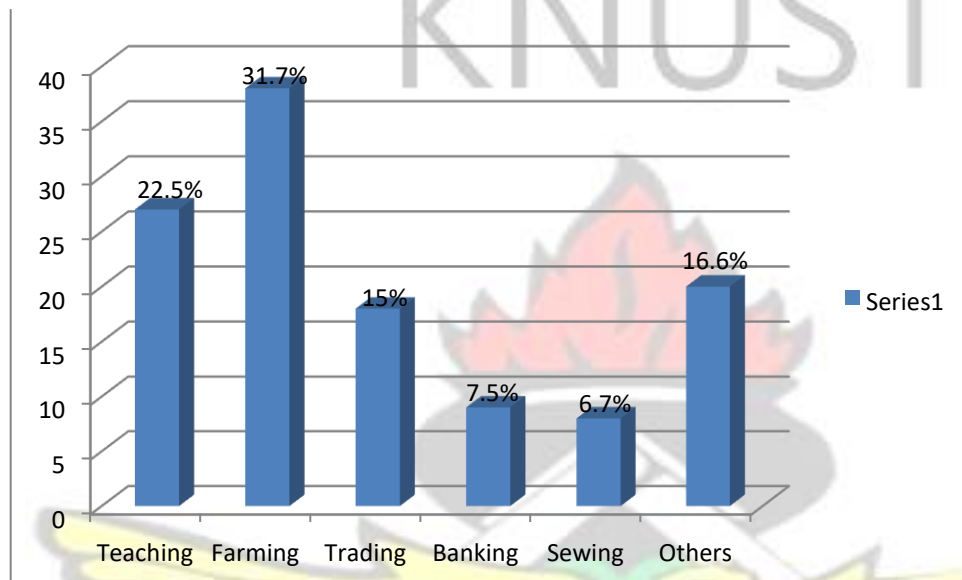
**Figure 4.4 Household size on religious bases**

**Source: Field survey, 2015**

#### **4.1.6 Occupational distributions of household heads**

The occupational distribution below shows that, most (31.7%) of the respondents had farming as their major occupation since Shama is seen as a well known fishing community

even though other farming activities goes on there, while a minority (6.7%) of the respondents had sewing as their occupations. Teaching is the second largest with a 22.5% of the occupational distribution because Shama is a district capital made up of most of the civil servants within the district.



**Figure 4.5 Occupational distributions of household heads**

**Source: Field Survey 2015**

#### **4.2 Determinants of household heads savings behaviour.**

Results from logistic regression analysis shows that, the logistic regression model had high goodness of fit as suggested by the R-square of 90.8%. This indicates that all the six explanatory variables explain 90.8% of the total variation in the probability of household heads savings behaviour. Further analysis show that, all the explanatory variables; age, income, proximity, access to financial institution, educational status and household assets jointly explain the probability of household heads savings behaviour as evidence prove by probability > (Chi-square) of 0.0021. The signs of the coefficient of age, income, proximity, access to financial institutions, education and household asset were as expected.

That is income, access to financial institutions and education had positive signs while proximity had a negative sign. However, age and household asset were expected to have either positive or negative sign. From the table, it is evident that all the explanatory variables (Age, Income, proximity, access to financial institutions, education and household asset) were significant at 5% level. This is because, the  $P$  – values of the stated variables are far less than the actual significant level of 5%. However, the constant (intercept) was insignificant at 5% level since its  $P$  –value is greater than the actual significant level (5%).

#### **4.2.1 Age**

With regards to age of household heads which was significant at 5% level, indicates that an increase in the age of household heads has the probability of reducing savings. The marginal effect of age in Table 4.5 shows that an increase in the age of household heads by 1 year will have the probability of 0.0427573 of reducing household heads savings. This means that, as household heads grow older, they tend to have a lot of responsibilities and most of them don't see the need of saving with a financial institution. Some of them also tend to become inactive and their ability to work to accumulate wealth reduces which affect their savings behaviour.

#### **4.2.2 Income**

Also, income was found to be significant at 5% level. This means income is a good predictor of savings behaviour of household heads. The positive coefficient of income in logistic regression analysis indicates that, as the income of the household heads increases, the probability for them to save also increases since they have enough to take care of their basic needs. Further result from marginal effect analysis also shows that, an increase in

income level of household heads by GH¢1 will have the probability of increasing their willingness to savings by 0.006862. This means that increase income of household heads in Shama positively impact on the probability of them to save and vice versa. The study also found out that, household heads who have low income tend to spend almost everything on their household consumption. This makes it difficult for them to save thereby decreasing their willingness and ability to save.

#### **4.2.3 Proximity**

Proximity to and from the financial institution had negative coefficient which signifies that those household heads who are nearer to the financial institution where they save tend to have higher probability to save. Further results from the marginal effect table indicate that, household heads who incurred GH¢1 transportation cost to and from the financial institution where they save will reduce their probability to save by 0.0966614. This is because household heads who are far away from the financial institution and have to incur transportation cost just to visit their financial institution are actually discouraged to save since there are no savings avenue closer to them. This reduces their willingness to save.

#### **4.2.4 Access to financial institution**

Access to financial institutions was significant at 5% level and a good predictor of the willingness-to-save. The analysis shows that, the sign of the coefficient of access to financial institution is positive. This indicates that, household heads who have access to financial institutions have higher probability to save. On the other hand, households who do not have access to financial institutions in terms of loans, accounts, savings and conditions associated with loans, opening account and savings with financial institutions have higher probability to save. Further result from marginal effect shows that, household



heads who have access to loan, open an account have the probability of increasing their willingness to save by 0.07325. This is because household heads were compelled to save before they could access loan from any financial institution. Also, in the course of opening an account they were oriented on the need to save thereby increasing their probability to save.

#### **4.2.5 Level of education**

Educational status of household head was significant at 5%. It had positive sign of coefficient which signifies that household heads who had higher level of educational attainment have higher probability to save. This is because such household heads seem to have more understanding regarding the need to save and its benefits associated with it. Also, results from marginal effect reveals that, an increase in number of years of education by 1 year for household head will increase probability of savings by 0.1547562. This implies that the higher a household head is educated the higher the probability for him/her to save since they tend to have more understanding about savings as compare to household heads with low level of educational attainment who seem to see the financial institutions as a place for the educated and have little knowledge of the benefits associated with the saving. An investigation was also done on the entrepreneurial behaviour of the respondents with respect to their highest level of education. Out of the 6 respondents who had no education, none of them had any other business aside their main work. For those within the primary category, out of 16 respondents, 12 of them constituting 75% owned a business. For the JHS level, 22 out of 31 respondents constituting 70.97% owned a business. 15 out of 32 of the respondents constituting 46.875% within the SHS category owned a business. Finally, for the tertiary level, 8 out of 33 of the respondents constituting 24.24% owned a business. The implication is that, the higher educated you are, the lesser

entrepreneurial you become or there is an inverse relationship between the level of education and entrepreneurship.

#### 4.2.6 Household asset

Household Asset was found to be significant at 5% level. It had a negative sign of coefficient. This indicates that household heads with higher value of asset had low probability to save. This is because such household heads tend to invest in non-financial asset rather than saving with financial institutions. Results from marginal effect further indicates that, an additional increase in the value of household asset by GH¢1 will decrease the probability of household heads willingness-to-save by 0.0027284. The implication is that, household heads perceive investing in non-financial asset to be more lucrative than saving with financial institutions due to low interest rate on savings.

**Table 4.3 Logistic regression analysis**

Variables	Coefficient	Robust std. Error	Z	P>z
<b>Age</b>	-0.3160102	0.1090139	-2.90	0.004
<b>Income</b>	0.0507214	0.0256209	1.98	0.048
<b>Proximity</b>	-0.7144034	0.3337101	-2.14	0.032
<b>Access</b>	1.87006	0.6507231	2.87	0.004
<b>Education</b>	1.143769	0.3600597	3.18	0.001
<b>Household Asset</b>	-0.0201649	0.0102456	-1.97	0.049
<b>Constant</b>	0.295744	1.095923	0.27	0.787

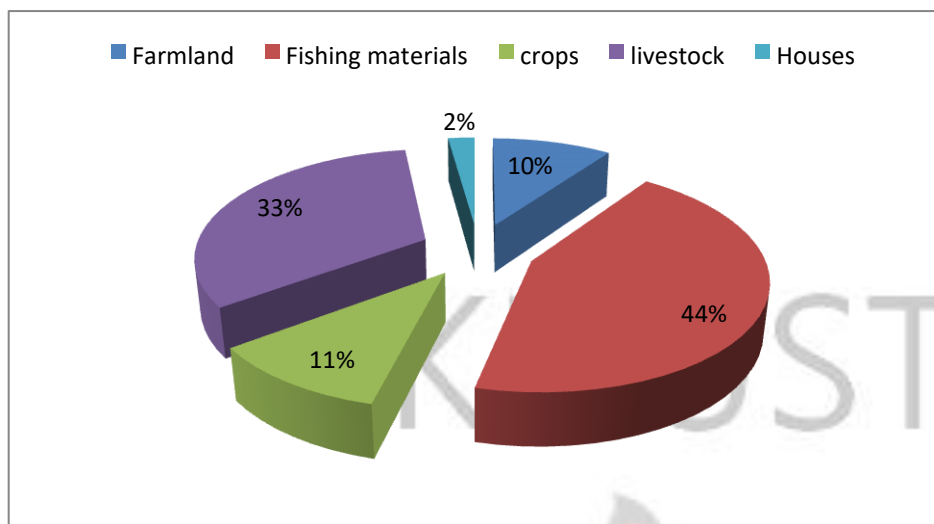
Wald chi2 (6) = 20.65;

Prob > chi2 = 0.0021;

Log likelihood = -29.940488;

Pseudo R2 = 0.9080

**Source: Field Survey 2015**



**Figure 4.6: Distributions of household heads non-financial assets**

**Source: Field Survey, 2015**

**Table 4.4 Marginal effect after logit.**

Variable	dy/dx	Std. Err	Z	P>z	[95% C.I.]	X
Age	-0.0427573	0.01925	-2.22	0.026	-0.080484 -.00503	5.05
Income	0.0068628	0.00351	1.95	0.051	-0.000019 .013745	18.4917
Proximity	-0.0966614	0.05228	-1.85	0.064	-0.199134 .005812	2.06667
Access to financial institution	0.2732515	0.08531	3.20	0.001	0.106038 .440465	0.55
Education	0.1547562	0.03453	4.48	0.000	0.087079 .222434	2.925
Household Asset	-0.0027284	0.00157	-1.74	0.082	-0.005807 .000351	43.9917

**Source: Field Survey, 2015**

### **4.3 Benefits household heads derive from savings.**

This objective seeks to analyse benefits household heads from Shama derive from savings.

Benefits such as Pay off Debt, Capital accumulation, Pay school fees for children,

Retirement Benefits, Improving and upgrading homes, Meeting unexpected emergencies,

Buy asset(s) and interest on savings were identified. Household heads were asked to rank benefits in order of importance. The Kendall's Coefficient of Concordance (W) was used to establish the extent of agreements or disagreements among responses on the issues (benefits) ranked. The benefits were ranked from the most pressing to the least pressing, where a benefit with the least total rank scores is the most pressing. The one with the highest total rank score is the least important. The table below represents benefits household heads derive from savings.

Results from ranks of benefits above shows that the Kendall's (W) is 0.635. This indicates that, there is high extent of agreement among the identified benefits household heads derive from savings but the agreement level is not complete since (W) is less than 1 (one). The asymptotic significance is 0.0000 which confirm the rejection of the null hypothesis that, there is no agreement among household heads regarding benefits they derive from savings.

#### **4.3.1 Capital accumulation**

The research reveals that household heads save purposely to accumulate enough capital for investment. It was observed from the field that, many household heads save in order to invest in micro enterprises just to improve on their standard of living. The research further indicates that, most household heads who engage in petty trading use their savings to purchase goods for resale. Household heads, who make daily contribution with Susu Collectors, also confirm that it serves as an avenue for them to start small businesses.



#### **4.3.2 Payment of school fees**

Paying school fees for children was also a benefit to household heads savings in Shama. Most of the household heads confirm that savings help them to meet the financial needs in educating their wards. According to household heads, this is used to pay school fees for their wards. It also helps them to meet their wards education requirement like buying of exercise and text books and sewing of school uniform for their children and also to buy stationeries needed for sound studies.

#### **4.3.3 Pay off debt**

Most household heads stated clearly that savings help them to settle debt owed to outsiders. During face- to -face interview with household heads, it was realized that savings enable them to pay for goods purchased on credit. This also assists them smoothen their consumption. According to some household heads, savings help them to repay loans they contracted from financial institutions and other private lenders.

#### **4.3.4 Meeting unexpected emergencies**

Some household heads also confirmed that, savings enable them to respond to unexpected emergencies such as sickness, funeral, wedding of friends and relatives. Field survey conducted indicates that savings help to heal the household in times of sicknesses by helping households to pay for their medical expenses. It has also been revealed that savings help households to respond quickly to natural disasters like flood which is common in Shama due to poor drainage system. With this, it helps households to find new shelter for their households when such disasters occur.

#### 4.3.5 Retirement benefits

Further study reveals that, households save in order to live a comfortable life after they have retired from work. The empirical evidence was gotten from those above 60 years who have retired from work. The group came across some household heads who confirm that, they were able to save enough to cater for the rest of their life. A typical example the group found out during the study was contribution to Social Security and National Insurance Trust (SSNIT).

#### 4.3.6 Improving, upgrading homes and buying assets

The study also revealed that some households in Shama acknowledged the fact that saving has been of immersed help to them to improve and upgrade their home and also a good strategy to help in acquiring assets.

#### 4.3.7 Interest on savings

Finally, the study reveals that households in Shama benefits from savings through the interest earned on savings. However, most households complained that interest they earn is very small. This is the main reason why interest on savings was ranked as the least pressing benefit they derived from savings. Most households who save with Susu Collectors also confirm that they do not earn interest on their savings but rather, deduction is made on their savings at the end of the agreed period.

**Table 4.5 Ranks of benefits**

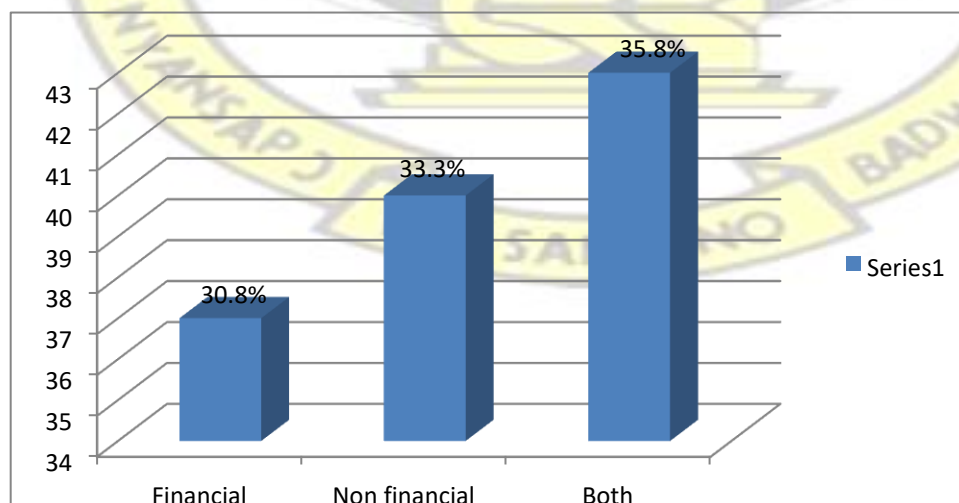
Benefits	Mean Rank	Sum of Scores	Ranking
<b>Pay off debt</b>	3.66	293	3 <sup>rd</sup>
<b>Capital accumulation</b>	1.71	137	1 <sup>st</sup>
<b>Pay school fees for children</b>	2.55	205	2 <sup>nd</sup>

<b>Retirement Benefits</b>	4.79	383	5 <sup>th</sup>
<b>improving and upgrading homes</b>	5.81	465	6 <sup>th</sup>
<b>Meeting unexpected emergencies</b>	3.75	300	4 <sup>th</sup>
<b>Buy asset(s)</b>	6.24	499	7 <sup>th</sup>
<b>Interest on savings</b>	7.49	600	8 <sup>th</sup>
<b>Kendall's W</b>	0.635		
<b>Chi-square</b>	355.496		
<b>Asymp. Sig.</b>	0.0000		

Source: Field Survey 2015

#### 4.4 Forms of savings

The figure below gives the distribution of the major forms in which household heads in Shama save. Two major forms of savings were identified in Shama during the study. These are financial and non-financial forms of savings. Most respondents (35.8%) save in both financial and non-financial forms of savings. Also, some respondents (30.8%) of the respondents said they save in financial form which happens to be the least preferred choice of form in which household heads save. this is due to the fact that, the financial institutions in Shama have not exploited all the opportunities available to them in Shama. The remaining respondents (33.3%) confirmed they save in non-financial forms which happens to be the well known form of saving in Shama.

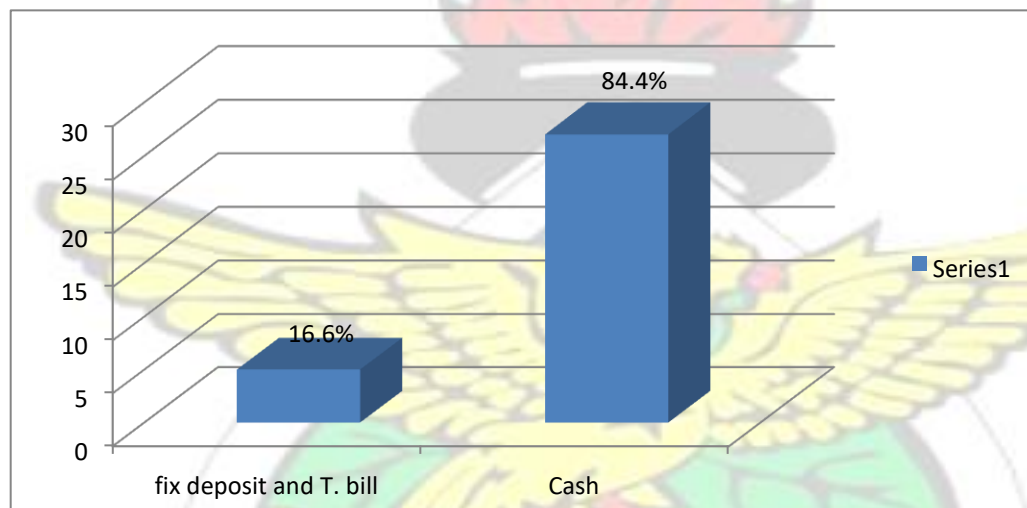


**Figure 4.7 Forms in which household heads save.**

**Source: Field Survey 2015**

#### **4.4.1 Financial form**

Also, it has been identified that the financial forms of savings in which the respondents save include; depositing cash and purchase of treasury bills and fixed deposit with and from banks respectively. Out of 37 respondents who save with banks, only 16.63% said they save in fix deposit and Treasury bill. The remaining 84.4% confirmed they save in cash.



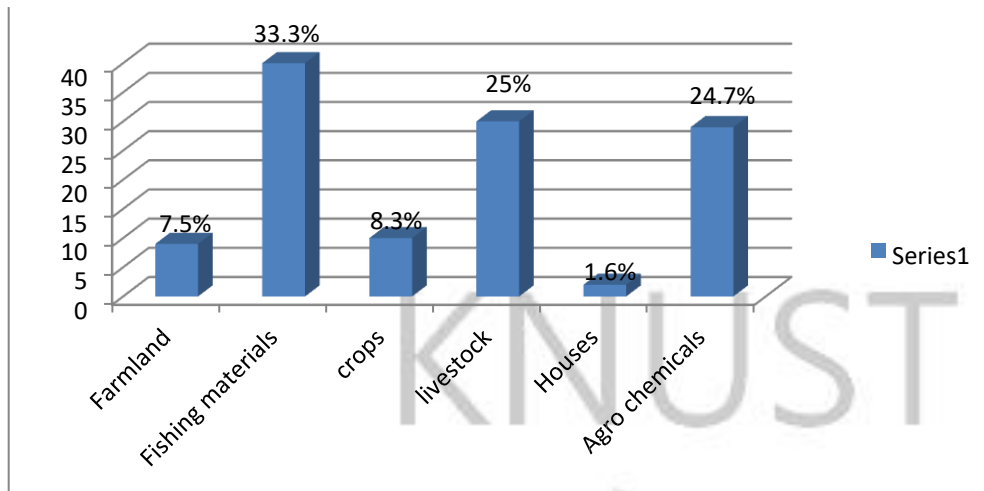
**Figure 4.8 Choice of financial savings.**

**Source: Field Survey 2015**

#### **4.4.2 Non Financial form**

With regards to non-financial forms of savings as identified in Shama, it is confirmed that, most household head fishing materials and this can be linked to the fact that the area under study is a well known fishing community with a 33.3%, followed by livestock and agro chemical business with 25% and 24.7% respectively so these percentages suggest that farming is paramount to the people of Shama. Houses were the least non-financial form of savings with only 1.6%.





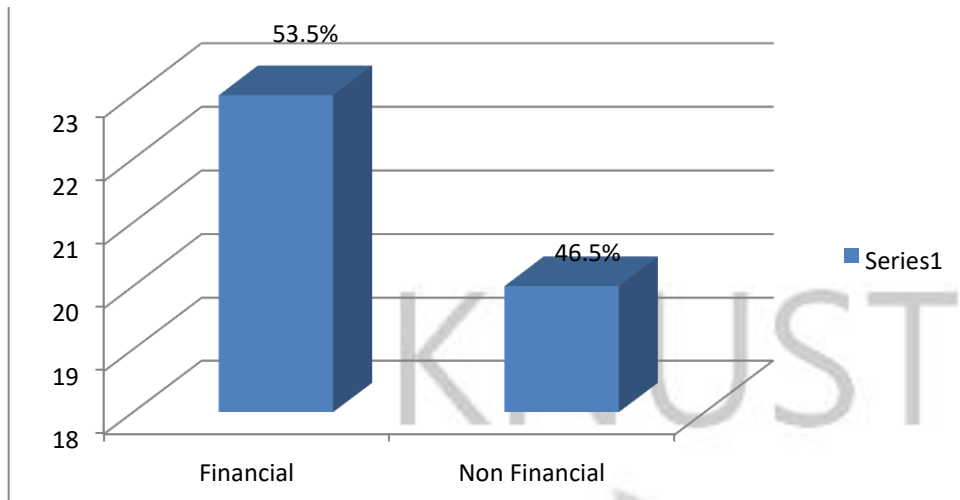
**Figure 4.9 Choices of non financial form**

**Source: Field Survey 2015**

#### **4.4.3 Both financial and non- financial**

In the quest of the study to find out the form of savings which gives a substantial increase in value, questions were posed to respondents who save in both financial and non financial form.

The figure shown below gives a summary of which form of savings gives an increase in value. The responses were taking from household heads who save in both financial and non financial form. 53.5% of the respondents said the value of their savings increase when they save in financial form. On the other hand, 46.5% of respondents said their value of savings increases when they save in non-financial form and this is due increase in inflation, high cost of fuel prices, insecurity of doing business in rural communities, and marketing challenges.

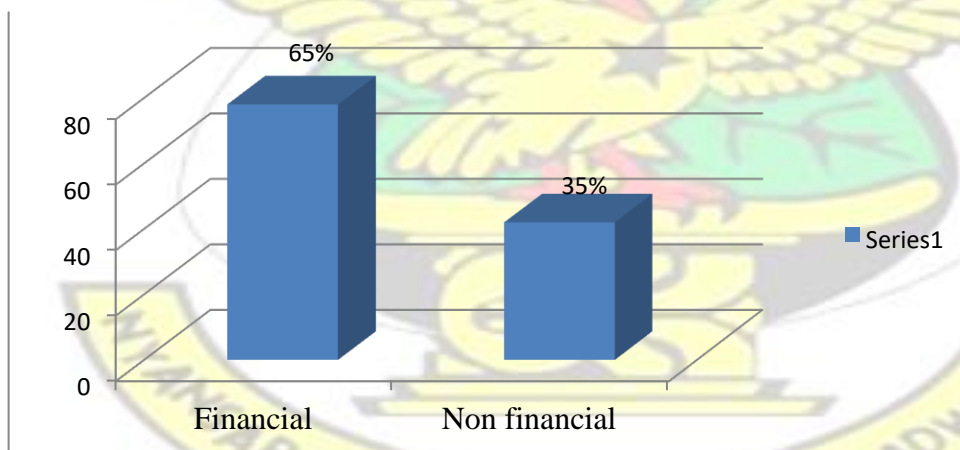


**Figure 4.10 Increase in value of Savings**

**Source: Field Survey 2015**

#### **4.4.4.1 Convenience**

In terms of convenience, 65% of the respondents confirm that, it is convenient to save in financial form especially in Treasury bill since it is a risk free. However, 35% of the respondents confirm it is convenient to save in non-financial form.



**Figure 4.11 Convenience**

**Source: Field Survey 2015**

## **CHAPTER FIVE**

### **CONCLUSION AND RECOMMENDATION**

## 5.0 SUMMARY

With regards to investigation into the savings behaviour of household heads in Shama, this research has provided some insight into how some of those factors interact and affect the savings behaviour of households in Shama.

In the Socio-economic model, age of household head, education, income, access to financial institutions, proximity and household asset were statistically significant showing that household heads with high probability to save were those who attained high level of education, have high income level, have access to financial institutions, closer to financial institution, have low value of household asset and those whose age fall within 20-49 years.

In point of benefits household heads derive from savings, it was found that benefits such as pay-off debt, capital accumulation, paying of ward's school fees, retirement benefit, upgrading homes, meeting unexpected emergencies, purchasing of asset and interest earn on savings were associated with household savings in Shama. However, Kendall's coefficient of concordance (W) of 0.635 revealed that, there is agreement among household heads regarding the benefits they derive from savings in Shama.

Also, concerning the forms in which household heads save, it was revealed that household heads save in two major forms. These include financial and non-financial forms of savings. It was identified that some households save in both financial and nonfinancial forms. However, some households save in either financial or non-financial form. The financial forms of savings identified include depositing cash with financial institutions, buying treasury bills and keeping money at home. On the other hand, the non-financial forms

identified include farmland, crops, fishing materials, agro chemicals, poultry, houses, livestock and other consumer durables.

## **5.1 CONCLUSION**

Earlier studies attempt to investigate into the willingness of households to save have all led to the establishment of the fact that households savings depend on the sociodemographic characteristics of household heads.

Also, various methodologies have been used in analysing issues regarding household savings. Hence, the purpose of this Study is to contribute knowledge on the savings behaviour of household heads' in rural communities: a case study of Shama district of the western region which determines the socio-economic development of the people.

The study has shown that education, income, access to financial institutions have positive impact on the probability of household heads saving in Shama. However, age, proximity and household assets negatively influence the probability of households to save. It was also evident that, benefits households derive from savings are arranged from most pressing to the least pressing as follows; accumulation of capital for investment, paying school fees for children, pay-off debt, meeting unexpected emergencies, enjoy at retirement age, buy asset(s) and interest on savings. Finally, it has been noted that out of the two major forms identified in Shama, financial form of saving is preferred over nonfinancial form of saving. This is because most households confirm that their value of savings is always secured when they save in financial form.

Despite the tremendous role savings play in capital accumulation for investment, most household heads in Shama appear to be having a lukewarm attitude towards savings. This



is partly due to limited appreciation about the key issues that affect the savings behaviour of households in the Shama district.

The last key finding was that the higher educated you are, the lesser entrepreneurial you become.

## **5.2 RECOMMENDATIONS**

Mobile banking system should be introduced by banks in Shama. This will help reduce transportation cost since the study has shown that transportation cost has a negative effect on the probability of households to save in Shama.

Banks should adjust their interest rate on savings to make it attractive to the customers.

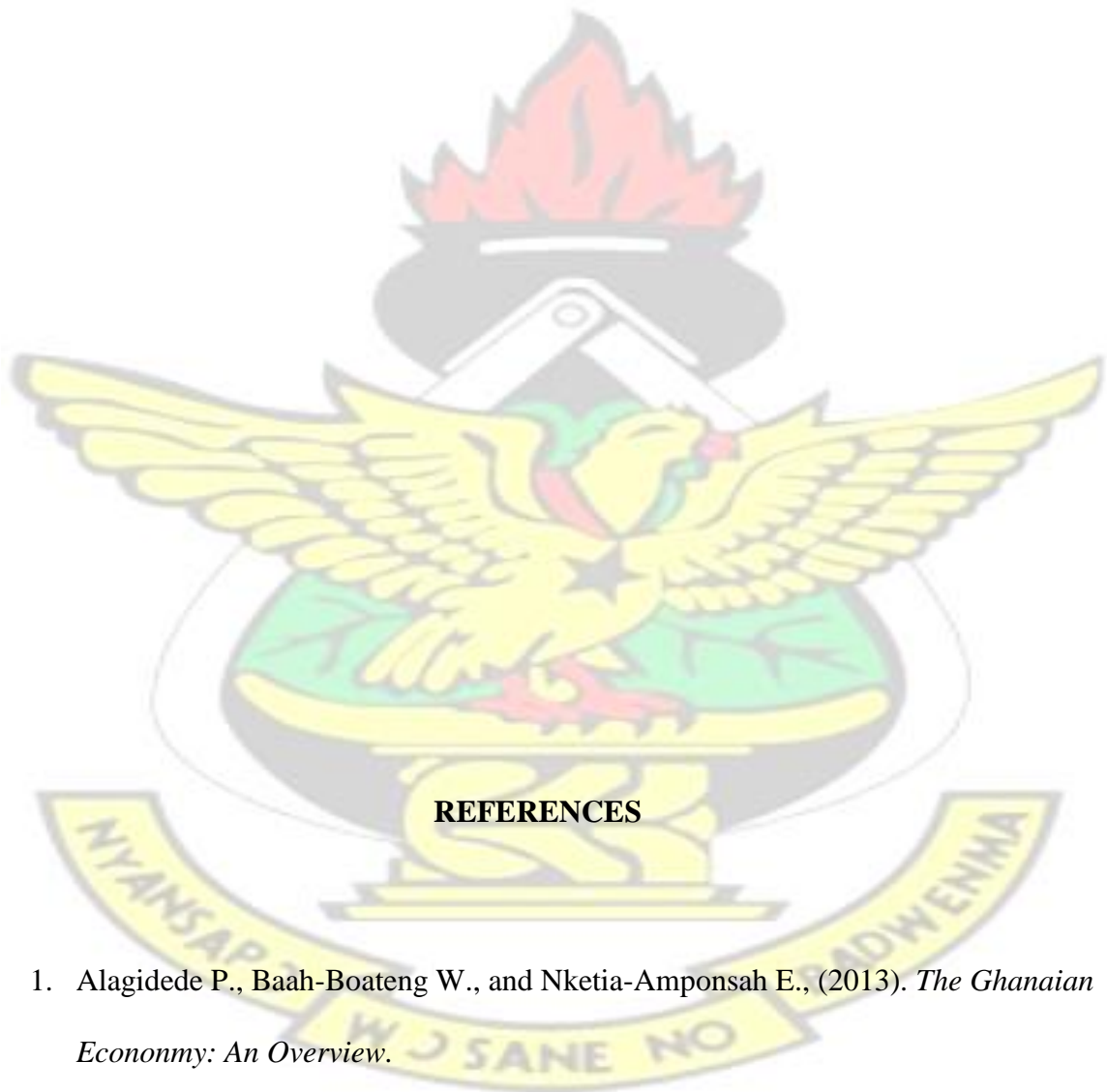
This will help household heads to benefit from savings through interest earning.

Additionally, policy makers and other stakeholders should educate households on the need to save. This will provide an in-depth knowledge to households with no or low level of education on savings in Shama.

The government should boost the income of households in the low income bracket through transfer payment. This will increase the probability of households to save. The government should also create an enabling environment for businesses to thrive in rural communities and this will encourage the educated to be entrepreneurial. Finally the government should reduce taxes on agricultural logistics to encourage most of the youth in the rural communities to invest more in agriculture than the current situation.

Procedures and processes in opening an account with financial institutions should be made simple. This will help household heads to have access to financial institutions, thereby encouraging them to save.

# KNUST



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## **APPENDICES**

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**COLLEGE OF ARTS AND SOCIAL SCIENCES**

**SCHOOL OF BUSINESS**

**MASTER OF BUSINESS ADMINISTRATION**

### **QUESTIONNAIRE FOR HOUSEHOLD HEADS (RESPONDENTS)**

This study is designed to access the savings behaviour in rural communities, a case study of household heads in Shama.

The findings will be helpful to policy makers who are concerned with rural development and also help financial institutions to device policies to improve performance. Your response will be treated with outmost confidentiality.

*Please tick and fill the blank space appropriately.*

**SECTION A: PROFILE OF THE RESPONDENT.**

1. What is your age?

15-19 ☐ ☐ 20-24 ☐ ☐ 25-29 ☐ ☐ 30-34 ☐ ☐ 35-39 ☐ ☐  
40-44 ☐ ☐ 45-49 ☐ ☐ 50-54 ☐ ☐ 55-59 ☐ ☐ 60  
and above ☐ ☐

2. What is your sex? Male ☐ ☐ Female ☐ ☐

3. What is your highest Level of educational attainment?

Primary ☐ ☐ JHS ☐ ☐ SHS ☐ ☐ Tertiary ☐ ☐ No education ☐ ☐

4. Marital status? Single ☐ ☐ Married ☐ ☐ Divorced ☐ ☐ Widowed ☐ ☐

5. Religion? Christian ☐ ☐ Islam ☐ ☐ Traditionalist ☐ ☐ other,  
specify.....

6. What is your main occupation? Teaching ☐ ☐ Farming ☐ ☐ Stone quarrying  
and sand-winning ☐ ☐ Trading ☐ ☐ Dressmaking ☐ ☐ other,  
specify.....

7. Do you own a business? Yes ☐ ☐ No ☐ ☐

8. If yes, specify.....

9. What is your household size?.....

10. Do you have any other dependents living with you? a. Yes [ ] b. No [ ]

## SECTION B: FACTORS THAT INFLUENCE HOUSEHOLDS' SAVINGS BEHAVIOUR

11. Do you have any available means of making some savings? Yes ☐ ☐ No ☐

☐ 12. If yes, please identify from the table below;

Assets	Tick	Number	Average value in Gh¢
Farmland in acres			
Motor bike			
Poultry			
Livestock			
Grinding mill			
Car			
Shop			
House			
Canoe			
Fishing net			

13. If you have other asset(s), please specify

- i. .... ii.  
..... iii.  
.....

14. What is or are your reason(s) for saving?

*Please tick where appropriate*



Reasons for savings	Response
Pay off debt	
Accumulation of capital for investment	
Pay school fees	
Enjoy at retirement age	
Upgrading homes	
Meeting unexpected emergencies	
Buy asset(s)	
Interest on savings	
None of the above	

15. Please, on an average, what is the amount of income that you earn?

GH¢.....

16. How often do you earn it? Daily ☐ ☐ weekly ☐ ☐ monthly ☐ ☐ other, specify  
.....

17. Do you save with any financial institution(s)? Yes ☐ ☐ No ☐ ☐

18. If yes, do you have access to financial institution(s) in terms of the following?

i. Loan. Yes ☐ ☐ No ☐ ☐ ii. Account. Yes ☐

☐ No ☐ ☐ iii. Savings. Yes ☐ ☐ No ☐ ☐ iv.

Conditions. Favorable ☐ ☐ Unfavorable ☐ ☐

19. What is your average monthly savings with the following financial institutions?

20. Are you happy with the services provided by your financial institution(s)? Yes ☐

☐ No ☐ ☐

21. Is your financial institution far from your business location? Yes ☐ ☐ No ☐ ☐

22. If yes, do you incur transportation cost to and from financial institution when you want to save? Yes ☐ ☐ No ☐ ☐

23. If yes, how much cost do you incur? GH¢.....

### SECTION C: BENEFITS HOUSEHOLDS DERIVE FROM SAVINGS

24. Do you benefit from savings? Yes ☐ ☐ No ☐ ☐

25. If yes, please rank the following benefits from 1-8 in order of importance in the table below. 1 is the most pressing benefit and 8 is the least pressing benefit.

Benefits of savings	Rank	Comment
Pay off debt		
Accumulation of capital for investment		
Pay school fees for children		
Enjoy at retirement age		
Buying of, improving and upgrading homes		
To meet unexpected emergencies		
Buy asset(s)?		
Interest on savings		

## SECTION D: FORMS OF SAVINGS

26. Which form do you save? Financial ☐ ☐ Non financial ☐ ☐ Both ☐ ☐

27. Which of these forms of savings is the most important in terms of;

i. Value of savings?

Financial ☐ ☐ Non financial ☐ ☐

ii. Preference? Financial ☐ ☐ Non

financial ☐ ☐ iii. Convenience?

Financial ☐ ☐ Non financial ☐ ☐

28. If you save with bank(s), which forms do you save? Cash ☐ ☐ Treasury

bills/fixed deposit ☐ ☐ other(s) specify

i. .... ii.

.....

iii. ....

29. If you save in non financial form, do you save in any of the following?

a. Farmland. Yes ☐ ☐ No ☐ ☐

b. Fishing materials Yes ☐ ☐ No ☐ ☐

c. Crops. Yes ☐ ☐ No ☐ ☐

d. Livestock. Yes ☐ ☐ No ☐ ☐

e. Houses. Yes ☐ ☐ No ☐ ☐

f. Agro chemicals Yes [ ] No [ ]

g. Other(s), specify

i. .... ii.

..... iii.

.....

30. If you save in both forms, which one do you prefer to the other? Financial ☐ ☐

Non financial ☐ ☐

31. Why?

.....  
.....

**Thank you for your time and co-operation.**

