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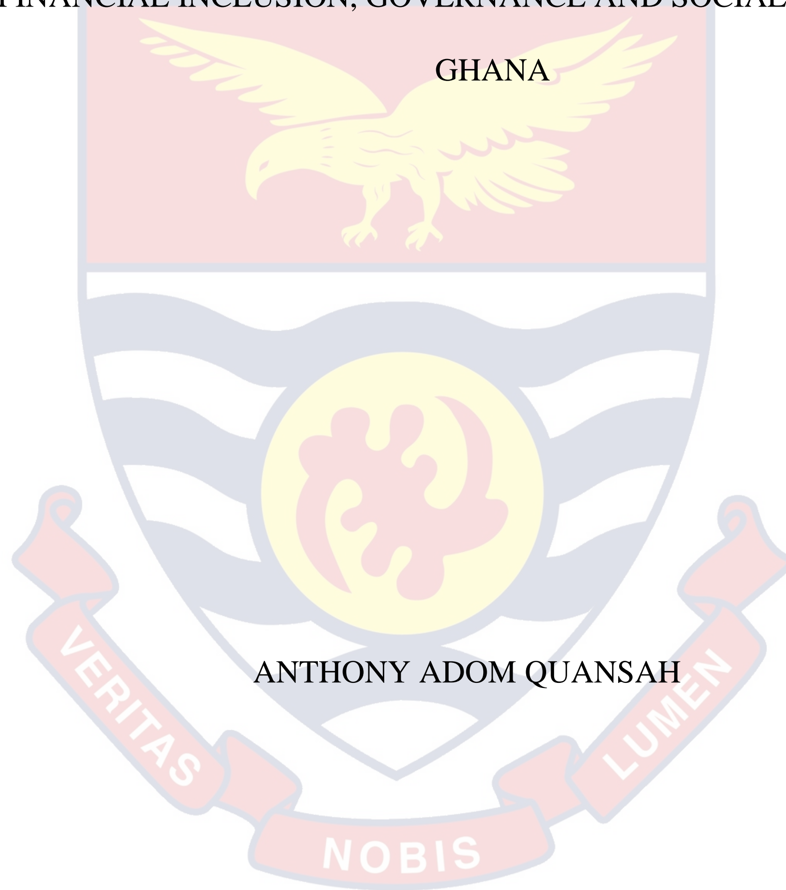
FINANCIAL INCLUSION, GOVERNANCE AND SOCIAL WELFARE IN GHANA



ANTHONY ADOM QUANSAH

2021

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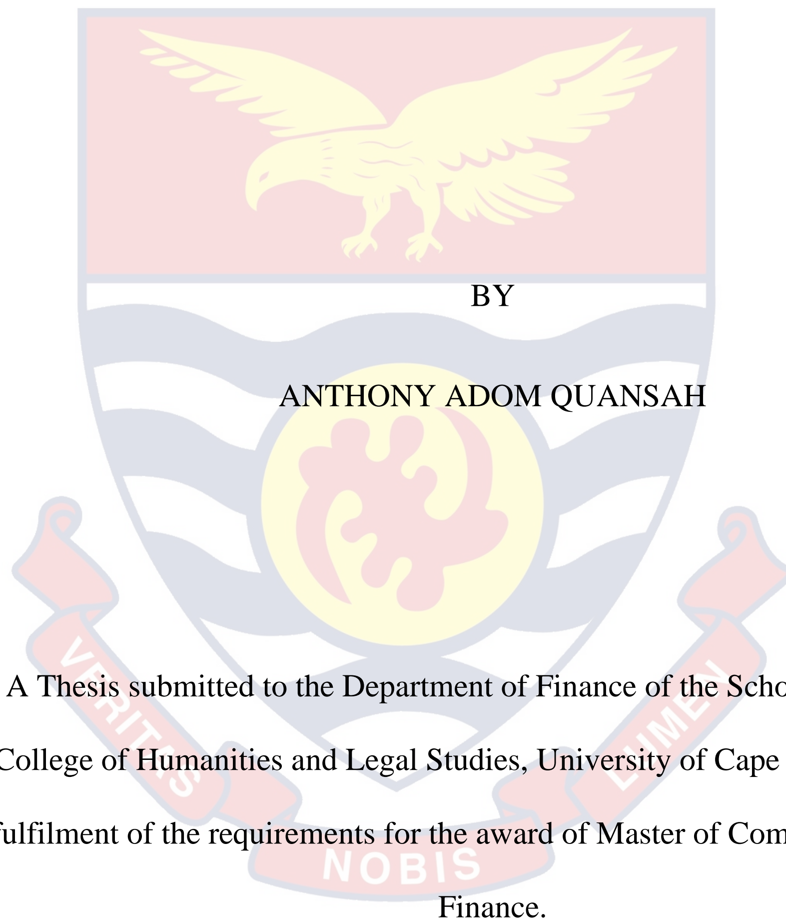

BY

ANTHONY ADOM QUANSAH

A Thesis submitted to the Department of Finance of the School of Business, College of Humanities and Legal Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Commerce degree in Finance.

OCTOBER 2021

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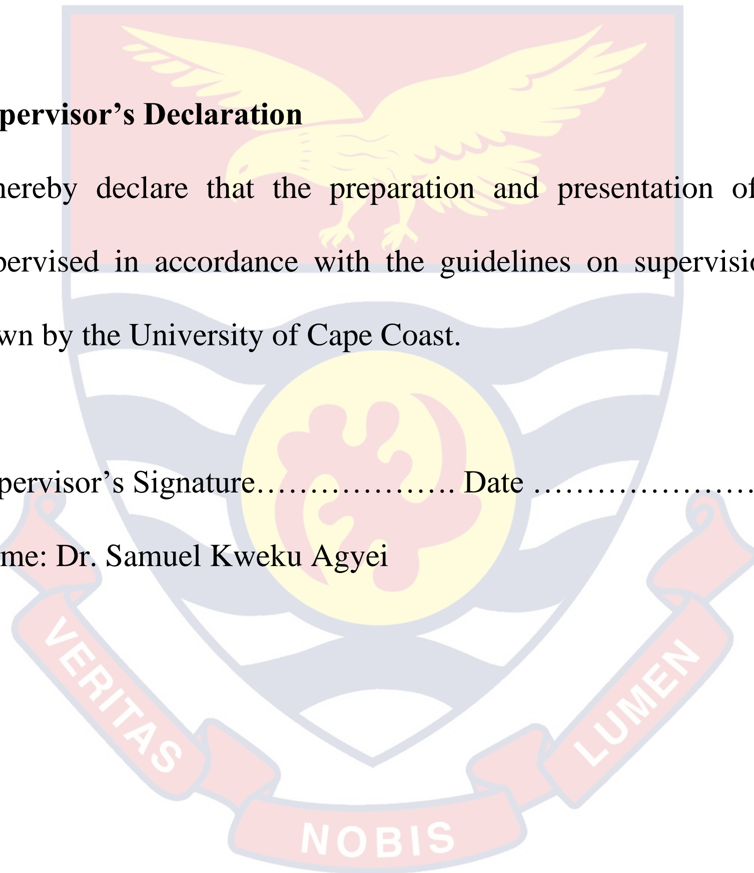
DECLARATION

Candidates Declaration

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

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

Name: Anthony Adom Quansah



Supervisor's Declaration

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

Supervisor's Signature………………. Date ……………………..……

Name: Dr. Samuel Kweku Agyei

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ABSTRACT

The evolution of Social welfare after the world's economic downfall in 2008 has been documented to contribute significantly to reduction in poverty and inequality of all forms, through good governance and financial inclusion, which enables all individuals to partake in economic activities by gaining access to finance. Hence understanding the nexus among financial inclusion, governance and social welfare will enable decision makers formulate policies and programme that will alleviate social welfare challenges in Ghana. The study sought to: find the effect of financial inclusion on social welfare; the effect of governance on social welfare and finally, examine how governance moderates the effect of financial inclusion on household's social welfare in Ghana. The main data source for the study was the most recent Ghana Living Standard Survey data (GLSS 7) compiled by the Ghana Statistical Service between 2016 and 2017. Ordinary Least Squares (OLS) and Two Stage Least Squares (2SLS) techniques were adopted as the estimation techniques for the study. The result of the study revealed that both financial inclusion and governance had positive significant effects on household's social welfare in Ghana. In the context of how governance moderates the effect of financial inclusion on household's social welfare in Ghana; the results were insignificant. The study concludes that getting more households financially included serves as a catalyst for empowering many households to improve their social welfare level. Also, implementation of more social welfare programs by good governance would help improve household's social welfare level in Ghana.

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KEYWORDS

Financial inclusion

Ghana

GLSS7

Governance

Social welfare

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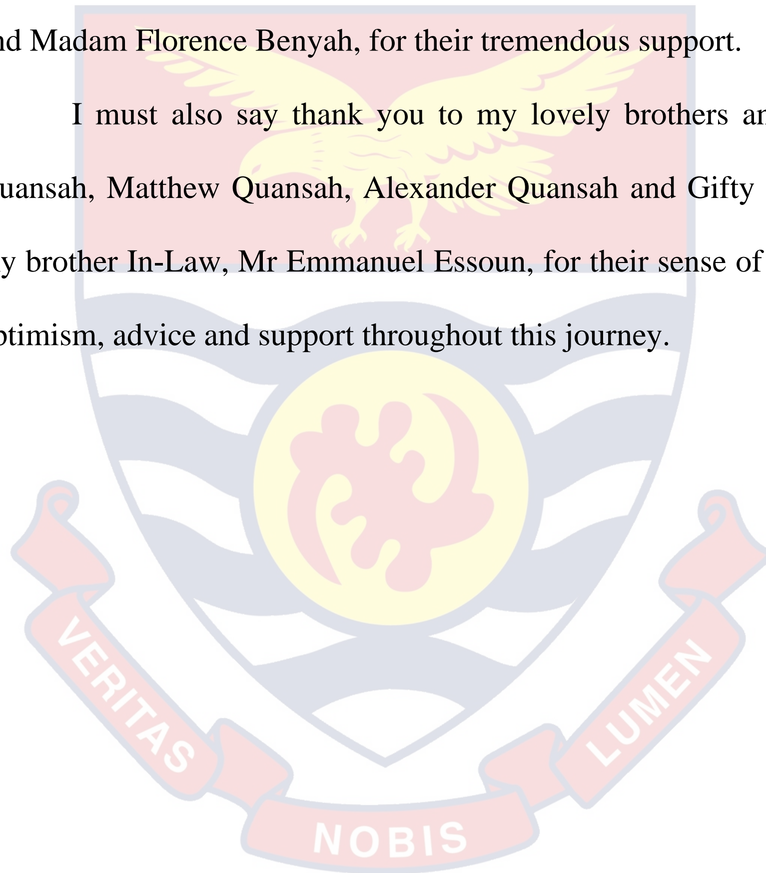

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DEDICATION

To my mother, Mena Adjoa-Adzeyefo and my life Protocols, Professor and Mrs Yankson, as well as my late father, Paul Quansah.

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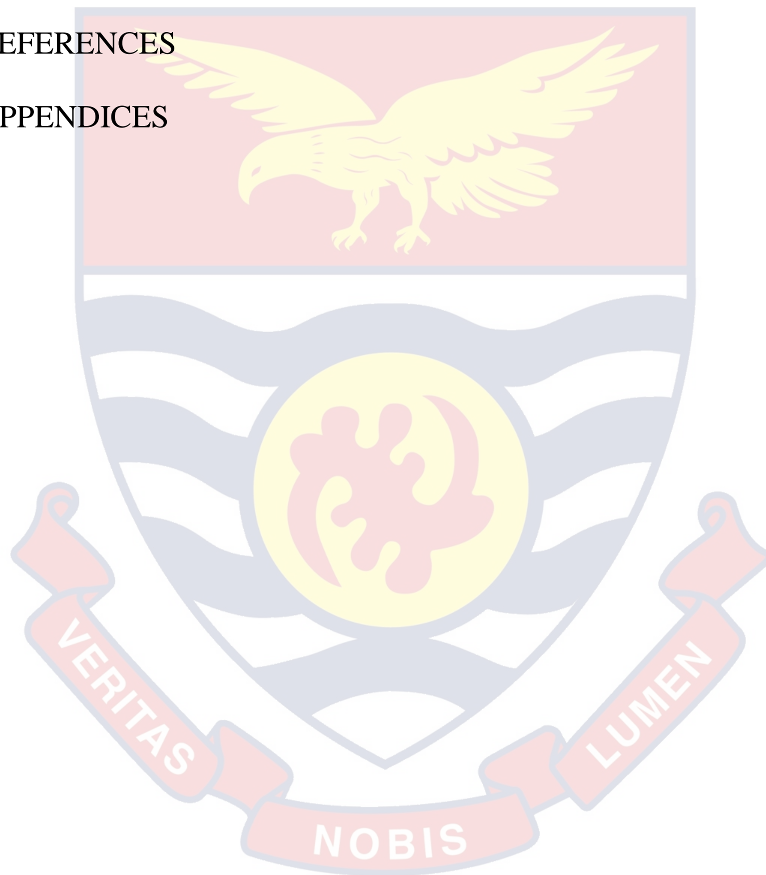

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LIST OF ACRONYMS

GLSS	Ghana Living Standard Survey
2SLS	Two Stage Least Squares
OLS	Ordinary Least Square
PCA	Principal Components Analysis

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CHAPTER ONE

INTRODUCTION

Introduction

Since independence in 1957, Ghana has adopted virtually universal welfare policy. However, in the 1970s and 1980s, economic crunch led to a rethink of those provisions. The discrepancies in wealth creation between rural and urban areas are also conspicuous. It is also evident that the distribution of natural resources is disproportionate across various regions of Ghana. These disparities are rooted in the poverty system in Ghana.

There are considerable anecdotal and structured reports that suggest the goal of social welfare policies is to counter social inequality resulting from social systems that marginalize sections of society.

This study presents the first evidence of financial inclusion, governance and household's social welfare in Ghana. Between 2016 and 2017, the most recent Ghana Living Standard Survey data (GLSS 7) compiled by the Ghana Statistical Service was used.

Background to the Study

Despite the designed financial policies and governance structures and the attempts to raise levels of income, alleviate poverty, close the gap in economic inequality and correct externalities and imperfections, the government of social welfare stays debatable and a huge issue in Ghana. The first of the UN Sustainability Development goals, targeting Sub-Saharan nations, attempts to eliminate poverty everywhere in all respects (Nilsson, 2017). It includes identifying the most disadvantaged and

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increasing the resources and services they need. Therefore, it is clear that the distribution of natural assets across different regions in Ghana is inequitable, being better represented by residents near the coast and in the southern rainforest belt than any of those farther from the coast and north of the Savannah.

These disparities are reflected in the framework of Ghana's deprivation, which affect families, children, women and communities disproportionately. Social welfare strategies are intended to combat the wealth inequality arising from societal structures that disenfranchise and undermine certain segments of the population (Wagstaff, 2002). Ghana followed a reasonably close massive welfare scheme such as the National Health Insurance Program (NHIS), Ghana School Feeding Plan (GSFP), Free Middle school, Livelihood Empowerment against Poverty (LEAP), but the economic downturn that took place in Ghana in the 1970s and 1980s led to a revision of these programs, which is now social welfare (Anlimachie, & Avoada, 2020).

According to the tenth of the post-2019 growth plan of the United Nations Sustainable Development goals (SDGs 10), in 2016, More than 64.4% of goods shipped to world markets by the least developed countries experienced zero tariffs, a jump of 20% since 2010 (Nilsson, 2017). Once again, data from developing economies indicates that children in the world's poorest sub-Saharan region represent about 20 % of the population, yet are up to 3 times more likely than children in the richest quintiles to die before their 5th birthday. Social security has been greatly increased internationally, according to them, and people with disabilities

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are up to 5 times more likely than normal to incur disastrous health spending. Ghana's tale is one of great success. In the last twenty (20) years, economic activity has also been exceptional. The country has now become the second-largest economy in the West African region, after Nigeria (Bosiakoh, & Tetteh, 2019). Even before the fifth round of the Ghana Living Standards Survey (GLSS5) in 2005, the Ghanaian economy profited from the supply of crude oil in commercial quantities and economic expansion in 2011 (14.0 per cent), a year which the country moved from low-income to become a lower-middle income economy. The average annual growth rate recorded for the periods 2005 to 2019 ranged from 3.7 per cent to 14.0 per cent, with the lowest growth rate recorded in 2016 and the highest in 2011, but 6.2% in 2019 (WDI, 2020). However, it remains to be seen whether this growth has benefitted all sections of society, including the poorest. If just a section of the population has all the resources, then whatever the rate of growth, social welfare will never be achieved through growth (Pearce, Markandya, & Barbier, 2013).

According to the Millennium Development Goal (SDGs one), Ghana was the first country in Sub-Saharan Africa to reduce poverty by half, and thus met the Millennium Development Goal one (Nilsson, 2017). Accordingly, in absolute terms, more Ghanaians are living in extreme poverty. Deep poverty remain in most rural areas and regions (Adjei, Agyemang, & Afriyie, 2012) but Rolleston (2011) found out that greater disparity were being noticed in the urban areas. The number of people living in extreme poverty increased from 2.2 million in 2013 to 2.4 million in 2017, and then 2.8 million in 2018 and 2.4 million in 2019 but

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rate of inequality for the period 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015 and 2016 ranged 40.7, 40.9, 41, 41.1, 41.2, 41.3, 41.5, 41.6, 41.7, 41.7 and 41.8 respectively, while growth rate recorded for same period were 6, 4, 9.3, 5.5, 7.9, 17.4, 9, 7.9, 2.9, 2.2, 3.4 and 4.5 respectively (WDI, 2020). A trend analysis showing inequalities and growth rates for the period 2005 to 2016, due to data availability

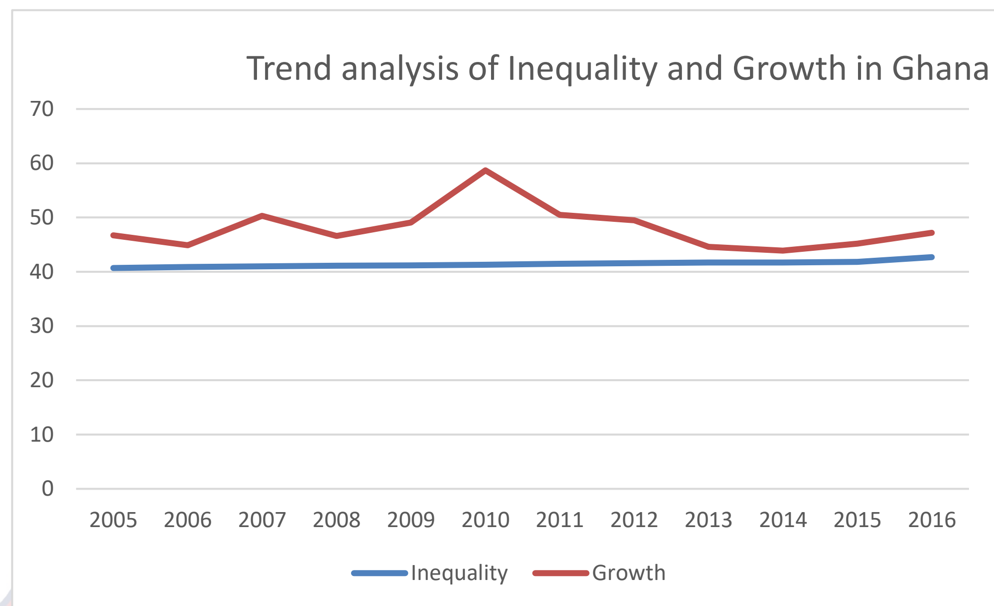

Figure 1: Trend analysis of inequality and growth in Ghana

Source: World development indicators, 2021

According to Kwon and Kim (2014), governance has been stressed by the international community as a means of attaining the millennium development goals (MDGs) and social welfare initiatives. This put a lot of emphasis on the role of governance when grappling with social welfare problems, an aspect that cannot be exempted. Khan (2008) referred to any framework of governance that places social welfare at the core of its policies as 'growth-enhancing governance. Unlike structural adjustment, which has seen governance as a suspect in the failure to reduce poverty, it is a general understanding that fostering sustainable economic

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development in developed countries determines the state of the system of governance (Kwon, & Kim, 2014). Governance offers mechanisms and systems which maintain accountability, responsiveness, rule of law, stability and transparency throughout the various institutions, and thus contribute to the social welfare of the citizens of the country.

Birdsall, Vaishnav and Ayres (2006) also assert that governance can turn out to have been inefficient or even counterproductive without a full understanding of the complex processes underlying social welfare. Their findings propel researchers to give attention to the connection that exist between governance and social welfare. Some emerging research has shown that governance appears to respond far more to the needs of very affluent populations. Eldersveld (2019) explains this menace by stating that there is almost no direct control on the average person over governance (the political system), which is governed instead by plutocrats.

According to Gabor and Brooks (2017), one of the reasons that impede social welfare is financial crisis and more importantly, financial exclusion. Since the global financial crisis, policy initiatives aimed at achieving financial inclusion, have gained momentum to ensure social welfare. Financial inclusion enables transfers and eliminates the asymmetry of data and thereby tends to make households affluent.

According to Ledgerwood, Earneand and Nelson (2013), In order to reduce poverty and encourage more inclusive economic development, financial inclusion plays a crucial role. This ensures that they can efficiently manage their cash flow and smooth erratic income when

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individuals have access to and are able to use financial services efficiently. They are more robust to shocks and can develop reserves to invest in company operations and fund life-cycle events (such as a marriage or purchase of houses).

Omojolaibi (2017) also establish that financial inclusion and open democratic practices are also seen as key components of development (a measure of social welfare) inclusive and sustained development. Sarma (2012) also affirm that policymakers widely understand the value of an inclusive financial system, since in many nations, financial inclusion is now seen as a policy priority. Nevertheless, Sarma (2012) maintains that building an inclusive financial system is a complex process. Omojolaibi (2017) also affirms that though financial inclusion and governance has always been a subject on the sustainable development goal policy agenda, economic discourse on the nexus between financial inclusion and governance, particularly in developing economies, remains in its embryo.

In 2007, the Secretary-General of the United Nations and the representatives of several multilateral institutions announced that Africa was in danger of failing to reach the MDGs by 2015. Chibba (2009) provided an answer to this menace by stating that the 'Traditional' policy solutions to address poverty and inequality, such as those outlined in 'How to Tackle Poverty', which focus on: a mix of aid, advice, sound institutions, sensible macro-economic policies and evidence-based policies are necessary but not comprehensive, however, financial inclusion makes it sufficient.

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Social welfare is very crucial to reduce poverty among the people in society in order to enjoy their inherent rights with the assistance of social welfare services, especially the less fortunate ones. On the other hand, social welfare is important in many respects, but sadly, not all individuals are aware of it. Within the scope of global literature, this study depart from the extant literature, which often models the growth impact of finance and finance impact of governance, by simultaneously studying the effect of financial inclusion and governance on social welfare. This will tell whether such policy variables can be appropriated to address the developmental disparity and the rural-urban wealth gap.

Statement of the Problem

In Ghana, many households' quest to become financially included remains a mirage across both urban and rural areas. The problem is more pronounced in the rural areas compared to the urban centres as many rural household are glued to the traditional way of sourcing and keeping their financial resources. The main hindrance to have many households financially included stems from the lack of capacity of the financial sector to adequately integrate many household members into their operations due to limited resource base. Moreover, the financial market is hinged on stringent rules and regulations that govern its operations. Many households also lack credit worthiness as household members need to show their worthiness prior to being included in the financial market via unique formulated credit schemes (Quaye, 2015; Akudugu, Egyir, & Mensah-Bonsu, 2009). These challenges have forced many households to be isolated from benefiting from the financial services having dire

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consequences on households' social welfare level. This has contributed to a widening of the inequality gap between financially included households and financially excluded households as well as perpetuating a vicious cycle of poverty among Ghanaian households.

Social welfare is faced with a problem of unpaid grants to the Social Welfare Agency. This is because most of the NGOs have stopped providing funds due to lack of proper documentation that would ensure compliance. Some of the social welfare programs have some challenges, for instance; Livelihood Empowerment Against Poverty (LEAP) imposes a variety of requirements on the beneficiaries, such as enrolling their children in school, but there is no supervision over how the money is used, and as a result, LEAP has been chastised. Also, cooperation is weak because of the financial constraints of the Ministry of Manpower, Youth and Employment (MMYE). Social welfare in Ghana is sick and therefore needs to be healed (Dixon, 2016).

Financial inclusion elements are guided by national governance structures, each of which may have different effects (Kemal, 2019). This has drawn the attention of those in both policy and academic circles to the possible role the quality of a country's governance plays in the financial inclusion process to affect household's social welfare level. However, there are gaps in understanding as to whether and the extent to which governance in Ghana can enhance the effectiveness of financial inclusion in improving household's social welfare level.

Existing research on financial inclusion, governance and social welfare have investigated the independent effect of either financial

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inclusion or governance on social welfare in varied context (Shetty, 2008; Ledgerwood, Earneand, & Nelson, 2013). In some developing economies, Honohan (2007) and Beck, Levine and Levkov (2007) document the relationship between financial institution and social welfare. Tita and Aziakpono (2017) studied the effect of financial inclusion on social welfare in sub-Saharan Africa. Moreover, Omojolaibi (2017) investigates into the relationship between financial inclusion and governance.

Whiles these studies contribute to knowledge, they leave out key dimensions of financial inclusion. First, they fail to pay attention to how governance moderates the effect of financial inclusion on social welfare. Second, in order to properly guide policy-making and effective financial inclusion process to improve household's social welfare level, it is worthwhile to find the effect of financial inclusion and governance structure in country-specific, such as Ghana. Third, El-Zoghbi, Holle and Soursourian (2019) suggest that having more households that enjoy financial services is necessary but insufficient condition for improved social welfare. .

This study presents the first evidence of effect of financial inclusion and governance on household's social welfare, as well as to examine how governance moderates the effect of financial inclusion on household's social welfare in Ghana, using the most recent Ghana Living Standard Survey data (GLSS 7) compiled by the Ghana Statistical Service between 2016 and 2017.

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Purpose of the Study

The main aim of the study is to investigate the possible impact of financial inclusion and governance on household's social welfare level in Ghana.

Research Objectives

1. To ascertain the effect of financial inclusion (account ownership, access to credit, insurance, ATM, E-zwitch and E-banking) on household's social welfare in Ghana.
2. To determine the effect of governance (government effectiveness, rule of law, control of corruption, voice and accountability, political stability and regulatory quality) on household's social welfare in Ghana.
3. To examine how governance moderates the effect of financial inclusion on household's social welfare in Ghana.

Research Hypotheses

The study tests the following hypotheses.

1. H_0: financial inclusion has no significant effect on household's social welfare in Ghana.

   H_1: financial inclusion has a significant effect on household's social welfare in Ghana.

2. H_0: governance has no significant effect on household's social welfare in Ghana.

   H_1: governance has a significant effect on household's social welfare in Ghana.

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3. H_0: governance does not moderate the effect of financial inclusion on household's social welfare in Ghana.

   H_1: governance moderates the effect of financial inclusion on household's social welfare in Ghana.

Significance of the Study

In order to alleviate poverty, social welfare is created and planned to support individuals, especially the poor. The study will also inform the government to ensure that social welfare programs and policies benefit the right segments of the population.

It will also direct and serve as a yardstick (policy input) throughout the formulation and implementation of rightful social welfare policies

It will also contribute to literature by serving as a reference point of knowledge.

Limitations of the study

The study cannot capture several waves of GLSS survey data over the years to generate a trend analysis.

Delimitations of the Study

This study examines the effect of financial inclusion and governance on household's social welfare in Ghana. The study is a quantitative research and as such employs explanatory design. The data for this study will be cross sectional data, generated from seventh round of Ghana living standard survey (GLSS 7). The study will adopt the Ordinary Least-Squares (OLS) and the Two stage Least Squares (2SLS) estimation techniques.

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Organisation of the Study

The whole research is broken down into five parts. Chapter one, which is the introductory chapter, presents a background to the study, statement of the problem, purpose of the study, hypotheses, significance and scope of the study as well as the organization of the study. Chapter two present the literature review of financial inclusion, governance and social welfare in Ghana. Research methods are discussed in chapter three. Results and discussion is espoused in chapter four. Chapter five finally present the summary, conclusions and recommendations.

Chapter Summary

In conclusion, this chapter is basically the introduction of the study. Specifically, the study considered the background of the study, statement of the problem, purpose of the study, and significance of the study, scope and delimitation of the study as well as the organisation of the study. The hypotheses of the study are: Financial inclusion has a significant effect on household's social welfare in Ghana; Governance has a significant effect on household's social welfare in Ghana; Governance moderates the effect of financial inclusion on household's social welfare in Ghana.

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CHAPTER TWO

LITERATURE REVIEW

Introduction

A compilation of related literature on determinants of social welfare is discussed in this section. It focuses on theoretical issues and empirical literature that explain social welfare.

Definitional Issues of Social Welfare

By and large, there is no universally acceptable definition for social welfare, despite the fact that its exercises have been recognised for periods going back to the late 1960s. Rauniyar and Kanbur (2010) define social welfare based on a conceptualisation of progressiveness by raising equality in the distribution of income. Fanti (2016) defines social welfare as the availability of minimum level of well-being and public care, also referred to as global assistance, for people without current means of supporting basic needs. Welfare is primarily funded by the government from tax revenues in many other developed countries and, to a lesser degree, by charities, voluntary social organisations, religious groups and international bodies. These definitions mentioned above justify the fact that there is no standard definition for social welfare. This research, however, defines social welfare as an on-going attempt and a systematic set of programs designed to assist the population in different stages of their lives in order to ensure the well-being of a nation's citizens.

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Theoretical Literature on Social Welfare

Institutional Theory is the main theory; however, Social Opportunity Function, Redistributive Democracy and Inclusive Financial Regulation also emerged in the course of each objective discussed.

Institutional Theory

Fundamentally, institutional theory describes a more comprehensive understanding of how social welfare can be achieved via changes in institutional settings. Within the context of this study, institutional theory posits the need for more resilient and proper structures in place to facilitate the process of financial inclusion. More especially, this theory indicates how the growth and development of financial innovative processes are influenced by institutional changes. A significant emphasis is placed on the type and nature of financial inclusion products and the architectural framework that provides information for financial institutions especially their mandate to bring out financial product to promote financial inclusion.

Boot and Thakor (1997) proposes a model which shows how varied institutional structures promote diverse financial products. According to Schumpeter (1934), production of such financial products (microloans, micro insurance, money transfer- mobile money products, and micro pensions and savings products) require highly innovative activities from intensive investment in research and development. According to Schumpeter (1934), this situation can create monopolistic conditions due to huge financial obligations associated with intensive research into financial innovation hence the need to have proper

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governance structure. Within the financial space, proper governance measures can be enforced by the regulator (central bank) in any economy (Lerner, 2006). Hence, when there exists an effective regulator that ensures proper governance measures within the financial space then existing financial institutions cannot abuse mandate given them. These governance measures are defined by the financial regulator to ensure a relatively stable financial market with less risk. Any financial institution that breaches the financial regulations is punished according to the rules and regulations stipulated in the financial regulations Acts.

When financial institutions have the ability to develop diverse financial innovative products coupled with proper governance structures (financial regulations), social welfare will improve in the country. In this discussion, improved social welfare indicates an enhancement in the standard of living of the citizenry resulting from developed financial inclusion products and proper governance structures.

Empirical Review

This section provides a review of literature on the link and the relationship based on the following three thematic: financial inclusion and social welfare; governance and social welfare and financial inclusion and governance on social welfare.

Financial Inclusion and Social Welfare

Well-developed financial systems have not been successful in becoming 'all-inclusive' and some segments of the society remain even outside official financial institutions. (Sarma, 2016). Policymakers generally appreciate the necessity of an inclusive financial system, since

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financial inclusion is seen in many economies as a veritable tool. In the literature, financial inclusion (alternatively, financial exclusion) is described in the scope of a broader social inclusion (or exclusion) problem in society. Sarma (2008) defines financial inclusion as a mechanism that guarantees that all members of the community have ease of access, availability and use of the formal financial institutions. According to Kumar (2017), financial inclusion means the capability to obtain, in an acceptable form, the requisite financial services. Therefore, most definitions suggest that financial exclusion represents a much wider social exclusion problem among some marginalized classes, including the financially deprived.

Nevertheless, for the purpose of this thesis, Financial inclusion is characterized as systems and processes that guarantee access to useful and affordable financial services and products for people and enterprises that serve their interests and are provided in a safe and sound manner.

The link between financial inclusion and social welfare is embedded within the social opportunity function, which postulates that in order to enhance the welfare enjoyed by the poor, there must be increasing average opportunities available to the population and the distribution of these opportunities equitably among the population (Ali, & Son, 2007). Equitable access to economic opportunities such as access to financial services is essentially a precondition for achieving social welfare (Patrick, 1966; Kumar, 2004).

The social opportunity function assigns higher significance to the opportunities enjoyed by the disadvantaged in this perspective: The poorer

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an individual is, the higher the weight. Such a form of weighting means that the possibilities produced for the poor are more relevant than those created for the non-poor. Therefore, if the increased opportunity generated benefits the poor without aggravating the non-poor segment, the role of social opportunity increases, and thus social welfare. According to Agyei (2016), economic inequality and poverty, the conduits for social welfare, have worsened the social welfare condition of the citizens of Sub Saharan Africa. Since inequality and poverty are major impediment to social welfare and have gained high recognition in Sub Saharan regions (Steinbrink, & Niedenführ, 2020; Ouyang, Shimeles, & Thorbecke, 2019), it has become prudent for researchers and policy makers to design structures and processes so that policy variables can be harnessed to bridge the developmental gap and the rural-urban poverty gap in order to bring social welfare to success (Boone, 2019).

Asongu and Odhiambo (2020) study finance, governance and social welfare (inclusive education) in 42 countries in Sub-Saharan Africa with data spanning the period 2004 to 2014, by employing generalized method of moments. The study finds positive relationship between finance and social welfare (using inclusive education as proxy for social welfare). Several studies conducted on the impact of financial inclusion on consumption (social welfare) finds that financial inclusion increases consumption (Ashraf, Karlan, &Yin, 2010; Dermirguc-Kunt, Klapper, & Randall, 2013; World Bank 2014; Mallick, & Zhang, 2019).

Also, by using consumption as proxy for social welfare, Mwangi and Atieno (2018) find a positive association between financial inclusion

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and social welfare. According to Mwangi and Atieno (2018), financial inclusion is statistically significant in enhancing social welfare and therefore recommends reduction in transaction cost through improvement in the range of formal financial products to increase competition in the financial markets. According to Mwangi and Atieno (2018), account, credit and insurance each has a positive relationship with social welfare. Thus, those who have account with the banks, insurance policy and are able to access loan from their financial institutions have higher social welfare as compared to the financially excluded population in Kenya (Mwangi, & Atieno, 2018). By employing the panel data approach to analyse the effects of financial inclusion on household consumption (proxy for social welfare) and controlling for the endogeneity of the financial inclusion itself, Seck, Naiya and Muhammad (2017) conclude that access to finance has a positive impact on households' consumption.

Karlan and Zinman (2009) also finds the effect of increasing credit access (financial inclusion) in South Africa. The study finds that unfolding access to credit significantly increased consumption. In a study of the effect of financial inclusion on welfare in sub-Saharan Africa: Evidence from disaggregated data in the sub-Saharan Africa, Tita and Aziakpono (2017) find a positive relationship between account and social welfare. Accordingly, having a formal account does not automatically result in access to loan (Tita, & Aziakpono, 2017). According Tita and Aziakpono (2017), access to loan has a negative relationship with social welfare in the long run but positively related to welfare in the short run. Thus entrepreneurs who have access to loan experience early boost in

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welfare. Furthermore, credit helps poor to smoothen their consumption patterns in times of lean periods of the year (Diagne, & Zeller, 2001).

Mehrotra and Yetman (2015) explored 130 countries and find that in countries whose financial inclusion is high, total consumption variability is lower, particularly for account ownership and savings at a bank. Banerjee, Duflo, Glennerster and Kinnan (2015), using randomized evaluation, the study reveal no results of increase in household consumption. Similarly, the study also does not find any significant increase in health and also in education. Chiapa, Prina and Parker (2016) also find positive and significant effects of financial inclusion on education. The result of the research conducted by Setyari (2012) also establishes positive impact of financial inclusion on the level of household social welfare (in Indonesia in terms of household consumption, and expenditure). Atkinson and Messy (2013) also find positive and significant impact of financial inclusion on education. However, Setyari (2012) find no significant impact of financial inclusion (microcredit) on education.

The study on 'Impact of Financial Inclusion on Health by employing instrumental variable method' by Ajefu, Demir and Haghpanahan (2020) also assert that financial inclusion has a strong positive association with health. The study's outcome endorses increasing proof of the advantages of financial inclusion for avoiding symptoms of depression. Nevertheless, the study in the Lagos state, Nigeria on 'Influence of financial inclusion and social inclusion on the performance of women-owned businesses' shows that financial inclusion affect to

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social inclusion. Lederle (2009) also find a positive association between financial inclusion and social inclusion.

However, Okereke (2011) conducts a research that aim to find out the impact of financial inclusion on aggregate social welfare in Nigeria. The result of the study finds that financial inclusion has no significant effect on aggregate welfare. Also, Csáki, et al. (2013) find the positive impact of electronic banking on social welfare delivery, because e-banking tends to facilitate banking transaction other than cash or cheque. Millard and Willison (2006) also conclude that e-banking has positive impact on social welfare depending on the trade-offs it create within the system. Larbi (2012) also finds that e-zwich has a negative impact on social inclusion. Mullineux (2010) also admit that cheque usage has phased out and for that matter, it does no longer yield positive impact on social welfare. In a model where banks compete for ATM and banking services, Chioveanu, Faulí-Oller, Sandonis and Santamaria (2007) analyze the effects of ATM on deployment and welfare. The study finds a positive impact of ATM on social welfare.

Sarma and Pais (2011) argue that not just or mere financial institutions but a healthy financial institution has a significant impact on financial inclusion. The comparative study of financial inclusion in 31 Sub-Saharan African countries by employing data from the global Findex database, Asuming, Osei-Agyei and Mohammed (2019) conclude that financial institution is a predictor of financial inclusion. Nevertheless, the exploratory study on the "Effects of Cashless Economy Policy on

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Financial Inclusion" by Bayero (2015) concludes that financial institutions do not have any relationship with financial inclusion in Nigeria.

In Ghana, for example, financial intermediation in rural Areas has been at a very minimal concentration compared with the urban scenario. The absence of institutional credit undoubtedly creates a huge problem for rural dwellers. There is no question that the absence of institutional credit creates a serious challenge for rural dwellers. (Gledhill, 2019). Although over the past decade, the few existing rural and community banking companies in Ghana provides affordable financial services to the rural population, there are no empirical studies assessing the relationship as well as the effects a of such an inclusion on the social welfare of the household population in Ghana.

Governance and Social Welfare

The majority of the world's system of governance recognizes social welfare as an important drive to community development along with all other public services such as health, education and social protection (Hulme, & Shepherd, 2003). Fukuyama (2013) conceptualizes governance as government's ability or bureaucratic capabilities to make and enforce rules and to deliver services. Governance does not simply adhere to government, including a range of diverse public actors and private firms. For post-foundationalist, it becomes difficult to put bounds on governance, and thus, "Governance becomes everything" (Torfing, 2012).

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This study, however, defines governance as systems and processes aimed at ensuring accountability, openness and responsiveness, the rule of law, stability, inclusiveness, empowerment and strong engagement.

Good governance Strategy became critical for alleviating poverty after the collapse of structural adjustment policies pursued by the IMF and World Bank in the 1980s and 1990s. (Bracking, 2018). The governance agenda is a collection of items that have to be done to reduce poverty and injustice in developing countries. The question as to what plausible mechanism connects governance to ensure the welfare of the less privileged in society? The theory of redistributive democracy suggests that the priorities of the wealthy and the poor vary in redistribution and allocation results and that wealth must be distributed using tax and social policies from high income groups to lower income groups. (Downs, 1957). According to Downs (1957), Government redistribution is largely an oppressive and extractive approach. In a capitalist democratic state, political parties fight for the votes of the affluent and non-poor by promising to extract the wealth from others and channel them to use by the less fortunate, in order to establish social welfare (Downs, 1957).

Downs (1957) argues on several premises. First, authoritarian leaders need the support of the elites and therefore favour their interests in order to stay in power, which makes them less concerned with the well-being of the poor. Second, democracies are vote-based, unlike authoritarian governments, which mean that they require a majority in parliament to assume power. Therefore, in democracies, ruling parties approach the marginal electorate with incomes below the average income

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and press for further reallocation. This should induce political parties to implement more redistributive policies that aim to narrow the gap between the median and mean income (Moene, & Wallerstein, 2001). The rich are taxed more and redistributed among the less privileged in the society. As a result of such redistributive policies, the expectation is that democracies will reduce inequality and therefore promote social welfare.

Empirically, by employing health, education, social inclusion and consumption as proxy for social welfare, Wong (2008) examines 'the lessons for governance and social policy in Hong Kong' and finds that governance affect social welfare positively. The health, education and shelter (housing) are so crucial and basic to living, hence every system of governance who wish to enhance social welfare for their citizens put much weight as well as in some other social policies. Evers (2005) also finds improvement in the social welfare in hybrid organization in terms of changes that occurred in their system of governance. Assessing government effectiveness by using country-level data from 17 sub-Saharan countries sampled in 2005, Sacks and Levi (2010) admit that increase in governance index improves citizen's social welfare. The study also establishes that increase in components of governance such as rule of law and control of corruption each, lead to increase in both consumption and education.

Although Daly (2003) argue that governance does not always improve social welfare positively through social policies and public goods; Khan, Hildingsson and Garting (2020) also observe positive and significant effect of governance on social welfare, as well as signs of

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sustainability, even though ecological challenges have negative impact on equality and social welfare. The study is motivated by the fact that social welfare policies are never kept lasting.

Moreover, Asongu and Odhiambo (2020) study finance, governance and social welfare (inclusive education) in 42 countries in Sub-Saharan Africa with data spanning the period 2004 to 2014, by employing generalized method of moments (GMM). The study finds that political stability; rule of law and government effectiveness each has positive effect on social welfare. The study emphasizes that regardless of how positive and favourable levels of governance are, political stability is very necessary for economic progress because it establishes enabling environment on which other developmental dynamics build upon. With regards to government effectiveness, the importance of governance is conceptually understood as the provision of those public commodities such as health, education, social amenities that is tailored to provide same opportunities for all citizens. On the side of rule of law, the findings further reveal that the relevance of respecting the institutions that govern the interaction of all citizens, especially in relation to designed policies. Ogunniyi, Mavrotas, Olagunju, Fadare and Adedoyin (2020) employ a panel data covering 15 sub Saharan Africa countries from 1996 to 2015 to investigate the growth effects of remittances and quality of governance on food and nutrition (social welfare). The study reveals that control of corruption, government effectiveness, political stability and rule of law each, contribute positive and significantly towards food or consumption. Also, Fazli and Amanihamedani (2019) also investigate how governance

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can increase social welfare in a network of markets and firms. The study affirms positive relationship between governance and social welfare, as well as the important role played by the structure of the network established by them. However, in the study of 'governance and social policy' Daly (2003) finds a negative association between governance and social welfare in UK.

Keho (2019) studies the impact of governance on household consumption from selected countries by using Common Correlated Effect Mean Group (CCEMG) estimator. The panel study indicates that governance has negative effect on household consumption, which implied that governance and household consumption are substitutes. Also, Kwan (2006) asserts that on the average governance structure and consumption have negative relationship in East Asia. Khan, Chen and Ashraf (2015) study the impact of governance consumption, a case study in China, with Autoregressive Distributed Lag (ARDL) approach to estimate the long and short run effects of the model using annual data from 1985 to 2013. The results of the study reveal that governance has positive impact on private consumption. Several studies find that building a good governance structure and consumption levels are positively related (Fatas, & Mihov, 2001; Heppke-Falk, Tenhofen, & Wolff, 2006; Hendrickson, & Wittman, 2010). The findings according to Gerged and Elheddad (2020), in a study of "How can national governance affect education qualities in Western Europe?", suggest a significant and positive relationship between national governance and education quality in Western.

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Social status or inclusion refers to the connections and the relationship individuals build for themselves within a society in which they live or in their organizations they find themselves. Literature on governance seems limited; however, Subrahmanyam (2008) finds positive relationship between Social status and corporate governance.

Governance is indispensable in enhancing health sector performance and achieving general Health Coverage in every society. However, knowledge on the need for good governance intervention to improve the health of the citizens in Ghana is limited. According to Kickbusch and Gleicher (2011), governance for health is defined as an effort by the government and other social actors to guide societies or the entire country in pursuit of health as integral to social welfare. According to Kickbusch and Gleicher (2012), health of members of society constitutes the key features of successful governance. Kickbusch and Gleicher (2012) admit that governance has a positive effect on health. Accordingly, to harness health and social welfare of the society, the governance structures and processes must perform together and expedite the process of removing imbalances and inequalities. The study conducted for the WHO Regional Office for Europe by Kickbusch and Behrendt (2013) reports the positive relationship between governance structures and health for improving the social welfare of people.

Kirigia and Kirigia (2011) also admit that Governance in health development plays an integral part in achieving the Millennium Development Goals (MDGs) as well as some other national health goals. Moreover, De and Stephenson (2007) find a negative relationship between

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regulatory quality and social welfare in a study 'Regulatory quality under imperfect oversight' but also argued that the relationship is dependent on certain conditions. However, Bidaishiyeva et al. (2018) finds a positive relationship between legal regulation and social welfare. This implies that when regulatory quality increases, social welfare of the citizens of Kazakhstan also improves.

Holland, Thirkell, Trepanier and Earle (2009) also find a positive relationship between voice and accountability and social welfare. Srinivasan, et al. (2013) also finds that increase in voice and accountability increases social welfare. Saengchai, Mitprasat and Horakul (2020) attempts to investigate the effect of Civil Liberties, Regulatory Quality, Voice and Accountability along with Literacy rate and Population growth on social welfare (by using quality of education as proxy for social welfare). The study uses the panel data that has been collected over the period of 28 years for 9 Asian countries from World Bank and Global Economy data base, using the system GMM approach. The results reveal that civil liberty, regulatory quality, literacy rate and population growth each, has significant impact on the quality of education in Asian Countries. Nevertheless, by using GDP as a proxy for social welfare, Welsch (2008) finds that increase in the control of corruption increases social welfare.

The result of the study by Gutteling, Hanssen, Van and Seydel (2006) concludes that public trust has a positive association with governance. This implies that increase in public trust tends to improve

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governance. Jittaruttha (2017) also finds positive relationship between public trust and governance in Thailand.

Moderating Effect of Governance on the effect of Financial Inclusion, on Social Welfare

A broad view of the economics and politics examines how the financial sector fits into the overall governance and economic framework. It explores how people and groups struggle for control by engaging in activities that ensure their existence. (Whitfield, & Therkildsen, 2011).

Financial inclusion has reached the top of the global development agenda and is being discussed by a rising academic community, in particular because of the belief that poverty and inequality can be reduced (Kendall et al., 2010). This is attributable to the fact that global access to finance is grossly uneven: while in developed countries between 10 and 20% of the population is estimated to be unbanked, about 60 to 70% of adults do not even have access to (formal) financial products in emerging economies, according to recent reports (Chaia et al., 2009; Kendall et al., 2010). Extreme risk and success by financial institutions could be influenced by how sound governance is in terms of good economic management and better practices by the board of directors. This is vital because bank governance influences economic growth and has significant social consequences, especially among the less privileged. Regulatory authorities and central banks emphasize the need for successful financial system and governance practices because bank governance deficiencies and vulnerabilities lead to the creation of financial crises (Kirkpatrick, 2009).

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More so, Asongu and Odhiambo (2020) assess relevance of finance, governance and inclusive education using 42 countries in Sub-Saharan Africa with data spanning the period 2004-2014.The Generalized Method of Moments is used as the estimation technique. The study finds that finance (access to credit) moderate governance (government effectiveness and rule of law) to positively affect education (primary and secondary education). Also finance (access to credit) moderates governance (political stability and the rule of law) to influence education (secondary education). Nevertheless, the result reveals positive impact of the combined effect of finance and governance on education.

Theoretically, inclusive financial regulation points out that in addition to experts, all other affected social groups must be involved in the discussion of the ends and means of financial regulation, and shape public policies through deliberative processes (Habermas, 1996). Inclusive financial regulation allows politicians and different social groups to set the tone for financial regulation and “channel the use of administrative power in specific directions” (Habermas, 1998). Inclusive banking regulation does not only focus on the means, but also allows the ends of financial regulation to be addressed in a democratic will-forming method. Such a law requires different social classes to engage in deliberation (Fishkin, 2009), about “what finance could and should do in economy and society” (Froud, Moran, Nilsson, & Williams, 2010). According to Marti and Scherer (2016), the value of inclusive financial regulation is that it helps to explain what social welfare means in the sense of financial regulation; thus, by trying to bridge the gap between the less

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fortunate and the advantaged, the goal of financial regulation should be to improve the established order of society. Allen, Berg, Lane and Potts (2017) offer proof of national features affecting financial inclusion. More financial inclusion is brought about by high quality institutions, effective legal laws, good contract regulation and political stability. According to Raman (2012), in promoting financial inclusion for economic development, the Indian Reserve Bank (RBI) and the government play a pivotal role in increasing bank penetration, installing new ATMs and introducing various approaches in the country. Variations in the state's ties with private capital are also clearly expressed in the financial sector's form and composition against the essence of the reform of the financial sector and its effects, reproducing the structures of the political economy, and also reducing the effect of banking reforms (Boone, 2005). Therefore, shifts in organizations and the power of those entities affect the setting of policies and regulations. Even if rules of 'best practice' are put in place, their enforcement may be affected by political powers, for instance by internal pressure on legislative forbearance (Johnson, & Williams, 2016).

Control Variables and Social Welfare

According to Deyshappriya and Minuwanthi (2020), age has and non-linear relationship with social welfare. Initially, as the age of the household head increases, social welfare also increase, reaches maximum, beyond which social welfare decrease, subject to the decrease in age.

Deeks, Lombard, Michelmore and Teede (2009) also find that age is positively associated with health. This implies that increase in age is related to increase in health. The study reveals that more future health is

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perceived as a priority in as much as people aged. Accordingly, Deeks, Lombard, Michelmore and Teede (2009) women is perceived to seeking for health attention more than men.

Nevertheless, Demirguc-Kunt (2013) find a negative association between female and same time the head of household and social welfare. Household size on the other hand, has a non-linear relationship with social welfare depending on the size of the household. According to Ellen and Flaherty (2007), small size household tends to enjoy lower share of social welfare whereas large household size enjoy more social welfare. However, Ahlheim and Schneider (2013) find that size of the household is negatively associated with educational level (social welfare).

Sovacool, Kester, Noel and Rubens (2018) also assert that household size has a negative association with education. Thus, the larger the family size, the lower the lower the level of education. There is also empirical evidence that upgrading the educational level of household, tends to increase their employment opportunity (Kilpi-Jakonen, Vilhena, Kosyakova, Stenberg, & Blossfeld, 2012). Also, Halliday and Park (2009) find a negative correlation between household size and medical health care of people. According to Liu, Daily, Ehrlich and Luck (2003), household size has an inverse relationship with per capital resource consumption.

Residence (urban) has a positive relationship with social welfare since those in the urban areas are exposed to infrastructures and amenities more than those in the rural areas (McCullouch, & Calandrino, 2003; Bidani, & Richter, 2001; Dang, & Raghbendra, 2009 Huang, & Zhang,

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2020). Moreover, Zaman (2004) finds a positive relationship between the married and social welfare. This implies that the married have high social welfare than the unmarried (Zaman, 2004). The study according to Larson and Plessman (2002) also assert that employment has a negative relationship with social welfare. This implies that the employed experienced decrease in social welfare, as compared to the underemployed or unemployed. This is because the employed experiences more or almost all the relation's pressure, since he or she is employed and has control over his or her financial demands. Thus the dependency ratio experienced by the employed is much higher than that of the underemployed. On the contrary, McCullouch and Calandrino (2003) find a positive relationship between the employed and social welfare. This implies that the employed has an increased social welfare than the underemployed (McCullouch, & Calandrino, 2003).

Synthesis of the Literature and the Existing Gap

This current empirical analysis, being new and first of its kind to be conducted in Ghana, uses data about Ghana and therefore provides new insights that emerge from more rigorous procedure than previous research has found.

From the empirical discussions, studies have considered a unidimensional approach to the measure of financial inclusion (Annim & Alnaa, 2013; Khalily, & Khaleque, 2013). This thesis fills the gap by considering a multidimensional measure of financial inclusion (account ownership, access to credit, insurance holders, ATM, E-zwich, checkbook and E-banking).

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In comparison to earlier studies that paid attention to only one aspect of governance, the six dimensions of governance according to the World Bank will be taken into account in this thesis, namely political stability, voice and transparency, the rule of law, corruption prevention, the effectiveness of the government and the quality of social welfare regulations. Again, because of the associated critics among previous studies, which used growth or inclusive growth (GDP) as proxy for social welfare, (such as Welsch, 2008), this present study uses the compositions of social welfare according world bank, thus consumption, education, social inclusion and health.

Furthermore, from the empirical papers discussed, it is clear that financial inclusion needs greater attention in terms of conceptualization and measurement. Researchers studied the individual effects of financial inclusion and governance on household demographic characteristics but largely ignored the collective impact, much less on social welfare. To fill these gaps, the current study distinct itself by examining the effect of financial inclusion and governance on social welfare in Ghana.

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Conceptual Framework

This study builds on an adapted model from the Lerner (2006) analytical framework, which is a build-up on the works of (Boot & Thakor, 1997; Schumpeter, 1934), to depict the relationships to be tested. Social welfare components include consumption, health, education and social status or inclusion. Financial inclusion constitutes account ownership, access to credit, insurance holders, ATM, E-zwich, checkbook and E-banking, whilst governance include political stability, voice and accountability, rule of law, control of corruption, government effectiveness and regulatory quality. The study tests for the effect of financial inclusion index and governance index on social welfare index; the effect of the various components of financial inclusion and that of governance components of social welfare index, the moderating effect of governance index on the effect of financial inclusion index and then the moderating effect of governance index on the effect of financial inclusion index on social welfare in Ghana. The objective of the framework is to fill the gap created in the literature among financial inclusion, governance and social welfare. Below is a conceptual framework for the study.

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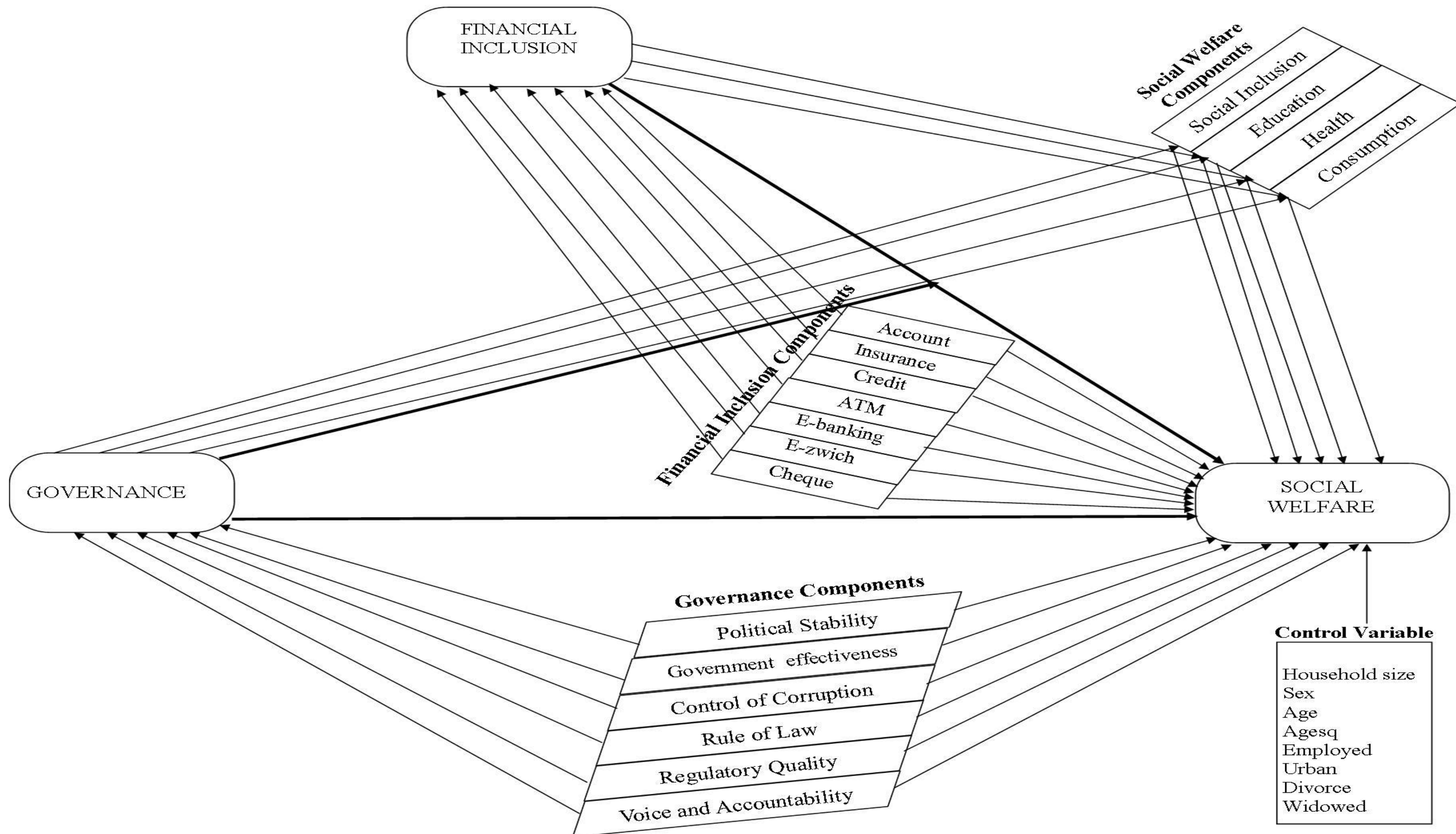
Conceptual Framework



Source: Author's construct, 2021

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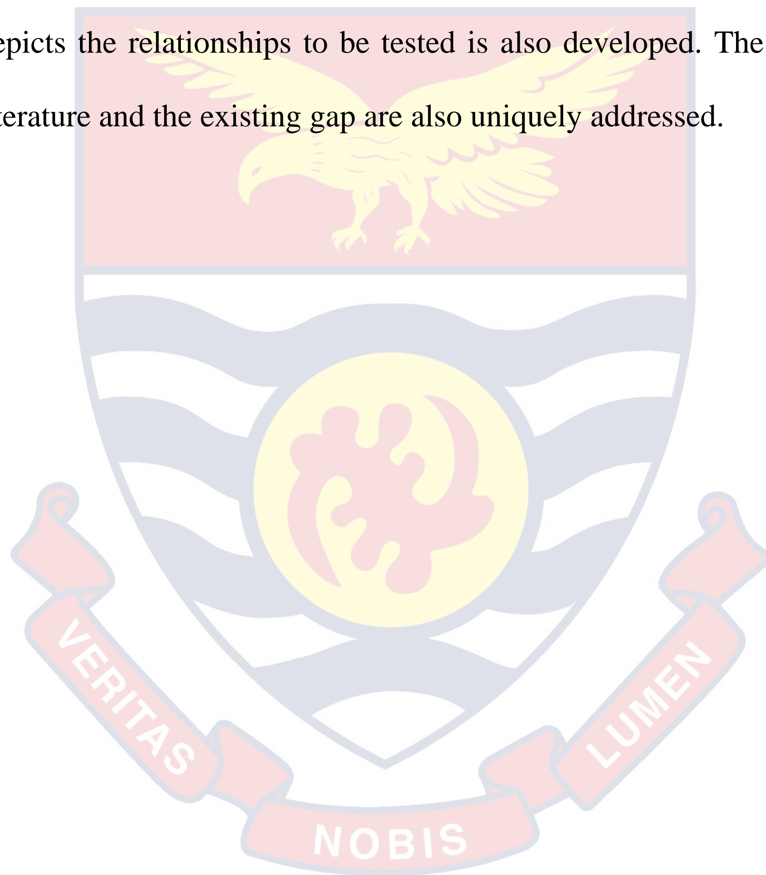
Chapter Summary

In conclusion, the theoretical literature shows the transmission mechanism among financial inclusion, governance and social welfare. In particular, institutional theory, social opportunity function, redistributive democracy and inclusive financial regulation theoretical perspective. The empirical literature detailing the various indicators as far as the variables to the study are concerned, have been discussed. The conceptual framework which depicts the relationships to be tested is also developed. The syntheses of the literature and the existing gap are also uniquely addressed.



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CHAPTER THREE

RESEARCH METHODS

Introduction

The study examines the effect of financial inclusion and governance on household social welfare in Ghana. This chapter present the methods used in testing for the hypotheses of the study. The chapter present the research design, theoretical model Specification, the empirical model for testing the hypotheses, data source, and description of the variables and finally how the post estimation techniques are conducted.

Research Approach,

According to Morrow (2005), research approach is a strategy and technique that includes everything from general assumptions to particular data collecting, analysis, and interpretation procedures. It is, therefore, determined by the research problem being addressed. Due to the purpose of the study, the study adopts quantitative approach. Quantitative methods are objective, deductive, and focused on analytical quantification and outcomes generalization. Quantitative approaches are used to test a theory's predefined concepts, components, and assumptions.

The unique nature of quantitative research methods is that they are objective.

Research Design

Creswell and Creswell (2017) define research design as the type of inquiry within qualitative, quantitative, and mixed methods approach that provides specific direction for procedures in a research study. Trochim and Donnelly (2001) also posit that research design shows the entire research

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process; from conceptualizing a problem to the literature review, research questions, methods, and conclusion. Nevertheless, given the objectives of this study, explanatory research is adopted. The explanatory research design helps in explaining the cause for a particular phenomenon, which requires that the relationship between different variables is studied.

Research Philosophy

In addition, the type of philosophy that underpins the study is positivism. Such a position guarantees that the researchers' beliefs and prejudices do not influence the analysis and do not challenge its validity (Eberhardt, & Teal, 2011).

Source, Description, and Justification of Selection of Data

The main data source for this thesis is the seventh round of the Ghana Living Standards Survey (GLSS 7). The GLSS is a multi-purpose household survey data, which collects information on many different dimensions of living conditions, including education, welfare, health, governance, employment, financial services and consumption (household expenditure on food and non-food items). The survey provides information on household's social welfare, financial activities including saving, insurance, account ownership, account usage, and other financial products, as well as governance measures in Ghana. This data set is chosen because the study is a cross sectional study and also provides information on the variable of interest.

The sample size used for the study is 13,809 household heads, which form the household-level analysis.

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Econometric Specification, Estimation Techniques and Justification

The estimation techniques that are used in this study are the OLS, 2SLS, binary and multinomial logistics. The estimation techniques, OLS, logistics and multinomial logistics are informed by the measurement of the variables in question. OLS and 2SLS are employed since the dependent variable (social welfare), is a continuous variable and also due to the fact that the study is a cross sectional study. In addition, 2SLS is employed to strengthen the weakness embedded in OLS and therefore robust the results. Logistics is used for health, while multinomial logistics is used for social status. This is due to the fact that health and social status are categorical variables with two and more than two categories, respectively.

Ordinary Least Squares (OLS)

The study uses the Ordinary Least Square (OLS) estimation method for all the three hypotheses of the study, since the dependent variable (social welfare) is a continuous variable. The implementation of OLS is immune to the Classical Linear Regression Models' assumptions (CLRM). OLS deals with the relationship between the dependent variable Y^* (social welfare) and the independent variables, X' (governance, financial inclusion, in addition to all control variables) such that the conditional mean function is specified as:

$$Y^* = \beta X' + \varepsilon \qquad (1)$$

Where, β is the estimator under OLS that minimises the conditional mean function. The estimator, which is the sum of the error squared, is assumed Best Linear Unbiased Estimator (BLUE) under the Classical Linear Regression Model (CLRM) (Cameron, & Trivedi, 2005). Under such an assumption, it is

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important to ensure that the model is not only linear in parameters but also with an error term that is both serially uncorrelated and homoscedastic.

Two Stage Least Squares (2SLS)

As aforementioned, the study also employs the Two Stage Least Squares estimation technique due to suspicion of potential endogeneity within financial inclusion and governance variables and also to robust the result. For this reason, the study resorted to other covariates of financial inclusion and governance by intuition. The other covariate of financial inclusion employed is financial institutions, while that of governance is public trust. Intuitively, without the availability of financial institution, the unbanked can never be financial included. In the same way, the kind of trust people builds for existing governance has potential influence on the performance of the governance.

Binary and Multinomial Logistics Regressions

In binary regression, the dependent variable is a categorical variable with two levels or categories. The health component of social welfare is a categorical variable with two categories. The use of logistic regression is used for the health function, one of the components of social welfare. Logistics regression explains the natural logarithm of the odds that some event would occur. The multiple linear regression, also referred to as 'multinomial regression' is a binomial regression extension to enable a dependent variable with more than two categories. The multinomial regression is applied for the social status (social inclusion) function, one of the components of social welfare.

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Theoretical Model

The study is based on the social welfare theoretical model developed by Lerner (2006), which is the build-up on the works of (Boot & Thakor, 1997; Schumpeter, 1934). According to Boot and Thakor (1997), there is need for more resilient and proper structures in place to facilitate the process of financial inclusion in order to enhance social welfare. Boot and Thakor (1997) built their argument with a particular emphasis on financial inclusion as a means to ensure social welfare.

However, Lerner (2006) broadened the tentacle of the model by arguing that development of varied financial products tends to target the non-banking populace into the financial sector but not sufficient to promote social welfare, unless further attention is shifted to governance as another array of institution. The model is thus, stated as:

$$Y^{*} = \beta X' + \varepsilon \qquad (2)$$

Where, Y^{*} represents dependent variable (social welfare), β contains the parameters to be estimated, X' represents vector of regressors (financial inclusion and governance) used in the study, while ε, measured as the error term. According Lerner (2006), the model shows how varied institutional structures promote diverse financial products and governance.

The Empirical Model

This study adopted the empirical model developed by Aaroe and Petersen (2014). The model according to Aaroe and Petersen (2014) was stated as:

$$\text{Social welfare}_i = \beta_0 + \beta_1(\text{SEALSU}_i) + \varepsilon_i \qquad (2)$$

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Where (Social Welfare_i) epitomizes the welfare outcome for individuals in household i. (SEALSU_i) represents vector of demographic or social factors such as sex, education, age,. The ε_i captures the idiosyncratic errors.

Based on the objectives of this study and hence incorporating the variables; financial inclusion, governance, size, marital status, religion, and residence into the model, the model would be expressed as:

Effect of financial inclusion index and governance index on social welfare index of households in Ghana

$$\text{Social welfare}_i = \beta_0 + \beta_1\text{fininclusion_index}_i + \beta_2\text{governance_index}_i + \beta_3\text{hhsize}_i + \beta_4 Age + \beta_5\text{hh_agesq}_i + \beta_6\text{hh_sex}_i + \beta_7\text{mari_status}_i + \beta_8\text{employment}_i + \beta_9\text{Residence}_i + \varepsilon_i \quad (3)$$

Effect of financial inclusion components and governance components on social welfare index of households in Ghana

$$\text{Social welfare}_i = \beta_0 + \beta_1 account_i + \beta_2\text{credit}_i + \beta_3\text{insurance}_i + \beta_4\text{check}_i + \beta_5 atm_i + \beta_6\text{e_zwich}_i + \beta_7\text{e_banking}_i + \beta_8\text{governance_effect}_i + \beta_9\text{control_corruption}_i + \beta_{10}\text{voice_accountability}_i + \beta_{11}\text{rule_warn}_i + \beta_{12}\text{regulary_quality} + \beta_{13}\text{political_stabil}_i + \beta_{14}\text{hhsize}_i + \beta_{15} Age + \beta_{16}\text{hh_agesq}_i + \beta_{17}\text{hh_sex}_i + \beta_{18}\text{mari_status}_i + \beta_{19}\text{employment}_i + \beta_{20}\text{Residence}_i + \varepsilon_i \quad (4)$$

Governance Index Moderating The Effect Of Financial Inclusion Index, On Social Welfare Index

$$\text{Social welfare}_i = \beta_0 + \beta_1\text{fininclusion_index}_i + \beta_2\text{governance_index}_i + \beta_3\text{fininclusion_index}_i * \text{governance_index}_i +$$

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$\beta_4 hhsize_i + \beta_5 Age + \beta_6 hh_agesq_i + \beta_8 hh_sex_i + \beta_9 mari_status_i + \beta_{10} employment_i + \beta_{11} Residence_i + \varepsilon_i$ (5)

Governance index moderating the effect of financial inclusion index, on each of the social welfare components

$$\textbf{Education}_i = \beta_0 + \beta_1 fininclusion_index_i + \beta_2 governance_index_i + \beta_3 fininclusion_index_i * governance_index_i + \beta_4 hhsize_i + \beta_5 Age + \beta_6 hh_agesq_i + \beta_7 hh_sex_i + \beta_8 mari_status_i + \beta_9 employment_i + \beta_{10} Residence_i + \varepsilon_i \quad (6)$$

$$\textbf{Health}_i = \beta_0 + \beta_1 fininclusion_index_i + \beta_2 governance_index_i + \beta_3 fininclusion_index_i * governance_index_i + \beta_4 hhsize_i + \beta_5 Age + \beta_6 hh_agesq_i + \beta_7 hh_sex_i + \beta_8 mari_status_i + \beta_9 employment_i + \beta_{10} Residence_i + \varepsilon_i \quad (7)$$

$$\textbf{Consumption}_i = \beta_0 + \beta_1 fininclusion_index_i + \beta_2 governance_index_i + \beta_3 fininclusion_index_i * governance_index_i + \beta_4 hhsize_i + \beta_5 Age + \beta_6 hh_agesq_i + \beta_7 hh_sex_i + \beta_8 mari_status_i + \beta_9 employment_i + \beta_{10} Residence_i + \varepsilon_i \quad (8)$$

$$\textbf{Social Status}_i = \beta_0 + \beta_1 fininclusion_index_i + \beta_2 governance_index_i + \beta_3 fininclusion_index_i * governance_index_i + \beta_4 hhsize_i + \beta_5 Age + \beta_6 hh_agesq_i + \beta_7 hh_sex_i + \beta_8 mari_status_i + \beta_9 employment_i + \beta_{10} Residence_i + \varepsilon_i \quad (9)$$

Where, Social welfare$_I$ =household's social welfare; fininclusion$_i$ = financial inclusion; hhsize$_I$ = household size; Age$_i$ = age of household head; hh_sex$_i$ = sex of household head; mari_status$_i$ = marital status of household head; employment$_I$ =

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employment status of household head; $\text{Residence}_I =$ type of place of residence

The choices of these variables were based on the aims and theoretical considerations of the analysis.

Measurement of Dependent Variable

Social welfare

The dependent variable, Social welfare is measured by the index according to the World Bank indicators for measuring social welfare, which includes cash transfers (both conditional and unconditional), food or consumption, socio economic status, health, education. However, due to data availability, this study uses consumption, social status, health and education as indicators for social welfare index.

Measurement of Independent Variables

Financial inclusion

Over time, the assessment of financial inclusion has passed through stages. Formally, financial inclusion covers individuals with a bank account in a formal financial institution (Demirguc-Kunt & Klapper, 2012). Latest financial inclusion initiatives typically include account ownership and use of financial products, insurance, remittances and mobile banking. (Gloukoviezoff, 2007; Demirguc-Kunt et al., 2018). The study deviates from the traditional measure of financial inclusion by employing multidimensional approach where seven indicators of financial inclusion namely; account ownership; credit access, insurance ownership, and use of financial products (checkbook, ATM, E-zwich, and E-banking) are employed in generating the index of financial inclusion.

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Governance

Governance is made up of the customs and structures by which power is exercised in a nation. According to the World Development Indicators (WDI), the study uses the six main dimensions of good governance, which include: voice and transparency, political stability and absence of violence, government efficiency, the rule of law, corruption control and regulatory consistency.

Variable Definition

Table 1: Definition and Measurement of Variables

Variable	Measurement	Definition	Aprior Sign
Social welfare			
Education	Continuous	Years of education	
Health	Categorical	Sought medical attention	
Social Inclusion/Status	Categorical	Times of joining society meetings	
Consumption	Continuous	Consumption expenditure	
Financial inclusion			+
Account	Dummy	Does name have a bank account?	+
Insurance	Dummy	Do you have an insurance policy?	+
Credit	Dummy	What is/was the status of the loan application	-
Cheque	Dummy	Bank transaction product [NAME] is using – Checkbook	+
ATM Card	Dummy	Bank transaction product [NAME] is using - ATM Card	+
E-zwich	Dummy	Bank transaction product [NAME] is using - E-zwich	+
e-banking	Dummy	Bank transaction product [NAME] is using e-banking	+
Governance			-+
Control of Corruption			
police_corupt	Dummy	Do you think Police are corrupt?	
judi_corupt	Dummy	Do you think Judiciary is corrupt?	-+
bribe	Dummy	Do you pay something in addition to officially approved amount to government officials	

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Table 1 cont'd

Government Effectiveness	Dummy	What level of confidence do you have in the Police	
poli_confi	Dummy	What level of confidence do you have in the Armed Forces	-+
armed_confi	Dummy	In your opinion, how do you find the efficiency of Police Service	
poli_effi	Dummy	In your opinion, how do you find the efficiency of Judicial Service	
judi_effi	Dummy	Would you/did you vote in the 2016 presidential/parliamentary election	
Political Stability			
Voice and Accountability	Dummy	In this country, how free are you to say what you think	+
free_speech	Dummy	In this country, how free are you to join any political organization you want	+
Party			+
	Dummy	In this country, how free are you to choose who to vote for without feeling pressured	
Franchise			
	Dummy	How often does the government change rules without warning	
Rule of Law			
Regulatory Quality	Dummy	Rate of stealing or robbery incidences	+
Robbery	Dummy	Rate of incidence of crime	+
Crime			
Demographic variables			
Male	Dummy	Sex of household head	+
Age	Continuous	Age of household head	-+
Marital status	Categorical	Marital status of the household head	
Household Size	Continuous	The number of people in each household	-
Employment	Categorical	Employment status of household head	
Urban	Dummy	location of the household head	-+

Source: Author's Construct, 2021

Additive Index and Principal Component Analysis (PCA)

The study employs both Additive index and Principal Component Analysis (PCA). The Principal Component Analysis (PCA) is a multivariate method that analyses a data table in which many interrelated functional

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dependent variables explain a result. The objective is to collect valuable details from the graph, to depict it as a series of new orthogonal variables called key components, and to show the pattern of similarities of observations and variables as map points. The score factor of the PCA with the highest eigenvalue was used, which describes sufficiently the social welfare level of Ghana. An advantage of the PCA is that it reduces measurement problems, such as recall bias, and that it reduces the complexity of correlated data.

Whereas additive index is used for financial inclusion and governance, PCA is used for social welfare. Although each strategy is special in its own way, the PCA has requirements that need to be met. First, the index needs to be created from components (usually component 1) that have more than one eigenvalues (Koomsion, & Ibrahim, 2018). Second, the rule of thumb of maintaining elements that catch variations or have a 70 percent or 90 percent cumulative percentage (Koomson, & Ibrahim, 2018). Third, the use of the scree plot (Koomson, & Ibrahim, 2018); and finally, the use of Kaiser-Meyer-Olkin (KMO), a post-estimation test that is supposed to generate a coefficient greater than 70% to demonstrate the adequacy of the sample. The PCA for financial inclusion and governance did not meet the criteria and so additive index was used for them. Nevertheless, that social welfare retained 95% of KMO. However, the result of the PCA is shown in the appendix.

Additive Index of Financial Inclusion

Table 2 presents the results of additive index of financial inclusion. As shown in Table 2, household heads with zero (0) financial products represented 41.59%. Again, 22.07% of household heads had just a single (1) financial product. Furthermore, 22.1% of household heads have two (2)

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financial products, 11.52% of household heads have three (3) financial products, 4.23% of household heads have four (4) financial products while an approximate of 1% have five (5) financial products. It is clear from Figure 1 that no household head has six (6) or seven (7) financial products used for the study. Thus, household heads in Ghana have low level of financial inclusion, which is worrisome especially to the financial growth of the economy.

Table 2: Additive Index of Financial Inclusion

Financial Inclusion	Frequency	Percentage
0	5,741	41.59
1	3,046	22.07
2	2,684	19.45
3	1,590	11.52
4	584	4.23
5	132	0.96
6	25	0.18
7	1	0.01
Total	13,803	100

Source: Author's Construct, 2021

Additive Index of Governance

Table 3 presents the results of additive index of governance. As shown in Table 3, household heads who do not concur with the idea of good governance in Ghana represented 35.81%. Again, only 0.01% of the household heads agree to just four of the components of good governance. Furthermore, 0.04% of household heads accord five components of good governance, 0.17% of household heads respond to six components of good governance, 1.17% of household heads are positive with eight constructs of

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good governance, while an approximate of 2.12% endorses nine elements of good governance. It is also clear that 4.26% of household heads endorse ten components of good governance but 7.20% of household heads endorse eleven components of good governance. Moreover, 10.03% of household heads accord twelve components of good governance, while approximately 12.33% of household heads agree to thirteen elements of good governance. Nevertheless, 14.740% of household heads indicate that fourteen constructs contribute to good governance. Notwithstanding, 8.08% of household heads are also positive about fifteen constructs of good governance, meanwhile 3.02% household heads agree to sixteen construct of good governance. Also, just as 0.92% of household heads are in consonance with seventeen constructs of good governance, 0.09% of household heads are positive about eighteen constructs of good governance

Table 3: Additive Index of Governance

Governance	Frequency	Percentage
0	4943	35.810
4	1	0.010
5	6	0.040
6	24	0.170
8	161	1.170
9	293	2.120
10	588	4.260
11	994	7.200
12	1385	10.030
13	1702	12.330
14	2034	14.740
15	1115	8.080
16	417	3.020
17	127	0.920
18	13	0.090
Total	13,803	100

Source: Author’s Construct, 2021

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Post- Diagnostics Tests

In order to deal with influential observations, outliers, missing values and implausible values, the data is first observed. Again, to ensure the model's estimates are consistent, the study tests for multicollinearity. Multicollinearity refers to a situation whereby there is a high correlation among the explanatory variables. In other words, collinearity for short occurs when a joint distribution of other independent variables roughly defines two or more independent variables in the model. If the degree of correlation between variables is high enough to cause problems, especially when the model is not fit, the degree of multicollinearity can vary and can have different effects on the model.

As a consequence, despite the fact that it is unbiased, the parameter estimation becomes unreliable and often even results in incorrect signs for the regression coefficient. A mistaken sign refers to a sign based on logic that is unexpected according to the underlying scientific model or previous beliefs. (Wooldridge, 2016). Fortunately, there are several simple tests in the statistical software to gauge multicollinearity in a regression model. The variance inflation factor (VIF) determines, for example, the correlation between independent variables and the strength of that correlationA rule of thumb, a variable with a VIF value greater than 10, can warrant further reviewTolerance was also used to check the degree of collinearity, specified as 1/VIF. A tolerance value that is lower than 0.1 is comparable to a VIF of 10. It implies that a linear combination of other independent variables may be considered to be the variable.

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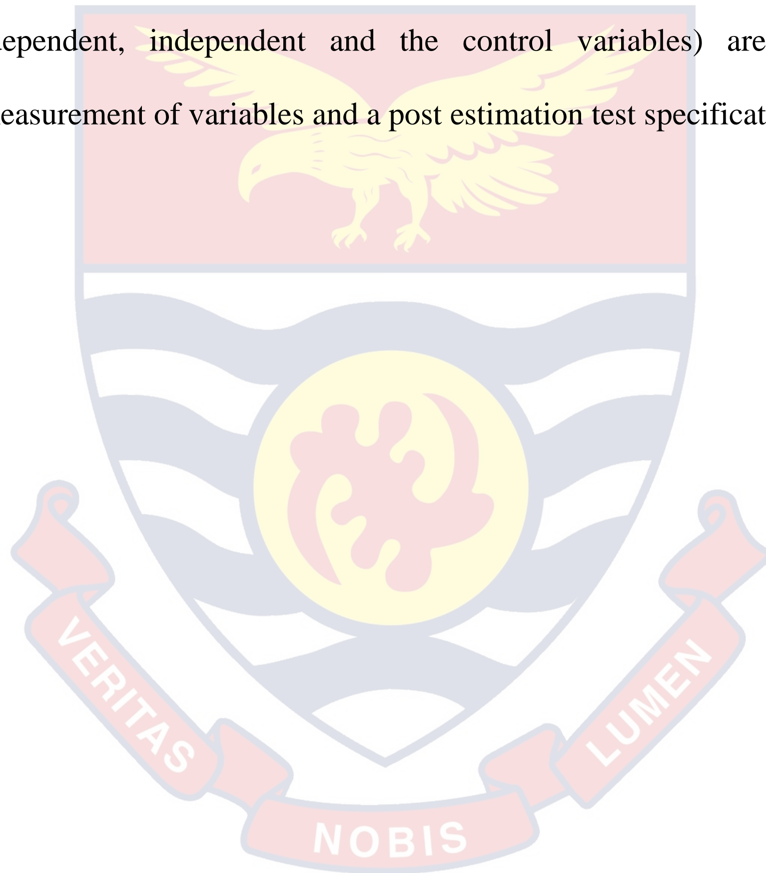
Chapter Summary

The objective of this chapter is to explain in detail the research methods used to test the hypotheses of the study. The research design is first described where the positivist approach to research is adopted. This is followed by the data type and source, description the justification for the selection of data. The technique and the theoretical model adopted for the study are also detailed. Empirical models encompassing all the variables (dependent, independent and the control variables) are specified. The measurement of variables and a post estimation test specification is stated.



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CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter present the results and the discussion of the findings. The study employs the Ordinary Least Squares technique, as well as the Two Stage Least Squares (2SLS) estimation techniques. This analysis starts with descriptive statistics and then followed by the regression results based on the aforementioned objectives.

Descriptive Statistics

Table 4 presents the brief statistics of variables used in this study. As shown in Table 4, social welfare had four components which include education, consumption, health and social status. While financial inclusion is composed of account usage, credit access, insurance, ATM, Checkbook, E-Zwitch and E-banking; governance is composed of control of corruption, government effectiveness, political stability, rule of law, voice and accountability and regulatory quality.

Out of the total sample of 13,813 households used for the study, the mean size and the standard deviation for households are recorded as 4.212 units and 2.872 units respectively, with a minimum of 1 (indicating household with a single person) and a maximum of 28 (indicating household with twenty eight people), respectively. Also, the average age of household heads sampled for the study is 46 years, with a minimum age of 15 years and a maximum age of 99 years. Financial institutions captured for the study average 0.6 units of institutions. In terms of financial inclusion, the result reveals that on the average, each of the household heads has 2 financial products, out of the

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13,813 household heads. The results also reveal a minimum and a maximum of 1 (indicating that household heads have at least one financial product) and 8 (indicating that household heads have at most 8 financial products), respectively.

More so, the result indicates that on the average, 10 units of households accord good governance in Ghana. In the same way, the data indicates that the average score of social welfare for households in Ghana is 7units, with a minimum of 0.02 units (indicating households with the lowest level of social welfare) and maximum of 19.57 units (indicating households with the highest level of social welfare). On the side of educational level of household heads, the result indicates that on the average, 7 units of households are educated, with no record of illiteracy. Moreover, the average consumption expenditure for households in Ghana is 9 units, with minimum and maximum level of 5 units and 12 units respectively.

On the side of the categorical variables, 'Yes' in the table represent those who respond favourably to particular questions while 'No' represent those who answer unfavourably to particular questions.

Table 4: Descriptive Statistics

Continuous Variables

Variable	Obs.	Mean	Std. Dev.	Min	Max
Household size	13,813	4.212	2.872	1	28
Age	13,813	46.258	15.912	15	99
Financial institutions	13,813	0.586	0.692	0	4

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Table 4 cont'd

Financial inclusion	13,813	2.183	1.272	1	8
Governance	13,813	10.758	3.212	4	18
Social welfare	13,813	6.848	5.366	0.016	19.572
Education	13,813	6.464	5.352	0	19
Consumption	13,813	8.961	0.833	4.457	12.337

Source: Author's construct, 2021.

Note: Obs. represent observation, Min. represent minimum, Max represent maximum, while Sd. Dev. represent standard deviation.

Categorical Variables

Variables	Frequency	Percentage
Health		
No	12751	91.05
Yes	1253	8.95
Social status /Inclusion		
0 time	5322	38.00
1 - 4 times	2063	14.73
5 - 9 times	774	5.53
10 or more times	5845	41.74
Employment Status		
Underemployed	6,066	49.72
Employed	6,134	50.28
Marital status		
Married	7617	55.14
Divorced	1455	10.53
Widowed	1776	12.86
Unmarried	2965	21.47
Residence		

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Rural	7,899	57.23
Urban	5,904	42.77
Sex of household head		
Female	4309	31.20
Male	9504	68.80
Account		
No	7039	51.00
Yes	6764	49.00
Insurance		
No	10647	7.14
Yes	3156	22.86
Credit		
No	12745	92.33
Yes	1058	7.67
Check book		
No	10368	75.11
Yes	3435	24.89
ATM		
No	12132	87.89
Yes	1671	12.11
Ezwich		
No	13696	99.22
Yes	107	0.78
E banking		
No	13657	98.94
Yes	146	1.06
Public trust		
No	12467	90.26
Yes	1346	9.74
Control of corruption		

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Corruption in policing		
No	12771	92.52
Yes	1032	7.48
Corruption in judiciary		
No	11710	84.84
Yes	2093	15.16
Bribe		
No	9592	69.49
Yes	4211	30.51
Government effectiveness		
Confidence in police		
No	6412	46.45
Yes	7391	53.55
Confidence in armed forces		
No	5256	38.08
Yes	8547	61.92
Police efficiency		
No	7351	53.26
Yes	6452	46.74
Judiciary efficiency		
No	7365	53.36
Yes	6438	46.64
Political stability		
No	5482	39.72
Yes	8321	60.28
Voice and accountability		
Freedom of speech		
No	4921	35.65
Yes	8882	64.35
Party		

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No	4882	35.37
Yes	8921	64.63
Franchise		
No	4883	35.37
Yes	8920	64.62
Rule of law		
No	8064	58.42
Yes	5739	41.58
Regulatory quality		
Crime rate		
No	9728	70.48
Yes	4075	29.52
Robbery rate		
No	11843	85.80
Yes	1960	14.20
Total	13609	

Source: Author's construct, 2021

Pre-Test Estimation

To ensure the model's estimates are consistent, the study tests for the presence of multicolinearity in the model using correlation matrix and then Variance Inflation Factor (VIF). However the results for the test are reported in the appendix.

Multicolinearity Test

Correlation Matrix

The results in appendix B illustrate that there is weak positive and significant correlation (0.446) between the dependent variable, social welfare and account. This means that households who have number of account with some financial institutions are likely to have high level of social welfare and vice-versa. Also, there is a very weak positive and significant correlation

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(0.037) between credit and social welfare. This implies that households who are granted loans have their level of social welfare increased as well. The correlation between social welfare and insurance is very weak positive and significant (0.142). This also means that households who buy insurance policy result in high level of social welfare. More so, the results show weak positive and significant correlation (0.420) between social welfare and Cheque. This means that households who use bank product, such as cheque are likely to increase their social welfare level. According to the result, ATM also has weak positive and significant correlation (0.410) with social welfare. This means that households who use ATM in their banks are likely to have high level of social welfare. E-zwich and E-banking has a very weak positive correlation with social welfare, representing 0.089 and 0.120 respectively.

However, police corruption, judiciary corruption and bribe measuring control of corruption index of governance have very weak negative and significant correlation with social welfare, representing -0.110, -0.073 and -0.024 respectively. This implies that high level of corruption in the police service and judiciary service, together with additional money to government officials, result in low level of social welfare in Ghana. Also, police confidence, armed confidence, police efficiency and judiciary efficiency measuring government effectiveness index of governance have very weak positive correlation with social welfare, representing 0.017, 0.088, 0.012 and 0.095respectively, though Police efficiency is not significant. This implies that high level of confidence by Ghanaians in the Police and Armed forces, together with efficiency in the Police and the Judiciary services result in increasing the social welfare level of Ghanaians. Again, political stability has

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a very weak positive and significant correlation (0.086) with social welfare. This also implies that those who actually vote especially in the 2016 election also have their social welfare level increased. Similarly, free speech, party and franchise indicating voice and accountability index of governance have very weak positive and significant correlation with social welfare, representing 0.090, 0.087 and 0.087 respectively. This implies that in Ghana, where people are made free to express their thought, join any political party of their choice and also allow them to vote without any intimidation, their social welfare level also improve. The study also reveals a very weak positive (0.121) and significant correlation between rule of law and social welfare. This also means that the rate at which the government informed the citizens before changing rules, lead to improvement in their social welfare as well. Finally, robbery and crime have negative and significant relationship with social welfare, representing -0.072 and -0.079 respectively. This also implies that the low level of rate of robbery and crime incidence in the country, improve the social welfare of the people. This also expresses that the regulatory quality in the country is benefitting the citizens substantially. The result is presented in appendix B.

Variance Inflation Factor (VIF).

The study also tests for the presence of multicolinearity in the model using variance inflation factor (VIF). In testing for multicolinearity, the rule of thumb is that any value of VIF greater than 10.00 shows the presence of multicolinearity (Hair, Black, Babin, Anderson, & Tatham, 1998) and thus such variable will be omitted. The result for the VIF in the study records 8.04, hence there is no multicolinearity. The result is presented in appendix C.

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Effect of Financial Inclusion and Governance on Social Welfare

Table 5 presents the effect of financial inclusion and governance on social welfare results. The dependent variable considered in the study is social welfare, while financial inclusion and governance are the independent variables. Household size, age, agesq, sex, marital status, employment and residence are the control variables.

The results from Table 5 show that financial inclusion has a positive effect on social welfare at 1% significance level, representing 1.644 units. The positive association between financial inclusion and social welfare implies that a unit increase in financial inclusion resulte in 1.6 unit improvement in social welfare. This suggests that their social well-being increase as individuals and organizations have access to valuable and accessible financial goods and services that satisfy their wants and are provided in a fair and equitable way. The results confirm the findings of other studies (Setyari, 2012; Asongu, & Odhiambo, 2020) which also find that financial inclusion is important elements in improving the social welfare of households in Ghana. However, the results contradict the findings of Okereke (2011), whose findings indicate no significant impact of financial inclusion on social welfare.

Governance on the other hand is positively related to social welfare at 5% significance level showing, 0.028 units. This implies that one unit increase in governance lead to 0.028 units increase in social welfare. The result implies that good governance (thus high government effectiveness, existence of rule of law, high control of corruption, proper voice and accountability, positive political stability and regulatory quality) is not by mere perception but reflected in the social welfare of the citizens. This result is in consonance with

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many other studies (Evers, 2005; Wong, 2008; Sacks, & Levi, 2010; Fazli, & Amanihamedani, 2019; Khan, Hildingsson, & Garting, 2020) but is contrary to findings of Daly (2003), whose results establish negative association between governance and social welfare in UK.

Notwithstanding, the other covariate of financial inclusion (financial institution) have a positive association with financial inclusion at 1% significance level. This also implies that a unit increase in financial institutions led to 1.182 unit increase in financial inclusion. This is in line with intuition. This is because without the availability of financial institutions such as commercial bank, investment bank, rural bank, credit and susu banks, etc., the financially excluded populace will never be captured into the financial stream. The results confirm the findings of other studies (Sarma, & Pais, 2011; Asuming, Osei-Agyei, & Mohammed, 2019). However, the result is contrary to the findings of Bayero (2015), who find no significant effect of financial institution on financial inclusion. More so, public trust (other covariate of governance) has a positive relationship with governance at 1% significance level. This implies that a unit increase in public trust amount to 2.867 unit improvement in governance more than if there are no public trust. The results is in consonance with other studies (Gutteling, Hanssen, Van, & Seydel, 2006; Jittaruttha, 2017).

Control Variables

From the results, household size has a negative relationship with social welfare at 1% significance level, representing 0.3 units. Thus, a unit increase in the size of the households lead to 0.3 units decrease in social welfare. This confirms the general intuition. This implies that as the household size

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increases, household's burden becomes so large and hence reduces social welfare of the people, due to high dependency ratio. This result confirms the findings of Ahlheim and Schneider (2013) who finds that size of the household is negatively associated with social welfare. However, the result is contrary to the findings of other studies (Ellen, & Flaherty, 2007). The age of the household has positive impact on social welfare at 1% significance level in the OLS result. However, from the 2SLS result, age of the household has negative relationship with social welfare at 1% significance level. Notwithstanding, the squared age in the result has negative relationship with social welfare at 1% significance level, representing 0.001 units. This implies that the relationship between age and social welfare is nonlinear. This implies that as people age, initially social welfare increases to a point, reaches maximum, and then begins to decrease. Specifically, as people advance in age, their social welfare also increases, until they attain age forty two (42), beyond which their social welfare declines. This is because beyond age forty two, people's desire or appetite for consumption (both food and non-food items) reduces, their health status also (immune system) becomes weak. This finding is consistent with Deyshappriya and Minuwanthi (2020), whose results indicate nonlinear relationship between age and social welfare.

The computation of the turning point (42 years) is shown in the appendix. Household sex is observed to be significantly relevant and positively linked to social welfare by 1 percent, comprising 1.3 units. The result implies that being a male and same time the head of the household, your social welfare increases by 1.3 units more than being a female and same time the head of the household. This can be attributable to the fact that majority of

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males are educated compared to females. Also, males are economically active than females (who can absent themselves from work or school or meeting) due to menstruation, maternity, etc. The result is consistent with the findings of Demirguc-Kunt (2013), although male is used as the base category in the latter findings. The result shows a positive relationship between divorced people and their social welfare at 10% significance level. From the result, divorced people increased their social welfare level by 0.3 units, more than the social welfare of those who are in marriage. Also, the widowed has a negative relationship with social welfare at 1% significance level, representing 1.1 units. Thus, a unit increase in the number of widowed led to 1.1 units decrease in social welfare. This implies that people who are widowed have their social welfare lowered by 1.1 units less than people who are married. This is because the widowed are considered vulnerable and that is why to some extent, they receive some supports from Non-governmental Organisations (NGOs) NGOs, occasionally. The unmarried on the other hand, shows a positive effect on social welfare at 1% significance level, representing 1 unit. This also implies that people who are unmarried have their social welfare increased by 1 unit more than those who are married. People who are unmarried can increase their consumption as well as increase involvement in social activities and can further their education, since they have less people depending on them. However, the result is contrary to the findings of Zaman (2004), who also find positive results. More so, the result shows that the employed have positive relationship with social welfare at 5% significance level. The outcome of the study also report a positive correlation at 1 percent significance level between urban and social welfare, representing 1.8 units. This is because those in the

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urban areas enjoy more social amenities and infrastructures, which ultimately improve their social welfare, than those found in rural areas. The result confirm the findings of other studies (McCullouch, & Calandrino, 2003; Bidani, & Richter, 2001; Huang, & Zhang, 2020).

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Table 5: Effect of Financial Inclusion and Governance on Social Welfare

	OLS	TWO STAGE LEAST SQUARES (2SLS)		
Variables	Social welfare	Financial Inclusion	Governance	Social_welfare
Household size	-0.329***	-0.017***	-0.158***	-0.308***
	(0.016)	(0.003)	(0.008)	(0.016)
Age	0.085***	0.001**	-0.003	-0.084***
	(0.015)	(0.001)	(0.002)	(0.003)
Agesq	-0.001***	-0.000	0.000	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
Male	1.327***	-0.013	-0.256***	1.295***
	(0.106)	(0.021)	(0.058)	(0.105)
Divorced	0.167	-0.182***	0.282***	0.264*
	(0.146)	(0.029)	(0.081)	(0.147)
Widowed	-1.059***	-0.188***	0.139	-1.096***
	(0.160)	(0.031)	(0.088)	(0.159)
Unmarried	1.090***	-0.104***	0.373***	0.901***
	(0.114)	(0.022)	(0.062)	(0.113)
Employed	0.129	0.094***	-0.052	0.163**
	(0.079)	(0.016)	(0.044)	(0.079)
Urban	1.765***	0.338***	-0.176***	1.806***
	(0.087)	(0.017)	(0.045)	(0.085)
Financial Inclusion	1.644***			1.657***
	(0.032)			(0.032)
Governance	0.028**			0.017
	(0.013)			(0.020)

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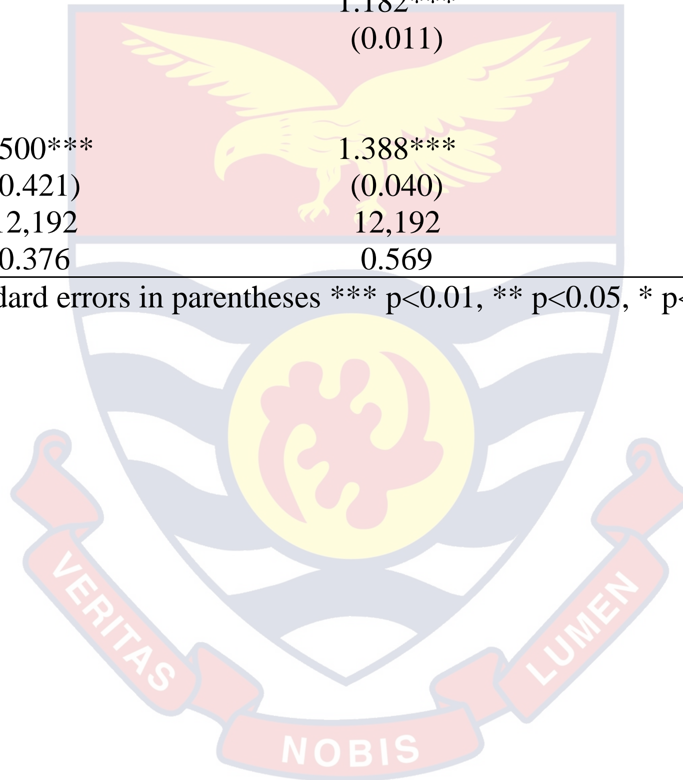
Table 5 cont'd

Financial institution		1.182***		
		(0.011)		
Public Trust			2.867***	
			(0.032)	
Constant	1.500***	1.388***	9.854***	4.352***
	(0.421)	(0.040)	(0.114)	(0.332)
Observations	12,192	12,192	12,192	12,192
R-squared	0.376	0.569	0.469	0.373

Source: Author's Construct, 2021 Note: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1



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Effect of Financial Inclusion Components and Governance Components on Social Welfare

Table 6 presents the effect of various components of financial inclusion and that of governance on social welfare. From the results, account, insurance, cheque, and ATM have positive association with social welfare at a statistical significance level of 1% each, only E-zwich and E-banking have positive significance level of 5%, meanwhile credit has positive association with social welfare at 10% significance. The positive association between account and social welfare implies that being a bank account holder, your social welfare increased by 1.8 units, more than the non-account holder. This is because access to bank account enable the individual to store money safely until it is needed to be withdrawn; conversion of cheques into cash; payments of funds such as salaries, pensions or social assistance (electronically); payment for goods and services other than in cash; payment of bills electronically and remittances, etc., which has a resultant effect on the social welfare of the households. This result confirms the findings of other studies (Tita, & Aziakpono, 2017; Mwangi, & Atieno, 2018). Moreover, the positive relationship between insurance and social welfare means that when an individual is insured, his/her social welfare increases by 0.7 units more than the non-insured. Insurance policy provides the households with more security or provident for contingency (unexpected events) and make availability of assets for the future, which lead to evacuation of poverty in the old age. With insurance, the health, education and consumption level of individual can be insured for, in order to maintain and even improve their welfare. This validates the findings of Mwangi and Atieno (2018) that insurance have positive

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association with social welfare. The result also implies that being a cheque user, your social welfare increases by 2 units more than the non-cheque user. This is because cheque is one of the bank products that facilitated bank transaction of which, when it is used by the household, they become financially included. However, this result is contrary to the findings of Mullineux (2010) who admit that cheque no longer has positive impact on social welfare. Also, the positive relationship between ATM and social welfare express that being an ATM user, your social welfare increases by 3 units more than the non ATM user. This implies that ATM helps households in performing banking transaction more conveniently, which ultimately improve their social welfare. This result confirms the findings of Chioveanu, Faulí-Oller, Sandonis and Santamaria (2009), who find a positive impact of ATM on social welfare. Notwithstanding, the positive association between E-zwich and social welfare show that being an E-zwich account holder, your social welfare increase by 1 unit more than non-E-zwich account holder. This result confirms the findings of Larbi (2012). Nevertheless, the results also reveal a positive relationship between E-banking and social welfare, which means that being E-banking user, your social welfare improve by 0.8 unit more than non E-banking user. This result confirms the findings of other studies (Millard, & Willison, 2006; Csáki, et al., 2013). Lastly, the positive relationship between credit and social welfare also imply that having access to credit improve one's social welfare by 0.243 units. The result confirms the findings of other studies (Diagne and Zeller, 2001). However, Tita and Aziakpono (2017) conclude that access to loan has a negative relationship

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with social welfare in the long run but positively related to welfare in the short run.

Also, the results reveal a positive association between political stability and social welfare at 10% significance level. The positive association between political stability and social welfare implies that a unit increase in political stability lead to 0.4 units increase in social welfare more than if there is no political stability. The result confirms general intuition. The result also implies that the state of political stability does not only promote good governance but also improve the social welfare of the citizens. This result confirms the findings of other studies (Asongu, & Odhiambo, 2020; Ogunniyi, Mavrotas, Olagunju, Fadare, & Adedoyin, 2020). Control of corruption is found to be negatively associated with social welfare at 1% statistical significance in OLS and 2SLS, representing 0.4 units and 0.7 units respectively. The negative relationship implies that when control of corruption increases by one unit, social welfare also decreases by 0.4 (OLS) units and 0.7 (2SLS) units as compared to if Ghana is without control of corruption system of governance. The result is contrary to expectation; because the perceived control of corruption does not improve social welfare (rather social welfare is decreased). This also implies that although governance ensures measures of controlling corruption which can improve social welfare, the measures, nevertheless decrease social welfare. However, the result is not consistence with other findings (Welsch, 2008; Sacks, & Levi, 2010; Ogunniyi et al., 2020). The result also reveals a positive relationship between voice and accountability and social welfare at 5% significance level, representing 0.2 units. This implies that a unit increase in voice and accountability brings about

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0.2 units increase in social welfare more than if Ghana is without voice and accountability. This result confirms the findings of other studies (Holland, Thirkell, Trepanier, & Earle, 2009; Srinivasan, et al., 2013). However, Saengchai, Mitprasat and Horakul (2020) have insignificant impact of voice and accountability on social welfare. Also, the results show a positive association between regulatory quality and social welfare at 10% significance level, representing 0.1 units increase in social welfare compared to if Ghana is without regulatory quality. This can be explained that the notion to capture the effort of the government to formulate and implement effective policies that curtail unlawful activities have a positive impact on the social welfare of the households in Ghana. This result confirms the findings of other studies (Bidaishiyeva et al., 2018; Saengchai, Mitprasat, & Horakul, 2020). On the contrary, De and Stephenson (2007) find a negative impact of regulatory quality on social welfare. The result also reveals that government effectiveness has negative relationship with social welfare at 10% significance level, representing 0.1 units. The negative relationship between government effectiveness and social welfare implies that a unit increase in government effectiveness lead to 0.1 units decrease in social welfare less than if there is no government effectiveness. This implies that the efficiency of public officials merely improve governance but does not improve (reflect in) the social welfare of the citizens. This result is contrary to other findings of (Asongu, & Odhiambo, 2020; Ogunniyi, Mavrotas, Olagunju, Fadare, & Adedoyin, 2020). Also, the results show a positive relationship between rule of law and social welfare at 1% statistical significance level, showing 0.5 units. This implies that a unit increase in rule of law led to 0.5 units increase in social welfare

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more than if Ghana is without rule of law. This means that when the views opinion of the household is taken before any amendment is made, it significantly reflects in the social welfare of the people. This result confirms the findings of other findings (Asongu, & Odhiambo, 2020; Ogunniyi, Mavrotas, Olagunju, Fadare, & Adedoyin, 2020). Notwithstanding, the other covariate of financial inclusion (financial institution) has a positive association with financial inclusion at 1% significance level, representing 1.3 units. This also implies that a unit increase in financial institutions lead to 1.3 units increase in financial inclusion. The results confirms the findings of other studies (Sarma, & Pais, 2011; Asuming, Osei-Agyei and Mohammed (2019). However, the result is contrary to the findings of Bayero (2015), who find no significance of financial institution on financial inclusion. More so, public trust (other covariate of governance) has a positive relationship with governance at 1% significance level. This implies that a unit increase in public trust amounts to 2.9 unit improvement in governance and hence good governance. The results is in consonance with other studies (Gutteling, Hanssen, Van, & Seydel, 2006; Jittaruttha, 2017).

Control Variables

From the results, household size has a negative relationship with social welfare at 1% significance level, representing 0.3 units. Thus, a unit increase in the size of the households led to 0.3 units decrease in social welfare. This implies that as the household size increases, household's burden becomes so large and hence reduces social welfare of the people, due to high dependency ratio. This result confirms the findings of Ahlheim and Schneider (2013) who find that size of the household is negatively associated with social welfare.

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However, the result is contrary to the findings of other studies (Ellen, & Flaherty, 2007). The age of the household has positive impact on social welfare at 1% significance level in the OLS result. However, from the 2SLS result, age of the household has negative relationship with social welfare at 1% significance level. Notwithstanding, the squared age in the result has negative relationship with social welfare at 1% significance level in, representing 0.0 units. This implies that the relationship between age and social welfare is nonlinear. This implies that as people aged, initially social welfare increases to a point, reaches maximum, and then begin to decrease. Specifically, as people advance in age, their social welfare also increases, until they attain age forty two (42), beyond which their social welfare decline. This is because beyond age forty two, people's desire or appetite for consumption (both food and non-food items) reduces, their health status also (immune system) become weak. This finding is consistent with Deyshappriya and Minuwanthi (2020), whose results indicate nonlinear relationship between age and social welfare.

The computation of the turning point (42 years) is shown in the appendix. Sex of the household head is 1% statistically significant and positively related to social welfare in OLS and 2SLS, representing 1.117 units and 1.313 units respectively. The result implies that being a male and same time the head of the household, your social welfare increases by 1 units more than being a female and same time the head of the household. This can be attributable to the fact that majority of males are educated compared to females. Also, males are economically active than females (who can absent themselves from work or school or meeting) due to menstruation, maternity,

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etc. The result is consistent with the findings of Demirguc-Kunt (2013), although male is used as the base category in the latter findings. Also, from the results, widowed has a negative relationship with social welfare at 1% significance level, representing 1.0(OLS) units and 1.6(2SLS) units respectively. Thus, a unit increase in the number of widowed lead to 1.0 (OLS) units and 1.6 (2SLS) units decrease in social welfare. This implies that people who are widowed have their social welfare decreased by at least 0.1units less than those who are not widowed. This is because the widowed are considered vulnerable. The unmarried on the other hand, show a positive effect on social welfare at 1% significance level in OLS and the 2SLS each, representing 1.1 units and 0.4 units respectively. This also implies that people who are unmarried have their social welfare increased by 1unit or 0.4 units, more than those who are married. People who are unmarried can increase their consumption as well as increased involvement in social activities and can further their education, since they have less people depend on them. However, the result is contrary to the findings of Zaman (2004), who also find positive results. More so, the result shows that the employed have positive relationship with social welfare at 1% significance level. The result also shows a positive relationship between urban and social welfare at 1% significance level 2 units. This is because those in the urban areas enjoy more social amenities and infrastructures, which ultimately improve their social welfare than those who are in rural areas. The result confirms the findings of other studies (McCullouch, & Calandrino, 2003; Bidani, & Richter, 2001; Dang, & Raghbendra, 2009; Huang, & Zhang, 2020).

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Table 6: Effect of Financial Inclusion components and Governance Components on Social Welfare

	OLS	TWO STAGE LEAST SQUARES (2SLS)		
Variables	social_welfare	Financial Inclusion	Governance	social_welfare
Household size	-0.295***	-0.016***	-0.158***	-0.348***
	(0.016)	(0.003)	(0.008)	(0.017)
Age	0.084***	0.002***	-0.003	-0.048***
	(0.015)	(0.001)	(0.002)	(0.003)
Agesq	-0.001***	-0.000	0.000	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
Male	1.117***	-0.017	-0.256***	1.313***
	(0.104)	(0.021)	(0.058)	(0.115)
Divorced	0.224	-0.171***	0.282***	-0.260
	(0.145)	(0.029)	(0.081)	(0.161)
Widowed	-1.002***	-0.172***	0.139	-1.629***
	(0.156)	(0.031)	(0.088)	(0.174)
Unmarried	1.068***	-0.091***	0.373***	0.447***
	(0.113)	(0.022)	(0.062)	(0.123)
Employed	0.044	0.084***	-0.052	0.458***
	(0.078)	(0.016)	(0.044)	(0.086)
Urban	1.508***	0.299***	-0.176***	2.972***
	(0.088)	(0.017)	(0.045)	(0.089)

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Table 6 cont'd

Account	1.815***		1.822***
	(0.100)		(0.097)
Credit	0.109		0.243*
	(0.142)		(0.139)
Insurance	0.731***		0.714***
	(0.093)		(0.093)
Cheque	1.965***		2.095***
	(0.114)		(0.110)
ATM	2.894***		2.955***
	(0.124)		(0.132)
E_zwich	0.853**		1.089**
	(0.367)		(0.445)
E_banking	0.754**		0.763**
	(0.321)		(0.381)
Financial institution		1.294***	
		(0.011)	
Political Stability	0.183		0.372*
	(0.191)		(0.217)
Government Effectiveness	-0.028		-0.082*
	(0.043)		(0.049)
Control of Corruption	-0.424***		-0.662***
	(0.055)		(0.064)
Voice and Accountability	0.220**		0.125

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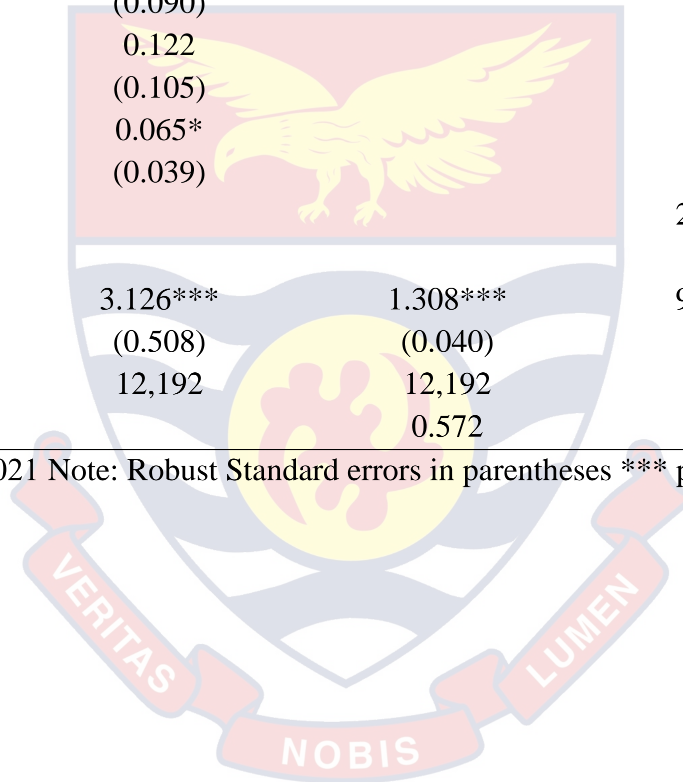
Table 6 cont'd

	(0.090)			(0.102)
Rule of Law	0.122			0.467***
	(0.105)			(0.118)
Regulatory Quality	0.065*			-0.005
	(0.039)			(0.043)
Public Trust			2.867***	
			(0.032)	
Constant	3.126***	1.308***	9.853***	8.728***
	(0.508)	(0.040)	(0.114)	(0.431)
Observations	12,192	12,192	12,192	12,192
R-squared		0.572	0.469	0.243

Source: Author's Construct, 2021 Note: Robust Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1



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Governance Moderating the Effect of Financial Inclusion on Social Welfare in Ghana

Table 7 presents the results of how governance moderates the effect of financial inclusion on social welfare. Result in Table 7 shows that financial inclusion has a positive effect on social welfare at 1% significance level, representing 1.6 units. The positive association between financial inclusion and social welfare implies that a unit increase in financial inclusion result in 1.6 unit improvement in social welfare. This means that when individuals and businesses have access to useful and affordable financial products and services that meet their needs and are delivered in a responsible and sustainable way, their social welfare improve. The results confirm the findings of other studies (Setyari, 2012; Asongu, & Odhiambo, 2020) which indicate that financial inclusion is important elements in improving the social welfare outcomes of households in Ghana. However, the results contradict the findings of Okereke (2011), whose findings indicate no significant impact of financial inclusion on social welfare. Governance on the other hand is not significant.

Notwithstanding, the other covariate (financial institution) of financial inclusion has a positive association with financial inclusion at 1% significance level. This is because without the availability of financial institutions such as commercial bank, investment bank, rural bank, credit and susu banks, etc., the financial excluded populace will never be captured into financial stream. The results confirm the findings of other studies (Sarma, & Pais, 2011; Asuming, Osei-Agyei, & Mohammed, 2019). However, the result is contrary to the findings of Bayero (2015), who finds no significance of financial institution on financial inclusion. More so, public trust (other covariate of governance) has a

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positive relationship with governance at 1% significance level. This implies that a unit increase in public trust amount to 2.9 unit improvement in governance more than if there is no public trust. The results is in consonance with other studies (Gutteling, Hanssen, Van, & Seydel, 2006; Jittaruttha, 2017).

Control Variables

From the results, household size has a negative relationship with social welfare at 1% significance level, representing 0.3 units. Thus, a unit increase in the size of the households lead to 0.3 units, decrease in social welfare. This implies that as the household size increases, household's burden becomes so large and hence reduces social welfare of the people, due to high dependency ratio. This result confirms the findings of Ahlheim and Schneider (2013) who finds that size of the household is negatively associated with social welfare. However, the result is contrary to the findings of other studies (Ellen, & Flaherty, 2007). The age of the household has positive impact on social welfare at 1% significance level in the OLS result. However, from the 2SLS result, age of the household has negative relationship with social welfare at 1% significance level. Notwithstanding, the squared age in the result has negative relationship with social welfare at 1% significance level, representing 0.001 units. This implies that the relationship between age and social welfare is nonlinear. This implies that as people age, initially social welfare increases to a point, reaches maximum, and then begin to decrease. Specifically, as people advance in age, their social welfare also increases, until they attain age forty two (42), beyond which their social welfare decline. This is because beyond age forty two, people's desire or appetite for consumption (both food

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and non-food items) reduces, their health status also (immune system) become weak. This finding is consistent with Deyshappriya and Minuwanthi (2020), whose results indicate nonlinear relationship between age and social welfare. The computation of the turning point (42 years) is shown in the appendix. Sex of the household head is 1% statistically significant and positively related to social welfare, representing 1.3 units. The result implies that being a male and same time the head of the household, your social welfare increases by 1.3 units more than being a female and same time the head of the household. This can be attributable to the fact that majority of males educated compared to females. Also, males are economically active than females (who can absent themselves from work or school or meeting) due to menstruation, maternity, etc. The result is consistent with the findings of Demirguc-Kunt (2013), although male is used as the base category in the latter findings. The result shows a positive relationship between divorced people and their social welfare at 10% significance level. From the result, the divorced people have their social welfare increased by 0.3 units more than the social welfare of those who are in marriage. The Widowed has a negative relationship with social welfare at 1% significance level, representing 1.1 units. Thus, a unit increase in the number of widowed lead to 1.1 units decrease in social welfare. This implies that people who are widowed have their social welfare lower by 1.1 units less than people who are married. This is because the widowed are considered vulnerable. The unmarried on the other hand, show a positive effect on social welfare at 1% significance, representing 1 unit. This also implies that people who are unmarried have their social welfare increase by 1 unit more than those who are married. People who are unmarried could increase their consumption

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as well as increase involvement in social activities and can further their education, since they have less people depending on them. However, the result is contrary to the findings of Zaman (2004), who also find positive results. More so, the result shows that the employed have positive relationship with social welfare at 5% significance level. The result also shows a positive relationship between urban and social welfare at 1% significance level, representing 1.8 units. This is because those in the urban areas enjoy more social amenities and infrastructures, which ultimately improve their social welfare, than those in the rural areas. The result confirm the findings of other studies (McCullouch, & Calandrino, 2003; Bidani, & Richter, 2001; Dang, & Raghbendra, 2009; Huang, & Zhang, 2020).

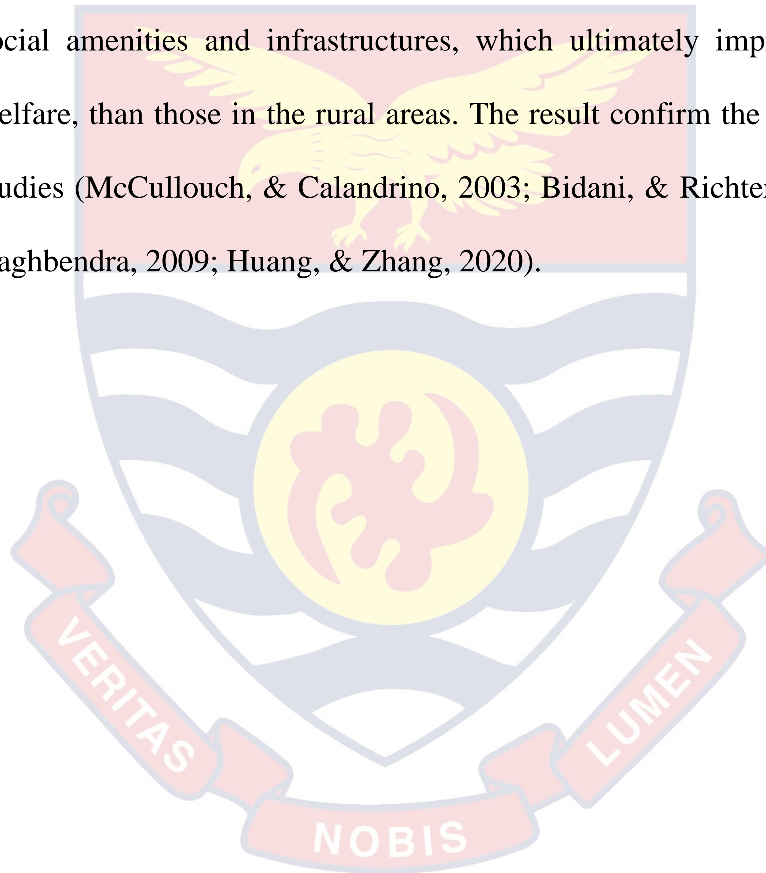

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Table 7: Governance Moderating the Effect of Financial Inclusion on Social Welfare in Ghana

	OLS	TWO STAGE LEAST SQUARES (2SLS)		
Variables	Social welfare	Financial Inclusion	Governance	Social_welfare
Household size	-0.329***	-0.017***	-0.158***	-0.308***
	(0.016)	(0.003)	(0.008)	(0.016)
Age	0.085***	0.001**	-0.003	-0.041***
	(0.015)	(0.001)	(0.002)	(0.003)
Agesq	-0.001***	-0.000	0.000	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
Male	1.327***	-0.013	-0.256***	1.295***
	(0.106)	(0.021)	(0.058)	(0.105)
Divorced	0.167	-0.182***	0.282***	0.264*
	(0.146)	(0.029)	(0.081)	(0.147)
Widowed	-1.059***	-0.188***	0.139	-1.096***
	(0.160)	(0.031)	(0.088)	(0.159)
Unmarried	1.089***	-0.104***	0.373***	0.901***
	(0.115)	(0.022)	(0.062)	(0.112)
Employed	0.129	0.094***	-0.052	0.163**
	(0.079)	(0.016)	(0.044)	(0.079)
Urban	1.765***	0.338***	-0.176***	1.806***
	(0.087)	(0.017)	(0.045)	(0.085)
Financial Inclusion	1.634***			1.647***
	(0.104)			(0.223)
Governance	0.025			0.015
	(0.023)			(0.060)

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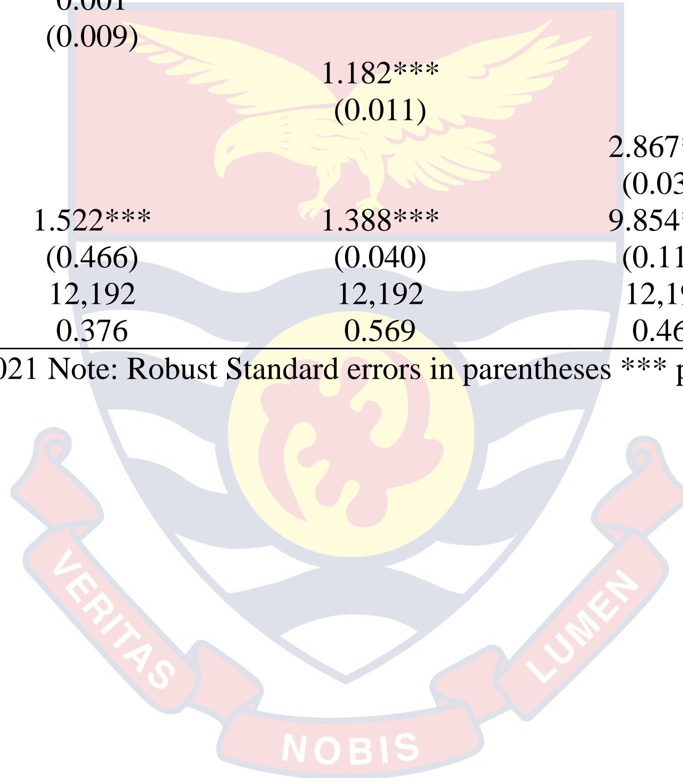
Table 7 cont'd

Interaction (FII*GI)	0.001			0.001
	(0.009)			(0.021)
Financial institution		1.182***		
		(0.011)		
Public Trust			2.867***	
			(0.032)	
Constant	1.522***	1.388***	9.854***	4.372***
	(0.466)	(0.040)	(0.114)	(0.702)
Observations	12,192	12,192	12,192	12,192
R-squared	0.376	0.569	0.469	0.373

Source: Author's Construct, 2021 Note: Robust Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1



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Governance Moderating the Effect of Financial Inclusion on each of the Components of Social Welfare (Social Inclusion or Status, Education, Health and Consumption)

Social Inclusion or Status

Table 8 presents the results for how governance moderates the effect of financial inclusion on social inclusion in Ghana. From the results, it is observed that financial inclusion has a positive effect on social inclusion but it is insignificant. On the other hand, governance has a negative relationship with social status at 1% significance level. The implication is that, one unit increase in good governance lead to 0.5 units decrease in social status. This result is contrary to the findings of Subrahmanyam (2008), whose result reveals a positive association between governance and social status. The interaction term also has a negative association with social status but the association is not significant. Notwithstanding, financial institution has a positive association with financial inclusion at 1% significance level. This also implies that a unit increase in financial institutions lead to 1.3 units increase in financial inclusion. This is because, without the availability of financial institutions such as commercial bank, investment bank, rural bank, credit and susu banks, etc., the financial excluded populace will never be captured into financial stream. The results confirms the findings of other studies (Sarma, & Pais, 2011; Asuming, Osei-Agyei, & Mohammed, 2019). However, the result is contrary to the findings of Bayero (2015), who find no significance of financial institution on financial inclusion. More so, public trust (other covariate of governance) has a positive relationship with governance at 1% significance level. This implies that a unit increase in public trust amounts to 2.9 unit improvement in governance and hence good governance. The results

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is in consonance with other studies (Gutteling, Hanssen, Van, & Seydel, 2006; Jittaruttha, 2017).

Control Variables

From Table 8, the results show positive effect of household size on social inclusion at 1% significance level, representing 0.1units. The result also implies that a unit increases in household size lead to 0.1 units increase in social inclusion. The positive relationship between household size and social inclusion is due to the fact that a large household size will have a participant in every social activity organized by or in the community. Thus, large sizes of household have the tendency to have at least a representation in every social meeting. Also, the results reveal that age of the household has positive impact on social inclusion at 10% significance level. More so, the negative relationship between squared age and Social inclusion is significant at 1% significance level, representing 0.000 units. The relationship is non-linear since at their youthful age, most individuals will attend almost all meetings but at an old age, he or she withdraws. Sex of the household head is statistically significant at 1% significance level in both OLS and 2SLS results and also, positively related to social status, representing 0.506 units and 0.147 units respectively. This implies that being male and same time the head of the household, your social status increases by 0.506 units, more than being a female household head. Male assume more leadership role and have social connection in the society more than women. From the results, those who have divorced have a negative relationship with social status at 10% significance level, showing 0.1 units. Social inclusion shows a negative relationship with the widowed at 1% significance level, showing 0.1 units. The results reveal

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that the unmarried have negative association with social inclusion at 1% significance level, representing 0.2 units. The negative relationship between the unmarried and social status implies that being unmarried, your social status decreases by 0.2 units less than the married. This implies that the unmarried never like to engage in social activities, as a result, the unmarried have their social status decreased less than the married.

The employed is negatively associated with social status at 1% significance level. The negative relationship between the employed and social inclusion means that being employed, your social status decrease by 0.3 units less than that of the underemployed. The employed people have all their time spent at the workplace, with little or no time available to engage in any other social activities, compared to the underemployed. The results also show negative association between urban and social inclusion, at a statistical significance of 1%, representing 1.123 (OLS) units and 0.483 (2SLS) units. The negative relationship between urban and social status also means that being in the urban area, social inclusion decline by 1.123 units less than those who are in the rural area. This is due to the less cohesion and solidarity in the urban areas, than in the rural areas. This also implies that meetings and social activities organized in the rural areas are more successful than that of urban areas.

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Table 8: Moderating Effect of Financial Inclusion and Governance on Social Inclusion/Status

	OLS	TWO STAGE LEAST SQUARES (2SLS)		
Variables	Social Inclusion	Financial Inclusion	Governance	Social Inclusion
Household size	0.062***	-0.016***	-0.158***	0.036***
	(0.013)	(0.003)	(0.008)	(0.004)
Age	0.022*	0.002***	-0.003	0.007***
	(0.012)	(0.001)	(0.002)	(0.001)
Agesq	-0.000	-0.000	0.000	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
Male	0.506***	-0.017	-0.256***	0.147***
	(0.073)	(0.021)	(0.058)	(0.028)
Divorced	-0.061	-0.171***	0.282***	-0.075*
	(0.101)	(0.029)	(0.081)	(0.040)
Widowed	0.048	-0.172***	0.139	-0.113***
	(0.112)	(0.031)	(0.088)	(0.043)
Unmarried	-0.296***	-0.091***	0.373***	-0.185***
	(0.085)	(0.022)	(0.062)	(0.030)
Employed	-0.264***	0.084***	-0.052	-0.017
	(0.059)	(0.016)	(0.044)	(0.021)
Urban	-1.123***	0.299***	-0.176***	-0.483***
	(0.065)	(0.017)	(0.045)	(0.023)
Financial Inclusion	0.002			0.073
	(0.151)			(0.059)
Governance	-0.001			-0.466***
	(0.030)			(0.016)
Interaction (FII*GI)	0.002			-0.008
	(0.012)			(0.005)
Financial institution		1.293***		
		(0.011)		
Public Trust			2.867***	
			(0.032)	
Constant	45.692***	1.308***	9.854***	7.597***
	(5.262)	(0.040)	(0.114)	(0.187)
Observations	12,192	12,192	12,192	12,192
R-squared		0.572	0.469	0.639

Source: Author’s Construct, 2021 Note: Robust Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

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Governance Moderating the Effect of Financial Inclusion on Education

Table 9 presents the results for how governance moderates the effect of financial inclusion on education in Ghana. From the results, it is observed that financial inclusion is significant at 1% significance level and had positive effect on education, representing 1.6 units. This implies that one unit increase in financial inclusion results in 1.6 units increase in education level of the household. This result is in line with the findings of other studies (Chiapa, Prina, & Parker, 2016; Asongu, & Odhiambo, 2020). However, the result is opposite to the findings other studies (Setyari, 2012; Banerjee, Duflo, Glennerster, & Kinnan, (2015), who find no significant impact of financial inclusion on education. Governance on the other hand affects education positively but it is statistically insignificant.

Control Variables

From the results, household size has a negative relationship with education at 1% significance level, representing 0.3 units. Thus, a unit increase in the size of the households lead to 0.3 units decrease in education. This implies that as the household size increases, household's burden becomes so large and hence reduces the chances of getting educated, due to high dependency ratio. This result confirms the findings of Ahlheim and Schneider (2013) who find that size of the household is negatively associated with social welfare. However, the result is contrary to the findings of other studies (Ellen, & Flaherty, 2007). The age of the household has positive impact on education at 1% significance level. This implies that a unit increase in age of the household head lead to 0.1 units increase in education. This means that as people advance in age, their educational level is also enhanced.

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Notwithstanding, the squared age in the result has a negative relationship with education at 1% significance level. This implies that the relationship between age and education is nonlinear. This implies that as people grow, initially people show interest in education and so education level increases to a point, reaches maximum, beyond which their enthusiasm towards education reduced. Intuitivly, as people advance in age, their education level also increases, until they attain age forty two (42), beyond which their interest for education decline. This finding is consistent with Deyshappriya and Minuwanthi (2020), whose results indicate nonlinear relationship between age and education. The computation of the turning point (42 years) is shown in the appendix. Sex of the household head is 1% statistically significant and positively related to education, representing 1.3 units. The result implies that being a male and same time the head of the household, your education level increases by 1.3 units more than being a female and same time the head of the household. This can be attributable to the fact that majority of males are educated compared to females. Also, males are economically active than females (who can absent themselves from work or school or meeting) due to menstruation, maternity, etc. Males also assume more leadership role and social connection in the society than females. The result is consistent with the findings of Demirguc-Kunt (2013), although male is used as the base category in the latter findings. The result shows a positive relationship between divorced people and their education at 10% significance level. From the result, the divorced people have their social welfare increase by 0.3 units more than the social welfare of those who are still in marriage. Also, the widowed have a negative relationship with education at 1% significance level, representing 1.1 units. This implies that

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people who are widowed have their education lower by 1.1 units less than people who are married. This is because the widowed are considered vulnerable and that is why they receive some support from Non-governmental Organisations (NGOs), occasionally. The unmarried on the other hand, show a positive effect on education at 1% significance level. This also implies that people who are unmarried have their social welfare increase by 1.080 units and 0.896 units in both OLS and 2SLS respectively, more than those who are married. People who are unmarried can increase their consumption as well as increase involvement in social activities and can further education, since they have less or no people depending on them. However, the result is contrary to the findings of Zaman (2004), who also find positive results. More so, the result shows that the employed have positive relationship with education at 5% significance level, representing 0.2 units,. The result also shows a positive relationship between urban and education at 1% significance level, representing 1.7 units. This is because those in the urban areas enjoy more social amenities and infrastructures, which ultimately enhance their studies, than those the in rural areas. The result confirms the findings of other studies (McCullouch, & Calandrino, 2003; Bidani, & Richter, 2001; Dang, & Raghbendra, 2009; Huang, & Zhang, 2020).

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Table 9: Governance Moderating the Effect of Financial Inclusion on Education

	OLS	TWO STAGE LEAST SQUARES (2SLS)		
VARIABLES	Education	Financial Inclusion	Governance	Education
Household size	-0.332***	-0.017***	-0.158***	-0.312***
	(0.016)	(0.003)	(0.008)	(0.016)
Age	0.084***	0.001**	-0.003	-0.041***
	(0.015)	(0.001)	(0.002)	(0.003)
Agesq	-0.001***	-0.000	0.000	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
Male	1.345***	-0.013	-0.256***	1.310***
	(0.106)	(0.021)	(0.058)	(0.105)
Divorced	0.163	-0.182***	0.282***	0.263*
	(0.146)	(0.029)	(0.081)	(0.147)
Widowed	-1.059***	-0.187***	0.139	-1.094***
	(0.160)	(0.031)	(0.088)	(0.159)
Unmarried	1.080***	-0.104***	0.373***	0.896***
	(0.115)	(0.022)	(0.062)	(0.112)
Employed	0.122	0.094***	-0.052	0.156**
	(0.079)	(0.016)	(0.044)	(0.079)
Urban	1.719***	0.338***	-0.176***	1.757***
	(0.087)	(0.017)	(0.045)	(0.085)
Financial Inclusion	1.629***			1.641***
	(0.104)			(0.223)
Governance	0.002			-0.013
	(0.023)			(0.060)
Interaction (FII*GI)	0.001			0.001
	(0.009)			(0.021)
Financial institution		1.182***		
		(0.011)		
Public Trust			2.867***	
			(0.032)	
Constant	1.433***	1.387***	9.854***	4.328***
	(0.466)	(0.040)	(0.114)	(0.702)
Observations	12,192	12,192	12,192	12,192
R-squared	0.372	0.569	0.469	0.369

Source: Author's Construct, 2021 Note: Robust Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Governance Moderating the Effect of Financial Inclusion on Health

Table 10 presents the results for how governance moderates the effect of financial inclusion on health in Ghana. From the results, it is observed that

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financial inclusion has a positive effect on health, but it is insignificant. Nevertheless, governance has negative relationship with health at 5% significance level representing 0.042 units. This implies that one unit increase in governance results in 0.042 unit deterioration in health status of the people of Ghana. However, this result is contrary to the findings of other studies (Kirigia, & Kirigia, 2011; Kickbusch, & Gleicher, 2012; Kickbusch, & Behrendt, 2013), who rather find positive relationships between governance and health.

Notwithstanding, the other covariate (financial institution) of financial inclusion have a positive association with financial inclusion at 1% significance level. This also implies that a unit increase in financial institutions lead to 1.3 unit increase in financial inclusion. This is because, without the availability of financial institutions such as commercial bank, investment bank, rural bank, credit and susu banks, etc., the financial excluded populace will never be captured into financial stream. The results confirms the findings of other studies (Sarma, & Pais, 2011; Asuming, Osei-Agyei, & Mohammed, 2019). However, the result is contrary to the findings of Bayero (2015), who find no significance of financial institution on financial inclusion. More so, public trust (the other covariate of governance) has a positive relationship with governance at 1% significance level. This implies that a unit increase in public trust amounts to 2.9 unit improvement in governance more than if there is no public trust among Ghanaians. The results is in consonance with other studies (Gutteling, Hanssen, Van, & Seydel, 2006; Jittaruttha, 2017).

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Control Variables

From Table 10, the results reveal that age of the household has positive impact on health, at 1% significance level, representing 0.0 units. The result implies that a unit increase in age led to 0.0 unit increases in health. Thus, as people age, their health status improve, including their activeness in social activities. More so, the squared age in the result has a negative relationship with health at 10% significance level. This implies that the relationship between age and health is nonlinear. This means that as people grow, initially their health status increases to a point, reaches maximum, and then begin to decrease. The result is in consonance with Deyshappriya and Minuwanthi (2020), whose results indicate nonlinear relationship between age and health. Sex of the household head is statistically significant at 1% significance level and negatively related to health. The negative relationship between male and health implies that being a male and same time the head of household head, your health level decrease by 0.6 (OLS) units and 0.05 (2SLS) units less than being a female and same time household head.

The result also shows that the divorced has positive impact on health at 5% significance level significance level, representing 0.238 units and 0.025 units, in OLS and 2SLS respectively. In particular, people who have divorced have their health (medical attention) increase by 0.238 (OLS) units and 0.025 (2SLS) units, compared to the married people. This implies that the divorced person become approximately released from the responsibilities that comes with marriage. The divorced person can access medical care without any limitation as compared to the married, who is bound from free movement. The association between the employed and health is negative at 1% significance

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level, representing 0.4 units and 0.03 units in OLS and 2SLS respectively. The employed have most of their time spent at the workplace with little or no time available to seek for medical attention, as compared to the underemployed. Also, the frustrations and the stresses associated with work can temper with their health. The results also show negative association between the urban and their health status, at a statistical significance of 1% in both OLS and 2SLS results, representing 0.234 units and 0.017 units respectively. This is due to the fact that the high population in the urban areas reduces the Doctor per Patient ratio, and the level of civilization in the urban areas, brings about over confidence and complacency among them, thereby making them feel reluctant to seek for medical attention when the need arise.

Table 10: Governance Moderating the Effect of Financial Inclusion on Health

	OLS	TWO STAGE LEAST SQUARES (2SLS)		
Variables	Health	Financial Inclusion	Governance	Health
Household size	-0.023	-0.016***	-0.158***	-0.001
	(0.015)	(0.003)	(0.008)	(0.001)
Age	0.038***	0.002***	-0.003	0.001***
	(0.014)	(0.001)	(0.002)	(0.000)
Agesq	-0.000*	-0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Male	-0.597***	-0.017	-0.256***	-0.047***
	(0.087)	(0.021)	(0.058)	(0.007)
Divorced	0.238**	-0.171***	0.282***	0.025***
	(0.113)	(0.029)	(0.081)	(0.010)
Widowed	-0.063	-0.172***	0.139	-0.003
	(0.124)	(0.031)	(0.088)	(0.010)
Unmarried	0.005	-0.091***	0.373***	-0.001
	(0.107)	(0.022)	(0.062)	(0.007)
Employed	-0.396***	0.085***	-0.052	-0.029***
	(0.070)	(0.016)	(0.044)	(0.005)
Urban	-0.234***	0.299***	-0.176***	-0.017***
	(0.075)	(0.017)	(0.045)	(0.006)
Financial Inclusion	0.072			0.006

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Table 10 cont'd

	(0.084)			(0.015)
Governance	-0.042**			-0.002
	(0.020)			(0.004)
Interaction (FII*GI)	0.006			0.000
	(0.008)			(0.001)
Financial institution		1.292***		
		(0.011)		
Public Trust			2.867***	
			(0.032)	
Constant	-2.739***	1.308***	9.854***	0.083*
	(0.431)	(0.040)	(0.114)	(0.046)
Observations	12,192	12,192	12,192	12,192
R-squared		0.572	0.469	0.019

Source: Author's Construct, 2021 Note: Robust Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Governance Moderating Effect of Financial Inclusion on Consumption

Table 11 presents the results for governance moderating the effect of financial inclusion on consumption in Ghana. From Table 11, it is observed that financial inclusion has a positive effect on consumption at 1% significance level, representing 0.2 units. This means that a unit increase in financial inclusion improve consumption by 0.2 units. This also implies that when people become financially included, their consumption levels also improve. This result is in line with the findings of other studies (Seck, Naiya, & Muhammad, 2017; Mwangi, & Atieno, 2018; Mallick, & Zhang, 2019). However, the current study is contrary to the findings of Banerjee, Duflo, Glennerster and Kinnan (2015), who find insignificant effect of financial inclusion on household consumption in Ghana.

However, governance has negative relationship with consumption at 1% and 10% significance level in OLS and 2SLS respectively, representing 0.01 units. Thus, one unit increase in good governance lead to 0.01 units

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decrease in consumption. This also implies that improvement in governance system does not improve the consumption level of the individual household. The result confirms the findings of Keho (2019), but contradict with the findings of other studies (Fatas, & Mihov, 2001; Heppke-Falk, Tenhofen, & Wolff, 2006; Hendrickson, & Wittman, 2010). Moreover, the result shows a negative relationship between how governance moderates the effect of financial inclusion on consumption at 10% significance level. Partially, holding financial inclusion constant, a unit increase in good governance lead to 0.013 units decrease in consumption level (partial effect of governance). Notwithstanding, financial institution also has a positive association with financial inclusion at 1% significance level, representing 1.2 units. This also implies that a unit increase in financial institutions led to 1.2 units increase in financial inclusion. The results confirm the findings of other studies (Sarma, & Pais, 2011; Asuming, Osei-Agyei, & Mohammed, 2019). However, the result is contrary to the findings of Bayero (2015), who find no significance of financial institution on financial inclusion. More so, public trust (instrumental variable for governance) has a positive relationship with governance at 1% significance level. This implies that a unit increase in public trust amount to 2.867 unit improvement in governance and hence good governance. The results is in consonance with other studies (Gutteling, Hanssen, Van, & Seydel, 2006; Jittaruttha, 2017). The computation of the partial effect of governance is shown in the appendix.

Control Variables

The results in Table 11 shows a positive effect of household size on consumption, at 1% significance level, representing 0.08 units. This implies

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that an increase in household size results in 0.08 units increase in consumption level. This is because as the size of the household increase, total consumption expenditure also increase. This result however, is contrary to the findings of Liu, Daily, Ehrlich and Luck (2003), who find an inverse association between household size and consumption.

Also, the results reveal that age of the household head has positive impact on consumption at 1% significance level, representing 0.04 units. Sex of the household head is 1% significant and negatively related to consumption, representing 0.06 units. The negative relationship between male and consumption explains that being a male and same time the head of the household, your consumption level decrease by 0.06 units, less than being a female and same time the head of the household. This is because males are naturally bread winners and will always ensure that the family is fed at all times. The result also shows that the divorced have negative relationship with consumption at 1% significance level (OLS) and at 5% (2SLS) significance level, representing 0.078 units and 0.046 units respectively. The negative relationship between divorced and consumption suggests that people who have divorced have their consumption decrease by 0.078 (OLS) units and 0.046 (2SLS) units, compared to the married people. Also, at 1% significance level, the widowed has negative association with consumption, representing 0.2 units. The negative association between the widowed and consumption also means that being the widowed, your consumption level decrease by 0.2 units less than the married. The widowed has supports from nowhere to maintain or increase their consumption, as in the case of the married person. Moreover, the result reveals a positive association between employed and consumption level

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of household head at a statistical significance of 1%, showing 0.1 units. The result implies that employed people have their consumption level increased by 0.1 units, more than that of the underemployed. This is because the employed have control over their financial life and therefore can purchase anything they need, thereby increasing their consumption level. The urban have a positive relationship with consumption at a statistical significance of 1%, showing 0.5 units. Thus, people who are in the urban areas have their consumption level increase by 0.5 units more than those who live in the rural areas. This implies that those in the urban areas have access to more food items and non-food items which ultimately increase their consumption as compared to those in the rural areas, who have limited consumption items.

Table 11: Moderating Effect of Financial Inclusion and Governance on Consumption

	OLS	TWO STAGE LEAST SQUARES (2SLS)		
Variables	Consumption	Financial Inclusion	Governance	Consumption
Household size	0.080***	-0.016***	-0.158***	0.086***
	(0.003)	(0.003)	(0.008)	(0.003)
Age	0.038***	0.002***	-0.003	-0.001***
	(0.003)	(0.001)	(0.002)	(0.000)
Agesq	-0.000***	-0.000	0.000	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
Male	-0.058***	-0.014	-0.256***	-0.069***
	(0.016)	(0.021)	(0.058)	(0.016)
Divorced	-0.078***	-0.179***	0.282***	-0.046**
	(0.022)	(0.029)	(0.081)	(0.023)
Widowed	-0.178***	-0.183***	0.139	-0.188***
	(0.025)	(0.031)	(0.088)	(0.025)
Unmarried	0.019	-0.101***	0.373***	-0.038**
	(0.017)	(0.022)	(0.062)	(0.017)
Employed	0.110***	0.091***	-0.052	0.121***
	(0.012)	(0.016)	(0.044)	(0.012)
Urban	0.492***	0.327***	-0.176***	0.504***
	(0.012)	(0.017)	(0.045)	(0.013)
Financial Inclusion	0.236***			0.240***

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Table 11 cont'd

	(0.016)			(0.035)
Governance	-0.011***			-0.017*
	(0.004)			(0.009)
Interaction (FII*GI)	-0.002*			-0.002
	(0.001)			(0.003)
Fin_institution		1.212***		
		(0.011)		
Public Trust			2.867***	
			(0.032)	
Constant	7.273***	1.366***	9.854***	8.191***
	(0.078)	(0.040)	(0.114)	(0.109)
Observations	12,192	12,192	12,192	12,192
R-squared	0.376	0.570	0.469	0.363

Source: Author's Construct, 2021 Note: Robust Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Post Estimation Test

To ensure the model's estimates are consistent, the study first tests for the appropriateness of the model, using Link Test. The null hypothesis is that the model is well specified. However, the null hypothesis is rejected based on the p-value. The study further perform omitted variable test, using Ramsey Reset Test. The null hypothesis is that the model has no omitted variable. Nevertheless, the null is rejected based on the probability value. This implies that the misspecification of the model is as a result of omission of certain variables. In order to robust the findings and to overcome the problem of omitted variable bias, the study resorts to Two Stage Least Squares (2SLS) technique. The results of the post estimation are reported in the appendices.

Chapter Summary

This chapter discusses the result obtained from the study. The specific objectives are; to ascertain the effect of financial inclusion (account ownership, access to credit, insurance, ATM, E-zwitch and E-banking) on household's social welfare in Ghana and to determine the effect of governance

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(government effectiveness, rule of law, control of corruption, voice and accountability, political stability and regulatory quality) on household's social welfare in Ghana. Moreover, the study explores the moderating effect of financial inclusion and governance on household's social welfare in Ghana. The study employs the Ordinary Least Squares technique, as well as the Two Stage Least Squares (2SLS) estimation techniques. This analysis starts with descriptive statistics and then followed by the regression results based on the aforementioned objectives.

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CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The aim of this section is to conduct a systematic review of the key results, conclusions and recommendations of the study that analyses the effects of financial inclusion and governance on the social welfare of households in Ghana. The summary gives major findings of the study while the concluding part focuses on the general outcome of the study in the light of a brief overview of the problem statement, objectives, hypotheses and methodology tested. In addition to the above, recommendations are prescribed to concerned institutions and suggestions are made for future research.

Summary of the Research Process

As a core objective, the study seeks to investigate the possible impact of financial inclusion and governance on household social welfare, using the Ghana Living Standard Survey 7 (GLSS 7). Specifically, the study seeks to ascertain the effect of financial inclusion and governance each, on household's social welfare in Ghana. Moreover, the study seeks to examine the moderating effect of financial inclusion and governance on household's social welfare in Ghana.

Based on the variables used in the study, financial inclusion is disaggregated into account ownership, access to credit, insurance, ATM, E-zwitch and E-banking services. Governance comprises of government effectiveness, rule of law, control of corruption, voice and accountability, political stability and regulatory quality. Both financial inclusion and governance are used as the independent variables. The study also includes

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other control variables such as household size, sex of household head, marital status, employment status and area of residence (urban or rural areas). Public trust and financial institutions are the other covariate used in the study. Household's social welfare level is regarded as the dependent variable in the study, which also constitutes education, health, consumption and social inclusion.

In view of these, the study adopts both the Ordinary Least Squares technique and the Two Stage Least Squares (2SLS) estimation techniques. The researcher introduces the 2SLS in order to correct issues of endogeneity and omission of variables which is inherent in the variables used for the study.

Summary of Findings

From both estimation methods (OLS and 2SLS), the study finds that financial inclusion greatly improves households' social welfare in Ghana. The implication is that as many households get financially included in the sense of getting access to more financial services; household's social welfare begins to improve.

Moreover, Political stability, voice and accountability, rule of law and regulatory quality however, enhance households' social welfare in Ghana.
It must therefore, be noted that government effectiveness and control of corruption according to the findings, do not positively improve social welfare in Ghana.

Notwithstanding, the result for governance moderating the effect of financial inclusion on households' social welfare in Ghana is insignificant.

Public trust is included in the model and the results indicate that it has a positive significant effect on governance, hence improvement in household's

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social welfare level. This gives the indication that as households gain confidence in the public sector or governance and its allied structures; household's social welfare begins to improve.

The existing financial institutions have benefits that transcends beyond their immediate institutions and trickle down to the household social welfare level.

In the area of assessing the effect of components of financial inclusion, the study reveals that all the components (Account usage, insurance, ATM, E-banking, E-zwitch) have positive significant effect on household's social welfare with exception of access to credit.

Governance components show that four of governance components (Political stability, voice and accountability, rule of law and regulatory quality) have significant effect on household's social welfare in Ghana.

Conclusion

The main aim of the study is to investigate the possible impact of financial inclusion and governance on household's social welfare level in Ghana. The main data source for this thesis is the seventh round of the Ghana Living Standards Survey (GLSS 7). The estimation techniques that are used in this study are the OLS, 2SLS, logistics and multinomial logistics. The estimation techniques, OLS, logistics and multinomial logistics are informed by the measurement of the variables in question.

The study concludes that getting more households financially included serves as a catalyst for empowering many households to improve their social welfare level.

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The study corroborates that governance has a direct positive means of enhancing the social welfare level of households in Ghana.

When efforts in making many households financially included, coupled with governance, financial inclusion services fail to improve household's social welfare level. The implication is that even though households have access and use various financial services, challenges with governance in Ghana renders financial inclusion efforts in improving social welfare futile.

Recommendations

Drawing from the findings and conclusions of the study, the following recommendations are made:

More financial institutions like Microfinance, Savings and Loans companies and Rural Banks should be established in both urban and rural areas of Ghana in order to capture more households in the financial sector. This will enable households to get access to funds to engage in productive ventures which can culminate in improved household social welfare.

Account usage, insurance, ATM, E-banking, E-zwitch other than credit must be made easy accessible, convenient and affordable by all financial institutions to every citizens because their impacts greatly improves social welfare in Ghana.

The government must pay more attention to Political stability, voice and accountability, rule of law and regulatory quality, as governance measures to improve social welfare in Ghana.

In the same way, less or no concentration should be apportioned to government effectiveness and control of corruption since they do not improve

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household social welfare positively, even though they form part of the components of governance.

Proper governance advocacy institutions like The Institute for Democratic Governance and such allied institutions should intensify their campaign for efficient country governance structures in order to facilitate efforts of the financial sector to provide financial services aimed at improving household's social welfare level.

Suggestions for Future Research

This study can be the basis for other studies to focus on integrating financial services and governance in Sub Saharan Africa (SSA). This study concentrated on certain financial services, thereby failing to include innovative products like online banking services and mobile money services.

In addition, to undertake further studies in Ghana, it is important to consider the business environment variables like taxation, legal, technological and political variables as potential factors that can influence household's social welfare.

Furthermore, similar studies can use other governance measures such as the Mo-Ibrahim Index to assess the validity of the researcher's arguments.

Other similar studies can consider the transmission mechanisms of financial inclusion on household social welfare in developing countries.

Lastly, future studies can also investigate into a rural-urban financial inclusion gap and its effect on household social welfare level.

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REFERENCES

Aaroe, L., & Petersen, M. (2014). Crowding Out Culture: Scandinavians and Americans Agree on Social Welfare in the Face of Deservingness Cues. *The Journal of Politics, 76*(3), 684-697. doi:10.1017/s002238161400019x

Agyei, K. S. (2016). *Private Investment, Labour Demand and Social Welfare in Sub-Saharan Africa.* Retrieved from http://ugspace.ug.edu.gh

Ahlheim, M., & Schneider, F. (2013). *Considering household size in contingent valuation studies* (No. 68-2013). FZID Discussion Paper.

Ajefu, J. B., Demir, A., & Haghpanahan, H. (2020). The Impact of Financial Inclusion on Mental Health. SSM-Population Health, 100630.

Akudugu, M. A., Egyir, I. S., & Mensah-Bonsu, A. (2009). Women farmers' access to credit from rural banks in Ghana. *Agricultural Finance Review*.

Ali, I., & Son, H. (2007). Measuring inclusive growth. Asian Development Review, 24(1), 11–31.

Allen, D. W., Berg, C., Lane, A. M., & Potts, J. (2017). The economics of crypto-democracy. *Available at SSRN 2973050*.

Allen, F. E.Carletti, R. Cull, J. Qian, L. Senbet, and P. Valenzuela. (2013). Resolving the African Financial Development Gap: Cross-Country Comparisons and a Within-Country Study of Kenya. World Bank Policy Working PaperNo. 6592. Washington, DC.

Anlimachie, M. A., & Avoada, C. (2020). Socio-economic impact of closing the rural-urban gap in pre-tertiary education in Ghana: context and

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

strategies. *International Journal of Educational Development*, *77*, 102236.

Annim, S. K., & Alnaa, S. E. (2013). Access to microfinance by rural women: Implications for poverty reduction in rural households in Ghana. *Research in Applied Economics, 5*(2), 19.

Ashraf, N., Karlan, D., and Yin, W., (2010). Female Empowerment: Further evidence from a commitment savings product in the Philippines. *Word Development 28(3*), 333.334.

Asongu, S. A., & Odhiambo, N. M. (2020). Finance, governance and inclusive education in Sub-Saharan Africa. *Social Responsibility Journal*.

Asuming, P. O., Osei-Agyei, L. G., & Mohammed, J. I. (2019). Financial inclusion in sub-Saharan Africa: Recent trends and determinants. *Journal of African Business*, *20*(1), 112-134.

Atkinson, A., & Messy, F. A. (2013). Promoting financial inclusion through financial education: OECD/INFE evidence, policies and practice.

Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics*, *7*(1), 22-53

Bayero, M. A. (2015). Effects of Cashless Economy Policy on financial inclusion in Nigeria: An exploratory study. *Procedia-Social and Behavioral Sciences*, *172*, 49-56.

Beck, T., Demirgüç-Kunt, A., & Honohan, P. (2009). Access to financial services: Measurement, impact, and policies. *The World Bank Research Observer*, *24*(1), 119-145.

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Beck, T., Levine, R., & Levkov, A. (2007). Bank regulation and income distribution: Evidence from branch deregulation. *Brown University and the Watson Institute for International Studies*.

Bidaishiyeva, A., Nadirova, K. K., Kuldinova, S., Apakhayev, N., Khamzina, Z. A., & Buribayev, Y. A. (2018). Improving quality of legal regulation for social rights of family and child within new social course in the Republic of Kazakhstan. *Journal of Legal, Ethical and Regulatory Issues*, *21*(1), 1-7.

Bidani, B., & Richter, K. (2001, June). Household vulnerability and the Asian crisis: The case of Thailand. In *Third Asia Development Forum on "Vulnerability and Poverty", Bangkok, Thailand, June*.

Birdsall, N., Vaishnav, M., & Ayres, R. (2006). Short of the goal: US policy and poorly performing states.

Boone, C. (2005) 'State, Capital, and the Politics of Banking Reform in Sub-Saharan Africa', Comparative Politics 37(4): 401–20.

Boot, A. W., & Thakor, A. V. (1997). Banking scope and financial innovation. *The Review of Financial Studies*, *10*(4), 1099-1131.

Bosiakoh, T. A., & Tetteh, V. W. (2019). Nigerian immigrant women's entrepreneurial embeddedness in Ghana, West Africa. *International Journal of Gender and Entrepreneurship*.

Bracking, S. (2018). Structural Adjustment Policies. *The International Encyclopedia of Anthropology*, 1-9.

Brady, D. (2009). *Rich democracies, poor people: How politics explain poverty*. Oxford University Press.

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Brady, D., Fullerton, A. S., & Cross, J. M. (2009). Putting poverty in political context: a multi-level analysis of adult poverty across 18 affluent democracies. *Social Forces*, *88*(1), 271-299.

Calamoris, C.W. and Haber, S. (2011) Fragile Banks, Durable Bargains: Why banking is all about politics and always has been. Washington, DC: World Bank.

Cameron, A. C., & Trivedi, P. K. (2005). *Microeconometrics: Methods and applications*. Cambridge University Press.

Chaia,Alberto, Dalal, Aparna, Goland, Tony, Gonzalez, MariaJose, Morduch, Jonathan, Schiff, Robert 2009: Half the World is Unbanked (Financial Access Initiative Framing Note), New York, Cambridge, New Haven.

Chiapa, C., Prina, S., & Parker, A. (2016). The effects of financial inclusion on children's schooling, and parental aspirations and expectations. *Journal of International Development*, *28*(5), 683-696.

Chibba, M. (2009). Financial inclusion, poverty reduction and the millennium development goals. *The European Journal of Development Research*, *21*(2), 213-230.

Chioveanu, I., Fauli-Oller, R., Sandonis, J., & Santamaría, J. (2009). ATM surcharges: Effects on deployment and welfare. *The Journal of Industrial Economics*, *57*(3), 613-635.

Chioveanu, I., Faulí-Oller, R., Sandonis, J., & Santamaria, J. (2007). *ATM surcharges: effects on deployment and welfare*. Instituto Valenciano de Investigaciones Económicas.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Csáki, C., O'Brien, L., Giller, K., McCarthy, J. B., Tan, K. T., & AdamF. (2013). The use of E-Payment in the distribution of social welfare in Ireland. *Transforming Government: People, Process and Policy*.

Daly, M. (2003). Governance and social policy. *Journal of social policy*, *32*, 113.

De Mesquita, E. B., & Stephenson, M. C. (2007). Regulatory quality under imperfect oversight. *American Political Science Review*, 605-620.

De Mesquita, E. B., & Stephenson, M. C. (2007). Regulatory quality under imperfect oversight. *American Political Science Review*, 605-620.

Deeks, A., Lombard, C., Michelmore, J., & Teede, H. (2009). The effects of gender and age on health related behaviors. *BMC Public Health*, *9*(1), 213.

Demirgüc ̧-Kunt, A., Klapper, L., Randall, D., 2013. Islamic Finance and Finan-cial Inclusion: Measuring Use of and Demand for Formal Financial Servicesamong Muslim Adults (Policy Research Working Paper No. 6642). TheWorld Bank, Washington, DC

Demirgüç-Kunt, A., & Klapper, L. (2012). Measuring financial inclusion: Explaining variation in use of financial services across and within countries. *Brookings Papers on Economic Activity*, *2013*(1), 279-340.

Demirguc-Kunt, A., Klapper, L., & Peria, M. S. M. (2012). *The foundations of financial inclusion: Understanding ownership and use of formal accounts*. The World Bank.

Demirguc-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. The World Bank

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Deyshappriya, N. R., & Minuwanthi, R. W. W. K. (2020). Determinants of Poverty: Is Age Non-Linearly Related with Poverty? Evidence from Sri Lanka. *International Journal of Asian Social Science*, *10*(4), 181-192.

Diagne, A. and M. Zeller (2001), Access to credit and its impact in Malawi,

Dixon, J. (Ed.). (2016). *Social welfare in Africa*. Routledge.

Downs, A. (1957). An economic theory of democracy. New York: Harper.

Eberhardt, M., & Teal, F. (2011). Econometrics for grumblers: a new look at the literature on cross-country growth empirics. *Journal of Economic Surveys*, *25*(1), 109-155.

Eldersveld, S. J. (2019). *Local elites in western democracies: A comparative analysis of urban political leaders in the US, Sweden, and the Netherlands*. Routledge.

Ellen, I. G., & O'Flaherty, B. (2007). Social programs and household size: evidence from New York city. *Population Research and Policy Review*, *26*(4), 387-409.

El-Zoghbi, M., Holle, N., & Soursourian, M. (2019). Emerging Evidence on Financial Inclusion: Moving from Black and White to Color. *Washington, DC: CGAP. https://www. cgap. org/research/publication/emerging-evidence-financial-inclusion*.

Evers, A. (2005). Mixed welfare systems and hybrid organizations: Changes in the governance and provision of social services. *Intl Journal of Public Administration*, *28*(9-10), 737-748.

Fanti, L. (2016). Interlocking cross-ownership in a unionised duopoly: When social welfare benefits from "more collusion". *Journal of Economics,*

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

119(1), 47-63. Retrieved February 24, 2020, from www.jstor.org/stable/43918098

Fatas, A. and I. Mihov, 2001. The effects of fiscal policy on consumption and employment.Theory and evidence. Mimeo: INSEAD.

Fazli, M., & Amanihamedani, A. (2019). Governance of Social Welfare in Networked Markets. *arXiv preprint arXiv:1911.09152*.

Fishkin, J. S. 2009. *When the people speak: Deliberative democracy and public consultation*. Oxford; New York: Oxford University Press.

Froud, J., Moran, M., Nilsson, A., & Williams, K. 2010. Wasting a crisis? Democracy and markets in Britain after 2007. ***The Political Quarterly***, 81(1): 25–38.

Fukuyama, Francis. 2013. "What is governance?" Governance, 26(3): 347-368.

Gabor, D., & Brooks, S. (2017). The digital revolution in financial inclusion: international development in the fintech era. *New Political Economy*, *22*(4), 423-436.

Gerged, A., & Elheddad, M. (2020). How can national governance affect education quality in Western Europe?. *International Journal of Sustainability in Higher Education*.

Gerged, A., & Elheddad, M. (2020). How can national governance affect education quality in Western Europe?. *International Journal of Sustainability in Higher Education*.

Ghana Statistical Service (2018). *Ghana Living Standards Survey Round 7 (GLSS7): Main Report*, Accra, Ghana: Ghana Statistical Service

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Gledhill, J. (2019). *Neoliberalism, transnationalization and rural poverty: a case study of Michoacan, Mexico*. Routledge.

Gloukoviezoff, G. (2007). From financial exclusion to overindebtedness: the paradox of difficulties for people on low incomes? In *New frontiers in banking services* (pp. 213-245). Springer, Berlin, Heidelberg.

Gutteling, J., Hanssen, L., Van Der Veer, N., & Seydel, E. (2006). Trust in governance and the acceptance of genetically modified food in the Netherlands. *Public Understanding of Science*, *15*(1), 103-112.

Habermas, J. (1996). The European nation state. Its achievements and its limitations. On the past and future of sovereignty and citizenship. *Ratio juris*, *9*(2), 125-137.

Habermas, J. 1998. Three normative models of democracy. In J. Habermas (Ed.), *The inclusion of the other: Studies in political theory*: 239–252. Cambridge, MA: MIT Press.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis* (Vol. 5, No. 3, pp. 207-219). Upper Saddle River, NJ: Prentice hall.

Halliday, T. J., & Park, M. (2009). Household size, home health care, and medical expenditures. *Institute for the Study of Labor (IZA). University of Hawai'i at Manoa. Retrieved from http://www. economics. hawaii. edu/research/workingpapers/WP_09-16. pdf.*

Hendrickson, D. J., & Wittman, H. K. (2010). Post-occupancy assessment: building design, governance and household consumption. *Building Research & Information*, *38*(5), 481-490.

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Heppke-Falk, K.H., J. Tenhofen and G.B. Wolff, 2006. The macroeconomic effects of exogenous fiscal policy shocks in Germany: A disaggregated SVAR analysis. Deutsche Bundesbank, Discussion Paper No. 41

Holland, J., Thirkell, A., Trepanier, E., & Earle, L. (2009). Measuring change and results in voice and accountability work. *DFID, Department for International Development, Working Paper*, (134).

Honahan, P. (2007). Cross-Country Variation in Household Access to Financial Services. http://www.icrier.org/pdf/Working_Paper_215.pdf

Huang, Y., & Zhang, Y. (2020). Financial inclusion and urban–rural income inequality: Long-run and short-run relationships. *Emerging Markets Finance and Trade*, *56*(2), 457-471.

Huber, E., & Stephens, J. D. (2001). 4 Welfare State and Production Regimes in the Era of Retrenchment44. *The new politics of the welfare state*, 107.

Hulme, D., & Shepherd, A. (2003). Conceptualizing chronic poverty. *World development*, *31*(3), 403-423.

Jha, R., & Dang, N. (2009). Vulnerability to poverty in selected Central Asian countries.

Jittaruttha, C. (2017, October). Public Trust and Governance in Public Administration in Thailand. In *Proceedings of International Academic Conferences* (No. 5808123). International Institute of Social and Economic Sciences.

Johnson, S., & Williams, R. (2016). The political economy of financial inclusion: tailoring donor policy to fit. *Development Policy Review*, *34*(5), 721-743.

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Karlan, D. S., & Zinman, J. (2009). Expanding microenterprise credit access: Using randomized supply decisions to estimate the impacts in Manila.

Keho, Y. (2019) Impact of Government Spending on Private Consumption: Evidence from ECOWAS Countries. *Modern Economy*, 10, 600-614. doi: 10.4236/me.2019.103041.

Kemal, A. A. (2019). Mobile banking in the government-to-person payment sector for financial inclusion in Pakistan. *Information Technology for Development*, *25*(3), 475-502.

Kendall, Jake, Mylenko, Natalia, Ponce, Alejandro 2010: Measuring Financial Access Around the World (The World Bank, Policy Research Working Paper 5253), Washing ton, D.C.

Khalily, M. B., & Khaleque, M. A. (2013). *Access to Credit and Productivity of Enterprises in Bangladesh: Is there Causality?* (Vol. 20). Institute of Microfinance.

Khan, J., Hildingsson, R., & Garting, L. (2020). Sustainable Welfare in Swedish Cities: Challenges of Eco-Social Integration in Urban Sustainability Governance. *Sustainability*, *12*(1), 383.

Khan, K., Chen, F. E. I., & Ashraf, N. (2015). Impact of government spending on private consumption using ARDL approach. *Asian Economic and Financial Review*, *5*(2), 239-248.

Khan, M. (2008) 'Governance and Development: The Perspective of Growth-Enhancing Governance', in GRIPS Development Forum (ed.) Diversity and Complementarity in DevelopmentAid: East Asian Lessons for African Growth, pp. 107–52. Tokyo: GRIPS DevelopmentForum/National Graduate Institute for Policy Studies.

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Khan, M., & Jomo (2000). Rent-Seeking as a Process: Inputs, Rent-Outcomes and Net Effects. In M. Khan and K.S. Jomo, (eds.), Rents, Rent-Seeking and Economic Development. Cambridge: Cambridge University Press.

Kickbusch, I., & Behrendt, T. (2013). *Implementing a Health 2020 vision: governance for health in the 21st century. Making it happen*. World Health Organization. Regional Office for Europe.

Kickbusch, I., & Gleicher, D. (2012). *Governance for health in: the 21st century*. World Health Organization. Regional Office for Europe.

Kickbusch, I., & Gleicher, D. E. (2011). *Governance for health in the 21st century: a study conducted for the WHO Regional Office for Europe* (No. BOOK). WHO.

Kilpi-Jakonen, E., de Vilhena, D. V., Kosyakova, Y., Stenberg, A., & Blossfeld, H. P. (2012). The impact of formal adult education on the likelihood of being employed: A comparative overview. *Studies of Transition States and Societies*, *4*(1).

Kirigia, J. M., & Kirigia, D. G. (2011). The essence of governance in health development. *International Archives of Medicine*, *4*(1), 11.

Kirkpatrick, G. (2009). The corporate governance lessons from the financial crisis. *OECD Journal: Financial Market Trends*, *2009*(1), 61-87.

Koomson, I., & Ibrahim, M. (2018). Financial inclusion and growth of non-farm enterprises in Ghana. In *financing sustainable development in Africa* (pp.

Kumar, A. (2004). *Access to financial services in Brazil*. The World Bank.

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Kumar, T. R. (2017). A Comprehensive Literature Review on Financial Inclusion. *Asian Journal of Research in Banking and Finance*, *7*(8), 119-133.

Kwan, Y.K., 2006. The direct substitution between government and private consumption, in East Asia NBER Working Paper No. 12431, JEL No. E6, H5.

Kwon, H. J., & Kim, E. (2014). Poverty reduction and good governance: Examining the rationale of the Millennium Development Goals. *Development and Change*, *45*(2), 353-375.

Larbi, A. T. (2012). *The E-Zwich a Facilitator of Financial Mobility and Inclusion; A Case Study of the Central Region of Ghana* (Doctoral dissertation).

Larson, D., & Plessmann, F. (2002). *Do farmers choose to be inefficient? Evidence from Bicol, Philippines*. The World Bank.

Lederle, N. (2009). *Exploring the impacts of improved financial inclusion on the lives of disadvantaged people* (Doctoral dissertation, Heriot-Watt University).

Ledgerwood, J., Earne, J., & Nelson, C. (Eds.). (2013). *The new microfinance handbook: A financial market system perspective*. The World Bank.

Lerner, C. A. (2006). The Institutiona lLogic of Welfare Attitudes: How Welfare Regimes Influence Public Support. Hamshire, UK: Ashgate.

Lin, J. (2012). New Structural Economics: A framework for rethinking development and policy. Washington, DC: World Bank.

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Liu, J., Daily, G. C., Ehrlich, P. R., & Luck, G. W. (2003). Effects of household dynamics on resource consumption and biodiversity. *Nature*, *421*(6922), 530-533.

Mallick, D., & Zhang, Q. (2019). The Effect of Financial Inclusion on Household Welfare in China.

Marti, E., & Scherer, A. G. (2016). Financial regulation and social welfare: The critical contribution of management theory. *Academy of Management Review*, *41*(2), 298-323.

McCulloch, N., & Calandrino, M. (2003). Vulnerability and chronic poverty in rural Sichuan. *World Development*, *31*(3), 611-628.

McKinley, T. (2010). Inclusive growth criteria and indicators: An inclusive growth index for diagnosis of country progress.

Mehrotra, A. N., & Yetman, J. (2015). Financial inclusion-issues for central banks. *BIS Quarterly Review March*.

Millard, S., & Willison, M. (2006). The welfare benefits of stable and efficient payment systems.

Moene, K. O., & Wallerstein, M. (2001). Inequality, social insurance, and redistribution. *American Political Science Review*, *95*(4), 859-874.

Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counseling psychology. *Journal of counseling psychology*, *52*(2), 250.

Mullineux, A. W. A. (2010). Financial innovation and social welfare. *Journal of Financial Regulation and Compliance*.

Mwangi, I., & Atieno, R. (2018). Impact of financial inclusion on consumption expenditure in Kenya.

Digitized by Sam Jonah Library

© University of Cape Coast https://ir.ucc.edu.gh/xmlui

Nilsson, M. (2017). *Important interactions among the sustainable development goals under review at the high-level political forum 2017*. Stockholm Environment Institute..

Ogunniyi, A. I., Mavrotas, G., Olagunju, K. O., Fadare, O., & Adedoyin, R. (2020). Governance quality, remittances and their implications for food and nutrition security in Sub-Saharan Africa. *World Development*, *127*, 104752.

Okereke, Samuel Felix. 2011. An Econometric Analysis of The Impact of Financial Deepening on Aggregate Welfare in Nigeria. Tesis. University of Nigeria.

Omojolaibi, J. A. (2017). Financial Inclusion, Governance and Economic Progress in Nigeria: What Happens to the Welfare of the Poor?. *Oman Chapter of Arabian Journal of Business and Management Review*, *34*(93), 1-14.

Osei-Wusu Adjei, P., Agyemang, S., & Afriyie, K. (2012). Non-governmental organizations and rural poverty reduction in northern Ghana: perspectives of beneficiaries on strategies, impact and challenges.

Ouyang, Y., Shimeles, A., & Thorbecke, E. (2019). Revisiting cross-country poverty convergence in the developing world with a special focus on Sub-Saharan Africa. *World Development*, *117*, 13-28.

Patrick, H. T. (1966). Financial development and economic growth in underdeveloped countries. *Economic development and Cultural change*, *14*(2), 174-189.

Pearce, D., Barbier, E., & Markandya, A. (2013). *Sustainable development: economics and environment in the Third World*. Routledge.

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Quaye, F. M. (2015). *Credit Delivery Analyses and Climate Impact Issues: The Case of Ghana and Southeastern US* (Doctoral dissertation).

Raman, B. (2012). The rhetoric and reality of transparency: transparent information, opaque city spaces and the empowerment question. *The Journal of Community Informatics*, *8*(2), 1-12.

Rauniyar, G. and Kanbur, R. (2010). Inclusive Development: Two Papers on Conceptualization, Application, and the ADB Perspective. Mandaluyong City, Philippines, Asian Development Bank.

Reid, J., & Swann, D. (2019). Decolonising the Finnish Baby box: A sociomaterial approach to designing interventions for infant and maternal health and well-being in Zambia. *Journal of Early Childhood Education Research*, *8*(2).

Rolleston (2011) found out that greater disparity were being noticed in the urban areas.Birdsall, N., Vaishnav, M., & Ayres, R. L. (2006). *Short of the Goal: US Policy and Poorly Performing States*. CGD Books.Asongu, S. A., & Odhiambo, N. M. (2019). Governance and social media in African countries: An empirical investigation. *Telecommunications Policy*, *43*(5), 411-425.

Sacks, A., & Levi, M. (2010). Measuring Government Effectiveness and Its Consequences for Social Welfare in Sub-Saharan African Countries. *Social Forces, 88*(5), 2325-2351. Retrieved March 16, 2020, from www.jstor.org/stable/40927548

Saengchai, S., Mitprasat, M., & Horakul, P. (2020). Judging Quality of Education From Social Paradigm In Asia: Effect Of Civil Liberties,

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Regulatory Quality and Voice and Accountability. *Journal of Security & Sustainability Issues*, *9*.

Sarma, M. (2008). *Index of financial inclusion* (No. 215). Working paper.

Sarma, M. (2012). Index of Financial Inclusion–A measure of financial sector inclusiveness. *Centre for International Trade and Development, School of International Studies Working Paper Jawaharlal Nehru University. Delhi, India*.

Sarma, M. (2016). Measuring financial inclusion for Asian economies. In *Financial Inclusion in Asia* (pp. 3-34). Palgrave Macmillan, London.

Sarma, M., & Pais, J. (2011). Financial inclusion and development. *Journal of international development*, *23*(5), 613-628.

Schumpeter, J. (1934). The theory of economic development Harvard University Press. *Cambridge, MA*.

Seck, O., Naiya, I. I., & Muhammad, A. D. (2017). *Financial Inclusion and Household Consumption: Case of Nigeria* (No. 2017-3).

Setyari, Ni Putu Wiwin. 2012. Evaluasi dampak Kredit Mikro Terhadap Kesejahteraan Rumah Tangga di Indonesia: Analisis Data Panel. Jurnal Ekonomi Kuantitatif Terapan. Vol 5 No 2.

Sovacool, B. K., Kester, J., Noel, L., & de Rubens, G. Z. (2018). The demographics of decarbonizing transport: The influence of gender, education, occupation, age, and household size on electric mobility preferences in the Nordic region. *Global Environmental Change*, *52*, 86-100.

Srinivasan, V., Vardhan, V., Kar, S., Asthana, S., Narayanan, R., Singh, P.,& Seth, A. (2013). Airavat: An automated system to increase

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transparency and accountability in social welfare schemes in India. In *Proceedings of the Sixth International Conference on Information and Communications Technologies and Development: Notes-Volume 2* (pp. 151-154).

Steinbrink, M., & Niedenführ, H. (2020). Translocal Development?. In *Africa on the Move* (pp. 219-229). Springer, Cham.

Stiegler, U. (2013). *Migrants' Money for Financial Inclusion?: Transnational Governance-Initiatives in the US-Mexican Context* (Doctoral dissertation).

Subrahmanyam, A. (2008). Social networks and corporate governance. *European Financial Management*, *14*(4), 633-662.

Tita, A. F., & Aziakpono, M. J. (2017). The effect of financial inclusion on welfare in sub-Saharan Africa: Evidence from disaggregated data. *Economic Research Southern Africa, Working Paper*, (679).

Torfing, J., Peters, B. G., Pierre, J., & Sørensen, E. (2012). *Interactive governance: Advancing the paradigm*. oxford university Press on demand.

Trochim, W. M., & Donnelly, J. P. (2001). *Research methods knowledge base* (Vol. 2). Cincinnati, OH: Atomic Dog Publishing.

Wagstaff, A. (2002). Poverty and health sector inequalities. *Bulletin of the world health organization*, *80*, 97-105.

Welsch, H. (2008). The welfare costs of corruption. *Applied Economics*, *40*(14), 1839-1849.

Whitfield, L. and Therkildsen, O. (2011) What Drives States to Support the Development of Productive Sectors? Strategies ruling elites pursue for

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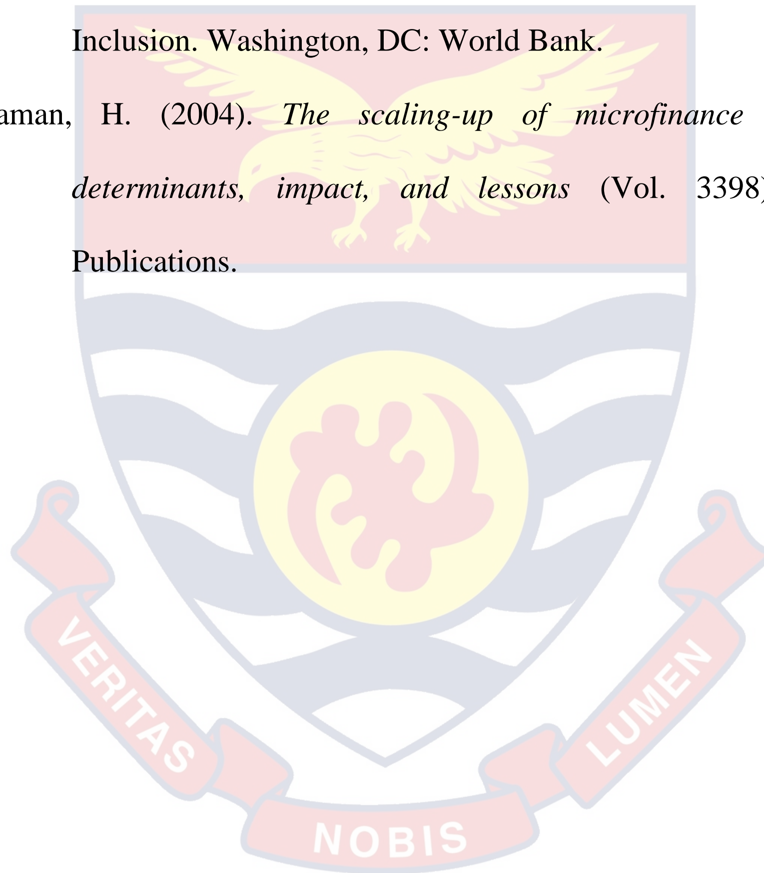
politicalsurvival and their policy implications. DIIS Working Paper No. 2011:15.Copenhagen: Danish Institute for International Studies.

Wong, C. K. (2008). Squaring the welfare circle in Hong Kong: Lessons for governance in social policy. *Asian Survey*, *48*(2), 323-342.

Wooldridge, J. M. (2016). *Introductory econometrics: A modern approach*. Nelson Education.

World Bank (2014). Global Financial Development Report 2014: Financial Inclusion. Washington, DC: World Bank.

Zaman, H. (2004). *The scaling-up of microfinance in Bangladesh: determinants, impact, and lessons* (Vol. 3398). World Bank Publications.



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APPENDICES

Appendix A: ***Principal Component Analysis (PCA) Rotation***

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	28.791	23.939	0.839	0.839
Comp2	4.852	4.276	0.141	0.981
Comp3	0.576	0.495	0.017	0.998
Comp4	0.082	.	0.002	1.000

Source: Author's Construct, 2021

Principal Components (Eigenvectors)

Variable	Comp1	Comp2	Unexplained
education	0.997	0.045	0.002
health	-0.001	0.001	0.082
Social inclusion/status	-0.049	0.996	0.003
consumption	0.057	0.077	0.571

Source: Author's Construct, 2021

Kaiser-Meyer-Olkin Measure Of Sampling Adequacy

Variable	Kmo
education	0.9588
health	0.2759
Social inclusion/status	0.9604
consumption	0.9367
Overall	0.9515

Source: Author's Construct, 2021

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Appendix B: Pre Test Estimation

Multicolinearity

Pairwise Correlations Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1)Social Welfare	1.000																	
(2) Education	1.000*	1.000																
(3) Health	-0.015	-0.015	1.000															
(4) Social Status	-0.118*	-0.101*	0.008	1.000														
(5) Consumption	0.369*	0.365*	0.023*	0.136*	1.000													
(6) Account	0.446*	0.445*	-0.009	-0.023*	0.377*	1.000												
(7) Credit	0.037*	0.037*	0.054*	0.022*	0.086*	0.148*	1.000											
(8) Insurance	0.142*	0.142*	0.059*	0.008	0.152*	0.179*	0.083*	1.000										
(9) cheque	0.420*	0.419*	-0.023*	-0.011	0.345*	0.587*	0.068*	0.158*	1.000									
(10) ATM	0.410*	0.409*	-0.034*	-0.044*	0.291*	0.379*	0.028*	0.150*	0.385*	1.000								
(11) E_zwich	0.089*	0.089*	0.010	-0.023*	0.079*	0.090*	0.018*	0.017*	0.081*	0.144*	1.000							
(12) E_banking	0.120*	0.119*	0.007	0.001	0.116*	0.105*	0.026*	0.053*	0.129*	0.218*	0.290*	1.000						
(13)Police_Corupt	-0.110*	-0.113*	0.005	-0.189*	-0.162*	-0.097*	-0.026*	-0.019*	-0.070*	-0.046*	-0.025*	-0.024*	1.000					
(14) judi_corupt	-0.073*	-0.078*	0.021*	-0.283*	-0.150*	-0.063*	-0.011	-0.004	-0.065*	-0.053*	-0.028*	-0.028*	0.566*	1.000				
(15) Bribe	-0.024*	-0.032*	-0.010	-0.465*	-0.154*	-0.052*	-0.023*	-0.093*	-0.056*	-0.024*	-0.017*	-0.025*	0.187*	0.221*	1.000			
(16) Poli_Confi	0.017*	0.004	0.008	-0.744*	-0.159*	-0.030*	-0.008	-0.020*	-0.041*	-0.020*	0.018*	-0.012	0.240*	0.296*	0.408*	1.000		
(17)Armed_Confi	0.088*	0.072*	0.009	-0.884*	-0.130*	0.020*	0.005	0.001	-0.001	0.014	0.027*	-0.004	0.195*	0.300*	0.456*	0.822*	1.000	
(18) Poli_Effi	0.012	0.001	0.005	-0.640*	-0.160*	-0.026*	-0.012	-0.004	-0.048*	-0.035*	-0.015	-0.039*	0.228*	0.280*	0.360*	0.728*	0.691*	1.000
(19) Judi_Effi	0.095*	0.084*	-0.002	-0.651*	-0.109*	0.032*	-0.008	0.021*	-0.007	0.015	-0.005	-0.024*	0.150*	0.278*	0.321*	0.648*	0.692*	0.777*
(20)Political_Stabi	0.086*	0.071*	-0.001	-0.842*	-0.123*	0.026*	0.001	-0.015	0.006	0.011	0.023*	-0.006	0.177*	0.277*	0.448*	0.727*	0.856*	0.634*
(21) Free_speech	0.090*	0.073*	0.009	-0.930*	-0.157*	0.015	0.005	-0.008	-0.003	0.012	0.023*	-0.007	0.208*	0.308*	0.485*	0.789*	0.936*	0.688*
(22) party	0.087*	0.071*	0.008	-0.936*	-0.156*	0.013	0.005	-0.009	-0.004	0.010	0.022*	-0.008	0.210*	0.312*	0.488*	0.791*	0.940*	0.690*
(23) franchise	0.087*	0.070*	0.008	-0.935*	-0.157*	0.013	0.005	-0.009	-0.004	0.010	0.022*	-0.008	0.210*	0.311*	0.487*	0.792*	0.940*	0.691*
(24) Rule of Law	0.121*	0.111*	0.017*	-0.566*	-0.003	0.086*	0.021*	0.041*	0.058*	0.037*	0.046*	0.015	0.062*	0.147*	0.132*	0.475*	0.602*	0.444*
(25) robbery	-0.072*	-0.059*	-0.032*	0.731*	0.092*	-0.050*	-0.022*	-0.004	-0.016	0.006	-0.020*	-0.004	-0.148*	-0.224*	-0.378*	-0.604*	-0.746*	-0.529*
(26) crime	-0.079*	-0.067*	-0.034*	0.685*	0.061*	-0.062*	-0.023*	-0.016	-0.014	-0.006	-0.028*	-0.010	-0.122*	-0.198*	-0.321*	-0.560*	-0.698*	-0.491*

Source: Author's Construct, 2021 * shows significance at the .05 level

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Appendix C: Variance Inflation Factor (VIF)

Ho: VIF≥10

Mean VIF 8.04

Appendix D: Post Estimation

Model Specification (link test)

Ho: model is well specified

Source	SS	Df	MS
Model	129696.753	2	64848.3764
Residual	215193.598	12,189	17.6547377
Total	344890.351	12,191	28.290571

Source: Author's Construct, 2021

Number of obs = 12,192

F(2, 12189) = 3673.14

Prob > F = 0.0000

R-squared = 0.3761 Root MSE = 4.2018

Adj R-squared = 0.3759

Appendix E: Post Estimation

Omitted Variables bias

social_wel~e	Coef.	Std. Err.	T	P>|t|	[95% Conf.	Interval]
_hat	1.010156	.0442331	22.84	0.000	.9234522	1.09686
_hatsq	.0006842	.0028746	-0.24	0.812	-.0063189	.0049504
_cons	-0302118	.1549637	-0.19	0.845	-.3339653	.2735417

Source: Author's Construct, 2021

RESET test using powers of the fitted values of social welfare

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Ho: Ho: model has no omitted variables

$F(3, 12177) =$ 24.83

Prob > F = 0.0000

Appendix F: Partial Effect Analysis

1. **Governance Moderating the Effect of Financial Inclusion on Consumption (Social Welfare)**

Consumption= $\alpha_i + B_1$ Financial inclusion $+B_2$ Governance $+ B_3$Fin* Gov

$\frac{d\text{Consumption}}{d\text{Governance}}$= 7.237 + 0.236Financial inclusion -0.011Governance - 0.002Fin*Gov

= -0.011-0.002 = -0.013 units

Appendix G: Non linearity of Age (agesq)

Social welfare = $\alpha_i + B_1$ Age $+B_2$ agesq

$\frac{d\text{Social welfare}}{d agesq} = 0.085\text{Age} - 0.001\text{ ages}^2$

0.085−0.002ages=0

= 0.085/0.002 = 42.5 =42 years

Education (social welfare) = $\alpha_i + B_1$ Age $+B_2$ ages^2

$\frac{d\text{Social welfare}}{d ages^2} = 0.084\text{Age} - 0.001\text{ ages}^2$

0.084−0.002ages=0

= 0.085/0.002 =42 years

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