UNIVERSITY OF CAPE COAST

FINANCIAL LITERACY AND PERSONAL FINANCE IN THE CAPE COAST METROPOLIS

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BY

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A thesis submitted to the Department of Accounting and Finance, School of Business, University of Cape Coast in partial fulfilment of the requirements for the award of Master of Commerce (MCom) Degree in Finance.

JULY 2016

DECLARATION

Candidate's Declaration

I hereby declare that this thesis 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.

Candidate's Signature:……………………….. Date:………………………

Name: Gloria Opoku-Boahen

Supervisors' Declaration

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

Principal Supervisor's Signature :.………………… Date:………………………

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Name: Patrick Kwashie Akorsu

ABSTRACT

The study aimed generally to determine the scope of financial literacy and personal financing by people in the Cape Coast Metropolis. Under subscription of questionnaires led to 436 respondents from the cluster sampling method being used in the analysis. This allowed the determination of the various components and factors of financial literacy and personal finance. Factor analysis determined which indicators from various scenarios responded to, described the relationship between financial literacy and personal finance in the metropolis; as analyzed with Pearson's bivariate correlations method. Personal finance overall, showed elements of savings, investments, financial planning for periods averaging three months at a time and a conflict of financial advice sources between financial professionals and friends and relatives but not individual's self-efforts to acquire relevant financial decision making knowledge. Results determined that financial literacy and personal finance were generally low in the metropolis but that financial literacy and personal finance components do translate into financial literacy factors and subsequently into personal financing concerns. Relationships were determinable under the categories of financial responsiveness, Short-term spending tendency, spending tendencies generally, financial management, debt responsiveness and economy-mindedness of price levels or inflation. This researcher suggests building up self-learning efforts and individual self-reliance for financial decision making as some of the recommendations with which to improve financial literacy and personal finance in Cape Coast.

KEY WORDS

FACTOR ANALYSIS

FINANCIAL LITERACY

FINANCIAL LITERACY COMPONENTS

PERSONAL FINANCE

PERSONAL FINANCE COMPONENTS

SAVING TRENDS

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DEDICATION

This work is dedicated to my family.

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ABBREVIATIONS

ANOVA	Analysis of Variance
ATM	Automated Teller Machine (s)
GLSS	Ghana Living Standards Survey
INFE	International Network on Financial Education
KMO	Kaiser-Meyer-Olkin Measure of Sampling
OECD	Organization for Economic Co-operation and Development
PAF	Principal Axis Factoring Method
PACFL	President's Advisory Council on Financial Literacy
PISA	Programme for International Student Assessment
SPSS	Statistical Package for Social Sciences

CHAPTER 1

INTRODUCTION

Background to the Study

Financial literacy has been explained by Vitt, Anderson, Kent, Lyter, Siegenthaler and Ward (2000) as encompassing the ability to read, analyze, manage and communicate financial variables affecting an individual's material well-being. They continue that the financially literate individual should have the ability to detect the most appropriate financial choice out of any considerable number of possible alternatives, and be able to objectively discuss financial matters without apprehension. The material well-being and financial matters alluded to, speak of the personal finances of the individual concerned.

The skill of financial literacy provides the individual the capability to successfully plan the future and proficiently respond to daily life situations and changes in the general economy (Vitt *et al,* 2000). Financial literacy also helps individuals in choosing suitable saving and investment methods thereby reducing their exposure to fraud. This exposure to fraud is prevalent in individuals without sound financial literacy when they are handling their personal financial issues (Organization for Economic Co-operation and Development (OECD, 2006). When an individual has sound financial literacy, it becomes a matter of importance to financial service providers to become competitive and render quality services with better products that will meet the specialized needs of the individuals. When this competitiveness arises in these financial institutions, and their products and services truly answer to customers' needs, they positively shape both investment levels and economic growth (OECD, 2016). Financial literacy thus provides a warranty that the financial sector will make an actual contribution to real economic growth and poverty reduction.

It has been suggested that better financial literacy may well encourage not only increased levels of personal savings as part of personal finances, but improve the individual's financial and economic security in retirement as well (Lusardi, 2008a; Lusardi, 2008b). Evidence of the fact of economic and financial security can be seen in a study by Gale, Harris & Levine (2012) where they found that a substantial number of American adults aged twenty years and above, who had limited instruction and lower incomes, lacked an understanding of basic financial concepts and as such made poor financial and saving choices. Again a study by the US Securities and Exchange Commission in August 2012 also found that in order for a retail investor to avoid any possibility of investment fraud, that investor needed a strong grasp of fundamental financial concepts and of knowledge on how to avoid such fraud. Women, especially African-Americans and Hispanics, the elderly and poorly educated people have a trend of lacking the most in terms of financial knowledge. Added to this, minority groups along with individuals possessing low levels of financial literacy have been found to need information to avoid making financial mistakes involving limited participation in financial markets, inadequately diversifying portfolios, and choosing contracts inappropriately (Campbell, 2006). These contracts usually require the individual to have an understanding of contractual terms and of the technicalities involved in the financial instrument being contracted for (Bucks & Pence, 2006).

Financial literacy also boosts confidence of individuals who can apply their knowledge to their financial endeavours. This motivates them to improve upon their knowledge and broaden their personal financial horizons. The Inceptia Financial Aptitude Analysis research conducted on US college students to test their attitudes, behaviors and knowledge levels of financial education, established this fact where the students' high levels of financial knowledge made them self-assured in their ability to presently manage their personal finances and develop attitudes that will compel the regular making of budgets and the monitoring of spending initiatives (Trombitas & Lannan, 2013). When the individual develops the drive to enhance his financial knowledge and skills, said individual can then prevent the occurrence of some personal financial challenges, avoid financial stress, and protect his personal financial position as required (Garman, 1997).

Moving focus onto how financial literacy is gained, it can be seen that individuals can strive to educate themselves or receive instruction from others. These other sources could be from their workplace, their relations or financial professionals serving in various capacities. Should the individual secure the services of financial intermediaries and advisors to make financial markets more navigable, individuals still need to understand what is being offered or advised in order to gain the most out of their invested funds. Lewin (1951) expressed a view that behavior should be seen as a function of both the individual and his environment. This view has enabled studies to demonstrate that the environment in which financial literacy education takes place benefits from the education's impact on the individual. Evidence of financial education is found in a 2011 survey by Visa Inc. In this study basic money management was self-learned by 37 percent of adults. Visa Inc. also found that 25 percent of adults learned basic money management from their mothers, 22 percent learned from their fathers and only 5 percent learned about personal finance from teachers. Again, a 2010 iVillage survey of online mothers revealed that 41 percent wished to be more informed about managing money and being financially responsible so they could pass that knowledge on to their children. Respondents in this survey also noted family members and financial professionals as additional sources for financial information but expressed a desire for online articles and discussion forums with trusted financial experts to improve their own understanding of money management. Vitt *et al* (2000) advocated for financial education in the work environment; the main reason being that it is the setting for reaching most people. Garman (1999a) earlier promoted workplace financial education with substantiation that employees who participated in workplace financial education programmes experienced better health and were more committed to, and proud of their employers, and commended their organizations as being the best places to work.

There has been an increase in the amount of personal financial decisions that individuals now need to make as a result of changes occurring in the overall financial world and the economy. With increased life expectancy, individuals must proactively amass wealth in savings and investments to enable them live comfortable lives during retirement. Other financial concerns of healthcare and education for not just the individuals, but their dependents, if any, also require large financial outlays. These concerns make maneuvering through financial market terrain to be of considerable importance to make sure adequate finance is available to meet the individual’s needs (Program for International Student Assessment (PISA, 2012). This raises the question as to what constitutes personal finance.

Personal finance involves all money management and financial planning issues (Danes and Hira, 1987; Kapoor et al 2004; Financial Services Authority, 2006). These money management and financial planning issues involve decisions on financial activities such as budgeting, buying a car, insurance, taking out loans, mortgages, investing in stocks and bonds, and also retirement planning; and their effective controlling by the individual (Kapoor et al, 2004). It involves daily undertakings to maintain an individual’s current financial resources and promote future financial security.

Personal finance concerns are predetermined by the income of the individual, which in turn affects consumption patterns. How much money an individual is comfortable to spend has a basis on how much income the individual is earning or expects to earn. Mattern (2002) affirmed this and concluded that the individual’s demand preferences align with his future economic expectations. Changes in the economy affect income and consumption (personal finances in this case) such that consumer demand and the income generation of the individual falls when the state of the economy declines. Davis, Reardon, Stamoulis and Winters (2002) added to this that the rise in incomes and its associated increase in consumption reduce the defenselessness of the poor; in effect, bringing to the forefront the issue of poverty alleviation. This poverty alleviation can be linked to OECD's (2006) contribution that financially educated consumers' activities ensured that the financial sector made an authentic contribution to real economic growth. As such when individuals have adequate financial literacy, they combine this literacy to their quest for improved personal finances in the presence of a competitive and innovative financial market; the end result being increased financial wellbeing and the alleviation of poverty.

Bygrave (1993) can be said to have related poverty alleviation to success by expressing an earlier opinion that financial resources consisting of cash and money assets were a critical success influencer. This would mean that having adequate financial resources (personal finance) would determine an individual's success status (overcoming poverty). Pronyk, Hargreaves and Murdoch (2007) can be placed in line with the thought pattern of the individual having adequate capital by introducing their concept of micro credit as a helpful tool, which could account for reductions in poverty because it is instrumental in providing the funds to acquire the basic needs of the poor, their income, education and health. Dzisi and Seddoh (2009) allowed for the shift of focus from micro credit to ploughed back profits as a more preferred source of finance to improve income generation. In essence, a person's access to funds should be the best way of ensuring personal financial security: you need to use money to make money. Dzisi and Seddoh noted that although limited financial resources could be used to achieve greater financial success, which is in agreement with Bygrave, a substantial amount was necessary to boost productivity, growth and development.

As such it can be inferred that it would be beneficial if individuals knew (via financial literacy) how to easily access finance, choose proper capital structures and appropriate sequences and sources of capital; whether debt, equity or retained earnings, from business endeavors. A further understanding of this would be that the more money an individual can acquire to use to gain more money, the better the individual's personal financial position should be. As such the individual should acquire the know how (financial literacy) to make money work for him (in terms of personal finances)

It can be drawn from the various advantages of financial literacy expressed in this background that when accurate financial knowledge is applied to personal financing concerns of the individual, the result should be improved economic status of the individual concerned. Not only must the economic status of the individual improve, but, there must be a resultant positive change in the attitudes and behaviors of the individual flowing from a lack of stress where personal financial issues are concerned. This observation would imply that where the personal financial situation of an individual is poor, there must be a lack of sound financial knowledge and poor financial services provision as well as financial stress. This should also translate into a weakened general economy.

Considering the current income and expenditure trends of Ghana shows some interesting facts. Taking the average household in Ghana, their total annual expenditures sum up to GH¢9,317. An individual is thus making annual expenditures totaling GH¢3,117, implying that on average, a person spends about GH¢8.85 per day (Ghana Statistical Service, 2014). A trend can however be seen in Ghana's statistics that some regions perform better financially than others namely the Greater Accra, Western and Ashanti Regions. All other regions (including the Central Region which is sandwiched between these high performers), perform lower than the recorded national averages. For there to be sound personal financing for individuals in Ghana, there must be evidence of expenditures forming a lesser part of the incomes of the individuals in the country. Not only must expenditures form a lesser part of incomes, but these expenditures should not fully consist of the basic needs of the individuals, but other income generating ventures also. The case on the ground however is that lower performers have a mean annual household expenditure of GH¢3,924 and a mean annual per capita expenditure of GH¢664. This is almost ten times lower than the high performers' annual household expenditure of GH¢14,665 or their mean annual per capita expenditure of GH¢6,337 (Ghana Statistical Service, 2014).

When incomes are considered, it can be found that the mean annual household income for Ghana is also GH¢16,644.59 with a per capita breakdown of GH¢5,346.91 (Ghana Statistical Service, 2014). Households within the high performing regions have income that is about four times as much as that of a household within the low performing regions: GH¢25,200.9 as against GH¢6,571.8 for the mean annual incomes; and GH¢10,492.6 as against GH¢1,153.3 for mean annual per capita incomes. Again, the Ashanti, Western and Greater Accra Regions form the majority of the highest income category with all other regions (including the Central region) falling below national averages.

There is the need to assess why the lower performing regions in Ghana have income and expenditure trends that show a very limited spread. Personal financing depends on income of the individual and the uses which the individual puts his income to. Personal financing thus involves the income and expenditures found in Ghana's population. This study becomes more critical when the constituents of all expenditures in lower performing regions in Ghana are analyzed. In terms of the constituents of expenditures, the GLSS 6 noted food expenditures to form the bulk of all household expenditures (46.7%). Elaborating further, food accounts for 41.5 percent of the total budget of households in the highest quintile, but over 56 percent of the budget of households in the lowest quintile. Further classifications of spending into food and non-food items reveals that money not spent on food is invariably spent on obtaining other basic needs including clothing, housing, transportation, healthcare, education and miscellaneous goods and services. Housing, water, electricity and gas form 11.5% of non-food expenditures (Ghana Statistical Service, 2014).

There is in effect little or no evidence of money being put to investing use or for any major financial or income-enhancing venture aside the provision for basic fundamental needs in Ghana generally and the lower performing regions specifically. Again, the Ghana Living Standards Surveys (GLSS) by the Ghana Statistical Service (2008; 2014) and Chowa, *et al*, (2012) are among reports which concluded low financial savings and higher loan indebtedness as the major evidences of personal financial activities; with little effort being made to determine the basis of these results; nor the reasoning behind Ghanaians' financial actions. Literature informs that financial activities must be backed by financial literacy. As such it is inferred that financial literacy is lacking in these low performing regions.

The GLSS 5 report (Ghana Statistical Service, 2008), concluded previously that 30% of all households own a savings account out of which 78% of rural households and 61% of urban households do not have savings accounts. The Report also noted a gender imbalance where the proportion of persons having savings is higher among males (59%). Loan obligations were found to be lower in urban areas (24.1%) than in rural areas (29.8%) with the reported loan sources including relatives, friends or neighbours. The GLSS 6 (Ghana Statistical Service, 2014) also buttressed the trends in GLSS 5, with findings where those with savings schemes (35.4%) are far lower than those without (64.6%); males contributing 58.6% of this number than females (41.3%). These findings infer that personal financing of the individuals in Ghana are also low.

Statement of the Problem

Having found the preceding to be the state of the financial position of the Ghanaian population, Chowa *et al* (2012) in studying financial knowledge, found an inability of Ghanaians to answer questions on financial literacy correctly. Adding this finding to Ghana Statistical Service's reports, it can be seen that personal finance outcomes of the Ghanaian population are poor and imply a lack of general financial literacy since this must inform personal finance concerns. However, there is in fact a dearth of financial literacy literature for the Ghanaian situation which would make it imperative that more studies be done in the area of the financial literacy and personal finance concerns of the Ghanaian citizenry. This work seeks to add on to available literature in this regard.

This researcher specifically seeks to find out what is causing the financial literacy and personal financial position of the Central Region which is sandwiched between the three high financial performers of Ghana: the Greater Accra Region, the Western Region and the Ashanti Region. This research seeks to determine why the Central Region has not been able to develop in visible personal financial characteristics. This research will seek to also determine the presence of financial literacy in the Central region since financial literacy is required to gain a solid personal financial position.

The Central Region's mean annual household expenditure is GH¢8,133 with a mean annual per capita expenditure of GH¢2,825. The mean annual per capita income for the region is also lower than GH¢4,000.00, making it the poorest among the southern regions of Ghana (Ghana Statistical Service, 2014). Cape Coast, the Central Regional capital, has witnessed steady but delayed developmental progress, with low levels of educational literacy, and high unemployment levels (Metropolitan Planning Coordinating Unit, 2012) even though numerous educational institutions are located in the capital. Referring back to the OECD's (2006) claim of improved literacy meaning improved competitiveness in products and services of financial institutions, there are presently about eighteen financial institutions and insurance companies operating in the region (Metropolitan Planning Coordinating Unit, 2012); which should be the result of an implied response to a high demand for financial services resulting from financial well-being now becoming an important goal for many individuals.

Income generation seems also to be of high importance in the Cape Coast Meteropolis. This is evidenced by the juggling of multiple jobs by individuals and the high self-employment rate in the metropolis (Metropolitan Planning Coordinating Unit, 2012). This presumes that there is a desire for improved economic well-being in Cape Coast, which may or may not be backed by a correct understanding of how to attain economic fulfillment.

The question can be raised as to the presence of other financial avenues such as investments in real assets, stocks and bonds; and as to the individual's knowledge of their presence and usage to better their personal financial conditions and incomes. It can also be asked whether the individual is making financial choices from faulty assumptions based on the fact that they believe themselves more versed in financial issues than they really are (OECD, 2006). An assessment of the actual financial literacy and personal finance situation in the Cape Coast Metropolis is necessary. This would mean determining the accuracy of financial knowledge received and the available sources of financial education in relation to their evidence in the state of the individual's personal finances. This would then ensure that correct information is being used to make right personal financial decisions that result in better personal finances and improved incomes. This study tries to determine the financial literacy and personal finance situation in the Cape Coast Metropolis and establish the factors that affect them.

Objective of the Study

The main objective of the study is to determine the financial literacy and personal finance situation of the people in the Cape Coast Metropolis through their visible indicators and the linkage between the two. The specific objectives are to:

a) Assess the components of financial literacy displayed by people in the Cape Coast Metropolis
b) Assess the components of personal finance displayed by people in the Cape Coast Metropolis
c) Determine the factors that influence financial literacy in the Cape Coast Metropolis
d) Determine the factors that influence personal finance in the Cape Coast Metropolis
e) Assess the relationship between the factors of financial literacy and personal finance of people in the Cape Coast Metropolis

Research Questions

The following research questions will be answered in this study:

a) What are the components of financial literacy in Cape Coast?
b) What are the components of personal financing in Cape Coast?
c) What factors can be determined for financial literacy of the people of Cape Coast?
d) What factors can be determined for personal finance of the people of Cape Coast?
e) What relationships exist between the factors of financial literacy and personal finance in Cape Coast?

Scope of the Study

This study was carried out in the Cape Coast Metropolitan area, with a population of 169,894; of which 82,810 are males and 87,084 are females (Ghana Statistical Service, 2012). Specifically the legal contractually capable population of 18 years old and above, making a total of 110, 333 people (54,462 males and 55,871 females), was targeted. The main issue was to determine if people in Cape Coast have adequate financial knowledge to help meet their existing or potential personal financing needs. The study examined the financial literacy of individuals in the Cape Coast Metropolis, the situation of their personal finances and any relationships assessable between their financial literacy levels and the situation of their personal finances.

Significance of the Study

Financial literacy is essential in efforts to reduce abysmal personal financing effects of fraud, debt, poor retirement planning and poverty and the side effects of stress and anxiety. This study will identify knowledge gaps and deficiencies of financial literacy vis-à-vis personal finance from which better educational programmes and resources can be developed and applied for the general population. This study can also serve as a basis for further research.

Organization of the Study

This research is presented in five parts divided into five chapters. Chapter one includes an introduction, statement of the problem, objectives of the study, research questions, scope of the study, significance of the study and the organization of the study. Chapter two details related literature of the study. Chapter three details the methodology, Chapter four presents a detailed analysis of data gathered, relationships and discoveries attached to the study. Chapter five gives a summary of findings and recommendations.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction

This chapter includes a review of literature related to financial literacy and its component categories of actual and perceived financial knowledge, financial behavior and attitude, financial literacy components and demand for knowledge and financial literacy skills and levels. Aspects of behavioural finance theory, social learning theory and systems theory will also be discussed within the theoretical framework. This chapter also reviews literature of personal finance, the financial planning theory and discussions on money management.

Theoretical Framework

This study incorporates the Systems Theory (Family Resource Management Model), Social Learning and Behavioural Finance Theories into personal finance and financial literacy issues.

Systems Theory: Family Resource Management Model

Systems theory considers systems in general with an objective of discovering patterns and revealing principles that can be applied to a field of study. These patterns involve a flow chart model of input, throughput, output and feedback. In so far as financial literacy and personal finance are viewed as a system (Goldsmith, 2005), the System theory's sub grouping known as the *Family Resource Management Theory* (Bubolz & Sontang, 1993) should be its further classification. Under Family Resource Management theory, an understanding of the financial literacy components and factors of individuals in the Cape Coast Metropolis can be derived to explain its role in the personal finances of the individuals concerned. Deacon and Firebaugh (1981) used the Family Resource Management theory to explain how available resources can be used to achieve specific objectives, which goes in line with general management views of achieving goals through an available resource (which usually is the human resource).

Figure one explains the Family Resource Management theory. At any point in time, the individual must have resources with which to work. These available resources form the raw material of whichever endeavour is to be worked on. These resources or raw materials form the *inputs*. These inputs are further processed or used to achieve the goal. The processing phase is called the *throughputs*. At the throughputs phase decision making, controlling and monitoring characteristics must come in to ensure the individual is doing the right things or going in the right direction to attain the objective. The attained objective after processing is the *output*. The output must generate satisfaction or dissatisfaction that the desired objective has been met to specifications of the individual (Rice & Tucker, 1986; Jorgensen, 2007). All stages of this model must have adequate *feedback* to ensure effective control (Rice & Tucker, Goldsmith, 2005).

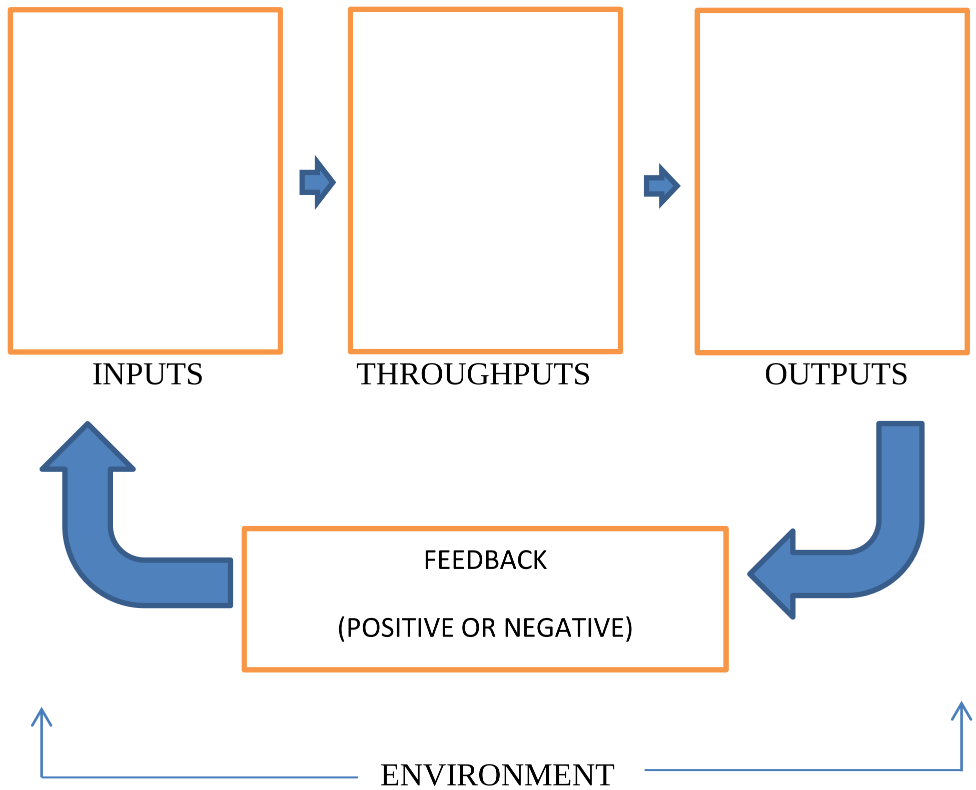

Figure 1: Family Resource Management Model (Jorgensen, 2007)

Social Learning Theory

Social Learning theory indicates how an individual's socialization progression changes his norms and even preferences by using observational learning and modeling (Bandura, 1997). Individuals' learning is seen as a cognitive process in a social environment where the individual observes or receives direct instruction. Explained differently, in the social learning process, individuals consider the various consequences of various actions on the basis of which they develop “thought” hypothesis about the specific behaviors required to bring about success to any undertaking. The individual then applies these thought hypotheses to upcoming events (Dulany & O’Connel, 1963). The accuracy of these thought hypothesis would give rise to future successes whereas inaccurate hypothesis would lead to future failures.

In the social learning system, knowledge and its fitting behavior, which is appropriate for the acquired knowledge, is seen as being dependent on both the person and the environment (Lewin, 1951) such that new patterns of behavior are acquired through direct contact or experience or by observing the behavior of others (Bandura, 1971). Social learning theory in this context has implied that financial literacy is gained from modeling the behavior and attitudes of those in the community who are already financially literate, or receiving tutelage directly from these individuals; which would further imply that a society without many financial experts will remain financially illiterate for indefinite periods of time since they are only responsive to changes that become a trend.

In line with social learning principles however, people are constantly confronted with situations they must respond to in diverse ways. Some of the responses will give successful outcomes, others, not so successful outcomes. Bandura (1971) makes it clear that through this process of differential reinforcement of all possible outcomes, successful modes of behavior are eventually selected from exploratory activities, while ineffectual ones are discarded. It is commonly supposed that responses are automatically and unconsciously strengthened by their immediate consequences with the resultant effect that the individual's cognitive skills facilitate his gaining from experience. Thus making stored knowledge and skills assimilated casually of the essence (Kim, Aldrich & Keister, 2003).

In illustration, research by Lusardi, Mitchell and Curto (2010) shows a link between financial literacy and an individual's family economic and educational background. Individuals who were more financially literate mostly came from highly educated families that held a wide range of financial products and had been exposed to sound financial behavior, which they have adopted in their own financial practices. Visa Inc (2011) found that basic money management was learned by 25 percent of the population from their mothers, 22 percent learned from their fathers and only 5 percent learned about personal finance from teachers. The 2010 iVillage survey of online mothers revealed that 41 percent wished to be more informed about managing money and being financially responsible so they could pass that knowledge on to their children. Respondents in this survey also noted family members as other sources for financial information.

Murray (2011), in line with these findings, advised that changing those whom individuals with low financial skills rely on for knowledge causes great improvement in their skill levels. The social learning theory has been incorporated into the analysis of financial literacy and personal finance in determining the sources from which the individual gains his financial literacy and in turn, his preference for various personal financial endeavours.

Behavioural Finance Theory

Behavioral finance addresses how different psychological and sociological traits affect how individuals or groups act in financial situations (Brown & Reilly, 2009) such as how risk levels are determined (Statman, 1995) and how decision are made (Ricciardi & Simon, 2000). Financial behavior is a practice for managing financial resources to achieve financial success. Financial attitude on the other hand refers to the general orientation toward financial management; comprising of the individual's eagerness to consider differing possibilities or take actions based on his beliefs (Ajzen and Fishbein, 1980). Financial attitudes and behaviors are conditioned by financial knowledge and skills such that any change in these attitudes and behaviors will depend greatly on the magnitude of change occurring in the level of financial knowledge and skills (Murray, 2011), whether actual or perceived knowledge. These views direct thought to the conclusion that the financial literacy of an individual should manifest in the attitudes and behaviors the individual shows. This would also presuppose that the more financially literate an individual is, the better his attitude and behavior in financial matters should be. However as in all social systems and irrespective of their financial literacy, not all individuals can be expected to follow rational thought patterns and actions due to combinations of influences such as behavioral/cognitive biases, self-control problems, family and peer influences, economic factors, and/or community and institutional influences (Funfgeld & Wang, 2009; Huston, 2010).

In illustration of behavior rationally following financial literacy, Funfgeld and Wang (2009) discovered five underlying dimensions of behavior in their study of behavior and attitudes in every day finance in Switzerland: anxiety, interests in financial issues, decision styles, need for precautionary savings, and spending tendency:

1. *Anxiety*, they discovered, had two dimensions: procrastination and unstable preferences, both of which are hard to manage in financial situations but as expressed by Vit *et al* (2000), financially successful behavior is without anxiety.
2. Persons with high *interest in financial issues* tended to be more financially literate due to their following up on such interests with a search for knowledge (Lusardi, Mitchell & Curto, 2010).
3. *Decision styles* were found to be either intuitive or analytical. Analytical decision makers collected more objective information, calculated risks, applied impersonal analysis to problems, and valued logic. Intuitive decision makers made spontaneous decisions, and were less interested in factual information and analytical processes.
4. The *need for precautionary savings* determined behavior geared at saving for unforeseen events in the future.
5. The *spending tendency* of the individual determined behavior which saw the act of spending to be as valuable, or more valuable, than the purchased item.

Aside these behaviors, private investors can be classified into a small number of clusters or groups in order to learn about group-specific needs in financial affairs (Funfgeld and Wang, 2009). These clusters are rational, myopic, anxious-savers, gut-feeling followers and anxious-spenders.

1. *Rational consumers* behave more thoughtfully and cautiously. They pay attention to making adequate savings and have a high interest in financial issues, and employ analytical decision-making methods.
2. *Myopic consumers*, most characteristic of men (Cryder, Lerner, Gross & Dahl, 2008), incorporate and aptly manage financial issues in their daily lives. However they do not see precautionary savings as a great need. They attach very little emotion to their decision making. Myopic consumers are overconfident.
3. *Anxious-savers* are cautious, make their decisions in an analytical way, and like to compare and calculate risks. They see precautionary savings as essential, but are disinterested in financial matters of any sort due to their insecurity and anxiety in anything financial.
4. *Gut-feeling followers* are disinterested in financial issues and are impulsive decision makers in all financial matters great and small. They lack guidance and sound advice. However they do recognize the need for precautionary savings.
5. *Anxious-spenders* greatly lack financial advice. They spend money the most, make intuitive and spontaneous decisions, and are generally

unconcerned about their finances aside precautionary savings. Spending money is a frustration-reliever for them.

These classifications indicate that rational consumers are more inclined to take their personal finances seriously by making adequate money management provisions and can also be classified as persons with high interest in financial issues who make rational decisions and precautionary savings. Myopic consumers are most likely risk lovers, but do not adequately insure the risks they take. Anxious-spenders are clearly risk averse individuals who do not actively seek investment avenues to increase their wealth. Of all five classifications, the Gut-feeling followers and the Anxious spenders are less likely to be serious with their personal finances and make intuitive decisions in the face of their high spending tendencies.

However, it is noted that not all individuals follow rational thought patterns and actions; giving rise to the debate on anomalies and biases in financial behavior including overconfidence and procrastination (Biais, Hilton, Mazurier & Pouget, 2005; Funfgeld & Wang, 2009; Mahajan, 1992; O'Donoghue & Rabin, 1998). Over confidence plays a vital part in investors failing to learn from their past mistakes. In illustration of deviations from the norm of rational behavior and attitudes, Solt and Statman (1989) talk of overconfidence among financial analysts in growth forecasts of companies. Analysts overestimate growths and overemphasize good news, while ignoring adverse news. This leads to misrepresentations for investors who would then acquire stocks in these companies.

Scott, Stummp and Xu (1999) talk about the *prospect theory* which shows how investors are more likely to hang on to unprofitable investments too long, but sell profitable or potentially profitable investments too soon due to their fear of making losses which far exceeds their desire to make gains. *Belief perseverance* is another bias (Brown & Reilly, 2009) that deals with the investor's propensity to stick with an opinion, on a company or its stock, once it is formed and firmly planted in his mind making them averse to seeking out new ideas; and even if they do, skeptical of their findings.

Hathaway and Khatiwada (2008) and Huston (2010) in complete agreement with biases and irrational financial behavior concluded that a financially literate person might not always show signs of desirable financial behaviors, noting other variable combinations or influences on human behavior exist which may explain why a financially knowledgeable person does not act based on that knowledge. Such influences, as previously mentioned, include behavioral/cognitive biases, self-control problems, family and peer influences, economic factors, and/or community and institutional influences. For this reason, researchers and policymakers should be cautious and avoid concluding that correlations in studies that evaluate the effect of financial education on financial behaviors are always causal (Hathaway & Khatiwada, 2008).

Mandell and Klein (2009) examined the impact of a semester-long high school personal finance management course on high school graduates from three different schools. The researchers administered a survey that assessed levels of financial knowledge, financial behavior, and attitude toward risk. Respondents filled out the survey one to four years after graduation. Findings showed that financial literacy levels did not differ based on having taken the personal finance management course. Additionally, based on self-evaluations those who took the course were not more savings-oriented, nor did their financial behavior differ from those who had not taken the course. Evidences of causal correlations between financial literacy and behavior would include a study by Borden, Lee, Serido and Collins (2007) which examined the effect of a college-level financial education seminar on the financial responsibility of college students. The rationale of the seminar was to supply information concerning financial behaviors possessed by college students.

Before and after the seminar, students completed a pre and post-test survey respectively, which assessed their financial knowledge and attitudes. Results concluded that involvement in the seminar led to increased financial knowledge, an increased responsible attitude towards credit and a decrease in avoidant attitudes towards credit. The Inceptia Financial Aptitude Analysis research conducted on college students to test their attitudes, behaviors and knowledge levels of financial education found the need for high levels of financial knowledge among US college students. Students required confidence in their ability to presently manage their personal finances and to regularly make budgets and track their spending. A positive correlation was found between having a budget and feeling in control of financial situations (Trombitas & Lannan, 2013).

A YouthSave Experiment in Ghana by Chowa, Despard and Osei-Akoto (2012) revealed that most of the financial knowledge that the youth got stressed mainly on savings. Because of this skewness in education, a slight majority of Ghanaian youth, fifty-five percent, had cultivated the habit of saving. However Ghanaian youth were concluded to make only short term savings in that they seek to save to meet short term future spending targets. Peng, Bartholomae, Fox and Cravener (2007) studied the effect of high school and college courses in personal finance on investment knowledge and household savings rates. After administering a web-based survey, results from a multiple hierarchical regression showed that students who participated in a college course in personal finance had higher levels of investment knowledge.

Financial Literacy Reviewed

The Programme for International Student Assessment (PISA, 2012) along with Lewis and Messy (2012) explained that changes occurring in the financial markets, the economy and social characteristics increased the amount of financial decisions that individuals now had to make. Longer life expectancy requires proactive accumulation of savings to last over longer retirement periods, financial support for personal and family healthcare needs have to be put in place, as well as planning and investing sufficiently to prepare for mounting costs of education. Because financial decisions deal with the future, there is an inevitable component of risk which the individual, fundamentally with financial literacy, must have the proper knowledge and tools to handle (Alexander, Marple & Jones, 2011).

Without sufficient financial literacy, individuals are at greater risk of falling into excessive debt and having insufficient savings making it essential that financial literacy should be gained even before the individual has to face his first ever financial situation or earn his first ever salary (Alexander *et al*; OECD, 2005). Vitt *et al* (2000) concurred with this view in seeing financial literacy as a skill required to smooth the progress of analyzing and managing financial issues affecting an individual's material well-being. It follows that financial literacy skill is essential for planning the future and competently responding to daily life situations as well as changes in the general economy.

Murray (2011) in his study of financial literacy in Canada concluded that the absence of ample financial literacy would cause the fraction of adults with low levels of proficiency to remain unwavering at about 40 per cent of the Canadian population out to the year 2031, which would in turn have dire effects on the economy and society. OECD (2006) previously noted the inability of individuals to choose the right savings or investments and the danger of fraud as characteristics of the financial illiterate; and that the presence of financial literacy is an important factor to compel financial service providers to create and improve products that truly answer to their needs and positively affect both investment levels and economic growth. These findings give the implication that the financial literacy of individuals affects their personal finances such that a collective effect of poor financial literacy worsens standards of living in countries with low financially literate citizens; and a worsened state of any nation's financial systems and processes.

Financial literacy thus refers to being perceptive of the facts and vocabulary essential to manage one's personal finances effectively (Garman & Forgue, 2000). It is awareness and understanding of financial impressions and possibilities, and the expertise, drive and assurance to apply such awareness and understanding to take operative decisions over a variety of financial settings, the aim being to develop financial well-being and economic standards (PISA, 2012). It implies firstly a thinking and behavioral component, and secondly a purpose or reason for developing the said skill. The President's Advisory Council on Financial Literacy (PACFL, 2008), established to advance financial literacy among Americans, sees financial literacy as using knowledge and skills to manage financial resources successfully for perpetual financial well-being. Thus, financial literacy is a form of knowledge, which one should be able to apply, perceived knowledge, financial behavior, and financial experiences (Hung, Parker & Yoong, 2009).

Actual and Perceived Financial Knowledge

It is a reality that people believe they possess more financial knowledge than they actually do (OECD, 2006), requiring a distinction between actual financial knowledge possessed by the individual from educational or learning efforts and perceived financial knowledge which are assumptions the individual believes to be accurate based on his confidence in his own thought perceptions, in taking decisions in areas in which the individual has little knowledge. It has been found that a moderate correlation at best exists between actual financial knowledge and perceived financial knowledge, making the use of perceived knowledge as a substitute for actual knowledge highly risky (Agnew & Szykman, 2005) and also proving the danger of over-belief in one's financial capabilities.

The confidence to make responsible financial decisions should depend largely on actual financial knowledge and skills (Murray, 2011), nevertheless, emerging data suggests that perceived knowledge, or confidence, may have behavioral predictive ability of its own, above and beyond actual knowledge; drawing from the fact that individuals do not generally know the scope of their actual knowledge and as an alternative, decide on courses of action based on how much they think they know (Lusardi & Mitchell, 2007). Financial knowledge, which depends on financial literacy (Murray, 2011), includes knowledge about general personal finances, retirement plans, credit and money management, and consumer rights. PACFL (2008) distinguishes between financial knowledge and financial education in that the latter is the process for acquiring financial knowledge and skills, rather than being the actual knowledge and skills. Education focuses on the processes of delivery of financial knowledge (Kim, 2000). Thus, financial education should be seen as a concept that promotes financial literacy.

Financial Literacy Components and Demand for Knowledge

Numerous factors have led to a multifaceted, financial service market that obliges consumers to be keen if they are to handle their finances successfully (Braunstein & Welch, 2002): technology advancements and market innovation altered by increased competition have led to a complicated industry offering consumers a wide range of services by a wide assortment of providers. Undeniable consumer concerns, such as lending, high levels of consumer debt, and low saving rates, have also added to the increased importance of financial literacy. Other noted demographic factors and market trends adding to concerns include increased diversity of the population, and its consequential language, cultural, and other factor barriers to establishing banking relationships; increased access to credit for younger populations; and increased employee responsibility for directing their own investments in employer-sponsored retirement and pension plans (Garman, 1999b). Changes in financial literacy requirements may be motivated by either external or internal factors such as varying investment objectives, tax treatments and product or service offers (Murray, 2011). When these changes arise, individuals can chose to ignore them, rely on advice to make decisions, use their available personal knowledge to make decisions, or use multiple information sources to make decisions. How individuals respond to changing financial demands has an effect on their own outcomes, the outcomes of the institutions with which they interact, and eventually the welfare of the society in which they find themselves (Murray, 2011).

Earlier researchers saw financial knowledge and skill as depending on an individual's attitude and beliefs that were previously altered by his social background and experience in school (Gal, Van Groenestijn, Manly, Schmitt & Tout, 2005); however, actual financial knowledge is also gotten from teachers at school and parents at home in current times (Chowa *et al*, 2012). On the other hand, Murray (2011) noted that demand for financial literacy is satisfied in a typical hierarchy of three: at home, at work and in the community. Satisfaction of financial literacy demand personally by the individual at home would involve the individuals self-learning efforts, or his use of financial professional advisors. Visa Inc. (2011) found basic money management was self-learned by 37% of adults; the 2010 iVillage survey of online moms revealed a desire for online articles and discussion forums with trusted financial experts to improve their understanding of money management. Murray (2011) suggests that individuals with very low levels of financial literacy might achieve good outcomes if they choose to rely on financial professionals for financial advice. Such reliance creates a level of dependence and joint responsibility that presumes that the advice given is responsible.

For the satisfaction of financial literacy demand at work, Garman (1999b) commented that employers could offer financial literacy wellness programs for their workers, either fully paid or with shared payment with the workers, where employees received assistance from an outside organization or financial planner to help them take advantage of financial opportunities; and received credit management and budgeting advice from counselors where high risk-assessment scores were recorded for employees. Workplace financial education has been a significant source of information for employees in times past, providing adequate information for their financial decision making (Bernheim & Garrett, 1996). These programs were backed by monetary rewards for achieving specified milestones or targets. The employer's human resource department often coordinated the delivery of retirement education to workers where the employer undertook to provide retirement education internally (Garman, 1999b), which retirement education traditionally focused on calculating projected retirement benefits and needs, investing to reach retirement goals, investing to not outlive anticipated cash flows, and estate planning.

However the topics on finance most preferred by workers included early retirement, budgeting, cash management, life insurance, college planning, tax planning, credit management, estate planning, rental property investment, insurance planning, elder parent care, education funding, living trusts, and consumer protection laws (Jinhee, Bagwell & Garman, 1998). This researcher however found very few literature pertaining to workplace financial education after the year 2000, which could imply limited research in workplace financial education after this period, or a reduced practice and focus in this area in line with the shifting of more risk and responsibility on to the individual for financial matters as expressed by Lewis and Messy (2012) and PISA(2012).

Financial Literacy Skills and Levels

Conventional measures of skill, such as years of schooling and educational attainment, are ineffective indicators of an individual's exact ability to deal with financial literacy tasks (Murray, 2011; Statistics Canada & OECD, 1995) although a specific analysis into educational attainments has proven that there is a correlation between financial skills and the individual's mathematical skills at school-going age (Jappelli & Padula, 2011). Financial literacy levels is seen by

Murray to involve or depend on the use of the individual's distinctive skills allied with his writing style, document literacy, numeracy, problem solving, scientific literacy and oral fluency. Murray further opines that financial literacy levels must correspond with knowledge of the involved subject matter and hence correspond to financial literacy components; which view goes contrary to the assumption of perceived financial knowledge being a basis with which financially successful behavior is possible. In theory, deficiencies of lower skill levels need to be corrected before an individual can progress to a higher level of literacy (Murray) but this cannot be a simple process of identifying key information gaps and filling them with the missing information in the presence of complications such as the cost of attaining information, time period within which information gained retains usefulness, its reliability, and information access barriers.

Having identified that financial literacy of individuals can be ranked into higher level and lower level skills, the question remains as to the standard from which these rankings are made, and what qualifies as either a higher or lower literacy skill or level. No uniform standard thus far exists to determine financial literacy levels across all countries, nonetheless, in general terms, lower literacy levels are envisaged to be found mostly in developing countries, (Miller, Godfrey, Levesque & Stark, 2009) perhaps in line with these countries' challenges in education provision for their citizens. Literacy levels that have been acknowledged by Statistics Canada and OECD (1995) are as follows:

1. *Level One*: very poor literacy skills; require the ability to read short text, locate and enter information in text, complete simple tasks of counting, sorting and simple arithmetic.
2. *Level Two:* a capacity to deal only with simple, clear material involving uncomplicated tasks; ability to separate meaningful information from chaff, integrate several pieces of information, compare and contrast information and interpret simple diagrams.
3. *Level Three:* adequate for coping with the demands of everyday life and work in an advanced society; integrate information from complex texts and understand complex mathematical information.
4. *Level Four:* strong skills; ability to find solutions to abstract problems, integrate and synthesize complex information of a lengthy nature, and make inferences.
5. *Level Five:* strong skills; to process information of a complex and demanding nature, ability to search for information in dense text with large number of distracters, make inferences, use specialized background knowledge, and understand complex diagrams of a mathematical nature and abstract ideas.

These classifications by Statistics Canada and OECD (1995) would seem to imply that individuals with low mathematical abilities, or actual knowledge, should have low levels of financial literacy; but this would diminish the role of perceived financial knowledge in determining individual's financial successes.

PISA (2012) in turn identified four content areas for financial literacy:

money and transactions, planning and managing finances, risk and reward, and financial landscape:

1. *Money and transactions* content area requires an awareness of the different forms and purposes of money, being confident in abilities to handle straightforward monetary transactions such as payments and spending, recognizing and making use of value for money situations, bank transactions and instruments, bank accounts and currencies.
2. *Planning and managing finances* includes a knowledge and ability to plan and manage incomes, investments and wealth for both short-term and long-term periods. This would involve monitoring income and expenses, recognizing types and measures of income (e.g. allowances, salary, commission, benefits, hourly wage, and gross and net income); ability to make and use budgets; and understand how government taxes and benefits impact on planning and managing finances.
3. *Risk and reward* involves identifying ways of managing, balancing, limiting and covering risks, and understanding the probabilities for making financial gains or losses over given financial contexts. The individual should be able to recognize what financial products and processes will help to manage and make up for various risks, how to diversify, the dangers of defaulting on agreements, and the risks associated with life events such as changes in the economy, theft or loss of personal items, unemployment, birth or adoption of children, failing health, fluctuations in interest rates and exchange rates.

4. *Financial landscape* relates to knowing the rights and responsibilities of consumers in the financial environment, the implications of financial contracts, legal regulations and the costs of changes in economic conditions and public policies.

It is evidenced clearly from these studies that financial literacy levels must correspond with knowledge of the involved subject matter and hence correspond to financial literacy components. These rankings by PISA (2012) are based on the aspects of personal finance which formed the basis on which the study revolved (still focusing on actual knowledge) and as such should an individual lack knowledge in these personal financial issues, their grading would be low. Distinctive features running through the above financial literacy classifications by Statistics Canada and OECD (1995) and PISA (2012) include understanding of relevant financial subject matter, manipulation of figures, inference making and deductions. These rankings thus indicate the need for financial literacy levels to be determined from an appreciation of the possible effects of perceived financial knowledge being added to actual knowledge of relevant subject matter.

Personal Finance Reviewed

The Financial Planning Theory, Process and Money Management

In today's increasingly complex financial world, it is crucial that people know how to make important decisions like buying a house or a car, taking on loans, investing in savings and stocks, and planning for retirement (Lusardi &

Mitchell, 2007b). Increasing numbers of consumers have access to a variety of providers offering an extensive range of financial products and services, which can be delivered through a variety of channels. As such, improved levels of financing in promising economies, technological advancements and deregulation have resulted in growing access to all kinds of financial products. These available products are also becoming more complex making it essential that individuals make comparisons across a number of factors such as the fees charged, interest rates paid or received, time period involved in a contract and coverage for risk. They must also identify suitable providers and delivery channels such as community groups, traditional financial institutions, online banks and mobile phone companies (PISA, 2012).

In reviewing personal finance, *money management* and *personal financial planning* terms were discovered. Money management was seen as comprising all activities necessary under personal financing, as well as the extent of success an individual has gained in his personal financial planning (Danes & Hira, 1987; Kapoor et el, 2004; Willis, 2013) and includes daily undertakings aimed at maintaining currently available personal financial resources to promote future financial security; storing and maintaining personal financial records of documents, creating personal financial statements of incomes and outflows of cash, and implementing a budget to track spending and savings (Kapoor, Dlabay, Hughes & Ahmad, 2004; Willis, 2013). The financial planning process should enable individuals to effectively control any financial situation that might arise in their lives (Kapoor et al, 2004) because such planning processes are tailored to meet each individual's unique financial needs.

Willis (2013) noted that the first step of money management should be the individual learning everything possible about money and how to use it; indicating a reference to financial literacy as a foundation for any financial activity. Willis further noted that good money management requires a lot of effort on the individual's part; and requires proper personal record keeping of important papers such as wills, insurance policies and certificates of ownership. Taking good money management as a reference to personal finance levels, the argument can be made that the extent of the individual's use of financial instruments and services could determine the level of financing the individual has. A tailoring of financial planning processes to the individual's needs implies a relation to the financial literacy proficiency of the individual in order to determine best planning outcomes.

Danes and Hira (1987) previously studied five main areas of money management, which are credit cards, insurance, personal loans, record keeping and overall financial management. In a more recent time, The Financial Services Authority (2006) establish a difference of money management from planning ahead, making financial choices, mortgages, insurance, savings, investments credit cards, loans and getting financial help; although all these variables were grouped as a whole and categorized as essential *financial capability measures*. This assumes the presence of discrepancies in the definition of elements constituting personal finance. These differences in operationalization of the term money management make it difficult to decide on a concrete definition of money management; but do signify a general term for evaluating, deciding on, monitoring, or letting go of any financial activity.

Financial Services Authority (2006) again detailed money management in spending habits, planning and payment of expenses, budgeting, education on financial issues, financial difficulty or crises preventive and corrective actions, financial advisory sources and fees, left over or excess money usage (spending or investing scenarios), loan indebtedness (overdrafts, credit card debts), financial record keeping and also, financial instruments and services usage. This detailing shows that earlier views of financial planning and money management do overlap; and also that money management has no actual separation from any other classification or categorization of personal financing components.

It can then be concluded that personal finance embodies financial planning and money management. Previous studies have also alluded to the teaching of personal finance issues in reference to financial literacy (Ansong, 2011; Ansong, 2013a; Ansong, 2013b) indicating that issues in financial literacy and issues in personal finance do coincide; however, personal finance does seem to be the fieldwork of financial literacy as a theory. Many studies have shown that components of financial literacy, or personal finance, vary among age groups and nationalities (Bucks & Pence, 2006; Campbell, 2006; Chowa, Despard & Osei-Akoto, 2012; Miller *et al*, 2009; US Securities and Exchange Commission, 2012; Trombitas & Lannan, 2013) including topics such as investment, savings, mortgages, portfolio diversification, advisory services, general money management, retirement planning, and budgeting. Because financial literacy topics focus on financial issues in order to enable the individual manage his personal finances (Vit *et al*, 2000), it is expected that the individual's personal finance components should correspond to the financial literacy topics he has knowledge of.

Personal Finance Issues

Financial Advisory Services

Personal Accountants are the most relied upon financial advisors for individuals who do seek professional financial advice (Willis, 2013), mainly with tax planning, retirement planning, and personal budgeting. Depending on the accountant's varied skills, help may also be given in investment planning and estate planning (Willis, 2013). However the cost of these services limits their usefulness and also hinders their patronage by quite a number of individuals (Ansong, 2013a) in favor of informal sources of advice from relations, peers and their own self-learning efforts (Jorgensen, 2007; Visa Inc, 2011; Chowa *et al*, 2012). Their knowledge and experience in financial matters should not lead individuals to allow financial advisors complete control over their personal finances. The individual must actively manage his own finances and engage the advisor only in situations which require such expert advice over and above the individual's ability to grasp such issues after careful and deliberate enquiry (Willis, 2013).

Loans

With quick debt repayment and long-term debt-free status becoming a priority, individuals are advised to compare the after-tax costs of loans to the after-tax return of an investment and choose to pursue the higher-valued option (Willis, 2013); with emphasis being made that a loan or liability should only be preferred when there is a cash reserve (asset) or emergency fund to offset the loan.

Mortgages

Mortgages are long-term amortized loans secured with real estate (Mishkin & Eakins, 2012), with the interest element along with a portion of the principal paid off periodically. Follain (1990) noted that a potential mortgagor not only has to worry about the same issues as an investor (cost of debt and equity, default, diversification and transaction costs), but must be concerned with the prospect of moving, liquidity constraints and tax issues. Mortgage interest rates, which tend to lie above treasury-bill rates, making them less risky, form the most decisive factor for mortgages; requiring the analysis of the market rates, time period of the mortgage and discount points which are interest payments made at the beginning of the mortgage contract (Mishkin & Eakins, 2012).

Reverse mortgages, a newer version of mortgages preferred by older homeowners who are on average 62 years and above, based solely on the value of the real estate in question not the borrower's income, interest rates and principal amounts, are issued by governments with an insurance component to cater for times of economic hardships characterized with house price declines (Nakajima, 2012). While the reverse mortgage applicant must borrow against his accumulated equity interest in a house he must already be occupying and own, total equity ownership in the real estate passes to the *conventional mortgage* holder, who insures himself against loan default, at the end of full payment of the debt (Mishkin & Eakins, 2012). *Insured mortgages* have an underlying guarantee from a national regulatory body set up to cater for various stakeholders such as war veterans, teachers, farmers and many more after the meeting of specific qualifications required by that body, which ensures repayment of the mortgage on behalf of the burrower. Nakajima (2012) observed that conventional mortgages require an initial deposit of 20% of the real estate's value and the mortgage contract covers the remaining 80%; also the income of the borrower plays a decisive factor in determining their qualification for conventional loans, consequently disqualifying aged home owners.

Another classification of mortgages, *fixed-rate mortgages* and *adjustable-rate mortgages*, rests on the interest rate characteristics (Mishkin & Eakins, 2012). Adjustable rates are tied to specific market rates and change in accordance with changes in the given market rate and as such, limits, or caps, are placed on the extent of variations on the mortgage interest rate relative to the market rate. Fixed rates do not bring any cost advantages to burrowers should interest rates fall but are safer and more dependable than adjustable rate mortgages (Fisher & Shelly, 2002).

Credit Cards (and Debit Cards)

Credit cards breed the major financial trouble of overpowering debt levels due to individuals' inability to meet their repayment obligations and associated interest charges as they fall due, although they allow for easy transactions (Willis, 2013). When the individual makes purchases, the relevant monetary amount from a float allowed to the individual from the bank is electronically transferred to the seller to be repaid as a loan by the card holder. In the case of debit cards, payments for merchandise are deducted from the individual's account immediately the transaction is conducted (Mishkin & Eakins, 2012; Willis, 2013).

Income and Consumption

Income levels positively correlate with consumption and poverty levels as well as economic conditions (Davis, Reardon, Stamoulis & Winters, 2002; Mattern, 2002). Individuals tend to consume large portions of their income or increase their lifestyle expenses as their incomes increase, as a result of putting off personal spending or sacrificing pleasures to ensure a brighter future for themselves (Willis, 2013). Budgeting is recommended to be used as a technique to optimize consumption patterns along with avoided use of credit cards in favor of debit cards; impulse buying should be controlled, and expensive items should be compared over different sources without making a purchase after one round of checks (Willis, 2013).

Savings and Investments

Saving is forgoing consumption today in anticipation of tomorrow's need (Miller and VanHoose, 2001) or the outcome of cautious management of income and expenditure, such that there is a little left to be put away for future use (Ahmed, 2002); although it is not an avenue for making gains (Willis, 2013). Savings are either formal involving the use of financial institutions or informal with saving at home, susu schemes and welfare associations (Ahmed, 2002; Aryeetey & Gockel, 1998; Boateng, 1994; Lewis & Messy, 2012). Formal savings should be preferred due to the availability of diversified formal institutions (Lewis & Messy, 2012).

Investments provide the gain an individual may desire on a saving by allowing the individual investor to purchase assets that are expected to increase in value over time, but with the possibility of losses should the value decrease instead (Willis, 2013). The three main benefits investors derive from investments are the earning of returns on their savings, which should be reasonable for the time period and inflation which occurred during that time of investment, and the uncertainty or risks surrounding the investment made (Brown & Reilly, 2009). Investments cover stock or equity financing by purchasing ownership interest in a company in exchange for shares of benefits, corporate and government bonds which makes them lenders receiving interest payments and the lump sum at maturity, mutual funds which pool resources of many investors into several investment types at once, real estate which is expected to increase in value such that profit is made on its sale, and other investment alternatives or speculative investments such as call options, put options, derivatives, commodities, precious metals, gemstones, coins, stamps antiques, and collectibles (Kapoor *et al*, 2004). High gains are expected from such investments, making them risky in nature.

Two savings behaviors exist in the form of savers and spenders (Olson & DeFrain, 2000), while risk aversion and time preference explain differences in investment behavior (Eckel, Johnson & Montmarquette, 2004). Savers impulsively put away money and keep modest sums free for essentials while spenders take delight in purchasing items, especially when income is earned (Willis, 2013). Safe investments have the lowest possible risk an investment can possesses and are chosen by *conservative investors* due to the little or nonexistent probability of them becoming valueless (Kapoor *et al*, 2004); highly risky or speculative investments afford high profits within relatively short periods of time, making them suitable for risk-loving investors.

Twenty percent of take-home pay is advised to be invested monthly in support of the *Life Cycle Hypothesis of Savings and Investment* (Willis, 2013; Kumah & Sare, 2014), which assumes that an individual consumes a constant percentage of the present value of their income and saves or invests another percentage so that wealth is accumulated with the young population having little wealth, the middle-aged having more wealth, and great wealth being attained just before people retire. The rationale for this is that when retirees spend their wealth on food, housing, recreation and health care, a redistribution of wealth occurs in the form of incomes to the young population, such that wealth accumulation by the young begins again (Kumah & Sare, 2014). Willis (2013) simplified this cycle in his version of the financial planning phases:

1. *Increased debt* refers to the first phase where the individual starts to etch out a life for himself by borrowing funds to start a business, buy or build a home, settle study fees and other obligations.
2. *Increased income* phase occurs when the uses of burrowed funds start paying off and yielding returns. As income rises the individual should begin saving and investing for future needs. Once savings and investment patterns have been established, the individual can then start improving his lifestyle with his various wants and desires.
3. *The maximum cash flow phase* sees the individual settling all debt obligations and increasing his income. The individual should also increase savings and investments in proportion to these income increases.
4. The fourth phase sees income reach its peak such that expenses now exhaust a minimal portion of income. The individual thus maximizes his lifestyle through increased recreational activities. This phase occurs where the individual has finished raising his children, paid off mortgages, raised large sums in savings and has funded retirement plans.

Risk and Risk Management

Risk management is a coordinated long term plan to protect people and their assets from risk (the probability of losses occurring) through its avoidance, reduction, assumption or shifting (Kapoor *et al*, 2004). Risk can be avoided by forgoing the patronage of any financial undertaking, reduced by minimizing its occurrence with low patronage of financial undertakings bearing such risks, assumed by bearing responsibility of any resultant losses of undertaking risky financial activities, or shifted by transferring unto another person, or an entity such as an insurance company (Kapoor *et al*). The question arises as to how individuals can be expected to weigh risks and make responsible choices in the complicated financial market, even in countries where consumers are generally familiar with financial instruments although emerging economies with consumers, who have limited experience with formal financial systems, are experiencing greater difficulties in weighing risks (OECD, 2006).

There has been a widespread transfer of risk from both governments and employers to individuals where many governments are or have reduced state-supported pensions and healthcare benefits (PISA, 2012). Defined-contribution pension plans are quickly replacing defined-benefit pension plans, where they are shifting onto workers the responsibility to save for their own financial security after retirement (PISA, 2012). Furthermore, surveys show that a majority of workers are unaware of the risks they now have to face, and do not have sufficient knowledge or skill to manage such risks adequately, even if they are aware of them (OECD, 2008).

Budgeting

The tracking of spending and saving of money forms the essence of budgeting (Kapoor *et al*, 2004). Based on the individual's living situation, an emergency fund that can cater for three to six months' worth of living expenses should be setup for periods of unforeseen financial difficulties. Current spending needs and future spending plans should be the basis for determining fixed expense budgeted amounts (Willis, 2013); while anticipated changes in the individual's cost of living, needs and desires should form the basis for determining variable expense budgets. A budget is thus an invaluable benefit as a tool for coordinating savings and improving living standards by making visible the areas of waste of resources since it is a statement of how money has been utilized in past periods and a forecast of future incomes and expenditures such as can be used as a basis for day-to-day financial living (Willis, 2013).

Personal Banking

Individuals should consider alternative banks as well as banking products in order to make effective choices on bank accounts which will fit their specific requirements based on the variety of account packages, and their minimum requirements (Willis, 2013), available such that where the individual has a high growth in his savings, banks with account packages that give higher interests with minimal charges should be preferred. Financial innovation comprising electronic banking, automated teller machines (ATMs), mobile banking, safety deposit boxes, advisory services and credit and debit cards among others, should also play a decisive factor in the individual's selection of banking facilities (Mishkin & Eakins, 2012; Willis, 2013).

Insurance

Insurance is meant to afford the individual peace of mind concerning his financial obligations being kept on course in times of financial difficulty by protecting against probable financial downturns (Kapoor *et al*, (2004). Although it leads to the payment of more premiums of a value over and above the monetary value of the harm, which the individual insures against, insurance affords risk-averse individuals a safety net where they can offset the gamble of a loss with the certainty of protection from loss (Mishkin & Eakins, 2012). Willis, (2013) encouraged the use of emergency funds to insure and reduce deductibles on insurance policies and also reduce premium payments; but Mishkin and Eakins (2012) noted that setting aside reserves in place of insurance brings about opportunity costs where the reserves could have been employed in long-term investment activities to better the individual's life. In addition, the individual would be saddled with the uncertainty of the reserve being adequate to cater for the unforeseen circumstances, being the reason for which it was set aside. Willis (2013) encouraged that individuals patronize insurance facilities for their specific needs, and stressed that not all additional insurance policies should be contracted for, since dealers only sell them to gain their commissions on the premiums charged; but insurance policies should be bought when they have comparable prices and where the individual can increase deductibles as much as possible.

Retirement Planning

A pension plan is a pooling of resources for and by an individual during his active employment years, for use during retirement (Mishkin & Eakins, 2012) and is a source of concern for many of the working class (Ansong, 2013a) since they cannot rely on their children to be their only source of provision during retirement. Longer life expectancies and a trend towards early retirement also necessitate adequate planning for said retirement scenarios (Mishkin & Eakins, 2012).

Empirical Evidences

Danes and Hira (1987) studied money management knowledge of college students. Regression analysis showed that college students had low levels of knowledge in insurance, credit cards and overall financial management areas. The study discovered that college students knew general facts of money management but lacked detail of specific issues. The marital status and age of college students also played a factor in determining the distribution of money management knowledge. The matured college students and the married students had more compelling responsibilities that necessitated their obtaining a grasp of money management issues more than the single and young students. In addition, gender distributions placed male students as having more knowledge than female students.

Jorgensen (2007) studied the personal financial literacy knowledge, attitudes and behaviors of college students. Respondents were sampled at the researcher's convenience from various public, private, land-grant, research, liberal arts, and undergraduate universities in the states of Tennessee, Nevada, Oklahoma, South Dakota, Idaho, and Virginia. The snowballing sampling technique was also used to determine the specific universities sampled from. Professors at these institutions were asked to assist the researcher in obtaining students to participate in the research since an online survey was the chosen method of data collection. Data was collected over a period of four weeks with a 43% completion rate. The survey was made up of questions posed in likert-scale formats in both positive and negative phrasings, and questions involving right and wrong answers.

Data analysis involved T-tests and ANOVA to determine mean differences between genders, class rankings, parental influence levels, peer influence levels and other differences between distinguished groups. Pearson’s correlation was also used to determine the correlation between financial behaviors, knowledge and attitude. A correlation was found between financial knowledge, financial attitudes, and financial behavior. Students with a high rank in financial knowledge also had a high rank in financial behaviors. Students with a high rank in financial attitudes also had a high rank in financial behavior. In addition, students with a high rank in financial knowledge also had a high rank in financial attitude.

ANOVA results indicated very little difference in financial literacy levels of both males and females, but varying results were found based on class ranks of the students; with increasing levels of financial knowledge being identified with increasing class ranks from freshmen to master’s level students. Students that learnt considerably from their parents in financial matters had relatively higher financial knowledge scores. Peer influences however, had no significant impact on the financial knowledge, behavior or attitude of the students.

Klatt (2009) used an online survey of women 16 years and above, to affirm or disaffirm the existence of barriers to women understanding and gaining knowledge of financial matters, which could be reflected in their financial behavior. Cluster sampling helped gain respondents from various organizations such as universities, business associations, leadership groups, teaching bodies, homemakers' associations and other various clubs. The study concluded that women were restricted or facing difficulties in financial issues despite their growing knowledge in financial matters. These restrictions were concluded to be the result of inadequate financial education exposure from women's homes when they were children, since women were raised more to become caretakers and nurturers; and the lack of business courses in these areas when they were studying in universities and colleges. Retirement planning and seeking financial advice from financial experts were found to be two main areas where women still faulted in contrast to their male counterparts.

Ansong (2011) studied the personal finance knowledge of university freshmen business students in Ghana; the extent of their knowledge in unfamiliar consumer financial concepts using multiple choice questions with "don't know" answer options. With a 56% response rate out of 613 freshmen students from the University of Cape Coast, 190 males and 152 females, an average score of 35.87% was recorded. Majority of students were knowledgeable on financial planning, education as an income level determinant, gifts as tax-free items, advantages of treasury-bills over bank deposits in terms of interest yield, banks as issuers of certificates of deposit, and private pension planning. Students lacked knowledge in areas concerning reinvestment and compounding of annual interest, long-term investment instruments, where to purchase a new company's stock, current requisite social security contributions by employers, changes in laws governing social security contributions, and blue chip stock. Females reported higher "don't know" responses than males. It was concluded that the level of literacy on financial issues by freshmen was low; bringing greater responsibilities to stakeholders to address the knowledge deficiencies of the youth; and for universities and polytechnics to try filling in the knowledge gaps the freshmen possess.

Ansong (2013a) assessed the relationship between the financial concerns and competencies of senior high school teachers in Ghana, and their ability to teach personal finance. Using the survey method, and Mann Whitney U-test, findings proved a positive correlation between the teachers' personal financial concerns and their ability to give financial education. Teachers were concerned in five financial areas: supplementing their incomes, paying their children's' fees, their retirement planning, social security's role in their retirement income, and budgetary allocations. It was also found that fewer than forty percent of teachers sought professional financial advice, the majority considering it too expensive. Marital status was also not a factor in determining the financial concerns of the teachers, not even with the combined incomes of both husband and wife. Teachers who did attend workshops and seminars had more financial concerns than those who did not participate in workshops and seminars.

Ansong (2013b), studied senior high school teachers' capacity and readiness to teach personal finance to their students. A survey, using questionnaires, was done employing non-parametric sampling methods to overcome sampling difficulties. These high school teachers were selected based on their all having taken postgraduate education courses at the University of Cape Coast; yielding a population size of five hundred and a sample size of three hundred and ten respondents. The Mann Whitney U-Test facilitated the comparisons presented by the gathered data. Majority of these respondents were male (51.3%) and married (78%) with a median age of 38 years. Average work experience possessed by these teachers was 12 years but only 20 percent taught courses in the business field. It was found that the teachers' financial literacy levels were low, requiring a need to expand financial educational opportunities to them to cater for their personal financial endeavors and their professional ability to teach.

Slightly over fifty percent of teachers reported ever taking courses with financial education content such as economics, personal or consumer finance, investment and accounting, under thirty percent of teachers had ever taken part in financial seminars or workshops and under ten percent had specifically attended financial education teaching facilitating seminars or workshops; the Ghana Education Service being the main provider or facilitator of their financial literacy. Fewer than twenty percent of teachers had also ever given financial education to others. About fifty percent of respondents also viewed financial literacy education as irrelevant for basic school levels, while forty seven percent felt ill-qualified to provide financial education.

Gaps in Literature.

Most of the reviewed studies have focused purposely on respondents with youthful characteristics and being in tertiary institutions (Danes & Hira, 1987; Jorgenson, 2007; Ansong, 2011). This research thought it prudent to study a total population with varying age characteristics as well as varying educational attainments. This would help to ascertain if varying patterns for financial literacy and personal finance concerns can be determined for the total population

Of the empirical evidences reviewed, only Danes and Hira (1987) include insurance as an aspect of financial literacy studies. This researcher has thus included insurance aspects into this study to determine their composition in the financial literacy and personal finances of the individual. This researcher believes insurance should form a part of the financial knowledge requirements every individual must possess and translate this knowledge into their personal financial activities.

Online surveys have also consisted in the data collection activities of reviewed studies (Jorgenson, 2007; Klatt, 2009). These studies also reported lower response rates. This research will seek to employ the questionnaire instrument distributed with the help of research assistants, to respondents who are cluster sampled in an effort to have an encouraging number of respondents.

|Most studies have also focused solely on financial literacy (Danes & Hira, 1987; Jorgensen, 2007; Klatt, 2009; Ansong, 2011; Ansong, 2013a; Ansong, 2013b). Its link to personal finances has been ignored in past studies. Since

financial literacy knowledge must translate into personal finances, further ground is gained for the significance of this study.

Conceptual Framework

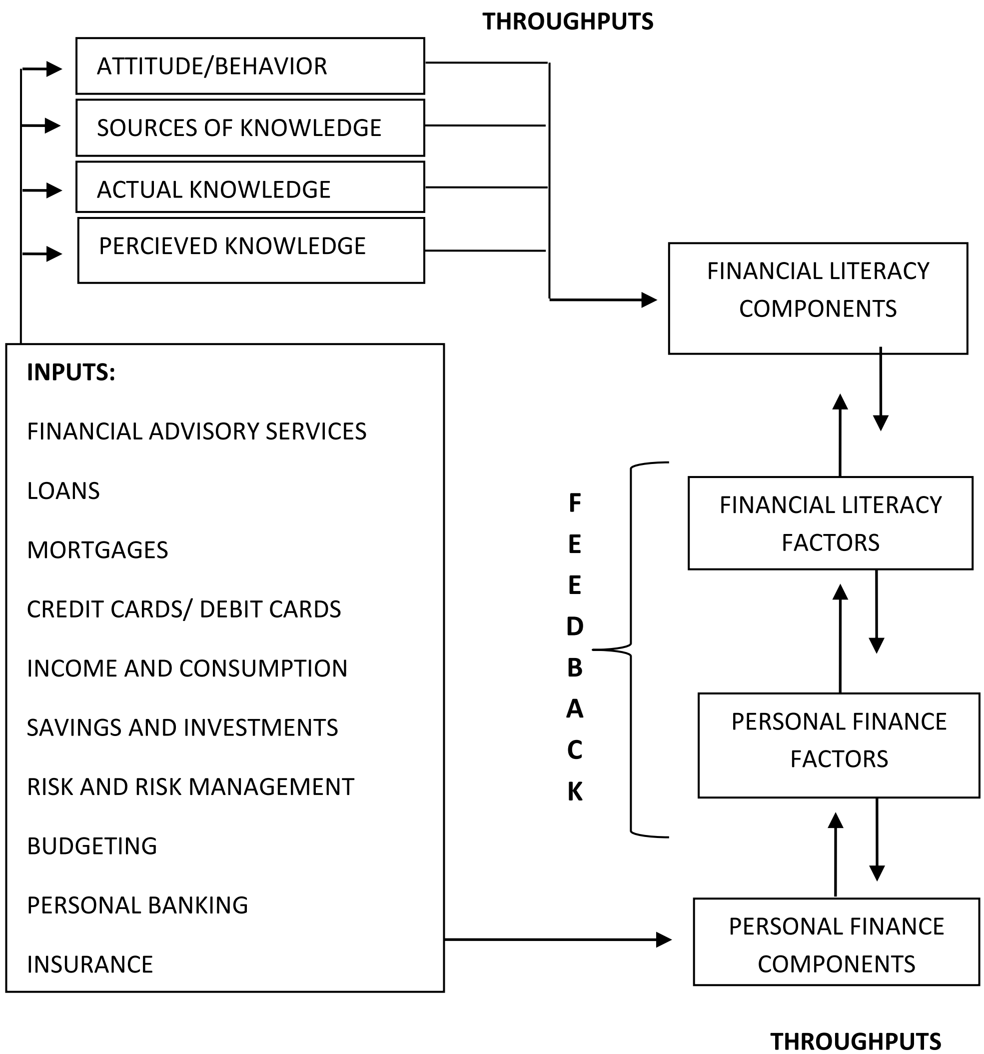

Figure2: Conceptual Model (Author's own construct)

The conceptual model presented in Figure 2 depicts this researcher's framework of understanding used as this study's basis. In line with Family Economic Life theory, the *inputs* of the study form the subject matter from which the individual will process his personal financial endeavours and his financial literacy. Flowing from Social Learning theory and Behavioral Finance theory, the specified subject areas or inputs for this study on financial literacy and personal finance must also comprise in the actual and perceived knowledge possessed by the individuals in Cape Coast, the sources from which the individuals are gaining their knowledge and the behaviours and attitudes they depict towards financial issues. These combined should comprise the components of financial literacy (throughputs). Again the individual's use of the various inputs presented for this model will determine the individual's personal finance components: what financial endeavours he undertakes (throuputs).

These inputs obtained for this model are reflected in the literature review as being current issues of personal finance. Statistics Canada and OECD (1995) in their first three levels of financial literacy do not dwell on complex financial issues requiring strong deductive, inference and mathematical skills. This researcher sees these three levels as suitable for determining an initial and basic standard of analysis in this study. PISA (2012)'s content areas for financial literacy involving money and transactions, planning and managing finances, risk and reward and financial landscape, was also incorporated in these inputs financial issues when determining the content areas on which this study of financial literacy and personal finance revolved.

An output phase for the Family Resource Management module would require a longitudinal study (Jorgensen, 2007) and as such it is not included in this concept. The feedback loop which should inform all phases of the model, have been concentrated to the factors of personal finance and financial literacy. These factors will be determined from factor analysis to summarise the imbalances or dissatisfaction with financial literacy and personal finance of people in the Cape

Coast Metropolis and thus give feedback to strengthen the input and throughputs phases.

Conclusion

Numerous studies have focused on the financial education process and the teachers of financial literacy (Ansong, 2011; Ansong, 2013a; Ansong, 2013b; Garman, 1997; Garman, 1999a; Garman 1999b); and also on age groups mainly in the youth category (Chowa *et al*, 2012; Gale *et al*, 2012; Mendell & Klein, 2009; Serido & Collins, 2007; Trombitas & Lannan, 2013). Other studies have also focused on outcomes detailing the current states of financial literacy of the subjects (Bucks & Pence, 2006; Campbell, 2006; Dzisi & Seddoh, 2009; iVillage, 2010; Lusardi 2008a; Lusardi, 2008b; OECD, 2006; Visa Inc, 2011;). Again studies have focused on financial behaviors (Biais *et al*, 2005; Cryder *et al*, 2008; Fungfeld & Wang, 2009; Huston, 2010; Lusardi *et al*, 2010; Mendell & Klein, 2009; Murray, 2011; Serido & Collins, 2007). There is a dearth of knowledge which might try to explain why the outcomes of financial behaviors, attitudes and knowledge are as they have been reported; with one recurring trend being the lagging of females in financial literacy. This researcher decides to take a step back to try to determine a causal relationship in the state of personal finances of the individual flowing from the individual's financial literacy.

This research will seek to determine how financially literate these individuals are by determining how much financial knowledge they possess and in what areas or financial topics; and seeing how they continue to upgrade their financial literacy or seek financial education. The state of their personal finances will also be determined by answering questions on what financial activities they currently undertake, and the extent to which these activities are visible in their actions. The overall aim will be to assess if the state of the individual's personal finances reflects the financial literacy the individual has in light of the individual's sources of knowledge, or find the gaps between the financial literacy and the personal finances of the individuals. The focus of this research will be on a total population, not just a grouping, in order to determine if different results can be determined which might give a general view and a shift in the dynamic, and weight given to previous studies on specific age groups.

CHAPTER 3

RESEARCH METHODS

Introduction

This chapter contains the methodology of the study. The research design, study population, sampling procedures, sample size determination, data collection, and data analysis procedures are discussed.

Research Design

This study is a mixture of correlation and descriptive survey designs and has a quantitative focus of analysis. According to Babbie (2005) quantitative analysis allows for more vivid explanations, better data collection and a simpler way of drawing conclusions. Descriptive design is ideal for "what, where, how, when, who, and how much" investigations requiring observations and descriptions of what is around us (Babbie, 2005; Emory, 1985). It also allows for accurate accounts of events and situations (Amedahe, 2002; Gay, 1992). Correlational design is also used to determine associations between variables or their attributes and is a necessary criterion for causal relationships (Babbie, 2005).

The factors and components of financial literacy and personal finances are investigated and described in this study. Correlational designs have also been employed in order to determine relationships between financial literacy and personal finance.

Study Area

The Cape Coast metropolitan area is bounded on the south by the Gulf of Guinea, west by the Komenda-Edina-Eguafo-Abrem Municipal District, east by the Abura-Asebu-Kwamankese District and north by the Twifu-Heman-Lower Denkyira District. The metropolis occupies an area of approximately 122 square kilometers. Cape Coast Metropolitan area forms 7.7% of the Central Region's 2,201,863 inhabitants of which 130,348 are urban dwellers and 39,546 are rural dwellers; and 82,810 males and 87,084 females (Ghana Statistical Service, 2012). Thus Cape Coast is principally an urban populated area. Citizens of legal age of eighteen years and above number 110,333 in total. The average household size of the Central Region applicable to the Cape Coast metropolis is 4.0. Cape Coast is made up of 124 communities which have been divided into two electoral districts of Cape Coast North and Cape Coast South Districts. Cape Coast is booming in terms of trade and commerce, and tourism. However, the agricultural contribution of the metropolitan area has the potential to improve greatly (Cape Coast Metropolitan Assembly, 2012). The Metropolitan Planning Coordinating Unit (2012) also reported the presence of key poverty areas such as Ntsin, Amanful, Brofoyedur, Gyegyem and Bakaano among others; with low incomes and remunerations occurring in the rural areas.

Study Population

Citizens of legal age eighteen years and above formed the target population of this study and numbered 110,333 in total. This population was chosen due to the fact that a lot of financial undertakings require that clients enter into contracts and the legal contractual age under Ghanaian law is eighteen years. Again, to ensure the precision of findings, a larger target population will allow for a larger sample size with its associated guarantee of representativeness.

Sampling Procedure

There are 17 towns in the Cape Coast Metropolitan area namely, Cape Coast (Central), Cape Coast (Pedu/Abora), Cape Coast (Cape Vars/Ola), Ekon, Nkanfoa, Kakomdo, Effutu, Akotokyere, Ankaful Village, Anto Essuekyir, Kokoado, Amama, Nyinasin, Duakor, Koforidua, Mpeasem, Amisano. These towns have been divided into the North and South electoral districts. There is also a proportionate distribution seen in the number of registered voters (population aged eighteen and above) in these two districts (Electoral Commision of Ghana, 2012). Thus a cluster sampling technique was used to initially select the Cape Coast North district and then the Cape Coast (Cape Vars / Ola) area for the study. The University of Cape Coast and Ola area has a total population of 12,210 (Metropolitan Planning Coordinating Unit, 2014) with about 7,033 (57.6 %) of this population being contractually capable (Ghana Statistical Service, 2012).

In order to have an in depth analysis the sample involved contractually capable individuals located within the University of Cape Coast community. This community was chosen because there is a higher literacy rate there than is found in the other towns and communities, which would enable a more significant analysis to take place, without focusing on the workers of the University. This reduced the target population to an estimated number of 5,000 individuals who consequently were randomly sampled. All respondents for this study were selected with the basic requirements of being aged eighteen years and above and being able to read and understand information presented in the questionnaire. However, respondents' cooperation and willingness to give information in this survey ultimately determined the demographic distributions obtained for analysis.

Sample Size Determination

Amedahe (2002) asserts that the sample range of 5% to 20% can be used as the appropriate sample size for any given study with a large population; while minimum of 10 percent is suitable for making generalizations in quantitative studies. Malhotra and Birks (2007) also favour a sample size of 20% or more for large populations, but add that the measure of how large a sample size is, relative to the population under study, is based on the sample's representativeness of the characteristics of the given population. For the estimated University population of 5000, a sample size of 500, representing 10%, was selected and used in line with Amedahe with justification that 500 respondents adequately cover the population characteristics of being aged 18years and older.

Data Collection Instrument

The primary data collection instrument, as is consistent with surveys, was the questionnaire. Questions for this instrument were modified from the studies of the OECD INFE (2011) and Financial Services Authority (2006). The Financial Services Authority (2006) questionnaire served as an international basis from which to frame personal finance questions to suit the Ghanaian respondent. The OECD INFE (2006) questionnaire, from which most financial literacy questions were modeled, was used in accordance with rules allowing the use of the questionnaire based on referencing in a specified format. Sections of the instruments were divided to provide data corresponding to each research question.

The first section of the questionnaire solicited background information from the respondents such as their ages, occupations, marital status, and gender. Section two sought to determine the respondents' financial literacy components, section three sought to determine data required for financial literacy factors and the proceeding sections sought to determine the respondents' personal financing components and data for personal financing factors, respectively.

The appropriateness and reliability of the items on the data collection instruments have already been established through their use by the OECD INFE (2011) and Financial Services Authority (2006) from which they were modeled. For this reason, pre-field work involved ensuring that the modifications made to the survey would still allow data to be coded and used to generate suitable outputs.

As such, possible problems associated with the chosen instruments and the data collection procedure were detected and corrected in the pre-field work phase. Twenty respondents were chosen at random according to the target population and asked to fill in the questionnaire to help ascertain the most suitable approach to ensure data was collected in a suitable time frame and gained maximum respondent cooperation.

The questionnaire involved extensive options under various questions in an attempt to eliminate the use of open-ended questions and to create a uniform and consistent coding of the data obtained, but also leading to a relatively lengthier data collection instrument. In terms of data management, the coding of questions and their associated variables into SPSS 17.0 at the pre-field work phase helped to restructure questions into easier response categories and ensured that collected data would be input in correct scale measurements and variable notations to ensure effective analysis. Data gotten from the pre-field work phase was run through the analytical procedures required to determine the study’s objectives and affirmed the suitability of the questionnaire format to determine relevant components and relationships in the study.

Data Collection Procedures

Six research assistants helped to collect the required data and possessed good educational levels and a good command of both the English language and the local Fante dialect, which enabled them to interact with the respondents confidently and fluently. These research assistants were trained for one day and were taken through the items on the data collection instruments and taught how to interpret the various options under each question.

When a member of the research team came up to a possible respondent, the member introduced himself or herself to the possible respondent; the purpose of the contact was explained and the respondents' cooperation was requested. If the respondents were willing and free at that time, the data was collected from them immediately. Where the respondents were not free at that time, the questionnaires were left with them to fill and be collected at the nearest possible date; after which data was promptly entered into the required software. Data collection took 30 days in all.

Data Analysis Procedures.

This study employed both descriptive and correlational analysis. Tables and graphs were presented to aid in the descriptive analysis. Factor analysis and Pearson's bivariate correlations were done to determine the relationship between financial literacy and personal finance factors using SPSS 17.0 software.

Factor analysis is a multivariate method used for data reduction. The basic idea behind factor analysis is to represent a given set of variables by a smaller number of variables which are called factors and are related to each other linearly. These factors form an underlying construct of the given variables. In factor analysis, initial factor loadings are calculated. These factors are then taken through factor rotations after which factor scores are calculated and used to determine which factors to include in analysis.

In determining an appropriate cut off for statistically meaningful factor loadings, larger sample sizes allow for smaller loadings to be considered as significant (Field, 2000; Stevens, 2002). Rule of thumb also allows that using an alpha level of 0.1 (two tailed), a rotated factor loading for a sample size of at least 300 requires at least a .32 to be considered as being statistically meaningful (Tabachnick & Fidell, 2007). However the ease with which the loadings can be interpreted can be used to determine the cut-off also (Yong & Pearce, 2013).

The assumptions for factor analysis (Field, 2000) used in this study are as follows:

a. There are no outliers
b. The sample size is adequate (above 300)
c. Ratio of variables to factors will be a minimum of three unless they make interpretations difficult (Yong & Pearce, 2013).
d. Observations for each measurable variable should not be less than 10.
e. Interval data will be used.
f. Normality is not required.

Preliminary work for factor analysis will involve the use of a correlation matrix (Field, 2000; Ofori & Dampson, 2011) to determine whether correlations are significant at the 0.01 level and whether at least half of the correlations in the matrix are sufficiently greater than 0.30. Should the criterion for the correlation matrix be met, a Kaiser-Meyer-Olkin (KMO) test will proceed it in determining the suitability of the original variables for factor analysis. KMO operates on the basis of partial correlations. As such it must, as a rule of thumb, proceed a correlation matrix, not used in isolation. The test of KMO index is expected to be one (1) or nearer to one to be acceptable. Generally, a KMO of 0.5 and above is preferred (Field, 2000; Ofori & Dampson, 2011).

Literature argues the case for the use of factor analysis in that although it can be a complex process, factor analysis is more precise. A comparison between the choice of factor analysis from principal component analysis suggests that, “the solutions generated from principal component analysis differ little from those derived from factor analysis techniques” (Field, 2000).

Results from factor analysis will be subjected to Pearson’s bivariate correlation to determine any existing relationships between the determined factors. Pearson’s bivariate correlation is a parametric test which produces a correlation coefficient for a given sample that measures the strength and direction of determinable relationships between the pairs of continuous variables. The assumptions for factor analysis hold true for Pearson’s bivariate correlations in respect of continuous variables, independent or unrelated cases, no outliers, normal distribution of data and linearity (Ofori & Dampson, 2011).

CHAPTER 4

RESULTS AND DISCUSSION

Introduction

This study sought to determine the various components, factors and relationships between the factors of financial literacy and personal finance in Cape Coast. A survey was carried out and data was collected to answer the objectives of the study. Factor analysis was used as the major statistical test to determine the relationship between financial literacy and personal finance. The findings of the study are presented in this chapter. The response rate and demographics obtained will be presented along with the results for the components and factors of financial literacy and personal finance. The findings from factor analysis will then be presented showing relevant correlations and measures of statistical significance.

Response Rate of the Study

A total of five hundred questionnaires were distributed out of which four hundred and thirty six were retrieved, representing an eighty seven percent response rate. Twelve questionnaires were returned incomplete and fifty-two questionnaires could not be retrieved. The remaining four hundred and thirty six questionnaires were successfully obtained and used in the analysis.

Demographic Characteristics of Respondents

The demographic variables included sex, marital status, age, educational level, current work situation and monthly income ranges. As shown in Table 1, males formed 56.2% of total respondents while the females formed 43.8%. Majority of respondents were single (61.5%). Twenty-seven percent were married, and 3.4% were divorced. Table 1 also shows a higher proportion of respondents (92.4%) falling below the age of 40 years and only (0.7%) of respondents at retirement age of 60 years to 69 years.

University-level educated individuals formed the majority of respondents (81.4%). They were followed by technical and vocational-level educated individuals (12.8%). Secondary and primary level educated individuals formed a smaller percentage of 5.7 % of total respondents. In terms of their current employment situations, majority of respondents were gainfully employed (53.9%) while 29.6% of respondents were currently schooling. A little over eight percent of respondents were actively seeking employment (8.7%), and only 2.1% of respondents were retired.

Income categories also showed monthly household incomes fall within the GHS500 to GHS1,500 range (44%) although 19.5% of the total respondents could not be certain of their income, possibly due to the unstable nature of their income sources. Fewer than twenty percent (18.3%) of total respondents reported incomes of GHS1,500 or more monthly.

Table 1

Demographic Characteristics of Respondents

Demographic characteristics of the sample (n = 436)

	Characteristics	N	(%)
Sex	Male	245	56.2
	Female	191	43.8
Marital status	Single	268	61.5
	Married	118	27.1
	Separated/ divorced	15	3.4
	Living with partner	18	4.1
	Widowed	11	2.5
	Missing system	6	1.4
Age groups	18-19	15	3.4
	20-29	222	50.9
	30-39	166	38.1
	40-49	17	3.9
	50-59	13	3
	60-69	3	0.7
Highest educational level	University-level education	355	81.4
	Technical/ vocational education beyond secondary school level	56	12.8
	Complete secondary school	5	1.1
	Some secondary school	2	0.5
	Complete primary school	3	0.7
	Some primary school	15	3.4
Current work situation	Self employed (work for yourself)	55	12.6
	In paid employment (work for someone else)	180	41.3
	Looking for work	38	8.7
	Looking after the home	6	1.4
	Retired	9	2.1
	Student	129	29.6
	Not working and not looking for work	11	2.5
	Other	8	1.8
Household income	Don't know	85	19.5
	GHS500 and below a month	79	18.1
	Between GHS500 and GHS1500 a month	192	44
	GHS1500 or more a month	80	18.3

Source: Field data, Opoku-Boahen (2014)

Components of Financial Literacy in Cape Coast

This section considers the first objective of the thesis: components of financial literacy. As presented in Appendix B, respondents were asked to select out of listed financial products and services, how many of them they were familiar with. Out of recorded total percentages, Savings Accounts (73.9) were familiar to the majority of respondents. Savings accounts were followed by Insurance (68.6%) in familiarity. Third on the familiarity rankings was Credit Cards (64.2%). Pension funds (63.5%), Current Accounts (59.4%), Investment accounts (59.2%) and Mortgages (59.2%) followed in the familiarity rankings. The product that was least familiar to respondents was Prepaid Payment Accounts (19.7%).

Table 2 provides an analysis of these familiarities with financial products heard of, by gender. Breaking down the percentages into gender components shows higher familiarities among male respondents than female respondents generally. However rankings for males' familiarities shows Pension Funds (42.2%) to be most familiar, followed by Savings Accounts (41.3%), Mortgages (39.2%), and Current Accounts (37.6%). Females' rankings also showed familiarities in the direction of Savings Accounts (32.6%), Insurance (31.2%), Credit Cards (28.4%) and Current Accounts (21.8%)

Table 2:

Comparisons of Financial Products Heard Of By Gender

Types of financial products heard of	Male (%)	Female (%)	Total (%)
Pension fund	42.2	21.3	63.5
Investment account (eg. Unit trust)	35.6	23.6	59.2
A mortgage	39.2	20	59.2
A bank loan secured on property	31.4	17.9	49.3
An unsecured bank loan	20.2	5.3	25.5
A credit card	35.8	28.4	64.2
A savings account	41.3	32.6	73.9
A current account	37.6	21.8	59.4
A microfinance loan	33.7	17.7	51.4
Insurance	37.4	31.2	68.6
Stocks and shares	36.5	15.1	51.6
Bonds	27.3	8.4	35.7
Mobile phone payment account	29.6	16.5	46.1
Prepaid payment accounts	9.9	9.9	19.8

Source: Field data, Opoku-Boahen (2014)

From Table 3, comparisons of financial products heard of are further broken down by educational level. The University-level educated respondents and Technical and Vocational educated respondents had better response percentages than primary and secondary level educated respondents. Percentages show that university-level educated respondents were more familiar with pension funds (50.2%), credit cards (54.6%), Savings Accounts (59.2%) and Insurance (55.5%). Technical and vocational level educated respondents also had more familiarity with pension funds (10.1%), Investment Accounts (9.4%), Mortgages (8.7%), Current Accounts (9.9%) and Savings Accounts (8.9%).

Table 3:

Comparisons of Financial Products Heard Of By Educational Level

Financial Products Heard Of	University-level education (%)	Technical/ vocational education (%)	Secondary School Education (Combined) (%)	Primary School Education (Combined) (%)
Pension fund	50.2	10.1	1.2	2.1
Investment account (eg. Unit trust)	46.1	9.4	1.6	2.1
A mortgage	47.7	8.7	0.7	2.1
A bank loan secured on property	40.1	6.9	0.2	2.1
An unsecured bank loan	20.9	2.3	0.2	2.1
A credit card	54.6	7.6	0.7	1.4
A savings account	59.2	8.9	1.6	4.1
A current account	47.5	9.9	0.7	1.4
A microfinance loan	42.2	6	1.1	2.1
Insurance	55.5	8	1.6	3.4
Stocks and shares	41.5	5.5	1.1	3.4
Bonds	29.1	4.6	0.7	1.4
Mobile phone payment account	38.5	5.5	0.7	1.4
Prepaid payment accounts	15.8	2.8	1.1	0

Source: Field data, Opoku-Boahen (2014)

Continuing the analysis from Appendix B, respondents were asked to indicate how they made their last financial product choice. A little over half of the respondents (58%) claimed to have considered several financial products from different companies before making their choice. The second highest response was from respondents who claimed they considered several financial products coming from the same financial institution (15.8%) before making a choice. These responses were followed by respondents who made no other consideration than the financial product they chose (14.4%) and respondents who claimed not to know if they made a financial product choice (6.7%). These responses would imply that though a fair number of respondents made informed decisions by considering competitive financial products, services and institutions, quite a number of respondents did show a trend of not making financial decisions in an informed manner.

To elaborate on informed financial decision making, respondents were further asked what sources of information as provided in the possible options influenced their financial product choices. Responses showed that respondents' sources of information, in order of response rankings, were from sales staff of the given financial institutions (42.4%), information picked up in a branch of the given financial institutions (41.7%) and advice from friends and relatives not working in financial institutions (36.9%). Unsolicited information sent through mailing channels was the least used source of information (4.4%). This evidence for unsolicited information moving with a low response rate for respondents using their own previous financial experiences (20.6%), would go to support assertions that respondents avoided self-learning efforts generally.

Further evidence against self-learning by respondents is seen by them admitting to mostly choosing financial products that were recommended by financial professionals (27.5%) or recommended by friends and relatives (20.4%) as against making informed financial product choices themselves (17.9%) or using their own previous knowledge (20.6%) as a source of information.

Table 4 shows the information sources that influenced respondents' financial product choices as grouped into gender characteristics. There were generally higher percentage responses for males than females; however females' responses had higher concentrations. In order of highest response, males tended to use information picked up from a branch (28.2%), information from sales staff (28%), and media sources (23.4%) most in deciding financial product suitability. Females tended to use information from sales staff (42.4%), information picked up in branches of the financial institution (41.7%) and advice from friends and relatives (36.9%) most in deciding which financial products were suitable.

Table 4:

Sources of Information Which Influence Decisions About Which Financial Products to Take By Gender

Sources Of Information	Male (%)	Female (%)	Total (%)
Unsolicited information sent through mailing channels	3	1.4	4.4
Information picked up in branch	28.2	13.5	41.7
Product specific information found on the internet	21.3	10.3	31.7
Information from sales staff of the firm providing the product, including quotes	28	14.4	42.4
Recommendation from independent financial advisor	15.6	11.9	27.5
Advice of friends/ relatives not working in the financial services industry	21.3	15.6	36.9
Media articles, programmes and adverts	23.4	9.9	33.3
My own previous experience	11.9	8.7	20.6
Not applicable/ no recent choice	2.5	2.3	4.8

Source: Field data, Opoku-Boahen (2014)

The analysis of sources of information that influence respondents' product choices is broken down into educational level characteristics and presented in Table 5. Table 5 shows that primary level educated respondents and secondary level educated respondents information sources consisted mainly of poor responses. For all educational level categories combined however, information picked up in a financial institution's branch is a highly preferred information source. Primary level educated respondents also use their own past experiences (2.1%) more than the other available responses.

Table 5

Sources of Information Which Influences Decisions About Which Financial Products to Take By Educational Level

Sources Of Information	University-level education (%)	Technical/ vocational education (%)	Secondary School Education (Combined) (%)	Primary School Education (Combined) (%)
Unsolicited information sent through mailing channels	4.4	0	0	0
Information picked up in branch	32.3	7.3	0	2.1
Product specific information found on the internet	26.8	3.4	0	1.4
Information from sales staff of the firm providing the product including quotes	30.3	11	0.5	0.7
Recommendation from independent financial advisor	24.5	2.3	0	0.7
Advice of friends/ relatives not working in the financial services industry	33	3.4	0.5	0
Media articles, programmes and adverts	25.5	6.4	0.7	0.7
My own previous experience	16.5	1.6	0.5	2.1
Not applicable/ no recent choice	4.8	0	0	0

Source: Field data, Opoku-Boahen (2014)

University level educated respondents rely mostly on advice from friends and relatives not working in the financial sector (33%) but secondary level educated respondents relied mostly on media sources (0.7%) for financial information on products.

Continuing the analysis from Appendix B, actions done by the respondents before signing financial agreements show that respondents are cautious of financial contracts they enter into. This is proved in their responses to carefully reading terms and conditions (60.6%) before signing on the dotted line. However a slight minority of respondents displayed financially irrational behavior by failing to read terms and conditions (4.8%) or look at them briefly (17.7%). Six percent of respondents admitted to letting their friends and relatives do the reading, while they just signed for the contracts; which in this researcher's view is a risky practice.

Appendix B further shows that respondents generally kept abreast with financial issues, mostly changes in interest rates (60.8%), inflation (41.3%), stock markets (35.3%), best buys in financial products (25.2%), taxation (24.3%) changes in the job market (19.7%) changes in the housing market (12.6%) and least of all with changes in state pension funds, benefits and tax credits (7.3%). However, the frequency with which these financial issues generally were monitored was not encouraging. Most respondents reported a monitoring frequency of at least once a month but not once a week (33.7%) which should raise questions as to how adequately they are informed on the financial changes happening around them. The percentage in monitoring pension funds (7.3%) is possibly explained by the age characteristics of respondents in that it is more youthful; however males and tertiary and vocational level educated respondents reportedly are familiar with pension funds. This observation would imply a possibility that in presuming to be familiar with pension funds, respondents do not make it a priority to continue learning efforts in this subject matter.

Respondents also admitted seeking financial planning advice from professional sources (75.7%) on an average of 5 times in the last five years, mainly from managers or advisors of financial institutions (31.2%), accountants (30.5%) and independent financial advisors (25.5%); although only 23.6% of respondents actually paid for any advice they received. Once again respondents have shown evidence of low self-learning efforts by frequently seeking counsel for their financial endeavours from third parties. A finding on professional financial advice in this study provides evidence which is contrary to findings by Willis (2013) who sees personal accountants as being the most preferred source for financial advice. Respondents in the Cape Coast Metropolis prefer managers or advisors of financial institutions to give them their professional financial knowledge.

Components of Personal Financing in Cape Coast

Analysis of personal finance components in Appendix B revealed that respondents mostly saved money by depositing money into bank savings accounts (59.2%) or building up their existing balances in these savings accounts (39.9%).

Financial investments were a preferred saving method for 30.5% of respondents followed by respondents keeping their money at home or wallets (27.1%), or in informal saving institutions (17.2%). Other methods of saving such as real asset purchases were preferred by 7.8% of respondents. It was also recorded that 13.5% of respondents made no savings.

The major income category reported was from GHS500 to GHS1500 (44%) which income was seen to be regular and reliable by 60.1% of respondents. Added to this, a little over twenty percent (20.6%) of total respondents reported being sometimes overdrawn on their accounts; nineteen percent (19.5%) were never overdrawn and twelve percent (12.8%) did not have overdraft facilities on their accounts. These results would imply that respondents' access to income was mostly adequate to cater for their monthly expenditures.

To shed more light on this, respondents' responses to how long they could cover their living expenses should they lose their sources of income are intuitive. Respondents claim initially to be able to last at least three months but not six months (26.6%) or to last less than a week (21.6%) in such an event. A little over 14 percent (14.4%) confess to not knowing how long they would be able to cover their expenses should they lose their income sources. Only 39 respondents (8.9%) confessed to be able to last over six months should they lose their income.

With regards to the methods of checking bank balances, most respondents preferred asking for their bank balances at bank branches, ATMs and cash machines (33.7%). Another preferred method was receiving text messages from the financial institutions (17.9%) and the least preferred method was bank statement sent through mailing channels (6.9%). Questions regarding how respondents accessed cash revealed that respondents preferred using debit/ credit card/ ATM/ bank branch to withdraw cash from their accounts (50%) aside the use of cheques (40.1%). Thus respondents favored faster approaches to accessing their funds.

Although incomes were regular and reliable, respondents still faced struggles from time to time keeping up with bills and credit commitments, (41.5 %). Eight percent (8.5%) of respondents reported constantly struggling with financial debt obligations and less than one percent (0.7%) confessed having real financial problems. In line with financial commitments, over eighty percent (84.4%) of total respondents indicated that they had at a point in time ever made financial provision for financial difficulties.

However, respondents noted the most influential factor to ever cause them not to make financial provisions for difficult times to be too many debts, bills, or financial commitments (22.7%); which could have overwhelmed their excess funds. Other hindrances to making financial provisions included being too young or not having started working (16.7%), not having thought about it or gotten round to it (6%) and relying on financial support from state pension, partner, family (5.5%). Ten percent (10.1%) of respondents were however uncertain as to why they had never made financial provisions. Again, 71.8% of total respondents reportedly planned ahead for their expenses mainly through putting money into savings accounts (42.2%). Eleven percent of respondents noted saving by buying saving stamps and 6.9% also planned for expenses by building up money in current accounts.

Although 45.9% of respondents reported not having mortgages, 18.5% reported relative levels of difficulty with their mortgage payments out of which 2.5% always fell behind. Twenty three percent (23.6%) of respondents were also without insurance while 24.8% could not be certain if their insurance policies paid out claims immediately or otherwise as against 30% who responded in the affirmative. On their monitoring of insurance claims to determine if they had adequate cover, the majority of respondents (28.9%) checked at intervals less than a year, while 26.8% never checked their insurance coverage. Pursuant to these results, the level of cover or benefits offered was the main determining factor (22%) in the respondent's insurance policy choices; followed by it being recommended by a professional advisor or broker (20%) and the cost of premiums (11.7%).

As reported earlier, incomes of respondents are fairly regular and reliable and for the most part, respondents can go between three to six months should they lose said income. However over the past twelve months, more than half of total respondents (59.2%) had found that their income does not quite cover their living expenses and had cut back on spending, spent less, or done without (52.5%) mostly to make ends meet. Respondents also drew money out of savings or transferred savings into current accounts (11.5%), worked overtime or earned extra money (8%) to make ends meet.

Budget surpluses were always gotten by 10.6% of total respondents with uncertain responses and "never' responses each by 3.2% of respondents. Mixed responses were reported by 83% of respondents, indicating budgetary problems which may include expenses exceeding incomes, excessive spending habits, or the making of prepayments. Twenty-five percent of respondents could not be certain as to the exact use to which they put their surplus budget funds; 24.3% put it into or left it in savings accounts or investments, 13.1% left it in current accounts then put into savings or investments, while 10.3% spent their surplus funds.

When respondents were asked how often in the last twelve months they had run out of money before the end of their budgeting period, the outcome was that 12.4% of respondents always had budget deficits, while 9.4% of respondents never had deficits. There is thus a high level of deficit financing by the populace. In trying to deal with these deficits, respondents reported borrowing from family and friends (24.8%), taking out commercial loans (3.0%) and making budgetary cuts by cutting back on spending, or doing without (21.3%). A few respondents also tried to gain extra income by doing overtime work (5.7%).

Factors of Financial Literacy and Personal Finance among the People of the Cape Coast Metropolis

The third and fourth objectives of the study were to determine the financial literacy and personal finance factors for the people in Cape Coast. These objectives would involve employing factor analysis. One requirement of factor analysis is that interval data be used. As such questions were framed for financial literacy and personal finances in the form of lickert-scales. These questions were framed to depict acceptable behaviors and attitudes towards financial literacy and personal finance.

Table 6 shows the responses obtained for financial literacy on a five point likert-scale from “strongly agree” to “strongly disagree”. With “agree” and “strongly agree” being evidence of total agreement, respondents carefully considered whether they could afford something before buying it (97.0%) and also preferred to save than spend money (63.6%) by disagreeing with the statement “I find it more satisfying to spend money than to save it for the long term”. Over forty percent (44.3%) of total respondents also preferred to live for today and let tomorrow take care of itself”, and 80.7% made timely payments on their bills.

In terms of risk characteristics, in the statement “I am prepared to risk some of my own money when saving or making an investment”, all respondents who chose “disagree” and “strongly disagree” (15.2%) were classified as risk averse, those who chose “neutral”, (19.7%) as risk neutral; and respondents who chose “agree” and “strongly agree” (65.1%) were classified as risk tolerant. Again, 67.4% of total respondents knew that high risks are associated with investments having high returns, although this percent went up to 67.5% where respondents knew that large money making opportunities also held high risk.

Table 6

Financial Literacy Responses

Where: SD = strongly disagree, D = disagree, N = neutral, A = agree and SA = strongly agree

Label/ Name	Percentages (%)				
Financial Literacy Levels	SD	D	N	A	SA
Before I buy something I carefully consider whether I can afford it	0	2.1	0.9	28.7	68.3
I tend to live for today and let tomorrow take care of itself	17.2	31.4	7.1	26.4	17.9
I find it more satisfying to spend money than to save it for the long term	23.2	40.4	11.7	10.3	14.4
I pay my bills on time	1.1	4.6	13.5	51.8	28.9
I am prepared to risk some of my own money when saving or making an investment	4.6	10.6	19.7	41.7	23.4
I keep a close watch on my financial affairs	0	5.7	10.8	37.6	45.9
I set long term financial goals and strive to achieve them	0	5.7	23.2	48.2	22.9
Money is there to be spent	12.2	20.9	17.9	27.1	22
An investment with a high return is likely to be high risk	1.1	3.2	28.2	27.3	40.1
High inflation means that the cost of living is increasing rapidly	0	0.9	10.1	52.8	36.2
If someone offers you the chance to make a lot of money there is also a chance you will lose a lot of money	5.5	9.6	17.4	36.5	31
It is less likely that you will lose all of your money if you save it in more than one place	10.1	17.2	18.3	30.5	23.9
It is important for me to keep up to date with what is happening with financial matters generally, such as the economy and the financial services sector	3	6	15.6	43.8	31.7

Source: Field data, Opoku-Boahen (2014)

Other good results of financial literacy were found in respondents' keeping a close watch of their personal finances (83.5%), setting and striving to meet long-term financial goals (71.1%), knowing that cost of living rises with inflation levels (89%) and keeping up to date with financial issues (75.5%). Fifty-one percent of respondents saw money as just for spending and 54.4% believed that it was less likely that they would lose all of their money if they saved it in more than one place.

Table 7 shows results for lickert-scale responses for personal finance. It can be seen that 55.5% of respondents are not impulsive and buy things only when they can afford them. When respondents were asked to indicate whether they were "more of a saver than a spender", 74.5% of respondents agreed with the statement. Sixty percent of respondents (60.6%) prefer to save than make credit purchases, as seen by them disagreeing with the statement "I prefer to buy things on credit rather than wait and save up". Almost sixty-five percent (64.9%) of respondents preferred to cut back on spending than to incur credit card debts. A majority (72.9%) of respondents saw themselves as being organized in their money management activities. Most (70.9%) also said they made prompt payments on their bills (which is a decrease from the 80.7% of respondents who said they paid their bills on time when asked under financial literacy). Over thirty percent (33.7%) of respondents said they tended to live for today and let tomorrow take care of itself, which percentage is again also slightly lower than the 44.3% of respondents who confirmed doing so under financial literacy as a behavior.

Table 7 also shows that majority of respondents made rainy day savings provision (80%) although only 40.3% said they preferred to have a good standard of living today than to save for retirement. In addition, 56.1% of respondents admitted never being overdrawn on any account they had with an overdraft facility and 61.2% of respondents kept up with their financial commitments without difficulty. It was again found that 32.8% of total respondents could continue covering their living expenses comfortably for six months if they lost their source or sources of income. Half of respondents (50.7%) reported having excess funds at the end of their budgeting period but 37.6% reported running out of money before their budgeting periods ended.

Table 7

Personal Finance Responses

Where: SD = strongly disagree, D = disagree, N = neutral, A = agree and SA = strongly agree

Label/ Name	Percentages (%)				
Personal Finance Levels	SD	D	N	A	SA
I am impulsive and tend to buy things even when I can't really afford them	22.9	32.6	8.9	15.1	20.4
I am more of a saver than a spender	0	4.4	21.1	57.3	17.2
I prefer to buy things on credit rather than wait and save up	20.2	40.4	16.1	11.5	11.9
I would rather cut back than put everyday spending on a credit card I couldn't repay in full each month	1.6	5	28.4	45.6	19.3
I am very organized when it comes to managing my money day to day	0	6.9	20.2	43.8	29.1
I am never late at paying my bills	3.9	10.1	15.1	45.9	25
I tend to live for today and let tomorrow take care of itself	14.2	35.1	17	19.7	14
I always make sure I have money saved for a rainy day	3	2.8	14.2	53.9	26.1
If I had to choose, I would rather have a good standard of living today, than save for retirement	19	28.4	12.2	25.2	15.1
I am never overdrawn on any account I own which has an overdraft facility	5.7	15.1	22.9	33.9	22.2
I keep up with my bills and commitments without difficulty	2.8	18.8	17.2	37.6	23.6
I can continue covering my living expenses comfortably for six months if I should lose my source(s) of income	13.5	20.2	33.5	22	10.8
I always have money left over at the end of my budgeting period	4.1	25.2	20	32.1	18.6
I always run out of money before the end of my budgeting period	9.4	38.5	14.4	26.6	11

Source: Field data, Opoku-Boahen (2014)

Since financial literacy and personal finance are not directly observable or measurable, likert-scale responses were used to establish indicators that were further used to measure them and improve construct validity. In order for factor analysis to be done, the likert responses must be correlated individually and jointly to determine how significant the findings from factor analysis will be. Considering correlation matrixes for financial literacy and personal finance (Appendix C, D and E) both separately and jointly revealed the following observations:

Generally, significant correlation coefficients were found between the financial literacy variables (Appendix C), with the highest correlation coefficient being 0.586 between “I tend to live for today and let tomorrow take care of itself” and “I find it more satisfying to spend money than to save it for the long term”. This shows an implied or deduced inverse relationship between the tendency to spend and the propensity to save. The lowest correlation coefficient was found to be -0.202 between “before I buy something I carefully consider whether I can afford it” and “I find it more satisfying to spend money than to save it for the long term”. This shows a straightforward inverse relationship between rational spending and impulse spending.

Other relatively high positive correlations were found between “before I buy something I carefully consider whether I can afford it” and “I keep a close watch on my financial affairs” (0.478), “I pay my bills on time” and “I keep a close watch on my financial affairs” (0.576), “I am prepared to risk some of my own money when saving or making an investment” and “an investment with a high return is likely to be high risk" (0.403), "an investment with a high return is likely to be high risk" and "if someone offers you the chance to make a lot of money there is also a chance you will lose a lot of money" (0.433).

These positive correlations give the impression of sound financial literacy translating into the attitudes and behaviors of respondents; thus producing good results for financial literacy in the respondents. The significance levels provided at the bottom half of the financial literacy matrix table, shows no question's significance value running through with values above 0.05 with all other paired questions. Since 0.05 significance does not run through the matrix although some questions have significant correlation values above 0.05, no elimination of questions in the analysis will be required neither the re-run of the analysis.

The personal finance matrix (Appendix D) also generally showed significant correlation coefficients with the highest, 0.723, being between "I am never late at paying my bills" and "I keep up with my bills and commitments without difficulty"; and the lowest of -0.107 being evidence of an inverse relationship between "I am impulsive and tend to buy things even when I can't really afford them" and "I always make sure I have money saved for a rainy day". Relatively high positive correlation coefficients were found between "I am impulsive and tend to buy things even when I can't really afford them" and "I prefer to buy things on credit rather than wait and save up" (0.653), "I am impulsive and tend to buy things even when I can't really afford them" and" I can continue covering my living expenses comfortably for six months if I should lose my source(s) of income" (0.523), "I prefer to buy things on credit rather than wait and save up" and "I always run out of money before the end of my budgeting period" (0.554), "I always make sure I have money saved for a rainy day" and "I always have money left over at the end of my budgeting period"(0.502), "I keep up with my bills and commitments without difficulty" and "I always have money left over at the end of my budgeting period" (0.517), "I can continue covering my living expenses comfortably for six months if I should lose my source(s) of income" and "I always have money left over at the end of my budgeting period" (0.541).

The significance levels provided at the bottom half of the personal finance matrix table, although with questions having significant correlation values above 0.05, also shows no question's significance value running through with values above 0.05 with all other paired questions; thus requiring no elimination of questions in the analysis or the re-run of the analysis.

The joint correlation matrix (Appendix E) confirmed the individual correlation coefficients discovered separately for financial literacy and personal finance and noted the highest correlation of 0.699 being between "if I had to choose, I would rather have a good standard of living today, than save for retirement" and "I find it more satisfying to spend money than to save it for the long term" and the lowest of -0.170 being between "I am impulsive and tend to buy things even when I can't really afford them" and "if someone offers you the chance to make a lot of money there is also a chance you will lose a lot of money".

Other high correlation coefficients were found between “I am impulsive and tend to buy things even when I can't really afford them” and “I find it more satisfying to spend money than to save it for the long term” (0.500), “I prefer to buy things on credit rather than wait and save up” and “I find it more satisfying to spend money than to save it for the long term” (0.541), “I am very organized when it comes to managing my money day to day” and “I set long term financial goals and strive to achieve them” (0.582), “I tend to live for today and let tomorrow take care of itself” (under personal finance) and “I tend to live for today and let tomorrow take care of itself” (under financial literacy) (0.529), “if I had to choose, I would rather have a good standard of living today, than save for retirement” and “I tend to live for today and let tomorrow take care of itself” (0.561), and “I always run out of money before the end of my budgeting period” and “I find it more satisfying to spend money than to save it for the long term” (0.503).

Kaiser-Meyer-Olkin Test

In order to justify factor analysis with financial literacy and personal finance variables, the Kaiser-Meyer-Olkin (KMO) measure of sampling as shown in Table 8 was done. KMO with values ranging from 0 to 1, and values nearer 1 being preferred, indicates the appropriateness of factor analysis. KMO also shows that there is no cause for concern with the pattern of correlations in the matrix.

Separately, financial literacy variables have a KMO value of 0.666 and personal finance variables have a KMO of 0.628. Both of these values are nearer to 1 and justify factor analysis. The joint KMO of 0.677, and significance levels, further indicate no statistical objection to factor analysis.

Table 8

The Kaiser-Meyer-Olkin Measure of Sampling (KMO) Values

VARIABLE	KMO	SIGNIFICANCE
Financial literacy	0.666	0.000
Personal finance	0.628	0.000
Joint financial literacy and personal finance levels	0.677	0.000

Source: Field data, Opoku-Boahen (2014)

Scree Plot Diagrams

In running factor analysis, there must be major indicators to describe the relationships determinable between the given variables (financial literacy and personal finance in this case). The scree plot diagram is used to show the graphical representation of the relative importance of the extracted factors, or the major underlying factors for a variable.

For financial literacy, the scree plot diagram showed several possible choices for the number of major underlying factors at points 2, 4, 5 and 7 of Figure 2. These estimates are based on the clear bends of the curves on the scree plot diagrams at these points. Five possible major underlying factors were selected for financial literacy due to the proceeding horizontal shift of the plot after this point.

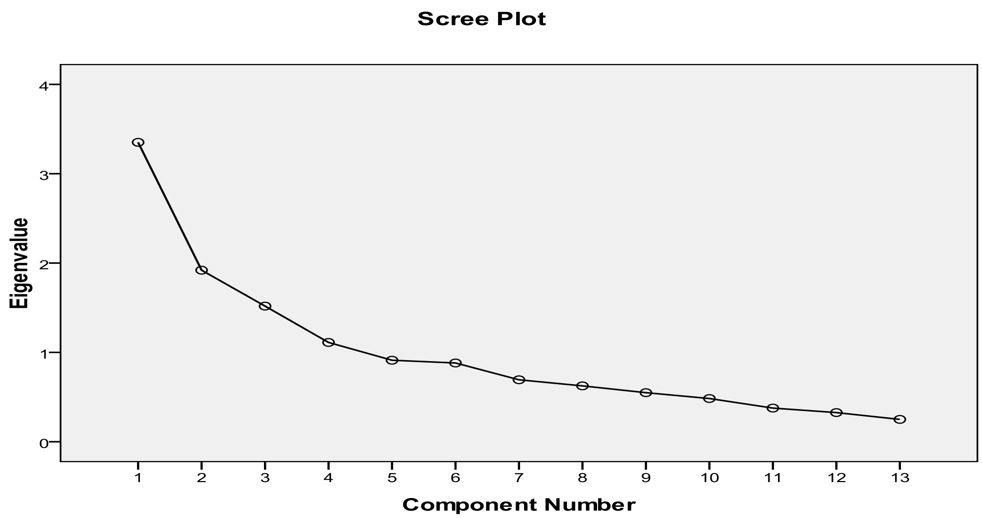

Figure 3: Scree Plot Diagram for Financial Literacy

Source: Field data, Opoku-Boahen (2014)

A series of three possible major underlying factors were depicted for personal finance in Figure 3, at points 2, 4 and 7. Point four was chosen to indicate the major possible indicators since it is the first point before the curve shows initial signs of straightening out.

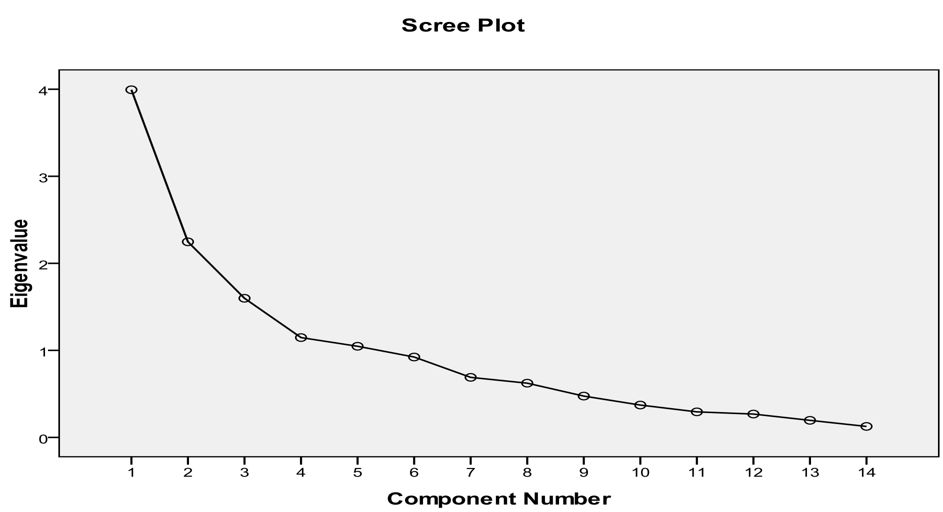

Figure 4: Scree Plot Diagram for Personal Finance

Source: Field data, Opoku-Boahen (2014)

The joint scree plot diagram for financial literacy and personal finance in Figure 5 is a bit clear on the point at which the curve initially straightens out at the elbow, being point 5; thus indicating five major underlying factors.

Figure 5: Joint Scree Plot Diagram

Source: Field data, Opoku-Boahen (2014)

Rotated and Unrotated Correlation Matrices

Correlation matrices, both rotated and unrotated, were analyzed with six fixed factors of extraction (based on the determined major underlying factors from the scree plots) and varimax rotation to detail the loadings of each variable on to the determined factors. The unrotated correlation matrices correlate the raw data while the rotated matrices correlate the idealness of the models. Considerations from the rotated component matrices however made interpretations more difficult for the factors explained in the unrotated component matrix and were thus excluded from analysis, although the output are displayed in the appendix section of this research. Financial literacy and Personal finance variables loading well unto each factor were mostly determined by values 0.5 since these values made interpretations easier. Where the standard of three factors minimum could not make interpretations easier, a minimum of two determinable factors were used in line with assertions by Yong and Pearce (2013).

As shown in Table 9 for Financial Literacy, statements, which loaded unto factor 1, were concerned with indebtedness, risk tolerance of the individual, risk knowledge of investments, monitoring tendencies and financial planning. These statements were all explaining rational financial actions or responsible behavior. Thus factor 1 was summarized and labeled as “financial responsiveness”.

Variables loading on to factor 2 concerned short-term carefree living and spending tendencies of the individuals and was summarized as “short-term spending tendency”. Considering other statements under factor two were below 0.5, only two factor loadings were used to interpret short term spending tendency. Factor loadings at or above 0.32 however also concurred on this spending pattern.

Factor 3 loadings also concerned purchase affordability issues and the individual’s view on money thus factor three was classified as “economy-mindedness”, referring to considerations of price levels or purchasing power. Again the standard of three factor loadings could not be obtained for factor three also, but factor loadings at or above 0.32 concurred on this pattern of price level awareness.

Factor four also concerned risk knowledge and economic issues, similar to factor 3 issues, and was also classified as further explanations of “economy-mindedness". Since factors 5 and 6 had loadings from one statement each, they are ignored in this classification exercise.

As such to answer objective three of this study, determinable factors for financial literacy can be grouped under:

a. Financial Responsiveness
b. Short-term spending tendency and
c. Economy-mindedness.

Table 9

Unrotated Component Matrix for Financial Literacy

Statement	Component 1	2	3	4	5	6
Before I buy something I carefully consider whether I can afford it	.480	-.352	.503	.332	-.139	-.015
I tend to live for today and let tomorrow take care of itself	.304	.779	.246	-.102	-.230	-.005
I find it more satisfying to spend money than to save it for the long term	.157	.830	.054	-.031	.044	.227
I pay my bills on time	.585	-.316	.196	-.300	-.044	.428
I am prepared to risk some of my own money when saving or making an investment	.634	.124	-.310	-.115	.081	.051
I keep a close watch on my financial affairs	.602	-.395	.460	-.145	.087	.179
I set long term financial goals and strive to achieve them	.571	.046	.177	-.421	-.175	-.546
Money is there to be spent	.213	.234	.582	.505	.381	-.194
An investment with a high return is likely to be high risk	.619	-.166	-.398	-.113	.282	.069
High inflation means that the cost of living is increasing rapidly	.378	-.080	-.410	.614	-.204	.153
If someone offers you the chance to make a lot of money there is also a chance that you will lose a lot of money	.579	-.028	-.353	.081	.362	-.410
It is less likely that you will lose all of your money if you save it in more than one place	.594	.371	-.082	.051	.170	.249
It is important for me to keep up to date with what is happening with financial matters generally, such as the economy and the financial services sector	.558	-.002	-.162	.189	-.604	-.135

Extraction method: principal component analysis.

A. 6 components extracted.

Source: Field data, Opoku-Boahen (2014)

Statements under personal finance which loaded onto factor 1 as shown in Table 10 concerned individuals' impulse buying, credit purchasing, indebtedness, carefree living and funds accumulations. More statements on factor 1 were reflecting spending and usage of money. Thus factor one was labeled as "spending tendency". Factor 2 loading statements also dealt with savers, credit purchasing (with negative coefficient), financial planning and budget deficit concerns (with negative coefficient). Factor 2 was summarized under "financial management".

Factor 3 loadings also concerned timely bill payments and indebtedness behavior of the respondents in a positive, rational or responsible light, and was classified as "debt responsiveness". Again, factor loadings at or above 0.32 mostly concurred on this pattern. Factors 4, 5 and 6 each had one statement loading unto them and were ignored from these classifications.

Thus factors for personal finance were determined as:

a. Spending tendency
b. Financial management and
c. Debt responsiveness

Table 10

Unrotated Component Matrix for Personal Finance

Statement	Component 1	2	3	4	5	6
I am impulsive and tend to buy things even when I can't really afford them	.623	-.469	.187	.072	.027	-.419
I am more of a saver than a spender	.304	.643	-.057	.240	.319	-.118
I prefer to buy things on credit rather than wait and save up	.582	-.539	.234	-.100	.359	-.085
I would rather cut back than put everyday spending on a credit card I couldn't repay in full each month	.134	-.096	.022	.841	.332	-.052
I am very organized when it comes to managing my money day to day	.427	.589	.041	.037	.294	.179
I am never late at paying my bills	.621	.138	-.532	.020	-.176	.118
I tend to live for today and let tomorrow take care of itself	.519	.100	.390	.279	-.544	.188
I always make sure I have money saved for a rainy day	.267	.632	.366	-.342	.302	.116
If I had to choose I would rather have a good standard of living today than save for retirement	.557	-.191	.442	.184	-.132	.355
I am never overdrawn on any account I own which has an overdraft facility	.409	-.222	-.691	-.022	.174	.126
I keep up with my bills and commitments without difficulty	.718	.210	-.459	.060	-.256	.060
I can continue covering my living expenses comfortably for six months if I should lose my source (s) of income	.705	-.139	-.053	-.210	-.004	-.391
I always have money left over at the end of my budgeting period	.777	.292	.218	-.204	-.126	-.198
I always run out of money before the end of my budgeting period	.392	-.551	.023	-.214	.270	.541

Extraction method: principal component analysis.

A. 6 components extracted.

Source: Field data, Opoku-Boahen (2014)

The joint unrotated correlation matrix in Table 11 shows a combined set of statements made up of similar constructs for factors of both financial literacy levels and personal finance levels.

There is a noted focus on usage of money for Factor 1, although not just for the short-term period, thus Factor 1 for the joint correlation is categorized as "spending tendency". Factor 2 loading statements are all focused on spending, but have negative coefficients indicating negative reactions to those statements. Factor 2 was thus categorized as "saving tendency". Factor 3 loading statements focus on risk tolerance and the state of indebtedness of the individual, in terms of responsible behaviors, thus Factor 3 is labeled as "financial responsiveness". Factors 4 and 5 each have one loading statement each, while the sixth factor has no loading statements. Factors 4, 5 and 6 were thus ignored since they do not have meaningful interpretations

Therefore joint factors for financial literacy and personal finance conclude on the following:

a. Spending tendency
b. Saving tendency and
c. Financial responsiveness

Table 11
Joint Unrotated Component Matrix

Statement	Component 1	2	3	4	5	6
I am impulsive and tend to buy things even when I can't really afford them	.479	-.620	-.213	.058	.095	-.165
I am more of a saver than a spender	.350	.435	-.049	-.289	.060	.334
I prefer to buy things on credit rather than wait and save up	.559	-.460	.119	.333	-.039	-.297
I would rather cut back than put everyday spending on a credit card I couldn't repay in full each month	.150	-.026	-.027	.311	.527	.218
I am very organized when it comes to managing my money day to day	.560	.468	.013	-.266	.203	-.092
I am never late at paying my bills	.531	.028	-.492	.055	-.283	.402
I tend to live for today and let tomorrow take care of itself	.498	-.247	.013	-.339	.373	.217
I always make sure I have money saved for a rainy day	.362	.349	.270	-.517	-.316	-.163
If I had to choose I would rather have a good standard of living today than save for retirement	.549	-.436	.370	-.065	.086	.268
I am never overdrawn on any account I own which has an overdraft facility	.311	.005	-.405	.488	-.200	.170
I keep up with my bills and commitments without difficulty	.646	.142	-.505	.027	-.134	.259
I can continue covering my living expenses comfortably for six months if I should lose my source (s) of income	.605	-.231	-.349	.003	-.046	-.364
I always have money left over at the end of my budgeting period	.736	-.099	-.086	-.425	-.141	-.034
I always run out of money before the end of my budgeting period	.342	-.431	.184	.419	-.381	-.040
Before I buy something I carefully consider whether I can afford it	.489	.370	-.392	.008	-.058	-.290
I tend to live for today and let tomorrow take care of itself	.580	-.388	.345	-.278	.020	.018
I find it more satisfying to spend money than to save it for the long term	.472	-.639	.363	.077	-.023	.174
I pay my bills on time	.419	.400	-.131	.414	.068	-.004
I am prepared to risk some of my own money when saving or making an investment	.380	.361	.506	.132	.035	.131
I keep a close watch on my financial affairs	.466	.432	-.276	.247	.204	-.197
I set long term financial goals and strive to achieve them	.466	.349	.189	-.171	.314	-.273
Money is there to be spent	.504	-.182	-.286	-.192	.200	.041
An investment with a high return is likely to be high risk	.253	.331	.373	.493	.160	-.175
High inflation means that the cost of living is increasing rapidly	.170	.360	.229	.049	-.497	.354

Table 11:

Joint Unrotated Component Matrix Continued

Statement	1	2	3	4	5	6
If someone offers you the chance to make a lot of money there is also a chance that you will lose a lot of money	.273	.412	.316	.266	.253	.309
It is less likely that you will lose all of your money if you save it in more than one place	.468	.024	.408	.231	-.051	-.079
It is important for me to keep up to date with what is happening with financial matters generally, such as the economy and the financial services sector	.368	.362	.335	-.014	-.414	-.243

Extraction method: principal component analysis.
Source: Field data, Opoku-Boahen (2014)

Pearson's Bivariate Correlations

Pearson's Bivariate Correlations were done to determine the nature of these determined relationships and their significance with a 99% level of confidence. This is in line with the fifth objective of this study.

Table 12 shows the results obtained for Pearson's bivariate correlations. Financial Responsiveness was significantly correlated positively with Spending Tendency and Financial Management; but had a low positive relationship with Debt Responsiveness. Financial responsiveness was determined as measuring financially responsible or rational behaviors towards indebtedness, risk tolerance, risk knowledge, monitoring and financial planning, mainly in line with investment characteristics. Spending tendency also measured positive traits of rational spending and use of money. As such, analysis proves that the more financially responsive an individual in the Cape Coast Metropolis is to financial issues, the better spending tendencies the person has.

Financial Management under Personal finance factors measured varying personal financial concerns being handled rationally by respondents: saving, avoiding credit purchases, low impulse purchasing, budgeting and financial planning. Thus it can be concluded that the influencing features of the individual's financial literacy led that individual to employ positive financial management practices.

However, irrespective of the individual's financial knowledge leading him to good spending and personal financial management practices, there is the likelihood that the given individual can also display poor debt behavior such as falling behind on payments, making late payments, ignoring debt obligations in order to satisfy other present wants or seeking excess finds via overdrafts. The correlations between Financial Responsiveness and Debt Responsiveness therefore indicate saving and investing characteristics of an individual's financial literacy to be statistically independent of the individual's inclination to contract loans under personal financing; which is contrary to the view expressed by Willis (2013) in seeing investment as a substitute to be preferred to loan contraction.

Short-term spending tendency under financial literacy factors also correlated positively with spending tendency and debt responsiveness, but correlated negatively with financial management under personal finance factors. This implies that the financial literacy of respondents does not lead them away from short-term spending patterns, but is a factor in their poor debt responsiveness and their general spending patterns. Short-term spending is in fact done by the majority of the population, and goes contrary to sound financial management practices. As such, in so far as respondents financial literacy did not lead them away from short-term spending, their personal finances suffered from poor financial management.

Economy-mindedness under financial literacy, referring to general considerations of the economy and price levels is positively correlated to spending tendency, but has a low or non-existent positive correlation to financial management and a low or non-existent negative correlation to debt responsiveness; which is confirmed by its statistically insignificant coefficients. These results, in agreement with Mattern (2002), imply that the individual's perception or knowledge of the general state of the economy or price levels determines his spending behavior, making them more likely to increase spending with perceived better economic states or price levels.

It is a concern however, that economy-mindedness is insignificantly correlated to financial management, implying that an economy-minded individual is without financial management characteristics. However, financial management as measured in this study identified budgeting surpluses, saving characteristics, and financial planning to be key elements of financial management, and not price level concerns. This brings in the issue of behavioral finance and the view that the financial literacy of an individual should manifest in the attitudes and behaviors the individual shows (Murray, 2011), which in this case further implies lower levels of literacy in financial management issues.

Table 12

Correlations of Coefficients Between Extracted Factors

		Financial responsiveness	Short-term spending tendency	Economy mindedness	Spending tendency	Financial management	Debt responsiveness
Financial responsiveness	Pearson correlation	1	.000	.000	.463**	.249**	.033
	Sig. (2-tailed)		1.000	1.000	.000	.000	.497
Short-term spending tendency	Pearson correlation	.000	1	.000	.361**	-.298**	.511**
	Sig. (2-tailed)	1.000		1.000	.000	.000	.000
Economy mindedness	Pearson correlation	.000	.000	1	.472**	.014	-.061
	Sig. (2-tailed)	1.000	1.000		.000	.777	.204
Spending tendency	Pearson correlation	.463**	.361**	.472**	1	.000	.000
	Sig. (2-tailed)	.000	.000	.000		1.000	1.000
Financial management	Pearson correlation	.249**	-.298**	.014	.000	1	.000
	Sig. (2-tailed)	.000	.000	.777	1.000		1.000
Debt responsiveness	Pearson correlation	.033	.511**	-.061	.000	.000	1
	Sig. (2-tailed)	.497	.000	.204	1.000	1.000	

**correlation is significant at the 0.01 level (2-tailed)

Source: Field data, Opoku-Boahen (2014)

Summary of Analysis

This chapter has presented the findings of the study on financial literacy and personal finance in Cape Coast. The response rate and demographics obtained were presented first before the results for the components and factors of financial literacy and personal finance were discussed. The procedures and findings from factor analysis have also been laid out showing related correlations and measures of statistical significance.

Results from the components and factors of financial literacy and personal finance identify various concepts that run through the components to their respective factors. Financial literacy components center around the knowledge of pension funds, general investments, stocks and shares, bonds, credit cards, savings and current accounts, insurance and mortgages. More knowledge is being displayed by males and by university-level educated respondents. Sales staff of various financial institutions, information picked up in various branches of financial institutions, friends, relatives and independent financial professionals form the main knowledge base of respondents in Cape Coast.

Self-learning efforts of financial literacy are little or non-existent in the metropolis although monitoring of financial endeavors people in Cape Coast undertake is not lacking. With respect to keeping abreast with financial world changes, respondents in the metropolis do undertake such monitoring but mostly at once a month frequencies. Professional advice in the metropolis is gotten mainly from managers in financial institutions followed by accountants, a fact which is contrary to findings which see personal accountants as the most relied upon financial advisors for individuals. This fact could be due to the fact that professional advice given in the metropolis is mostly without any fees charged: which would agree with past studies which noted that the cost of professional advisory services do hinder their patronage by quite a number of individuals.

Personal finance components concluded saving tendencies through bank accounts, investments in real assets as well as financial assets, and other tendencies to engage in business activities as an investment of idle funds. In the presence of mostly regular and reliable incomes, low indebtedness tendencies were reported by respondents in not taking overdrafts, and paying bills promptly.

Financial innovations such as ATMs, cheques, credit and debit cards and other internet platforms were used in their regular money management practices of checking balances and making transactions. Personal finances also showed low impulsive spending tendencies and a higher savings orientation in the Metropolis. Credit purchases and facilities were distasteful to most respondents who did have organized money management practices and made financial planning a priority.

Financial literacy factors detected concerned the individual's financial responsiveness, short-term spending tendencies and economy-mindedness of general price level changes, or inflation. Personal finance factors on the other hand concerned Spending tendencies, financial management and debt responsiveness. Determinable relationships between financial literacy and personal finance factors also indicated that while good money management knowledge went with low spending tendencies, indebtedness and short term spending tendencies were evidenced in the respondents leading to the conclusion of a lack of sound financial management practices; with resultant lowering effects on financial literacy and personal finances in the Metropolis.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter provides a summary of research findings, conclusions drawn and recommendations made from the results obtained. The main objective of the study was to determine the financial literacy and personal finance situation of the people in the Cape Coast Metropolis through their visible indicators and the linkage between the two. A sample size of five hundred respondents was used in data collection with a successful response rate of eighty-seven percent. This study employed both descriptive and correlational analysis. Tables were presented to aid in the descriptive analysis while Factor analysis and Pearson's bivariate correlations were done to determine the factors and their relationship.

Summary of Main Findings

In trying to determine the diverse components, factors and relationships between financial literacy and personal finance, people in the Cape Coast Metropolis were asked to complete a comprehensive questionnaire on these issues. It is noted that findings from this study support the view that financial literacy and personal finance characteristics vary among age groups and sex; and that personal finance characteristics do correspond to financial literacy characteristics determined. The study also noted variances according to educational levels where higher educated people seemed to be more financially knowledgeable overall.

The first objective of this study was to determine the components of financial literacy of the people in the Cape Coast Metropolis. Results for the components of financial literacy for the people in Cape Coast showed that self-learning efforts were lacking. Financial knowledge revolved around savings, insurance, credit cards, pension funds, savings and current accounts, investment accounts, mortgages, stocks and shares, microfinance loans, bank loans secured on property, mobile phone payment accounts, bonds, unsecured bank loans and prepaid payment accounts.

Professional financial recommendations and friends' and relatives' recommendations seem to be in conflict for predominance as the authorities for financial decisions. Behaviors and attitudes of respondents showed that they knew to carefully decided on what purchases they made, and prefer to save up their money overall. However, respondents' answers also showed a focus on caring for today's needs more than taking precaution for future problems. This would suggest that after careful consideration of a purchase, they were inclined to make necessary savings to attain said purchase, but usually over a short term horizon. In line with this, financial decision making on product and services choices were made by comparing competitive products, services and financial institutions and by cautiously entering into financial contracts. Irrespective of this cautious behavior, respondents showed a risky pattern of allowing others to read over their financial contracts for them before they signed. Respondents of this study preferred to be without debt, but also showed an eagerness to gain more revenue by being risk tolerant.

Results for the components of personal finance for the people in Cape Coast showed that many respondents traditionally make savings with their respective banks, while a fewer percentage of total respondents invest their money to make a profit. Financial innovations such as ATMs, debit/credit cards and online banking were trending with respondents' banking practices. Personal finance components of respondents in the Cape Coast Metropolis also showed that credit purchases were least preferred, but individuals did make quite a number of impulsive purchases. Respondents generally tried to live within their financial means, although evidence did prove that this was a struggle for quite a number of people. Savings was a habit developed by many respondents, as was organized money management skills. However most respondents would not be able to last six months on their savings should their sources of regular income cease abruptly. Personal finances were characterized also by struggles to keep up with financial commitments, and saving up to prevent financial difficulties. Ages and employment status of respondents have at times, been factors to their taking financial provisioning for granted.

Factors of personal finance and financial literacy as determined by factor analysis suggested that so far as Financial Literacy is concerned, respondents in the Metropolis were financially responsive to money making ventures (investments), preferred to save for short term periods and were generally conscious of price-levels or inflation. Personal finance levels also confirmed that respondents generally showed spending tendencies, financial management skills and debt responsiveness.

Further Bi-variate correlations between the determined factors for financial literacy and personal finance, suggest that irrespective of how financially literate respondents were, debt characteristics still persist. Again, financial literacy did not dissuade respondents from short-term spending which in turn affected respondents' financial management practices; making them poorer. Although respondent's financial literacy considers general price levels and inflation, this literacy does not also translate into good financial management practices under personal finance. As such what respondents know does not translate into what they do financially.

Conclusions

The main objective of this study was to determine the factors and content of financial literacy among the people in the Cape Coast Metropolis and how this knowledge relates to their personal finance decisions (components and factors). To achieve this, 436 respondents were successfully sampled to respond to questionnaires on various indicators of financial literacy and personal finance. They also provided information on their sources of financial information, savings behavior and how much they keep abreast with financial issues and general financial planning matters. The main sources of financial advice or information were identified to be professionals and friends and relatives.

Data, which was obtained on likert scale measurement, was analyzed with factor analysis and general data exploration. It was found out that the most influential factor in financial literacy was financial responsiveness. This factor was mainly determined by respondents' attitudes or behaviors towards indebtedness, risk, planning and monitoring of the financial climate. The second most important factor in financial literacy was short term spending tendencies. This factor indicated that the level of financial literacy the respondents have enabled them to spend only for the short term. The third determinable financial literacy factor was economy-mindedness, which deals with the individuals' concerns with inflation and general purchasing power.

For personal finance influences, spending tendency, financial management and debt responsiveness were determined with emphasis on attitudes or behaviors against credit purchasing, preferring savings and timely fulfillment of financial obligations with a lack of sound financial management practices generally.

The study also showed some strong correlation between factors that determined financial literacy and personal finance. The results suggest that if respondents increase their financial literacy levels, they are likely to improve their personal finances. It can be concluded that financial literacy components do translate into financial literacy factors, which in turn affect personal finance components and factors. However the scope of financial literacy and personal finance were found to be low in the Cape Coast Metropolis.

Recommendations

As discovered from the analysis carried out, males and university-level educated respondents had higher financial literacy levels. It is essential that adequate financial literacy be expressed as a need for all persons living in the

Cape Coast Metropolis, regardless of gender or educational levels. Ample financial literacy awareness schemes must be devised and implemented. Special financial literacy efforts must also be directed specifically at those possessing less statistical evidence of financial literacy. Regional legislators, financial institutions, various co-operative bodies and associations and other concerned bodies may find it socially responsible to spearhead such schemes.

Individuals must also develop their self-learning efforts and self-reliance for financial decision making to improve financial literacy and personal finance in Cape Coast. This recommendation stems from the fact that individuals in Cape Coast mostly rely on advice from friends, relatives and financial professionals to decide on financial product choices which they subsequently implement and monitor. It is alarming that individuals do not take responsibility for their own choices, nor rely on their own past experiences in deciding their financial endeavors in the face of changes occurring in the financial markets, the economy and social characteristics; which could lead to poor economic conditions with low levels of financially proficient adults in years to come in the Metropolis.

The trend of short-term savings in the Metropolis deserves also to be addressed. Awareness must be created for the benefits of saving long term, not just to satisfy short term wants or financial targets. A "culture of monitoring" must also be developed in the Metropolis. Aside the fact that financial issues were monitored at a frequency of once a month, respondents also showed signs of ignoring financial issues cropping up on financial matters they thought themselves familiar in. This was evidenced by males and tertiary/vocational level educated respondents not following up on pension fund issues because they were familiar with it.

There is the need for people in the Metropolis to develop more revenue generating avenues. This would solve the issue of incomes not being adequate to keep up with bills and commitments. This recommendation could also be used to remedy the level of loan contraction determined in the Metropolis. If the people have excess funds at the end of their budgeting period, these funds can be used to settle debts and the remainder used to meet their wants which have been presently placed above their bills and commitments.

Insurance was not widely patronized by the populace in Cape Coast; however the level of cover and benefits insurance can provide is seen as a competitive factor to gain patronage for insurance. This knowledge is advantageous to insurance institutions to consider in developing competitive packages to attract patronage, and also improve the quality of the financial markets in Ghana.

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APPENDIX A

UNIVERSITY OF CAPE COAST
SCHOOL OF BUSINESS
DEPARTMENT OF ACCOUNTING AND FINANCE
MBA/MCOM PROGRAMME

FINANCIAL LITERACY AND PERSONAL FINANCE IN CAPE COAST

This questionnaire aims at soliciting information for a research work being undertaken as partial fulfillment of the requirements for Master of Commerce (Finance). Please take a moment to answer the following questions as honestly and critically as you can. Any information you provide will be helpful in improving information accuracy and will be kept confidential. Thank you for your assistance

PERSONAL INFORMATION

1. What is your sex?
   a) Male
   b) Female

2. Please could you tell me your marital status?
   a) Single
   b) Married
   c) Separated/Divorced
   d) Living with partner
   e) Widowed

3. Would you tell me which of these age bands you fall into?
   a) 18-19
   b) 20-29
   c) 30-39
   d) 40-49
   e) 50-59
   f) 60-69
   g) 70-79
   h) 80+

4. What is the highest educational level that you have attained?
   a) University-level education
   b) Technical/vocational education beyond secondary school level
   c) Complete secondary school
   d) Some secondary school
   e) Complete primary school
   f) Some primary school
   g) No formal education

5. Which of these best describes your current work situation?
   a) Self employed [work for yourself]
   b) In paid employment [work for someone else]
   c) Looking for a job
   d) Looking after the home
   e) Unable to work due to sickness or ill-health
   f) Retired
   g) Student
   h) Not working and not looking for work
   i) Apprentice
   j) Other

FINANCIAL LITERACY COMPONENTS

6. Can you tell me whether you have heard of any of these types of financial products? CODE ALL THAT APPLY.
   a) pension fund
   b) investment account (eg. unit trust)
   c) a mortgage
   d) a bank loan secured on property
   e) An unsecured bank loan
   f) A credit card
   g) A savings account
   h) A current account

i) A microfinance loan
j) Insurance
k) Stocks and shares
l) Bonds
m) Mobile phone payment accounts
n) Prepaid payment account

7. Which of the following statements best describes how you last chose a financial product?
   a) I considered several similar products from different companies before making my decision
   b) I considered the various similar products from the same company
   c) I didn't consider any other product from the one I chose
   d) I looked around but there were no other kinds of the given product
   e) Don't know

8. Which sources of information do you feel most influences your decisions about which financial products to take out? CODE ALL THAT APPLY.
   a) Unsolicited information sent through mailing channels
   b) Information picked up in a branch
   c) Product specific information found on the internet
   d) Information from sales staff of the firm providing the products (including quotes)
   e) Recommendation from an independent financial adviser
   f) Advice of friends/relatives (not working in the financial services industry)
   g) Media articles, programmes and adverts
   h) My own previous experience
   i) Not applicable (no recent choice)

9. Which of these best describes the way you generally chose financial products?
   a) I chose one recommended by a professional adviser
   b) I was influenced in my final choice by a professional adviser
   c) I chose one recommended by a friend, relative or someone else
   d) I was influenced in my final choice by a friend, relative or someone else
   e) I made the choice entirely by myself
   f) Don't know

10. Before you signed the agreement for any financial product or service, which of these did you do?
   a) Read the terms and conditions carefully
   b) Looked at the terms and conditions briefly
   c) Did not read the terms and conditions at all
   d) A friend or relative read the terms and conditions on my behalf before I signed the agreement?
   e) None of the above
   f) Don't know

11. Which, if any, of these things do you personally keep an eye on? CODE ALL THAT APPLY.
   a) Changes in the housing market
   b) Changes in the stock market
   c) Changes in interest rates
   d) Changes in inflation
   e) Changes in taxation, e.g. income tax, capital gains tax
   f) Changes in the job market
   g) Changes in state pension, benefits and tax credits
   h) Best buys in financial products
   i) Don't know
   j) None of these

12. How frequently do you monitor changes in any financial issue?
   a) At least once a week
   b) At least once a month, but not once a week
   c) At least once a year, but not once a month
   d) Don't know

13. In the last five years, have you received any professional advice about planning your personal finances?

a) Yes b) No c) Don't know

14. If *Yes*, Who did you receive this advice from? CODE ALL THAT APPLY.
    a) Independent Financial Adviser
    b) Manager or adviser of financial institution
    c) Accountant
    d) Solicitor/ Lawyer
    e) Insurance Broker
    f) Stockbroker
    g) Don't know

15. How many times in these last five years have you received professional financial advice? ……………

16. Did you pay for this advice or was it entirely free?
    a) Paid for advice
    b) Entirely free
    c) Don't know
    d) Not applicable

FINANCIAL LITERACY FACTORS

17. I would like to know how much you agree or disagree that each of the statements applies to you, personally: TICK WHERE APPROPRIATE PLEASE.

	Agree strongly	Agree	Neutral	Disagree	Disagree strongly
Before I buy something I carefully consider whether I can afford it					
I tend to live for today and let tomorrow take care of itself					
I find it more satisfying to spend money than to save it for the long term					
I pay my bills on time					
I am prepared to risk some of my own money when saving or making an investment					
I keep a close personal watch on my financial affairs					
I set long term financial goals and strive to achieve them					
Money is there to be spent					
An investment with a high return is likely to be high risk					
High inflation means that the cost of living is increasing rapidly					
If someone offers you the chance to make a lot of money there is also a chance that you will lose a lot of money.					
It is less likely that you will lose all of your money if you save it in more than one place					
It is important for me to keep up to date with what is happening with financial matters generally, such as the economy and the financial services sector					

PERSONAL FINANCE COMPONENTS

18. In the past 12 months, have you been saving money in any of the following ways, whether or not you still have the money? CODE ALL THAT APPLY.
    a) Saving cash at home or in your wallet
    b) Building up a balance of money in your bank account (no regular deposits)
    c) Paying money into a bank savings account
    d) Giving money to family to save on your behalf
    e) Saving in an informal savings institution
    f) Buying financial investment products, other than pension funds
    g) Or in some other way (including remittances, buying livestock or property)
    h) Have not been actively saving (including I don't save/I have no money to save)
    i) Don't know

19. People get income from a wide range of sources. This might include wages and salaries, benefit payments, pensions or maintenance payments. Considering all of the sources of income coming into your household each month, would you say that your household income is regular and reliable?
    a) Yes
    b) No
    c) Don't know

20. Which of these categories does your household income usually fall into?
    a) GHS500 and below a month
    b) Between GHS500 and GHS1,500 a month
    c) GHS1,500 or more a month
    d) Don't know

21. How do you mostly check how much money is in any type of bank account you hold?
    a) Bank statement sent through mailing channels
    b) Check online
    c) Phone bank and ask for balance
    d) Asks for balance or mini statement at a branch/post office/ATM/cash machine
    e) Text message from bank
    f) Don't know
    g) Do not check

22. Which of these ways do you mainly use for getting cash?
    a) Use a debit/ credit card at a cash machine/ ATM/ bank branch
    b) Cash a cheque from your own account
    c) Get cash-back at a shop/supermarket/other
    d) Paid in cash/get pension or benefit in cash
    e) Don't know
    f) Do not get cash personally/given cash by someone else

23. Which of these statements best describes how often you are overdrawn on your account with an overdraft facility?
    a) I am constantly overdrawn
    b) I am **usually** overdrawn by the time I get paid/ receive my income
    c) I am **sometimes** overdrawn by the time I get paid/receive my income
    d) I am hardly ever overdrawn
    e) I am never overdrawn
    f) Too hard to say/varies too much to say
    g) Don't know
    h) Don't have an overdraft facility

24. Which one of the following statements best describes how well you are keeping up with your bills and credit commitments at the moment?
    a) Keeping up with all bills and commitments without any difficulties
    b) Keeping up with all bills and commitments, but it is a struggle from time to time
    c) Keeping up with all bills and commitments, but it is a constant struggle
    d) Falling behind with some bills or credit commitments

e) Having real financial problems and have fallen behind with many bills or credit commitments
f) Don't know
g) Don't have any bills or credit commitments

25. Have you ever considered making financial provision in case you experienced unexpected financial problem(s)?
    a) Yes
    b) No

26. Which of the following has ever prevented you from making adequate provision for financial difficulties?
    a) Can't afford to/don't have enough money/income too low/cost too high
    b) Too many debts/bills/financial commitments
    c) Too young/haven't started work yet
    d) Was relying on financial support from state pensions, a partner, or family support
    e) Wasn't interested/didn't think about it/didn't get round to it
    f) Haven't thought about it/haven't got around to it
    g) Too old
    h) Don't know
    i) None of these

27. Do you plan ahead to make sure you have money to pay for any expenses you may have?
    a) Yes, I do plan ahead for expense(s)
    b) No, I don't plan ahead for expense(s)
    c) No need to plan ahead because there is always enough money in current account to pay for this expense(s)
    d) Don't know
    e) I have no expenses

28. How do you plan ahead for your expenses?
    a) Let money build up in current account
    b) Put money into a savings account
    c) Keep spending down
    d) Put cash aside at regular intervals
    e) Buy savings stamps
    f) Don't know

29. How easy is it to keep up with your mortgage repayments?
    a) Keeping up with payments without any difficulties
    b) Keeping up with payments but struggle to do so from time to time
    c) Keeping up with payments but it is a constant struggle (3)
    d) Sometimes fall behind with payments
    e) Always fall behind with payments
    f) Don't have a mortgage

30. If you had to claim on your insurance, would this policy pay out immediately?
    a) Yes
    b) No
    c) Don't know
    d) Don't have insurance

31. How often do you check whether insurance policies provide you with adequate insurance cover?
    a) At least once a year
    b) Less often
    c) Never
    d) Don't know

32. What is it about *particular* insurance policies, out of the following, would make you choose it over another policy?
    a) Cost of premiums
    b) Level of cover/benefits it offered
    c) Recommended by professional adviser/broker
    d) Had used this company before
    e) Recommended by family member/ friend/colleague
    f) Reputation/brand/ had heard of /reliability of company
    g) Recommended by lender
    h) Part of a package for a loan or mortgage
    i) Compulsory for a loan or mortgage
    j) Do not consider any other policy
    k) Don't know

33. Sometimes people find that their income does not quite cover their living costs. In the last 12 months, has this happened to you?
    a) Yes
    b) No
    c) Don't Know
    d) Not applicable (I don't have any personal income)

34. If you answered **yes** above (finding that your income does not quite cover your living costs), what did you do **mainly** to make ends meet the last time this happened? If you answered **no**, don't know or not applicable, what would you do **mainly** in such a situation to make ends meet?
    a) Draw money out of savings or transfer savings into current account
    b) Cut back on spending, spend less, do without (2)
    c) Sell/ pawn something that I own
    d) Work overtime, earn extra money
    e) Borrow food or money from family or friends
    f) Borrow from employer/salary advance
    g) Take a loan from financial institutions
    h) Apply for loan/withdrawal on pension fund
    i) Use overdraft facility or line of credit
    j) Use credit card for a cash advance or to pay bills/buy food
    k) Take out a loan from an informal provider/moneylender
    l) Pay my bills late; miss payments
    m) Other

35. If you lost your main source of income, how long could you continue to cover living expenses, without borrowing any money?
    a) Less than a week
    b) At least a week, but not one month
    c) At least one month, but not three months
    d) At least three months, but not six months
    e) More than six months.
    f) Don't know

36. In the past 12 months, how often have you had money left over at the end of the week or month from your budgets?
    a) Always
    b) Most of the time
    c) Sometimes
    d) Hardly ever
    e) Never
    f) Too hard to say/varies too much to say
    g) Don't know

37. IF *Always* OR *Most of the time* OR *Sometimes*, What do you usually do with the money left over?
    a) Put it into/leave it in current account
    b) Spend it
    c) Put it into/leave it in savings account/ investments
    d) Leave it in current account and then put it into savings/investments
    e) Keep it in purse/wallet for the next week/ month
    f) Save it in cash at home
    g) Give it to someone else to save for me
    h) Give it away
    i) Depends on amount left over/varies too much to say
    j) Not applicable

38. In the past 12 months, how often have you run out of money before the end of the week or month according to your budget?
    a) Always
    b) Most of the time
    c) Sometimes
    d) Hardly ever
    e) Never
    f) Too hard to say/varies too much to say
    g) Don't know

39. If *Always* OR *Most of the time* OR *Sometimes* ,What do you usually do when you run out of money?

a) Borrow from family/friends
b) Cut back spending/do without
c) Use overdraft
d) Use credit or store card(s)
e) Take out commercial loan
f) Draw money out of savings or transfer savings into current account
g) Do overtime/earn extra money
h) Depends on amount needed/ varies too much to say
i) Don't know
j) Not applicable

PERSONAL FINANCE FACTORS

40. Please tell me how strongly you agree or disagree with these statements:

	Agree strongly	Agree	Neutral	Disagree	Disagree strongly
"I am impulsive and tend to buy things even when I can't really afford them."					
"I am more of a saver than a spender."					
"I prefer to buy things on credit rather than wait and save up."					
"I would rather cut back than put everyday spending on a credit card I couldn't repay in full each month."					
"I am very organized when it comes to managing my money day to day."					
"I am never late at paying my bills."					
"I tend to live for today and let tomorrow take care of itself."					
"I always make sure I have money saved for a rainy day."					
"If I had to choose, I would rather have a good standard of living today than save for retirement."					
I am never overdrawn on any account I own which has an overdraft facility					
I keep up with my bills and commitments without difficulty					
I can continue covering my living expenses comfortably for six months if I should lose my source (s) of income					
I always have money left over at the end of my budgeting period					
I always run out of money before the end of my budgeting period					

*** Questionnaire Sources: Modified from the studies of OECD INFE (2011) and Financial Services Authority (2006).

APPENDIX B

Frequencies and Rankings for Financial Literacy and Personal Finance Components

FINANCIAL LITERACY COMPONENTS	N	%	Rank
Familiarity with financial products			
pension fund	277	63.5	4
investment account	258	59.2	6
Mortgage	258	59.2	6
bank loan secured on property	215	49.3	10
unsecured bank loan	111	25.5	13
credit card	280	64.2	3
savings account	322	73.9	1
current account	259	59.4	5
microfinance loan	224	51.4	9
Insurance	299	68.6	2
stocks and shares	225	51.6	8
Bonds	156	35.8	12
mobile phone payment account	201	46.1	11
prepaid payment account	86	19.7	14
Last financial product choice			
don't know	29	6.7	4
considered several products from different companies	253	58	1
various products from same company	69	15.8	2
no consideration than one chosen	63	14.4	3
no substitute found from searching	22	5	5

Information sources influencing financial product choices			
unsolicited information sent through mailing channels	19	4.4	9
information picked up in a branch	182	41.7	2
product specific information found on internet	138	31.7	5
information from sales staff of firm (including quotes)	185	42.4	1
recommendation from independent financial advisor	120	27.5	6
advice of friends/ relatives not working in financial institutions	161	36.9	3
media articles, programmes and adverts	145	33.3	4
own previous experience	90	20.6	7
not applicable (no recent choice)	21	4.8	8
General financial product choice			
don't know	14	3.2	6
recommendation by professional advisor	120	27.5	1
influenced by professional advisor	67	15.4	5
recommendation by friend, relative, someone else	89	20.4	2
influenced by friend, relative, someone else	68	15.6	4
made choice entirely by myself	78	17.9	3
Action before signing agreements			
none of the above	23	5.3	5
don't know	25	5.7	4
read terms, conditions carefully	265	60.6	1
looked at terms, conditions briefly	77	17.7	2
did not read terms, conditions	21	4.8	6
friend, relative read on my behalf before I signed	26	6	3
Monitoring of financial issues			
changes in housing market	55	12.6	7

changes in stock market	154	35.3	3
changes in interest rates	265	60.8	1
changes in inflation	180	41.3	2
changes in taxation	106	24.3	5
changes in job market	86	19.7	6
changes in state pension funds, benefits, tax credits	32	7.3	8
best buys in financial products	110	25.2	4
don't know	30	6.9	9
none of these	30	6.9	9
Frequency of financial issue monitoring			
don't know	91	20.9	3
at least one a week	141	32.3	2
at least once a month, but not once a week	147	33.7	1
at least once a year, but not once a month	57	13.1	4
Received professional financial planning advice in last 5 years?			
don't know	11	2.5	3
Yes	330	75.7	1
No	95	21.8	2
Source of professional financial planning advice			
independent financial advisor	111	25.5	3
manager or advisor of financial institution	136	31.2	1
Accountant	133	30.5	2
solicitor/ lawyer	50	11.5	4
insurance broker	45	10.3	5
Stockbroker	37	8.5	6
don't know	19	4.4	7
Advice free or paid for?			

not applicable	108	24.8	2
paid for	103	23.6	3
entirely free	213	48.9	1
don't know	12	2.8	4

number of times professional financial planning advice received

mean = 4.5229

median = 2.00

PERSONAL FINANCE COMPONENTS	N	%	Rank
Ways of saving in past 12 months			
at home/ in wallet	118	27.1	4
building up money balance in bank account (no regular deposits)	174	39.9	2
paying money into bank savings account	258	59.2	1
giving money to family to save on your behalf	23	5.3	9
saving with informal institutions	75	17.2	5
buying financial investment products excluding pension funds	133	30.5	3
other ways (remittances, livestock, property)	34	7.8	8
no active savings/ No money to save	59	13.5	6
don't know	37	8.5	7
Would you say that your household income is regular and reliable?			
don't know	34	7.8	3
Yes	262	60.1	1
No	140	32.1	2
Method used in checking bank balances			
do not check	12	2.8	7
don't know	31	7.1	5

bank statement sent through mailing channels	30	6.9	6
check online	56	12.8	4
phone bank and ask for balance	82	18.8	2
ask at branch/post office/ATM/cash machine	147	33.7	1
text message from bank	78	17.9	3
Method used in getting cash			
don't know	10	2.3	5
debit/ credit card/ ATM/ bank branch	218	50	1
cash cheque from own account	175	40.1	2
get cash-back at shop/ supermarket/ other	18	4.1	3
do not get cash personally/ given cash by someone else	15	3.4	4
Frequency of overdrawing on accounts with overdraft facility			
don't know	58	13.3	4
constantly overdrawn	3	0.7	8
usually overdrawn by the time I get paid/ receive my income	69	15.8	3
sometimes overdrawn by the time I get paid	90	20.6	1
hardly ever overdrawn	57	13.1	5
never overdrawn	85	19.5	2
too hard to say/ varies too much	18	4.1	7
don't have overdraft facility	56	12.8	7
How well you are keeping up with bills and credit commitments at the moment?			
don't have any	15	3.4	6
don't know	20	4.6	5
without any difficulties	143	32.8	2
struggle from time to time	181	41.5	1
constant struggle	37	8.5	3
falling behind with some	37	8.5	3
having real financial problems and have fallen behind	3	0.7	7

Ever considered making financial provision for unexpected financial problems?			
Yes	368	84.4	1
No	68	15.6	2
What has ever prevented your making financial provision for financial difficulties?			
don't know	44	10.1	4
cant afford to/ don't have enough money/income too low/ cost too high	135	31	1
too many debts/bills/financial commitments	99	22.7	2
too young/ haven't started work yet	73	16.7	3
relying on financial support from state pension, partner, family	24	5.5	6
wasn't interested/ didn't think about it/ didn't get round to it	24	5.5	6
haven't thought about it/ haven't got round to it	26	6	5
too old	6	1.4	8
none of these	5	1.1	9
Do you plan ahead to make sure you have money to pay for any expenses you may have?			
don't know	6	1.4	5
Yes	313	71.8	1
No	23	5.3	4
no need to plan, always enough money in current account	68	15.6	2
I have no expenses	26	6	3
How do you plan ahead for your expenses?			
don't know	22	5	6
let money build up in current account	30	6.9	5
put money into savings account	184	42.2	1
keep spending down	61	14	3
put cash aside at regular intervals	91	20.9	2
buy saving stamps	48	11	4

Ease of keeping up with mortgage payments			
don't have a mortgage	200	45.9	1
without any difficulty	28	6.4	5
struggle from time to time	127	29.1	2
constant struggle	31	7.1	4
sometimes fall behind	39	8.9	3
always fall behind	11	2.5	6
If you had to claim on your insurance, would this policy payout immediately?			
don't have insurance	103	23.6	3
don't know	108	24.8	2
Yes	131	30	1
No	94	21.6	4
How often do you check whether insurance policies provide you with adequate insurance cover?			
don't know	113	35.9	1
at least once a year	80	18.3	4
less often	126	28.9	2
Never	117	26.8	3
What about particular insurance policies would make you chose it over another policy?			
don't know	68	15.6	3
cost of premiums	51	11.7	4
level of cover/ benefits offered	96	22	1
recommended by professional advisor/ broker	87	20	2
had used this company before	15	3.4	7
recommended by family member/friend/colleague	15	3.4	7
reputation/brand/reliability of company	42	9.6	5
recommended by lender	13	3	10
part of package for loan/ mortgage	14	3.2	9
compulsory for loan/mortgage	22	5	6

do not consider any other insurance policy	13	3	10
In the last 12 months have you found that your income does not quite cover your living costs?			
don't know	18	4.1	4
Yes	258	59.2	1
No	105	24.1	2
not applicable (no personal income)	55	12.6	3
What would you do to make ends meet if income doesn't cover living expenses?			
draw money out of savings or transfer savings into current account	50	11.5	2
cut back on spending, spend less, do without	229	52.5	1
sell/pawn something I own	9	2.1	9
work overtime/ earn extra money	35	8	3
borrow food/money from family/friends	26	6	4
borrow from employer/ salary advance	2	0.5	12
take loan from financial institution	21	4.8	6
apply for loan/ withdrawal from pension fund	9	2.1	9
use overdraft facility/ line of credit	3	0.7	11
take out a loan from informal provider/ money lender	24	5.5	5
pay bills late/ miss payments	16	3.7	7
Other	12	2.8	8
If you lost your main source of income, how long could you continue to cover living expenses without borrowing money?			
don't know	63	14.4	3
less than a week	94	21.6	2
at least a week, but not one month	50	11.5	5
at least one month, but not three months	74	17	4
at least three months, but not six months	116	26.6	1
more than six months	39	8.9	6

In the past 12 months, how often have you had money left over from weekly budgets?

don't know	14	3.2	5
Always	46	10.6	4
most of the time	100	22.9	2
Sometimes	161	36.9	1
hardly ever	75	17.2	3
Never	14	3.2	5
too hard to say/ varies too much	26	6	7

If always, most of the time, or sometimes, what do you do with the excess?

not applicable	109	25	1
put into/ leave in current account	16	3.7	8
spend it	45	10.3	4
put into/ leave in savings account/ investment	106	24.3	2
leave in current account then put into savings/investments	57	13.1	3
keep in purse/wallet for next week/ month	41	9.4	5
save in cash at home	21	4.8	7
give it to someone else to save for me	10	2.3	9
depends on amount left over/ varies too much	29	6.7	6
missing system	2	0.5	10

In the past 12 months, how often have run out of money before end of budgeting period?

don't know	25	5.7	6
Always	54	12.4	3
most of the time	83	19	2
Sometimes	181	41.5	1
hardly ever	15	3.4	7
Never	41	9.4	4
too hard to say/varies too much	37	8.5	5

If always, most of the time, or sometimes, what do you do when money runs out?

borrow from family/ friends	108	24.8	1
cut back on spending/ do without	93	21.3	3
use authorized/ arranged overdraft	6	1.4	7
use credit /card store card	32	7.3	5
take out a commercial loan	13	3	8
draw money out of savings/ transfer savings into current account	51	11.7	4
do overtime/ earn extra money	25	5.7	6
depends on amount needed/ varies too much to say	3	0.7	9
not applicable	105	24.1	2

APPENDIX C

Correlation Matrix for Financial Literacy

		FL1	FL2	FL3	FL4	FL5	FL6	FL7	FL8	FL9	FL10	FL11	FL12	FL13
Correlation	FL1	1.000	.011	-.202	.318	.080	.478	.220	.299	.115	.152	.103	.187	.259
	FL2	.011	1.000	.586	.032	.191	-.033	.315	.232	-.037	-.010	-.011	.357	.160
	FL3	-.202	.586	1.000	-.031	.142	-.110	.023	.203	-.012	-.017	.034	.309	.064
	FL4	.318	.032	-.031	1.000	.246	.576	.259	-.031	.292	.111	.196	.209	.203
	FL5	.080	.191	.142	.246	1.000	.237	.310	.000	.403	.285	.342	.356	.254
	FL6	.478	-.033	-.110	.576	.237	1.000	.344	.234	.298	.036	.132	.161	.197
	FL7	.220	.315	.023	.259	.310	.344	1.000	.065	.228	-.028	.315	.174	.272
	FL8	.299	.232	.203	-.031	.000	.234	.065	1.000	-.069	.032	.105	.121	-.017
	FL9	.115	-.037	-.012	.292	.403	.298	.228	-.069	1.000	.245	.433	.337	.266
	FL10	.152	-.010	-.017	.111	.285	.036	-.028	.032	.245	1.000	.252	.157	.311
	FL11	.103	-.011	.034	.196	.342	.132	.315	.105	.433	.252	1.000	.311	.266
	FL12	.187	.357	.309	.209	.356	.161	.174	.121	.337	.157	.311	1.000	.240
	FL13	.259	.160	.064	.203	.254	.197	.272	-.017	.266	.311	.266	.240	1.000
Sig. (1-tailed)	FL1		.409	.000	.000	.048	.000	.000	.000	.008	.001	.016	.000	.000
	FL2	.409		.000	.254	.000	.248	.000	.000	.221	.417	.411	.000	.000

	FL2	.000	.000		.258	.001	.011	.320	.000	.401	.360	.237	.000	.090
	FL4	.000	.254	.258		.000	.000	.000	.260	.000	.010	.000	.000	.000
	FL5	.048	.000	.001	.000		.000	.000	.497	.000	.000	.000	.000	.000
	FL6	.000	.248	.011	.000	.000		.000	.000	.000	.227	.003	.000	.000
	FL7	.000	.000	.320	.000	.000	.000		.087	.000	.282	.000	.000	.000
	FL8	.000	.000	.000	.260	.497	.000	.087		.075	.250	.014	.006	.365
	FL9	.008	.221	.401	.000	.000	.000	.000	.075		.000	.000	.000	.000
	FL10	.001	.417	.360	.010	.000	.227	.282	.250	.000		.000	.001	.000
	FL11	.016	.411	.237	.000	.000	.003	.000	.014	.000	.000		.000	.000
	FL12	.000	.000	.000	.000	.000	.000	.000	.006	.000	.001	.000		.000
	FL13	.000	.000	.090	.000	.000	.000	.000	.365	.000	.000	.000	.000	

FL1= before I buy something I carefully consider whether I can afford it

FL2= I tend to live for today and let tomorrow take care of itself

FL3= I find it more satisfying to spend money than to save it for the long term

FL4= I pay my bills on time

FL5= I am prepared to risk some of my own money when saving or making an investment

FL6= I keep a close watch on my financial affairs

FL7= I set long term financial goals and strive to achieve them

FL8= money is there to be spent

FL9= an investment with a high return is likely to be high risk

FL10= high inflation means that the cost of living is increasing rapidly

FL11= if someone offers you the chance to make a lot of money there is also a chance that you will lose a lot of money

FL12= it is less likely that you will lose all of your money if you save it in more than one place

FL13= it is important for me to keep up to date with what is happening with financial matters generally, such as the economy and the financial services sector

APPENDIX D

Correlation Matrix for Personal Finance

		PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14
	PF1	1.000	.012	.653	.154	-.058	.229	.277	-.107	.383	.186	.207	.523	.400	.282
	PF2	.012	1.000	-.079	.135	.454	.251	.081	.379	.063	.061	.260	.061	.299	-.219
	PF3	.653	-.079	1.000	.142	.053	.113	.134	-.010	.374	.214	.136	.430	.345	.554
	PF4	.154	.135	.142	1.000	.066	.045	.086	-.103	.125	.037	.074	.005	-.055	.024
	PF5	-.058	.454	.053	.066	1.000	.195	.264	.458	.121	.133	.313	.225	.348	-.045
	PF6	.229	.251	.113	.045	.195	1.000	.183	.070	.124	.410	.723	.296	.420	.205
	PF7	.277	.081	.134	.086	.264	.183	1.000	.081	.487	-.105	.354	.237	.434	.086
	PF8	-.107	.379	-.010	-.103	.458	.070	.081	1.000	.098	-.222	.108	.083	.502	-.004
	PF9	.383	.063	.374	.125	.121	.124	.487	.098	1.000	.082	.182	.228	.396	.343
	PF10	.186	.061	.214	.037	.133	.410	-.105	-.222	.082	1.000	.448	.311	.087	.280
	PF11	.207	.260	.136	.074	.313	.723	.354	.108	.182	.448	1.000	.458	.517	.126
	PF12	.523	.061	.430	.005	.225	.296	.237	.083	.228	.311	.458	1.000	.541	.228
	PF13	.400	.299	.345	-.055	.348	.420	.434	.502	.396	.087	.517	.541	1.000	.040
	PF14	.282	-.219	.554	.024	-.045	.205	.086	-.004	.343	.280	.126	.228	.040	1.000

Sig. (1-tailed)	PF1		.402	.000	.001	.112	.000	.000	.013	.000	.000	.000	.000	.000	.000
	PF2	.402		.050	.002	.000	.000	.046	.000	.093	.103	.000	.103	.000	.000
	PF3	.000	.050		.002	.136	.009	.003	.415	.000	.000	.002	.000	.000	.000
	PF4	.001	.002	.002		.085	.177	.036	.016	.005	.219	.062	.460	.126	.312
	PF5	.112	.000	.136	.085		.000	.000	.000	.006	.003	.000	.000	.000	.173
	PF6	.000	.000	.009	.177	.000		.000	.071	.005	.000	.000	.000	.000	.000
	PF7	.000	.046	.003	.036	.000	.000		.045	.000	.014	.000	.000	.000	.037
	PF8	.013	.000	.415	.016	.000	.071	.045		.021	.000	.012	.042	.000	.465
	PF9	.000	.093	.000	.005	.006	.005	.000	.021		.044	.000	.000	.000	.000
	PF10	.000	.103	.000	.219	.003	.000	.014	.000	.044		.000	.000	.035	.000
	PF11	.000	.000	.002	.062	.000	.000	.000	.012	.000	.000		.000	.000	.004
	PF12	.000	.103	.000	.460	.000	.000	.000	.042	.000	.000	.000		.000	.000
	PF13	.000	.000	.000	.126	.000	.000	.000	.000	.000	.035	.000	.000		.202
	PF14	.000	.000	.000	.312	.173	.000	.037	.465	.000	.000	.004	.000	.202	

PF1= I am impulsive and tend to buy things even when I can't really afford them
PF2= I am more of a saver than a spender

PF3= I prefer to buy things on credit rather than wait and save up

PF4= I would rather cut back than put everyday spending on a credit card I couldn’t repay in full each month
PF5= I am very organized when it comes to managing my money day to day

PF6= I am never late at paying my bills

PF7= I tend to live for today and let tomorrow take care of itself

PF8= I always make sure I have money saved for a rainy day

PF9= if I had to choose I would rather have a good standard of living today than save for retirement

PF10= I am never overdrawn on any account I own which has an overdraft facility

PF11= I keep up with my bills and commitments without difficulty

PF12= I can continue covering my living expenses comfortably for six months if I should lose my source (s) of income

PF13= I always have money left over at the end of my budgeting period

PF14= I always run out of money before the end of my budgeting period

APPENDIX E

Joint Correlation Matrix for Financial Literacy and Personal Finance

		PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	FL1	FL2	FL3	FL4	FL5	FL6	FL7	FL8	FL9	FL10	FL11	FL12	FL13
Correlation	PF1	1.000	.012	.653	.154	-.058	.229	.277	-.107	.383	.186	.207	.523	.400	.282	.143	.374	.500	.016	-.111	.038	.020	.419	-.036	-.170	-.228	.106	-.145
	PF2	.012	1.000	-.079	.135	.454	.251	.081	.379	.063	.061	.260	.061	.299	-.219	.188	.093	-.110	.257	.325	.196	.241	.124	.027	.279	.162	.035	.086
	PF3	.653	-.079	1.000	.142	.053	.113	.134	-.010	.374	.214	.136	.430	.345	.554	.203	.374	.541	.102	.188	.092	.072	.331	.222	-.071	.035	.333	.111
	PF4	.154	.135	.142	1.000	.066	.045	.086	-.103	.125	.037	.074	.005	-.055	.024	.075	-.030	.153	.202	.083	.146	-.026	.093	.162	-.128	.159	.087	-.146
	PF5	-.058	.454	.053	.066	1.000	.195	.264	.458	.121	.133	.313	.225	.348	-.045	.387	.229	-.047	.291	.309	.384	.582	.286	.135	.044	.318	.129	.337
	PF6	.229	.251	.113	.045	.195	1.000	.183	.070	.124	.410	.723	.296	.420	.205	.320	.162	.134	.291	-.012	.303	-.001	.331	-.116	.169	.077	.139	.067
	PF	.277	.081	.134	.086	.264	.183	1.00	.081	.487	-.1	.354	.237	.434	.086	.104	.529	.341	.089	.001	.109	.210	.366	-.0	-.1	.152	.046	-.0

	7							0			05													07	05			19
	PF8	-.107	.379	-.010	-.103	.458	.070	.081	1.000	.098	-.222	.108	.083	.502	-.004	.263	.228	.017	.099	.301	.077	.280	-.002	.014	.253	-.008	.178	.453
	PF9	.383	.063	.374	.125	.121	.124	.487	.098	1.000	.082	.182	.228	.396	.343	-.092	.561	.699	-.017	.248	-.011	.173	.213	.058	.054	.108	.315	.097
	PF10	.186	.061	.214	.037	.133	.410	-.105	-.222	.082	1.000	.448	.311	.087	.280	.217	-.024	.066	.291	.025	.192	.030	.036	.077	.042	.137	-.023	-.012
	PF11	.207	.260	.136	.074	.313	.723	.354	.108	.182	.448	1.000	.458	.517	.126	.478	.101	.082	.359	.105	.402	.199	.331	-.018	.123	.144	.102	.161
	PF12	.523	.061	.430	.005	.225	.296	.237	.083	.228	.311	.458	1.000	.541	.228	.353	.264	.230	.149	-.097	.252	.237	.382	.084	-.100	-.103	.198	.093
	PF13	.400	.299	.345	-.055	.348	.420	.434	.502	.396	.087	.517	.541	1.000	.040	.336	.483	.336	.046	.171	.177	.267	.447	.026	.110	-.007	.237	.228
	PF14	.282	-.219	.554	.024	-.045	.205	.086	-.004	.343	.280	.126	.228	.040	1.000	-.096	.341	.503	.178	.060	-.007	-.077	.007	.067	.046	-.064	.212	.208
	FL1	.143	.188	.203	.075	.387	.320	.104	.263	-.092	.217	.478	.353	.336	-.096	1.000	.011	-.202	.318	.080	.478	.220	.299	.115	.152	.103	.187	.259
	FL	.374	.093	.374	-.0	.229	.162	.529	.228	.561	-.0	.101	.264	.483	.341	.011	1.00	.586	.032	.191	-.0	.315	.232	-.0	-.0	-.0	.357	.160

	2				30						24						0				33			37	10	11		
	FL3	.500	-.110	.541	.153	-.047	.134	.341	.017	.699	.066	.082	.230	.336	.503	-.202	.586	1.000	-.031	.142	-.110	.023	.203	-.012	-.017	.034	.309	.064
	FL4	.016	.257	.102	.202	.291	.291	.089	.099	-.017	.291	.359	.149	.046	.178	.318	.032	-.031	1.000	.246	.576	.259	-.031	.292	.111	.196	.209	.203
	FL5	-.111	.325	.188	.083	.309	-.012	.001	.301	.248	.025	.105	-.097	.171	.060	.080	.191	.142	.246	1.000	.237	.310	.000	.403	.285	.342	.356	.254
	FL6	.038	.196	.092	.146	.384	.303	.109	.077	-.011	.192	.402	.252	.177	-.007	.478	-.033	-.110	.576	.237	1.000	.344	.234	.298	.036	.132	.161	.197
	FL7	.020	.241	.072	-.026	.582	-.001	.210	.280	.173	.030	.199	.237	.267	-.077	.220	.315	.023	.259	.310	.344	1.000	.065	.228	-.028	.315	.174	.272
	FL8	.419	.124	.331	.093	.286	.331	.366	-.002	.213	.036	.331	.382	.447	.007	.299	.232	.203	-.031	.000	.234	.065	1.000	-.069	.032	.105	.121	-.017
	FL9	-.036	.027	.222	.162	.135	-.116	-.007	.014	.058	.077	-.018	.084	.026	.067	.115	-.037	-.012	.292	.403	.298	.228	-.069	1.000	.245	.433	.337	.266
	FL10	-.170	.279	-.071	-.128	.044	.169	-.105	.253	.054	.042	.123	-.100	.110	.046	.152	-.010	-.017	.111	.285	.036	-.028	.032	.245	1.000	.252	.157	.311
	FL	-.2	.162	.035	.159	.318	.077	.152	-.0	.108	.137	.144	-.1	-.0	-.0	.103	-.0	.034	.196	.342	.132	.315	.105	.433	.252	1.00	.311	.266

	11	28							08				03	07	64		11									0		
	FL12	.106	.035	.333	.087	.129	.139	.046	.178	.315	-.023	.102	.198	.237	.212	.187	.357	.309	.209	.356	.161	.174	.121	.337	.157	.311	1.000	.240
	FL13	-.145	.086	.111	-.146	.337	.067	-.019	.453	.097	-.012	.161	.093	.228	.208	.259	.160	.064	.203	.254	.197	.272	-.017	.266	.311	.266	.240	1.000
Sig. (1-tailed)	PF1		.402	.000	.001	.112	.000	.000	.013	.000	.000	.000	.000	.000	.000	.001	.000	.000	.369	.010	.212	.339	.000	.228	.000	.000	.013	.001
	PF2	.402		.050	.002	.000	.000	.046	.000	.093	.103	.000	.103	.000	.000	.000	.026	.011	.000	.000	.000	.000	.005	.290	.000	.000	.234	.036
	PF3	.000	.050		.002	.136	.009	.003	.415	.000	.000	.002	.000	.000	.000	.000	.000	.000	.016	.000	.027	.065	.000	.000	.070	.235	.000	.010
	PF4	.001	.002	.002		.085	.177	.036	.016	.005	.219	.062	.460	.126	.312	.059	.269	.001	.000	.042	.001	.291	.026	.000	.004	.000	.035	.001
	PF5	.112	.000	.136	.085		.000	.000	.000	.006	.003	.000	.000	.000	.173	.000	.000	.164	.000	.000	.000	.000	.000	.002	.181	.000	.003	.000
	PF6	.000	.000	.009	.177	.000		.000	.071	.005	.000	.000	.000	.000	.000	.000	.000	.002	.000	.401	.000	.495	.000	.008	.000	.054	.002	.081
	PF	.000	.046	.003	.036	.000	.000		.045	.000	.014	.000	.000	.000	.037	.015	.000	.000	.032	.493	.012	.000	.000	.445	.014	.001	.170	.349

	7																											
	PF8	.013	.000	.415	.016	.000	.071	.045		.021	.000	.012	.042	.000	.465	.000	.000	.361	.019	.000	.054	.000	.481	.384	.000	.436	.000	.000
	PF9	.000	.093	.000	.005	.006	.005	.000	.021		.044	.000	.000	.000	.000	.028	.000	.000	.360	.000	.410	.000	.000	.115	.128	.012	.000	.021
	PF10	.000	.103	.000	.219	.003	.000	.014	.000	.044		.000	.000	.035	.000	.000	.312	.086	.000	.303	.000	.266	.225	.053	.191	.002	.313	.399
	PF11	.000	.000	.002	.062	.000	.000	.000	.012	.000	.000		.000	.000	.004	.000	.017	.044	.000	.014	.000	.000	.000	.353	.005	.001	.017	.000
	PF12	.000	.103	.000	.460	.000	.000	.000	.042	.000	.000	.000		.000	.000	.000	.000	.000	.001	.021	.000	.000	.000	.040	.019	.016	.000	.026
	PF13	.000	.000	.000	.126	.000	.000	.000	.000	.000	.035	.000	.000		.202	.000	.000	.000	.168	.000	.000	.000	.000	.292	.011	.439	.000	.000
	PF14	.000	.000	.000	.312	.173	.000	.037	.465	.000	.000	.004	.000	.202		.023	.000	.000	.000	.106	.445	.054	.443	.081	.167	.092	.000	.000
	FL1	.001	.000	.000	.059	.000	.000	.015	.000	.028	.000	.000	.000	.000	.023		.409	.000	.000	.048	.000	.000	.000	.008	.001	.016	.000	.000
	FL	.000	.026	.000	.269	.000	.000	.000	.000	.000	.312	.017	.000	.000	.000	.409		.000	.254	.000	.248	.000	.000	.221	.417	.411	.000	.000

	2																											
	FL3	.000	.011	.000	.001	.164	.002	.000	.361	.000	.086	.044	.000	.000	.000	.000	.000		.258	.001	.011	.320	.000	.401	.360	.237	.000	.090
	FL4	.369	.000	.016	.000	.000	.000	.032	.019	.360	.000	.000	.001	.168	.000	.000	.254	.258		.000	.000	.000	.260	.000	.010	.000	.000	.000
	FL5	.010	.000	.000	.042	.000	.401	.493	.000	.000	.303	.014	.021	.000	.106	.048	.000	.001	.000		.000	.000	.497	.000	.000	.000	.000	.000
	FL6	.212	.000	.027	.001	.000	.000	.012	.054	.410	.000	.000	.000	.000	.445	.000	.248	.011	.000	.000		.000	.000	.000	.227	.003	.000	.000
	FL7	.339	.000	.065	.291	.000	.495	.000	.000	.000	.266	.000	.000	.000	.054	.000	.000	.320	.000	.000	.000		.087	.000	.282	.000	.000	.000
	FL8	.000	.005	.000	.026	.000	.000	.000	.481	.000	.225	.000	.000	.000	.443	.000	.000	.000	.260	.497	.000	.087		.075	.250	.014	.006	.365
	FL9	.228	.290	.000	.000	.002	.008	.445	.384	.115	.053	.353	.040	.292	.081	.008	.221	.401	.000	.000	.000	.000	.075		.000	.000	.000	.000
	FL10	.000	.000	.070	.004	.181	.000	.014	.000	.128	.191	.005	.019	.011	.167	.001	.417	.360	.010	.000	.227	.282	.250	.000		.000	.001	.000
	FL	.000	.000	.235	.000	.000	.054	.001	.436	.012	.002	.001	.016	.439	.092	.016	.411	.237	.000	.000	.003	.000	.014	.000	.000		.000	.000

	11																											
	FL12	.013	.234	.000	.035	.003	.002	.170	.000	.000	.313	.017	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.006	.000	.001	.000		.000
	FL13	.001	.036	.010	.001	.000	.081	.349	.000	.021	.399	.000	.026	.000	.000	.000	.000	.090	.000	.000	.000	.000	.365	.000	.000	.000	.000	

FL1= before I buy something I carefully consider whether I can afford it

FL2= I tend to live for today and let tomorrow take care of itself

FL3= I find it more satisfying to spend money than to save it for the long term

FL4= I pay my bills on time

FL5= I am prepared to risk some of my own money when saving or making an investment

FL6= I keep a close watch on my financial affairs

FL7= I set long term financial goals and strive to achieve them

FL8= money is there to be spent

FL9= an investment with a high return is likely to be high risk

FL10= high inflation means that the cost of living is increasing rapidly

FL11= if someone offers you the chance to make a lot of money there is also a chance that you will lose a lot of money

FL12= it is less likely that you will lose all of your money if you save it in more than one place

5L13= it is important for me to keep up to date with what is happening with financial matters generally, such as the economy and the financial services sector

PF1= I am impulsive and tend to buy things even when I can't really afford them

PF2= I am more of a saver than a spender

PF3= I prefer to buy things on credit rather than wait and save up

PF4= I would rather cut back than put everyday spending on a credit card I couldn't repay in full each month

PF5= I am very organized when it comes to managing my money day to day

PF6= I am never late at paying my bills

PF7= I tend to live for today and let tomorrow take care of itself

PF8= I always make sure I have money saved for a rainy day

PF9= if I had to choose I would rather have a good standard of living today than save for retirement

PF10= I am never overdrawn on any account I own which has an overdraft facility

PF11= I keep up with my bills and commitments without difficulty

PF12= I can continue covering my living expenses comfortably for six months if I should lose my source (s) of income

PF13= I always have money left over at the end of my budgeting period

PF14= I always run out of money before the end of my budgeting period

APPENDIX F

Rotated Component Matrix for Financial Literacy

	Component					
	1	2	3	4	5	6
Before I buy something I carefully consider whether I can afford it	-.067	.557	-.150	.358	.500	.148
I tend to live for today and let tomorrow take care of itself	-.076	-.017	.841	.086	.098	.305
I find it more satisfying to spend money than to save it for the long term	.056	-.122	.861	-.060	.048	-.073
I pay my bills on time	.197	.830	.055	.051	-.146	.037
I am prepared to risk some of my own money when saving or making an investment	.608	.191	.255	.192	-.118	.119
I keep a close watch on my financial affairs	.153	.825	-.078	-.006	.227	.170
I set long term financial goals and strive to achieve them	.243	.207	.109	.031	.036	.866
Money is there to be spent	.008	.044	.201	-.054	.912	-.003
An investment with a high return is likely to be high risk	.756	.262	-.034	.099	-.118	.003
High inflation means that the cost of living is increasing rapidly	.311	-.024	-.026	.752	.075	-.300
If someone offers you the chance to make a lot of money there is also a chance that you will lose a lot of money	.795	-.089	-.083	.116	.209	.250
It is less likely that you will lose all of your money if you save it in more than one place	.470	.226	.532	.138	.103	-.083
It is important for me to keep up to date with what is happening with financial matters generally, such as the economy and the financial services sector	.120	.137	.115	.764	-.080	.346

Extraction method: principal component analysis.
Rotation method: varimax with Kaiser normalization.

A. Rotation converged in 9 iterations.

APPENDIX G

Rotated Component Matrix for Personal Finance

	Component					
	1	2	3	4	5	6
I am impulsive and tend to buy things even when I can't really afford them	.078	.843	-.136	.195	.138	.176
I am more of a saver than a spender	.198	.025	.697	-.038	-.255	.301
I prefer to buy things on credit rather than wait and save up	-.017	.698	.013	.050	.567	.134
I would rather cut back than put everyday spending on a credit card I couldn’t repay in full each month	.008	.056	.029	.085	.013	.915
I am very organized when it comes to managing my money day to day	.218	-.029	.761	.111	.040	.097
I am never late at paying my bills	.825	.115	.137	.140	.028	-.021
I tend to live for today and let tomorrow take care of itself	.127	.125	.075	.894	-.061	.029
I always make sure I have money saved for a rainy day	-.152	.030	.850	.077	.053	-.266
if I had to choose I would rather have a good standard of living today than save for retirement	.012	.212	.096	.691	.413	.126
I am never overdrawn on any account I own which has an overdraft facility	.732	.122	-.080	-.272	.313	.112
I keep up with my bills and commitments without difficulty	.835	.186	.194	.263	-.060	-.018
I can continue covering my living expenses comfortably for six months if I should lose my source (s) of income	.343	.753	.115	.068	.030	-.116
I always have money left over at the end of my budgeting period	.257	.560	.491	.396	-.078	-.221
I always run out of money before the end of my budgeting period	.150	.138	-.077	.087	.901	-.043

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

APPENDIX H

Joint Rotated Component Matrix

	Component					
	1	2	3	4	5	6
I am impulsive and tend to buy things even when I can't really afford them	.574	-.153	.203	-.057	.518	-.181
I am more of a saver than a spender	-.019	.132	.297	.571	-.258	.118
I prefer to buy things on credit rather than wait and save up	.594	.256	.120	-.248	.494	.022
I would rather cut back than put everyday spending on a credit card I couldn't repay in full each month	.111	.305	.082	.104	-.009	-.568
I am very organized when it comes to managing my money day to day	.018	.344	.152	.670	.152	.197
I am never late at paying my bills	.168	-.085	.845	.129	-.026	.049
I tend to live for today and let tomorrow take care of itself	.533	-.068	.075	.516	.052	-.214
I always make sure I have money saved for a rainy day	.094	.078	-.045	.449	-.025	.708
if I had to choose I would rather have a good standard of living today than save for retirement	.820	.117	.040	.117	-.092	-.043
I am never overdrawn on any account I own which has an overdraft facility	.007	.156	.674	-.249	.120	-.113
I keep up with my bills and commitments without difficulty	.127	.038	.810	.296	.129	.036
I can continue covering my living expenses comfortably for six months if I should lose my source (s) of income	.295	-.020	.354	.113	.663	.101
I always have money left over at the end of my budgeting period	.489	-.089	.321	.474	.251	.350
I always run out of money before the end of my budgeting period	.519	.170	.217	-.517	.137	.165
before I buy something I carefully consider whether I can afford it	-.182	.204	.440	.312	.452	.218
I tend to live for today and let tomorrow take care of itself	.764	.028	-.058	.241	.096	.169
I find it more satisfying to spend money than to save it for the long term	.879	.054	.016	-.149	.004	-.048
I pay my bills on time	-.116	.551	.427	.086	.142	-.039
I am prepared to risk some of my own money when saving or making an investment	.193	.627	-.008	.192	-.245	.197
I keep a close watch on my financial affairs	-.193	.468	.378	.286	.371	-.051
I set long term financial goals and strive to achieve them	.070	.430	-.106	.541	.256	.133

money is there to be spent	.327	-.107	.301	.373	.285	-.138
an investment with a high return is likely to be high risk	-.006	.773	-.059	-.075	.076	.006
high inflation means that the cost of living is increasing rapidly	.012	.233	.310	-.035	-.478	.454
if someone offers you the chance to make a lot of money there is also a chance that you will lose a lot of money	.045	.631	.101	.213	-.318	-.131
it is less likely that you will lose all of your money if you save it in more than one place	.382	.510	.023	-.028	.061	.193
it is important for me to keep up to date with what is happening with financial matters generally, such as the economy and the financial services sector	.054	.399	.054	.058	.042	.663

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 14 iterations.