UNIVERSITY OF GHANA

COLLEGE OF HUMANITIES

REMITTANCE USE AND WELLBEING: EVIDENCE FROM GHANA'S EXPERIENCE

BY

DOREEN MAMLE MARTEY

(10398511)

THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER OF PHILOSOPHY IN ECONOMICS DEGREE

DEPARTMENT OF ECONOMICS

JULY, 2019

DECLARATION

I, Doreen Mamle Martey hereby declare that apart from the references made to other research works in which I have duly acknowledged, this thesis was carried out by me under the supervision of Dr. Louis Boakye-Yiadom and Prof. William Baah-Boateng.

I bear sole responsibility for any shortcomings.

……..…….. 29th June 2020
DOREEN MAMLE MARTEY DATE

(10398511)

…….. 1st July 2020
DR. LOUIS BOAKYE-YIADOM DATE

(SUPERVISOR)

…… 1st July 2020
PROF. WILLIAM BAAH-BOATENG DATE

(SUPERVISOR)

ABSTRACT

Research into the developmental impact of remittances in developing countries suggests that remittances play an important role in alleviating poverty and improving households' consumption welfare. Notwithstanding, some scholars are of the view that much of the impetus behind the significant contributions remittances make to wellbeing hinge on the uses to which remittances are put by households. Drawing on data from the 2012/13 Ghana Living Standards Survey (GLSS VI), this study empirically explores whether the uses to which remittances are put by households play a pivotal role in determining their wellbeing and examines the factors that determine households' use of remittances for daily consumption purposes. More specifically, the study analyzes the effect of remittance use on household consumption welfare and poverty status. In evaluating the effect of remittance use and wellbeing, this study employed descriptive statistics to examine the poverty status of households by the age group of the household head, the sex of the household head, rural-urban locale, household size and other variables and used the multiple linear regression model to analyze the consumption welfare effects of remittance use. Also, the study used the probit model to determine the factors that affect the use of remittances for daily consumption and explore the poverty effects of remittance use. The study reveals that the poverty status of households, household size, the ecological zones in which households live, and the sex, age, and employment status of household heads significantly determine the use of remittances for daily consumption purposes. More importantly, the study shows that households who use remittances for housing, business, health, funerals, and other ceremonies have better consumption welfare levels compared to those who use remittances for daily consumption. In addition, the study reveals that whilst households who use remittances for funerals have higher probabilities of becoming poor, those who spend remittances on housing, business, ceremonies

(other than funerals) and health have lower probabilities of becoming poor compared to those who spend remittances on daily consumption. The study thus lends empirical support to the view that remittance use for investments or productive activities has beneficial consumption welfare and poverty-reducing effects than for the use for consumption purposes.

Key Words: Remittance Use, Poverty, Welfare, Human Capital, Investment, Consumption.

DEDICATION

I dedicate this work to God, my parents Apostle Samuel Martey and Cindy Martey, my siblings, my entire family, and my friends.

ACKNOWLEDGEMENT

My immeasurable gratitude goes to the Almighty God for the strength and grace given to me to conduct this thesis. I also wish to express my profound gratitude to Dr. Louis Boakye-Yiadom and Prof. William Baah-Boateng, my prominent supervisors for their guidance, support, and encouragement given to produce this work to meet acceptable academic standards.

I owe my friends and family, especially Apostle Samuel Martey, Cindy Martey, Dr. Emmanuel Abbey, Mr. Elliot Appertey, Daniel Sey, Gloria Barnes, Christian Osei, Danny Turkson, Manasseh Akohene, Dorothy Martey, and Stephen Kotochie the best of gratitude. Their support, sacrifice, and prayers have been beneficial in producing this thesis.

Finally, I say a big thank you to the authors whose scholarly works served as guidance and provided useful information for this thesis. They have been duly acknowledged.

TABLE OF CONTENTS

CONTENT **PAGE**

LIST OF TABLES

TABLES **PAGE**

LIST OF FIGURES

FIGURES **PAGE**

LIST OF ABBREVIATIONS

ALSMS	Albania Living Standards Measurement Survey
BOG	Bank of Ghana
COICOP	Classification of Individual Consumption According to Purpose
CWIQ	Core Welfare Indicators Questionnaire
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GPRS	Ghana Poverty Reduction Strategy
GLSS	Ghana Living Standards Survey
GSS	Ghana Statistical Service
GSGDA	Ghana Shared Growth and Development Agenda
GAMA	Greater Accra Metropolitan Area
HIPC	Heavily Indebted Poor Countries
HDI	Human Development Index
IMF	International Monetary Fund
IFLS	Indonesian Family Life Survey
IFAD	International Fund for Agricultural Development
LEAP	Livelihood Empowerment Against Poverty
LSMS	Living Standard Measurement Survey
MDGs	Millennium Development Goals
MTN	Mobile Telephone Network
MCC	Millennium Challenge Corporation
MTOs	Money Transfer Operators

NSPS	National Social Protection Strategy
ODA	Official Development Assistance
OLS	Ordinary Least Square
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
SSA	Sub-Saharan Africa
2SLS	Two-Stage Least Squares

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Over the years, human mobility has gained substantial recognition. Today, people are moving more than before in search of economic and other opportunities. Currently, there are 258 million global migrants, up from 244 million in 2015 and 155 million in 2000. Between 2000 and 2017, Asia recorded the largest number of international migrants with 40.7 million, followed by the migrant populace in Africa and Latin America and the Caribbean with 14.7 million and 12.9 million respectively (United Nations, 2018).

It is argued that migration costs more to sending countries, especially as emigrants are among the most learned in source countries. Though migration has adverse effects on the human capital development of source countries, it generates considerable welfare gains for migrants. These migrants remit a significant portion of their income to support family members and friends left behind. Although since 2006, the annual volume of migrant remittances has increased appreciably, it is important to note that remittances do not solely come from migrants. They are sometimes received from non-migrant relatives or non-relatives and in some cases, are received by migrants (Boakye-Yiadom and McKay, 2007).

While remittances to developing countries reduced in 2009 following the global financial crisis, these flows have remained buoyant relative to private capital flows, and have become a significant source of external financing in many developing countries. In 2016, out of 575 billion dollars of global remittances, officially recorded remittances to developing countries amounted

to 429 billion dollars; thus, more than three times the size of development aid - 135 billion dollars (World Bank Report, 2017). Yet, we earn better discussions and deliberations on development aid and regard remittances as small change.

Remittances are an important lifeline for millions of households in poorer and fragile countries. They cater for families' welfare (Agarwal and Horowitz 2002; Faini 1994; and Banerjee 1984), act as insurance and grow intensely when families encounter unanticipated income shocks (Lucas and Stark 1985; and De la Brière et al. 2002). In Sierra Leone, remittances increased by over 50% between 2013 and 2014 with the Ebola virus disease outbreak. In other centers of learning, Amuedo-Dorantes and Pozo (2006) argue that in as much as immigrants remit to purchase family-provided insurance, remittances provide a way for immigrant workers to purchase self-insurance (via precautionary savings or the accumulation of assets) to cover their risky ventures away from home.

Aside from the empirical investigations into the motives underlying remittance transfers, other researchers and organizations have consistently highlighted the potential of remittance transfers to assuage poverty, bridge income disparities, promote small business creation, and increase investment. Within such research domain, Ivlevs, Nikolova, and Graham (2019) found that migrant remittances impact positively on the wellbeing of many households in developing countries.

According to Ratha (2005, p. 160), "remittances were one of the least volatile sources of foreign exchange earnings for developing countries in the 1990s". Presently, remittances are a more reliable and stable form of foreign exchange earnings in developing countries relative to foreign direct investments or aid flows. In 2005, remittances were the largest foreign exchange earner in Ghana (Sophism, 2006).

In many fragile states, remittances make up a sizeable portion of GDP. Usually, larger countries tend to receive more remittances in dollar terms but in terms of GDP, smaller countries receive the most. Though China received 64 billion dollars as remittances in 2017, as a share of GDP, remittances were 0.2% only. In Tajikistan however, remittances received were 2.6 billion dollars and yet amounted to 31% of GDP (World Bank, 2018). No wonder remittances have huge impacts on developing economies.

At the microeconomic level, remittance transfers strengthen and spur development through their countercyclical effects and influence on the local economy. They supplement households' non-labour income, reduce the potential overburden of debts, and increase investment in healthcare, housing, and education. Research shows that countries with wide-ranging migration destinations and circular migrants are likely to have more stable remittance flows (Privarova and Privara, 2016; and Calí and Cantore, 2010).

Macro-economically, there is no definite link between remittances and GDP growth. Although remittances increase aggregate demand and stimulate economic activity, other research shows that remittances may also have unfavourable macroeconomic effects by reducing labour supply

(Acosta, 2006; Farrington and Slater, 2006; and Sahn and Alderman, 1996) and increasing income inequality among recipient countries (Adams, Cuecuecha, and Page, 2008; Acosta et al. 2008; and Barham and Boucher, 1998).

Despite the cons of remittances, remittances are indubitably a blessing for developing countries, individual households, and businesses. Analyzing the profile of remittance recipients, Sulemana, Daobil, and Anarfo (2019) find that the receipt of remittances is associated with greater subjective wellbeing. Similarly, Clement (2011) finds that remittances are mainly used for consumption rather than investment purposes. In this regard, this study seeks to examine how the use of remittances affects the wellbeing of Ghana's households.

1.2 Problem Statement

Advancements in human wellbeing are crucial for the growth and progress of every society (Podger, Trewin and Gort, 2014; McGregor, Coulthard and Camfield, 2015; and Saif, 2018). As noted by Adam Smith (1776; p.764), "no society can surely be flourishing and happy, of which the far greater part of the numbers are poor and miserable". Apropos of this, poverty alleviation has been at the focal point of the discussions of most welfare-enhancing organizations.

Despite all the poverty-reduction programs including *Ghana Poverty Reduction Strategy I and II (GPRS I & II), and Livelihood Empowerment Against Poverty (LEAP)* put in place by the government to reduce the proportion of Ghanaians living in poverty, research indicates that millions of Ghanaians continue to grapple with poverty. According to the Ghana Statistical

Service Report (GSS, 2017), out of 6.8 million poor Ghanaians, 2.4 million are unable to secure basic food needs essential for overall wellbeing (thus, live on less than $US1 a day).

Income plays a pivotal role in determining an individual's wellbeing. In Ghana, income from farm and off-farm constitute the main sources of livelihood for a number of people. Per evidence from literature, among income from off-farm sources, remittances represent an appreciable share of total income for many households in Ghana.

Yet, other than showing the average expenditure and investment portfolios of remittance recipients (Guzmán et al, 2008; Adams and Cuecuecha, 2013; Boateng et al., 2013; Gyimah-Brempong and Asiedu, 2015; Pickbourn, 2016; and Akpa, 2018), comparatively few empirical studies have been conducted on the wellbeing of remittance recipients. Out of the few, a considerable portion has focused on how income from remittances affects the welfare of Ghanaian households (Quartey, 2006; and Boakye-Yiadom, 2008). Others have also investigated the poverty-reducing effect of remittances (Gyimah-Brempong and Asiedu, 2009; Castaldo and McKay, 2012; Baah-Boateng and Akyeampong, 2012; and Adams Jr. and Cuecuecha, 2013).

For example, Adams Jr. (2006) used a multinomial logit selection model on 5,998 households to explore the effect of remittance receipts on poverty. The paper's findings show that both external and internal remittances reduce the severity and depth of poverty in Ghana. In a recent study also, Mensah-Dapaah (2016) used probit and Heckman selection models on wave VI of the GLSS to examine the impact of remittances on three dimensions of wellbeing – consumption

welfare, education, and health. According to the results of her study, remittances have significant effects on the health and welfare conditions of recipient households.

Though these studies throw light on the impact of remittance receipts on households' wellbeing, studies on the role remittance use play on households' wellbeing are limited. In the opinion of some scholars however, the uses to which remittances are put by households impact greatly on their wellbeing. As discussed in Benavides (2003) and Englama (2009), households who spend more at the margin on productive (education, health, and housing) and consumption goods have improved living conditions relative to households who treat remittances just like any other source of income.

To this end, this study sheds light on how the use of remittances affects the wellbeing of Ghanaian households.

1.3 Objectives of the Study

This study seeks to examine how the use of remittances in a certain way affects the wellbeing of Ghana's households. In pursuit of this, the study intends:

1. To determine the factors that affect the use of remittances for daily consumption.
2. To investigate the effects of remittance use on households' welfare.
3. To analyze the effects of remittance use on households' poverty status.

1.4 Research Questions

Following the research objectives, this study seeks to address the following questions:

1. What are the factors that determine the use of remittances for daily consumption?
2. Does the use of remittances in a certain way affect households' welfare?
3. Does the use of remittances in a specific way affect households' poverty status?

1.5 Methodology and Source of Data

This study uses data from the 2012/13 Ghana Living Standards Survey which contains information on 18,000 households in 1,200 clusters selected across the country to examine how the ways in which remittances are used by households affect their wellbeing. In estimating the factors that affect households' use of remittances for daily consumption purposes and in examining the effect of remittance use on households' poverty status, this study adopts the probit estimation technique. In addition, this study uses the multiple linear regression modeled using Ordinary Least Square (OLS) to examine the effect of remittance use on household consumption welfare.

1.6 Relevance of the Study

This study adds to the existing literature on remittances and wellbeing by providing an analysis of the effect of remittance *use* on wellbeing rather than the effect of remittance *receipts* on wellbeing which has been the focal point of many studies. Secondly, the study is significant because studies on how the use of remittances affects wellbeing are limited and as such the findings of this study would bring to the fore issues that may motivate other researchers to conduct further in-depth studies pertaining to the subject under consideration.

More so, this study explores recommendations on improving the living conditions for Ghanaian households and provides useful material for relevant organizations and policymakers including the Ministry of Employment and Social Welfare responsible for addressing welfare issues. Lastly, this study offers valuable insight into the effects of remittance use on households' wellbeing and thus helps inform households' decisions on how to use remittances effectively.

1.7 Organization of the Study

The study consists of five chapters with each chapter explained under suitable sections. Chapter two provides an overview of remittances, remittance use and wellbeing in Ghana. Chapter three reviews the theoretical and empirical literature on remittances and wellbeing. Chapter four discusses the data and methodology employed for the study. Chapter five presents the analyses of the effect of remittance use on wellbeing at the household level. Chapter six, the final chapter gives a summary of the study, recommendations, and conclusion.

CHAPTER TWO

A GENERAL OVERVIEW OF REMITTANCES AND WELLBEING IN GHANA

2.1 Introduction

This chapter provides a descriptive and historical overview of remittance inflows, remittance use, poverty and household consumption expenditure in Ghana. It makes use of data from the Ghana Living Standards Surveys V, VI, and VII (GLSS 5, GLSS 6 and GLSS 7) and will rely on tabular and graphical approaches where appropriate.

2.2 Overview of Remittances and Remittance Use in Ghana

Remittances from abroad and within Ghana have become a notable element of Ghana's economy, as the amount of money remitted into the country every year continues to surpass the revenue the country generates from taxes and the amount it receives from foreign aid. According to Bank of Ghana's estimates of the balance of payments in 2003, remittances placed second after exports in terms of resource inflow. More than that, in 2005, remittances amounted to US$4.9 billion making it the highest foreign exchange earner in Ghana at that time (Sophism, 2006). Since 1990, remittances have been valued to be larger and more stable than Foreign Direct Investment (FDI) and Official Development Assistance (ODA) flows into Ghana. Between 1999 and 2004, remittances grew more than proportionately relative to GDP and exports. In 2017, remittances to Ghana totaled US$3.5 billion up from USD$135.85 million in 2010 and USD$30.7 million in 1999 (World Bank, 2018). As discussed in Teye et al. (2016) - "Assessment of Remittance-Related Services and Practices of Financial Institutions in Ghana", interviews with respondents from the Bank of Ghana suggest that the sharp increase in remittances from US$135 million in 2010 to US$3.5 billion in 2017 is attributed to a

combination of factors including, increase use of official channels, better remittance data capturing by the Bank of Ghana and increase in financial transfers by migrants.

Remittances to Ghana emanate from numerous countries all over the world. However, there is no substantial data evidencing remittances from the Asian countries. The most important countries of origin of remittances to Ghana are the United States of America, United Kingdom, Nigeria, Italy, Germany, Cote d'Ivoire, Canada, Togo, Burkina Faso, and the Netherlands. Thus, contrary to the general belief that remittances flow from only European countries and the United States of America, research shows that a significant proportion of remittances to Ghana comes from African countries - Nigeria, Togo, Cote d'Ivoire, and Burkina Faso. Notwithstanding this, remittances to Ghana from migrants within the African continent are less than remittances sent by migrants located outside the African continent (Mazzucato, Nsowah-Nuamah, and Van den Boom, 2008). In recent times, remittances to Ghana have also flown from migrants living in Middle-Eastern countries such as Saudi Arabia and Kuwait, as the destinations of Ghanaian emigrants have become more diverse over the past two decades (Teye et al., 2016).

Remittance flows to Ghana are sent through friends, relatives, banks and/or money transfer institutions. In Ghana, the Money Transfer Companies in operation are Western Union Money Transfer, MoneyGram, Unity Link, Express Money Transfer, Small World, Vigo, Lawrence Associate, Cigue, Transfast, Immedi8, and Rapid Transfer (primarily for transfers across Africa operated by EcoBank). To promote the use of formal services, almost all banks and other financial institutions in Ghana have liaised with these money transfer companies to provide remittance related services to their customers. Some telecommunication companies have also

started collaborating with these money transfer companies. Now remittances via MoneyGram can be received directly into MTN mobile money accounts in order to provide more means of meeting the financial needs of mobile money account holders in Ghana.

Although total annual remittances flow to the country through formal channel is about $2 billion (Bank of Ghana, 2014), empirical studies conducted by Ahinful et al. (2013) show that a large proportion of international remittances to Ghana are still mainly transferred through unofficial channels via relatives and friends visiting home, carrying monies along during short visits, and hiding monies in letters being posted to Ghana. According to Ahinful et al. (2013), 41% of international remittances were received through official financial institutions in 2014 suggesting that the remaining 59% were not documented. Internally, quite a number of remittance transfers are also unreported. Despite large percentages of unrecorded flows of remittances to and within Ghana, remittances were reported to contribute 7.5% to Ghana's Gross Domestic Product in 2017 (World Bank, 2018).

In an interview with officials of financial institutions, it was revealed that the flow of remittances to Ghana is not year-round (Teye et al., 2016). However, remittance flows mainly increase between November and January following the festivities and activities (*Christmas, New Year celebration* and *re-opening of school*) that usually takes place in these months (Teye et al., 2016). This could possibly be that one of the predominant uses of remittance in Ghana is seasonal in nature, thus for educational purposes (Adaawen and Owusu, 2013; Adams Jr. and Cuecuecha, 2013; Pickbourn, 2016; and Boakye-Yiadom and Lambon-Quayefio, n.d.). Some studies conducted on the uses of remittances in Ghana also suggest that a large part of

remittances are used for daily expenses on food (Quartey and Blankson, 2004; Baah-Boateng and Acheampong, 2012; and Ahinful et al., 2013). According to some researchers, some of these funds are also spent on housing, health, funerals, and church activities (Adams Jr. and Cuecuecha, 2013; and Boateng, Oppong-Boakye and Ahinful, 2013). Generally, a small percentage of these funds are used for savings and productive investments (Acheampong and Baah-Boateng, 2012). This may be due to the fact that migrants have little confidence in the Ghanaian economy. In Ghana, remittances for investment purposes are mostly channeled into *trading* (Adaawen and Owusu, 2013) and *farming* activities (Bosiakoh et al., 2014). According to Adaawen and Owusu (2013), remittances to Ghana are barely spent on personal belongings and clothing. They further cite that of the most relevant need for remittance expenses of households in Ghana, clothes constitute the sixth. Between 2003 and 2004, Mazzucato et al. (2008) also find that 33% of remittances received in Ghana were invested in trading activities, 16% for housing and 10% for churches, funerals, and other festivities. Aside from the uses to which remittances are put by Ghanaian households; remittances in general, provide income for households, safeguard households against shock and reduce poverty in Ghana.

The Ghana Living Standards Survey contains information on the use and receipt of remittances by households in Ghana. Particularly, it provides data on the sex of the remitter, the geographical location of the remitter, the relationship between the remitter and the household head and the uses to which remittances are put by households. This overview makes use of data from the 2016/17, 2012/13 and 2005/06 Ghana Living Standards Surveys.

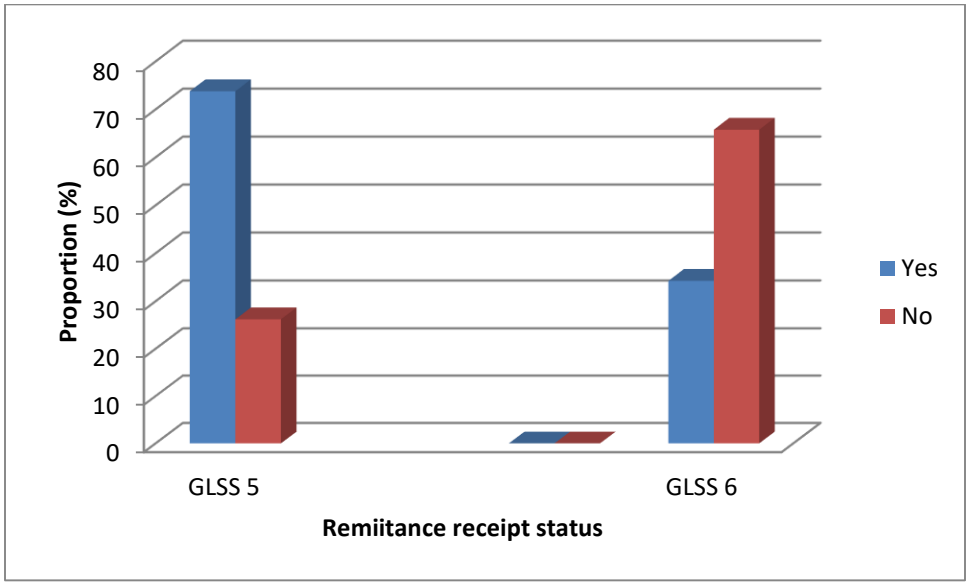
Table 2.1: Remittance Receipts by Households

Household's remittance status	Frequency	Percentage
Received remittances	5,743	34.24
Did not receive remittance	11,029	65.76
Total	16,772	100

Source: Computed using data from ***GLSS VI***

Table 2.1 above presents information on the number of households who benefited or not from internal and/or external remittances. Of the 16,772 households enumerated in 2012/13, 5,743 reported having received income from remittances representing about 34.24% whereas 11,029 households accounting for 65.76% reported not benefiting from remittances. In contrast, as shown in figure 2.1 below, the percentage number of households who benefited from remittances (73.78%) in 2005/06 by far outnumbered the percentage number of households who did not benefit from remittances (26.22%) implying that more households relied on income from remittances in 2005/06 than in 2012/13.

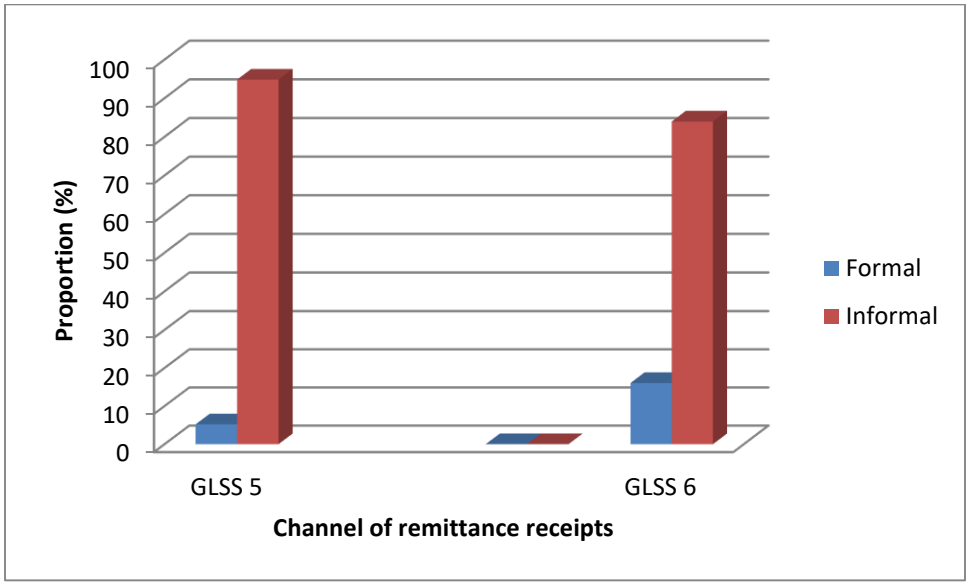
Figure 2.1: Households' Remittance Receipts Status



Source: Computed using data from ***GLSS V and VI***

The channels through which such transfers are received by households depend on a number of factors. In spite of the fact that money transfer companies have rapidly increased over the years and may seem relatively convenient, the informal channel of sending remittances continues to be the common means of sending transfers. Figure 2.2 below reports that most remitters prefer the use of informal to formal channels. However, it is observed that the percentage number of people who remitted via formal channels increased from *5.21%* in 2005/06 to *16.05%* in 2012/13. This could possibly be attributed to the improvement in remittance-related services provided by telecommunication industries and money transfer companies in Ghana.

Figure 2.2: Channel of Remittance Receipts



Source: Computed using data from ***GLSS V and VI***

It is hypothesized that males seem more likely to use formal than informal services (Kosse and Vermeulen, 2014). Looking at the percentage number of males (M) and females (F) who remit via formal -*71.38%(M)***:** *28.62%(F)* and informal – *62.48%(M)***:** *37.52%(F*) channels in table 2.2 below, we can deduce that males remit more than females do. According to literature, migrants who remit more prefer using official channels over unofficial channels (Orozco, 2002; and Spatafora and Freund, 2008). As such, it is not surprising that a larger percentage (*71.38%*) of males remit via formal channels than females (*28.62%*).

Table 2.2: Remittance Channel by Gender

Sex	Formal (%)	Informal (%)
Male	71.38	62.48
Female	28.62	37.52
Total	100	100

Source: Computed using data from ***GLSS VI***

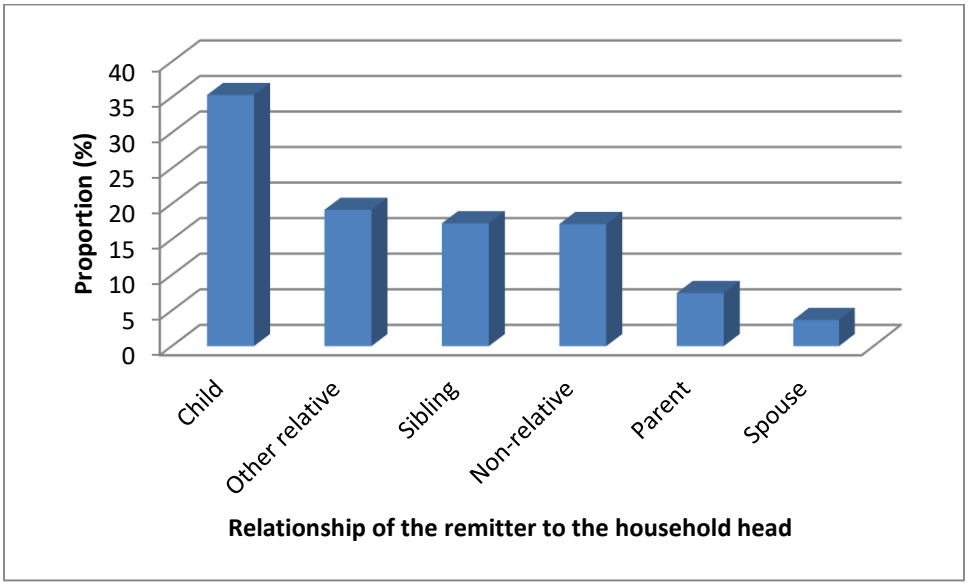
Similarly, comparing the percentage number of males and females who remitted in 2005/06 to those who remitted in 2012/13, it can be inferred from figure 2.3 (below) that, although the percentage number of males who remitted in 2012/13 (*76.54%*) exceeded that of those who remitted in 2005/06 (*62.58%*), on the whole males remit more than females. This may be attributed to females' general lack of access to opportunities and resources.

Figure 2.3: Sex of the Remitter

Source: Computed using data from ***GLSSV and VI***

With regards to the relationship of the remitter to the household head in figure 2.4 below, children of household heads make up the largest group of remitters (*35.31%*) followed by other relatives and siblings of household heads who constitute *19.15%* and *17.25%* of total remitters respectively. This is closely followed by remittances received from non-relatives which accounts for approximately *17%*. In contrast, remittances received from spouses of household heads constitute the least percentage (*3.68%*) of total remitters.

Figure 2.4: Relationship of the Remitter to the Household Head (N = 8,965)



Source: Computed using data from ***GLSS VI***

2.3 Overview of Household Consumption Welfare in Ghana

Household consumption expenditure which is also known as household consumption welfare is defined as "the sum of the value of goods and services purchased by households, consumed from home production, or received as gifts or payment in kind" (GSS, 2014; p. 135). In Ghana, households' expenditures are categorized based on the United Nation's Classification of

Individual Consumption According to Purpose (COICOP). Usually, this classification groups household expenditure into food and non-food items where non-food items consist of expenditure on housing, alcoholic beverages, electricity, education, tobacco and narcotics, durable goods, water, personal care, clothing, footwear, utilities, and recreation.

According to GSS (2014), a Ghanaian household on average expends *GH₵9,466* per year. Out of which *GH₵5,793* is spent on non-food items and *GH₵3,673* is allocated to food items (GSS, 2012). Similarly, with regards to Ghana's average annual per capita expenditure of *GH₵3,117*, it is shown that on average, an individual spends approximately *GH₵8.85* per day. Considering the fact that individuals do not consume the same amount, households' consumption expenditure per adult equivalence adjusted for differences in households composition is computed based on the composition of individuals that form a household.

Table 2.3 below shows the percentage share of the total expenditure of households by national quintile groups. It can be observed that quintile groups range from the highest to the lowest across five divisions. The highest quintile which represents the richest group has the lowest mean household size of *2.6* accounting for *47.9%* of total household expenditure. In contrast, the lowest quintile group which denotes the poorest group has the highest mean household size of *6.1* accounting for only *5.6%* of total household expenditure.

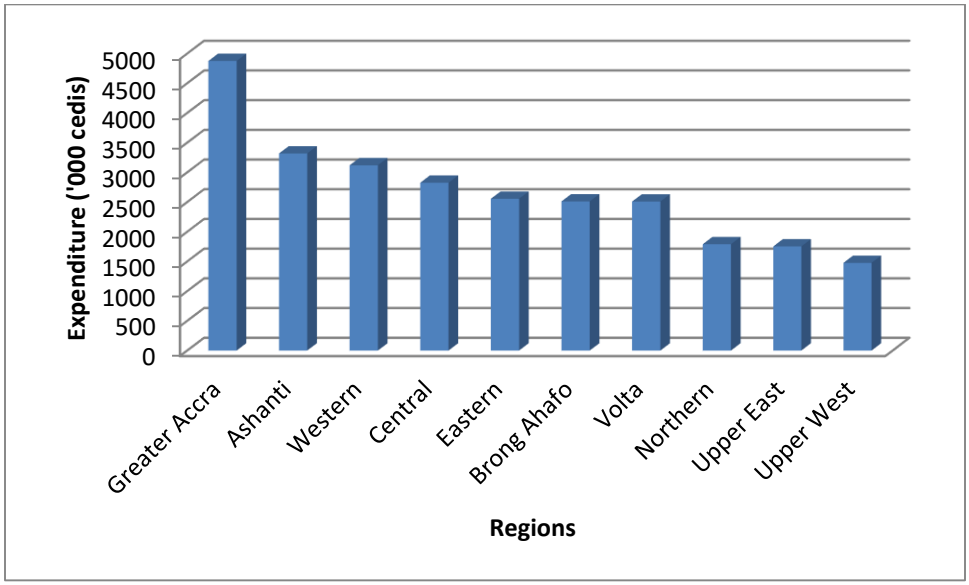
Table 2.3: Percentage Share of Total Expenditure by Quintile Group

Quintile Group	Mean Household Size	Percentage Share of Total Expenditure
Fifth(Highest)	2.6	47.9
Fourth	3.6	21.9
Third	4.4	14.6
Second	5.0	10.0
First (Lowest)	6.1	5.6
Ghana	**4**	**100**

Source: Ghana Statistical Service (2012)

Figure 2.5 below presents households by "mean annual per capita expenditure" by the ten regions in Ghana. Of the ten regions, Greater Accra, Ashanti, and Western recorded the highest "annual per capita expenditure" of *GH₵4,875*, *GH₵3,318*, and *GH₵3,119* respectively greater than the national average (*GH₵3,117*). For the Greater Accra region, high consumption expenditure translates to approximately *GH₵13* on average a day per person (GSS, 2012).

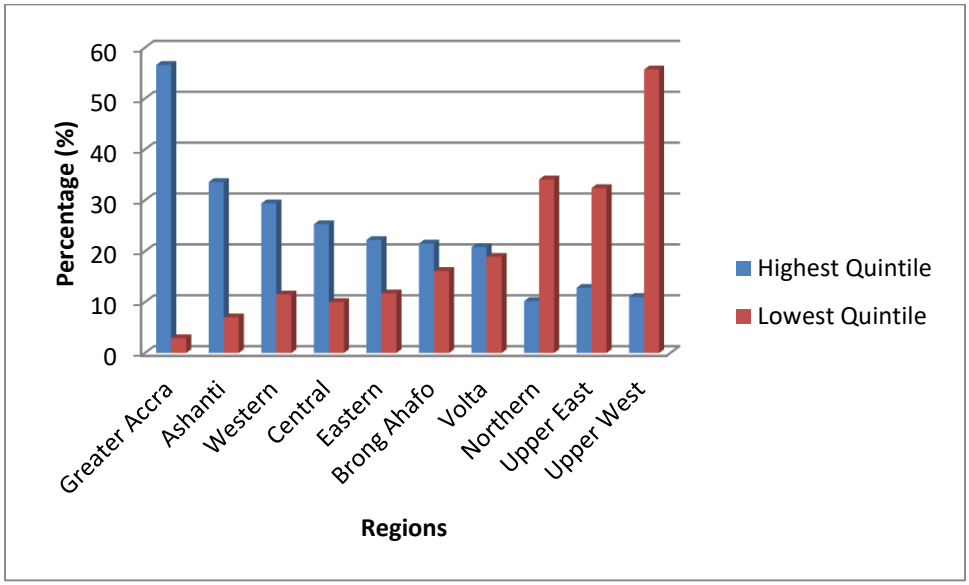
Figure 2.5: Mean Annual per Capita Expenditure by Region (N = 16,772)



Source: Ghana Statistical Service (2012)

From the above amounts consumed annually in the Greater Accra and Ashanti regions, it is not surprising that these regions have small proportions of households (*2.9%* and *7%*) falling in the lowest quintile and large proportions of households (*56.6%* and *33.6%*) falling in the highest quintile (*as shown in figure 2.6*). Figure 2.6 also shows that the Upper West, Northern, and Upper East regions have low percentages of households in the highest quintile than in the lowest quintile with Upper West recording the highest percentage of households (*55.7%*) in the lowest quintile. This indicates that poverty incidence is more pronounced in the northern than in other parts of Ghana.

Figure 2.6: Quintile by Region



Source: Ghana Statistical Service (2012)

Table 2.4 below presents a breakdown of household expenditure into food (imputed and actual), housing and other non-food components (imputed and actual). Amongst these expenditure components, expenditure on food (*46.7%*) constitutes the highest share of total expenditure for households with an annual per capita expenditure of *GH₵1,468* followed by expenditure on housing which accounts for *12.4%* of total household expenditure. The remaining *40.9%* accounts for household expenses on non-food items (excluding housing). This shows that households allocate a greater share of their total expenditure to food compared to non-food items.

Table 2.4: Expenditure Component, Mean Annual per Capita and Percentage Share of Total Expenditure

Expenditure Component	Mean Annual per Capita Expenditure (GH₵)	Percentage Share of Total Expenditure (%)
Food expenditure (actual and imputed)	1,468	46.7
Expenditure on housing	395	12.4
Non-food expenditure (actual and imputed)	1,253	40.9
Ghana	**3,117**	**100**

Source: Ghana Statistical Service (2012)

2.4 Overview of Poverty in Ghana

Ghana has been praised as one of the strongest economic performers on the African Continent since the mid-1980s, although after 60 years of independence, it is still grappling with poverty. Despite the fact that Ghana's overall poverty rate declined from *31.9%* in 2005/06 to *23.4%* in 2016/17, a recent report by the Ghana Statistical Service shows that 6.8 million Ghanaians still live in poverty (GSS, 2017).

With an initial aim of promoting macroeconomic stabilization through fiscal, monetary and foreign exchange liberalization, Ghana embarked on a number of economic reforms in 1983 (Hilson, 2004; and Ahiakpor, 1991). After successfully stabilizing the macroeconomy, these reforms transcended to ensuring that structural adjustment objectives are reached to help accelerate growth and alleviate poverty. Over the periods 1992 to 1999, Ghana experienced

improvements in its poverty status with poverty rates declining from 51.7% to 39.5% (Coulombe and McKay, 2007). Nonetheless, the reduction in poverty rate was not proportionate across the country as some parts of the country especially, Accra and the rural forest areas had high poverty reduction rates compared to the savannah zones.

According to Coulombe and Wodon (2007), the decrease in poverty rates over the periods 1991 to 2006 periods was as a result of a decline in household size and an increase in educational levels. Household sizes saw great reduction contributing to a gain of 7.9% in consumption in the urban areas, and 1.4% in the rural areas. Also, there were more cases of educated household heads generating a gain in consumption of 7.8% in the urban areas and 2.0% in the rural areas.

Coulombe and McKay (2007) provide a profile of poverty through issuing the Core Welfare Indicator Questionnaire (CWIQ) to measure assets owned by an individual to determine whether the individual lives in poverty or not. The result of this survey corroborates with the findings of the Ghana Living Standards Survey. According to both surveys, poverty is more pronounced in the rural than in urban areas and this is mainly attributed to the high number of non-poor households located in rural areas. In 2003 however, the proportion of the poor living in the rural areas fell to 77% from 83% in 1997 as the rural population dropped from 69% in 1997 to 58% in 2003 (Coulombe and McKay, 2007). According to the CWIQ and GLSS data sets, about eight individuals out of ten in poverty live in rural areas.

Likewise, prior to the Millennium Challenge Corporation Compact in 2007, poverty levels were high in rural areas (GSS, 2000; 2008; 2012). In the Afram Basin district and the northern parts of Ghana, poverty rates are mostly above 90% mainly due to the declining levels of household income resulting from low agricultural production and inadequate job opportunities (Hague et al., 2016).

Ghana's journey to reaching notable levels of poverty reduction has been supported by external donors. As a requirement to be considered for the Heavily Indebted Poor Countries (HPIC) initiative of the International Monetary Fund and World Bank, the Ghana Poverty Reduction Strategy I (GPRS I) was implemented. The HIPC initiative is a joint project targeted at reducing rural poverty reduction through modernizing the agriculture sector across thirty-eight developing countries. Following this initiative, Ghana received funding to embark on the Growth and Poverty Reduction Strategy II (GPRS II) aimed at boosting economic growth and alleviating poverty in all regions across the country. More so, Ghana simultaneously rolled out the Livelihood Empowerment Against Poverty (LEAP) and Ghana Shared Growth and Development Agenda (GSGDA) both mandated by the constitution to respectively provide adequate financial support to the poorest households in Ghana and support small and medium-scale enterprises and the agricultural sector. In point of fact, the LEAP program was adopted following the study by Ghana Statistical Service (GSS, 2007) which revealed that 880,000 households in Ghana accounting for 18.2% of the population continue to grapple with poverty. The criteria for selection of the LEAP program included orphans or underprivileged children cared for by single parents, extremely poor individuals above 64 years and disabled persons who were not gainfully employed. In 2008, the National Social Protection Strategy was also implemented as a social

safety net to enable the poorest families in Ghana to meet their food demands and help educate their children.

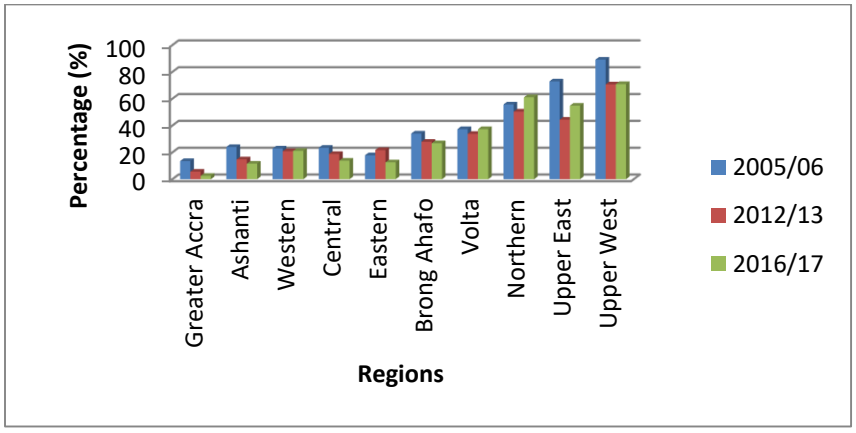
Table 2.5: Poverty and Consumption Welfare (N = 16,772)
Poverty Line = GH₵1,314

Poverty Status	Percentage (%)	Consumption Welfare ('000 cedis)
Very Poor	9.82	556
Poor	14.11	1,059
Non poor	76.07	4,036

Source: Ghana Statistical Service (2012)

As shown in Table 2.5 above, the percentage number of Ghanaian households living in poverty (*23.91%)* is outnumbered by those above the poverty line (*76.07%).* Likewise, the proportions of poverty status and consumption welfare follow a similar trend. Whilst non-poor households spend *GH₵4,036* on consumption, very poor households spend an amount of *GH₵556* per adult equivalence adjusted for household composition. This indicates that non-poor households have higher consumption expenditures relative to very poor and poor households.

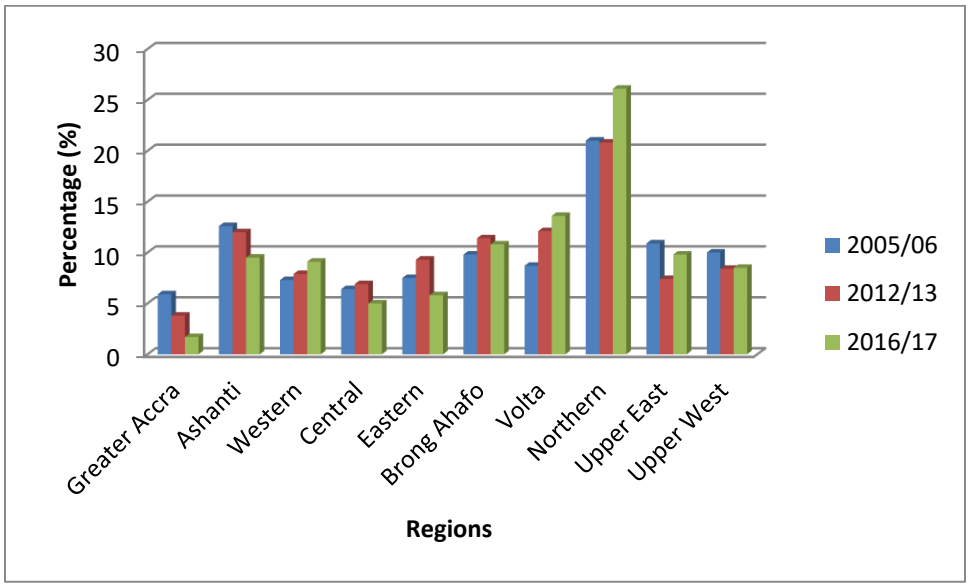
Figure 2.7: Poverty incidence by region, 2005/06-2016/17



Source: Ghana Statistical Service (2017)

Figures 2.7 above and 2.8 below provide information on poverty incidence by the various regions and their contribution to total poverty in Ghana respectively. On the whole, there exist vast disparities in poverty incidence rates among all ten regions. Since 2005/06, the poverty incidence in the Upper East, Upper West, and Northern regions has been repeatedly higher than the national average. In contrast, the Greater Accra has experienced the least poverty headcount since 2005/06. Whilst the poverty rates for Ashanti, Greater Accra, Brong Ahafo, Central and Eastern regions declined between 2012/13 and 2016/17, the poverty rates for Northern, Volta and Upper East increased significantly between 2012/13 and 2016/17.

Figure 2.8: Contribution to total poverty by region, 2005/06-2016/17



Source: Ghana Statistical Service (2017)

More so, in spite of the fact that poverty is most pronounced in the Upper West Region, the Upper West region contributes less than 10% (*shown in figure 2.8 above*) to national poverty mainly because it holds the least number of people in Ghana. On the other hand, with poverty

rate less than that of the Upper West region for all the years, the Northern region accounts for more than 20% of the number of people living in poverty in Ghana making it the single contributor of poverty in Ghana.

CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

This chapter comprehensively reviews existing works on remittances and other subjects related to the study. The chapter begins with discussions on the concept of remittances and the selected dimensions of wellbeing employed for the study. This is followed by a theoretical review which discusses the theories underpinning the study. The chapter concludes with discussions on empirical studies pertaining to remittances and wellbeing.

3.2 The Concept Note on Remittance

Remittances are widely perceived to be the monetary or non-monetary items transferred from migrants to their origin countries. These transfers are believed to be the apparent element that links migration and development. Since remittance transfers have been perceived to be usually sent by migrants, some researchers have limited studies to remittance sent by migrants and as such refer to it as 'migrant remittance' (Lucas and Stark, 1985; Quartey, 2006; and Adams Jr. and Cuecuecha, 2013). Although remittances mostly emerge from migration, it is worth mentioning that, remittances maybe "…. sent out or received by the household to or from a household member, a relative or any other person staying abroad or elsewhere as well as *churches* and *institutions*" (GSS, 2012; p. 90).

Remittances may be sent on an irregular/regular basis (weekly/monthly/quarterly/annually) either *within* or *between* countries. Although transfers between countries exceed transfers within countries, it is worth mentioning that transfers made within countries play a more significant role

in the economies of many poorer countries (McKay and Deshingkar, 2014). According to Wahba (1991), remittances can be classified as discretionary, potential, saved and fixed. This classification consists of distinct elements driven by entirely different motives. For instance, whilst the concept of fixed remittances stems from both altruistic and tempered altruistic motives for remitting, discretionary remittances are influenced by the desire to maintain a store value either in the home or host country. Since altruism seems to be the apparent reason for remitting (McGarry and Schoeni, 1995; Ravallion and Dearden, 1988; and Agarwal and Horowitz, 2002), remittance beneficiaries may not be required to pay back.

3.2.1 Remittance Use at the Household Level

Goods and monies sent from migrants to households are directed towards different uses. Within debates on remittance use, a number of researchers argue that household income from remittances is used solely for consumption purposes (Semyonov and Gorodzeisky, 2008; and Clement, 2011). According to these scholars, remittances provide recipient households with financial resources which are mainly used to secure basic needs - food, clothing, and shelter. In a study, Bracking and Sachikonye (2010) estimated that 76% of the first use of remittances included food. Notwithstanding, other research finds that remittances received by households are used for *loan repayments*, *saved* (De Haas, 2005; and Baldé, 2011) or *invested* in health (Valero-Gil and Noel, 2008; Ponce, Olivié and Onofa, 2011; and Amega, 2018), education (Calero et al., 2009; and Chaaban and Mansour, 2012), housing (Osili, 2004; Kagochi and Kiambigi, 2012; and Maara, Manda and Kiiru, 2019), assets (Taylor, 1992; Lucas, 1987; and Adams, 1998) and/or entrepreneurial activities (Funkhouser, 1992; Acosta et al. 2008; and Kakhkharov, 2018). In Mexico, Woodruff and Zenteno (2007) find that remittances constitute more than one-quarter of

the capital invested in micro-enterprises. More so, as discussed in Zhunio et al. (2012) and Ponce et al. (2011), remittances are used by households to purchase private tuition services for children and curative health care services respectively.

3.2.2 Remittance Use at the National Level

Although countries which over depend on remittance face increasing inflation and decreasing real exchange rates (Amuedo-Dorantes and Pozo, 2004; Acosta et al., 2009; Narayan et al., 2011; Makhlouf and Mughal, 2013; and Khan and Islam, 2013), remittances received by these countries are channeled into various uses which provide equally essential benefits to these countries. At the national level, remittances are used to alleviate poverty (Adams, 2006; Akobeng, 2016; and Wagle and Devkota, 2018), bridge income disparities (Bang, Mitra and Wunnava, 2016; and Borja and Hall, 2018), invest in small business development (Funkhouser, 1992; and Acosta et al., 2008) improve the general welfare of receiving countries (Quarety, 2006; and Ivlevs et al., 2018) and enable governments of recipient countries to borrow at a reduced cost (World Bank, 2015). According to research, remittances constitute a greater portion of most developing countries' GDP. In 2017, remittances sent to Tonga, Nepal and El Salvador formed 37.1%, 27.8%, and 20.4% of their GDP respectively (World Bank, 2019). More so, Ruiz-Arranz and Giuliano (2009) find that in nations with weak financial systems, remittances are used to overcome liquidity and credit constraints. In addition, during periods of natural disasters and unfavourable economic conditions, remittance tends to increase and act as a bolster for many countries (Yang, 2008).

3.2.3 Choice of Remittance Transfer Channels

In the past few decades, the volume of global remittances has increased tremendously reaching 613 billion dollars in 2017, a 7 percent increase from 573 billion dollars in 2016 (World Bank, 2018). In point of fact, the true value is most likely much higher than this because remittances are also transferred via unofficial channels (Ratha et al., 2009). Due to the recent upswing in interest to promote a development-oriented transfer of remittances (Maimbo and Passas, 2005), migrants' choice to remit either via formal (operates via authorized institutions) or informal (operates outside licensed financial systems) channels has become a key area on which policy debates have focused.

According to some scholars, remittances are a significant mechanism to finance terrorism, freedom struggles and civil wars (Collier, 2000; Kapur, 2004; Fair, 2007; Skrbiš, 2007; Sheffer, 2007; and Bamyeh, 2007). Though concerns have been raised about the misuse of informal remittance channels for criminal acts, it is not purely clear that remittances are an effective means of unlawfully transferring fairly large amounts of money. Perchance, remittances are channeled through informal systems because of the inefficacies in the formal sectors (Maimbo and Ratha, 2005).

According to a large body of research, migrants' decision to remit via formal or informal systems is influenced by a number of factors: *the typology of the transfer mechanisms, the cost associated with remittance transfers, the convenience, demographic characteristics of the sender and recipient, the economic and institutional factors in the host and recipient country, and the nature of the transaction*. Within this research domain, De Luna Martínez et al. (2006), Siegel et al.

(2010), and Langhan and Kilfoil (2011) find that remittance services offered by banks and formal MTOs usually cost more and take a longer time than the services provided by the informal sectors. Accordingly, it is clear why migrants hardly use banks and official MTOs for remitting urgent transfers and small amounts (Pieke et al., 2005).

Similarly, other researchers argue that *language, distance, overall institutional environment of the sending and receiving countries, availability of services, preference for cash, anonymity and banking policies* affect the use of bank services (Sander, 2004; Pieke et al., 2005; De Luna Martínez et al., 2006; and Barendse et al., 2006). In the bid to make banking settlement systems safe and protect clients against possible fraud, banks impose certain measures which restrict the actions of customers and rob clients of their privacy. For instance, banks often use sophisticated recognition tools to trace and record transactions entered into by clients. For this reason, most emigrants choose to remit via the informal channel as it conceals the identity of both the sender and the recipient (De Luna Martinez et al., 2006; and Siegel et al., 2010). Moreover, recipients in poor and remote areas prefer the use of the informal systems largely because of banks' limited coverage in these areas making it difficult to access banks (Puri and Ritzema, 1999).

While it appears that the most part of remittances is transferred through informal channels (from above works), other works in this area indicate that, migrants who remit more prefer formal channels over carrying cash or using unlicensed entities (Orozco, 2002; and Spatafora and Freund, 2008). In other respects, there are some indications that salaried and educated migrants seem more likely to use banks and other formal systems than informal services (Kosse and Vermeulen, 2014).

In addition to the above, evidence suggests that, the network of friends and relations in the host country and the extent and nature of the migrant's stay play an essential part in the choice of remittance channel (Amuedo-Dorantes and Pozo, 2005; De Haas and Plug, 2006; Karafolas and Konteos, 2010; and Siegel and Lücke, 2013). For instance, legal, documented and permanent migrants prefer to remit through formal channels as compared to unregistered and temporary migrants. Although policies introduced by governments in host countries to send remittances, such as special exchange rates and foreign currency accounts support the use of formal services (Russell, 1986; and Karafolas and Sariannidis, 2009), temporary and especially illegal immigrants largely remit through unofficial entities due to their inability to access banking services.

To track illegal use of funds, increase transparency and encourage a shift in flows from the informal to the formal system, Ratha et al. (2005) advocate a regulatory framework to govern informal funds transfer systems and improve the formal remittance sector via providing advantages of expanded reach, low cost and flexible hours.

3.3 The Concept of Wellbeing

Wellbeing is a multi-faceted phenomenon which entails social, physical, mental, spiritual and emotional factors as well as broader aspects of life satisfaction such as happiness (Bradburn, 1969; Diener and Suh, 1997; Kahneman et al., 1999; Lyubomirsky and Lepper, 1999; Michaelson et al., 2009; Stiglitz, Sen and Fitoussi, 2009). Although there is no consensus around a single definition for well-being, at the minimum, well-being includes aspects of welfare such as

quality of work, security, needs, contentment, belongings, and preferences (Fitzpatrick, 2001; and Greeve, 2008). Accordingly, wellbeing and welfare are often used interchangeably.

As presented by Forgeard et al. (2011), wellbeing can be evaluated by measuring a broad spectrum of objective and self-reported constructs. As observed by Bailly, "most so-called wellbeing indicators only reflect certain components and in reality only express quality of life" (Bailly, 1981; p. 205). According to Pettinger (2017), although GDP is mostly used as a proxy for quality of life, quality of life depends on other factors such as education standards, life expectancy, employment/unemployment, environmental standards, income distribution, social investment, and present consumption.

In classical economics, wellbeing measures are based on individuals' utility levels. More often, the economic analysis of an individual's utility culminates in the use of money as an indicator for wellbeing (Greve, 2008). Fleuret and Atkinson (2007) however argue that "while we can measure living conditions through…levels of income, this does not necessarily map onto a faithful reflection of wellbeing" (Fleuret and Atkinson, 2007; p. 108). As discussed in Wilkinson (1996) and Layard et al. (2011), wellbeing is a relational concept and hence, varies from person to person and over time to a particular level, need or place. For example, in high-income countries, building good relations is more relevant than rising incomes which is often associated with happiness (Layard and Layard, 2011).

Due to the complex nature of wellbeing (Pollard and Lee, 2003; Diener, 2009; and Thomas, 2009), this study adopts two indicators of wellbeing namely; household consumption welfare and household poverty status.

3.3.1 Household Consumption Expenditure as a Measure of Wellbeing

Household consumption expenditure refers "to the market value of all goods and services, including durable products (such as cars, washing machines, and home computers), purchased by households. It excludes purchases of dwellings but includes imputed rent for owner-occupied dwellings. It also includes payments and fees to governments to obtain permits and licenses. Here, household consumption expenditure includes the expenditures of non-profit institutions serving households, even when reported separately by the country" (The World Bank Group, 2016). In discussions on the measurement of wellbeing, there are often conflicting opinions - one of which particularly the debate on whether wellbeing measures should be based on expenditures is contested. Critics argue that wellbeing is not necessarily bound by consumption expenditure, rather; it is an individual's contentment with material possessions and thoughts about how well he/she is doing in life (Ashton and Jones, 2013).

Notwithstanding, other studies reveal that household expenditure (1) gives insights into overall consumption welfare and (2) helps to explain and monitor variations and inequalities in general wellness and living standards (Manheim, 2007). According to the World Bank (2016), "consumption expenditure reflects not only the goods and services that a household can command based on its current income but also whether that household can access credit markets or household savings at times when current income is low or even negative, due perhaps to

seasonal variation or harvest failure". As pointed out by Friedman (1957), household expenditures are more stable over time and thus better reflect long term income making them a good measure of economic wellbeing. As such, it is believed that actual consumption is more closely linked to an individual's wellbeing in the sense of having enough to secure essential needs (Allardt, 1975; and World Bank, 2016). To this end, this study measures households' welfare by use of household consumption expenditure per adult equivalence.

3.3.2 Poverty as an Indicator of Wellbeing

The term poverty has been a matter of global discussion for many years now partly because of the critical nature in which it affects the wellbeing of individuals (Ravallion, 1994; Coulthard et al., 2011; Jentoft and Chuenpagdee, 2018; and Churchill and Smyth, 2019). Due to differing views of what constitutes that which is needed by an individual to adequately subsist, Studies in Poverty and Inequality Institute's (SPII's) work on poverty published in 2007, defines the concept of poverty as a framework from which various definitions of poverty are derived.

According to Lipton and Ravallion, poverty is said to exist "when one or more persons fall short of a level of economic welfare deemed to constitute a reasonable minimum, either in some absolute sense or by the standards of a specific society" (Lipton and Ravallion, 1993; p. 1). More often, the definition of poverty mirrors a society/group's view of what comprises that which is required to maintain an average living standard. For instance, whilst some group of scholars defines poverty as a state of financial insufficiency (Kakwani, 2000; and Chambers, 2006), others opine that poverty goes beyond financial insufficiency to being deprived of material needs (Foster, 1998; and Bauer et al., 2019). Conventionally, an individual is said to live in *extreme*

poverty when he/she lives on less than *$US1.90* a day (World Bank, 2018), consumes less than *GHC792.05* per year or is unable to afford basic *food* needs required for human wellbeing (GSS, 2017).

Notwithstanding these notions, others argue for broader notions that include non-monetary dimensions into the conventional view of poverty (World Bank Development, 2000; Pogge, 2005; and Laderchi, Saith and Stewart, 2010). This is because according to these scholars the poor are not just deprived of money and goods to consume. They are most often than not, illiterates, more prone to diseases and live in conditions that are not decent for this era of a civilized world. As Pogge precisely puts it, "despite a high and growing global average income, billions of people are still condemned to lifelong severe poverty, with all its attendant evils of low expectancy, social exclusion, ill health, illiteracy, dependency, and effective enslavement" (Pogge, 2005; p. 1).

Subsequently, Sen (1999) even presents an even broader view on the subject of poverty via his 'capability approach' to wellbeing. According to him, people are poor when they lack the basic capabilities to function in society. He cites that the key capabilities required by an individual to function in the society include in addition to basic needs, good education, good health, security from violence and risks, protection against discrimination, good social relations and freedom of choice and action. More importantly, these dimensions are captured in the World Bank Development Report (World Bank, 2000), which defines poverty as pronounced deprivation in wellbeing. Due to the negative way in which poverty affects wellbeing, this study uses the poverty status of households to reflect their state of wellbeing.

3.4 A Review of Relevant Theoretical Literature

3.4.1 The Motivation to Remit

Given the size and flows of remittances worldwide, it is not surprising that several theories have been propounded to explain the rationale underlying these volumes of transfers. While the resolve on the part of migrants to send remittances is influenced by the responsibility or commitment they have towards relations back home, not all migrants remit to cater for the needs of their households which make it vital to understand the real motivations behind remittance behavior and project the impact of remittances on receiving economies. Amid the motives for remitting, the literature on remittances has identified altruism, pure self-interest, and tempered altruism.

According to Bohra-Mishra (2012), remittances sent for family-provided insurance and purely altruistic reasons act as a social safety net for underprivileged households and contribute to the stability of these flows for households in need. On the contrary, monies remitted by migrants with the intent to accumulate wealth in the home country may tend to have a negative bearing on households' welfare.

3.4.1.1 Pure Altruism

The pure altruistic motive considers remittance as emanating from the affection and responsibility of the migrant towards the wellbeing of the family back home (Becker, 1974; Solimano, 2003; and Lueth and Ruiz-Arranz, 2006). According to this model, the willingness to give has to be in the remitter's utility function such that, the remitter obtains satisfaction from the increased utility of the household members left behind (Becker, 1974; and Tchouassi 2010). For

this reason, inflows are conjectured to be larger for households with lower levels of income than for non-poor ones (Lucas and Stark, 1985; VanWey, 2004; and Rapoport & Docquier 2005).

Notwithstanding, other scholars believe that migrants remit more if their families perceive their income, suggesting that the altruistic motive of sending remittances may be overrated in the absence of informational asymmetry (Joseph et al., 2015; Ambler, 2015; and Seshan and Zubrickas, 2017). When motivated by altruism, remittances may vary according to the degree of social ties, the uncertainty about remittance expectations, the number of household members in migration and the degree of kinship. In view of the 'kin-selection theory' of Hamilton (1964), altruism is stronger with kindred than with unrelated individuals. According to Kaplan and Gurven (2005) however, it is more social connectedness than relatedness that drives altruistic behaviour among humans. They further point out that, the level of altruism varies indirectly with social distance regardless of the level of relatedness. In a pure altruistic model, the utility of household members embedded in the migrant's utility function is based on per capita consumption. This consumption (per capita) is presumed to increase with per capita income and may vary according to the number of people living in a household depending on the presence of either economies or diseconomies of scale in consumption. According to the altruistic model as described in the work of Lucas and Stark (1985), an increase in per capita income before the receipt of remittances is associated with a decrease in remittances. On the other hand, as remitter's wage increases, remittances increase resulting in a positive effect on per capita consumption.

3.4.1.2 Pure Self-Interest

Under the pure self-interest motive model, migrants remit to households in their source country with the intent to pursue their private gains. Unlike the altruistic model, the hypothesis of pure self-interest lays emphasis on the utility obtained by the remitter from remitting which is widely driven by the desire to inherit, accumulate assets, strengthen family ties, be entitled to wealth in the community and/or to be appreciated by households on return to his/her country of origin (Lucas and Stark 1985; Cox, 1987; Rapoport and Docquier, 2005; and Vargas-Silva and Huang, 2006).

Inheritance Motive

Drawing from existing works on the inheritance motive, it is purported that migrants use remittances as a way to invest in their future inheritance (Hoddinott, 1994; and Rapoport and Docquier, 2005). In this regard, Lucas and Stark (1985) further point out that if an inheritance is influenced by behaviour, then an acquisitive remitter's motive for assisting his or her family would include the interest to gain a higher prospect in the line of inheritance. According to Banerjee (1984), households with a wider range of inheritable assets are more likely to draw remittances because migrants will see remitting as a means to increase their chances of inheriting household assets in the future. Although family members can offer larger insurance payoff in the form of land or any other inheritable assets to raise the amount of money migrants remit (Hoddinott, 1994). De la Briere *et al*. (2002) argues that apportioning parents' assets with prospective beneficiaries decrease inheritance and the return on investment via remittances. To add to this, he empirically shows that a higher number of adult sons or siblings can deter remittance behavior when the sharing effect outweighs the competition effect.

Return Home Motive

Another probable ground for the self-interest motive is the intent of a migrant to return to his/her home. In light of this, Huang and Vargas-Silva (2006) suggest that some emigrants remit because of the advantage derived from households' gratitude from having sent remittances and the hope to return home in the future. According to Lucas and Stark (1985), when emigrants expect to return to their source country, they remit more to secure their social assets and relationships with friends and family. Also, in the bid to earn reputation and win political influence back home, some migrants send money to support religious, public, social, and customary events held in their home country. With regards to existing works in relation to selecting, purchasing, and maintaining assets on behalf of a person, it is believed that family members act as trustworthy agents on behalf of migrants when they are away. As such, most migrants use remittances as a way to purchase family provided services such as childcare; management of migrant's assets and/or other financial arrangements (Cox, 1987; and Rapoport and Docquier, 2005). According to Amuedo-Dorantes and Pozo (2006), migrants may remit to insure themselves against any unforeseen negative shock that they may encounter in their destination country by purchasing future goods and services for individual use upon return.

3.4.1.3 Tempered Altruism or Enlightened Self-Interest

A slight drift from the extreme motives for remitting is tempered altruism. Under the tempered altruistic model, remittances are considered as part of an "inter-temporal mutually beneficial contractual agreement" between the remitter and the recipient (Lucas and Stark, 1985). Tempered altruism is influenced by exchange, insurance, and investment motives. According to some scholars, migrants remit for investment motive when they remit as a means of loan

repayment. The ironic situation prevalent in most developing economies with high migrating rate is that those with the desire to migrate in order to earn a means of livelihood do not have the funds to support the desire. While those who can afford the cost of migration do so as a means of repose and entertainment. For this reason, some migrants go for loans from friends and/or relatives in order to meet the cost of migration or education in host countries.

According to Poirine (1997), a family finances an individual's education if the family implicit lending rate is lower than the individual borrowing rate and higher than the market interest rate. It is observed that migrants with a relatively higher level of education send remittances as repayments for the investments made on them. Among others, Rempel and Lobdell (1978) find that the amount remitted to the household is positively correlated to the educational level of the remitter, which is interpreted as repayment of the cost of education plus interest invested by the family.

More so, it has been empirically shown that most migrants emanate from developing economies. Most of these economies have less developed financial markets, limited social welfare systems and income exposed to negative shocks. Particularly, agricultural income is the most volatile in these economies and one of the major and popular sources of income. In order to insure against these shocks and volatility, parents/relatives send their children overseas or to countries which have no correlation with the home country. This serves as a means to diversify resources making them less prone to the same shocks at the same periods (Lucas and Stark, 1985; and Cassarino, 2004).

Again, as a way to co-insure against risks of crop failure, price fluctuations, income insecurity, livestock diseases, and insecurity of land tenancy, migrants remit to families left behind. For instance, migrants may remit to cater for losses borne by those left behind in times of crisis in exchange for support during periods of unemployment/economic shocks in the host country (Stark, 1991). According to Amuedo-Dorantes and Pozo (2006), migrants with greater income risk and large families remit more and are more likely to use co-insurance.

Another motive under tempered altruism is the exchange motive. Under the exchange motive, migrants send money to relatives and friends as a payment/reward/incentive/barter for the services rendered for them in the home country. For instance, migrants may send money to reward families and friends for undertaking investments on their behalf and/or for taking care of children left behind in the home country.

3.4.2 Developmental Impacts of Remittances

Discussions on the developmental impacts of remittances on the economies of recipient countries have featured in numerous studies. Whilst scholars like Krane (1973) and Rhodes (1977) hold dissenting and pessimistic views of the role remittances play on recipient countries, optimistic advocates of remittances believe that remittances promote the growth and development of receiving economies.

3.4.2.1 The Developmental Positivist View

According to the optimists, remittances sent home by migrants are a powerful financial force in developing countries. These remittances have indirect and direct effects on the welfare of recipients in source countries. A cross-country study of 71 developing countries revealed that a 10% increase in per capita formal foreign remittances lead to a 3.5% decrease in the share of people living in poverty (Adams & Page 2005). Evidence from Asia, Africa, and Latin America suggests that remittances reduce the severity and depth of poverty (Adams Jr., 2006; Gupta et al. 2007; Anyanwu and Erhijakpor 2010; Adams Jr. and Cuecuecha, 2016; and Yoshino, 2017). In the last fifteen years, remittances have significantly contributed to poverty reduction in Nepal (Chalise, 2013). As shown empirically, remittances explained a quarter to a half of the reduction in poverty headcount rate in Nepal in 2003/04 (World Bank, 2006).

Further, remittances have been found to have an income stabilizing effect at both the household level and macroeconomic level (World Bank, 2006; and Chami et al. 2009). Historically, remittances have tended to increase in times of financial crises, economic downturns, and natural disasters because migrants living abroad send more money to help their families back home (World Bank, 2006; and Mohapatra et al. 2010). In Ghana, remittances were found to reduce the effects of economic shocks on households' wellbeing (Quartey, 2006). Also, remittance-receiving households in Ethiopia used their cash reserves and thus avoided having to sell their livestock to cope with drought (Mohapatra et al., 2009).

Remittances also play a notable role in the human capital development of numerous economies. Remittances increase educational opportunities and improve access to health care provisions for recipients who otherwise would not have been able to afford certain educational funding and/or

health care services. This is evident in how a substantial amount of remittances sent to recipients in home countries is used for health and educational purposes (Ponce, Olivié and Onofa, 2011; Zhunio, 2011; Gyimah-Brempong and Asiedu, 2015; Pickbourn, 2016; and Amega, 2018). According to UNDP's Human Development Report 2010, remittance was one of the factors behind Nepal's remarkable success in human development in the last 40 years. Among 135 countries, Nepal emerged as the third world's fastest movers in the Human Development Index (HDI).

Remittances promote infrastructural development in many countries (Grabel, 2009; and Singh, 2015). Migrants in the diaspora normally form associations in order to cure homesickness and meet their need for belongingness. These associations normally lead to concerted efforts to undertake renovations and constructional works including; building schools, health centers, water supply facilities and churches in home countries. For instance, Ghanaian migrants participate in ethnic and town-based-associations. In the 1980s and early 1990s, some health institutions in Ghana survived on donations from these associations at the diaspora.

3.4.2.2 The Developmental Negativist View

Another side to the coin in the discourse of the developmental impact of remittances is the negative effects remittances beget on an economy. Although the cons of remittances are by far outnumbered by the pros of remittances, they are equally worthy of economic attention in policy formulation. Paramount among the negative effects of remittances is inflation (Bourdet and Falck 2006; and Khan and Islam, 2013). Ceteris paribus, given the progressively boost in consumption (resulting from remittance receipts) without an accompanying increase in domestic

production, demand exceeds supply leading to a persistent increase in prices. Per Narayan et al. (2011) and Balderas (2008) findings, between 1995 and 2005, remittances generated inflation with stronger effects in the long and short-run in most developing countries.

More so, countries which receive high inflows of remittances experience increasing real exchange rates and the "Dutch disease" (Amuedo Dorantes and Pozo, 2004; Bourdet and Falck, 2006; Acosta, 2009; and Makhlouf and Mughal, 2013). Dutch disease is the economic term used to describe the situation where both a boom in the export of natural resources and a decline in the other sectors of the economy lead to an appreciation of a country's currency. This appreciation of the receiving country's currency increases the demand for imports rendering the country less competitive in the world market.

The differences in various countries' reaction to high remittance receipts in relation to the Dutch disease offer proof of the variability in the structure of economies. Nevertheless, remittances are distributed much more widely in the population than income from natural resources; hence with the discovery of a natural resource say crude oil, a country is more likely to experience the resource curse of Dutch disease. Remittances tend to be quite stable and grow steadily, unlike natural resources which often display significant instability. Accordingly, the effect of the "Dutch disease" depends on the proportion of remittance flows spent on domestic goods, in particular, non-tradable goods (Gupta, Powell and Yang, 2006).

Another adverse effect of remittances is a fall in the labour supplied in recipient countries (Acosta, 2007; Hanson, 2007; Chami et al., 2003 and Amuedo-Dorantes and Pozo, 2012). Households supply labour as a means to an end. In this regard, remittances that serve as suitable

substitutes to these means may discourage labour force participation. As discussed in Justino and Shemyakina (2012), individuals in remittance-receiving households in Tajikistan are less likely to participate in labour markets and work for fewer hours even when they do. The fall in labour supplied by households discourages production activities which weaken the economy (Anayawu and Erhijakpor, 2010).

3.5 A Review of Relevant Empirical Literature

3.5.1 External and Internal Remittances

Numerous studies have continually highlighted the significant role played by external transfers in the economies of most countries. In this regard, a recent study by Antwi and Koranteng (2017) on 'international remittances and economic growth using time series data from 1990 to 2014 ' shows that international remittances have useful effects on the growth rate of Ghana's real GDP. In a much earlier study, Binci and Giannelli (2006) explored 'the effects of international and domestic remittances on child labour and schooling in Vietnam'. Using a binomial logit and two-sided censored regression cross-section analysis, they found out that international remittances have a stronger beneficial impact on schooling and child labour than domestic remittances.

Despite these advantages, the results of a study conducted in Nepal by Karki (2015) on 28,670 individuals in 5,988 households across the country shows that international remittances have no effect on child labour and education. According to some researchers, internal transfers play a more significant role in the economies of several developing countries. For instance, McKay and Deshingkar (2014) carried out a study on 'internal remittances and poverty – further evidence from Africa and Asia'. Using household survey data from six countries across Sub-Saharan

Africa and Asia, they estimated that the bulk of the poverty reduction impact of remittances in all countries stems from domestic transfers. Also, a panel data study into the effects of domestic and external remittances on schooling and child labour in Vietnam by Binci and Giannelli (2016) shows that the only significant impact of remittances on schooling and child labour emanates from domestic remittances.

In Tajikistan, a study conducted by Clement (2011) on the 'impact of remittances on household expenditure patterns' revealed a rather interesting result. Using propensity score matching methods on the 2003 Tajikistan Living Standards Measurement Survey, the author established that neither international nor domestic transfers have positive effects on education. With regards to poverty, an earlier study conducted by Gyimah-Brempong and Asiedu (2009) using both cross-section and pseudo-panel data on the 'relationship between external remittances and poverty in Ghana' indicates that international remittances have a greater effect on poverty reduction as compared to internal remittances. In a recent study, however, Castaldo et al. (2012) used data from the 'population census and recent household survey for Ghana' to show that domestic remittances have notable poverty-reducing effects than external remittances in the poorest regions of Ghana.

3.5.2 Remittance Usage

Private transfers sent by migrants to their home countries are channeled into various uses. Whilst some studies into the use of remittances support the view that remittances are used for day-to-day consumption, other investigations find that remittances are used for purposes other than consumption. Using instrumental variables (2SLS) and OLS with country fixed effects

estimation on 37 and 34 Sub-Saharan African countries over the period 1980 to 2004, Baldé (2011) assessed the effect of remittances on savings and investment. The author found that remittances are either saved or used for investment purposes. He also estimated that remittances have both positive and notable effects on investment and savings in Sub-Saharan Africa.

In exploring the relationship between remittances and entrepreneurship in Uzbekistan, Kakhkharov (2018) used probit regressions with data from Uzbekistan jobs, skills and migration survey to show that remittance-receiving households invest in businesses only when remittances are augmented with savings or enough income. Further obtaining data on 469 households over a five-year period in rural Pakistan, Adams Jr. (1998) found that external remittances increase investment in rural assets and have meaningful effects on the accumulation of physical asset in Pakistan.

More so, using various estimation techniques on panel data covering forty-six developing countries, Yol (2017) investigated 'the effects of remittances on public health expenditure'. He found that whilst remittance increases private incentives for investment in health, it reduces expenses incurred on public healthcare. In a much earlier study, Cardona-Sosa, Medina-Durango, and Alberto (2006) used 'instrumental variable approach on more than 20,000 households across Colombia to evaluate the impact of remittances on household's demand for education'. Results from their study indicate that remittance beneficiaries spend approximately 10% more on education than non-remittance beneficiaries.

Using a representative 'sample of 2,388 households drawn in 1999 to 2000 from four major labour sending areas in the Philippines', Semyonov and Gorodzeisky (2008) examined the relationship between remittances and wellbeing of households. The authors found that remittances are used mostly for consumption purposes. In a related study in Zimbabwe, Bracking and Sachikonye (2010) used a household survey drawn in December 2005 to estimate that '70% of descriptions of first use for remittances included food'. Using the 2002 Albania Living Standards Measurement Survey (ALSMS) for a similar study, Castaldo and Reilly (2007) obtained contradictory results. They found that foreign remittance beneficiaries on average spend less on food and more on consumer durables compared to non-remittance beneficiaries.

3.5.3 Remittance, Poverty, Inequality and Wellbeing

Various works suggest that remittances improve the overall wellness of poorer households and countries. Whilst some researchers argue that remittances are sent to low-income countries, others believe that these transfers are sent to high-income countries, broadening the gap between the poor and rich. Using a 'panel fully modified OLS on 39 countries including upper-middle, lower-middle and high-income countries', Azam, et al (2016) examined 'the impact of foreign remittances on poverty alleviation'. Though their results found positive effects of remittances on poverty alleviation, other indications show that the impact of remittances on poverty reduction is statistically significant only for upper-middle-income countries. Further obtaining data from the Indonesian Family Life Survey (IFLS) to 'explore the relationship between international remittances and poverty reduction', Adams Jr. and Cuecuecha (2016) used a bivariate probit model to show that remittance recipients are less likely to be poor compared to similar households without remittances.

In a recent study, Wagle and Devkota (2018) used 'methodologically consistent random effects regressions that correct for potential attrition and heterogeneity bias with data from panel surveys of 1996, 2004 and 2011 to evaluate the effects of foreign remittances on poverty in Nepal'. The authors indicated that among both poor and non-poor, the non-poverty level for remittance-receiving households exceeded that for non-recipients. Using the 'standard two-stage least squares (2SLS) and the two-step dynamic SGMM estimators on 41 Sub-Saharan African (SSA) countries', the analysis made from Akobeng's (2016) study on the 'relationship between remittances and poverty' also showed consistent results. The study found that although Sub-Saharan Africa receives an insignificant portion of the total amount remitted to developing countries, external remittances have significant effects on poverty reduction in SSA.

With regards to inequality, a study conducted from a panel survey of 142 countries over 1973 to 2012 by Tapsoba and Wagner, (2016) on 'the role of remittances on inequality' indicates that remittances do not have a robust impact on income distribution. In a similar study, however, results obtained from the works of Bang, Mitra, and Wunnava (2016) using the Migration Household Survey conducted by the University of Nairobi and the World Bank show that remittances have notable effects on income distribution. More so, Borja and Hall (2018) used instrumental variables and completed two-stage least square (2SLS) analyses on seventy-nine developing countries and twenty-five institutional indicators to examine the effect of remittances on inequality. They found that remittance-receiving countries with quality institutions have a more significant reduction in income distribution than those with weak institutions.

Using the 'Gallup World Poll data for 114 countries on the relationship between remittances and subjective well-being', Ivlevs et al. (2018) estimated that remittance recipients have better evaluative well-being than non-recipients. Likewise, in examining the effect of remittances on wellbeing, Sulemana, Daobil, and Anarfo (2019) used ordinary least squares and instrumental variables approaches on round 6 of the Afrobarometer surveys in 32 SSA countries to show that an increase in remittance receipts increases the likelihood of improved living conditions for the recipients.

3.5.4 Remittances and Household Consumption Expenditure

Evidence from a wealth of academic literature on remittance use suggests that remittances are mainly used by households for day-to-day consumption expenses. In a recent study, Maara, Manda, and Kiiru (2019) used a household survey data from 'World Bank 2009 African Migration Project' and a fractional multinomial logit model to examine the 'effect of remittances on household expenditure allocation behaviour in Kenya'. After controlling for endogeneity, results indicated that remittances have beneficial effects on household spending on investment. In addition to this, further findings show that whilst international remittances increase the share of household expenditure devoted to education and reduce the share of household expenditure allocated to physical investments and food, domestic transfers decrease the share of household expenditure devoted to education and increase the share of household expenditure allocated to food.

In a similar study, Adams Jr. and Cuecuecha (2010) used a two-stage multinomial selection model to examine 'how the receipt of remittances affects the marginal spending behaviour of

households'. Using data from the '2000 Guatemala ENCOVI survey', results from their study revealed that households who receive external remittances spend less at the margin on food relative to what they would have spent on food without remittances. The authors also found that households who receive either external or domestic remittances spend more on housing and education compared to what they would have spent on these goods without remittances. In exploring the 'general relationship between remittances and household expenditures', Tabuga (2007) used a cross-section analysis of the '2003 Family Income and Expenditure Survey' to show that remittance-receiving households spend more on consumer items and invest more on education, medical care, and durable goods. In spite of the above findings, other studies on remittances and household consumption expenditure show contradictory results.

In a much earlier study, Cardona-Sosa, Medina-Durango, and Alberto (2006) used LSMS (2003) data on more than 20,000 households across Colombia to estimate whether 'international remittances affect Colombian households' expenditure composition and demand for education'. Using an instrumental variable approach, the authors found that though remittances had notable effects on Colombia's living standard, remittances had no effects on household investment, consumption and health expenditure. Likewise, in a recent study, Randazzo and Piracha (2018) used data on 1,953 households in Senegal to 'assess the impact of remittances on household budget shares'. Using a propensity score matching multinomial treatment method, results from their study indicated that beneficiary households treat remittances just like any other source of income; suggesting that remittances have no influence on the consumption patterns of recipient households.

3.5.5 Remittance Evidence from Ghana

The increase in the volume of money remitted to Ghana each year has stirred up numerous and diverse studies on remittances in Ghana. In a much earlier study on 'migrant remittances and household welfare in Ghana', Quartey (2006) used waves 1 to 4 of the GLSS to estimate that remittances ameliorate the living conditions of households and decrease the impact of economic shocks to household welfare. Following with data drawn from the GLSS 5, Ackah and Medvedev (2010) confirmed that, households with migrants tend to be well off than similar households with no migrants. Further investigations into their study, however, indicated that the welfare of households with migrants solely in rural areas is no different from households without migrants.

Using waves 3 to 5 of the GLSS, Boakye-Yiadom (2008) in his study 'Rural-Urban Linkages and Welfare: The Case of Ghana's Migration and Remittance Flows' analyzed the 'the impact of migration and remittance flows on poverty and consumption welfare in Ghana'. On the contrary, his results indicated that though some urban-to-rural in-migrants obtained welfare benefits from migrating, on the whole, urban-to-rural migration had a negative impact on the welfare of in-migrants. In addition to this, results from his study showed that rural recipients of urban remittances derived on average, significant welfare gains than their urban-to-rural counterparts.

Drawing from other remittance-related studies on Ghana, Adams Jr. and Cuecuecha (2013) using a two-stage multinomial logit model on GLSS 5 examined how internal and international remittances are used by households in Ghana and their effect on poverty in Ghana. Their study shows that remittance-receiving households at the margin spend a larger percentage on housing,

health, and education than on food. In a similar study, Guzmán, Morrison, and Sjöblom (2008) examined how the sex of the household head and remittances affect household budget allocations. Building on the adjusted working-leser curve with data from GLSS 1998/99, the authors concluded that female-headed households that receive international remittances spend less on food and spend more on housing, consumer and durable goods and other goods than female-headed households that do not receive these remittances.

Using both cross-section and pseudo-panel data set from waves 3 to 5 of the GLSS, a further study by Gyimah-Brempong and Asiedu (2015) suggests that female-headed households that receive remittances invest more in education than male-headed households. With a more specific study conducted in Ghana's Northern region, Pickbourn (2016) used qualitative and quantitative data on rural-urban migration of women in Ghana to show that "regardless of the gender of the household head, households in which women are the primary recipient of remittances spend more than twice as much on education as households in which men are the primary recipient".

CHAPTER FOUR

METHODOLOGY

4.1 Introduction

This chapter discusses the methodology and data employed for the study. More specifically, it describes the conceptual framework underpinning remittance use and wellbeing, discusses the econometric techniques used in addressing the research questions, specifies models to be estimated, and describes the variables employed for the study.

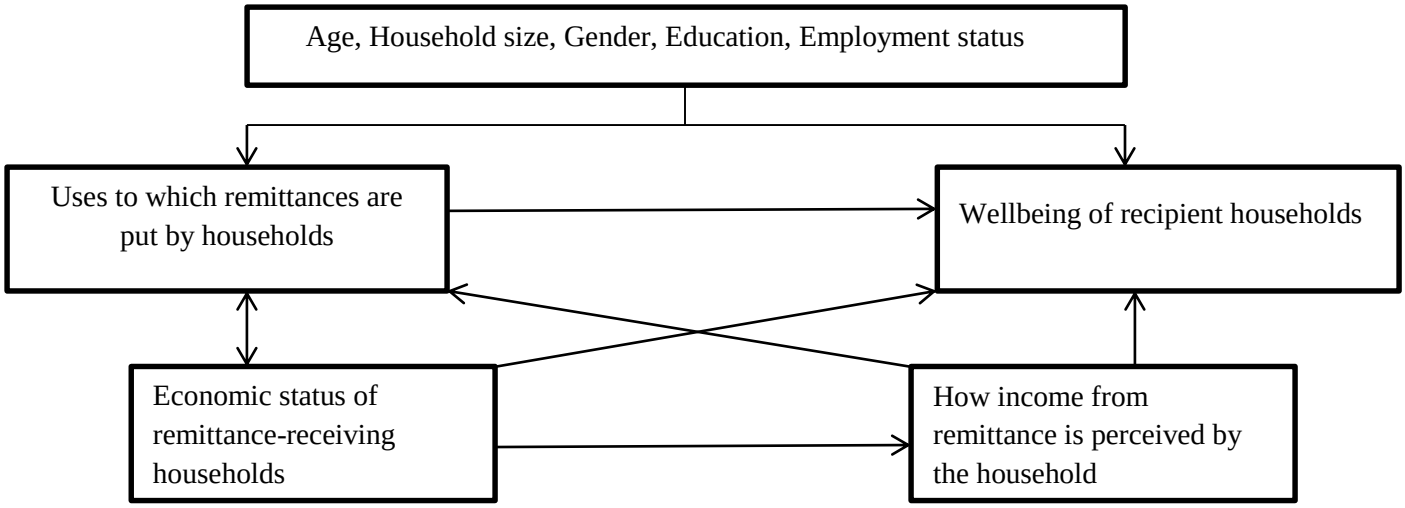
4.2 Conceptual Framework

Previous studies (Ando and Modigliani, 1963; Glewwe, 1991; Tunali, 2000; Ravallion, 2001b; Litchfield and Waddington, 2003; Bracking and Sachikonye, 2010) on remittances and wellbeing have established wide-ranging categories of variables to explain household's wellbeing. According to these studies, household's wellbeing and the uses to which remittances are put by households are a function of household's socio-economic and composition variables; where household's demographic and socio-economic characteristics comprise age, gender, household size, wealth, educational level, location, and the sector of economic activity.

More importantly, earlier studies postulate that the uses to which remittances are put may vary depending on the wellbeing of the household, the economic status of recipient households and/or how the receiving household perceives the remittance (Quartey, 2006; and Randazzo and Piracha, 2014). For instance, it is hypothesized that households who view remittance as compensatory or any other source of income tend to spend more at the margin on consumption than on investment goods relative to households who perceive remittance as transitory income.

Quartey (2006) further cites that, unlike vulnerable households who use remittances for securing basic consumption needs, richer households are presumed to invest income received from remittances in productive activities. In view of the relationship between remittance use and wellbeing, Samuel (2000) opines that remittances used for investment and essential consumption purposes have significant welfare effects relative to remittances used for 'conspicuous' consumption purposes. Drawing extensively on the *above works*, the conceptual framework for this study is described below:

Figure 4.1: Remittance Use and Wellbeing



Source: Author's construct based on literature

4.3 Addressing the Research Questions

In assessing the relationship between remittance use and wellbeing, three principal research questions modeled in this study are:

1. What are the factors that determine the use of remittances for daily consumption?
2. Does the use of remittances in a certain way affect households' welfare?
3. Does the use of remittances in a specific way affect households' poverty status?

The questions posed above collectively focus on examining the wellbeing of households which receive remittances. In order to estimate results for *question two*, we use the multiple linear regression modeled using Ordinary Least Square (OLS) estimators. Given the *first* and *third questions*, binary responses of whether 'a household is poor or not' and whether 'remittances are used for daily consumption or not' are our outcome variables respectively. Hence, estimation techniques suitable for addressing research questions one and three should be one that permits the outcome variables to assume more than one response. Unlike the OLS model which assumes a continuous variable (*household consumption expenditure*) as its outcome variable, logit or probit models permit a dependent variable to have two responses.

4.3.1 The Probit Model

The choice of an econometric regression is usually based on the nature of the outcome variable. For instance, for limited outcome variables, it is important to find the likelihood of the occurrence of an event using Probability Models (Aldrich et al., 1984; and Gujarati, 2005). For outcome variables that are in two divisions (binary dependent variables), binary regression models are deemed appropriate. As such, since household's poverty status is specified as a binary response variable assigned '1' if the household is poor and '0' if otherwise and since remittance use is specified as a binary response variable assigned '1' if the recipient household uses remittances for daily consumption and '0' if otherwise, this study employs a binary regression model to estimate the effect of remittance use on household's poverty status and explore the factors that determine the use of remittances for daily consumption purposes.

In modeling dichotomous outcome variables, Caudill (1988) and Gujarati (2005) identify three techniques that are widely used by analysts - *Linear Probability Model* (Currie and Gruber, 1996; McGarry, 2000; Bettis and Fairlie, 2001; and Reiley, 2005), *Logit model* (Achia et al., 2010; and Adetola and Olufeni, 2012), and *Probit model* (Quarshie, 2017; and Kusi, 2018). Out of these methods, Stock and Watson (2011) posit that Probit and Logit models give precise and consistent estimations. More often, in Linear Probability Models, results estimated are inefficient and inconsistent (Nerlove and Press, 1973; Greene, 2000; and Horrace and Oaxaca, 2006). According to Horrace and Oaxaca (2006), unlike in Linear Probability Model where estimated probabilities may lie outside [0, 1], probit and logit models bound the maximum likelihood estimated probabilities on [0, 1] and capture any non-linear relationship that exists between outcome and explanatory variables (Gujarati, 2005). Although both probit and logit techniques are ideal for modeling which of two possibilities exist in the logit model, “the odds ratio tells little about the effect of a covariate on the actual probability of an event occurring” (Hoetker, 2007; page 334). For this reason, this study uses the probit model to determine the factors that affect remittance use for daily consumption and explore the effect of remittance use on households’ poverty status.

Following Stock and Watson (2011), we specify the General Probit Model with a latent outcome variable as:

$\mathbf{Pr\ (Y = 1|X^{'}) = \Phi\ (X^{'}\beta)}$ ……………………………….. (4.2.1.0)

Equation (4.2.1.0) represents the probability that a remittance-receiving household (I) would be poor or non-poor (II) uses remittances for daily consumption purposes or otherwise.

Where;

X is a vector of all independent variables used for the study,

Φ is the standard normal cumulative distribution function.

β is the coefficient parameter to be estimated.

Mathematically, the standard normal cumulative distribution function is expressed as:

$$\boldsymbol{\Phi}\ (\mathbf{X}'\boldsymbol{\beta}) = \int_{-\infty}^{X'\beta} \boldsymbol{\Phi}(z)dz \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ (4.2.1.1)$$

Where $\Phi\ (\mathbf{X}'\boldsymbol{\beta})$ is the standard normal density (Wooldridge, 2014) given as:

$$\Phi\ (\mathbf{X}'\boldsymbol{\beta}) = (2\pi)^{-1/2}\exp(-(X\beta)^2/2)$$

The marginal effect is calculated as:

$$\frac{dy}{dx} = \boldsymbol{\Phi}\ (\boldsymbol{X}'\boldsymbol{\beta}) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ (4.2.1.2)$$

4.3.2 Model Specification for Probit

Based on the above (Stock and Watson, 2011), the Probit model specified for the study is given as:

$Y_i^* = X'\beta + \varepsilon_i$

For research question 1, the observed is an event represented by the dichotomous outcome variable Y defined as:

$Y_i = 1$ if $Y_i^* > 0$ if households use remittances for daily consumption

$Y_i = 0$ if $Y_i^* \leq 0$ if households use remittances for purposes other than daily consumption

$$\boldsymbol{Pr\ (Y_i = 1|\ X_i) = \Phi\ (\beta_0 + \beta_1 Age + \beta_2 Gender + \beta_3 HHsize + \beta_4 Educ + \beta_5 PovStatus + \beta_6 MarStatus + \beta_7 LmktStatus + \beta_8 Loc + \beta_9 Ecozone + \beta_{10} OriRem)}$$

For research question 3, the poverty status of the household which is represented by the dichotomous variable Y is defined as:

$Y_i = 1$ if $Y_i^* > 0$ if the household is poor

$Y_i = 0$ if $Y_i^* \leq 0$ if the household is non-poor

$$\boldsymbol{Pr\ (Y_i = 1|\ X_i) = \Phi\ (\beta_0 + \beta_1 RemUse + \beta_2 Age + \beta_3 Gender + \beta_4 HHsize + \beta_5 Educ + \beta_6 MarStatus + \beta_7 Employ + \beta_8 Relgn + \beta_9 Loc + \beta_{10} Disab + \beta_{11} Ecozone + \beta_{12} OriRem)}$$

Where:

X_i represents the set of independent variables.

$Z_1 = \beta_0 + \beta_1 Age + \beta_2 Gender + \beta_3 HHsize + \beta_4 Educ + \beta_5 PovStatus + \beta_6 MarStatus + \beta_7 Labmkt + \beta_8 Loc + \beta_9 Ecozone + \beta_{10} OriRem$ is the "z-value" of the probit model.

$Z_3 = \beta_0 + \beta_1 RemUse + \beta_2 Age + \beta_3 Gender + \beta_4 HHsize + \beta_5 Educ + \beta_6 MarStatus + \beta_7 Employ + \beta_8 Relgn + \beta_9 Loc + \beta_{01} Disab + \beta_{11} Ecozone + \beta_{12} OriRem$ is the "z-value" of the probit model.

βs are the effects on the z-score of a unit change in the independent variables,

Age denotes Age in years,

Gender denotes the Sex of the household head,

HHsize represents the Household size,

Educ represents the Educational level of the household head,

LmktStatus represents the Employment status of the household head,

MarStatus represents the Marital status of the household head,

Employ represents the Employment sector in which the household head works in,

PovStatus represents the Poverty status of households,

Loc represents the Location of the household,

Ecozone represents the Ecological zones in which households are situated,

OriRem represents the Origin of remittance.

4.3.3 The Multiple Linear Regression Model

In estimating the effect of remittance use on household consumption expenditure, this study adopts the Multiple Linear Regression, modeled using Ordinary Least Square (OLS) estimators. More often, in conducting analysis with data that contains large numbers of zero like the GLSS, the Tobit regression model is preferred as it addresses relevant censoring usually identified in such data (Tobit, 1958; and Ridwan, 2014). However, Foster and Kalenkoski (2012) argue that, because Tobit models treat record of zeroes for specific activities strictly as non-participation in an activity, households who routinely 'participate' in the Ghana Living Standard *survey* over the period of interest to the enumerator but fails to do so within the stipulated time covered by the *survey* may be misidentified as non-participants. As such, Foster and Kalenkoski (2012) further point out that these 'reported zeroes' in actual sense denote a mismeasurement rather than non-participation in the *survey* in which case, *OLS* is deemed more suitable as it is more robust to measurement error (Egerton and Gershuny, 2007; and Stewart, 2009). OLS regression is ideal for modeling continuous response variables such as *household consumption expenditure* and helps explain the strength of relationships that exist between a continuous outcome variable and explanatory variables (Hutcheson, 1999).

Following Wooldridge (2014), we define the multiple regression model as:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_k X_k + \varepsilon$ …….. (4.2.3.0)

Where:

Y is the regressand

X is the regressor

β's are the coefficient parameters

Ɛ is the error term

4.3.4 Model Specification for Multiple Linear Regression

Based on the model above (Wooldridge, 2014), we specify the multiple linear regression model as:

$$\mathbf{Y = \beta_0 + \beta_1 RemUse + \beta_2 Age + \beta_3 Gender + \beta_4 HHsize + \beta_5 Educ + \beta_6 MarStatus + \beta_7 Employ + \beta_8 Relgn + \beta_9 Loc + \beta_{10} Disab + \beta_{11} Ecozone + \beta_{12} OriRem + \mathcal{E}}$$

Where:

Y = Log of Household Consumption Expenditure (*household welfare*)

RemUse = Remittance use,

Age = Age in years,

Gender = the Sex of the household head,

HHsize = Household size,

Educ = the Educational level of the household head,

MarStatus = the Marital status of the household head,

Employ = the Employment status of the household head,

Relgn = the Religion of the household head,

Loc = the Location of the household,

Disab = the Disability status of the household head,

Ecozone = the Ecological zones in which households are situated,

OriRem = the Origin of remittance,

Ɛ = the error term identically and independently distributed with constant variance and zero mean.

4.4 Definition and Measurement of Variables

This section explains the dependent and independent variables employed for the study. The choice of these variables is based on the empirical and theoretical body of works related to remittances and wellbeing.

4.4.1 Dependent Variables

This sub-section gives the descriptions of the dependent variables used for the study. The dependent variables employed for the study are household consumption welfare and poverty status.

Household consumption welfare

This is a continuous variable defined as the total real consumption expenditure per adult equivalence deflated per year. In this study, household consumption expenditure per adult equivalence is used as an indicator for household consumption welfare. In the consumption welfare model, *the dependent variable is the natural logarithm of real consumption expenditure per adult equivalence.*

Poverty Status

This is a dummy variable assigned '1" if the household is poor and '0' if the household is non-poor. According to the Ghana Statistical Service (GSS, 2017) and Asogwa (2018), households' poverty status is mirrored by their consumption capacity. As such, this study uses consumption levels to categorize households as poor or non-poor.

4.4.2 Explanatory Variables

The sub-section provides explanations for the independent variables used for this study. They comprise remittance use, the origin of remittance, demographic characteristics of household heads and controls for the areas of residency and ecological zones. Since the inclusion of explanatory variables is based on theories underpinning the study, various regressions analyzed do not make use of the same set of explanatory variables.

Origin of Remittance

This dummy variable indicates whether a remittance was received from an internal or external source. It is assigned '1' if remittance was received from an international source and '0' if otherwise. It is hypothesized that both internal and external remittances play beneficial roles in enhancing households' welfare (Quartey, 2006; Boakye-Yiadom, 2008; and Bracking and Sachikonye, 2010). Notwithstanding, whilst McKay and Deshingkar (2018) finds that the bulk of the poverty reduction impact of remittances in households stems from domestic transfers, Adams Jr. (2006) is of the view that poverty is reduced more when external remittances are incorporated in household income.

Remittance Use

This is a categorical variable which captures the various uses to which remittances are put by households. Previous works opine that the uses to which remittances are put may vary depending on the economic status of households (Quartey, 2006). As discussed in Benavides (2003) and Englama (2009), ways in which remittances are used have a toll on households' consumption and welfare levels. According to Samuel (2000), remittances used for investment and essential consumption purposes have significant welfare effects relative to remittances used for 'conspicuous' consumption purposes.

Household Head Demographic Characteristics

A household head is a person recognized and identified as such by members of a household and is usually the main provider in charge of the upkeep of the household and is aware of all the activities that take place in the household. According to Ando and Modigliani (1963), demographic variables play a significant role in consumption and welfare levels. As such, this study employs the following household head demographic characteristics:

Gender

This is a dummy variable which describes the sex of the household head. It is assigned '1' if the household is headed by a male and '0' if otherwise. Gender influences the welfare and spending patterns of remittance-receiving households (Bastos et al., 2009; and Anyanwu, 2012; 2014). According to Gubert et al. (2010), male-headed households who benefit from remittances have lower consumption levels relative to their female counterparts. As discussed in Guzmán et al. (2008) however, remittances to female-headed households are spent more on food, education,

and health relative to remittances to male-headed households. With regards to poverty, whilst GSS opines that "female-headed households appear to be better-off than male-headed households in terms of poverty incidence" (GSS, 2012; 2017), Anyanwu (2014) finds that poverty is more prevalent among males than females in Nigeria.

Age

This is a continuous variable which defines the age of the household head measured in years. The quadratic impact of age (labeled as ***'age squared'***) is also employed to capture the non-linear relationship that may exist between welfare and age. Age could be positively or negatively related to the welfare and consumption levels of remittance-receiving households (Kyereme and Thorbecke, 1991; Weagley and Huh, 2004; Rodriguez, 2002; and Ridwan, 2014). In a recent study, Mensah-Dapaah (2016) postulates that younger household heads that benefit from remittances consume less and experience lower welfare levels relative to older household heads who receive remittances. According to Ridwan (2014) however, since older household heads who receive remittances view these transfers as transitory, they tend to consume less than younger heads that benefit from remittances. More so, Anyanwu (2014) explains the quadratic impact of age on consumption using inverted U-shape. According to him, individuals tend to consume less at a relatively young age, consume more as they get to middle age and then reduce consumption as they grow old. Similarly, according to Datt and Jolliffe (1999), and Gang et al. (2004), poverty incidence is comparatively high at early ages, reduces at middle age and then increases again at old age.

Educational Level

This is a categorical variable which describes the educational level of the household head. It is assigned '1' if the household head has no education, '2' if the household head has attained a basic education, '3' if the household head has secondary education, '4' if the household head has acquired any vocational, technical or teacher training and '5' if the household head has acquired tertiary education. Education is paramount as it reflects the ability of household heads to put remittances into 'effective' use. Conventionally, household heads with higher educational levels are expected to experience better welfare levels compared to 'heads' with lower levels of education (Palmer-Jones and Sen, 2003; Bastos et al., 2009; and Anyanwu, 2011). As indicated by Ogundari and Aromolaran (2014), higher educational attainment is associated with high economic benefits particularly in the form of better welfare.

Labour Market Status

This is a dummy variable which describes the employment status of the household head. It is assigned '1' if the household head is employed and '0' if otherwise. Previous works present different views on the relationship between employment, welfare, and poverty (Ray et al., 2010; McQuaid et al., 2010; Tomlinson and Walker, 2010; and Anyanwu and Erhijakpor, 2012). Whilst Agénor (2005) opines that employment increases poverty, Islam (2004) hypothesizes that employment has significant effects on poverty reduction. According to a recent study, employed household heads in remittance-receiving households have higher welfare levels than unemployed heads in remittance-receiving households (Mensah-Dapaah, 2016).

Religious Affiliation

This is a categorical variable which captures the religious belief of the household head. It is assigned '1' if the household head does not belong to any religious group, '2' if the household head is a Christian, '3' if the household head is a Muslim and '4' if the household head is a Traditionalist. Previous studies suggest that religion plays a crucial role in determining one's welfare/poverty level (Olupona, 2009; Hashmi, 2010; Norris and Inglehart, 2011; and Beyers, 2014). Whilst Hashmi (2010) opines that the 'principle of zakat – an act of giving' practiced in Islam plays an important role in alleviating poverty, Olupona (2009) posits that individuals who tend to be deeply rooted in their spiritual beliefs experience high risks of poverty.

Employment Status

This is a categorical variable which describes the employment sector in which the household head works in. It is assigned '1' if the household head is a wage employee, '2' if the household is self-employed in a non-agricultural sector, '3' if the household head is self-employed in an agricultural sector and '4' if the household head is unemployed. Due to the conditions and risks associated with a particular employment sector, a number of researchers opine that the employment sector in which household heads find themselves affects the consumption and poverty levels of households (Glewwe and Twum-Baah, 1991; Quartey, 2006; Anyanwu, 2014; and GSS, 2017). According to GSS (2017), households whose heads are engaged in agricultural activities have the highest rate of poverty incidence. More so, GSS finds that households who are headed by individuals engaged in the agricultural sector are more likely to be poor relative to those who are self-employed in non-agricultural sectors or are employed by private institutions.

Disability Status

This is a dummy variable which captures the disability status of the household head. It is assigned '1' if the household head is abled and '0' if otherwise. It is often believed that disability is 'both a cause and consequence of poverty' (DFID, 2000; Groce et al., 2011; Trani and Loeb, 2012; Mitra et al., 2013; Vallas and Fremstad, 2014; and Banks and Polack, 2014). As found by Vallas and Fremstad (2014), almost two-thirds of those with high poverty rates are disabled. According to Rohwerder (2015) also, those living with disability have inadequate access to food, education, housing, and healthcare services required for overall wellbeing.

Marital Status

This is a categorical variable which describes the marital status of the household heads that benefit from remittances. It is assigned '1' if the household head is married, '2' if the household head was formerly married and '3' if the household has never been married. Among others, Lupton and Smith (2003), Grinstein-Weiss and Sherraden (2006) and Blank (1997) opine that marriage comes with a special package that promotes wealth accumulation and reduces risks of poverty. As indicated by Mensah Dapaah (2016), married household heads who receive remittances experience better welfare levels relative to those who have never been married/are divorced. Contrarily, according to findings from Anyanwu (2014), married persons are more prone to risks of poverty than separated/divorced ones.

Residential Location

Area of Residency

This is a dummy variable which describes the location of the household. It is assigned '1' if the household lives in an urban area and '0' if otherwise. Usually, poverty is seen as more of a problem in rural than in urban areas (World Bank, 1990, 2001; Glewwe and Twum-Baah, 1991; African Development Bank, 2002; and GSS, 2017) mainly because of the advantages enjoyed by urban folks in terms of economic, environmental, household and individual opportunities and choices. As indicated by Anyanwu (2014), households in rural areas have high poverty rates compared to households in urban localities. According to Ridwan (2014), households in urban areas spend relatively more on investment than on consumption goods relative to households located in rural areas.

Ecological Zone

This is a categorical variable which defines the ecological zones from which households are located. It is assigned '1' if the household lives in a coastal area, '2' if the household lives in a forest zone, '3' if the household lives in a savannah zone and '4' if the household lives in the Greater Accra Metropolitan Area (GAMA).

Social Characteristic

Household Size

This is a continuous variable which captures the number of people residing in households who benefit from remittances. As discussed in previous works, larger households are associated with higher levels of poverty relative to households with fewer members (Lanjouw and Ravallion, 1994; Gang et al., 2004; and Anyanwu, 2014). Accordingly, a recent study by Mensah-Dapaah (2016) shows that larger remittance-receiving households have lower consumption and welfare levels relative to remittance-receiving households with fewer members.

Table 4.1 below presents a summary of all the variables employed for the study including their units of measurement and expected signs.

Table 4.1: Variable definitions, Unit of measurement and Expected signs

Definition	Unit of measurement	Expected sign on household consumption welfare	Expected sign on poverty
Dependent Variables			
Household consumption welfare	Total expenditure per adult equivalence		
Poor	Poverty dummy (1 for poor households; and 0 for non-poor households)		

Table 4.1 (cont'd)

Definition	Unit of measurement	Expected sign on household consumption welfare	Expected sign on poverty
Explanatory variables			
Age	Years	-/+	-/+
Age Squared	Years	-/+	-/+
Household Size	Number of household members	-	+
Male Dummy	Sex dummy for household head with 1 for male headed; and 0 for female headed households	-/+	-/+
Origin of Remittance	Dummy for source of remittance (1 for international source; and 0 for internal source)	+	-
Urban Dummy	Location dummy (1 for urban; and 0 for rural)	-/+	-
Marital Status	Categorical dummy for marital status (formerly married or divorced; never married; with married as reference dummy)	-/+	-/+
Disability	Disability dummy (1 if household head is not disabled and ,0 if disabled)	-	+
Employment Status	Categorical dummy for employment status of the household head (wage employee; non-agricultural self-employed; agricultural self-employed; with unemployed as reference dummy)	-/+	-/+

Table 4.1 (cont'd)

Definition	Unit of Measurement	Expected sign on household consumption expenditure	Expected sign on poverty
Explanatory variables			
Ecological Zone	Categorical dummy for ecological zone where household lives (coastal, forest, and savannah zones, with Accra Metro as reference dummy)	-/+	-/+
Education	Education dummy (basic, secondary,voc/technical/teacher training, and tertiary with no education as reference dummy)	-/+	-/+
Religious Affiliation	Religion dummy (Christian, Muslim, and traditionalist with no religion as reference dummy)	-/+	-/+
Remittance Use	Remittance use dummy (housing, business, education, health, funerals, savings, and other ceremonies with daily consumption as reference dummy)	-/+	-/+

Source: Author's compilation based on literature

4.4 Data Source

This study uses data from the 2012/13 Ghana Living Standards Survey (GLSS VI), a nationwide household survey to explore the relationship between remittance use and wellbeing. The survey was designed by the Ghana Statistical Service in 2013 to generate information on the wellbeing and living conditions of 18,000 households in 1,200 clusters selected across the country. Of the 18,000 households selected, 16,772 successfully responded representing about 93.2% response rate. Although the survey ignores the intention for which transfers are made by the remitter, fails to capture spin-off effects associated with external remittance (Mazzucato et al., 2004) and focuses solely on information from the household head, it contains useful information on the demographic characteristics of households, the total consumption of each household - both food and non-food items, poverty, and *remittance use* (both internal and external use) required for conducting this study. Also, unlike in **GLSS VII** where information is provided on *internal and international migrant remittances* (which are only a subset of international remittances), **GLSS VI** provides information on *both internal and international* remittances. More importantly, unlike in **GLSS VII** where information provided on the uses to which internal remittances are put by households are *discrepant with* the information provided *on international migrant remittance* use, **GLSS VI** provides *consistent* information on both internal and *international* remittances with regards to the *uses to which remittances are put* by households. In addition, this dataset contains valuable household information which permits investigations into diverse and numerous subject areas such as education, tourism, health, employment, housing, governance, non-farm enterprises, asset ownership, peace and security, time use, housing conditions, household agriculture, financial services, and migration.

CHAPTER FIVE

DISCUSSION OF RESULTS

5.1 Introduction

The chapter consists of two main sections. The first section discusses the results of the descriptive statistics of dependent and independent variables. The second section presents the results of the econometric estimations of the study; it specifically focuses on the factors that determine remittance use for daily consumption and finally discusses the effect of remittance use on households' consumption welfare and poverty status.

5.2 Descriptive Statistics of Regression Variables

This section describes into details the statistical distribution of the continuous and dummy variables used in the analysis of this study which is covered in Tables 5.1 and 5.2 below. Table 5.1 gives a summary of the descriptive statistics of the continuous variables and Table 5.2 presents the descriptive statistics of all the dummy independent variables used for the study.

Table 5.1: Descriptive Statistics of Continuous Variables

Continuous variables	No. of households (N = 16,772)	Percentage (%)	Min	Max	Mean	Std. Dev.
Age			15	99	45.84	15.90
• 15 - 30 years	3,096	18.46				
• 31 - 45 years	6,179	36.84				
• 46 - 60 years	4,387	26.13				
• 60+ years	3,110	18.57				
Household Size			1	29	4.26	2.78
• 1 –5 members	12,086	72.07				
• 6 - 10 members	4,165	24.84				
• 10+ members	521	3.09				
Household Welfare	16,772	100	0.11	264.17	8.97	9.40

Source: *Computed from* ***GLSS VI***

Age: The distribution of the ages of household heads ranges from 15 to 99 years with an average age of about 46 years. Majority of household heads (37%) were between 31-45 years, with about 19% and 18% above 60 years and in the age bracket of 15-30 years respectively. Approximately 26% of the household heads were in the age bracket of 46-60 years. The higher headship rate for those between 31-60 years seems plausible as the tendency for those in the age bracket of 31-60 years to establish their own households rather than live with friends, parents or other relatives is very high (Afranie and Togoh, 2013).

Household Size: The data shows that out of 16,772 households, 12,086 households representing about 72% were in the size bracket of 1-5 members with just about 521 households (3%) with a size of more than 10 members. Also, according to the data, a household has a minimum of 1 member and a maximum of 29 members with an average size of 5 members. This agrees with the finding by Ghana Statistical Service (2013) which posits that Ghana has an average household size of 4.1 and 5.0 persons in the urban and rural areas respectively.

Household Consumption Welfare: According to the data, the average household total expenditure is about GH₵ 8.97 per day. The maximum amount of money consumed per day by a household is GH₵ 264.17 and the minimum amount of money expended by a household on food and non-food items is approximately GH₵ 0.11 per day.

Table 5.2: Descriptive Statistics of Dummy Independent Variables against Poverty

Dummy Variables	Poverty Status		Total
	Non-Poor	Poor	
	Number of Households (%)	Number of Households (%)	
Remittance Use			
First Use of Remittance			
Daily Consumption	**3,166** (87.82)	**881** (90.17)	**4,047 (**177.99)
Housing	**52** (1.44)	**9** (0.92)	**61** (2.36)
Business	**111** (3.08)	**17** (1.74)	**128** (4.82)
Education	**105** (2.91)	**23** (2.35)	**128** (5.26)
Health	**78** (2.16)	**18** (1.84)	**96** (4)
Funerals	**23** (0.64)	**11** (1.13)	**34** (1.77)
Savings	**4** (0.11)	**0** (0.00)	**4** (0.11)
Other ceremonies	**66** (1.83)	**18** (1.84)	**84** (3.67)
Second Use of Remittance			
Daily Consumption	**156** (6.01)	**39** (5.64)	**195** (11.65)
Housing	**492** (18.94)	**116** (16.79)	**608** (35.73)
Business	**266** (10.24)	**67** (9.70)	**333** (19.94)
Education	**531** (20.45)	**130** (18.81)	**661** (39.26)
Health	**940** (36.20)	**260** (37.63)	**1,200** (73.83)
Funerals	**50** (1.93)	**15** (2.17)	**65** (4.10)
Savings	**30** (1.16)	**5** (0.72)	**35** (1.88)
Other ceremonies	**132** (5.08)	**59** (8.54)	**191** (13.62)

Table 5.2 (cont'd)

Dummy Variables	Poverty Status		Total
	Non-Poor	Poor	
	Number of Households (%)	Number of Households (%)	
Third Use of Remittance			
Daily Consumption	**33** (1.74)	**11** (2.36)	**44** (4.10)
Housing	**112** (5.91)	**22** (4.71)	**134** (10.62)
Business	**139** (7.33)	**32** (6.85)	**171** (14.18)
Education	**158** (8.33)	**50** (10.71)	**208** (19.04)
Health	**759** (40.03)	**192** (41.11)	**951** (81.14)
Funerals	**113** (5.96)	**24** (5.14)	**137** (11.10)
Savings	**194** (10.23)	**25** (5.35)	**219** (15.58)
Other ceremonies	**388** (20.46)	**111** (23.77)	**499** (44.23)
Origin of Remittance			
International	**8,840** (69.29)	**2,800** (69.76)	**11,640** (139)
Internal	**3,918** (30.71)	**1,214** (30.24)	**5,132** (60.95)
Gender			
Male	**8,920** (69.92)	**3,123** (77.8)	**12,043** (147.72)
Female	**3,838** (30.08)	**891** (22.20)	**4,729** (52.28)
Educational Level			
No education	**5,348** (41.92)	**3,159** (78.7)	**8,507** (120.62)
Basic education	**4,416** (34.61)	**698** (17.90)	**5,114** (52.51)
Secondary education	**1,333** (10.45)	**91** (2.27)	**1,424** (12.72)
Vocational/Tech/Teacher training	**739** (5.79)	**40** (1.00)	**779** (6.79)
Tertiary education	**922** (7.23)	**26** (0.65)	**948** (7.88)

Remittance Use: It can be inferred from the data that for non-poor and poor remittance beneficiary households, over 50% (about 88% and 90% respectively) of the first use of remittances included daily consumption. However, for poor (0.00%) and non-poor households (0.11%), savings constituted the least first use of remittances received. The trend is similar for the second use of remittances. Amongst the second uses, only 1.16% of the non-poor and about 1% of the poor recipient households saved remittances received. The most common second use of remittances received by non-poor and poor households was for *health* (36% and 38% respectively) followed by *educational* (20% and 19% respectively) and *housing* (19% and 17% respectively) purposes. With respect to the third use of remittance, the data show that almost half and one-quarter of the non-poor and poor recipient households use remittances for health purposes and other ceremonies respectively with just about 2% of them spending on consumption. As regards to non-poor households, savings (10%) constitute the third most important third use of remittances received. With respect to poor households however, education (11%) accounts for the third most important third use of remittances.

Origin of Remittance: Disaggregating households that received remittances by origin, the data shows insignificant differences in percentage-wise between non-poor and poor households who reported receiving remittance from an internal or international source. However, the survey shows that whilst the majority of both non-poor (69%) and poor (68%) households benefitted from foreign remittances, just a few of non-poor and poor households (about 31% and 30% respectively) benefitted from domestic remittances.

Gender: The survey shows that out of 16,772 households in Ghana, 12,043 households representing about 72% are headed by males with about 4,729 households (28%) headed by females. Also, of the12,758 non-poor households, 8,920 households accounting for about 70% were male-headed and 3,838 households (30%) were female-headed. Similarly, according to the survey, the percentage number of poor households headed by males (78%) exceeded that headed by females (22%). On the whole, the percentage number of non-poor female-headed households (30%) was more than the percentage number of poor female-headed households (22%). The reverse is true for male-headed households. The higher percentage observed in the number of households headed by males can be attributed to the authority given to males in most African societies and the restrictions females suffer in accessing society's economic resources and opportunities (Kishor and Neitzel, 1996).

Educational Level: According to the data, out of 16,772 households, 7,410 (90%) of the non-poor households reported having some level of education and 855 of the poor households representing only 10% reported having some form of education. Whilst more than half of the poor households (79%) had heads with no level of education, less than 5% of poor households were headed by individuals with secondary and post-secondary education (vocational/tech/teacher training and tertiary). As regards to non-poor households, 42% were headed by individuals with no form of education with about 23% headed by persons with secondary and post-secondary education. In general, approximately 35% and 17% of the non-poor and poor households respectively had heads with a basic level of education. A plausible explanation of the higher proportion of non-poor households headed by the educated may be attributed to the fact that education plays a pivotal role in alleviating poverty and in informing

major decisions of households. As cited by UNESCO (2017), acquiring knowledge and skills have reported beneficial effects on income.

Employment Status: The data covered 15,004 economically active and 1,768 economically inactive household heads. More specifically, of the 15,004 employed heads, 11,392 (76%) were non-poor whiles 3,612 accounting for about 24% were poor. As expected, most of the poor heads (approximately 70%) according to the survey were self-employed in the agricultural sector with just about 20% engaged in off-farm sectors (wage employee and self-non-agricultural employed). On the contrary, more than half of the non-poor household heads were employed in non-agricultural sectors with about 35% employed in the agricultural sector. The result seems reasonable as people employed in the agricultural sector are mostly poor, following the risks of tenure issues, crop failure, livestock diseases, and low productivity and low incomes which characterize the agricultural sector (Anyanwu, 2014).

Disability Status: On the whole, for both poor and non-poor households, the data shows that the number of households headed by the disabled is significantly less compared to the number of households headed by the abled. Specifically, whilst approximately 95% of the poor and 97% of the non-poor households were headed by the abled, only 5% of the poor and 3% of the non-poor households were headed by the disabled.

Table 5.2 (cont'd)

Dummy Variables	Poverty Status		Total
	Non-Poor	Poor	
	Number of Households (%)	Number of Households (%)	
Employment Status			
Wage employee	**3,269** (25.62)	**286** (7.13)	**3,555** (32.75)
Self-non-agricultural employed	**3,703** (29.02)	**526** (13.10)	**4,229** (42.12)
Self-agricultural employed	**4,420** (34.64)	**2,800** (69.76)	**7,220** (104.40)
Unemployed	**1,366** (10.71)	**402** (10.01)	**1,768** (20.72)
Disability Status			
Abled	**12,409** (97.26)	**3,821** (95.19)	**16,230** (192.45)
Disabled	**349** (2.74)	**193** (4.81)	**542** (7.55)
Area of Residency			
Urban area	**6,821** (53.46)	**624** (15.55)	**7,445** (69.01)
Rural area	**5,937** (46.54)	**3,390** (84.45)	**9,327** (130.99)
Marital Status			
Married	**8,198** (64.26)	**3,123** (77.80)	**11,321** (142.06)
Formerly married	**2,937** (23.02)	**758** (18.88)	**3,695** (41.90)
Never married	**1,623** (12.72)	**133** (3.31)	**1,756** (16.03)
Religious Affiliation			
No religion	**829** (6.5)	**344** (8.57)	**1,173** (15.07)
Christian religion	**9,218** (72.25)	**2,065** (51.44)	**11,283** (123.69)
Islamic religion	**2,112** (16.55)	**1,009** (25.14)	**3,121** (41.69)
Traditional religion	**599** (4.7)	**596** (14.85)	**1,195** (19.55)

Table 5.2 (cont'd)

Dummy Variables	Poverty Status		Total
	Non-Poor	Poor	
	Number of Households (%)	Number of Households (%)	
Ecological Zone			
Coastal area	**1,987** (15.57)	**327** (8.15)	**2,314** (23.72)
Forest zone	**5,910** (46.32)	**1,078** (26.86)	**6,988** (73.18)
Savannah zone	**3,208** (25.15)	**2,565** (63.90)	**5,773** (89.05)
GAMA	**1,653** (12.96)	**44** (1.10)	**1,697** (14.06)

Source: Computed from GLSS VI
Note: *Values in bracket are in percentages*

Area of Residency: From the survey, of the 16,772 households, 9,327 households accounting for about 56% live in rural areas with about 44% (7,445 households) residing in the urban areas. More importantly, the data reveals that whilst 47% of the 9,107 households stationed in the rural areas were non-poor, 84% of the 9,107 households situated in the rural areas were poor. Conversely, a considerably higher proportion of households who were non-poor (over 50%) appeared to reside in urban areas with just about 16% of the poor households residing in the urban areas. The economic prospects in urban areas and the advantages enjoyed by urban folks in terms of environmental, household and individual opportunities and choices could be a possible reason why urban areas hold most non-poor households.

Marital Status: Of the total sample size of 16,772 households, the survey shows that 3,123 (about 78%) of the poor households were headed by married individuals with as low as 3% headed by individuals who have never been married. Likewise, whilst 64% of non-poor households were headed by married persons, only 13% of the non-poor households were headed

by individuals who have never been married. Among 3,695 formerly married (separated/divorced/widowed) household heads, 2,937 representing about 23% were non-poor and 758 accounting for about 19% were poor. The higher proportion of non-poor households headed by married individuals affirms the finding by Hirschl et al. (2003) which posits that marriage significantly increases the likelihood of accumulating wealth when compared with non-marriage.

Religious Affiliation: From the data, more than half of the non-poor and poor household heads identify with the Christian body compared to the other faith. About 7% of the non-poor heads and 9% of the poor heads had no affiliation to any religion. The result supports the finding that Christians account for 71.2% of the population in Ghana (Codjoe and Amoah, 2013). More so, the data show that the percentage number of poor heads in the Islamic (25%) and traditional (15%) denominations were comparatively more than that of the non-poor heads in the Islamic (17%) and traditional (5%) religions. With respect to the Christian faith however, whiles majority of the non-poor heads (72%) were Christians, about 52% of the poor heads belonged to the Christian body.

Ecological Zone: According to the data, there is vast variation in the number of poor than in the number of non-poor among ecological zones. The bulk of the poor households were situated in the savannah zone (64%), followed by the forest and coastal zones which approximated 27% and 8% respectively. With specific reference to Greater Accra Municipal Assembly (GAMA), whiles about 13% of non-poor households appeared to reside in the Greater Accra Municipal Assembly, as low as 1% of the poor households were located in GAMA. Again, it can be gleaned from the

data that non-poor households are fairly dispersed across the various zones with 46% in the forest zone, 25% in the savannah zone and 16% in the coastal areas.

5.3 Empirical Results of Remittance Use and Wellbeing

This section presents and discusses the econometric estimations of the study. This section consists of three sub-sections. The first sub-section presents the results of the factors that determine remittance use for daily consumption, the second sub-section focuses on the effect of remittance use on household consumption welfare and the third one looks at how the use of remittance in a particular way affects households' poverty status. The OLS regression results for the consumption welfare effects of remittance use are presented in Table 5.4 and the Probit regression estimates for the effect of remittance use on households' poverty status and the factors that determine the use of remittances for daily consumption are covered in Tables 5.5 and 5.3 respectively.

Table 5.3: Factors that Affect the Household's Use of Remittances for Daily Consumption

Explanatory Variables	Coefficient	Marginal Effect	Robust SE	P-Value
Male	-0.268	-0.049***	0.011	0.000
Age of the Household Head	-0.019	-0.004*	0.002	0.051
Age Squared of the Household head	0.000	0.000***	0.000	0.006
Household Size	-0.024	-0.004**	0.002	0.025
Educational Level				
(No education as reference dummy)				
Basic education	-0.075	-0.014	0.012	0.243
Secondary education	0.008	0.001	0.018	0.940
Vocational/Tech/Teacher Training	0.039	0.007	0.021	0.744
Tertiary education	-0.144	-0.029	0.026	0.263
Poor households	0.174	0.031***	0.012	0.009
Employed	-0.141	-0.025**	0.013	0.048
International remittance	-0.071	-0.014	0.015	0.371
Marital Status				
(Married as reference dummy)				
Formerly married	-0.002	-0.000	0.014	0.981
Never married	0.040	0.007	0.018	0.680
Abled	0.152	0.031	0.025	0.224
Ecological Zone				
(GAMA as reference dummy)				
Coastal area	0.386	0.080***	0.026	0.002
Forest zone	0.334	0.072***	0.024	0.003
Savannah zone	0.219	0.050*	0.026	0.052
Constant	1.385***			
Observations	4,582	4,582		
Pseudo R2	0.040			
Hosmer-Lemeshow	$P > \chi^2 = 0.129$			
Linktest	_hat:P>|z|=0.005	_hatsq:P>|z|=0.882		
Prob > chi2	0.000			

****** P < 0.01, ** P < 0.05, * P < 0.1***
Source: Computed from **GLSS VI**

5.3.1 Determinants of the Use of Remittances for Daily Consumption Purposes

The Probit regression results in Table 5.3 above show that the ecological zones in which households live, the poverty status of households, household size, and the sex, age and employment status of household heads significantly determine the use of remittances for daily consumption purposes with age, poverty status, coastal area, forest zone, and gender extremely significant at 1%. On the whole, the model specification test (linktest) with probability values 0.005 and 0.882 for _hat and _hatsq respectively indicates that the model is correctly specified. Also, the goodness-of-fit test (Hosmer-Lemeshow) with probability value 0.129 shows that the model is fit enough to explain the factors that determine households' use of remittances for daily consumption purposes. More so, the significance of the probability value [(Prob > chi2 = 0.000)] at 1% indicates that the explanatory variables jointly explain the factors that determine households' use of remittances for daily consumption purposes.

From the results, age and its quadratic form significantly determine the use of remittance for daily consumption purposes. This suggests that at younger ages, an additional year to the age of the household head reduces the household's likelihood of spending remittances on daily consumption by 0.4% whilst at older ages, an additional year to the age of the household head increases the household's likelihood of using remittances for daily consumption by less than 0.1%. This affirms the permanent income hypothesis which posits that the marginal propensity to invest or save out of a transitory income like remittance is higher than that for permanent income. This may be explained by the assumption that younger heads have better job opportunities, have higher productivity levels, are more likely to earn higher income compared to

their older counterparts and hence tend to view income from remittances as transitory rather than permanent.

Contrary to the findings of Gubert et al. (2010), female-headed households have probabilities of spending remittances on consumption that are 4.9% more than their male counterparts. This may be explained as resulting from the roles taken up by males and females in managing the home, especially in the traditional Ghanaian society. According to Gage and Njogu (1994), whilst women are often entrusted with the food/consumption needs of the home, men are mostly responsible for managing the long-term investments of the home including housing, health, and education.

Similar to the findings of Quartey (2006), non-poor households are less likely to use remittances for daily consumption purposes compared to poor households. Specifically, the marginal effect shows that poor households have probabilities of spending remittances on daily consumption that are 3.1% more than their non-poor counterparts. Due to the financial constraints vulnerable recipient households usually face, they tend to over-rely on remittances for livelihood. As such, these households (poor) perceive the income received from remittances as compensatory or any other source of income rather than transitory and hence spend more at the margin on consumption than on investment goods.

Similarly, relative to unemployed household heads, employed household heads have lower probabilities of using remittances for purposes other than consumption (Ridwan, 2014). Put differently, households with unemployed heads are 2.5% more likely to spend remittances on daily consumption compared to their employed counterparts. This result seems plausible because

unemployed heads have no stable source of income and hence are more likely to rely on income from remittances for their daily consumption needs.

In line with the findings of Randazzo and Piracha (2014) for Senegal, households with larger size have lower probabilities of spending remittances on daily consumption relative to those with smaller size. More specifically, the marginal effect shows that an additional member to the household reduces the household's likelihood of spending remittances on daily consumption by 0.4%. This may be attributed to the economic status of the household. For instance, for non-poor households with larger household size, an increase in household size by one member is likely to reduce their probabilities of using remittances for daily consumption since they (non-poor households) are better able to meet their consumption and other basic needs of life.

Again, the results show that households located in the coastal, forest and savannah zones have probabilities of using remittances for daily consumption purposes that are 8.0%, 7.2%, and 5.0% more than those located in the Greater Accra Metropolitan Area. This could be attributed to the fact that the agro-ecological zones (coastal, forest and savannah) have *declining agricultural productivity*, *limited educational opportunities*, *poor infrastructure* and *harsh climatic conditions* compared to the Greater Accra Metropolitan Area. Also, the lower likelihood in the use of remittances for daily consumption by households living in the Greater Accra Metropolitan Area is not surprising as the metro (GAMA) offers *better economic prospects*, has *lower mean household sizes* and *larger proportions of households falling in the highest quintile* (richest group) compared to those residing in the agro-ecological zones (GSS, 2017).

Table 5.4: OLS Estimates of Remittance Use on Household Consumption Welfare

Explanatory Variables	Coefficient	Robust SE	P-Value
Remittance Use			
(Daily consumption as reference dummy)			
Housing	0.219***	0.082	0.008
Business	0.180***	0.056	0.001
Education	-0.036	0.049	0.468
Health	0.063	0.058	0.275
Funerals	0.205*	0.108	0.057
Savings	-0.005	0.150	0.973
Other ceremonies	0.161***	0.062	0.009
International remittance	0.202***	0.028	0.000
Male	-0.050**	0.024	0.042
Age of the Household Head	0.004	0.004	0.325
Age Squared of the Household Head	-0.000	0.000	0.472
Household Size	-0.101***	0.004	0.000
Educational Level			
(No education as reference dummy)			
Basic education	0.185***	0.024	0.000
Secondary education	0.393***	0.038	0.000
Vocational/Tech/Teacher training	0.482***	0.046	0.000
Tertiary education	0.747***	0.052	0.000
Employment Status			
(Unemployed as reference dummy)			
Wage employee	0.160***	0.035	0.000
Self-non-agric employed	0.119***	0.030	0.000
Self agric employed	0.038	0.032	0.234
Abled	0.164***	0.047	0.000
Urban area	0.273***	0.022	0.000

Table 5.4 (cont'd)

Explanatory Variables	Coefficient	Robust SE	P-Value
Marital Status (Married as reference dummy)			
Formerly married	-0.061**	0.026	0.021
Never married	0.017	0.038	0.655
Religious Affiliation (No religion as reference dummy)			
Christian religion	-0.009	0.043	0.838
Islamic religion	-0.001	0.049	0.991
Traditional religion	0.031	0.055	0.577
Ecological Zone (GAMA as reference dummy)			
Coastal area	-0.214***	0.039	0.000
Forest zone	-0.228***	0.035	0.000
Savannah zone	-0.501***	0.040	0.000
Constant	2.020***	0.117	0.000
Observations	4,582		
R-squared	0.419		
F (29, 4552)	114.45		
Prob > F	0.000		
Root MSE	0.617		

****P < 0.01, ** P < 0.05, *P < 0.1***
Source: Computed from **GLSS VI**

5.3.2 The Effect of Remittance Use on Household Consumption Welfare

The OLS results of the multiple linear regression model indicates that out of 13 explanatory variables, 10 are significant with international remittance, household size, remittance use *(specifically for housing, business, and other ceremonies)*, location, household head educational level and disability status, ecological zones, wage employee, and self-non-agricultural employed extremely significant at 1%. About 90% of the variables used for the estimation showed their expected signs. The choice of these variables was based on literature pertaining to remittances

and wellbeing. On the whole, the R-squared value which shows that about 42% of the variation in the independent variable is explained by the independent variables suggests that the model is fairly good. More so, the significance of the probability value [(Prob > F = 0.000)] at 1% indicates that the regressors jointly explain the consumption welfare of households.

Using daily consumption as the reference category for the uses of remittances, housing, business, funerals, and other ceremonies among the uses of remittances have significant and positive effects on household consumption welfare. Relative to remittance use for daily consumption, households who invest remittances received in business, housing, health, funerals, and other ceremonies have better consumption welfare levels. This affirms the study by Benavides et al. (2003) and Englama (2009) who posit that recipient households who spend more at the margin on productive activities than on consumption have improved welfare levels. This could be explained as resulting from the income earned from businesses which enables households to spend on food, shelter, clothing, and other items thereby increasing their consumption welfare levels. More so, according to Cunningham (2016), housing provides stability to households, reduces the burden of paying huge rent, helps households to focus on work, saves the stress of moving from place to place and enhances households' ability to obtain basic essentials. With respect to funerals, De Witte (2003; p. 533) cites that "…. funerals have become large public displays where families show off wealth … in a competition for status" or prestige. As such, during funeral rites, households tend to spend more on keeping the corpse in the mortuary, renovating the house and organizing a dazzling celebration which eventually increases their consumption welfare levels. This explains why the household's consumption welfare level increases by 20.5% when remittances are spent on funerals.

The results show that the coefficient of international remittance is positive and statistically significant at 1%. Similar to the findings of Wolde (2018), households who receive international remittances have better consumption welfare levels relative to those who receive internal remittances. Even though international remittances constitute a small fraction of total remittances received, the survey by the Ghana Statistical Service shows that international remittances donate the highest amount to households (GSS, 2012). In effect, households who receive international remittances have more income to spend and hence may explain why they experience better consumption welfare levels compared to their counterparts.

The gender of the household head has notable effects on the consumption welfare of the household. Similar to the findings of Guzman et al. (2006), male-headed households experience lower levels of consumption welfare compared to female-headed households. Stated differently, ceteris paribus, the household's consumption welfare level increases by 5.0% if the household is headed by a female. In general, women in many societies are often expected to run and manage the household (Whitehead, 1994; Gage and Njogu, 1994; and Hampden-Turner, 2018) and hence may explain why they tend to consume or spend more relative to their male counterparts.

Comparable to the findings of Quartey (2006) and Boakye-Yiadom (2008), the size of a household has strong negative effects on its welfare level. Particularly, the results of this study show that an additional member to the household decreases the consumption welfare of the household by 10.1%. This seems plausible because, with large household size, the portion of household resources available for each member reduces, eventually decreasing the amount consumed by each person as well as the consumption welfare of the entire household.

As expected, education is extremely significant at 1% implying that the educational level of a household head greatly matters in determining the consumption welfare of the household. In comparison with households whose heads have no form of education, those with heads with some form of education have better welfare levels. This finding conforms to that of Ogundari and Aromolaran (2014) who posit that higher educational attainment is associated with high economic benefits particularly in the form of welfare. More so, in view of the fact that low education leads to poverty and the poor are unable to afford health services, and other basic essentials, it is not surprising that households headed by uneducated individuals have lower consumption welfare levels.

Compared to households with unemployed heads, households with wage employees and self-non-agricultural and agricultural employees as heads have better consumption welfare levels. However, except for self-agricultural employed heads, wage employee heads and self-non-agricultural employed heads significantly influence the consumption welfare of their households at 1%. This finding is consistent with those of Glewwe and Twum-Baah (1991) and Quartey (2006). Generally, since unemployed household heads are constrained financially, they are unable to consume or spend more on health services, education, infrastructure and skill formation of their children and hence tend to experience lower consumption welfare levels relative to employed heads.

In line with the findings of Rohwerder (2015), the results show that households whose heads are abled have better consumption welfare levels compared to those living with a disability. In general, people living with disability in many societies suffer a wider range of restrictions,

especially in the labour market. Moreover, those who find themselves in the job market are unable to work for more hours compared to their counterparts. Hence, are paid or receive lower wages and thus tend to spend or consume less relative to their counterparts. Also, the hypothesis that 'disability causes poverty' (Groce et al., 2011; and Vallas and Fremstad, 2014) explains why disabled heads are unable to expend or consume more and hence have lower consumption welfare levels.

As expected, the location of the household significantly affects its consumption welfare status at 1%. Similar to the findings of Quartey (2006), households located in the rural areas have lower consumption welfare levels compared to households located in the urban areas. This is because, poverty is more pronounced in the rural areas (World Bank, 2001) making it difficult for households living in such areas to spend or consume more. Moreover, policies of the government, particularly on infrastructure and job, have been non-beneficial to the rural areas (Huchet-Bourdon et al., 2014; and Anyanwu, 2014). Also, agricultural activity which is predominant in the rural areas is faced with risks of tenure issues, climatic change, pest infestation, and inadequate storage facilities and marketing outlets leading to low production, post-harvest losses, low income and eventually low consumption rates (Korboe, 2016).

With the exception of households headed by those who have never been married, those headed by individuals who were once married have lower consumption welfare relative to those headed by married couples. More precisely, holding all other things constant, the household's consumption welfare level decreases by 6.1% if the household is headed by formerly married (widowed/separated/divorced) individuals. It is likely that the bond between married couples

motivates them to build wealth together, spend more on their children's education, and accumulate more assets (Waite, 1995; Wilmoth and Koso, 2002; and Anyanwu, 2014) relative to those who are divorced/separated/widowed. More so, according to the "economies of scale in consumption", married individuals are able to obtain the same satisfaction with less combined expenditure than the sum of their individual consumption. This explains why households headed by single individuals have increased consumption welfare compared to those headed by married couples.

Compared to households who live in the Greater Accra Metropolitan Area, those located in the agro-ecological zones (coastal, savannah and forest zones) have lower levels of consumption welfare. This finding corroborates with that of Ridwan (2014) who posit that households situated in coastal and forest zones spend less on housing, food, and other items. This may be because, the coastal, forest and savannah zones (farm zones) are mainly characterized by poor infrastructure, inadequate employment opportunities, and low wage rates which hinder households living in such areas from spending more thereby decreasing their consumption welfare levels.

Table 5.5: Probit Regression Estimates of Remittance Use on Household's Poverty Status

Explanatory Variables	Coefficient	Marginal Effect	Robust SE	P-Value
Remittance Use				
(Daily consumption as reference dummy)				
Housing	-0.412	-0.062**	0.029	0.033
Business	-0.409	-0.062***	0.023	0.008
Education	0.060	0.011	0.033	0.740
Health	-0.050	-0.009	0.034	0.798
Funerals	0.317	0.064	0.061	0.298
Other ceremonies	-0.467	-0.069**	0.028	0.015
International remittance	-0.470	-0.070***	0.017	0.000
Male	-0.118	-0.021	0.014	0.130
Age of the Household Head	0.003	0.001	0.002	0.780
Age Squared of the Household Head	-0.000	-0.000	0.000	0.901
Household Size	0.158	0.028***	0.002	0.000
Educational Level				
(No education as reference dummy)				
Basic education	-0.278	-0.051***	0.014	0.000
Secondary education	-0.566	-0.092***	0.020	0.000
Vocational/Tech/Teacher training	-0.791	-0.116***	0.022	0.000
Tertiary education	-1.394	-0.153***	0.015	0.000
Employment Status				
(Unemployed as reference dummy)				
Wage employee	-0.103	-0.019	0.024	0.435
Self-non-agric employed	-0.178	-0.032*	0.018	0.073
Self agric-employed	-0.084	-0.015	0.017	0.361
Abled	-0.195	-0.037	0.023	0.105
Urban area	-0.630	-0.109***	0.012	0.000

Table 5.5 (cont'd)

Explanatory Variables	Coefficient	Marginal Effect	Robust SE	P-Value
Marital Status				
(Married as reference dummy)				
Formerly married	0.036	0.006	0.015	0.664
Never married	-0.068	-0.012	0.023	0.612
Religious Affiliation				
(No religion as reference dummy)				
Christian religion	-0.136	-0.025	0.024	0.313
Islamic religion	0.063	0.012	0.028	0.655
Traditional religion	-0.188	-0.033	0.028	0.236
Ecological Zone				
(GAMA as reference dummy)				
Coastal area	1.153	0.135***	0.020	0.000
Forest zone	0.933	0.095***	0.015	0.000
Savannah zone	1.376	0.184***	0.019	0.000
Constant	-1.988			
Observations	4,578	4,578		
Pseudo R2	0.265			
Hosmer-Lemeshow	$P > \chi^2 = 0.998$			
Linktest	_hat:P>|z|=0.000	_hatsq:P>|z|=0.960		
Prob > chi2	0.000			

******P < 0.01, **P < 0.05, *P < 0.1***
Source: Computed from **GLSS VI**

5.3.3 The Effect of Remittance Use on Households' Poverty Status

The Probit regression estimation clearly shows that most of the variables used showed their expected signs that they significantly influence households' poverty status. The regressors for the estimation include remittance use, the origin of remittance, demographic characteristics of household heads, household size, and controls for the residential location and ecological zones. Overall, the model has performed reasonably well. More specifically, the model specification test (linktest) with probability values 0.000 and 0.960 for _hat and _hatsq respectively indicates that the model is correctly specified. Also, the goodness-of-fit test (Hosmer-Lemeshow) with probability value 0.998 shows that the model is fit enough to explain the effect of remittance use on households' poverty status. More importantly, the significance of the probability value [(Prob > chi2 = 0.000)] at 1% indicates that the explanatory variables jointly explain the poverty status of households.

More so, households who use remittances for housing, business, and ceremonies (other than funerals) have probabilities of reducing poverty that are 6.2%, 6.2%, and 6.9% *respectively* more than those who use remittances for daily consumption. On the whole, the use of remittances for investment in business have extreme significant effects on the poverty status of households. This finding corroborates those of Mora and Taylor (2006) and Englama (2009) who opine that the use of remittances for housing, business, and other productive activities have significant poverty-reducing effects. This is because business provides a stable income for households. Moreover, as households acquire skills and gain experience through business, they tend to be more productive and hence receive or earn higher salaries in the job market. According to Cunningham (2016) also, housing plays a critical role in reducing economic stress by reducing the burden of huge rent and providing stability to households which enables them to focus on other important

aspects of life such as work, parenting and childhood development. Also, it is worth mentioning that households who use remittances for funerals and educational purposes respectively are 6.4% and 1.1% more likely to be poor compared to those who use remittances for daily consumption. This can be explained as resulting from the huge sums of money spent on organizing funeral ceremonies and the indirect/long-term benefits reaped from educational investments.

With regards to gender, male-headed households are 2.1% less likely to be poor relative to their female-headed households. Put differently, female-headed households are more likely to be poor compared to their male counterparts mainly due to the restrictions and discriminatory practices they suffer especially in the job market (Anyanwu, 2010; 2012). In the African culture and in Ghana to be precise, males are believed to be physically strong (Ogden at al., 2004) and advantaged in accessing society's opportunities and resources (Kishor and Neitzel, 1996) and may explain why they are less likely to be poor relative to females.

Education is negative and extremely significant at 1%. Relative to household heads with no form of education, those with at least some level of education in particular basic, secondary, tertiary and either vocational/technical/teacher training respectively are 5.1%, 9.2%, 15.3% and 11.6% less likely to be poor. This finding supports the study by Jones and Sen (2003) which posits that low educational levels increase a household's chances of being poor. Empirically, education has widely been shown to increase the stock of human capital leading to higher productivity levels and wages. Subsequently, this explains why poverty is more prevalent in households whose heads have no form of education.

Compared to households with large household size, those with small size are 2.8% less likely to be poor. Stated differently, an increase in household size by one person increases the household's likelihood of being poor by 2.8% (Lanjouw and Ravallion, 1994; Szekely, 1998; and Anyanwu, 2012). More often than not, the portion of household resources accessible to each member of a large household size reduces, hindering sufficient investment in their human capital, maintaining the low-income status of the household, and consequently leading to a poverty-trap (Anyanwu, 2014).

Households who receive international remittance are 7.0% less likely to be poor compared to those who receive remittance from an internal source. Although this finding contradicts that of Castaldo and McKay (2012) which posits that poverty is reduced more when internal remittances are included in household income, the finding from this study is consistent with the findings of Adams Jr. (2006) and Gyimah-Brempong and Asiedu (2009) which reveal that the bulk of poverty reduction stems from international remittance. This can be attributed to the fact that international remittances donate the highest amount to households in Ghana (GSS, 2012).

In comparison with households who reside in rural areas, those in urban areas are significantly 10.9% less likely to be poor. This finding confirms the findings of earlier studies including World Bank (2001) and African Development Bank (2002) which posit that poverty incidence is high in rural than in urban localities mainly because of the advantages enjoyed by urban folks in terms of economic, environmental and household opportunities. In addition, Anyanwu (2014) opines that government policies have historically discriminated against rural areas where

agricultural activity characterized by low productivity, income volatility, price fluctuations and risks of crop failure is predominant (Korboe, 2016).

Compared to households with unemployed heads, households with wage employees and self-non-agricultural and agricultural employees as heads are 1.9%, 3.2%, 1.5% less likely to be poor. However, except for self-agricultural employed heads and wage employee heads, self-non-agricultural employed heads significantly influence the poverty status of their households. This finding is consistent with that of Anyanwu (2014). Generally, since unemployed household heads do not have a stable source of income to depend on for livelihood, they tend to have higher poverty levels compared to their employed counterparts.

Living in the coastal, savannah and forest zones significantly influence the poverty status of households at 1%. Comparing with those living in the Greater Accra Metropolitan Area, households located in the savannah, coastal and forest zones respectively are 18.4%, 13.5% and 9.5% more likely to be poor. This means that households situated in the Greater Accra Metropolitan Area have lower chances of becoming poor and this could be explained by the good economic and living conditions prevailing in that area. The Greater Accra Metropolitan Area is predominantly characterized by better employment opportunities, wage rates, well-developed infrastructure, and good climatic conditions which aid good living. More importantly, this finding supports the study by Qureshi and Arif (1999) which postulates that poverty is more prevalent in agro-ecological zones (coastal, savannah and forest zones) than in non-farm zones.

CHAPTER SIX

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the conclusion and summary of the main findings of the study. It further gives some policy recommendations per the findings obtained from the study and finally discusses the limitation of the study which provides recommendation for further research.

6.2 Summary

This study was primarily conducted to address the growing concern in the literature on whether the ways in which remittances are used by households affect their poverty and consumption welfare levels. In pursuit of this, three principal research questions that were addressed in the study are;

1. What are the factors that determine the use of remittances for daily consumption?
2. Does the use of remittances in a certain way affect households' welfare?
3. Does the use of remittances in a specific way affect households' poverty status?

Using data from the 2012/13 Ghana Living Standards Survey which provided information on 18,000 households in 1,200 clusters selected across the country, the Probit regression estimation technique was used to achieve the *first* and *third* objectives of respectively determining the factors that affect households' use of remittances for daily consumption and finding out whether the uses to which remittances are put by households matter in determining their *poverty status*. More so, the OLS regression was used to address the *second* objective of determining whether the ways in which remittances are used by households affect their consumption welfare status.

This study provides evidence in support of the view that the contribution remittances make to welfare and poverty reduction depends on the uses to which remittances are put by households. More importantly, the results showed that compared to households who use remittances for 'daily' consumption, households who use remittances for productive purposes have better welfare and lower probabilities of becoming poor. More so, according to the results, remittances used particularly for housing, business, funerals, and other ceremonies have significant effects on the consumption welfare and poverty status of households. Again, the findings reveal that the poverty status of the household, the size of the household, the ecological zones in which households live and the sex, age, and employment status of the household head significantly determine the household's use of remittances for daily consumption purposes.

With regards to demographic characteristics, the study shows that the age of the household head has a non-linear relationship with the poverty status of households. This means that households tend to have lower probabilities of becoming poor when headed by younger persons and experience higher levels of poverty when headed by older persons. Compared to male-headed households, female-headed households have higher levels of consumption welfare and probabilities of becoming poor and this could be explained from the roles women play in home management and the restrictions they suffer in many societies.

Another key finding is that households with heads with some form of education are less likely to be poor and have better levels of consumption welfare relative to those with heads with no level of education. This could be explained as resulting from the knowledge and skills acquired through education which provide opportunities for paid employment and higher income. More

specifically, the study shows that heads who have acquired post-secondary education have improved welfare and lower chances of becoming poor compared to those with basic or secondary education. Again, households headed by wage employees and self-non-agricultural employed individuals experience lower levels of poverty compared to those headed by unemployed and self-agricultural employed individuals. With respect to employment status, households with heads with some form of employment have better consumption welfare levels compared to those with households with unemployed heads.

The religious angle shows that, apart from the fact that households with heads affiliated to a religion have better consumption welfare and lower probabilities of becoming poor, it was also found that traditionalists are less likely to be poor and have higher levels of consumption welfare compared to their counterparts in the Christian and Islamic faith and those with no religious affiliation. As regards to household heads' disability status, households with abled heads have better consumption welfare levels and lower levels of poverty relative to those with disabled heads and this could be attributed to the physical or biological differences between the abled and disabled.

Similar to other findings, the study revealed that households with formerly married heads have lower consumption welfare and probabilities of becoming poor and those with heads who have never been married have higher consumption welfare and probabilities of becoming poor compared to those with married heads. Another major finding is that households with a larger number of members have lower levels of consumption welfare and experience higher levels of poverty relative to those with small size. This is possibly due to the reduction in the portion of

household resources available for each member of the household as the size of the household increases.

Also, the urban-rural analysis shows that urban residents have better levels of consumption welfare and lower probabilities of becoming poor compared to their counterparts in the rural areas and this is explained as resulting from the economic prospects and opportunities offered to urban residents. With respect to ecological zones, the study found that households located in agro-ecological zones (coastal, forest and savannah zones) have higher probabilities of becoming poor and have lower consumption welfare levels relative to those located in the Greater Accra Metropolitan Area (GAMA).

Regarding the factors that determine remittance use for daily consumption, the probit results show that non-poor households and households with male heads, younger heads, employed heads, educated heads, and larger household size have lower probabilities of spending remittances on daily consumption. Contrarily, the study reveals that poor households, households with older heads and households located outside the Greater Accra Metropolitan Area have higher probabilities of using remittances for daily consumption purposes.

6.3 Conclusion

This study affirms the assertion that the uses to which remittances are put by households greatly matter in determining the wellbeing of households. More specifically, the study shows that recipient households who invest remittances in housing, business, health, and spend on funerals

and other ceremonies experience better levels of consumption welfare compared to those who use remittances for daily consumption.

Again, the study provides empirical evidence to the view that recipient households who use remittances for daily consumption purposes have higher probabilities of becoming poor compared to those who use it for housing, business, health and ceremonies other than funerals. More so, the study shows that the size of the household, the poverty status of the household, the ecological zone in which the household lives and the age, gender, and employment status of the household head significantly matter in determining the household's use of remittances for daily consumption than for other purposes.

Similar to other findings (Samuel, 2000; Benavides et al., 2003; and Mora and Taylor, 2006), this study concludes that remittance beneficiary households who use remittances for productive rather than consumption purposes have lower poverty levels and experience better consumption welfare levels.

6.4 Contributions and Policy Recommendations

This study contributes to the literature on remittance use and its effects on household consumption welfare and poverty status. Per the above findings, this study makes the following recommendations. Considering the positive impact of remittances on households in Ghana, the Ministry of Finance must collaborate with banks and other money transfer institutions to make remitting funds less expensive via reducing the high commissions charged on remittance transfers so as to attract more remittance income and promote the use of formal channels. Also,

official money transfer channels through which remittances are sent or received should be made more accessible and be expanded to remote areas to minimize the flow of remittance transfers via unofficial channels.

In addition, the study reveals that the use of remittances for investment rather than for consumption purposes have beneficial effects on the consumption welfare and poverty status of households. As such, financial education should be intensified and targeted at recipient households to understand that it is more beneficial to invest remittances than to use same for conspicuous consumption. Again, considering the fact that most households (about 90%) use remittances for day-to-day consumption purposes, the Ministry of Employment and Labour Relations should create an attractive and lucrative investment climate to encourage household investments in productive activities as well as create more jobs to reduce the over-dependence on remittance for consumption purposes.

Also, the study shows that households who spend remittances on housing respectively have lower and better levels of poverty and consumption welfare. Subsequently, the Ministry of Works and Housing should encourage households to form housing co-operatives and associations aimed at improving their access to funds for housing via links to banks and other financial institutions. Banks should also expand their range of products and introduce products like mortgage finance to accommodate remittance beneficiaries who have the desire to invest in housing. More so, since the study shows that only a handful of remittance recipients invest in housing, the Ministry of Works and Housing should liaise with landowners to reduce the cost and risk involved in purchasing lands and also embark on “land ownership confirmation”

programs to ease households' access to land banks. Again, the ministry should embark on social housing schemes and facilitate the construction of "rent-to-own" houses by certifying the rent department and streamlining rent regulations.

Further, although the study revealed that households who invest remittances in business have better consumption welfare and lower probabilities of becoming poor, only 5% of remittance beneficiary households use remittances for business purposes. This can be attributed to the high cost associated with regularizing new businesses, inadequate entrepreneurial skills, and long bureaucratic administrative constraints. As such, the Ministry of Trade and Industry should create an environment favourable for investment in business by reducing the cost involved in formalizing new businesses and decentralizing the administrative system to cut down the bureaucratic procedures associated with business registration. Also, educative programs and workshops should be organized to train and equip households with the knowledge and skills required to run a business.

Lastly, the study shows that households who use remittances for funerals have higher probabilities of becoming poor. In light of this, this study suggests that family heads, traditional leaders and opinion leaders of the community should organize symposiums and workshops to educate the public specifically, the household on the need to organize a moderate funeral ceremony in event of the death of a loved one to reduce the cost or debt associated with extravagant or public display funeral ceremonies.

6.5 Limitation

Due to available data solely at the household level, the study was limited to household analysis. An individual-level analysis would have been very useful to assess the effect of remittance use on an individual's wellbeing. In addition, information on remittance use was integrated; hence the study could not draw out the unique individual effects of internal and international remittance use on households' wellbeing and explore the differences between these effects. Lastly, due to limited data, the study only captured the use of cash transfers and hence recommends further empirical analysis on the effect of both monetary and non-monetary remittances on household consumption welfare and poverty status.

REFERENCES

Ackah, C., & Medvedev, D. (2010). *Internal migration in Ghana: Determinants and welfare impacts*. The World Bank.

Acosta, P. (2006). *Labor supply, school attendance, and remittances from international migration: the case of El Salvador*. The World Bank.

Acosta, P. A., Lartey, E. K. K., & Mandelman, F. S. (2009). Remittances and the Dutch disease. *Journal of International Economics*, *79*(1), 102–116.

Acosta, P., Calderon, C., Fajnzylber, P., & Lopez, H. (2008). What is the impact of international remittances on poverty and inequality in Latin America? *World Development*, *36*(1), 89–114.

Adaawen, S. A., & Owusu, B. (2013). North-SouthMigration and Remittances in Ghana. *African Review of Economics and Finance*, *5*(1), 29–45.

Adams Jr, R. H. (1998). Remittances, investment, and rural asset accumulation in Pakistan. *Economic Development and Cultural Change*, *47*(1), 155–173.

Adams Jr, R. H., & Cuecuecha, A. (2013). The impact of remittances on investment and poverty in Ghana. *World Development*, *50*, 24–40.

Adams, R. H. J. (2006). *Remittances and poverty in Ghana*. The World Bank.

Adams, R. H. J., Cuecuecha, A., & Page, J. (2008). *The impact of remittances on poverty and inequality in Ghana*. The World Bank.

Agarwal, R., & Horowitz, A. W. (2002). Are international remittances altruism or insurance? Evidence from Guyana using multiple-migrant households. *World Development*, *30*(11), 2033–2044.

Aggarwal, R., Demirguc-Kunt, A., & Martinez Peria, M. S. (2006). *Do workers' remittances promote financial development?* The World Bank.

Ahiakpor, J. C. W. (1991). Rawlings, Economic Policy Reform, and the Poor: consistency or betrayal? *The Journal of Modern African Studies*, *29*(4), 583–600.

Akobeng, E. (2016). Out of inequality and poverty: Evidence for the effectiveness of remittances in Sub-Saharan Africa. *The Quarterly Review of Economics and Finance*, *60*, 207–223.

Akpa, E. (2018). *Private Remittances Received and Household Consumption in Ghana (1980-2016): An ARDL Analysis with Structural Breaks*.

Aldrich, J. H., Nelson, F. D., & Adler, E. S. (1984). *Linear probability, logit, and probit models*. Sage.

Allardt, E. (1975). *Dimensions of welfare in a comparative Scandinavian study*. University of Helsinki.

Amega, K. (2018). Remittances, education, and health in Sub-Saharan Africa. *Cogent Economics & Finance*, *6*(1), 1516488.

Amuedo-Dorantes, C., & Pozo, S. (2006). Remittances as insurance: evidence from Mexican immigrants. *Journal of Population Economics*, *19*(2), 227–254.

Ando, A., & Modigliani, F. (1963). The" life cycle" hypothesis of saving: Aggregate implications and tests. *The American economic review*, *53*(1), 55-84.

Anyanwu, J. C. (2014). Marital status, household size, and poverty in Nigeria: evidence from the 2009/2010 survey data. *African Development Review*, *26*(1), 118–137.

Arif, G. M., Nazli, H., Haq, R., & Qureshi, S. K. (2000). Rural non-agriculture employment and poverty in Pakistan [with Comments]. *The Pakistan Development Review*, 1089–1110.

Azam, M., Haseeb, M., & Samsudin, S. (2016). The impact of foreign remittances on poverty alleviation: Global evidence. *Economics & Sociology*, *9*(1), 264.

Baah-Boateng, W., & Akyeampong, E. (2012). *Understanding remittances in Ghana: Analysing poverty-reducing effect of international remittances*.

Baldé, Y. (2011). The impact of remittances and foreign aid on savings/investment in Sub-Saharan Africa. *African Development Review*, *23*(2), 247–262.

Banerjee, B. (1984). The probability, size, and uses of remittances from urban to rural areas in India. *Journal of Development Economics*, *16*(3), 293–311.

Bang, J. T., Mitra, A., & Wunnava, P. V. (2016). Do remittances improve income inequality? An instrumental variable quantile analysis of the Kenyan case. *Economic Modelling*, *58*, 394–402.

Barham, B., & Boucher, S. (1998). Migration, remittances, and inequality: estimating the net effects of migration on income distribution. *Journal of Development Economics*, *55*(2), 307–331.

Bastos, A., Casaca, S. F., Nunes, F., & Pereirinha, J. (2009). Women and poverty: A gender-sensitive approach. *The Journal of Socio-Economics*, *38*(5), 764–778.

Beyers, J. (2014). The effect of religion on poverty. *HTS Theological Studies*, *70*(1), 1–10.

Boakye-Yiadom, L. (2008). *Rural-urban Linkages and Welfare: The Case of Ghana S Migration and Remittance Flows*. University of Bath Bath.

Boakye-Yiadom, L., & Lambon-Quayefio, M. (n.d.). *Remittance Receipts by Ghana's Households: Understanding Their Distribution and the Impact on Investment in Basic Education*.

Boayke-Yiadom, L., & McKay, A. (2007). Rural-urban linkages and welfare: the case of remittance flows in Ghana. *Livelihoods and Well-Being in Developing Countries: Multidisciplinary Approaches Conference, St Catherine's College, University of Oxford*, 18–20.

Borja, K., & Hall, J. D. (2018). *Remittances, Institutions, and Inequality in Developing Countries*.

Bracking, S., & Sachikonye, L. (2010). Migrant remittances and household wellbeing in urban Zimbabwe. *International Migration*, *48*(5), 203–227.

Calero, C., Bedi, A. S., & Sparrow, R. (2009). Remittances, liquidity constraints and human capital investments in Ecuador. *World Development*, *37*(6), 1143–1154.

Calì, M., & Cantore, N. (2010). The impact of circular migration on source countries A simulation exercise. *Overseas Development Institute*.

Cardona-Sosa, L. M., Medina-Durango, C. A., & Cardona-Sosa, L. (2006). Migration as a safety net and effects of remittances on household consumption: The case of Colombia. *Borradores de Economía; No. 414*.

Castaldo, A., Deshingkar, P., & McKay, A. (2012a). Internal migration, remittances, and poverty: evidence from Ghana and India. *Migrating out of Poverty Working Paper. Falmer: University of Sussex*.

Castaldo, A., Deshingkar, P., & McKay, A. (2012b). Internal migration remittances and poverty. *Migrating out of Poverty RPC Working Paper*, *7*.

Chaaban, J., & Mansour, W. (2012). The impact of remittances on education in Jordan, Syria, and Lebanon. *Economic Research Forum: Working Paper*, *684*.

Clément, M. (2011). Remittances and household expenditure patterns in Tajikistan: A propensity score matching analysis. *Asian Development Review*, *28*(2).

Cooke, E., Hague, S., & McKay, A. (2016). The Ghana poverty and inequality report: Using the 6th Ghana living standards survey. *University of Sussex*.

Coulombe, H, & McKay, A. (2007). Growth with selective poverty Reduction-Ghana in the 1990s. *World Bank Working Paper*, *79*, 9.

Coulombe, Harold, & Wodon, Q. (2007). Poverty, livelihoods, and access to basic services in Ghana. *Ghana CEM: Meeting the Challenge of Accelerated and Shared Growth. Washington, DC: World Bank*.

De Haas, H. (2005). International migration, remittances, and development: myths and facts. *Third World Quarterly*, *26*(8), 1269–1284.

De la Briere, B., Sadoulet, E., De Janvry, A., & Lambert, S. (2002). The roles of destination, gender, and household composition in explaining remittances: an analysis for the Dominican Sierra. *Journal of Development Economics*, *68*(2), 309–328.

Englama, A. (2009). The Economics of Remittances: Theories and Issues. *High-Level Seminar on International Remittances for Economic Development, Banjul, The Gambia*.

Faini, R. (1994). Workers remittances and the real exchange rate. *Journal of Population Economics*, *7*(2), 235–245.

Farrington, J., & Slater, R. (2006). Introduction: Cash transfers: Panacea for poverty reduction or money down the drain? *Development Policy Review*, *24*(5), 499–511.

Freund, C., & Spatafora, N. (2008). Remittances, transaction costs, and informality. *Journal of Development Economics*, *86*(2), 356–366.

Funkhouser, E. (1992). Mass emigration, remittances, and economic adjustment: the case of El Salvador in the 1980s. In *Immigration and the workforce: Economic consequences for the United States and source areas* (pp. 135–176). university of Chicago Press.

Giuliano, P., & Ruiz-Arranz, M. (2009). Remittances, financial development, and growth. *Journal of Development Economics*, *90*(1), 144–152.

Gubert, F., Lassourd, T., & Mesplé-Somps, S. (2010). *Do remittances affect poverty and inequality? Evidence from Mali*.

Gujarati, D. N. (2005). Sangeetha (2007). *Basic Econometrics*, *4*, 304–331.

Guzmán, J. C., Morrison, A. R., & Sjöblom, M. (2008). The impact of remittances and gender on household expenditure patterns: evidence from Ghana. *The International Migration of Women*, 125–152.

Gyimah-Brempong, K., & Asiedu, E. (2009). Remittances and poverty in Ghana. *4th African Economic Conference, Addis Ababa, Ethiopia*.

Gyimah-Brempong, K., & Asiedu, E. (2015). Remittances and investment in education: Evidence from Ghana. *The Journal of International Trade & Economic Development*, *24*(2), 173–200.

Hilson, G. M. (2004). Structural adjustment in Ghana: Assessing the impacts of mining-sector reform. *Africa Today*, 53–77.

Ivlevs, A., Nikolova, M., & Graham, C. (2019). Emigration, remittances, and the subjective well-being of those staying behind. *Journal of Population Economics*, *32*(1), 113–151.

Kagochi, J. M., & Kiambigi, M. (2012). Remittances' Influence on Housing Construction Demand in Sub-Saharan Africa: The Case of Kenya. *African Development Review*, *24*(3), 255–265.

Kakhkharov, J. (2018). Migrant remittances as a source of financing for entrepreneurship. *International Migration*.

Khan, Z. S., & Islam, S. (2013). The effects of remittances on inflation: evidence from Bangladesh. *Journal of Economics and Business Research*, *19*(2), 198–208.

Lucas, R. E. B., & Stark, O. (1985). Motivations to remit: Evidence from Botswana. *Journal of Political Economy*, *93*(5), 901–918.

Maara, J. N., Manda, D. K., & Kiiru, J. M. (2019). Remittances and Household Expenditure Allocation Behavior in Kenya. *African Journal of Economic Review*, *7*(1), 85–108.

Maimbo, S. M., & Ratha, D. (2005). *Remittances: Development impact and future prospects*. The World Bank.

Makhlouf, F., & Mughal, M. Y. (2013). Remittances, dutch disease, and competitiveness: a Bayesian analysis. *Journal of Economic Development*, *38*(2), 67–97.

Mazzucato, V. (2008). The double engagement: Transnationalism and integration. Ghanaian migrants' lives between Ghana and the Netherlands. *Journal of Ethnic and Migration Studies*, *34*(2), 199–216.

Mazzucato, V., Van Den Boom, B., & Nsowah-Nuamah, N. N. N. (2008). Remittances in Ghana: Origin, destination, and issues of measurement. *International Migration*, *46*(1), 103–122.

McGarry, K., & Schoeni, R. F. (1995). *Transfer behavior within the family: Results from the Asset and Health Dynamics Survey*. National Bureau of Economic Research.

McGregor, J. A., Camfield, L., & Coulthard, S. (2015). Competing interpretations: Human wellbeing and the use of quantitative and qualitative methods. In *Mixed methods research in poverty and vulnerability* (pp. 231–260). Springer.

McKay, A., & Deshingkar, P. (2014). Internal remittances and poverty: Further evidence from Africa and Asia. *Migrating out of Poverty Working Paper*, *12*.

Mensah-Dapaah, P. (2016). 'The Effects of Remittances on Wellbeing: An Analysis of Ghana's Recent Experience'. (Unpublished Master's Dissertation). University of Ghana, Accra-Ghana.

Nations, U. (2018). *International Migration Report 2017-Highlights*. UN.

Osili, U. O. (2004). Migrants and housing investments: Theory and evidence from Nigeria. *Economic Development and Cultural Change*, *52*(4), 821–849.

Pickbourn, L. (2016). Remittances and Household Expenditures on Education in Ghana's Northern Region: Why Gender Matters. *Feminist Economics*, *22*(3), 74–100.

Podger, A., Trewin, D., & Gort, W. (2014). 1. Economic Growth, Wellbeing and Protecting the Future: An Overview of the Castles Symposium. *Measuring and Promoting Wellbeing: How Important Is*, 1.

Pogge, T. (2005). World poverty and human rights. *Ethics & International Affairs*, *19*(1), 1–7.

Ponce, J., Olivié, I., & Onofa, M. (2011). The role of international remittances in health outcomes in Ecuador: prevention and response to shocks. *International Migration Review*, *45*(3), 727–745.

Privarova, M., & Privara, A. (2016). Circular Migration and its Impacts in the Current Stage of globalization. *International Journal of Environmental and Science Education*.

Puri, S., & Ritzema, T. (1999). *Migrant worker remittances, micro-finance, and the informal economy: prospects and issues*. International Labour Office Geneva.

Quartey, P. (2006). *The impact of migrant remittances on household welfare in Ghana*.

Quartey, P., & Blankson, T. (2004). Do migrant remittances minimize the impact of macro-volatility on the poor in Ghana? *Report Submitted to the Global Development Network, Available at Http://Www. Imf. Org/External/Np/Res/Seminars/2005/Macro/Pdf/Quarte. Pdf*.

Randazzo, T., & Piracha, M. (2019). Remittances and household expenditure behaviour: Evidence from Senegal∗. *Economic Modelling*, *79*, 141–153.

Ratha, D. (2005). Workers' remittances: an important and stable source of external development finance. *Remittances: Development Impact and Future Prospects*, 19–51.

Ratha, D., Mohapatra, S., & Silwal, A. (2009). *Migration and Remittance Trends 2009: A better-than-expected outcome so far, but significant risks ahead*.

Ravallion, M. (1994). Measuring social welfare with and without poverty lines. *The American Economic Review*, *84*(2), 359–364.

Ravallion, M., & Dearden, L. (1988). Social security in a" moral economy": An empirical analysis for Java. *The Review of Economics and Statistics*, 36–44.

Sahn, D. E., & Alderman, H. (1996). The effect of food subsidies on labor supply in Sri Lanka. *Economic Development and Cultural Change*, *45*(1), 125–145.

Sam, G. A., Boateng, F. O., & Oppong-boakye, P. K. (2013). Remittances from abroad: The Ghanaian household perspective. *International Journal of Business and Social Science*, *4*(1).

Samuel, W. (2000). *6.1. Migration and Remittances: A Case Study of the Caribbean.*

Semyonov, M., & Gorodzeisky, A. (2008). Labor migration, remittances and economic well-being of households in the Philippines. *Population Research and Policy Review*, *27*(5), 619.

Sen, A. (1999). Commodities and capabilities. *OUP Catalogue*.

Smith, A. (1937). *The wealth of nations [1776]*. na.

Sophism, Y. (2003). Harnessing remittances for economic development: A case for remittance policy in Ghana. *Online article on Ghanaweb. com (available online: http://www. ghanaweb. com/GhanaHomePage/NewsArchive/artikel. php*.

Sophism, Y. (2006). Remittances Policy That Works: The Case Of Ghana. (*available online: https://www.ghanaweb.com/GhanaHomePage/features/Remittances-Policy-That-Works-The-Case-Of-Ghana-106354)*

Sulemana, I., Doabil, L., & Anarfo, E. B. (2019). International Remittances and Subjective Wellbeing in Sub-Saharan Africa: A Micro-level Study. *Journal of Family and Economic Issues*, 1–16.

Suro, R., Bendixen, S., Lindsay, L., & Benavides, D. (2003). *Latino Immigrants, Remittances and Banking, Billions in Motion*. The Pew Hispanic Center and The Multilateral Investment Fund.

Tabuga, A. D. (2007). *International Remittances and Household Expenditures: The Philippine Case*. PIDS Discussion Paper Series.

Taylor, J. E. (1992). Remittances and inequality reconsidered: Direct, indirect, and intertemporal effects. *Journal of Policy Modeling*, *14*(2), 187–208.

Taylor, J. E., & Mora, J. (2006). *Does migration reshape expenditures in rural households? Evidence from Mexico*. The World Bank.

Valero Gil, J. N. (2009). Remittances and the household's expenditures on health. *Journal of Business Strategies*, *26*(1), 119–140.

Vallas, R., & Fremstad, S. (2014). Disability is a cause and consequence of poverty. *Talk Poverty*.

Wagle, U. R., & Devkota, S. (2018). The impact of foreign remittances on poverty in Nepal: A panel study of household survey data, 1996–2011. *World Development*, *110*, 38–50.

Wahba, S. (1991). What determines workers' Remittances? *Finance and Development*, *28*(4), 41.

Woodruff, C., & Zenteno, R. (2007). Migration networks and microenterprises in Mexico. *Journal of Development Economics*, *82*(2), 509–528.

World Bank Report (2017). Trends in Migration and Remittances 2017. (*available online: https://www.worldbank.org/en/news/infographic/2017/04/21/trends-in-migration-and-remittances-2017*)

World Bank (2018). Personal Remittances, Received (Current US$). (*available online: https://data.worldbank.org/indicator/BX.TRF.PWKR.CD.DT*)

Yang, D. (2008). International migration, remittances, and household investment: Evidence from Philippine migrants' exchange rate shocks. *The Economic Journal*, *118*(528), 591–630.

Yol, N. (2017). The ambiguous effects of remittances on health expenditure: A panel data analysis'. *Economics Bulletin*, *37*(4), 2561–2573.

Zhunio, M. C., Vishwasrao, S., & Chiang, E. P. (2012). The influence of remittances on education and health outcomes: a cross country study. *Applied Economics*, *44*(35), 4605–4616.