UNIVERSITY OF CAPE COAST

THE EFFECT OF FINANCIAL LITERACY ON SAVINGS AND INVESTMENT OF PUBLIC SECTOR WORKERS IN THE AJUMAKO ENYAN ESSIAM DISTRICT

GILBERT AFFUL

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BY

GILBERT AFFUL

Dissertation submitted to the Department of Accounting And Finance, School of Business, University of Cape Coast in partial fulfilment of the requirements for award of Master of Business Administration (Finance.)

OCTOBER, 2014

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Signature………………………..……… Date …………………………...

Candidate's Name: Gilbert Afful

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Signature ………………………………….…Date ……….………………

Supervisor's Name: Mr. Patrick Akorsu

ABSTRACT

The interest in financial literacy has increased globally because it enhances financial security, wealth creation and excellent portfolio choice for the individual. The study was set up to investigate financial literacy and the practice of saving and investment by public sector workers in the Ajumako Enyan Essiam district of the Central region of Ghana.

Frequency distributions, percentage, contingency tables and bar charts have been employed to show the results in the study conducted. Despite the high financial literacy rate among the public sector workers in the district, this is not reflective in savings and investment. There is need for more education on financial literacy and application of the knowledge acquired. The result indicates that over 95 percent of the respondents know what a personal budget is. The respondents who prepared a monthly budgets were 72% whilst 28% did not prepare budgets. In fact 52% of these workers who prepare budgets did not follow it every month leading to 76.3% of the workers having their incomes falling short of expenses.

Financial institutions should also develop attractive investment products to encourage public sector workers to invest. Other sources of income generating avenues should be exploited by those whose incomes can barely cover expenses for the month. Education by the state and the financial institutions should be stepped up for the workers to see the importance of using budgets to control their expenses and most importantly its effect on saving and investment.

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DEDICATION

To My Family

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CHAPTER ONE

INTRODUCTION

Background to the Study

There has been rising interest in financial literacy from academic community, international organisations and governments recently. Financial literacy has become a topic receiving growing attention from academic research, practitioners and public agencies.

The Organisation for Economic Co-operation and Development (2005) defined Financial literacy as “the combination of consumers /investors’ understanding of financial products and concepts and their ability and confidence to appreciate financial risk and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being.” Financial education, like all type of education, is about empowering individual so that they are better equipped to analyse diverse (in this case, financial) options and to take actions that further their goals.

Several academic studies have discovered the importance of financial literacy for various aspects of household’s wellbeing and economic stability. It has been shown by Guiso and Jappeli (2008) that financial literacy has serious implication for wealth accumulation and portfolio choice. Furthermore, several researchers stress that financial literacy has an effect on the level of participation in the formal financial market and stock market (Hogarth, & O’Donnell 1999). Concerning the debt side, empirical studies disclose that lack of financial literacy may result in costly borrowing and high debt load (Moore, 2003; Annamaria & Tufano, 2009).

Finally, financial literacy has implications for overall economic and financial development and stability. Thorsten, Demirgüc-Kunt, and Levine (2009) demonstrateed that financial sophistication was correlated with individual as well as economic development. This was reflected through three channels: it increases stock market participation, results in more efficient savings behaviour and as a result raises returns and attracts more investment into the economy.

Statement of the Problem

The problem to be investigated in this study is the financial literacy knowledge level of public sector workers in the Ajumako Enyan Essiam district of the Central Region. Researchers have approached financial literacy in numerous ways, but there appear to be a consensus that financial literacy is the other channel to have an effect on savings and investment, apart from low income and trust in financial institutions. Banks, O'Dea, & Oldfield (2009), showed that lack of financial knowledge translates into lack of retirement planning and saving. Jappelli and Padula (2011) analysed a cross-section data on 39 countries and discovered that financial literacy is a strong predictor of national savings.

Based on the empirical research it may be argued that by improving financial literacy it is possible to trigger the increase in savings and investment. Therefore, the connection between financial literacy of Ghanaian public sector workers and their savings and investment behaviour is the focus of this research. Research findings in other countries shows that, those that are more financially knowledgeable are likely to save and invest (Banks & Oldfield, 2007; Jappelli & Marco, 2011).

Objectives of the Study

The major focus of this research is to examine the level of financial literacy of public sector workers in Ajumako Enyan Essiam District in Ghana.

The specific objectives are to:

1. Examine the knowledge and practice of the public sector workers with regards to budgeting.
2. Examine the level of understanding of the fundamentals of personal finance by the public sector workers.
3. Examine the level of understanding of the basics of time value of money by the public sector workers.

Research Questions

The study will be guided by the following questions:

1. What is the public sector workers knowledge and practice level in budgeting?

2. What is the level of understanding of the fundamentals of money management in personal finance by the public sector workers?

3. What is the level of understanding of the basics of time value of money by the public sector worker?

Significance of the Study

The study is relevant because it will improve the understanding of the various techniques used in managing personal finances of public sector workers in Ajumako Enyan Essiam District, and help them appreciate financial literacy as a tool for achieving personal financial objectives. It is also to help the nation know the level of knowledge in financial literacy among the public sector workers, and it effect on savings and investment in the country to help government put in place policies to improve on financial literacy education as well as adding to the literature and the knowledge base of personal financial management in the country.

Scope and Limitation of the Study

This study is delimited to Ajumako Enyan Essiam District of the Central Region and it focuses mainly on the public sector workers in the District. The researcher choose to limit himself to public sector workers because they are among the most educated group in Ghanaian society and by virtue of taking their salaries from the banks have continuous contact with financial institutions.

The sample size of 274 public servants is relatively small considering the number of public servants in Ghana. It cannot be said with certainty that the sample is an exact representation of the study population in this study. This could also bias the result of the findings and limit its generalizability. The availability of time and adequate budget were some of the variables affecting the sample size and therefore the reliability of the results.

Organization of the Study

Chapter One, Introduction, brings to the fore the background to the study, states the problem to be investigated, the objectives, the research questions, the significance, the limitations and the organization of the study. Chapter Two, Review of Related Literature, explores the concept of financial literacy especially as it applies to personal finance of the public sector workers. Chapter Three, Methodology describes the research design and strategies adopted in carrying out the research. It identifies the population, the study population and how the sample was drawn. It explains how data would be collected ensuring validity and reliability. Chapter Four, Results and discussions, presents and discusses the results of the study in the light of results obtained in other similar studies. Chapter Five, Summary, Conclusions and Recommendations, concludes the study by summarizing, drawing conclusions and making recommendations in the light of results obtained for improving financial literacy among public sector workers in Ghana.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

A lot of research has been devoted to the study of the effects of financial literacy on saving and investment in different countries. The chapter begins with various definitions of financial literacy, it importance and who is a financial literate person as used in different studies then, proceeds with the approaches to assess financial literacy used by different researchers. Finally, the chapter concludes with the theoretical and empirical work on the relationship between financial literacy, saving and investment.

Definition of Financial Literacy

Different meanings of financial literacy have been employed by researchers. However, no consistent definition has been developed. Sandra (2010) reviewed 71 papers on financial literacy and discovered six prevailing definitions aside that of Organisation for Economic Co-operation and Development. These definitions are as follows:

Financial literacy is defined, according to the Organisation for Economic Co-operation and Development (2005), as the combination of consumers /investors understanding of financial products and concepts and their ability and confidence to appreciate financial risk and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being.

Financial literacy is the ability to make informed judgments and to take effective decisions regarding the use and management of money (Micheal, Stoney & Stradling, 1992)

Personal financial literacy is the ability to read, analyse, manage and communicate about the personal financial conditions that affect material wellbeing. It includes the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future and respond competently to life events that affect everyday financial decisions, including events in the general economy (Lois, Anderson, Kent, Lyter, Siegenthaler & Ward, 2000)

Financial literacy is a basic knowledge that people need in order to survive in a modern society (Kim, 2001). Financial literacy refers to a person's ability to understand and make use of financial concepts (Lisa & Kaestner, 2008).

Financial education, like all type of education, is about empowering individual so that they are better equipped to analyse diverse (in this case, financial) options and to take actions that further their goals.

Conceptualization of Financial Literacy

To fully understand and appreciate the concept of financial literacy a full understanding of the meaning of the word "literacy" is necessary. Literacy as defined by the Oxford English Dictionary is the quality or state of being literate; knowledge of letters; condition in respect to education especially the ability to read and write. The Merriam-Webster definition of literacy is the quality or state of being literate. Both the Oxford English Dictionary and Merriam-Webster defined literacy as the quality or state of being literate, but what does it mean to be literate? Oxford English Dictionary defined literate as acquainted with letters or literature; educated, instructed, learned; of or pertaining to letters, literary men or literature; a liberally educated or learned person; one who can read and write. Merriam-Webster defines literate as educated, cultured; able to read and write; versed in literature or creative writing; lucid, polished; having knowledge or competence.

The preponderance of the emphasis on language in the definitions is understandable given the origins of the word literacy. The word literacy was derived in 1886 from the word literate. Literate is the current evolution of the 1432 word *literat* which was derived from the Latin word *litterae* which means letters or literature. It is now being recognized that literacy is not limited to language. Knowledge of a particular subject or a particular type of knowledge and having knowledge or competence as defined by Cambridge Dictionaries Online and Merriam-Webster respectively and the state of being educated, instructed or learned as defined by Oxford English Dictionary recognizes the evolution in the use of the word literate.

Financial Literacy

A review of synonyms in Roget's New Millennium Thesaurus (2006) for the words "literate, knowledge and competence" reveals that "proficiency, resourcefulness and skilled" create a theme for synonyms. A person proficient in a skill area is able to understand and evaluate issues pertaining to the skill area while being aware of the potential consequences. A resourceful person is aware of when they lack the necessary knowledge to make informed decision and they have the forethought to obtain the information to ensure that the best possible decision is made.

Mason and Wilson (2000) defined financial literacy as an individual’s ability to obtain, understand and evaluate the relevant information necessary to make decisions with an awareness of the likely financial consequence. This shows that being proficient, skilled and knowledgeable in financial matters and being able to make decisions with an understanding of their consequences shows your level of financial literacy. Being financially literate is not limited to persons who are proficient and knowledgeable.

The resourceful person who is aware of their limitation in certain financial matters but is able to find the appropriate sources to gain the necessary knowledge to be able to make an informed decision is also financially literate. Mason and Wilson (2000) made it clear that being financially literate does not guarantee that a person will make sound financial decisions, once a person is aware of the consequences of their financial decisions and choices they are financially literate even if the consequence will be negative.

Studies on Financial Literacy

While the need for financial literacy has always been important, more recent market and policy developments have raised the saliency and relevance of financial literacy. Two examples may help illustrate the point. First, complex global financial markets make the 21st century different from previous eras. There is more financial product from which to choose among with a wider array of features.

Second, the burden for financial security in later life has shifted from employers to employees with the decrease in defined benefit pensions, an increase in the use of 401k's, and a more fluid job market than in previous generations - all serving to increase the level of individual responsibility for retirement savings (Consumer Federation of America, 1993).

Since the early 1990s there have been numerous studies that report low level of consumer literacy and financial literacy. The Consumer Federation of America and American Express conducted a series of "consumer literacy" test of high school and college students and adults and found that high school students scored lower than college students and adults (Consumer Federation of America, 1993). Lewis (2010) conducts bi-annual financial literacy test of high school students in 2010 where 52.4 percent answered correctly, an increase from 52.3 percent in 2008, but down from 56.7 percent in 2001. According to them, the level of education and age are the main causes of the difference observed.

The American Saving Education Council (1999) found that 15 percent of students said they understand financial matters very well, 67 percent fairly well, and 18 percent said they did not understand financial matters at all. Similarly, 18 percent thought they did a very good job of managing their money, 38 percent said they did a good job, 37 percent said they did an average job, and 7 percent said they did a poor job.

The Consumer Federation of America and the Cooperative Extension System joined with Consumer Literacy Consortium to quiz 1,700 adults nationwide on a set of consumer skills; the average score was 75 percent correct (Consumer Federation of America 1998). This quiz covered more "buymanship" topics than financial management topics, and it point towards the range of issues that consumers misunderstand. The Retirement Confidence Survey, conducted by the Employee Benefit Research Institute, found that one-third of workers have a "high" level of financial knowledge, while 55 percent have a moderate percent, and 11 percent have a "very low" level of knowledge (Yakoboski & Schiffenbauer, 1997).

The Washington State Department of Financial Institutions conducted qualitative focus groups and quantitative surveys to assess the status of financial literacy among their citizens, with a special focus on those who had fallen victim to predatory lending (Moore, 2003). The lack of awareness of being preyed upon by some victims was identified as a potential stumbling block for public policies and called into question the efficacy of any financial education efforts targeted to potential or actual vulnerable consumers.

Generally, the importance of financial education is given weight by citing what can happen in its absence. For example, some researchers and educators cite mounting levels of consumer – be it credit card of debt or the growth in home equity lending – and bankruptcy as what tends to happen without financial education. Others cite low participation and contribution rates for retirement savings as demonstrating a lack of financial education.

Although few research studies show the correlation between level of financial education and financial management behaviours, a study by Bernheim and Garret (1997) showed that consumers who graduated from states with mandated financial education were more likely to have higher saving rates and higher net worth.

Increasingly, individuals are in charge of securing their own financial well-being after retirement. With a shift from defined benefit to define contribution pension, today's workers must decide both how much to save and how to allocate their retirement wealth. Financial markets have become more complex and individuals are faced with proliferation of new investment products. Investment opportunities have expanded beyond national borders, permitting individuals to invest in a broad range of assets and currencies. However, as the financial crisis has made it clear, it is very hard to navigate this new financial system, and the consequence of mistake can be devastating Annamaria (2009).

Annamaria (2009) concluded in her article *the importance of financial literacy* by saying "in a world of increased individual financial responsibility, where workers are in charge of their financial well-being and where financial markets offer new and complex financial products, financial literacy is essential. Just as it has proven to be impossible to succeed in the modern world without the ability to read and write (literacy), so it will be impossible to succeed in the present-day financial system without knowing the abc's of economics and finance (financial literacy)".

Who is a Financially Educated Person?

Personal financial education means different things to different people. For some it is quite broad, encompassing an understanding of economics and how household decisions are affected by economic conditions and circumstances. For others, it focuses quite narrowly on basic money management – budgeting, saving, investing, and insuring. Still others include a set of consumer and 'buymanship' skills within a financial education framework. In reality, financial education probably can and does include all of these topics Hogarth (2006)

The consistent themes running through various definitions of financial education include: being knowledgeable, educated, and informed on the issues of managing money and assets, banking, investment, credit, insurance, and taxes; understanding the basic concepts underlying the management of money and assets (e.g., the time value of money in investment and the pooling of risk in insurance); and using that knowledge and understanding to plan, implement, and evaluate financial decisions (Hogarth, 2006).

This definition implies that the outcome of financial education is what a financially educated person does which includes behaviours such as paying bills on time, having manageable levels of credit, setting financial goals and having a way of achieving those goals through saving and investing, spending wisely, and so on. The specific implementation of these behaviours may vary by income, family circumstance, and asset level, however. For example, we want all household to set financial goals; for some the goal may be having GH¢500 in an emergency fund, while for others the goal may be having

GH¢50,000 for down payment on a house. These individual behaviours can and should have effects beyond the realm of individual household.

Assessment of Financial Literacy

There are two major approaches to measure financial literacy: self-assessments and objective measure test scores.

Under the first approach respondents are asked to evaluate their literacy skills as well as to provide information about their attitudes towards financial decisions, knowledge and information. This approach has been used by Jappelli and Marco (2011), who performed an international comparison of literacy levels among 55 countries based on the indicator of financial literacy provided by IMD World Competitive Yearbook (WCY). The indicator is computed based on the survey of middle and top managers and business leaders, who are requested to evaluate on 0-10 scale the argument 'Economic literacy among the population is generally high'. Jappelli and Marco (2011) show that this indicator is an acceptable proxy for financial sophistication since it is strongly correlated with the objective measures provided by the Survey of Health, Age and Retirement in Europe (SHARE).

The second approach of measuring financial literacy relies on the objective test which assesses the respondents' knowledge of financial terms, understanding of various financial concepts and ability to apply numerical skills in particular situations related to finance. The objective test has been found to better assess the respondents financial knowledge than self-assessment. The objective test used by various researchers differs in the way they measure financial literacy.

The most popular test is based on three questions developed by Annamaria and Mitchell (2006), which they designed for 2004 Health and Retirement Survey (HRS) in the United States. Those three questions tested the respondents' understanding of compound interest, inflation and risk diversification, concepts vital for educated saving decisions and investment activity. The methodology of Annamaria and Mitchell (2006) has become widely used by researchers globally. Johan and Säve-Söderbergh (2011) used similar questions to assess financial literacy in Sweden. Cole, Sampson, and Zia (2009) follow this methodology in measuring literacy in India and Indonesia. Leora and Panos (2011) assess financial literacy in Russia by using similar questions. The drawback of this methodology is that, these three variables are not the only determinants of financial literacy.

The extended methodology of Annamaria and Mitchell (2006) is applied by Alessie et al. (2008) who used Dutch DNB Household Survey, which includes two more questions on time discounting and money illusion.

Besides these most popular types of objective measures, other studies used other test to assess financial literacy. Christelis, Jappelli, & Marco (2010) studied financial literacy based on The Survey of Health, Age and Retirement in Europe (SHARE) held for eleven European countries. In the Survey of Health, Age and Retirement in Europe (SHARE), financial literacy is measured by testing respondents' ability to perform basic numerical operations and understand basic economic concepts. Guiso and Jappelli (2009) measure financial literacy related to portfolio choice based on the 2007

Unicredit Customers' Survey, which test respondents' understanding of interest rate and inflation, portfolio diversification and concept of risk.

Other researchers use test that focus on measuring financial skills among students. Mandell and Klein (2009) use the question of the Jump$tart Coalition for Personal Financial Literacy Survey conducted in the United States twice a year. This survey is the test for high-school students, which contains multiple-choice questions on income, saving and investing, money management and spending and credit. Chen and Volpe (1998, 2002) measured financial literacy among the US college students based on their responses to questions on general financial knowledge, insurance, investing, saving and borrowing.

Determining Factors of Financial Literacy

The vast majority of the studies on the determinants of financial literacy have been done for developed countries such as the United States, Italy, Australia, and Sweden. Only one paper of Cole, Sampson and Zia (2009) focuses on the determining factors in developing countries, particularly in India and Indonesia.

Among factors that were found significant in various studies are age, gender, level of education, major of studies, occupation, region, area of residence, race and ethnical background and wealth. Let's focus on each of these determining factors and empirical evidence behind it.

Most of the studies have found age to be significant factor in explaining financial literacy. In his study of financial sophistication in

Australia, Andrew (2004) discovers that people aged 50 – 60 are less likely to be financially literate. While studying financial literacy in Sweden, Johan and Säve-Söderbergh (2011) observed that the highest level of financial literacy are demonstrated by those of 35 – 50 and those older than 65 were found to perform the worst. Annamaria and Mitchell (2006) discovered that among the US retirees aged 51 – 56 in 2004 are the least financial literate. Cole et al. (2008) find that age is a significant factor to explain financial literacy in India and Indonesia. Age is found to have a non - linear effect and peaks at 40 years in India and 45 in Indonesia.

There is also rich empirical evidence that gender predicts financial literacy. Numerous studies argue that men are more likely to perform better on various financial literacy tests (Chen & Volpe 1998). Johan and Säve-Söderbergh (2011) explained large gender differences among Swedish individuals by the fact that women in Sweden seldom make economic decisions in the household. Elizabeth and Goldsmith (1997) suggest that women score worse than men because in general they are less interested in the topics of investment and personal finance and consequently, use financial services more seldom.

Some researchers find that those who completed university or college degree are more likely to be financially knowledgeable than those with low education level Cole et al. (2008). In addition to that, Mandell and Klein (2009) have shown that the correlation between financial literacy and education is present at the early stages of life – cycle. He has discovered that children of college graduates perform better on numeracy test.

Several studies even go even further and show that there is a correlation between financial literacy and study major. There is considerable evidence that people who studied economics or business is more likely to be financially knowledgeable. This argument was supported by research of Annamaria and Mitchell (2007), Johan and Säve-Söderbergh (2011).

Occupation is also another determining factor of financial literacy that was found to be significant by many researchers. Worthington (2006) discovers that among Australians professionals, executives, business or farm owners display the highest level of financial literacy, while unemployed and non – working perform the worst, which is in line with the findings of Johan and Säve-Söderbergh (2011) for Sweden. Montincon (2010) observed that in Italy white-collars, managers and self-employed are the most financially literate population groups. Cole et al. (2008) shows that people in Indonesia who own a non-farm enterprise are more likely to be financially literate.

Two papers investigate whether area of residence impacts the level of financial literacy. Cole et al. (2008) find that people who live in rural areas demonstrate the lowest level of financial knowledge. Guiso and Jappelli (2009) argue that the stock market awareness is correlated with the intensity of social communication in the area of investors' residence.

Some researchers look whether nationality and ethnic background impact the financial knowledge among population. Annamaria and Mitchell (2006) find that minorities in the United States, mainly Black and Hispanic, have the worst financial preparation. Worthington (2006) observed that people from non-English speaking background in Australia are less likely to be financially literate.

Some studies like Guiso and Jappelli (2009) and Banks, O'Dea & Oldfield (2009) suggest that wealth has a positive impact on financial literacy since the acquisition of financial knowledge may be motivated by the need to manage own wealth. This idea was induced by theoretical frameworks of Adeline, Rohwedder and Willis (2008) and Joël (2004). Adeline et al. (2008) studied financial literacy in production function with human capital. They postulate that the stock of financial instruments determines the expected return household receives on his / her investment. Moreover, the amount of wealth held in risky assets matters for the return on investment in financial literacy.

Joël (2004) models theoretically the investment of individuals in financial information. He argues that investment of individuals in financial education allows investors to improve portfolio allocation and receive higher risk-adjusted returns. Individuals make their decisions to invest into obtaining new information upon the condition that marginal cost of information acquisition would be equal to marginal benefit from investing, which is expressed as a function of wealth, risk tolerance and expected Sharpe ratio. Joël (2004) suggests that below certain wealth threshold marginal cost outweigh marginal benefits so that investors have no incentives to invest in financial knowledge.

In the above papers wealth has been taken as an exogenous determinant of financial literacy. However, there is some evidence that financial literacy is a critical factor of wealth accumulation (Guiso & Jappelli

2009; Annamaria & Mitchell 2007; Annamaria & Tufano, 2009). Jappelli and Marco (2011) have developed a theoretical model of the consumer's investment in financial literacy. They show that financial literacy and wealth are mutually determined and are correlated over the life of consumer.

Elsa and Chiara (2011) approached the reverse causality problem empirically by using instrumental variables such as interest rates on deposits, dummies are whether a household has self-employed parent and whether the household lives in a house received as inheritance or gift. They find that wealth predicts financial literacy. However, the effect of wealth is minor and only households with considerable amount of wealth are motivated to learn more.

Savings and its Importance

Savings is the portion of income not spent on current expenditures. Because a person does not know what will happen in the future, money should be saved to pay for unexpected events or emergencies. An individual's car may breakdown, their dishwasher could begin to leak, or a medical emergency could occur. Without savings, unexpected events can become large financial burdens. Therefore, savings helps an individual or family become financially secure.

Money can also be saved to purchase expensive items that are too costly to buy with monthly income. Buying a new washing machine, purchasing an automobile, or paying for a vacation can all be accomplished by saving a portion of income.

Amount Saved

To be considered financially secure, an individual or household should save at least six months' worth of expenses. For example, according to Helen (2001) a household that has GH ¢ 1,500 per month of expenses should have at least GH¢9,000 in savings (GH¢1,500 multiplied by 6 months). To reach this amount, it is recommended that 10- 20% of net income should be saved until the appropriate amount of savings is reached. Net income is the amount of an individual's gross pay after taxes and other deductions have been taken out. However for the individual to be able to track revenue and expenses, effective budgeting has been identified as an important tool.

Budgeting

Budgeting can be considered to be one of the everlasting giants in accounting. A budget is the most basic and important tool to help you manage your finances. It is a plan that shows what money you plan on spending and where that money will come from. It allows you to know how much money you plan to spend, and how much money you need to cover your expenses (Bruns & Waterhouse, 1975). The two main parts of a budget are your income and your expenses. Actually, budgeting creates many advantages; most of all is financial control. In short, budgeting sets objectives for revenue turnover and limits for expenses.

According to Van Der Stede 2001, the purpose of a budget is to estimate and track actual expenses in order to minimize the common problems of overusing credit, shorting your savings program and failing to ensure financial security. In essence, a budget is an outline of personal financial goals normally set on a monthly basis. The number of items in your budget will depend on your personal situation and your financial goals. A simple budget can be kept either by hand or on a computer spreadsheet program. The set objectives are monitored throughout the year or month and variances to actual figures are analyzed (Bruns & Waterhouse 1975). Budgets also direct the behaviour of individuals or managers by crystallizing objectives to simple financial figures, which reduces the possibility for interpretation (Marginson & Ogden 2005).

It is easy to forget the basic idea for budgeting. It supports an individual or the company's operations, which are supposed to carry out long-term strategy. Through budgeting, these goals can be clearly outlined ensuring accountability of results (Hansen & Van Der Stede 2004).

Budgeting is one of the key elements for a person's or company's planning and control. Every individual has plans on his or her direction; where, how and when, derived from long-term strategy. The purpose of budgeting is to give those targets and plans financial values, making the progress easily measurable as well as transform those strategic ideas into understandable operative actions (Hansen & Mowen, 1994).

It should be noted that unexpected changes do occur and no plan could be certain. The budget should not be followed to the letter and never should budgets prevent the company or individual react when significant changes occur (Hansen & Mowen, 1994).

The significance of the strategic connection should be considerable. If the budget has not been linked to strategy, the long-term effects of budget-wise actions may lead in the wrong direction. Again, if the strategy is not connected to the short-term goals, the budgeted objectives may be distorted, which is equally troublesome (Hansen & Mowen, 1994). It is interesting that this extremely important issue receives much less emphasis in academic research than the other potential advantages of budgeting (Hansen & Van Der Stede, 2004).

When strategy is incorporated in the corporate world, the budget can be used to communicate strategic plans to the lower-level managers and all the way to the employees. The communication should be continuous, starting from the budgeting process and moving to variance analysis in order to make the budget's role in management accounting much more interactive. If the budget system is interactive, it is much more useful during a strategic change as the company faces increased unpredictability (Abernethy & Brownell, 1999).

Budgeting has many potential advantages. Overall, the purpose of budgeting is to reflect and promote rationality in decision making, since budget gives financial basis for decisions making (Covaleski, Dirsmith & Dirsmith, 1985). From an economical point of view, budgets facilitate decisions by enhancing co-ordination across different spending units within the household or an organization, since through budgeting and the related co-ordination, the interdependencies of the sub-units which is demonstrated and its effect on decisions (Covaleski, Luft, & Shields 2003). Roughly, the advantages of budgeting can be divided into control and performance management, although they are a bit intertwined (Donnelly 1984). In operations management, the budget's main task is to distribute the resources correctly to make the operations as effective as possible where as in control the idea is to keep the operations stabilized, within the fixed guidelines, so the resource spread is not that important (Amey 1979). The biggest difference between these two perspectives is time. Future events cannot be controlled, so control is based on realization where as performance management can use budgets to coordinate actions, which is happening at the moment or will happen in the near future. The effectiveness of budgeting depends also on how individuals or managers make use of information budgeting provides and the level of goal orientation of the whole organization or the individual (Abernethy & Stoelwinder, 1991).

According to Orlando (2009), companies view the financially oriented tasks of budgeting as the most important functions and those tasks are the main reasons why companies want to maintain traditional budgeting. The financial aspects highlight the traditional uses of budgets: forecasts, cost control, cash flow management and capital expenditure. The operational aspects are not seen as important, which might be a good thing as the operational aspects receive the most criticism. However, this does not mean that budgets should only be used for financial purposes, since there needs to be a link to the operations.

Using budgets for setting the unit's objectives can be effective, but using budgets for personal objectives is not viewed as imperative. The use of budgets for personal objective setting and performance appraisal is one of the key criticisms in the beyond budgeting concept (Hope & Fraser, 2003)

The budget is one of the most powerful control tools. It can also play a part in the organization's power politics, since top-down budgets can increase the power and authority of top management and limit the autonomy of lower-level managers (Arwidi & Samuelson, 1993). The traditional point of view for budgetary control is "error-based", which emphasizes the periodic feedback and variance-analyses (Frow, Marginson & Odgen, 2010). Through reporting, the actual figures can be compared to the budget, thus determining current situation in relation to the budgeted objectives. These budget analyses form the basis for financial reporting (Arwidi & Samuelson, 1993). The analyses can be communicated to sub-units and down to personnel to inform how the business is developing. Any significant variance to the budget should alert the management to react. At first this means analyzing the variances in more detail and corrective actions are made only if necessary. Individual months might have faults in the planned figures, such as phasing issues, but if the variance stays or grows, it does raise a question on whether or not there is actually something to worry about. The budget is meaningless for this part if the variances are just noticed, but the manager or individual does not react in any way (Hansen & Mowen, 1994). However, it should be noted that budget is just one of the tools for management control and that control can exist without budgetary control. Control can also be enforced through a combination of results, action and personnel controls (Van Der Stede, 2001).

Effective budgetary control relies almost completely on the idea that the budget gives an accurate picture of the future (Bruns & Waterhouse, 1975). Control usually starts from the controllers and upper management, who follow the monthly results closely. Since a budget's phasing to periods might have some defects, a detailed analysis is more accurate when it is done once a quarter. Then the differences between the budget and the actual figures should be genuine. The comparison should help the management to understand the current situation and to decide what to do in the near future, whether to keep the current direction or try to change the course (Donnelly 1984). Budgetary control becomes problematic, if the market conditions have changed much from the budgeting moment, since the comparability has been reduced drastically. Even though budgets are rarely fixed, it can be possible to make adjustments to the budget making it relevant again to the new reality.

However, when the budget is also used for performance evaluation, it should not be adjusted unless it has become so unrealistic that it does not provide meaningful information for any of its purposes (Van Der Stede, 2001). Control, in the sense of budgetary targets, is seen as one of the key motivators behind performance management. Through control, managers are kept focused on the key issues of the company's business (Frow et al 2010). Budgetary control is also beneficial from a psychological point of view as controlling the costs is considered to be good citizenship within the organization, which makes the managers more inclined in doing so (Marginson & Ogden, 2005). However, the level of control varies. Tight budgetary control should be used for centralized companies in a stable business and more flexible control for companies in a more dynamic and unpredictable business (Covaleski et al. 1985).

There are two different approaches for budgetary control. In "interactive" control performance is regularly discussed, but in "diagnostic" control the focus is only on unfavourable budget variances. The interactive method is mainly for loose control system as it places responsibility on the managers where as the diagnostic control requires managers to explain the differences to the controllers and the upper management, and is therefore used in tight budgetary control (Van Der Stede, 2001).

Nowadays, budget flexibility is often considered to be essential for the managers' ability to react to changes in the market. However, it appears that budget flexibility is required at the level of an individual to give his actions more leeway, rather than at a corporate level, as corporate level budget targets are not that prone to be adjusted. The use of budget flexibility does not reduce the emphasis on budget targets. Flexibility should increase the level of responsibility and thus requires explanation if the targets are not met (Frow et al 2010).

But budget flexibility could decrease the budget related gaming as the objectives can be adjusted when unforeseen events have disrupted the comparability between the budget and actual (Lukka, 1988).

Budgets can also be used to support performance management so that objectives are achieved. If the budget has been prepared properly, it gives detailed information about the future. This emphasizes the budget's role in the decision-making process. Setting objectives is easier than achieving them. The budget creates the guidelines, but individuals or managers must be able to co-ordinate operations so that the budget targets would not become just hollow promises (Reeve & Warren, 2008).

The traditional school of thought considers that without budgets, there is only a vague sense of destination, which causes inefficiency and uncertainty. Budgeting helps to set frames for operations, which increases discipline. Although it may sound restricting, the frames are thought to help the individuals company to react to changing conditions in the market as the budget supports decisions in the market, but without the budget, an individual or company is managed by the market (Donnelly 1984).

However, this line of thought has been heavily criticized, since all too often budgets are considered to be binding contracts; objectives must be achieved since they were agreed on at the beginning of the month or fiscal year (Hope & Fraser 2000).

According to Hope & Fraser (2000) the following steps can be followed in implementing a successful budgeting for the individual or a household.

Step 1: Set Financial Goals

Financial goals are plans for future activities that require you to plan your spending, saving and investing. These goals are the main reason you will be following a monthly budget. Common goals for college students include:

- Short-term goals such as paying off an auto loan, paying insurance and completing college.
- Intermediate goals 2-5 years may include paying off student loans and attending graduate school.
- Long-Term Goals 5years and more may include providing for a retirement fund, saving for a vacation and buying a home.

Step 2: Estimate Income / Salary

Estimating your income is a straightforward process, and should be calculated in monthly increments. For example, if your starting salary is GH¢ 46,000, your monthly income would be GH¢ 2,917 after taxes. Furthermore, you must only include income you are absolutely sure you will receive. If your earnings are irregular or vary by season, always be conservative with your estimations to help avoid overspending. If you expect a cash shortage, make sure to budget it for the future so you may plan ahead to be prepared for the shortage.

Step 3: Budget an Emergency Fund and Savings

The emergency fund is self-explanatory, but should never be shorted. Ideally, your emergency fund should be able to cover a minimum of three months' expenses in case of troubled times.

Step 4: Budget Fixed Expenses

Fixed expenses are relatively unchanging, definite obligations. For example, life insurance premiums, auto insurance premiums and cell phone bill (barring any overages) can be considered "fixed expenses." It is wise to budget fixed expenses before variable expenses because you are obligated to pay fixed expenses.

Step 5: Budget Variable Expenses

Variable expenses represent the most volatile type of expense due to a variety of factors. Variable expenses tend to fluctuate by time of year and health and economic conditions. Variable expenses include entertainment, food/groceries, transportation (including gas and repairs), utilities (electric, water, gas), and other miscellaneous expenses.

Step 6: Track and Review Spending Amounts

After setting your budget, the most important step is to track your spending amounts. At the end of the budgeted month, record actual amounts spent in each category and compare these values to the desired budget value you set previously. The variance column represents the difference (over or under spending) and can provide a detailed look into what you may or may not need to improve.

A budget will only work if you are disciplined enough to follow it. Straying from your goals will make your budget irrelevant and may prevent you from accomplishing any of your financial goals in the near future.

A successful budget must be:

Well Planned – Time and effort must be dedicated in order to provide for accuracy and relevance of your budget.

Realistic – As young public sector worker, current and post-graduation income will usually not be anything to brag about. Being realistic about your financial goals is a key component in successfully budgeting for your future.

Flexible – Unexpected changes will require a budget that you can easily revise.

Clearly Communicated – Make sure you are not the only one who knows about your budget. Communicating your financial goals to others will help solidify your budget's relevance and your determination to follow it.

Where to Save Money

Some savers place their money in a jar, Milo tin or a savings box 'money box'. For short periods of time and small amounts of money, the savings box method may work, but long-term savers should use a safer method. It is wise to store money at a depository institution. A depository institution is a business that offers financial services to people, such as savings and checking accounts. Unlike money stored at home which could be lost to a fire, burglary, or some other type of disaster, money stored at a depository institution is protected from loss (Maziin & Donald, 1990).

Depository institutions offer accounts that earn interest, allowing customers to take advantage of the time value of money. The time value of money means money paid out or received in the future is not equivalent to money paid out or received today. Interest is the price of money. When depositing money at a depository institution, an individual may earn money from interest. The amount of interest earned is determined by calculating a per cent of the total amount of money deposited. This percentage rate is known as the interest rate. Savings accounts, money market deposit accounts, and Certificate of Deposits are the most common depository institution accounts that earn interest (Cook & Rowe, 1986).

A savings account is an account with a depository institution that holds money not spent on current expenditures. Money can be kept in a savings account until the owner needs to use it for emergencies or to purchase expensive items.

A money market deposit account is a type of account that pays a higher interest rate than a savings account. However, money market deposit accounts usually require more money to open and have limits on the number of times money can be withdrawn from the account every month (Stigmun, 1989).

A Certificate of Deposit is an account that pays interest on a lump sum of money. However, once money is placed into a certificate of deposit, it is required to stay there for a specific period of time. If money is withdrawn early, the owner will have to pay a penalty fee. Once the time period is complete, the money and interest earned can be withdrawn. The interest rate money earns in a certificate of deposit is usually higher than a money market deposit account and increases as the time period a person agrees to keep their money in the account increases and as the amount of money placed in the certificate of deposit increases (Fabozzi & Fabozzi , 1989).

When money is saved in one of these accounts, the owner of the money has to do nothing and the value of money automatically increases! The higher the interest rate, the more money is earned. In addition to the interest rate, the amount of money saved and the length of time money is saved affects the time value of money. The larger the amount of money saved, the larger the amount of interest earned will be. The longer money is left in a depository institution account, the longer money will have to earn interest. Figure1shows how $1,000.00 saved at 7% for five years increases to a total of $1,402.55 Initial amount saved $1,000.00

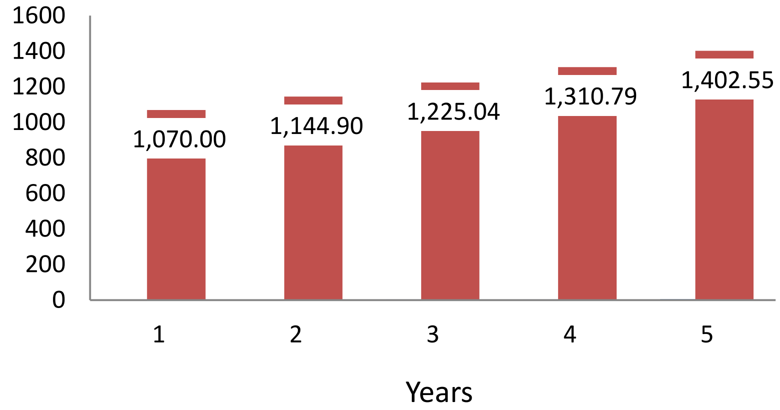

Figure 1: The growth of a thousand US dollar saved

Source: Cook & Rowe, 1986

How to begin saving money

To help a person choose saving over spending money, money should not be viewed as what is remaining after current needs and wants have been satisfied. Pay yourself first is a popular and very effective saving strategy that can help individuals choose saving over spending money. Paying yourself first means to set aside a portion of money (10-20% of net income is recommended) for saving each time a person is paid before using any of the money for spending (Stigmun, 1989).

To successfully practice the pay yourself first strategy a person should set personal goals. Setting goals helps a person choose to save rather than spend money. A goal is defined as the end result of something a person intends to acquire, achieve, do, reach, or accomplish. Financial goals are specific objectives to be accomplished through financial planning and include saving money. Setting goals helps an individual identify and focus on items that are most important to them and then make decisions that help obtain those items.

While in the process of setting goals, an individual should consider the trade-offs to those goals. A trade off is giving up one thing for another. Every decision involves a trade-off. Being more financially secured in the future by saving is a trade-off to spending money in the present. If a person clearly understands what they are giving up in exchange for the benefits of saving money, then their saving goals will become more attainable and realistic. When considering the trade-offs to achieving savings goals, an individual should examine their current spending as well. Spending may have to be adjusted in order to reach a financial goal and practice the pay yourself first strategy. Explore the value of saving money and learn strategies that help people choose to save money over spend money. Learn the advantages of saving money at a depository institution (Madhavan, 2000).

Definition of Investment

The basis for the concept of investment is savings. Savings is defined as the difference between an individual's current income and current consumption (Agyei-Mensah, 2007). When an individual's current income exceeds his current expenditure, that individual is most likely to save. Reilly and Norton (1999), called the actions undertaken by individual's with their savings to make it increase in value over time as investment.

Bodie, Kane, and Marcus, (1992) agreed on investment as being the commitment of current resources in order to receive certain future benefits. In his book 'Investments: An introduction', the writer Mayo categorizes investment into three (3) basic groups; Consumer Investment (investing resources in people with disabilities or family members), Business and Economic Investment and Financial Investment. From these categories, he comes out with what he calls a "satisfactory" definition of investment, where he defines investment as the "purchase of a security or securities that, upon an appropriate analysis, offers safety of principal and a satisfactory yield commensurate with the risk assumed". The definition given by Mayo (1980) is more in line with what he terms Financial Investment, which forms part of the basis of this study.

Reasons why people invest

Investment objectives vary from investor to investor. Generally investors invest to earn desired amount at a later time when they need their funds for their children's upkeep or education, acquisition of properties, retirement, education, among other things. Cheney and Moses (1992) support this generalization when they emphasize that any individual who invests does so to increase his or her wealth systematically.

An organization or a firm invests to increase its capital for expansion purposes or for diversification into the same line of business or different line of businesses. An individual would invest because he has to save enough for children's upkeep or education, acquisition of properties, retirement, and education or even to raise enough capital to set up a business or to learn a trade. Other individuals would also invest because they desire to increase the value of their income. Most often people see the income they earn as inadequate considering their consumption levels. Thus, people would wish to invest to increase their income to be able to live more comfortably. This argument has been accepted by Gitman and Joehnk, (2001). Some writers did a more detailed writing on people's reasons for investing. According to them, there are (2) two basic motives why individuals invest. These are 'profit' – which is an amount made on a transaction (primary) and 'subsidiary' – being a supplementary profit (secondary) motives.

Components of Financial Markets

A financial market is a market in which financial assets (securities) such as stocks and bonds can be purchased or sold. Funds are transferred in financial markets when one party purchases financial assets previously held by another party.

The money market is the market for short-term financial instruments. Money market instruments include Treasury bills, bankers' acceptances, commercial paper, Federal funds, municipal notes, and other securities. The common characteristic of money markets instruments is that they all have maturities of one year or less, and often 30 days or less. The money market does not have one fixed physical location. Rather, trading in money market instruments takes place in large financial centres, like New York and London. Companies and investors often use money market securities as temporary "parking places" for storing cash. While the returns on money market instruments are relatively low, they are among the safest of investment. Indeed, most money market securities are considered cash equivalents and are included with cash on a company's statement of financial position. A money market fund is a mutual fund that invests in money market securities. While money markets instruments already have low risk, the diversity of instruments in a money market fund provides even greater safety. And although money markets funds are not federally insured, they are highly regulated by the SEC (Cook & Rowe, 1986).

A capital market is a market for securities (debt or equity), where business enterprises (companies) and government can raise long-term funds. It is defined as a market in which money is provided for periods longer than a year, as the raising of short-term funds takes place on other markets (e.g., the money market). The capital market includes stock market (equity securities) and the bond market (debt). Financial regulators, such as the Ghana Securities and Exchange Commission, UK's Financial Services Authority (FSA) or the U.S. Securities and Exchange Commission (SEC), oversee the capital markets in their designated jurisdictions to ensure that investors are protected against fraud, among other duties (Fabozzi & Fabozzi, 1989).

Capital market may be classified as primary markets and secondary markets. In primary markets, new stock or bond issues are sold to investors via a mechanism known as underwriting. In the secondary markets, existing securities are sold and bought among investors or traders, usually on a securities exchange, over the counter, or elsewhere.

Primary market is where new stocks, corporate and government bonds are sold. According to Mishkin (2004) it is a market in which new issues of security, such as stocks or bonds are sold to the public initially by a company, corporation to expand its businesses, acquisition of machinery or new technology or diversification or the government sourcing funds from the public for infrastructure or even to reduce the supply of money in the system so as to check inflation. The sellers in these markets are commonly companies, countries, states and cities who have capital requirement and issue new instruments to cover these monetary needs. The bonds offered have different characteristics regarding maturity, interest rate and payment period. When the bonds are issued by governments they are sold in one of these different ways:

Competitive Bid: The bond is sold to the buyer who submits the lowest rate according to conditions of the issuer. The competitive bid could be compared to an acquisition where the buyer stating the best offer will get the instrument.

Negotiated sales: The instrument is issued by a government helped by a buyer. The buyer will set the price and condition together with the issuer and will have the right to sell the instrument. The buyer is mostly an investment bank.

Private placement: The financial instrument would be sold directly to a small group of investor or a single investor.

In primary market the funds go directly to the issuers of stocks or bonds; it is the first step in which the securities enter the market and after that any individual, institution or government who want to buy such instruments have to do that through the secondary market.

Secondary markets on the other hand, trade in stock and bonds already sold to the public between current and potential owners (Reilly & Norton 1999). Basically, this secondary market comes about when individuals or organisations do not wish to hold on to the stock or bonds bought at the primary market and want to retrieve its money invested. The secondary markets have a trading regulation and are supervised by a trading commission to avoid unfair trading and malpractices. These markets have specific trading place and trading hours. The information received by the investors should be the same in the market avoiding the use of privileged information. Some examples of these markets are the New York Stock Exchange (NYSE), The London Stock Exchange and the Tokyo Stock Exchange. The secondary market is the one where all values are resold and the funds go to the investors and not the issuers. In this market, the holder can sell the security at any time. The market assures liquidity at any time.

With the Organised Exchange Markets, exchange are organised by the trade markets where buyers and sellers of securities (or their agents) meet in one central location to conduct trades (Mishkin, (2004). The major distinguishing feature is the fact that, transactions occur in a visible marketplace. Examples are the Ghana Stock Exchange (GSE) and the New York Stock Exchange (NYSE). These are exchanges where security trading is conducted by professional stockbrokers.

On the contrary, Over-the-Counter (OCT) markets have no physical location. Madura, (2001) simply describes such a market as a telecommunication network, where exchanges are done through the use of technology. An example of such a market is the NASDAQ (National Association of Securities Dealer Automated Quotation) now known as NASDAQ OMX AB group due to a merger with OMX AB in 2008. (OMX AB is a Swedish-Finnish financial services company, formed in 2003). The group's principal activities are the provision of products and services for trading in financial instruments and commodities. They provide quotation for OTCs not listed on other markets.

Classification of Investment Products

There are two (2) major classification of investment product traded in a financial market; short-term investment products and long-term investment products. Short term securities are investment products maturing within a year or less and therefore afford individuals, organizations and corporate bodies to put idling funds or money into good use (Stigmun, 1989).

These are relatively the commonest of all short-term investment products since they are the simplest form of borrowing from the financial market. Government treasuries usually issue them; they are means by which governments borrow from its citizens for infrastructure, as a means to check money supply in the system against inflation or to compensate for deficit in the budget of the country. Individuals can purchase Treasury Bills with maturities ranging between three, six and twelve months from banks and other depository institutions or on the secondary markets from government security dealer. They are usually sold at auction on a discount basis with a yield equal to the difference between the purchase price and the maturity value (Cook & Rowe, 1986). Formally treasury bills could be purchased directly from Bank of Ghana but in 2002 Bank of Ghana directed that these should be purchased from the commercial banks. Treasury bills are highly liquid, that is, they can be easily converted to cash and sold at low transaction cost. Because of this high liquidity, the yield rate on Treasury bill is normally lower than on longer-term securities. Prices of treasury bills do not usually fluctuate as much as those other government securities but may be influenced by the purchase or sale of large quantities of bills by the central bank.

Certificate of Deposit is a receipt from a bank acknowledging the deposit of a sum of money. Among the common types are demand certificates of deposit and time certificate of deposit. Demand certificate of deposit are payable on demand but do not draw interest; they are used primarily by contractors as evidence of good faith when submitting a bid or as a guarantee of performance, and they may also be used as collateral to secure a loan. Time certificate of deposit bear interest and are payable on or after a specific date. Interest on time deposit is higher than for regular savings accounts. Because of this, a depositor who withdraws money deposited on a time basis before the maturity date of the certificate is subject to loss of interest (Fabozzi & Fabozzi, 1989).

Commercial paper, a third source of short-term credit, consists of well-established firms' promissory notes sold primarily to other businesses, insurance companies, pension funds, and banks. Commercial paper is issued for period varying from two to six months. The rates on prime commercial paper vary, but they are generally slightly below the rates paid on prime business loans. A basic limitation of the commercial-paper market is that its resource is limited to the excess liquidity that corporations, the main suppliers of fund, may have at any particular time. Another disadvantage is the impersonality of the dealings; a bank is much more likely to help good customers weather a storm than in commercial-paper dealer (Stigmun, 1989).

Long term securities are investment products maturing over a year or more and therefore afford individuals, organizations and corporate bodies to put idling funds or money which they might not need in the near future into good use (Fabozzi & Fabozzi, 1989).

A stock or share is a portion of capital of a company owned by a holder. Shares are values whose profits cannot be determined by predefined calculations. Their profits are a function of the economic and financial development and the supply and demand relationship within the market. Stock can be issued only by companies and can only be traded in established exchange markets also called bourses, a word which is derive from a Latin “bursa” meaning purse. There are several types of stocks available in the market, common stock, preferred stocks and treasury stocks (Stigmun, 1989).

The owners of a company or shareholders might want to raise the capital to invest in new projects, research or development. By issuing stock they can sell a part or the whole company in many small portions to other companies or private investors interested in the organisation. Each investor who holds even a single stock, shares the ownership of the organisation and has the right to receive a fraction of the profits the company makes, these fractions of the profits is known as dividends. Dividend amount and payment date have to be declared (announced) and can be paid to the investor in one of the following methods:

Cash Dividends: This is the most common way of companies to share the profits, and is that dividend paid in real cash being a form of investment interest-income.

Stock dividends or split dividends: This profit sharing consists in giving each stockholder additional stocks of the issuing or other company, usually issued in portions of stock owned.

Property dividends or dividend in specie: These dividends are the ones paid out in form of assets from the issuing or other corporation, commonly paid in form of goods or service provided by the company.

Common stock or common shares are the ones which typically have voting rights in corporate decisions. This kind of stocks, as the name implies, are the more commonly held type of stocks in a corporation.

Preferred stocks have priority in the distribution of dividends and assets carrying also additional right above the common stocks. There are issued to distinguish between the control of and the economic interest of the company.

Treasury stocks are the shares which are bought back in the market by the issuer company. Organisation buy their own stocks in the market in order to decrease the number of stocks circulating or when they perceive the shares are undervalued for example. Treasury stocks does not pay dividends, have no voting rights and cannot exceed the 5% of total capitalization.

Bonds can be defined as long-term, fixed-obligation debt securities packaged in convenient, affordable denominations for sale to individuals and financial institutions. They are sold to the public and are considered fixed-income securities because they impose fixed financial obligations on the issuer who agrees to pay a fixed amount of interest periodically to the holder and repay a fixed amount of principal at the date of maturity. Short term issues with maturities of one year or less are traded in the money market. Intermediate-term issues with maturities in excess of one year but less than ten years are instruments as notes and the long-term obligations, with maturities longer than ten years are called bonds. All bonds have different characteristics based on its intrinsic features, its type, its indenture provisions and the features that affect its cash flows and/or its maturity (Lederman & Park, 1991).

. There are some important intrinsic features in all bonds, this features according to Lederman and Park, (1991) are as follows:

Coupon: the coupon of a bond indicates the income that the investor will receive over the life or holding period of the issue; this is known as interest income, coupon income or nominal yield.

Term of maturity: specifies the date or number of years before the bond matures or expires. The maturity can be called a term bond, which has a single maturity date but can also be a serial obligation bond which has a series of maturities being each maturity a subset of the total issue.

Principal: the principal or par value represents the original value of the obligation. The principal is not the market value of the bond. The market price rises above or falls below the principal because of differences between the coupons and the prevailing market interest rate. If the market interest rate is above the coupon rate, the bond will sell at a discount par. If the market rate is below the bond's coupon, it will sell at a premium above par.

Ownership: bonds differ in terms of ownership. With a bearer bond, the holder or bearer is the owner, so the issuer keeps no record of ownership. Interest from bearer bond is obtained by clipping coupons attached to the bond and sending them to the issuer for payment. In contrast, the issuers of registered bonds maintain records of owners and pay interest direct to them.

Effect of financial literacy on saving and investment

There is considerable evidence that financial literacy predicts savings both at cross-country and individual levels. Jappelli and Marco (2011) analyse data for 39 countries and found that financial literacy was a determinant for the level of national saving and that the impact of financial literacy was potentially large: one standard deviation increase in overall financial literacy score drives 3.6% increase in national savings.

Most of the empirical studies are done for developed countries such as the United States, The United Kingdom, Italy and Netherlands and the work by Leora and Panos (2001) on retirement planning in Russia. While analysing households' behaviour in developed countries numerous studies demonstrate that financial literacy may have acute implications for retirement planning and saving decisions. It has been shown by Annamaria and Mitchell (2006) that less financial literate people are less likely to save for retirement. This argument was supported by Banks et al. (2009) who observed that low financially sophisticated individuals are more likely to be retirement ready and have higher retirement income.

Moreover, several studies reveal that reveal that low financial literacy translates into lack of retirement planning, Alessie, Annamaria & Maarten van

Rooij (2008). This fact may be explained by several factors. First of all, it has been demonstrated that lack of numerical skills impacts perceived financial security, Banks and Oldfield (2007) and retirement expectations (Banks et al. 2009). Secondly, low financial literacy raises planning costs, meaning economic and psychological barriers to obtain information required for saving and investing (Alessie et al. 2008).

Concerning the developing countries, Leora and Panos (2011) investigate the impact of financial literacy on the retirement saving in Russia. They found that higher financial literacy is positively related to retirement planning and investing in private pension funds.

However, while studying the impact of financial literacy on saving and investment one should be careful because of reverse causality issue since one can acquire financial knowledge in the process of developing and implementing a saving plan.

Several researchers recognise endogeneity of financial literacy with respect to saving decisions (Annamaria & Mitchell (2008). However, only two studies, Jappelli and Marco (2011) and Annamaria and Mitchell (2009) explicitly address this issue with instrumental variable method. They argue that the stock of financial literacy before entering a labour market is an applicable instrument for financial literacy in the saving regression. Their choice of instrument has been supported by Pamela and Holden (2010) who find that early-life education is a strong predictor of late-life financial knowledge and a significant instrument in first stage regression of savings on financial literacy stock.

CHAPTER THREE

METHODOLOGY

Introduction

A suitable methodology enables a researcher to collect valuable data for his/her study, analyses and present them in a chronological manner. The purpose of this chapter is therefore to explain how the fieldwork was organized and why such a perspective methodology was adopted to achieve the stated objectives of this study.

Study area

The Ajumako Enyan Essiam District of the Central Region of Ghana has been chosen as the study area for this research work. The reason is that the district is one of the oldest districts in the country and has most of the offices of the Ministries, Departments and Agencies (MDAs). Apart from the small businesses undertaking investment decisions resulting in the inflow of funds and financial security of the owners, the important role played by the public sector workers in the inflow of funds and financial security is area to many stakeholders and therefore demanding investigation in this study.

Research design

Leedy & Ormond (2005) defined a research design as a plan for research that guides the collection of data and the methods of analysis that were performed. According to Bell (1987) a design is a set of logical procedures that if followed enables one to obtain evidence to determine the degree to which one is succeeding or failing in an undertaking. A research design is thus a plan and structure of investigation designed to obtain answers to the research questions. It is a procedure for collecting, analyzing and interpreting data so that the research problem can be solved. It is the basic plan or strategy of the research and the logic behind it, which makes it valid to draw more generalized conclusions from it, holds all parts and phases of the inquiry together. Cooper and Schindler (2006) perceive that the research design is the blueprint for fulfilling objectives and answering questions. Research design refers to the process of research from conceptualizing a problem to writing research questions, and on to data collection, analysis, interpretation, and report writing (Berg, 2004). Yin (2009) commented, "The design is the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions" (p.24). The research would employ a survey design using a pre validated questionnaire as a data collection tool.

The survey was used to generate data. As a tool for gathering data at a particular point in time, the survey method is to serve the purpose of collecting comprehensive information on the financial literacy level of public sector workers. Accordingly, a pre validated questionnaire was designed to assess the financial literacy level of public sector workers. A cross-sectional data was collected from various offices and schools in the district within a two week period that spans from 15th to 30th May, 2014.

Population of the Study

The population of 963 was obtained from the Treasury Department at the District Assembly. This was mainly public sector workers in the Ajumako

Enyan Essiam District. The target population for the study was made up of all Junior Staff and Senior Staff of public sector workers in the district. These include workers of the District Assembly, Ghana Education Service (teaching and non-teaching), Ghana Police Service, Ghana National Fire Service, National Health Insurance Scheme, National Disaster Management Organisation, Information Service Department, Non-Formal Education Department, National Commission for Civic Education, National Board for Small Scale Industries / Business Advisory Centre, Department of Birth and Death Registry, National Youth Council, Judicial Service Department, Commission for Human Rights and Administrative Justice, National Service Secretariat, Ghana health Services and Department of Agriculture.

Sample Size

According to Cohen, Manion and Morrison (2000) as adopted from Krejcie & Morgan (1970), when a target population is 950 a sample size of 274 must be drawn and since our population was close this figure the researcher decided to draw a sample of 274 for the study.

Sampling Procedure

A population of 963 public sector workers obtained from the treasury department constitute the sample frame. Simple random sampling techniques was used in selecting the respondents from sixteen identified offices of Ministries, Department and Agencies in the Ajumako Enyan Essiam District to ensure that every element of the population has an equal and independent chance of being selected.

The simple random sampling as applied to the study begun by assigning each person in the sampling frame a unique identification or code number starting from 001 until all are covered. Then starting randomly in the table of random numbers, the researcher looked at the last three digits of the first random number and select for the sample the person whose identification number matched those digits. Those random number digits outside the range of identification numbers were skipped. The process continued until the desired number of 274 out of 963 sampled. Each person in the sampling frame has equal and known probability (1/N) of being in the sample.

Data collection

Both primary and secondary data was collected for the study. Primary data was collected using structured questionnaires and personal interviews from the public sector workers. Apart from this, informal discussions with friends and relatives were also carried out. The questionnaire for public sector workers had three sections. The first section sought to elicit information relating to demographic records of the respondents such as age, gender, level of education, area of study and profession. The second section aimed at deriving information about the level of knowledge of public sector workers on financial literacy. Questions in this section was on budgeting, simple and compound interest, inflation and purchasing power, sales discount and loan with prepaid interest. The third section sought information from respondents on what percentage of their income they are able to save in a month, where those savings are kept and how they intend to invest the savings.

Pilot Study

A pilot study was conducted using a sample of 50 public sector workers from Mfantseman district on the assumption that they have similar characteristics of those to be interviewed in the main work. Out of the fifty public sector workers sampled, 40 responded making up 80%.

The pilot study was necessary because it helped the researcher to:

1. Determine if it was worth the time and resources to undertake the proposed research.
2. Check the validity of procedures used and whether the respondents understood the questions as intended by the researcher.
3. Detect any demand- characteristics present in the research setting or procedure that 'push' respondents to avoid answering or responding in a certain way.
4. Check the reliability of the research instrument by computing the alpha coefficient for the items of the subscales to be used.
5. Roughly estimate how much time would be required for the research tasks and the data collection as a whole.

The pilot study revealed that because of the different levels of the educational background of those public sector workers in the district, understanding of the research instrument was not uniform. I therefore decided to leave my cell phone number so I can personally explain the questions respondents may have difficulties with.

Ethical Considerations

Research is described as social because it involves many people such as sponsors, readers, respondents, etc. The conducting of research requires the rights of these people be recognized and protected. In the data collection process, the respondents' rights to informed consent, confidentiality, privacy and anonymity were observed. In doing so, the respondents were briefed of the purpose of the study, why their consent were needed and were assured of high level of confidentiality about the information provided.

Data Analysis Procedure

The data collected was analysed quantitatively. The descriptive analytical tools used in the study include tables of frequency counts, percentages, and cumulative percentages as well as simple bar graphs. The analysis began by manually coding of the responses obtained from survey. Frequency tables were used in the organisation of the detailed presentation of results. Percentages were further used to analyse the data. The variables included demographics like gender, age, level of education, marital status and profession. The data collected was processed with Statistical Product for Service Solutions (SPSS) version 21. The results from the analysis were presented using tables and narratives.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

In this chapter, the results of the effect of financial literacy on saving and investment of public sector workers in Ajumako Enyan Essiam district are presented and discussed.

Knowledge and practice level of Respondents on budgeting

Males were in the majority in the public sector as 69.4% of the total respondents were male and 30.6% were female out of 232 respondents. The Table 1 also shows the result of respondents who know what a budget is. The result indicates that over 95 percent actually know what is meant by personal budget.

Table 1: Respondents on Budget by Gender

	Percentage		Male		Female	
	Yes	No	Yes	No	Yes	No
Do you know what a budget is?	95.7%	4.3%	157	4	65	6
Do you prepare personal month budget	72%	28%	116	45	51	20
Do you stick to budget	47.4%	52.6%	80	81	30	41

Source: Field Survey Data, 2014

This means that only a small fraction of the public sector workers in the district did know what a budget is. Among the 95% of the respondents who knew what a budget is, 72% prepare a monthly budget and 28% did not. This means that quite a large proportion of the respondents prepared their budget when they deemed it necessary. Despite having the knowledge about budget and its importance 28% did not prepare any budget. The knowledge acquired was not applied in the individual's personal finance.

The result in Table 1 also shows the percentage of the public sector workers in the district who stick to their monthly budget irrespective of changes in general economic conditions during the month. They run the budget as planned avoiding new demands. These individual are basically applying the knowledge acquired on personal finance to their personal lives. Incidentally, workers who do not stick to their monthly budget formed 52.6%. It is clear that, budget is being used as a control tool on personal expenditure, the main function it is purported to performed. With this, the essence of preparing the budget is not lost.

Table 2 displays the result of the marital status of the respondents. Married respondents were 118 representing 50.9%. Among the married respondents 90 prepare monthly budget but only 56 stick to these monthly budgets. The respondents who were separated were 11 with a percentage of 4.7; 16 constituting 6.9% were divorced and 4 of the respondents representing 1.7% were widow or widower.

Table 2: Respondents on Budget by Marital Status

Marital Status	Single		Married		Divorced		Separated		Widowed	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Do you know what is a budget	80	3	113	5	15	1	10	1	4	0
Do you prepare monthly budget	54	29	90	28	10	6	10	1	3	1
Do you stick to monthly budget	35	48	56	62	6	10	10	1	3	1
Percentage	35.8		50.9		6.9		4.7		1.7	

Source: Field Survey Data, 2014

The survey results as shown in Table 3, the majority of public sector workers representing 72.9% hold a diploma or a bachelor's degree. The diploma holders and bachelor degree holders were 45.7% and 27.2% respectively, the secondary level had 37 respondents with a percentage of 15.9% and the least is 5 respondents with a corresponding percentage of 2.2% who had primary level of education. Moreover, 21 out of the 232 respondents representing 9.1% have post graduate diploma or degree.

Table 3: Educational level of respondents

Educational level	Frequency	Percentage
Primary	5	2.2
Secondary	37	15.9
Diploma	106	45.7
Bachelor's degree	26	27.2
Post graduate	21	9.1
Total	**232**	**100**

Source: Field Survey Data, 2014

Business is the most studied area or area of specialization pervasive among the public sector workers in the district. Table 4, shows that 45.6%, 27.2% and 27.2% of the respondents studied business, arts and science respectively. The characteristics of the respondents who studied arts and science on budget are very similar as almost equal numbers responded in the various categories. The majority of the respondents who studied business happened to know what a budget was and therefore not surprising that 79 out of 101 prepare monthly budget and 57 of that number actually stick to these monthly budgets. The knowledge acquired has not reflected in managing personal finance.

Table 4: Respondents on budget by Area of study

Specialization		Arts	Science	Business
Do you know what a budget is:	Yes	61	60	101
	No	2	3	5
Do you prepare monthly budget:	Yes	46	42	79
	No	17	21	27
Do you stick to monthly budget :	Yes	26	27	57
	No	37	36	49
Percentage		27.2%	27.2%	45.6%

Source: Field Survey Data, 2014

Out of 101 respondents that studied business, 49 representing of 46.2 % studied Accounting and Finance with the rest studying Management and Human Resource Management as shown in Table 5. This group of public servants in the district who studied business and majored in accounting and finance, performed better on financial literacy, saving and investment as 36 and 25 answered correctly the simple interest and compound interest questions respectively as compared to 27 and 12; 11 and 2 for Management and human resource majors respectively. Therefore as evident in the literature there is a positive relationship between financial literacy, savings and investment.

Table 5: Specialization of respondents who studied business

Area in Business	Management	Accounting/ Fin	Human Resource
GH¢1,000 saved at 10% interest per annum.			
More than GH¢1,100	7	8	2
Exactly GH¢1,100	27	36	11
Less than GH¢1,100	5	2	0
Cannot estimate	4	3	1
GH¢10,000 invested at 10% pa for 2 years compounded.			
More than GH¢12000	12	25	2
Exactly GH¢12000	23	20	8
Less than GH¢12000	4	3	3
Cannot estimate	4	1	1
Ways of Saving:			
Saving at Home	3	4	2
Bank Balance	19	21	6
Financial Asset	10	15	3
No Saving	11	9	3

Source: Field Survey, 2014

It is therefore consistent with the result obtained in the study by Lusardi and Mitchell (2007), Johan and Säve-Söderbergh (2011) as those who studied Accounting and Finance are quite better than those who studied Management and Human Resource. In terms of savings and investment, 21 and 15 are building their bank accounts and buying financial assets such as treasury bills as compared to 6 and 3 for Human Resource major.

Figure 2 shows the result of the fraction of monthly income saved by the respondents. The respondents who saved between 10% and 20% of their monthly income were 93 and those who saved over 40% of their monthly income were 9 and 58 of them saving between 21% and 30% of their monthly income. This means that with an average monthly income of GH¢1000, respondents in the 10% to 20% bracket would save an average of GH¢1500 in a year. The number of respondent who saved over 40% of their monthly income is the lowest frequency which is understandable taking into account the low income level of public sector workers in Ghana. As the figure 2 shows 55 of the respondents do not have enough so do not save at all.

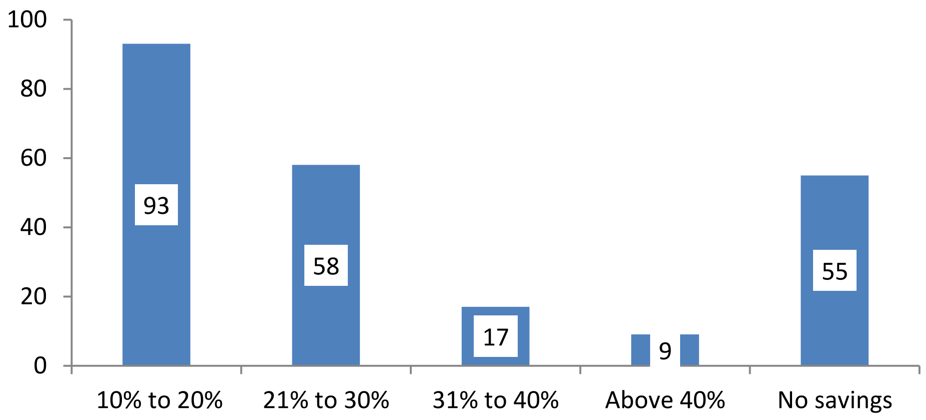

Figure 2: Percentage of income saved

Source: Field Survey Data, 2014

This means that, these fraction of the respondents spend all their earnings on consumption leaving nothing to save and therefore no investment.

Figure 3 shows the result of the way the respondents have saved the incomes in the past 12 months. The respondents who save at home are 29 and those who build up their account the bank are 99. These fractions do not take an active investment decisions except for the little interest earned on the savings at the bank. Income saved at the bank is also withdrawn to supplement shortfall in income in a particular period. However, 52 of the respondents actually save and take active investment decisions such as buying of treasury bills, fixed deposits, investment trusts and stocks. The respondent who do not save any money are 52. This means their income is only enough to cover living expenses leaving nothing for savings and investment.

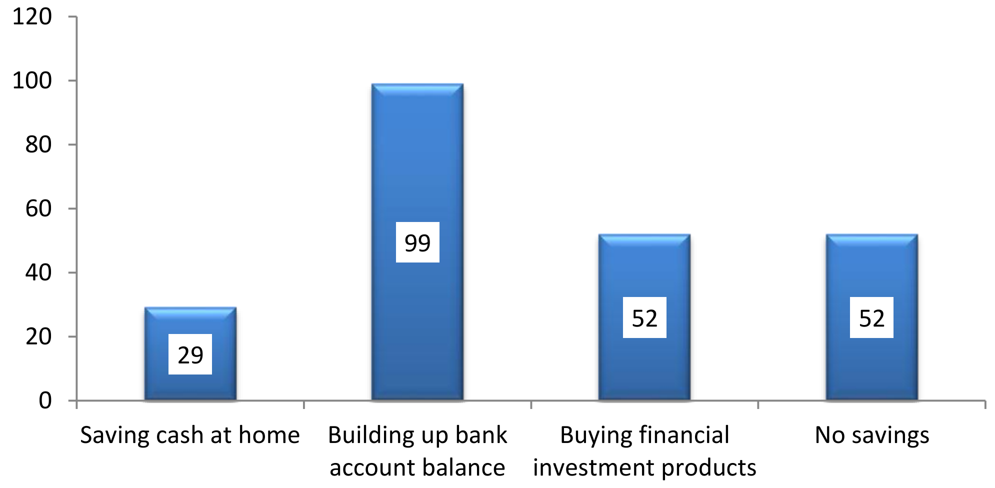

Figure 3: Mode of saving in the past year.

Source: Field Survey Data, 2014

The Table 6 shows that out of the 232 respondents, 31% of respondents are in the age bracket of 20 – 30 years. 36.6% are aged between 31 – 40 years. Those in the age bracket of 41 – 50 years constituted 23.3% of the respondents whilst 9.1% of the respondents were aged between 51 – 60 years.

Table 6: Age of respondents and Savings

Modes of saving:	20-30yr	31-40yr	41-50yr	51-60yr
Cash at Home	11	9	6	6
Bank Balance	32	36	23	8
Financial Assets	15	20	13	4
No Savings	14	20	12	6
Percentage of income saved:				
10% to 20%	33	36	18	6
21% to 30%	14	33	17	4
31% to 40%	8	4	2	3
Above 40%	4	3	2	0
No savings	13	19	15	8
Percentage	31.0	36.6	23.3	9.1

Source: Field Survey Data, 2014

By implication, 67.7% of respondents are within the age of 20 and 40 years which means there are a lot of youth in the public sector in the district.

The result in Table 6 also shows that, only a handful of the respondents save at home with respondents in the age group of 20-30 years leading in this respect whilst 30-40 year group leads in building bank account balance, buying financial assets such as treasury bills but building bank account seems to be the favourite option or modes of saving for all the age groups in the district.

In addition Table 6 shows the percentage of income saved by the various age groups. Most of the income savings are in the range of 10% to 30% of the respondents with 50% of the respondents who save, are saving up to 20% of their monthly income. Only 9 respondents out of the 186 who saved were able to save above 40% of their monthly.

Credit Management with Respect to Personal Finance

The Table 7 shows the public sector workers in the district having their incomes falling short of expenses are 33.6% and this is for a period not exceeding 3 months.

Table 7: Monthly Income not covering Living Expenses

Income shortfall	Frequency	Percentage	Cumulative
3 months	78	33.6	33.6
6 months	31	13.4	47
9 months	28	12.1	59.1
12 months	40	17.2	76.3
Never	55	23.7	100
Total	**232**	**100**	

Source: Field Survey Data, 2014.

It is worth noting that 47% of the workers have their income falling short of expenses within six months.

If 47% of the respondents have income falling short of expenditure, then it is expected that this would have serious repercussions on savings and for that matter investment decisions. Any group or individual, who is not able to save, is also not likely to undertake any meaningful investment. This has more influence on saving and investment behavioural patterns than the knowledge acquired by the individual.

Only 23.7% of the respondents never had income falling short of expenditure. The only way out of this problem is getting another source of income apart from the regular income earned.

Figure 4 shows the result of how long the respondents can survive on past savings and investment without borrowing when lost their jobs. Those respondents who can leave exactly one month on savings and investment without borrowing are 89 and those who can survive more than three months are 51. This means that most (181) of the public sector workers were heavily dependent on their current source of income. The low income, low interest rate on investment products, high consumption rate are some of the reasons given or savings and investment.

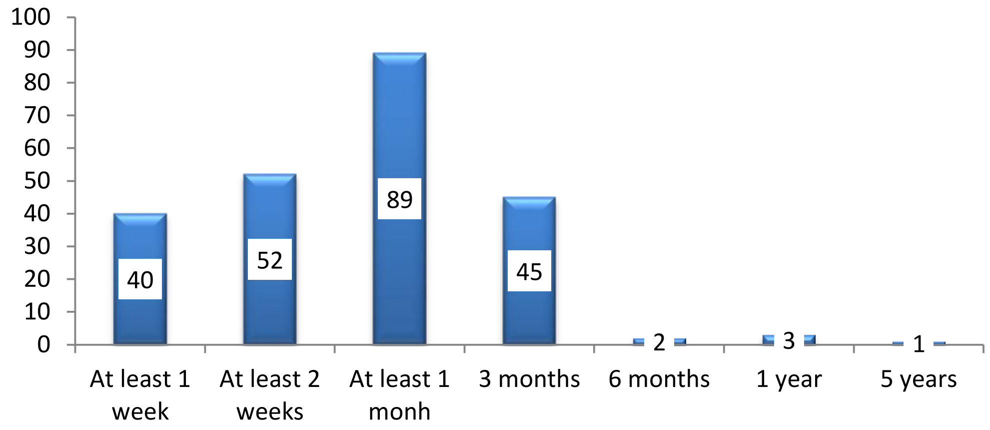

Figure 4: Surviving on past savings and investment

Source: Field Data Survey, 2014

Table 8 shows the result of how shortage in income was financed. In this situation 22.5% took bank loan and 25.6% took bank overdraft.

Table 8: Financing Income shortfall

Financing shortage	Frequency	Percentage
Took a bank loan	41	22.5
Borrow money from friends	28	15.6
Took bank overdraft	46	25.6
Withdraw savings	62	34.4
Sold property	3	1.6
Total	**180**	**100**

Source: Field Survey Data, 2014

This is fairly easy for them because they receive monthly salary through the banks so the already established relationship facilitates this quite smoothly. Again, when the public worker takes a loan or an overdraft to finance personal consumption which he or she is going to repay over some periods within which he or she is not likely to make any meaningful saving that would lead into investment. The respondents who sold property to cover the shortfall in their incomes were 1.6%.

Teaching profession was the most prevalent in the public sector constituting 52.6%. Nursing, Accounting and Police professions follow in that order with percentages of 15.5%, 8.6%, 8.2% respectively.

Most of the respondents were found to be in the middle management positions with 51.3% as shown in Table 8. Lower management constitutes 38.4% and top management with 24 respondents representing 10.3%. Among the respondents who save at the end of the month, 151 out of the 186 save up to 30% of their monthly income. Out of the 232 respondents 55 do not save at all at the end of the month and as such would not be able to undertake any investment.

Throughout all the levels of management, the most monthly income saved is the 10% to 20% range. A critical examination of the earnings in the public sector of Ghana would have between GH¢50 to GH¢70 as the average of 10% to 20% of monthly income. With this range as the basis, a typical public sector worker is not likely to save up to 1000 in a year. This is more likely to affect investment of the individual.

Table 9: Position in the Organisation and Savings

Position in the Organization	Lower level management	Middle level management	Top level management
Percentage of income saved:			
Between 10% to 20%	37	46	10
21% to 30%	19	34	5
31% to 40%	6	7	4
Above 40%	3	3	3
Do not save	24	29	2
Ways of saving :			
Home	14	13	2
Bank balance	30	59	10
Financial asset	21	24	7
Do not save	24	23	5
Percentage	38.4	51.3	10.3

Source: Field Survey Data, 2014

Table 10 shows the result of percentage of monthly income saved based on gender. Majority of both male and female save 10% to 30% of their monthly income but males are quite numerous in the 10% to 20% range.

Table 10: Portion and Mode of Savings by Gender

Savings	Male	Female
Percentage of income saved:		
10% to 20%	65	28
21% to 30%	37	21
31% to 40%	13	4
Above 40%	5	4
No income saved	41	14
Ways of saving in the past one year:		
Home	21	8
Building account balance	65	34
Buying financial instrument	37	15
No saving	38	14

Source: Field Survey Data, 2014

It can also be seen from Table 10 that building bank account is the predominant mode of saving among both male and female respondents. This is followed by buying financial assets but again the male constitute the majority. Males who do not save at all were 38 as compared to 14 females and might be due to responsibilities placed on them as head of families in the Ghanaian society.

Time Value of Money and the Workings of Interest Compounding

The respondents were asked questions to test their knowledge on financial matters. They were provided with possible answers and the result is presented in figure 6. The respondents who answered correctly to questions on simple interest, inflation, puchasing power, sale discount and prepaid loan were 68.1%, 59.4%, 57.3%, 65.9%, 655%, respectively. The respondents who had some knowledge concerning compound interest were 31.9 % and only 10% had any knowledge about bond yield. This is a clear indication that majority of the respondents do not invest in bonds.

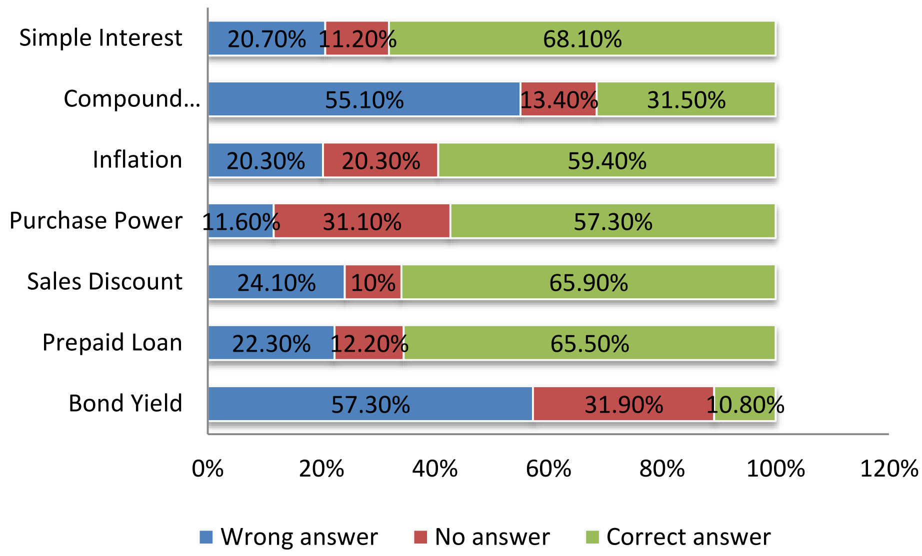

Figure 5: Level of Financial Literacy

Source: Field Survey Data, 2014

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the summary, conclusions and recommendations of the study. It also presents suggested areas for further studies.

Summary

In recent times financial literacy has become one of the areas of interest partly because of the harsh economic conditions facing nations, organizations, households and individuals. The study was carried out to find out the level of financial literacy among public sector workers in the Ajumako Enyan Essiam district.

Males were in the majority in the public sector making up 69.4% of the total respondents and 30.6% were female out of 232 respondents. The result indicated that over 95 percent actually knew what is meant by personal budget. Among the 95% of the respondents who knew what a budget is, 72% prepared a monthly budget and 28% did not. Despite having the knowledge about budget and its importance almost 28% do not prepare any budget. The knowledge acquired was not useful in the individual's personal finance. Incidentally, workers who do not stick to their monthly budget formed over 52%.

Among the married respondents 90 prepared monthly budget but only 56 stick to these monthly budgets. The respondents who were separated totalled 11 with a percentage of 4.7; 16 constituting 6.9% were divorced and 4 of the respondents representing 1.7% were widow or widower.

Majority of public sector workers representing 72.9% hold a diploma or a bachelor's degree. The diploma holders and bachelor degree holders were 45.7% and 27.2% respectively, the secondary level had 37 respondents with a percentage of 15.9% and the least is 5 respondents with a corresponding percentage of 2.2% had primary level of education. Moreover, 21 out of the 232respondents representing 9.1% had post graduate diploma or degree.

Business is the most studied area or area of specialization pervasive among the public sector workers in the district. The result showed that 45.6%, 27.2% and 27.2% of the respondents studied business, arts and science respectively. The majority of the respondents who studied business happen to know what a budget is and therefore not surprising that 79 out of 101 prepare monthly budget but only a little over of that number actually stuck to these monthly budgets.

Out of 106 respondents that studied business, 49 representing of 46.2 % studied Accounting and Finance with the rest studying Management and Human Resource Management. Those who studied business and majored in accounting and finance, performed better on financial literacy, saving and investment as 36 and 25 answered correctly the simple interest and compound interest questions respectively as compared to 27 and 12; 11 and 2 for Management and human resource majors respectively. Therefore this result is consistent with results obtained in similar studies as evident in the literature reviewed. There is a positive relationship between financial literacy, savings and investment. The result also showed that, the public sector workers in the district having their incomes falling short of expenses were 33.6% and this is for a period not exceeding 3 months. It is worth noting that 47% of the workers have their income falling short of expenses within six months. If 76.3% of the respondents have income falling short of expenditure within twelfth months, then it is expected that this would have serious repercussions on savings and for that matter investment decisions. Only 23% of the respondents never had their incomes falling short of expenditure. The only way out of this problem is getting another source of income apart from the regular income earned. In order to finance the shortfall 48.1% resort to the bank to either take a loan or an overdraft to finance shortfall in income for the month whilst only 1.6% disposed off property to cover the shortfall.

Teaching profession was the most prevalent in the public sector constituting 52.6%. Nursing, Accounting and Police professions follow in that order with percentages of 15.5%, 8.6%, 8.2% respectively. Most of the respondents were found to be in the middle management positions with 51.3%. Lower management constitutes 38.4% and top management 10.3%. Among the respondents who saved at the end of the month, 151 out of the 186 save up to 30% of their monthly income. Out of the 232 respondents 55 did not save at all at the end of the month and as such would not be able to undertake any investment. The result revealed that the portion of income saved most was between 10% to 20%.

Majority of both male and female save 10% to 30% of their monthly income but males are quite numerous in the 10% to 20% range.

The result shows that building bank account is the predominant mode of saving among both male and female respondents. This is followed by buying financial assets but again the male constitute the majority. Among the males 38 did not save at all as compared to 14 females.

The respondents who did business and answered correctly questions on simple interest, inflation, puchasing power, sale discount and prepaid loan were 68%, 59%, 57%, 65%, 65% respectively. The respondents who thought that, the banks link surplus units and deficit units with respect to available funds were 96 whilst 92 said the banks only receive credit advice from central government for their customers.

The respondents who can survive exactly one month on savings and investment without borrowing were 89 and those who can survive more than three months were 51. The high financial literacy among public sector workers in the Ajumako Enyan Essiam district was not reflective in their savings and investment activities. The low income of workers, low interest rate on investment products, high consumption rate were some of the reasons accounting for this situation.

Conclusions

The public sector workers in the Ajumako Enyan Essiam district were educated especially in the study of business and accounting related disciplines. They therefore have high level financial literacy likely to influence their lifestyle with respect to financial decisions. Their youthful nature also goes to support the fact that application of this knowledge has beneficial effect in the future when they would be much older and preparing for retirement. But all seemed not going well because of the low income and unattractive investment products in the financial market.

Recommendations

The results showed clearly the high financial literacy among the public sector workers in the Ajumako Enyan Essiam district of the Central Region. The workers should be exposed to more information on how much one stands to gain and also encourage to practice the knowledge acquired because it did not reflect in their savings and investment behaviour.

The banks and other Micro finance companies in the district should develop innovative products so as to attract these workers to save and invest their surplus earnings.

The workers in the district should also invest their extra time in other economic activities especially the teachers to earn them additional income to enable them save and invest. The government should take a second look at the salary of workers at the district, municipal and metropolitan assemblies so that they can save and invest.

Suggestions for Further Research

The following are suggested areas to be considered for possible future research:

1. Impacts of financial literacy interventions for various groups, under different conditions and for different duration.
2. Explore the relationship between financial literacy and essential skills, like numeracy and critical thinking.
3. Investigate how transferable is the knowledge, skills and habits from one domain of financial literacy to another.
4. Explore the possible potential negative impacts of financial literacy interventions.

REFERENCES

Abernethy, M. A. & Brownell, P. (1999). The role of budgets in organizations facing strategic change. *Accounting, Organizations and Society, 24,* 189-204.

Abernethy, M. A. & Stoelwinder, J.U. (1991). Budget use, task uncertainty, system goal orientation and sub-unit performance: a test of the 'fit' hypothesis in not-for-profit hospitals. *Accounting, Organizations and Society, 16(2),* 105-120.

Adeline, D., Rohwedder, S. & Willis, R. (2008). Preparation for retirement, financial literacy and cognitive resources. Michigan Retirement Research Center Working Paper, No. 190

Alessie, R., Annamaria, L. & Maarten van Rooij. (2008). Financial literacy, retirement planning, and household wealth. NBER Working Paper, No. 15350

Amey, L. R. (1979). *Budget, Planning and Control systems (1st Edition).* London, England: Pitman Publishing Ltd.

Andrew C. W. (2004). The distribution of financial literacy in Australia. In *Discussion Paper*, No. 185. Queensland University of Technology, Brisbane.

Annamaria, L. & Mitchell, O.S. (2006). Financial literacy and planning: Implications for retirement wellbeing. MRRC Working Paper, No. 2006-144.

Annamaria, L. & Mitchell, O.S. (2007). Baby boomer retirement security: The roles of planning, financial literacy and wealth. *Journal of Monetary Economics 54* 205-224.

Annamaria, L. & Mitchell, O.S. (2008). Planning and financial literacy: How do women fare? *American Economic Review 98* 413-417.

Annamaria, L. & Mitchell, O.S. (2009). How ordinary consumers make complex conomic decisions: Financial literacy and retirement readiness. NBER Working Paper, No.15350.

Annamaria, L. A. & Tufano, P. (2009). Debt literacy, financial experiences, and over- indebtedness. NBER Working Paper No. 14808.

Arwidi, O. & Samuelson, L. (1993). The development of budgetary control in Sweden. *Journal of Management Accounting Research, 4,* 93-107.

Banks, J. & Oldfield, Z. (2007). Understanding pensions: cognitive function, numeracy and retirement saving. *Fiscal Studies 28* 143-70

Banks, J., O'Dea, C. & Oldfield, Z. (2009). Cognitive function, numeracy and retirement saving trajectories. *Economic Journal 120* 381-410.

Bell, J. (1987). *Case study research in educational settings*. Buckingham: Open University Press

Berg, B. L. (2004). *Qualitative research methods for the social sciences* (5th Edition). Boston, MA: Allyn and Bacon.

Bernheim, D. Garret, D. (1997). Education and saving: The long-term effects of high school financial curriculum mandates. *NBER*,working paper 6085, Cambridge.

Bodie, Z., Kane, A. & Marcus, A. J. (1992). *Principles of corporate finance.* USA: Mcgraw-Hill/Irwin

Bruns, W.J. & Waterhouse J. (1975). Budgetary Control and Organization Structure. *Journal of Accounting Research,* 177-203.

Chen, I. H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review, 7*(2), 107-128.

Cheney, J. M. & Moses, E. A. (1992). *Fundamentals of investments*. UK: Western Publishing Co.

Chiara, M. (2010). How Much Does Wealth Matter in the Acquisition of Financial Literacy? *The Journal of Consumer Affairs* 44 (February): 403-422

Christelis, D., Jappelli, T. & Padula, M. (2010). Cognitive abilities and portfolio choice. *European Economic Review 54*, 18–38.

Cohen, L., Manion, L. & Morrison, K. (2000). *Research methods in education*. London: RoutledgeFalmer

Cole, S., Sampson, T. & Zia, B. (2009). Financial literacy, financial decisions, and the demand for financial services: Evidence from India and Indonesia. *Harvard Business School Working Paper* 09-117.

Consumer Federation of America (1993). *College student consumer knowledge: The results of a nationwide test.* Washington DC: Consumer Federation of America.

Cook, T. Q. & Rowe, T. D. (1986). *Investment of money market*. Richmond: Federal Reserve Bank of Richmond.

Covaleski, M., Dirsmith M.W. & Dirsmith S. (1985). Traditional and emergent theories of budgeting: An empirical analysis. *Journal of Accounting and Public Policy, 4*, 277-300

Covaleski, M., Evans J., Luft, J. & Shields, M. (2003). Budgeting Research: Three Theoretical Perspectives and Criteria for Selective Integration. *Journal of Management accounting research, 15,* 3-49.

Donnelly, R. M. (1984). *Guidebook to Planning (1st Edition).*New York: Van Nostrand Reinhold Publishing

Elizabeth, G. & Goldsmith, R. (1997). Gender differences in perceived and real knowledge of financial investments, *Psychological Reports*, vol. 80.

Elsa, F. & Monticone, C. (2011). Financial literacy and pension plan participation in Italy. CeRP Working Papers. Center for Research on Pensions and Welfare Policies, Turin (Italy), March.

Fabozzi, F. J. & Fabozzi, D. (1989). *Bond market analysis and strategies*. Eaglewood Cliff, NJ: Prentice- Hall.

Frow, N., Marginson D. & Odgen S. (2010). Continuous budgeting: Reconciling budget flexibility with budgetary control. *Accounting, Organizations and Society, 35*, 444-461.

Gitman, L. J. & Joehnk, M. D. (2001). *Fundamentals of investments* 7th ed Addision Wesley.

Guiso, L. & Jappeli. T (2009). Financial literacy and portfolio diversification. Paper, No. 212.

Hansen, D. & Mowen, M. (1994). Management Accounting (3rd Edition). South-Western Publishing Co : Cincinnati, Ohio.

Hansen S. & Van Der Stede W. (2004). Multiple facets of budgeting: an exploratory analysis. *Journal of Management Accounting Research, 15*, 415-439.

Hogarth, J.M. & O'Donnel, K.H. (1999). Banking relationships of lower-income

families and the Governmental tend toward electronic payment. *Federal Reserve Bulletin 86* 459-473.

Hope, J. & Fraser, R. (2003). Who needs budgets? *Harvard Business Review*, 108-115.

Jappelli, T. & Marco, P. (2011). Investment in financial literacy and saving decisions. CSEF Working Paper, No. 272, University of Naples, Italy.

Joël, P. (2004). Wealth, information acquisition, and portfolio choice. *TheReview of Financial Studies 17* 879–914.

Johan, A. & Säve-Söderberg, J. (2011). Financial literacy and retirement planning in Sweden. CeRP Working Paper, No. 112, Turin (Italy).

Kim, J. (2001). Financial Knowledge and Subjective and Objective Financial Well-being. *Consumer Interests Annual* 47.

Lederman, J. & Park, K. (1991). *Global bond market*. Chicago: Probus publishing

Leedy, P. D. & Ormond, J. E. (2005). Practical Research: Planning and Design (8^{th} Ed.), NJ: Prentice Hall.

Leora, K. & Panos, G.A. (2011). Financial literacy and retirement planning. *Journal of Pension Economics and Finance 40* 599–618.

Lewis, M. (2004). *Financial literacy: Are we improving?* Washington, D.C.: Jump$tart.

Lisa, J.S. & Kaestner, R. (2008). Consumer financial literacy and the impact of online banking on the financial behavior of lower-income bank customers. *The Journal of Consumer Affairs 42* 271–305

Lois, V., Anderson, C., Kent, J., Lyter, D., Siegenthaler, J. & Ward, J. (2000). Personal finance and the rush to competence: Financial literacy education in the US. National Field Study Commissioned by the Fannie Mae Foundation. Institute for Socio-Financial Studies.

Lukka, K. (1988). Budgetary biasing in organizations: theoretical framework and empirical evidence. *Accounting, Organizations and Society, 13*(3), 281-301.

Madhavan, A. (2000). Market microstructure. *Journal of finanacial markets 3,* 205- 258

Madura, J. (2001). *Personal Finance.* USA: South-Western, Cengage Learning.

Mandell, L. & Klein, L. (2009). The impact of financial literacy education on subsequent financial behavior. *Journal of Financial Counseling and Planning, 20*(1), 15-24.

Marginson, D. & Ogden, S. (2005). Coping with ambiguity through the budget: the positive effects of budgetary targets on managers' budgeting behaviors. *Accounting, Organizations and Society, 30*, 435-456.

Mason, C.L.J. & Wilson, R.M.S. (2000) Conceptualising financial literacy. (https://dspace.lboro.ac.uk/) accessed on the 20 July 2014.

Mayo, B. H. (1980). Investments: An Introduction. London: Dryden Press.

Maziin, J. L. & Donald, L. T. (1990). *Managing investment portfolio: A dynamic process (2nd edt).* New York: Warren, Gorham & Lamont.

Michael, N., Stoney, S. & Stradling, R. (1992). Financial Literacy: A

discussion of concepts and competences of financial literacy and opportunities for its introduction into young people's learning. NFER report for the National Westminster Bank. London, UK.

Merriam-Webster Dictionary. (n.d.) Online Resource. Retrieved on December 30, 2006 from http://www.webster.com/dictionary/literacy

Mishkin, F.S. (2004). *The economics of money, banking and financial market* (7th ed.). New York: McGraw Hill.

Moore, D. (2003). Survey of financial literacy in Washington State: Knowledge,

behaviour, attitudes, and experiences. SESRC Technical Report, No. 03-39. Washington State University.

Organisation for Economic Co-operation and Development. (2005). *Improving Financial Literacy: Analysis of Issues and Policies*. Paris: OECD

Orlando, J. (2009). Turning Budgeting Pain into Budgeting Gain. *Strategic Finance Journal, 7* 47-51.

Pamela, H. & Holden, K. (2010). Early-life schooling and cognition andlate-life financial literacy in the Wisconsin Longitudinal Study. Working Paper 10-1. Center for financial security University of Wisconsin-Madison.

Reeve, J. & Warren, C. (2008). Principles of Managerial Accounting (9th Edition). Thomson South- Western: Mason, Ohio.

Reilly, F. K. & Norton, E. A., (1999). Investments, (5th ed.).USA: Harcourt Inc.

Rog's New Millennium Thesaurus, First Edition (v 1.3.1). Retrieved December 30, 2006, from http://thesaurus.reference.com/browse/literate

Sandra, H. (2010). Measuring financial literacy. *The Journal of Consumer Affairs 44* 271–275.

Stigmun, M. (1989). *The money market* (3rd edt). Homewood IL: Dow Jones Irwin.

Thorsten, B., Demirgüç-Kunt, A. & Levine, R. (2009). A new database on financial development and structure. Policy Research Working Paper Series, No. 2146, The World Bank.

Van Der Stede, W. (2001). Measuring 'tight budgetary control'. *Journal of Management Accounting Research, 12*, 119-137.

Worthington, A.C. (2006). Predicting Financial Literacy in Australia. *Financial Services Review*, *15*(1), 59-79.

Yakoboski, P. & Schiffenbauer, A. (1997). The reality of retirement today: Lessons in planning for tomorrow. EBRI Issue Brief 181.

Yin, R. K. (2009). *Case Study Research: Design and Methods*, (4th Ed.). USA: SAGE

APPENDIX

QUESTIONNAIRE

UNIVERSITY OF CAPE COAST

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING AND FINANCE

Dear Participant,

This questionnaire has been designed to solicit information for a research work being undertaken to determine the effect of financial literacy on saving and investment of public sector workers in partial fulfilment of the requirement for Master of Business Administration degree. Your opinions are important to the study and any information you provide will be treated as confidential and for academic purposes only.

Thank you for your help.

Please respond to each of the following questions by ticking the appropriate box.

SECTION A

1. Sex Male [ ] Female [ ]

2. Age 20 – 30 [ ] 31 – 40 [ ] 41 – 50 [ ] 51 – 60 [ ] 60 and above [ ]

3. Marital Status: Single [ ] Married [ ] Divorced [ ] Separated [ ] Widow/Widower [ ]

4. Highest educational level: Primary [ ] Secondary [ ] Diploma [ ] Bachelor's degree [ ] Postgraduate diploma / degree [ ]

5. a) Area of study / Specialization: Arts [ ] Science [ ] Business [ ]

b) If Business then specify: Management [ ] Accounting and Finance [ ] HRM [ ]

6. Profession: ………………………………………………………..

7. What is your position in your organisation? Lower Management [ ] Middle Management [ ] Top Management [ ]

SECTION B

8. Do you know what a budget is? Yes [ ] No [ ]

9. a) Do you prepare personal monthly budget? Yes [ ] No [ ]

10. b) If you prepare monthly budget, do you stick to it Yes [ ] No [ ]

11. Sometimes workers find that their income does not quite cover their living expenses. Has this happen to you in the last:

a) 3 months [ ] b) 6 months [ ] c) 9 months [ ] d) 12 months [ ]
e) it has never happened to me before [ ]

12. What did you do to make ends meet the last time this happened?

a) Took a bank loan [ ] b) borrow money from friends or relatives [ ] c) took a bank overdraft [ ] c) withdraw from savings [ ] e) sold a property [ ].

SECTION C

13. Let's assume that you deposited GH¢1,000 in a bank account for a year at 10% annual interest rate. How much money will you have in your account at the end of the year if you do not withdraw from or add to this account any money?

a) More than GH¢1,100 [ ] b) Exactly GH¢1,100 [ ]

c) Less than GH¢1,100 [ ] d) I cannot estimate it even roughly [ ]

14. Let's assume that you deposited GH¢10,000 in a bank account for 2 years at 10% annual interest rate. The interest will be earned at the end of each year and will be added to the principal. How much money will you have in your account in 2 years if you do not withdraw either the principal or the interest?

a) More than GH¢12,000 [ ] b) Exactly GH¢12,000 [ ]

c) Less than GH¢12,000 [ ] d) I cannot estimate it even roughly [ ]

15. Imagine that you deposited money into your bank account at 10% annual interest rate, while the annual inflation rate was 12%. Do you think the money from your account can buy more or less, or the same amount of goods and services on average now as a year ago?

a) More than a year ago [ ]

b) The same [ ]

c) Less than a year ago [ ]

d) I cannot estimate it even roughly [ ]

16. Let's assume that your income has double over a year, and the consumer prices also grew twofold. Do you think that you will be able to buy more, less, or the same amount of goods and services as today?

a) More than today [ ]

b) Exactly the same [ ]

c) Less than today [ ]

d) I cannot estimate it even roughly [ ]

17. Let's assume that you saw a TV-set of the same model on sale in two different shops. The initial retail price of it was GH¢1,000. One shop offered a discount of GH¢150, while the other one offered a 10% discount. Which one is a better bargain?

a) A discount of GH¢150 [ ]

b) A 10% discount [ ]

c) I cannot estimate it even roughly [ ]

18. Let's assume that you took a bank credit of GH¢1,000 to be paid back during a year in equal monthly payments. The credit charge is GH¢250. Give a rough estimate of the annual interest rate on your credit.

a) 15% [ ] b) 20% [ ] c) 25% [ ] e) 30% [ ]

d) I cannot estimate it even roughly [ ]

SECTION D

19. What percentage of your income do you save at the end of the month?

a) Between 10% to 20% [ ] b) 21% to 30% [ ] c) 31% to 40% [ ]

d) above 40% [ ] e) I simply do not have enough to save [ ]

20. In the past 12 months have you been saving in any of the following ways?

a) Saving cash at home [ ]

b) Building up the balance of money in your bank account. [ ]

c) Buying financial investment products like treasury bills, Fixed deposits, investment trust and shares. [ ]

d) I have no money to save [ ]

21. What major role do financial institutions like banks play in the saving and investment of funds?

a) They link surplus fund holders to those who need these funds [ ]

b) They accept credit advice from government and pay salaries to workers [ ]

c) To embargo salary of public sector workers [ ]

d) I simply do not know any role they play [ ]

22. If you lost your main source of income, how long could you continue to cover living expenses, without borrowing any money?

a) At least a week [ ]

b) At least 2 weeks [ ]

c) At least 1 month [ ]

d) Any other……………………………………………………..

23. Let's assume you have purchased a bond with face value of GH¢1,000 for GH¢900. The bond would expire in a year and bring you a coupon of GH¢150 GHC. If you would hold the bond till maturity, can you estimate what return you would enjoy on your investment?

a) Below 15% [ ] b) Exactly 15% [ ] c) Above 15% [ ]

d) Above 20% [ ] e) I cannot estimate it even roughly [ ]

THANK YOU.