UNIVERSITY OF CAPE COAST

EFFECT OF CREDIT ON SOCIAL SPENDING IN GHANA

BY

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DECLARATION

Candidate's Declaration

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

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

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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.

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ABSTRACT

The increased spending of household on occasions has become both social and economic issue today and it is being discussed by many scholars. Financial deepening has made it easier and possible for household to have access to credit to spend on needs of household that on the other way wouldn't have been possible. This study sought to estimate the effect of the amount of credit on social spending and also to estimate the effect of social spending on households' health expenditure in Ghana using the sixth round of Ghana Living Standard Survey data (GLSS 6). The study employed Ordinary Least Square estimation. It was found that an amount of credit has positive and significant effect on social spending in Ghana. That is, household perceive social spending as investment hence an increase in amount of credit extended to the household has the tendency of increasing household spending on funerals, weddings and parties. It was also found that spending on social occasions results in an increase in household's health expenditure. It is recommended that Household heads should pay crucial attention to the cost on credit (interest rates) as the amount of loan granted to them has the cost burden imbedded in it. That's, despite the fact that social spending not depriving household from health needs, the high cost on loans wouldn't allow the household head from retrieving the entire principal amount and the interest within the time frame within which the spending is done.

KEY WORDS

Financial literacy

Social spending

Credit

Health spending

Conspicuous spending

Veblen goods

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DEDICATION

To my family especially Maame Esi Tawiah

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LIST OF ACRONYMS

ATM	Automated Teller Machine
BDCs	Bulk Oil Distribution Companies
CAR	Capital Adequacy Ratio
CBN	Central Bank of Nigeria
DFID	Department for International Development
ERP	Economic Recovery Programme
Findex	Financial Index
FinSAP	Financial Sector Adjustment Programme
FSPs	Financial Service Providers
GDP	Gross Domestic Product
GFD	Global Findex Database
GLSS	Ghana Living Standard Survey
GSE	Ghana Stock Exchange
GSS	Ghana Statistical Service
ICAAP	Internal Capital Adequacy Assessment Process
IFAD	International Fund for Agricultural Development
NBFIs	Non-Bank Financial Institutions
NPART	Non-Performing Assets Recovery Trust
NPLs	Non-Performing Loans
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Squares
SACCOs	Savings and Credit Cooperative Organizations
SME	Small and Medium-sized Enterprises

SOEs	State-Owned Enterprises
VSLAs	Village Savings and Loans Associations
WB	World Bank
WBG	World Bank Group

CHAPTER ONE

INTRODUCTION

Background to the Study

The influx of financial institutions in Ghana has resulted in the growth of the Ghanaian economy through the growth of the financial sector (Kwakye, 2012). This growth in the economy has greatly been influenced by financial intermediation and financial deepening in the country. These financial institutions help in the transfer of surplus resources from savers to borrowers (Kwakye, 2012). According to Rabobank Report (Access to financial services in developing countries, 2010), roughly 4 billion people living in developing and emerging economies do not have access to financial services such as credit and insurance. That is, a greater number of people in the developing economies are deprived of financial access due to lack of collateral securities, the absence of credit history, the absence of relationship banking etc. that deprives the marginalised from getting access to these services. That is, the increasing number of unbanked population has been the result of factors such as absence of relations who can facilitate credit extension to the individual applicants, poor or no collateral to facilitate loan acquisition which all these affect the financial deepening in an economy. For it has been indicated in finance theory that the greater the financial deepening, the higher the level of financial intermediation and the greater the contribution of the financial sector to economic growth.

According to DFID report (2004), availability of credit and other financial products and the facilitation of transactions in the financial sector is a crucial building block for private sector development. That is, making credit available in the economy is an economic booster to the scope and pace with which financial resources are turned into real resources. It serves as an enablement for households to vary the expenditure patterns such that goods and/or services that the household wouldn't have been able to consume become possible for them to consume.

Karlan D., and Morduch, J. (2010), in their work on access to financial services in Mali states that the current hope of the economy is placed on the transformative power of financial access. That is, increasing financial inclusion of the marginalised community will consider increasing access to formal financial services such as bank account and using credit and savings facilities of these financial institutions (Karlan et al., 2010). Financial exclusion occurs when there are limitations to access and use of financial services. Notable constraints include the likes of distance from the financial institutions, language barriers, as well as cost limitations which make some individuals marginally excluded from the financial market (Attanasio et al 2007). The persistent exclusion of certain categories of the market adversely impedes the growth of the economy, as income inequality gap continues to worsen. These have other negative impacts on the economy as the rate at which savings could be mobilized to make loanable funds available on the market is affected. The financial exclusion is mainly due to these constraints, which are considered either at the macro or micro levels (Attanasio et al 2007).

Yunus (2006) argued that growth in income through the financial sector will result in reducing the denied opportunities given to a marginalised group in the community. He goes on to say that the new generation needs to be equipped so as to take children out of financial poverty. Thus, exclusion of an aspect of an economy from the financial sector has a greater adverse effect on resources mobilization through the financial sector.

According to Graf and Dalla Valle (2014), meeting the financial needs of the populace requires that Financial Service Providers (FSPs) (IFAD, 2010c) play a crucial role. Financial Service Providers which includes formal banking systems (commercial and development banks), semi-formal banking systems (savings and credit cooperative organizations [SACCOs]) and informal banking systems not officially registered at national level (e.g. self-help groups, loans from landlords, village savings and loan associations (VSLAs), moneylenders and traders). However, data from several leading Financial Service Providers reveal that young people tend to make up a smaller proportion of overall formal Financial Service Providers clientele than their overall population demographics would suggest. Providing financial services in rural areas is typically considered high risk due to the unique characteristics of agriculture, which include dependence on natural resources and seasonality; long production cycles; and vulnerability to variable weather.

Furthermore, scattered rural populations greatly increase the operating costs of financial institution in most countries. That is, it becomes increasingly costly for financial institutions to extend financial services to people with varying degree of distances. This is because once it has become necessary for the financial institutions to include the unbanked population, their cost of operations increases typically where these people are in the rural areas and also scattered. Access to financial services considers the ability of an individual or an enterprise to obtain financial services such as credit, deposit, payment and insurance and other risk management. Customers desire to have credit to assist in their various economic activities should not be impeded with certain barriers such as distance, language etc. which visibly leads to their exclusion.

Financial access, according to literature is being measured as either the amount of credit that household is able to access, the distance between household and the financial institution, the ability to access automated teller machines, the ability to save and borrow from a financial institution etc. It is reported that less than half the population of developing countries have access to formal financial services (World Bank Research Observer, Volume 24). Thus, the motive of bridging income inequality in the developing countries is partly affected by the inaccessibility of financial services by most of the in-dwellers, which is an end product of lack of financial deepening in the region. It is noted that lack of awareness prevents people from using suitable financial products and services. This is a daunting factor making accessibility of financial services to the majority an economic headache also to the policymakers in the developing economies.

Exposure of an individual to financial services has great trickling down effect on the economy as expenditure on food consumption, education, accommodation, healthcare etc. would be affected by the multiplier effects. Again, according to Osei-Assibey et al (2009), Demand for and supply of financial services is influenced by many factors among the different socioeconomic groups and residential dwellings. Osei-Assibey et al. (2009) asserts that households in urban areas demand for financial services are influenced by the availability of physical assets, formal sector employees, and proximity to a bank. Households in the informal sector with low levels of education endowments were less likely to demand financial services (Osei-Assibey et al, 2009). In addition, Bendig et al. (2009) in their work on

Savings, Credit and Insurance: Household Demand for Formal Financial Services in Rural Ghana, they found that demand for financial services was much less found in the rural poorer households than the rich rural households. That is, the poorer households were less likely to participate in the formal financial sector than better-off households in rural Ghana.

Numerous factors influence demand for loanable funds and this has also be researched into by many researchers. According to Osei-Assibey (2009) in a study in Ghana found that socio-economic status, households' risk assessment an past exposure to shocks are some of the factors that influence demand for credit (Assibey et al. 2009). Osei-Assibey (2009) found that the factors that influence the supply of loanable funds in Ghana include not any other factors than the market size, urbanization and modern infrastructures such as electricity, communication facilities and market activity within the community. In addition, Mawuli Akpandjar, Quartey and Abor (2013) in estimating demand for financial services in Ghana using Tobit and conditional logit models found that access to credit is influenced by size of household, age of household head, marital status, occupation, income, remittances, and shocks. Thus, participation in the financial sector is dependent partly on the socio-economic characteristics of the household head. Again, locational characteristics were important in determining household heads' participation in the financial market. Rural households were more likely to demand financial services compared to the urban households when there exist alternatives to obtaining financial services from the informal financial sector.

The health of an individual plays an instrumental role in his/her success. According to the World Health Organisation (1948), health defines the complete physical, mental, social well-being state of an individual and not merely absence of disease or infirmity. Health is considered a necessity because the survival of an economic agent depends greatly on the state of physical, mental and the emotional stability of the individual. Spending on health guarantees an individual quality mental, physical and emotional stability to perform economic activities. According to Economic Analysis and Evaluation of Government Report (2013), health is an outcome of multiple factors such as lifestyle, environment and biology. Healthcare demand is a function of the bad and poor health state of an individual such that proper health care investment positively enhances economic growth and vice versa. Rout (2008) in the study on socio-economic factors and household expenditure found that education and income significantly affect household health expenditure in Orissa. According to Brown et al., (2010), social status is related to relative consumption and it is shaped by historically-distant evolutionary process or due to its instrumental value (Postlewaite, 1998). In the developed economies, people seeking outward displays of wealth to keep up are motivated by two (2) main reasons. The idea that negative externalities may reduce well-being. That is, the increasing spending on social occasions have the tendency of ripping-off household members' well-being which is measured by utility derived from the consumption of basic necessities such as food, accommodation, quality health care, better education etc. The trade-off that exists between conspicuous spending and normal goods results in the increasing denial of household members of basic needs such quality health care due to the negative externalities.

According to Maslow's Hierarchy of Needs (1943), status building is of necessity but not at compromising to basic needs. Human beings in the quest of pride and status could spend too much on social programmes in order to “beat” recently organized social programmes without recourse to the quality of healthcare, education, accommodation etc. and equally important needs of the household. Death toil that continues in our society today coupled with incessant wedding ceremony and other social gatherings have paved way for these increased household spending on social programmes. Funerals, as most recently organized have had two components. First, the extended family schedules a meeting on which the actual date for the funeral ceremony is to be held. This comes with the cost of food, canopy hiring, venue renting (in cases where there is no place for the family) etc. which was not mostly done in our society. In addition to this, the main funeral programme has an element of items giving where the bereaved family gives items such as rubber bucket in exchange for monies and other presents that have been presented by mourners and other well-wishers. In the case of a wedding, the huge cost of photo shooting, pre-wedding and other extravagant functions being added to our recent social functions.

Spending on basic needs, which comprises of healthcare, education, shelter and accommodation have been the basic household activity that most of the earned income is spent on. In addition, a household that is unable to undertake these activities could solicit for funds from relatives and friends and other financial institutions so as to supplement the family income. As household income increases, household food and non-food expenditure are expected to increase through the multiplier effect.

Problem Statement

Expenditure of a household is a function of its income. The household budget line reflects the line and the need for a given expenditure. Thus, given household income, the expenditure could comprise healthcare, accommodation, electricity, water, education, wedding, funeral, parties, leisure and many others that could not be listed. The amount spent on any household need compete with other equally important need, hence the scale of preference and the concept of opportunity cost. Household spending on social programmes has taken a sporadic increase as Chen, X. and Zhang, X., (2012) posit that social spending has increased much faster than income and consumption. The more a household spends on social programmes; the squeeze theory states that holding all other factors constant, resources are squeezed from basic consumption and productive investment, a seemingly misplaced priority of the household. A household head that spends too much on social events is likely to deprive the children of quality education and health care and this has the tendency of reducing marginal returns to education of the household holding other factors constant. Competition in the organization of social programmes has brought about a large trade-off between basic human needs and social spending. Even though some people could perceive social spending as investment, yet the returns could not necessarily be translated to its perceived or expected benefits. Thus, there could be an argument that spending on social functions is a form of investment in which the principal together with interest could be retrieved within the shortest possible time. Partly true, but the rate at which the amount could be retrieved depends on numerous factors such as the available network of friendship that has been built over time, quality of the network in terms of how resourceful the individuals in the network are so as to contribute immensely towards one's social programme, the number of social programmes that individuals within the social network are to partake, as well as even the season with which individuals find themselves. Despite the fact that some of these have not been put to any statistical test make the argument vague, yet common sense has enough to tell in the absence of a statistical test.

Recently and as it has been argued, the expenditure on these social functions has continued to squeeze out limited resources and hence the limited investment of the household. Ghana News (13th April 2018) reported that young graduates spent GHS 12,000 on an extravagant wedding with the young couple not having any investment made. Again, household heads with the notion of perception from attendees of these social programmes are locked up, hence, the decision to spend hugely in the short run had it not been competitions from other attended programmes and the desire to build status. The cost of organizing these social programmes has escalated to the roof such that the prospective couple now sees the need to build on social status and the expense of the basic necessities of life. Some economist could argue that it is an investment and hence it could be retrieved with an appropriate rate of return. The question asked is: if spending on social programmes is an investment, then, how was the internal rate of return estimated to accept, reject or abandon such an investment? This indeed is a worry to the household and this research would like to quiz further to find out the effect of credit on household head's spending on social events and also to find out how spending on social events affect household head's health expenditure.

Research Objectives

The main objective of this study is to determine the effect of credit on household head's spending on social functions, such as wedding, funerals, parties and also to estimate the effect of social spending on health expenditure in Ghana. These could be achieved through the following specific objectives;

i. To estimate the effect of amount of credit on household head's expenditure on social spending.
ii. To estimate the effects of socio-economic characteristics of household head's spending on social events.
iii. To estimate the effect of expenditure on social functions on household head's health expenditure.

Research Hypotheses

The research hypotheses are stated in a positive form and are as follows;

1. H_0: The total amount of loan (credit) does not affect household head's expenditure on social functions

   H_1: The total amount of loan does affect household head's expenditure on social functions.

2. H_0: There is no significant effect of socio-economic characteristics on social spending of the household head.

   H_1: Socio-economic characteristics do affect significantly social spending of the household head.

3. H_0: Expenditure on social functions does not affect a household head's health expenditure.

   H_1: Social spending does affect a household head's health expenditure.

Significance of the Study

Other works have considered access to finance rudimentarily and as such tends to be incomplete. For instance, the use of average distance from households to an Automated Teller Machine (ATM) and the use of formal accounts as measures of access to finance are incomplete in the case of developing economy like Ghana. This is due to the fact that most of these measures do not correctly give correct interpretation and help unravel the impact of access to financial services in the sense that individuals in less-developed countries like Ghana use a surprising range of formal and informal products and services to meet their financial needs.

Access to finance indicated by the amount of loan (credit) is significant in estimating the extent of household status and performance being measured by either consumption or poverty is impacted. The study will be significant in establishing the effect of access to credit on social spending. It is to explain whether social spending has an effect on health spending of the household. It is also to determine the effect that socio-demographic characteristics have on household spending on social spending. It is relevant in adding to the literature of household spending given access to credit. This is specifically about social spending as well as health spending.

Scope of the Study

This study examines the effect of access to financial services on expenditure on social spending and the effect of social spending on health spending in Ghana. Specifically, the study examines the effects of amount of credit, sex, age, and location, and region, levels of education, household size, and marital status as well as geographical areas on social spending. It again examines the effect of social spending on health spending. The analysis is done using the sixth-round survey of the Ghana Living Standard Survey collected in the years 2012 and 2013 and the unit of analysis is the head of household who takes certain household decisions either alone or in consultation with other members of the household.

Organisation of the Study

The study is organised into five (5) chapters. The rest of the study is structured as follows: Chapter two covers the literature review. That is the conceptual review, theoretical and empirical reviews. Chapter three considers research methodology, theoretical framework, and estimation technique as well as data source and data management. Chapter four considers results and discussion. Chapter five details on summary conclusions and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

The broad aim of this chapter is to present related literature on access to finance (credit) as well as household expenditure reviewed for the study. The chapter is organized into two main sections. Theories on expenditure are reviewed as well as access to finance. Empirical review of access to finance and social functions are presented.

Theory of Human Motivation

The physiological needs

The motivation theory begins with the physiological needs of man, which is basically considered as the physiological drive. Two lines of research motivate this concept; the concept of homeostasis and the secondly the findings of appetites. Homeostasis refers to the body's automatic effort to maintain a constant, normal state of the blood stream. It is described as the process whereby the water content of the blood, sugar content, protein content, oxygen content, constant hydrogen ion level and constant blood temperature Cannon (1932). Young (1941, 1948) summarized the concept of appetite in relation to the body needs. Thus, he summarized as if an individual desire something in the body, he/she develops a specific appetite for it and hence the need to satisfy such needs. They stress that such needs cannot be listed as they are numerous in nature and as such differ from person to person. It also posits that in an individual who desires any other need would first and foremost consider this need before considering any other need. Thus, for an individual to think of satisfying any need other than accommodation, hunger, shelter, food, health needs etc. would consider first the need for these basic needs before satisfying these needs. This is the highest need of man and this is seen from the base of the diagram shown above.

Figure 1: Maslow's Hierarchy of Needs

Source: Author's construct

Safety needs

This need is second most pressing need of mankind according to the model and this is considered after the physiological needs are well gratified. Thus, the most pressing need after the physiological need is the need to be secured both in the house and within the environment with which one finds himself/herself. The safety need concept assumes that an individual would employ all the mechanisms in their capacities and in their service just to ensure his/her safety. Thus, they may serve as the almost exclusive organizers of behaviour, recruiting all the capacities of the organism in their service, and may then may fairly describe the whole organism as a safety-seeking mechanism. It posits that a man in this state, extreme enough and chronic enough, may be considered as living almost for safety alone.

Love needs

After the physiological and need for safety is well gratified, an individual then considers the need for love both within the family and the external world. That is, the need for love, affection and belongingness emerge as the next most pressing desire for a man. Love and affection as well as their possible expression in sexuality, are generally looked upon with ambivalence and are customarily hedged about with many restrictions and inhibitions. Thus, at this point, an individual makes every effort possible to love and be loved. This is done by making the available and the possible means to show the kind of care, affection and the belongingness and would be expecting society to be reciprocating same back to him/her.

Esteem needs

Most people in our society with the exception of individuals with pathology would have the need or desire for a stable, firmly based, usually with high evaluation of themselves, for self-respect, or self-esteem and for the esteem of others. By considering self-esteem, the individual would like to be accorded with the necessary respect based on the status built for himself and probably for the family. This need may be considered in two spectra. First the desire for strength, for achievement, adequacy, for confidence in the face of the world and the independence and freedom. Secondly, the desire for reputation or prestige, recognition, attention, importance or appreciation is the other desire that complements the first aforementioned. Thus, individual expect society and individuals to attach value and respect for the success and the achievement that he/she might have made in the work of life. Satisfaction of the self-esteem need leads to the feelings of self-confidence, worth, strength, capability and adequacy of being useful and necessary in the world. The thwarting of these needs results in the feeling of inferiority, of weakness and helplessness. Such feelings give rise to either basic discouragement or else compensatory or neurotic trends.

The need for self-actualization

It is posited that even if all these aforementioned needs are satisfied, there may still often be some of form of discontent and restlessness for the individual. This situation may not arise if and only if the individual is able to achieve and become exactly who he envisaged of becoming in life. Self-actualization needs require that an individual really becomes who he/she exactly expected or thought of becoming in life. If deviations arise, it is there that the feeling of discontent and restlessness comes in. The self-actualization needs are considered according to Kurt Goldstein (1947) as the desire for self-fulfilment where the tendency for him to become is what he is actually becoming. It varies from person to person. In the case of one individual, it may take the form of the desire to become an ideal mother while in another person, it may take the form of becoming a professional accountant. Self-actualization concept assumes that the potential individual is who the individual actually becomes in real life. If it is fulfilled, then the act of discontent and restlessness is reduced or avoided in the individual and the society at large.

The Theory of Consumer Behaviour

In the microeconomic perspective, two main decision makers are the individual household and the firm. The consumption decision of each of these economic agents in determining how much to spend depends on the budget and the needs of each of them. That is, individual household's decision to spend depends on the level of expected utility (Utility) and the income constraint (Budget Line) holding all other factors constant. That is a consumer seeks to maximize his satisfaction from his consumption constrained by his budget or the level of income. For the purpose of the study, an individual household's consumption decision will be the focus of the theoretical review that will be reviewed in this study.

Theory of Utility

A utility function describes the level of "satisfaction" or "happiness" that a consumer derives from consuming various goods and/services. The level of satisfaction of a consumer from consuming a good or some goods depends on the type of utility function. The theory of consumption and utility is based on the assumption that the consumer has a consumption bundle denoted as X. This consumption set is captured in the framework that it is a representative of infinite alternative choices of consumption bundles.

This theory also considers how consumers make decisions about what to buy. It examines the trade-offs that people face in their role as consumers. The amount of money spends on one good say good x reduces the amount of money spent on the other good say good y. When more amount of money is spent on social programmes, the amount of economic resources available for other economic activities reduces. Let us consider a consumer faced with possible consumption bundles in some set X, called the consumption set. The consumption set X is assumed to be non-negative orthant in R^k. it is assumed also that X is a closed and convex set. The individual consumer is assumed to have preferences on the consumption bundles in X such that one if preferred to the other. When we write x k y, it indicates that "the consumer thinks that the bundle x is at least as good as the bundle y". For the sake of the preference order of the consumption bundles, we need to assume that they satisfy certain standard properties.

Properties of consumer preferences

1. Completeness

   For all x and $y$in X, either x ≥ y or y ≥ x or both.

2. Reflexive

   For all x in X,$x \geq x$.

3. Transitive

   For all x, y and z in X, if $x \geq y$ and$y \geq z$, then,$x \geq z$.

4. Continuity

   For all y in X, the sets $\{x: x \geq y)$ and $\{x: x \leq y)$ are closed sets. It follows that $\{x: x > y)$ and $\{x: x < y)$ are open sets. This assumption rules out certain discontinuity behaviour. It says that if (x') is a sequence of consumption bundles that are all at least as good as a bundle y, and if this sequence converges to some bundle x', then x^* is at least as good as y.

   The basic hypothesis under the theory of consumer behaviour is that a rational consumer will always choose the most preferred bundle from the set of affordable alternatives. In the basic problem of maximization, the set of affordable alternatives is just the set of all bundles that satisfy the consumer's budget constraint.

Let m be the fixed household's monetary income and $p = (p_1, \dots p_k)$ be the vector of prices of goods $1, \dots, k$. the set of affordable bundles, the budget set of the consumer is given as: $B = \{x \; in \; X: px \; \leq m\}$. The problem of preference maximization can, therefore, be written as:

$$\max u(x)$$

Such that $px \; \leq m$

x is in X.

Household Decision Functions

This section considers the model in which decisions are made by the household as a unit, but which the individuals in the household possess their own preferences. When we consider a single household decision function which reflects and is based upon the preferences of individual members of the household, then the Arrow impossibility theorem is mainly considered and this applies to larger groups. To have a household that behaves as a single decision-making unit, one or more of Arrow conditions must be dropped. The traditional approach of simply regarding the household as a single person can be considered to have rested upon one of two implicit assumptions that the household decision function is dictatorial and reflects the preference of its "head" or that the members of the household have identical preferences and unanimity is found on all choices.

Samuelson Households

The household decision function discussed by Samuelson (1956) has the form of $U[u^1(x^1), u^2(x^2), \ldots \ldots .. u^m(x^m)]$ where $u^i(x^i)$ is the utility function of the i-th household member derived from his own consumption vector x^i. There are no externalities, interdependencies or joint effects. Utility U, is an increasing function of the u^i's (therefore the household is assumed to be Paretian) and the concavity properties of U on the u^i's and of the u^i's on the x^i's are such as to make U a strictly quasi-concave function of the ultimate arguments u_r^i. A sufficient but not necessary condition for this is that u^i's is strictly concave and U is a strictly quasi-concave function of the u^i's. concavity, not merely quasi-concavity, is appropriate of the for the u^i's since the household function is assigning cardinal values to the utilities of all its members.

Given the household income and the household utility of this form, the optimum household income Y can be achieved by dividing through the income among members of the household in such a way as to equalize weighted marginal utilities of income. That is, we would have: $U_i \frac{\partial u^i}{\partial y} = U_j \frac{\partial u^i}{\partial y}$ for all *i, j*. The individual household members then optimize on their personal budgets.

Since *U* is strictly quasi-concave on the individual goods quantities u_r^i, and since all household members face the same prices of goods, the aggregates $X_r = \sum_i x_r^i$ satisfy the properties of Hicksian composite goods and thus *U* is strictly quasi-concave over the household goods vector X. the concavity property of household demand are identical to those of an individual consumer.

Background of Financial Sector Reforms in Ghana

The implementation of macroeconomic policies and financial sector policies in the post-independence period marked the origin of financial crises in Ghana. The decline in economic performance in the late 90s reinforced the poor and abysmal economic and financial sector performance of Ghana. The history of financial sector development during the early years of independence could be linked to the series of government extensive interventions in an attempt to industrialize the economy. Financial policies aimed at import-substitution geared toward industrialisation. In the early 1970s, interest rate controls and credit ceilings ensured that credit was advanced to areas deemed government-imposed priority zones and at the least cost to the borrowers. High reserve requirements were placed on the banks. In addition, heavy taxes on the banking services become the major source of revenue to the government. These restrictive economic and financial policies created major distortions in the financial sector according to Antwi-Asare & Addison, (2000). The post-independence of Ghana ensured that there were enough foreign reserves in the economy. The economy suffered a persistent decline in the reserves until 1983. All these periods were coupled with severe financial distress in the economy. A deteriorating economy characterized by a low per capita income of not more than -3 per cent per annum in the period 1970-1983 and a persistent increase in the general price level of about 123 per cent in 1983, low levels of savings and investments, low volumes of international trade led to the financial sector crises.

By 1982, there was a classic case of financial repression provided by Ghana. Inflation was high coupled with the erosion of the capital base of most banks and demand deposits accounted for more than 76 per cent of total private sector deposits, constraining long-term lending. The reduction in confidence in the banking sector and negative real interest rates on deposits led to the high levels of currency outside the banks with the currency-deposit ratio rising to 70 per cent at the end of 1983.

Ghana began to experience financial disintegration when as the ratio of broad money to GDP declined from about 19 per cent in 1970 to reach about 13 per cent in 1983. Due to lack of financial sector confidence, the preference of savings by individuals shifted to currency holdings (Aryeetey & Gockel, 1991). Again, the signs of financial distress in mid-80s and the severe inflation during 1970s led to the undercapitalisation of the banks. The widespread defaulting rate on bank loans by both parastatals and private corporate sector burdened most banks with huge non-performing loans. Most foreign loans become unserviceable after the devaluation exercise carried out during the Economic Recovery Programme (ERP). The erosion of capital adequacy and prudential lending was one of the effects of the Economic Recovery Programme.

The banking sector has the Bank of Ghana at the apex being responsible for monetary policies and the overall supervision of banks and Non-Bank Financial Institutions (NBFIs). As at the end of December 2016, the sector comprised thirty-three (33) banks, of which sixteen (16) were domestically controlled and the remaining seventeen (17) were foreign-controlled. In total, the banks had 1,342 branches distributed across the ten

(10) regions of the country. The performance of the banking sector remained strong, underpinned by relatively strong asset growth and marginal improvement in liquidity in 2016. Asset growth was largely driven by increases in banks' investment portfolio and foreign assets. Banks' solvency as measured by the Capital Adequacy Ratio (CAR) recorded no significant change and remained well above the required threshold over the review period. However, Asset quality deteriorated within the year, although the last quarter of 2016 reflected some improvement following the restructuring, reclassification and commencement of repayment of the energy-related State-Owned Enterprises (SOEs) debts owed banks (Nair et al., 2010).

Financial Sector Development and Reforms in Ghana

The financial sector is key to the full growth of an economy. It is the medium through which idle economic and productive resources are channelled to areas with high demands and with the high internal rate of return and with the minimum cost of transactions (Killick & Martin, 1990). The relationship between financial structure and economic activities depends on the extent to which savings and investment determine a nation's Gross Domestic Product and on the other hand the role of financial intermediaries in the saving-investment process. That is, the growth of an economy through financial sector hinges on the rate at which surplus income saved is channelled into the productive investment and also the financial channels through which financial resources are used. The financial sector of Ghana is made up of a number of financial and non-financial institutions with the main source of external financing of the financial institution being granting of loans. The next alternative source of funding is the funding through the Ghana Stock

Exchange (GSE), which is for the financial institutions that are listed on the stock exchange. Series of report has the records of financial institutions in Ghana.

According to Brownbridge et al. (1996), there have been series of reforms in the financial sector and one notable is the 1987 Financial Sector Adjustment Programme (FinSAP), which was embarked in Ghana with the help of World Bank (WB). The economic crises, which were experienced in Ghana in the period 1976-1983 which resulted in poor economic growth and severe balance of payment problems, necessitated the need for such financial reforms. The Economic Recovery Programme was sought to restructure the Ghanaian economy and to reverse the trend of economic decay. Most of the component of financial institutions has contributed tremendously towards the success of the industry and a notable one is the introduction of Ghana Alternative Exchange and the three-successful issuance of Eurobonds in 2015.

The Bank of Ghana Consultation paper October 2007 indicates that multiple objectives were sought for as a result of a financial sector policy conducted through the licensing of banks. The objectives were to; develop specialized segments of banking and financial services notably merchant banking, development banking, retail banking, mortgage banking and rural-based banking and finance institutions. Secondly, it was to develop the local and national entrepreneur and the participation in the sector through the use of differentiation of levels of capitalisation and equity requirements so as to source strategic national interest.

In addition to the development in the financial sector, according to Acquah (2006), in a programme dubbed "Efficient Banking Sector for Competitive Advantage in the Sub-Region" there had been initiatives that have been pursued with the purpose of allowing penetration of other financial institutions so as to erase the monopoly gains being enjoyed by the few commercial banks in the country. The initiatives included; the movement of open licencing system, movement to universal banking, the modernization of the payment system which included the establishment of central securities depository and passage of supportive laws.

This was initiated with the view of removing restrictions on banking activities by allowing banks to choose the type of banking activities they would like to engage in based on their risk appetite, capital, and business orientation. This came with a new minimum capital requirement of 70 billion cedis with the intention of ensuring that banks have sufficient capital to take on additional risk. Also, the Bank of Ghana undertook a reform on the payment system. This included the passage of a Payments Systems Act in 2003 and the introduction of the Real Time Gross Settlement System, which were created, with the objective of creating a safe, sound, secure environment and timely payments.

The financial sector is characterized by small and medium-size enterprises with a diversified range of services and increasingly innovative products. While small and medium scale businesses depend extensively on self-financed capital investments, there is also the domination of bank-intermediated debts investment finance in the economy. Development of vibrant capital market dependent on financial market policy to ensure it serves as the means through which funds are raised to support large capital amounts of equity finance and investment.

The reform also moved the financial sector from a regime characterised by controls to a market-based regime. Bank credit and interest rates were controlled as a result of liberalisation. Monetary controls were shifted from direct system to an indirect system that utilized market-based policy instruments by the Central bank. Measures such as rationalization of the minimum reserve requirements served as an introduction to new financial instruments and open market operations for management of liquidity in the country.

Financial services play a crucial role in the functioning of markets and the economy and contribute to economic, social and cultural development. The importance of financial services for the economy is manifold. As infrastructure services, financial services have meaningful linkages with the economy at large, providing valuable inputs for activities in the primary, industrial and tertiary sectors, and for individuals as well. Through a variety of banking, securities and insurance services, financial services facilitate domestic and international transactions, mobilize and channel domestic savings and broaden the availability of credit for small and medium-sized enterprises (SMEs) and households. Trade is also facilitated not only by a friendlier business environment but also by specific products such as letters of credit and insurance.

As an economic services industry in its own right, financial services contribute to output and employment. Commercial banking revenue is estimated to have grown 4.2 per cent in 2013, with a modest average annual growth of 1.3 per cent, to about $3.5 trillion between 2008 and 2013. Several activities within financial services have high value-added and require qualified jobs. Financial services typically have grown faster than Gross Domestic Product (GDP) in the pre-crisis period. In countries of the Organization for Economic Cooperation and Development (OECD), financial services grew at an average annual rate of 6.3 per cent between 2001 and 2012, faster than the overall services sector and GDP. While attaining impressive heights before the global crisis, the growth rate declined significantly after the crisis.

Increased international financial flows and transactions have become an essential component of the sector, highlighting the importance of the international dimension in the provision of basic financial services. Developing countries are net importers of financial services, with global exports largely dominated by developed countries, although some developing countries have recently expanded their presence. This points to the importance of factoring in the foreign supply of financial services into measures aimed at expanding access to financial services to individuals and firms. Cross-border exports in financial services reached $445 billion in 2013, with an annual growth rate of 10% between 2000 and 2013. Developed countries account for 80 per cent of global exports of financial services, which stood at $357 billion in 2013. The same year, the share of developing countries was 19 per cent, or $85 billion, the highest share since 2000, with exports having expanded at an annual growth rate of 12 per cent, outpacing that of developed countries (10%).

The outlook for the banking industry remains positive, especially after the successful restructuring arrangements to reduce debts owed by energy-related SOEs to the banks. Similar arrangements have also been put in place to pay down debts owed by the Bulk Oil Distribution Companies (BDCs). As the repayments continue and the debt structure of the affected banks is reclassified, the non-performing loans (NPLs) ratios in the banking industry are projected to improve further. This will subsequently have a positive impact on the solvency of the banking industry. Also, the introduction of the Internal Capital Adequacy Assessment Process (ICAAP) under the Basel II framework which would require banks to recapitalize to meet their economic capital requirements, together with finalization of plans on the new minimum capital requirements for banks, would ensure that the banking industry is well capitalized to effectively play its financial intermediation role in the economy.

Aims of Financial Sector Reforms

Financial Sector Adjustment Programme (FinSAP) was initiated in 1987. The discussions on FinSAP were basically the removal of bad and doubtful debts of state-owned enterprises balance sheet. This became effective in 1990. The financial sector reforms had the following objectives:

1. The establishment of sound prudential and regulatory framework for banking operations.
2. To ensure uniform accounting and auditing standards for all banks
3. To put in place a more effective Banking Supervision
4. Department endowed with the requisite personnel and skills to enforce the prudential rules and regulations and a code of conduct for the banking sector.
5. To create a framework for restructuring distressed banks with the intentions of transferring their non-performing assets, which had choked their balance sheets and stunted initiative in credit operations, to a new government agency, the Non-Performing Assets Recovery Trust (NPART).
6. To engage efficient top management for distressed banks.

7. To develop fully liberalised money and capital markets in Ghana (Bank of Ghana Annual Report, 1989/1990).
8. Effective mobilisation of surplus income and more distribution of these loanable funds to areas with greater needs and with higher internal rates of return were the likely benefits of the financial reforms. The market-based system of banking intermediation was established and through the financial system.

Transformations in the Financial Sector

Credit conditions survey

The December 2016 survey on banks' lending conditions showed a net easing of overall credit stance to enterprises relative to the September 2016 survey round. Banks also reported that credit stance on both short-term and long-term loans eased, but tightened for loans to large enterprises, and remained broadly unchanged for loans to small and medium enterprises. Most banks attributed the net easing stance on overall enterprise credit to improved expectations of economic performance following the outcome of the December elections. Credit stance of banks to households also indicated a net easing, although household loans for consumer credit and other lending remained relatively tight.

The survey reported declining lending rates expectations one year on. The lower lending rates expectations can be attributed to the decline in the Treasury bill rates and the anticipated decline in the industry's non-performing loans following the restructuring and reclassification of energy sector-related SOEs debts.

Financial inclusion

According to Michael et al. (2012), financial inclusion today considers the financial market being able to reach out to many people, serve them with a variety of financial products at the least costs. Microfinance, which sought to reach out to the poor with financial services, now considers broad-based programmes that give the rural folks options in the financial market. It now considers payments and savings as well as insurance packages tailored to suit the particular needs of low-income earners. Demirguc-Kunt et al (2015) posit that financial inclusion has partially been hindered by the services from the formal financial institutions as the wealthier people have relied heavily on the use of this type of financial services. According to the Global Findex database Report, 2017, to better manage financial risk by households and enterprises, people have to have a safe place to save their monies, as access credit when they need them.

Loan demand by enterprise and households

Demand for credit by enterprises picked up slightly during the December 2016 survey round, largely driven by strong net demand for loans by small and medium enterprises. Thus, an increase in demand for credit for business purposes by small and medium scale enterprises increased steadily in the year 216. However, demand for credit in net terms by large enterprises declined during the survey period. Additionally, demand for long-term and short-term loans decreased in net terms during the survey round. The survey also reported increases in demand for loans by households for house purchases and consumer credit. The Global Findex Database (GFD) 2017 reports that 47 per cent of adults globally borrowed money in the past 12 months. The means of borrowing included the use of credit cards. The proportion of adults' population borrowing from the developing economies was 44 per cent. Demand for financial services by households in the developing economies was sought from family and friends as the survey reports that family and friends were the main source of credits to households who demand credits. Demand for financial services particularly credit in the most of the developing economies was for the purposes of expanding businesses was 7 per cent as compared to borrowing for the health and other purposes. (Global Findex Database report, 2017)

Crucial role of access to finance

What is the role of the financial sector in economic development? The perspectives of economic development through financial sector development have been debatable. Economists hold very different views Robinson, (1952 and Lucas, (1988) on one hand, argue that the operation of the financial sector merely responds to economic development, adjusting to changing demands from the real sector, and is therefore overemphasized. On the other hand, equally prominent researchers believe that financial systems play a crucial role in alleviating market frictions and hence influencing savings rates, investment decisions, technological innovation and therefore long-run growth rates. (Schumpeter, 1912; Gurley and Shaw, 1955; Goldsmith, 1969; McKinnon, 1973; Miller 1998).

The effects of information and transaction cost that disallow direct risk pooling and diversification of an individual in a society through savings are mitigated by financial markets and institutions. While some theoretical models stress the importance of different institutional forms financial systems can take, more important are the underlying functions that they perform (Levine, 1997 & 2000; Merton & Bodie, 2004). Financial systems help mobilize and pool savings, provide payments services that facilitate the exchange of goods and services, produce and process information about investors and investment projects to enable efficient allocation of funds, monitor investments and exert corporate governance after these funds are allocated, and help diversify, transform and manage risk.

Development of the financial sector is key to the growth of an economy. Financial depth, which explains the extent to which the populace in the economy access financial services with ease, is paramount. Financial depth is constrained by financial market imperfections; constraining the central role influencing key decisions regarding human and physical accumulation and occupational choices. The theory of capital accumulation and financial market imperfection for instance stress on the need for household physical and human capital to be enhanced through loans or capital acquisition. In entrepreneurial, financial market imperfection determines the extent to which the talented but poor individuals in a household could access or raise external funds in order to raise capital to initiate projects. This has the tendency of reducing the cost of market imperfection and reducing the poverty gap between and among households.

Poverty inequality of households that have long been an issue of most economists as traced in the history of economic thought is much reduced through access to finance. The crucial role of the financial sector in economic growth modelling has been strengthened by pertinent issues in the historical economic development of views on the links between income inequality and economic growth. The relationship between economic growth and inequality had long been debated by economists specifically through access to financial services.

Theoreticians have argued that due to the huge disparity between the marginal propensity to save between the rich and the poor, wealth creation should be the genesis of bridging the inequality gap. Thus, indivisible investment projects in the process of development implied that rapid economic growth would need wealth concentration and this leads to the basic trade-off between growth and social justice. Kuznets, (1955, 1963) argued that the trade-off that exists between economic growth and income could initially widen in the early stages of development and spread out throughout the economy. Thus, the impact of an increase in financial services could initially increase the inequality gap in the short-run and reduce the gap as a result of the multiple effects. This argument was evidenced in the developed economies but in the developing economies, findings couldn't support Kuznets argument.

Growth and inequality are assumed to be positively correlated through the provision of incentives to reward the productive efficiency of enterprises within an economy. Thus, the level of inequality is associated with its own level of growth in the economy. A low level of inequality is empirically associated with a rapid growth in the economy. Likewise, low levels of inequality seem to retard growth. Subtler theories have been developed to explain the inequality that might adversely affect growth. The theory of financial market imperfections exists to explain these inequalities that are widened as a result of growth in an economy. Financial market friction is said to create the environment that affects adversely the poor in creating wealth through investment (Galor & Zeira, 1993). It is argued that inequalities, whether of outcome or opportunities persist due to financial market friction.

Wealth redistribution and financial development

Financial development is considered as a panacea to wealth inequality that exists between different economic statuses of the household. It is considered as an avenue through which economic growth is fostered through redistribution of wealth and this is propounded in modern development theories. With regard to redistributive policies, credit constraint has been one major hindering factors that have impeded resources distributed to the different economic agents. Capital market imperfection has led to the poor relationships and thus has necessitated redistribution of economic resources. Some theories presume that static information and transaction costs exogenously yield adverse selection and moral hazard frictions and they impede the operations of the financial market.

Researchers assume that capital market imperfections as given and also vary the redistributive policies to promote growth and economic development in every economy, focusing on schooling, saving, or fertility changes. This assertion is true even though the literature also notes that if financial market imperfections continue to exist; absence of a virtuous circle a la Kuznets may also necessitate permanent redistribution policies. Financial market imperfection is considered to be mostly handled by a more effective and sustainable development approach and this could be done without causing adverse incentive effects. That is financial market imperfection which impedes financial access by individuals within an economy should be viewed as an issue that could best be addressed through the use of a sustainable development approach.

Aghion and Bolton (1997) argue that most redistributive policies create disincentives to work and save, although the economic magnitudes of these disincentive effects area subject of intense debate. They posit that policies that are aimed at redistributing economic resources tend to demotivate individual, hampering their efforts to work and save financial resources that could have positive trickling down effects. Demirgüç-Kunt and Levine (2007) equally argued that these tensions vanish when focusing on financial sector reforms. Reducing financial market imperfections to expand individual opportunities creates positive, not negative, incentive effects.

Hence these arguments are very consistent with modern development theories yet emphasize putting financial sector reforms that promote financial inclusion at the core of the development agenda. Addressing financial sector imperfections can also appeal to a wider range of philosophical perspectives than can redistributive policies inasmuch as the latter are directly linked with equalizing outcomes, whereas better functioning financial systems serve to equalize opportunities. Extensive empirical evidence suggests a significant and robust relationship between financial depth and growth. More recent micro evidence using firm-level datasets suggests that better-developed financial systems ease financial constraints facing firms. This finding illuminates one mechanism through which financial development influences economic growth. Furthermore, researchers recently have shown that financial depth reduces income inequality and poverty and is thus particularly beneficial for the poor.

Although these results are encouraging, the link between theoretical models and empirical evidence has not been very close because of a lack of data on access to financial services. While theory focuses on the importance of broader access and greater opportunities (that is financial inclusion), relatively little empirical evidence links access to finance to development outcomes, and there is little guidance for policies on how best to promote access. Thus, evidence on the effects of financial access on economic growth and development seems to be very scanty in literature and this adversely affects policy purposes and recommendations in every economy. Financial depth, or development more generally, can have direct and indirect effects on small firms and poor households. Greater depth is likely to be associated with greater access for both firms and households, which will make them better able to take advantage of investment opportunities, smooth their consumption, and insure themselves.

However, even if financial development does not improve direct access for small firms or poor households, its indirect effects may also be significant. For example, the poor may benefit from having jobs and higher wages, as better-developed financial systems improve the efficiency of product and labour markets and promote growth. Similarly, small firms may see their business opportunities expand with financial development, even if the financial sector still mostly serves the large firms.

Financial deepening

Economists define financial deepening as the increasing provision of financial services. It refers to both a wider choice of services and better access for different socio-economic groups. It affects individuals, societies as well as the entire economy at large. From the economic point of view, individuals with different socio-economic characteristics and needs must be provided with financial services that suit their characteristics. This has necessitated the high number of financial institutions both the urban areas and the rural areas. In addition, the financial products must suit the different social class in society. Thus, there should be the existence of financial products that suit the poor, and that has the propensity of transforming and changing their economic and social status. According to Berger et al. (2004), a banking sector which is highly characterized with a small number of relatively wealthy depositors and borrowers were responsible for a large share of banking activity and could score a comparatively well in terms of financial depth and with a limited breadth of outreach. The reason spawned in accordance to view is that informational asymmetries, high transactions costs and contract enforcement costs lead to market imperfections that disproportionately disadvantage the poor who tend to lack collateral, credit histories and connections.

Financial deepening has a feature or providing for the unbanked and the under-banked in a society. According to Ang, (2008) financial deepening has the potential of enhancing the hiding costs through providing better laws which enable an entrepreneur to take credit for innovative activities. Thus, the increase in financial depth and breadth in an economy spurs entrepreneur to have access to increased leverage as they combine both equities with debts to finance capital project that on the other hands wouldn’t have been possible. Agency cost that is hampered with as a result of inaccessibility to financial resources is reduced as the cost of monitory and screening are removed (Aghion & Howitt, 2009). Bunmann et al 2013 argue that financial deepening strengthens price mechanisms as well as improving market competition that increases interest rates on deposits translating the higher saving rate and more resources available for investment purposes.

Indicators of Access to Finance

The financial sector is often thought of as being particularly well documented by statistical data. In advanced securities markets, data on transactions and prices are often available on a minute-by-minute basis. Across countries, indicators of the depth of banking systems, capital markets, and insurance sectors are widely available. Indicators such as the total value of bank claims on an economy's private sector expressed relative to Gross Domestic Product, the turnover of shares (relative to total stock market capitalization), and the spread between lending and deposit interest rates have become standard measures of financial sector development. These indicators are also the basis for a large literature assessing the impact of financial depth and efficiency on outcomes in the real sector, such as per capita GDP growth, and exploring the determinants of financial sector development. Much less is known about how inclusive financial systems are and who has access to which financial services.

Access to Finance Development: Theory and Measurement

Many depositors are represented by the statistic on total deposits. By considering the demand side, there is the need to know the proportion of the population who use deposit account and also to consider an individual who has accessed and used loan facility. Records pertaining to individuals who have either deposited funds, accessed credit as well as taken any insurance decision with the view of mitigating risk give accurate data on users of financial services. Unlike data on financial depth, these statistics are not readily available. Until recently, there has been little systematic information on who is served by the financial sector in developing countries, which financial institutions or services are the most effective at supporting access for poor households and small enterprises, or what practical and policy barriers there may be to the expansion of access. Better and improved data are needed to advance research on financial inclusion, and significant efforts have recently been made in this direction.

Unlike measures of financial depth, where data from individual institutions (or trades in the case of the capital market) can be aggregated relatively simply to obtain consolidated figures. Data on financial use cannot easily be constructed in this way. For instance, the total number of all bank accounts far exceeds the number of customers served, as households and enterprises may have business with several banks (or multiple accounts with a single bank). Further, regulatory entities traditionally do not collect data on individual accounts or account holders (unless they are large ones), because this information has not been considered useful for macroeconomic stability analysis. Researchers have therefore used a variety of different data sources and methodologies to infer the actual share of households or enterprises that use financial services. Many of these data collection efforts are recent, and researchers have just started to relate them to real sector outcomes. As more data become available and more systematic data collection efforts get underway, one can expect more and better analysis.

Financial inclusion, or broad access to financial services, is defined as an absence of price or non-price barriers in the use of financial services. Of course, this does not mean that all households and firms should be able to borrow unlimited amounts at prime lending rates or transmit funds across the world instantaneously for a fraction of 1% of the amount. Even if service providers are keenly competitive and employ the best financial technology, prices and interest rates charged and the size of loans and insurance coverage on offer in a market economy will necessarily depend on the creditworthiness of the customer. As discussed in later chapters of this report, subsidies and regulation can influence this outcome to some extent. But the application of modern techniques in information and communications technology is more important in improving the prices.

Empirical Literature Review

Many research works have been conducted on access to finance and household food, health, education and housing expenditure. Others have been conducted on the provision of credit through microfinance and its impact on poverty as well as welfare. Provision of credit through microfinance has been found to have powerful means of providing low-income households with the chance to escape from poverty and also in the transformation of their lives. Credit and savings were found to be strongly demanded and this was for the purpose of small-scale financial services. Morduchi, 1995; Gulli, 1998; Pitt & Khander, 1998; Zeller, (2000) found in their study that providing low-income households with financial services improve their productivity and management skills, create jobs, smoothen consumption flow, enlarge and diversify their businesses and increase their incomes as well as educational benefits and health benefits.

Studies on access to finance and its impact have dominated on issues such as financial sector depth and economic growth, financial sector depth and poverty reduction. For instance, King & Levine (1993), Levine (1997) and Calderon & Lui (2003) and works by Jalilian & Kirkpatrick (2001) and Honohan (2004) explain how access to financial services affect economic growth and poverty reduction in an economy. Most of these tend to be macroeconomic and tend to focus on data on the total value of bank deposits and or private credit. The theoretical relationship between financial access and growth tend not to be straightforward and as such several channels through which they relate have been enumerated.

The hypothesis of access to finance and growth through household expenditure has been tested. Household investment in productive enhancing assets has been found to be positively correlated with access to financial services. Access to financial services has the greater zeal of assisting households to invest in micro-enterprises, productive-enhancing new technologies such as new and better tools, human capital through education that has multiple trickling down effect on the individual and the society as a whole (DFID, 2004). Ghosh, Mookherjee & Ray (2000) also found similar evidence for financial access and economic growth. According to them, credit is essential in allowing capital investment among producers who are not able to save as well as giving households the ability to obtain money in an emergency. Galor et al (2004) argue that economic growth is positively impacted by access to finance as household gain credit to increase human capital accumulation through initial wealth distribution. Richer families are better able to invest in human capital accumulation resulting in increased economic growth.

On the other hand, the impact of access to savings facilities, such as a bank account, will clearly help to increase savings. Aportela (1999) looked at the impact of increasing financial access in Mexico, arising from the expansion of a Mexican savings institute, on the savings of those on low incomes. They found that once low-income people are given access to savings instruments, they often become prolific savers. Results suggest that increased access to savings increased saving rates by an average of 3%. The highest effect was seen in the poorest households, where the increase reached 7%.

Access to financial services through credit or insurance has the capacity to mitigate negative shocks and the reduction of household vulnerability. An investment that is riskier to the poor household will be undertaken by the household as a result of an increase in household capital through credit. This is evidenced in the works of Eswaran and Kotwal (1990) and Deaton (1994). In their studies, they found that access to credit reduces the vulnerability to negative shocks by increasing their ability to smooth consumption during a moment of difficulty and also access to credit reduces the financial risks faced by households by decreasing the proportion of low-risk, low-return assets held by households for the purpose of precautionary. Access to financial services is influenced by demographic characteristics such as age of household head, size of the household, sex of the household head, marital status of the household head, level of education, employment status of the household head. This is supported both by theory and empirical works. In the policy paper by World Bank Group (WBG), (2016), it was found out that households headed by older and more educated people are more likely to access financial services compared to households headed by younger and less educated headed households. Households in the urban areas are more likely to access financial services compared to the rural residence and again households with a reduced dependence are more likely to access financial services to aid production and increased investment of the household.

In poverty studies by researchers and policymakers, a series of findings have been found both in support and against poverty reduction as a result of access to financial services. Beck, Demirguc-Kunt and Levine, (2007) found that access to finance is correlated with lower levels of poverty and income inequality while Honohan and King, (2012) found that access to finance through the use of banking services has the greater opportunity of increasing the monthly income of the household. The evidence in support and against microfinance and poverty reduction seems to be complex as there had not been enough evidence to support or refute its impact. Reduction of vulnerability is associated with access to microfinance and not poverty per se. This was evidenced in a study by Morduch (1998). That access to microfinance has the greater impacts on consumption smoothening through income smoothening and not through borrowing and lending. A household that accesses financial services from microfinance is more likely to reduce its vulnerability to risk but for the effect on poverty reduction is thus not supported by the study.

A study done by Wachira, et al (2012) on impact of financial literacy on access to financial services in Kenya established that financial literacy in Kenya is relatively low and this was due to a number of factors such as income levels, distance from banks, age, marital status, gender, size of economic household, and the level of education. Thus, access to financial services is relatively low not because financial literacy remains low in the country but basically as a result of other social and demographic factors. It was evidenced that the probability that a financially illiterate remaining financially excluded is significantly high. Therefore, advocating for increased investment in financial literacy programmes to reverse the trend.

Fletschner (2011) studied rural women's access to financial services and it was established that designing appropriate financial packages for women has the chance of increasing the borrowing strength, insurance inclusion, and also strengthening women's role as producers and it also gives them wider economic opportunities. This is against the odd of excluding the women from the financial sector by reducing their chances of engaging in financial activities both formally and informally. The paper argues that development strategies that aim at boosting the productivity of rural women are enhanced through direct access to financial services. It was evidenced that improving women's access to financial services has the opportunity of increasing human capital and has the stronger impact on children's health, education, and nutrition etc.

Quach et al (2005) using a cross-sectional data studied on access to credit and household poverty in rural Vietnam. The work focused on the impact of household access to credit on the economic welfare of the household using two surveys conducted on 1992/1993 and 1997/1997. It was evidenced that the household which had access to credit over the past period was able to improve the economic welfare significantly in terms of per capita food expenditure, and per-capita non- food expenditure. The improvement in economic welfare on household did not take into consideration the different economic status of either the household is poor or better off. It was also found that economic welfare is positively impacted for the poorer household who have access to credit. In terms of borrowing behaviour of the household, it was found that age of the household head, size of the household, land ownership, savings and availability of credit at the village level is key factors that affect it. Households with access to financial services have the opportunity to include in their basket of consumption varieties of goods that on the other hand wouldn't have been possible.

This is evidenced by the study by Ellis et al (2010) when they investigated the impacts of access to financial services on household investment. They established that financial services if accessed, enables the household to invest in activities that are likely to contribute to higher future incomes and growth. An empirical study from Kenya and Tanzania established that 44 per cent of Kenyans surveyed used savings to undertake productivity-enhancing investment while 24 per cent of those surveyed reported that productivity-enhancing activities are engaged with credit accessed from financial institutions. Human capital investment was the most investment activity that was mostly done with the financial resources. In the case of Tanzania, credit accessed and savings were purposely for starting business activities.

Borrowing and saving for the purpose of agricultural purposes were more pronounced in the rural areas while the urban folks borrowed and saved for the purpose of other economic activities different from engaging in agricultural purposes. In their study, it was established that men and women seem to have no variation in terms of savings and borrowing behaviour in terms of investment purposes. The finding is quite different in Tanzania as men were more likely to borrow to invest than Tanzania women. Demand for financial services across the population is high in Kenya as compared to Tanzania and these were the demand for informal and the semi-formal financial services. Financial usage was high for formal financial services in Kenya while the informal financial services were sought after more by Tanzanians. For the purpose of investment only, Ellis et al (2010) found that Kenyans borrow specifically for investment and the rate is 16 percentage points more likely to use formal financial services than individual who borrow for the purpose of consumption. Again, individuals who save and invest were 10 percentage points more likely to use formal financial services than people who save for consumption purposes.

A study by Chakraborty et al. (2010), on-loan repayment behaviour of farmers in Indian household found that the richer households borrow from the formal sources as compared to the poorer households. The mean income of a household that borrows from the formal source is almost the double of the mean of a household that borrows from the informal sources. Spending on social programmes is higher for households that borrow from the formal sources than households that borrow from other sources. Chakraborty (2010) & Tiwari (2012) suggested that 40 per cent of the loan amount was borrowed by farmers for the purposes of agricultural purposes were actually spent on marriages, education, and health. Banerjee and Duflo (2007) also documented that a considerable amount of income of the household is spent on festivals, and other social functions despite scraping through for bare necessities like food, accommodation etc. It was found out that in Udaipor, the extremely poor household spend 14 per cent of the household budget on festivals. (Banerjee & Duflo (2007).

According to Chen et al, (2011), social spending facilitates risk-pooling in the impoverished regions. They assert that too many resources devoted to social occasions may impose negative externality and hinder efforts to alleviate poverty in the household living close to subsistence. That is, a family that relies heavily on subsistence economic activity who channels most of its economic resources towards social occasions risk being prone to poverty. In their study on cost posturing, relative status, ceremonies and early child development, it was evidenced that frequent ceremonies organised by fellow villagers affect early child development. It was found that the squeeze effect results in lower height-for-age z-score, higher probability of stunting and underweight for children aged 1-5. The evidence was stronger towards the tall of the distribution and is salient for the foetal period. That is, persistence competition between and among economic resources between social occasions and other basic needs of the household results in an increased effect on the growth of children especially those between the ages below 6.

According to Rosenzweig (1988); Coate and Ravallion, (1993) social spending help climbs social ladders and it embodies preference for conformity to social norms. They assert that in the impoverished regions, social spending facilitates risk sharing that smoothens consumption and investment under the environment of no formal financial market. That is, social spending does support individuals who undertake them by helping them to smoothen their consumption and investment spending over time. However, Mango et al. (2009) find a contradictory result in the findings of Rosenzweig (1988), Coate and Ravallion (1993). In their study, they found that a large proportion of resources channelled towards social spending such as funerals force households to liquidate productive assets and hence may lead to the household falling into poverty. That is, the increase in the depletion of productive assets of the household could result as more and more of economic resources are devoted towards social occasions. They argue that a large proportion of resources devoted to social spending may impose negative externality.

According to Rout et al. (2006) investment in health is a tool of macroeconomic policy as it enhances the rate of growth of the economy. It is reported by historians that thirty per cent of the estimated per capita growth in Britain between the periods of 1780 and 1979 was as a result of improvement in health and nutritional status (Fogel, 1994). In studying the relationship between income and health spending, Mathiyazhagan (2003) found that health expenditure of the household members of India is sensitive to changes in the income levels of the household and the elasticity of health expenditure with respect to income is largest for high-income groups.

The positive association between education and health is well established but explanations for this association are not. Well-educated people experience better health than the poorly educated, as indicated by high levels of self-reported health and physical functioning and low levels of morbidity, mortality and disability (Ross & Wu, 1995).

In addition, low educational attainment is associated with high rates of infectious disease, many chronic non-infectious diseases; self-reported poor health, shorter survival when sick, and shorter life expectancy (Feldman, Makuc, Kleinman & Cornoni-Huntley, 1989: Guralnik, Land, Fillenbaum & Branch, 1993; Morris, 1990). The positive association between health and socioeconomic status, whether measured by education, occupation or income, is largely due to the effects of socioeconomic status on health, not vice versa, and downward morbidity among persons in poor health cannot explain the association (Doornbos & Kromhout, 1990).

Why is education associated with good health? The theoretical explanations consider the association between level of education and good health in three perspectives; work and economic conditions, social-psychological resources, and healthy lifestyle. According to the first explanation given to work and economic conditions, well-educated people are less likely to be unemployed and more likely to have full-time jobs, fulfilling work, high incomes, and low economic hardship. According to the social and psychological resources theory, well-educated have social psychological resources, including a high sense of personal control and social support, in addition to economic resources.

According to the health lifestyle theory, a comparison is made with regards to the poorly educated and the well-educated person. The well-educated are more likely to exercise, drink moderately, to receive preventive medical care, and less likely to smoke (Ross & Wu, 1995). Cochrane, (1980) concludes that per capita income is highly correlated with life expectancy in all periods examined, but the elasticity of life expectancy with respect to income levels has declined since the 1930s and 1940s; income distribution seems to be significant in explaining life expectancy in most studies, but somewhat less important in explaining infant mortality.

It is not completely clear whether income-inequality in itself is important, or whether it is factors associated with a more equal distribution of income, such as literacy or access to health services, which are important. In simple correlation analysis, literacy seems to be the most important variable explaining life expectancy while caloric intake seems somewhat more important for infants and young children. In all cases, literacy has a higher level of significance than does doctors per capita, but in some cases, calories are less significant than doctors. In the studies, which include income inequality and literacy, the results were mixed. Literacy always remains significant, but income inequality varies substantially in its relative and absolute importance but was significant in two of the three cases. Income per capita is significance and varies greatly, depending on what other variables are included.

A number of studies used the financial approach in formulating the determinants of household spending. Their approach considered some macroeconomic variables that influence household spending in some economies specifically in OECD countries. In comparing countries with bank-based financial system, Ludwig and Sløk, (2004) analysed the impact of stock prices changes on consumption in countries with a market-based financial system. De Bonis and Silvestrini (2012) found in their study that both net financial wealth and real wealth have a positive effect on consumption. Thus, consumption of household is an increasing function of real wealth and net financial wealth of the household. Separate studies are devoted to the analysis of certainty of household expenditures-health expenditure (Newhouse (1977), Hitiris and Posnett (1992), Matteo and Matteo (1998), Karatzas, (2000). Therefore, Di-Matteo (2005) on considering the case of Canada and the United States of America found that age distribution, income and time use as macroeconomic factors affecting health expenditure in the private sector. The results of the study indicate that age distribution and income have a small share of changes in health expenditure; the main factor is time use, which explains approximately two-thirds of the increase in health expenditures. Health expenditure model, built by Narayan and Narayan (2008), illustrates the necessity of considering environmental factors that impact on health expenditure. In addition to the traditionally considered real per capita income, the researchers have included in the model nitrogen oxide emissions, sulphur oxide emissions and carbon monoxide emissions.

In studying the socio-economic factors that affect household health spending in Orissa (2008) using primary data found that income and education have a positive and significant effect on health. He suggested that to tackle poverty and hence health, there is the need to consider the individual as well as the community. Considering the residential spending on health, it was found that in urban Orissa, an average person spends about 8 per cent of his/her income on health expenditure while an average person in rural Orissa spends on the average about 46 per cent of his income on health expenditure. It was also recorded that had it not been government spending on health in the rural areas, health spending in the rural areas would have been higher than those reported. Individuals in the urban areas took more precautionary measures on health care due to their higher level of education.

Tinh Thanh Doah et al (2016) studying the heterogeneous impacts on healthcare spending of the poor in Peri-Urban Areas of Vietnam found that access to credit affects health budget shares of household with low health care spending positively and significantly. By considering the average treatment effect, there was no discernible impact of access to credit on health care spending. It was clear in their study that at all points in the distribution of health care spending, the household that was considered as borrowers spent more on health than their non-borrowing counterparts. In a macroeconomic study in Burkina Faso, Paraguay, and Thailand, Makinen et al. (2000) found that wealthier quintiles spend a lower percentage of their total consumption on health care than poorer quintiles.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter discusses the methods, data and estimation techniques used to achieve the objectives of the study. It is divided into sections. Research design begins this chapter followed by the source of data, justification of that data as well as the justification of the variables used and sample design. In the second section, the theoretical framework and the model were also presented. The econometric estimation techniques on access to credit and social spending, as well as a model for social spending and health expenditure were also presented.

Research Design

The study sought to estimate the effect of total amount of credit (loan) on household head's spending on social spending in Ghana. It further estimates how spending on social events affect household head's spending on health needs in Ghana. It used the Ghana Standard Living Standard Survey Six (GLSS 6) data set. The GLSS 6 data set collected data on socio-economic and demographic characteristics of 18,000 households in Ghana with a response rate of 93 per cent. The data set also includes variables on access and use of financial services, agriculture, household income and expenditure which were necessary in getting access and use of the variables "credit and social spending" from the data. This was necessary as it helped in the estimation of the effect of credit as well as the socio-economic and demographic characteristics on social spending in Ghana and also the effect of social spending on health spending in Ghana. The study used the ordinary least squares estimation technique as the method for the empirical estimation.

Data Source and Management

The GLSS 6, which is the sixth round of the household surveys collected in the years 2012/2013 had 18, 000 households in which 16,772 households were successfully enumerated. From the sample, the dependent variable; expenditure on social programmes, which is named in the dataset as expenditure on funerals and weddings, are 16,765 while the main variable of interest; access to financial services indicated as access to credit has a total sample size of 1990. The data was used to study the impacts of access to financial services and expenditure on social functions in Ghana.

The Ghana Living Standard Survey 2012/2013 (GLSS 6) data is a secondary data provided by Ghana Statistical Service on household probability sample survey that sets out to cater for a variety of analyses at the various domain of interest. The stratified probability technique was the sampling procedure applied in the data collection for the GLSS. The sample design adopted for the survey is the household probability sample survey. The data collection instrument used in the fifth-round data collection was modified slightly. Given the national size, the survey covered a nationally representative sample size of 18,000 households in 1,200 enumeration areas. 16772 households out of the total national sample size of 18,000 were successfully enumerated with a response rate of 93.2 per cent. The main variable of interest, total amount of credit had an observational size of 1990. Due to negative values attained by some observation after the transformation, and other missing values in other variables in the data, the total sample size for the study dropped to 1989. The variables total amount of credit and total social spending were transformed by taking the natural logarithm of them. This was as a result of huge observation for some of them. In addition, this was to help interpret the output in terms of elasticities.

In terms of the selection of variables as base categories, typically age interval between “15-24”, marital status; “Never Married”, regions; “Volta region”, ethnic groups; “Others”, residence; “urban”, level of education; “Lower Secondary education”, employment type; “Wages & Salaried workers”, Sex of economic household; “Male”. From the bivariate analysis, and considering average (mean) spending, frequencies as well as the coefficient of variations from the table. The national average spending on funerals, weddings, and parties is GHS 256.28. Household heads within the age category of 55-64 spend on the average GHS 388.34 on social events which is about one and a half the national average. Household heads within the age category of 15-24 spend on the average of GHS 57.00 on social event which is about 6.8 less the average amount spent on social events by household heads within the age category of 55-64. Considering the coefficient of variation, variations in social spending is more pronounced in the household heads within the age category of 35-44 with the variation coefficient of 2.92 compared to the variations in social spending across household heads within the age category 15-24 which is 0.89. That is household heads within the age category 15-24 have the least average spending on social events as well as the least variation in social spending.

Theoretical Framework

In estimating the effect of amount of credit and its effect on household head's social spending in Ghana, recourse is given to the utility maximisation problem of the consumer (household head). Series of works have been done on utility maximisation with numerous applications on time constraints and income constraints (See for example Lau (1986), Deaton (1987), Deaton and Muelbauer (1980), Stone (1954), and Pollack and Wales (1978))

The general formulation of the utility maximisation problem assumes that the individual consumer derives his/her satisfaction (i.e., welfare) from the consumption of distinct commodities that improve social status (X) (i.e., conspicuous goods) and any other goods that help to improve welfare (Y). Under the general model, household head's income (amount of credit) is assumed to be constrained by the commodities prices P_x and P_y and these constrained commodities prices results in a trade-offs between the expenditures between conspicuous goods (X) and other commodities (Y)

The maximisation problem of the household head could be written as;

$$Max\ U(X, Y)$$

Such that $PxX + PyY \leq M$ (1)

Where U = utility

X = conspicuous goods

Y = Other goods

P_x = Price of conspicuous goods

P_y = Price of other goods

M = income (amount of credit advanced to the household)

Note that the amount of credit spent by household head is of two types. Conspicuous spending (P_xX) and any other spending that improves welfare of the household (P_yY). The other spending, P_yY, considers expenditure on other basic needs such as education, health, accommodation, utility bills etc. which enter the budget constraint implicitly through Other commodities (Y)

In order to derive a system of demand equations, it has been found significantly more convenient to work with the indirect utility function which is defined as;

$$indirect\ Utility = \{Max\ Utility/Budget\} \tag{2}$$

$$v(Px, Py, X, Y) \tag{3}$$

By beginning from the specification of indirect utility, which is not observable, Roy's Identity (Roy 1943) provides an equation of demand which is observable. Given a functional specification of indirect utility, *v*, and the income, *M*, constraint. The relations we can use can be found in the optimal demand function, A^* shown as follows:

$$\text{Roy's Identity} = A^* = \frac{dv}{dx} \tag{4}$$

$$\text{Roy's Identity} = A^* = \frac{\partial v}{\partial x} / \frac{dM}{dPx} \tag{5}$$

Where A^* is optimal consumption bundle for conspicuous goods

v is utility maximisation function

M is amount of credit advanced to the household head

P_x is price of conspicuous good

When income is exogenous, the derivation of the optimal level of conspicuous good is reasonably straightforward and the value can be estimated using the ratio of the derivatives with respect to conspicuous good *X* and the amount of credit and the price of conspicuous good (P_x). However, income (amount of credit) could be endogenous to the amount spent on conspicuous good *X*, since it may be determined by household head's loan affordability, relationship with the banks, income level, number of individuals who have requested for loan assistance etc.

Theory Implied Constraints

Demand equations are consistent with microeconomic theory and common sense due to several constraints imposed on them. The non-negativity and non-satiation constraints on consumption imply non-negative demand and summability of household head's expenditure. The summability constraint ensures that results are consistent with reality. That is, the result of the optimisation ensures that household receives exactly the amount that he spends.

The other functional constraint considers the price preferences of the commodities over balanced prices. This is considered in the indirect utility function's quasi-convexity and the budget line's quasi-concavity with respect to prices. Expenditures are expected to be homogenous of degree one such that pure inflation should not affect household head's spending behaviour. Again, preference separability is a restrictive characteristic which allows for substitution between the commodities. Thus, the preference substitutability constraint allows for household head to substitute the consumption of conspicuous goods for other goods based on price variations between the two commodities.

Ordinary Least Squares Estimation (Application)

The technique involves minimising the sum of squared (vertical) deviations of the observed values from their mean. From the definition, the linear relationship between the dependent, y variable and the independent variables, x could be given as:

Empirical Model Specification for Amount of Credit and Social Spending

The objective of this model is to estimate the effect of the total amount of credit on households' social spending in Ghana. This is basically to estimate the effect of amount of credit on expenditure on social programmes such as spending on funerals, weddings, parties etc. This is done by using the Ordinary Least Squares method of econometric technique in the estimation. For the purpose of achieving objective one and two, the main variable of interest is the amount of credit and other demographic variables such as residential and geographic regions, age of the head of economic household, marital status of the head of economic household, size of household, sex of economic household, price index all being control variables.

The study assumes a linear relationship between household social spending and the amount of credit to the household. In view of this, the econometric model is specified as Coulombe & Wodon (2007) specified. On the left hand of the model is the dependent variable social spending and the independent variables are specified in the model and explained at the right hand side of the model.

$$y_i = f(x_i, x_2, \ldots \ldots \ldots \ldots \ldots \ldots \ldots .. x_n)$$

This is expanded to fit the objective of the study based on the literature reviewed in the previous chapter.

$$lnEXP\_SOC = \beta_0 + \beta_1 lnCREDIT + \beta_2 HHSIZE + \beta_3 SEH + \beta_4 HHAGEY + \beta_5 MS + \beta_6 RESID + \beta_7 REG + \beta_8 HHLED + \beta_9 HHEMTYPE + \beta_{10} RELIGION + \beta_{11} ETHNICITY + \varepsilon$$

Where the error term is assumed to be normally distributed with a mean of zero and constant variance.

Table 1- *Definition and Measurement of Variables in the Econometric Model*

Variables	Description	Apriori Exp.	Measurement
lnEXP_SOC	Log of social spending	+	Continuous
lnCREDIT	Log of credit	+	Continuous
HHSIZE	Size of Economic Household	+	Continuous
HHAGEY	Age of Household Head	+/-	Continuous
SHE	Sex of Economic Head	+/-	Male = 1 Female = 0
REG	Region	+	Western =1 Central =2
HHLED	Household level of Education	+	1=No Education 2=Pre-School, … 8= Others
RESID	Location	+/-	Type of Residence 1= Rural 2= Urban
MS	Marital Status	+/-	Marital status of household head 1=Never Married 2=Married Monogamous ...
HHEMTYPE	Employment Type of Household Head	+/-	1 = Wages and Salaries workers 2 = Self-Employed with employees … 99 = Others
RELIGION	Religious Affiliation	+/-	1= No Religion 2 = Catholic … 8 = Others
ETHNICITY	Ethnic Group	+/-	1 = Akan 2 = Ga-Adangbe … 6 = Other Tribes

Source: Ghana Standard Living Survey Sixth Round

Justification for the Variables

Social spending variable

The need to meet daily needs as well as other needs requires households to make payment to economic goods and/or services. Social functions as viewed as an economic good that the household spends on basically as a result of the various transitions of man from one stage in life to another. These transitions in life require that ceremonies be performed to usher the individual into his/her current stage, hence the need to spend on weddings and funerals and other equally important social gatherings

Household size

The size of the household influences how much a household spends on its basic needs. As the size and the quality of the household increases, expenditure of the household is expected to increase and this is evidenced in the work by Ackah and Acquah (2008) on determining which households use which financial services from Ghana. They found that the size of household is significant and positive indicator of a household use of financial services. Size of households has been found to be positively correlated with demand for credit hence the positive sign but household size is expected to be negatively correlated with household size as the increasing number of household is expected to leave the household with a small amount of household income to be spent on social functions.

Age of the household head

Age of the household head affects the extent to which household spend specifically on funerals, weddings, engagement, etc. As an individual grows in age, there is the likelihood that his social network will increase. As friends and family members attend an individual's social function, the concept of reciprocity makes it necessary for the individual to do likewise. Hence, an individual also attends the social function friends and therefore age is expected to have a positive correlation with expenditure on social functions. In addition, Çağlayan & Astar, (2012) have established that age increases consumption expenditure in urban Turkey while it decreases the consumption expenditure in rural Turkey.

Household level of education

Education is expected to influence either expenditure on social functions significantly positively or negatively. This is due to the fact that as an individual goes through the various levels of education, there is the probability that the number of social network increases holding all other factors constant. On the other hand, as individuals get to certain level of education, the assumption that the individual knows how to use economic resources prudently requires that he spends less on social functions hence the expected negative sign.

Location

Location in the study depicts the residential disparities which are based on the geographical location of individuals' households. A dummy of "one" or "two" connotes how it is measured in the study. An urban household is captured as "one" and a rural household is captured as "two". It is believed that individuals in the urban households have built around them an increased network such that the probability of attending a social function could increase given that an individual is located in the urban area. On the other hand, due to the nature of occupation and other characteristics of the rural dwellers, it is likely that individuals in the rural areas are less likely to spend much on social functions and hence the expected sign could be negative.

Religious affiliation

The religious affiliation of a household head is a determinant of an extent to which household could spend on social functions. Because of thr transition from childhood to adulthood and from life to death, there is an event that ushers man to becoming a useful citizen in the society. The religion that an individual finds him/herself influences how he/she spends on social functions. Religion is expected to influence the expenditure on social functions even though there is some caveat placed on excessive spending on weddings and funeral celebrations.

Ethnicity

Ethnic background differs across the different ethnic groups in Ghana and they have their own way of life (i.e. culture). Despite the variations in culture, the demand for marriage and funeral ceremonies require the household to make payment either on their own behalf or the behalf of someone (relative). Thus, ethnicity plays a crucial role in the performance of social programmes such as marriage and funeral ceremonies.

Employment Type

The involvement in any occupation requires the union between and among different people. As in the carrying of one's economic activity require the services to mankind, the need to support one another during social gatherings makes it possible for one to be engaged in any of these social programmes. Thus, workers are either directly or indirectly supposed to support people as either their social or corporate responsibility and hence the need to spend on social programmes in Ghana**.**

Empirical Model for Health Spending and Social Spending

The objective of this model is to estimate the effect of social spending on health spending. This is done by assuming a linear relationship between social spending and health spending. By this, Ordinary Least Squares Method is adopted in the estimation. Social and demographic variables are also included in the model as control variables. In view of this, the econometric model is specified as specified by Coulombe & Wodon (2007). On the left hand of the model is the dependent variable health spending and the independent variables are specified in the model;

$$y_i = f(x_i, x_2, \dots \dots \dots \dots \dots \dots \dots .. x_n)$$

This model is expanded in relation to the theories and literature reviewed such that it is presented as follows:

$$\begin{aligned} lnEXP\_HLTH = {} & \beta_0 + \beta_1 lnEXP_{SOC} + \beta_2 HHSIZE + \beta_3 SEH + \beta_4 HHAGE \\ & + \beta_5 MS + \beta_6 RESID + \beta_7 REG + \beta_8 HHLED \\ & + \beta_9 HHEMTYPE + \beta_{10} RELIGION + ETHNICITY + \varepsilon \end{aligned}$$

Ɛ is the error term assumed to be normally distributed with a mean of zero and constant variance.

Table 2-*Definition and measurement of variables in the econometric model*

Variable	Description	Apriori Exp	Measurement
lnEXP_HLTH	Log of health spending	-	Continuous
lnEXP_SOC	Log of social spending	-	Continuous
HHSIZE	Size of Household	+	Continuous
HHAGEY	Age of Household Head	+/-	Continuous
SHE	Sex of Household Head	+/-	Categorical Male = 1 Female = 0
REG	Region	+	Categorical Western =1 Central =2
HHLED	Household Head's level of Education	+	1= No Education 2=Pre-School not Pry … 8= Others
RESID	Location	+/-	Type of Residence 1= Rural 2= Urban
MS	Marital Status	+/-	Marital status of household head 1=Never Married 2=Married Monogamous …. 6= Widowed
HHEMTYPE	Employment Type of Household Head	+/-	Categorical 1= Wages and Salaries workers 2=Self-Employed with employees …. 99 = Others
RELIGION	Religious Affiliation	+/-	1= No Religion 2 = Catholic 8 = Others
ETHNICITY	Ethnic Group	+/-	1 = Akan 2 =Ga-Adangbe 6 =Other Tribes

Source: Ghana Living Standard Survey Sixth Round

Conclusion

This chapter considered the methodology used in the study. Data for the study was selected from Ghana Living Standard Survey 2012/2013 for the purpose of estimating the effect of the amount of credit on social spending and then the effect of social spending on expenditure on health. The first and second objectives were achieved through the use of Ordinary Least Squares.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter analyses and discusses the findings from the study and inferences on the effects of amount of credit on expenditure on social functions in Ghana are drawn. The analysis is divided into two parts; the descriptive statistical analysis and regression analysis. The findings are presented in table form and regression analysis using household as the unit of analysis in showing the effect of access to credit on expenditure on social functions as well as the effects of social economic characteristics on expenditure on social functions.

Descriptive Statistical Analysis

Table 3-*Sex of Household Heads and Social Spending*

Sex of Household Head	Mean	Std. Deviation	CV	Freq.
Female	140.90	214.61	1.52	222
Male	302.85	824.63	2.72	550
Total	256.277	709.08	2.77	772

Source: Author's Computation from GLSS 6

Table 3 gives the distribution of average expenditure on social programmes across the sex of economic household heads. From the table, the average expenditure on social programmes for male-headed households is about twice the average expenditure on social programmes of the female-headed households. The number of male-headed households is about two times the number of female households' head. In addition, from the table, interpreting the coefficient of variations, the coefficient of variation for a male-headed household is 2.75 compared with the female-headed households, which is 1.52. This indicates that there is more variation in social spending in the male-headed households than female-headed households in Ghana. Male-headed households spend on the average more on social programmes compared to female-headed households in Ghana.

Table 4- *Age of Household Head and Social Spending*

Age of Household Head	Mean	Std. Deviation	CV	Freq.
15-24	57.00	50.43	0.89	21
25-34	246.68	632.13	2.56	151
35-44	215.89	630.13	2.92	199
45-54	269.01	721.66	2.68	164
55-64	388.34	1054.14	2.72	141
65-74	200.78	230.99	1.15	65
75 and Above	145.61	175.76	1.21	31
Total	256.28	709.08	2.77	772

Source: Author's Computation from GLSS 6

Table 4 gives the distribution of average expenditure on social programmes across the different age categories of household heads in Ghana. From Table 4, the average expenditure on social programmes across the different age categories in Ghana is 256.28. Individuals within the age categories of 45-54 and 55-64 spend on the average more than the national average social spending. Individuals within the age category of 15-24 spend on the average less than the national average. The average expenditure on social programmes by individuals within the age category of 55-64 is about one and half times the national average and also about seven times the average expenditure on social programmes by individuals within the age category of 15-24.

Considering the distribution of expenditure on social programmes according to frequency, it could be observed from the table that individuals within the age category of 35-44 spend more on social programmes than any other category with their number being about six times the number of individuals within the age above 75 years. The number of youthful population (535) who spend on social programmes is about 2.3 times the adult population who spend on social programmes (237). In addition, interpreting the coefficient of variations, it could be inferred that variations in social spending across individuals within the age category of 35-44 are more than the remaining age categories.

Table 5- *Marital Status of Household Head and Social Spending*

Marital Status	Mean	Std. Deviation	CV	Freq.
Never Married	161.05	270.04	10.68	38
Married Monogamous	314.29	890.71	2.83	462
Married Polygamous	173.14	186.17	1.08	50
Common Law	176.87	214.61	1.21	63
Divorced	160.06	196.32	1.11	72
Widowed	174.70	305.75	1.75	87
Total	256.28	709.08	2.77	772

Source: Author’s Calculation from GLSS 6

This means that individuals within 35-44 spend more on social programs such as weddings, funerals etc. than the remaining age categories. Household heads within the age category of 15-24 have the least variation in expenditure on social programmes (0.88) indicating that variations in the social spending by household heads within the category of 15-24 spend less on social programmes such as wedding and funerals.

Table 5 gives the distribution of average expenditure on social spending by the different marital status of the household heads. The average expenditure on social spending by the household heads who were never married is about two times more than the household heads who are married monogamously. Household heads who are divorced on the average spend the least on social programmes while individuals who are married with monogamy on the average spend high on social programmes when compared to other categories of marital status. From the table again, variation in social spending is very high (2.83) in the individual households who are married with monogamy. Thus, households with only husband and wife on the average spend more on social programmes. Variation in social spending is less pronounced in household heads who were never married. Thus, individual household heads who are bonded are less likely to spend on social programmes compared to most of the marital status.

Table 6- *Social Spending Across Area of Residence*

Area of Residence	Mean	Std. Deviation	CV	Freq.
Rural	206.41	503.13	2.44	464
Urban	331.41	933.56	2.82	308
Total	256.28	709.08	2.77	772

Source: Author's Calculation from GLSS 6

Table 6 gives the distribution of average expenditure on social programmes across the different area of residence in Ghana. With the national average expenditure on social programmes of 256.28, rural folks contribute about fifty (50) less than the national average. The urban average expenditure on social programmes is about one and half the average social spending by the individuals in the rural folks. The variation in social spending by the rural folks in Ghana is less pronounced as compared to individual households in the urban. That is, social spending is much more common in the urban households in Ghana than rural households.

Table 7-*Social Spending across Regions*

Region	Mean	Std. Deviation	CV	Freq.
Western	458.13	956.30	2.09	82
Central	526.29	1364.59	2.60	56
Greater-Accra	345.91	229.19	0.66	22
Volta	521.72	1619.74	3.11	58
Eastern	163.55	227.95	1.39	97
Ashanti	262.69	294.89	1.13	112
Brong Ahafo	215.23	483.39	2.25	97
Northern	126.67	160.08	1.26	94
Upper East	92.54	132.71	1.43	122
Upper West	111.81	153.17	1.37	32
Total	256.28	709.08	2.77	772

Source: Author's Calculation from GLSS 6

Table 7 gives the national distribution of expenditure on social functions according to the regions. Given the national average of 256.28, Central region (526.29) spends about two times the national average. Upper East spend about three times less than the national average of 307.71. An individual household in the Upper East region spends about 5.6 times the average spending on social programmes in individual households in the Central region. In addition, the individual in the Northern sector (345) spends less on social programmes as compared to those in the Southern sector (427) which is about 82 points higher than the average social spending by individual households in the Northern sector. Considering the variation is social spending across the different regions, variation in social spending is less pronounced in the Greater Accra region compared with Volta region. Thus, spending on funerals, weddings etc. tend to be more dispersed in the Volta region (3.10) than that of Greater Accra (0.66). Variations in social spending in the Southern sector are greater as compared to the variations in spending on social programmes in the Northern sector.

Table 8-*Social Spending Across Different Levels of Education*

Educational level of Household Head	Mean	Std. Deviation	CV	Freq.
No Education	174.96	937.23	5.36	181
Pre-School not Primary	142.16	241.60	1.70	78
Primary but not Secondary	212.06	447.085	2.11	72
Lower Secondary	275.87	1779.83	6.45	240
Upper Secondary	261.83	473.054	1.81	51
Post-Secondary	316.66	1240.11	3.92	65
University & Higher	724.64	2293.61	3.17	47
Literacy Programme	147.87	265.32	1.79	38
Total	256.28	709.08	2.77	772

Source: Author's Calculation from GLSS 6

Table 8 gives the distribution of social spending across the different levels of education in Ghana. Individuals with University & Higher levels of education spend about 2.8 times the average national social spending across the different levels of education. Individuals who have Pre-School but not Primary education spends least on social programmes. Individual households headed by people with University & Higher levels of education spend about 5.1 times the average social spending by individual households headed by people Pre School but not Primary education. In terms of numbers, individual household heads with Lower Secondary education spends more on social programmes as compared with household heads who had their education through Literacy Programmes. Variations in social spending are more pronounced in households headed by individuals with Lower Secondary education with a coefficient of variation of 6.4518. Social spending is least found in households headed by people with Pre-School but not Primary education.

Table 9-*Social Spending Across Different Types of Employment.*

Type of Employment	Mean	Std. Deviation	CV	Freq.
Wages & Salaried worker	347.85	974.50	2.80	214
Self-employed with employees	130.58	177.11	1.36	40
Self-employed without employees	247.59	624.98	2.52	460
Domestic	150.00	0	0.00	1
Family Worker	72.40	93.12	1.29	55
Apprentice	8.00	1	0.13	1
Other/not known	150.00	0	0.00	1
Total	256.28	709.08	2.78	772

Source: Author's Calculation from GLSS 6

Table 9 gives the distribution of social spending by the various employment types in terms of averages and the number of individuals within the categories as well as variations in the social spending. From the table, the average social spending by household heads who are Wages and Salaried Workers (347.85) is more as compared with the others. Social spending is lowest among household heads who are under Apprenticeship (8.00). Again, the number of individual household heads who are Self-Employed without employees spend on social programmes household heads who are Domestic, Apprentice and Others. Variations in social spending are high in households who are headed by individuals who are Wages and Salaried workers.

Variations in social spending are less among the households headed by individuals who either Domestic Workers or Others.

Table 10- *Social Spending Across Religious Affiliation*

Religion	Mean	Std. Deviation	CV	Freq.
No Religion	607.10	1679.01	2.77	49
Catholic	237.37	625.02	2.63	134
Protestant	291.00	551.57	1.90	98
Pentecostal/Charismatic	337.13	865.96	2.57	199
Other Christian	195.58	258.65	1.32	81
Islam	135.78	174.51	1.29	150
Ahmadiya	73.41	90.75	1.24	61
Total	256.28	709.08	2.77	772

Source: Author's Calculation from GLSS 6

Table 10 gives the distribution of expenditure on social programmes across the different religious denominations in Ghana. It gives the average expenditure on social expenditure on social programmes as well as the frequency of the individual religious groups in relation to their expenditure on social programmes and the variations in social spending. From Table 8, it could be observed that the average expenditure on social programmes by household heads with No religion (607.10), is greater than the national average expenditure on social programmes (256.28). Household heads that belong to Ahmadiya spend on the average less on social programmes. Comparing the average total expenditure on social programmes of No religion, Christianity religion and the Islamic religion, individual's household heads with No religion on the average spend the highest on social programmes have the least average total spending on social functions in Ghana with average spending on social spending of 348.81 while Christians on the average spend much on social functions in Ghana with their average spending of 1371.28. The proportion of average spending on social functions by the Islamic religion is about twice the expenditure on social functions by individuals with No religion. Again, from the table, out of 1757, individuals who are Pentecostals/Charismatic spend more on social functions than any other religion while about 1244 Christians spend on social functions, the number of Muslims who spend on social function are about twice less than that of the Christians.

Table 11- *Social Spending Across Different Ethnic Background*

Ethnic Groups	Mean	Std. Deviation	CV	Freq.
Akan	331.29	791.40	2.39	363
Others	189.70	620.48	3.27	409
Total	256.28	709.08	2.77	772

Source: Author's Calculation from GLSS 6

Table 11 gives the distribution of expenditure on social functions by the ethnic groups in Ghana. The average social spending by the Akans is the highest indicating that on the average, spending on social programmes is more pronounced in the Akans than the other ethnic groups in Ghana. Other tribes which comprise of tribes migrating either from Ghana or outside Ghana do not spend much on social functions. Average spending on social programmes of the Akans is about twice the average spending on social programmes by Other ethnic groups in Ghana. Variations in social spending are much more pronounced in the Other ethnic group as compared Akans.

Table 12- *Summary of Social Spending Amount of Credit and Size of Household*

Variable	Obs.	Mean	Std. Dev.	Min	Max
EXP_SOC	772	256.28	709.08	2	8500
HHSIZE	772	4.99	2.90	1	20

Source: Author's Calculation from GLSS 6

From table 12, the average household social spending is 256.2772 with the highest spending on social programmes given at GHS 8500 and the least spending on social spending given as GHS2and the average household size is 4.9870. The average household credit is given by 1126.333. The maximum amount of credit given to household is GHS22,000 while the minimum amount of credit to a household is GHS2.

Table 13- *Estimating the effects of Amount of credit on household's expenditure on social functions*

lnEXP_SOC	Co-eff	Std. Error	P> t	95% [Conf. interval]	
lnCredit	0.341	0.066	0.000*	0.2114	0.4713
Sex (Male)	0.512	0.129	0.000*	0.2579	0.7655
Marital Status					
Married Mon	0.024	0.234	0.919	-0.4354	0.4832
Married Poly	-0.60	0.322	0.852	-0.6938	0.5733
Common Law	-0.27	0.266	0.311	-0.793	0.2526
Divorced	0.146	0.266	0.584	-0.3771	0.6690
Widowed	0.004	0.275	0.989	-0.5352	0.5430
Region					
Western	0.057	0.210	0.785	-0.3561	0.4710
Greater Acc.	0.368	0.320	0.250	-0.2596	0.9949
Volta	-0.174	0.262	0.507	-0.6872	0.3396
Eastern	-0.547	0.210	0.009*	-0.9586	-0.1360
Ashanti	-0.016	0.199	0.938	-0.4066	0.3755
Br. Ahafo	-0.600	0.207	0.000*	-1.0070	-0.1932
Northern	-0.692	0.262	0.009*	-1.2076	-0.1771
Upper East	-0.583	0.256	0.023*	-1.0859	-0.0799
Upper West	-0.697	0.301	0.021*	-1.2878	-0.1057
Residence					
Urban	0.050	0.100	0.615	-0.1466	0.2476
Education					

No Education	-0.27	0.176	0.127	-0.6145	0.0767
Pre-School	-0.16	0.194	0.413	-0.5390	0.2216
Lower Sec	0.095	0.161	0.556	-0.2218	0.4120
Upper Sec	0.113	0.227	0.619	-0.3325	0.5582
Post Sec	0.208	0.215	0.333	-0.3325	0.5582
Uni.& Higher	0.553	0.243	0.023*	0.0748	1.0308
Literacy Pro.	-0.18	0.246	0.453	-0.6673	0.2982
Household size	0.042	0.019	0.032*	0.0034	0.0798
Age	-0.74	0.294	0.012*	-0.3215	-0.1656
15-24	-0.09	0.132	0.488	-0.3534	0.1687
25-34	-0.09	0.128	0.484	-0.3398	0.1612
45-54	0.189	0.133	0.157	-0.0727	0.4511
55-64	0.162	0.175	0.354	-0.1812	0.5052
65-74	0.124	0.240	0.604	-0.3463	0.5949
75 & Above					
Employment					
SE with E	-0.40	0.217	0.064	-0.8277	0.0237
SE without E	0.006	0.123	0.962	-0.2355	0.2471
Domestic	0.522	1.190	0.661	-1.8134	2.8588
Family	-0.42	0.224	0.061	-0.8607	0.0200
Worker	-2.15	1.177	0.068	-4.4624	0.1604
Apprentice	0.233	1.182	0.844	-2.0888	2.5538
Others					
Religion					
Catholic	-0.18	0.212	0.403	-0.5950	0.2394
Protestant	0.248	0.212	0.242	-0.6642	0.1681
Pentecostal	-0.142	0.194	0.464	-0.5233	0.2387
Other	-0.333	0.221	0.133	-0.7677	-0.1013
Christian	-0.34	0.233	0.145	-0.7983	0.1176
Islam	-0.47	0.257	0.070	-0.9719	0.0387
Ahmadiya					
Ethnicity					
Others	-0.299	0.085	0.726	-0.1969	0.1371
Constant	2.576	0.516	0.000	1.5613	3.5911

Number of Observation= 772
R-squared = 0.2988
Root MSE = 1.1463

Source: Author's Calculation from GLSS 6

Table 14- *Estimating the effect of social spending on health expenditure*

lnexp. on Health	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
lnExp_SS	0.151	0.044	3.46	0.001*	0.065	0.237
Sex						
Male	-0.147	0.166	-0.88	0.377	-0.474	0.180
Marital Status						
Never Married	0.035	0.314	0.11	0.910	-0.580	0.652
Married Poly	-0.123	0.244	-0.50	0.615	-0.604	0.358
Common Law	0.002	0.210	0.01	0.992	-0.411	0.415
Divorced	0.001	0.221	0.01	0.996	-0.433	0.436
Widowed	-0.252	0.210	-1.19	0.233	-0.666	0.162
Region						
Western	0.354	0.263	0.35	0.179	-0.162	0.871
Greater Acc.	0.400	0.367	1.09	0.275	-0.319	1.121
Volta	0.398	0.331	1.21	0.228	-0.251	1.048
Eastern	-0.250	0.272	-0.92	0.361	-0.786	0.286
Ashanti	0.111	0.240	0.47	0.642	-0.360	0.583
Brong Ahafo	0.312	0.262	1.19	0.234	-0.203	0.827
Northern	-0.022	0.330	-0.07	0.948	-0.671	0.627
Upper East	0.160	0.306	0.05	0.958	-0.584	0.617
Upper West	-1.685	0.464	-3.36	0.000*	-2.597	-0.774
Residence						
Urban	-0.086	0.120	-0.71	0.480	-0.323	0.152
Education						
Pre-School	-0.011	0.194	0.02	0.985	-0.377	0.384
Primary	0.590	0.210	2.80	0.005*	0.188	1.013
Lower Sec	0.453	0.182	2.49	0.007*	0.137	0.850
Upper Sec	-0.033	0.277	-0.12	0.905	-0.576	0.510
Post Sec	0.772	0.254	3.04	0.003*	0.272	1.272
University	0.672	0.310	2.17	0.031*	0.063	1.282
Literacy Prog	-0.003	0.268	-0.01	0.978	-0.530	0.524

Household Size	0.033	0.023	1.42	0.152	-0.012	0.079
Age						
15-24	-0.968	0.356	-2.72	0.007	-0.667	-0.268
25-34	-0.154	0.166	-0.93	0.353	-0.479	0.171
45-5 4	-0.309	0.161	-1.92	0.055	-0.625	0.007
55-64	-0.066	0.160	-0.41	0.683	-0.382	0.250
65-74	-0.164	0.222	-0.74	0.460	-0.599	0.272
75+	-0.017	0.266	-0.06	0.950	-0.540	0.506
Religion						
Catholic	-0.102	0.273	-0.37	0.796	-0.605	0.464
Protestant	0.212	0.282	0.75	0.453	-0.343	0.767
Pentecost/Cha.	0.249	0.254	0.98	0.328	-0.250	0.748
Other Christian	0.156	0.280	0.56	0.576	-0.393	0.705
Islam	0.199	0.303	0.66	0.512	-0.397	0.794
Ahmadiya	0.040	0.323	0.12	0.902	-0.594	0.674
Ethnicity						
Others	0.139	0.184	0.75	0.451	-0.223	0.501
_cons	3.103	0.436	7.12	0.000*	2.246	3.959

Source: Author's Calculation from GLSS 6

Results and Discussions

From Table 13, it could be observed that access to credit, sex of economic head, region, level of education of household head, size of household, age of household head, employment type, and religion affect household head's decision on social spending in Ghana.

The coefficient of 0.341 of the amount of credit could be interpreted as a percentage change in the amount of credit to the household head could result in a corresponding 34.1 percentage change in household head's social spending in Ghana. This means that household head's expenditure on social programmes is an increasing function of the amount of credit obtained by the household given all other factors constant. Thus, a percentage increase in the amount of credit accessed by household could result in an increase in household' s expenditure on weddings, funerals and parties in Ghana holding all other factors constant. A decrease in the amount of credit accessed by the household could result in a decline in expenditure on weddings, funerals and parties by 34 per cent given all other factors constant.

From table 13, the effect of amount of credit on social spending is significant at 1 per cent. This is in support of the findings of Banerjee & Duflo (2007) that a considerable amount of income is spent on festivals, and other social programmes despite scrapping through the bare needs of the household. Thus, the needs as postulated by Maslow is being turned upside down with spending that enhances the social status of household heads being considered at the expense of needs like accommodation, health, foods etc. Eswaran & Kotwal (1990), Deaton (1994), World Bank Group that when household increases it income through credit, it is able to increase consumption by smoothening their consumption. Thus, as the household increase their income through credit, social spending which is considered as a mandatory spending on the part of household head increases. This also means that the higher finance deepens within the economy, household heads have a greater opportunity of including in their basket spending on funerals, weddings etc.

This is expected as there has been the persistent increase in loan advancement towards social occasions such as funeral loans, marriage loans etc. which have come to supplement the traditional income of the household. This also presupposes that there is embedded in social spending relative utility as posited by Brown et al, 2010. Thus, there lies a close connection between social status and relative spending. This view is also shared by Chen et al, (2011), that positional spending is characterised by status seeking and hence people wish to spend so that they could be considered to be in the affluent category in the society.

Interpreting the coefficient of sex of household head, the coefficient of 0.511 of the male-headed means than male-headed households spend about 51.2 per cent more on weddings, funerals and parties compared to the female-headed households in Ghana. This means that households that are being headed my males spend more on social events in Ghana compared to households that are being headed by females in Ghana, holding all other factors constant. This was significant at 5 per cent.

Considering the regional differences on expenditure on weddings, funerals and parties and using Central region as the base region, it could be observed that spending on weddings, funerals and parties are significant in the Eastern, Brong Ahafo, Northern, Upper East and Upper West. Individuals' households in the Eastern region spend about 55.15 per cent on social programmes less than household heads who live in Central region (base region). Individual household heads in Brong Ahafo, Northern, Upper East and Upper West regions spend 60.21 per cent, 69.94 per cent, 59.19 per cent and 70.6 per cent less on weddings, funerals, gifts etc. compared to household heads in Central region. Thus, social spending is less pronounced in the Northern sector as compared to Central region, which is in the Southern sector. These are significant at 5 per cent. Form the regression table; it could be observed that individual households in the northern regions spend less on funerals, weddings and parties than individual households in the Central region.

Considering the levels of education and their effect on social spending and using individual household heads with Primary but not Secondary education as the benchmark, it could be found that individual household heads with individual household heads with University and Higher levels of education spend about 55.3 per cent more on social events in Ghana compared to household heads with Primary but not Secondary education. This is significant at 5 per cent.

Considering the size of household coefficient of 0.042, it could be interpreted as an additional increase in the size of the household will lead to an increase in expenditure on social programmes by 4.2 per cent and it is significant at 5 per cent. Thus, holding all factors constant, an additional increase in the size of household will results in an increase in expenditure on weddings, funerals and parties in Ghana by 4.2 per cent. This is evidenced in the domestic homes where as a result of child birth, household heads perform basic traditional functions to welcome and usher the child into the family and also to perform the naming ceremonies which are accompanied by increasing household expenditure on these social programmes.

From the regression output table, age of the household is significant in explaining household head's expenditure on weddings, funerals, and parties. Using household heads within the age category of 35-44 as the base category, household heads within the age category of 15-24 spend 74 per cent less on social events compared to household heads within the age category of 35-44. This is significant at 5 per cent level. Thus, expenditure on social events is much less pronounced within the youthful population of household heads.

Considering the religious affiliation of household heads and their effect on social spending, it was found that household heads who belong to Other

Christian spend 33.3 per cent less on social events compared to household heads with No religion in Ghana. This means that household heads who do not belong to any other religion (No religion) spend more on social programmes such as weddings, funerals, engagement, gifts etc. compared to household heads who belong to Other Christians.

The R-squared value of 0.29.9 means that the independent variables explain the behaviour of the dependent variable by 29.9 per cent. Thus, the independent variables explain the log of expenditure on social programmes by 29.9 per cent. About 29.9 per cent of the variations in the dependent variable, log of expenditure on social programmes are being explained by the amount of credit, sex, age, marital status, region, education, household size, employment type, religion and ethnicity.

Post-Estimations Tests

Normality test

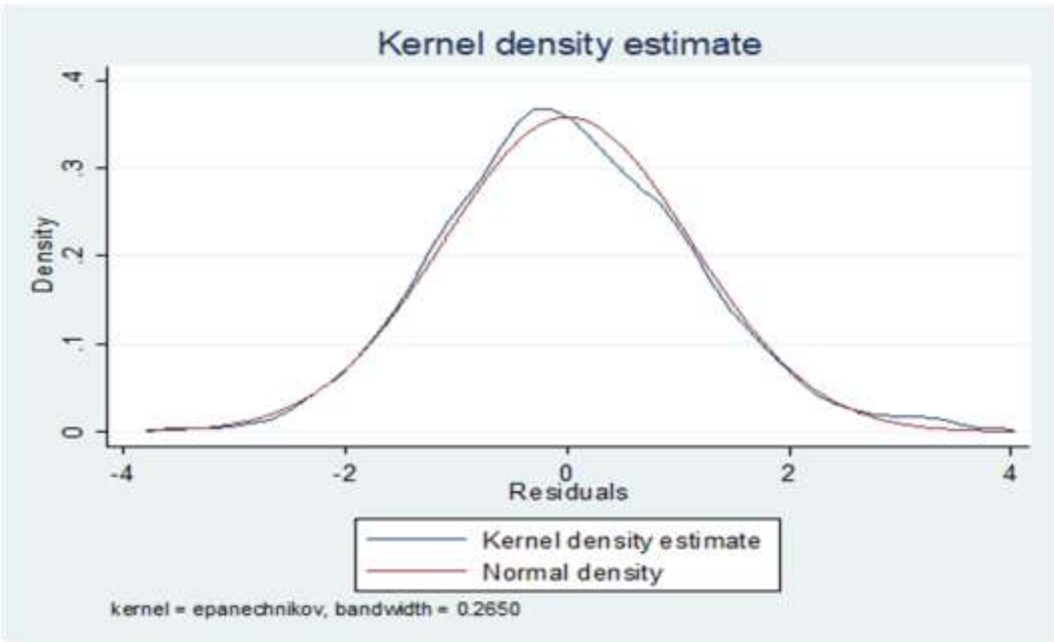

Figure 2: Kernel density normality test

Source: Author's construct GLSS 6

The normality test tests the null hypothesis that the residuals are normally distributed as against the alternative that the residuals are not normally distributed. From the output, given the p-value of 2.452, we fail to reject the null hypothesis that the residuals are normally distributed.

Model specification test

Table 15-*Model Specification Test*

lnEXP_SOC	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
_hat	1.1250	0.5149	2.19	0.029	0.1143	2.1357
_hatsq	-0.0140	0.0575	-0.24	0.807	-0.1269	0.0989
cons	-0.2707	1.1369	-0.24	0.812	-2.5024	1.9611

Table 15 gives the output of the test for model specification. The null hypothesis is that there is specification error in the model. From the table, given the p-value of hatsq = 0.807, we fail to reject the null hypothesis ad we conclude that our model is correctly specified.

Heteroskedasticity test

Table 16-*Heteroskedasticity test*

Breusch-Pagan / Cook-Weisberg test for Heteroskedasticity	
Ho: Constant variance	
Variables: fitted values of lnEXP_SOC	
chi2(1) = 3.56	Prob > chi2 = 0.0591

Source: Author's Calculation from GLSS 6

The Breusch Pagan/Cook-Weisberg test for Heteroskedasticity test the null hypothesis of constant variance against the alternate hypothesis that the error term is not constant across different samples. From the table, given the p-value of 0.0591, we fail to reject the null hypothesis of constant variance and conclude that the error term is constant across different samples.

Omitted variable test

Ramsey RESET test using powers of the fitted values of lnEXP_SOC

Ho: model has no omitted variables

F (3, 724) = 0.30

Prob > F = 0.8262

The Ramsey Reset test tests the null hypothesis that there are no omitted variables in our model as against the alternate hypothesis that there is omitted variable in our model. From the output above, given the p-value of 0.8262 which is greater than the p-value of 0.05, we fail to reject the null hypothesis that there is no omitted variable and conclude that we do need any additional variables.

Hypothesis testing for Social Spending

Table 17- *One-sample t test*

Variable	Obs.	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
lnCREDIT	772	5.9105	.0277	.7706	5.8560	5.9649

mean = mean (lnCREDIT) t = 213.1101

Ho: mean = 0 degrees of freedom = 771

Ha: mean < 0	Ha: mean! = 0	Ha: mean > 0
Pr (T < t) = 1.000	Pr (|T| > |t|) = 0.000	Pr (T > t) = 0.000

Source: Author's Calculation from GLSS 6

This test tests the null hypothesis that the total amount of credit available to the household head does not affect social spending in Ghana as against the alternative hypothesis that the total amount of credit does affect household head's `social spending in Ghana. From the table, the hypothesis test that the estimate for the total amount of credit is not significant from zero.

Considering the p-value of 0.000, we reject the null hypothesis that the coefficient of total amount of credit is statistically different from and zero and conclude that total amount of credit to the household head influences the amount of credit that household head spends on social programmes in Ghana.

From Table 14, in estimating the effect of social spending on health expenditure of the household head in Ghana, the estimation results showed that social spending is significant in explaining the expenditure on health of the household head in Ghana. It was found that given all other factors constant, an increase in social spending by 1 per cent results in an increase in health spending by 15.12 per cent at 5 per cent level of significance. Thus, a percentage increase in social spending results in an increase in health spending by 15.58 per cent. This could be interpreted that household views social programmes as an economic good which could have a positive effect on household living conditions in the society. This also indicates that as household head increases his/her spending on social programmes, they could have a positive effect on the household economic performance and thus may consider spending on social programmes as investment decision of the household head.

This results even though not expected, one plausible reason that could be ascribed to this result is that as a result of an increase in social spending, household heads pay little attention to the health needs of the household members. This results in household heads spending high on health as a result of an increase in social events. Even though it is hard to comprehend such a finding, yet it could be possible such that negligence on the part of household heads to build on social status results in the health needs being unattended to resulting in higher spending on health expenditure. Thus, by considering social events such as weddings, funerals etc. as a normal good, spending on it deprives or squeezes out other basic needs of the household members. This might end up leaving the health state of any of the household members in a deplorable state thereby requiring household heads to increase spending on health. Considering the regional distribution, individual household heads in Upper West region spend 168.5 per cent lower on health expenditure compared to individual household heads in the Central region and this significant at 5 per cent.

Age as another socio-economic characteristic of the household head also influences how household head spends on their health. From the table, it could be observed that an individual household head within the age category of 15-24 spend about 96.8 per cent less on his/her health as compared to individual household heads within the age category of 35-44. This is significant at 5 per cent level

The R squared value of 0.182 means that about 18.2 per cent of the variation in health expenditure is explained by the independent variables. Thus about 18 per cent of the variation in household heads' health spending is accounted for by social spending and the other socio-economic variables. Even though the R-squared value 0.183 is very small, Wooldridge (2005) states that it is usual to find low R-square in cross-sectional analysis. Though it may be considered as a weak goodness of fit of the regression model, the size of the R-squared is not as important as the statistical and economic significance of the independent variables (Wooldridge, 2005).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This final chapter summarizes the major findings of the undertaken empirical study on the total amount of credit, social spending and health spending in Ghana. The main conclusions of the study, as well as the recommendations derived from the study, are also presented. Limitations and suggestions for further studies are also presented in this chapter.

Summary

Social and health spending are both considered to form part of a household's spending. Household's expenditure is structured such that Maslow's Hierarchy of Needs is always assumed to operate. This study is to find the effect that amount of credit advanced to the household head has on social spending and also the effect that social spending has on health expenditure of the household. From the study, it was found that credit advanced to the households' results in an increase in social spending of the household head in the Ghana. Thus, an individual household head considers social events to be normal goods and that its utility increases whenever income of the household increases. Again, it was found that household heads in Eastern region, Brong Ahafo region, Northern region, Upper East and Upper West region decrease their spending on social occasions when given amount credit as compared to household heads in Central region. Education as a socio-economic variable also influences the extent to which household heads spend on funerals, parties, and marriage. From the study, it was found that household heads with Primary education spend less on social programmes compared to household heads with University & Higher education. The study also found that the size of household also influences positively on household heads amount of credit spent on social occasions. In terms of age of the household head, it was found that household heads within the age categories of 35-44 spend more on social occasions compared to individual household heads within the age category of 15-24. Again, the study also found that an increase in credit results in an increase in social spending holding all other factors constant.

In the estimation of the effect of social spending on health spending of the household, it was found that health spending increases with an increase in social spending in Ghana. That is, given a substantial increase in social spending, household is disposed-off resulting in an increase health needs of the household. It was also found that household heads in Upper West region spend less on health needs compared to household heads in the Central region. Considering education, household heads with Primary education, Lower education Post-Secondary and University and Higher education spend higher amount on their health compared to household heads with No education. Household heads within the age interval 15-24 spend less on health needs compared to household heads within the age interval 35-44.

Conclusions

The results from the ordinary least squares estimations revealed that household heads increase their spending on social occasions such as weddings, funerals, parties etc. by 34.13 per cent given amount of credit, holding all other factors constant. This was expected, because from the cultural perspective, it is a duty for one to marry, bury the dead and also to celebrate different forms of festivities in our society. As financial services increase, household heads have greater access to the varying financial products offered on the financial market. These financial resources supplement household income, which gives them the opportunity to consume different product. As people continue to make effort to come out of the economic hardship, these financial resources have partly made living conditions quite easy for household by extending these credits such as funeral loans etc. to household heads therefore, relieving them from financial burdens that on the other hand wouldn't have been possible. The positive effect of credit on social spending could be considered as meaningful as social events continue to dominate from one family to another. This makes household heads perceive social spending as part of investment items of the household that could improve on their living conditions in the short term. It is also considered as an investment component of the household as it is a means of mitigating risk of household members. Thus, household heads consider social spending as a normal good whose utility increases when income increases and would like to increase their spending on them by viewing it as an investment component of the household.

In the case of socio and demographic variables and their effects, it was found that sex, regional location, level of education and age status do influence social occasions in Ghana. This is expected especially considering education, education irrespective of the level exposes an individual to a number of people who are scattered all over. This presupposes that an individual would be required to celebrate a social occasion with a friend or a friend has to celebrate a social occasion with the individual. Age is also expected to influence social occasions as an individual age, he/she finds himself/herself in a society that requires him/her to live according to the standards of the society. As such, he would be compelled to marry if he/she is not married and would be compelled too to bury his/her relative when the relative dies.

In addition, the study found that health spending increases as social spending of the household head increases. Thus, an increase in social spending results in a substantial increase in health spending. This presupposes that social spending is perceived as investment item such that it does not deprive the household of the basic help need but rather improves on the quality of health by increasing the expenditure on health. Another plausible interpretation to the effect of social spending on health is that as household heads increase spending on social programmes such as funerals, weddings, etc. there could be an implicit deprivation of health needs of any of the household members. This then renders household heads to increase spending on health needs as a result of the implicit deprivation of health needs due to opportunity cost.

Recommendations

Household heads consider spending on social programmes as a means to mitigate their risk. Because of this substantial amount of household income is spent on social programmes. In view of mitigating the risk of the household, it is recommended that

- Household heads should pay crucial attention to the cost on credit as the amount of loan granted to them has the cost burden imbedded in it. That's despite the fact that social spending not depriving household from basic needs such as health, the cost on loans (interest rates) wouldn't allow the household head from retrieving the entire principal and the interest within the time frame within which the spending is done hence it will results in other problems to the household head.

- In addition, as education exposes people and builds on a network that has the greater urge of diversifying the household's risk through social spending, we recommend that education should be prioritized irrespective of the constraints. Typically, in the era where efforts have been made to make education accessible, household heads should prioritize education as a means of assisting household members in mitigating risk.

Limitations of the Study

This study is limited by some factors. Notable among them is the age of the data. The GLSS 6 is the most recent nationally representative data set available which had been collected in the year 2012/2013. The data is five (5) years old and in view of this, many changes with regards to policies have transpired between the period within which the data was collected and the date with which this study was conducted. This has affected the expected result and the appropriate recommendations. These changes that might have occurred within the five (5) year period might have affected the quality of data for the analysis and this also might have affected the quality of the results expected. In addition, the method of data collection (sampling pool) based on the variables of the population studied may affect the results and quality of recommendations made.

Furthermore, the researcher couldn't get income generated from social events data as the GLSS 6 couldn't capture such variable. This couldn't allow the researcher to critically examine the income aspect of social events as compared to the social spending. That is, the GLSS 6 data couldn't capture how many household received during any of the social events that they spent on making it very difficult for the study to consider the income aspect of social events. Again, the data set has no disaggregated data on social activities that indicate how much household heads spent on the respective social programmes such as how much was spent on wedding alone, how much was spend on funerals alone etc.

Suggestions for Further Study

The study provides the foundation of more study on the amount of credit, social spending and their effect on household basic needs such as education, shelter, clothing as well as other forms of investment that have positive trickling down effect on the household. Notable study areas include;

i. The effect of educational attainment and social spending on household spending on children's education in Ghana.
ii. The effect of access to credit and ageing the social spending decision of the household head in Ghana.
iii. The impact of household social spending decision on the children's health expenditure in Ghana.
iv. The net balance of social spending and household head's decision to spend on social programmes.

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