UNIVERSITI PUTRA MALAYSIA

DETERMINANTS OF FINANCIAL INCLUSION AND THEIR IMPACTS ON INCOME INEQUALITY AND POVERTY

BALACH RASHEED

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DETERMINANTS OF FINANCIAL INCLUSION AND THEIR IMPACTS
ON INCOME INEQUALITY AND POVERTY

By

BALACH RASHEED

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirements for the Degree of Doctor of Philosophy

March 2017
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DEDICATION

This thesis is dedicated to my parents and family for their encouragement and guidance throughout my candidature. Without their support, encouragement and most of all love, the completion of this thesis would not have been possible.
Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the Degree of Doctor of Philosophy

DETERMINANTS OF FINANCIAL INCLUSION AND THEIR IMPACTS ON INCOME INEQUALITY AND POVERTY

By

BALACH RASHEED

March 2017

Chairman : Associate Professor Siong Hook Law, PhD
Faculty : Economics and Management

This thesis aims to examine the determinants of financial inclusion and its impact on income inequality and poverty. The first objective of the study is to examine the effect of culture and the gender gap on financial inclusion. The second objective of the study is to investigate role of financial inclusion in moderating remittances on income inequality. Lastly, we evaluate the role of institutional quality in moderating financial inclusion and poverty.

There are other studies on the determinants of financial inclusion; however, this study seeks to examine the link between financial inclusion and culture. Financial exclusion is divided into voluntary and involuntary financial exclusion (World Bank, 2014). Voluntary financial exclusion is the segment of the population which decides not to use formal financial institutions because of some cultural barrier. For example, citizens may be excluded by language or by religious teachings. In addition, certain societies may obstruct women to utilise formal financial institutions. Therefore, this study aims to examine the effects of culture and gender gap on financial inclusion. It uses system generalised method of moments (system GMM) on a group of 94 countries during the 2004-2013 period. The findings demonstrate that the impact of the gender gap and culture are positive and significant for financial inclusion when the culture is Catholic and Protestant, whereas for the Muslim culture it shows a negative effect but insignificant. This study also includes the interaction between cultural proxies and the gender gap in influencing financial inclusion. The interaction between cultural proxies and the gender gap for Catholic and Protestant population countries suggest that gender equality tends to significantly increase financial inclusion. By contrast, Muslim population countries have a negative but insignificant coefficient.
There are various gaps in existing literature related to financial inclusion, remittances and income inequality. First, evidence on the interaction between financial inclusion and remittances is highly inconclusive. Second, income inequality has not yet been explored with regards to the financial inclusion-remittance link. Third, past studies have failed to investigate the group of 90 countries for the recent period of 2004-2013 with respect to financial inclusion-remittance link. To link and complete the current gaps in the literature, the second objective of study is to investigate the role of financial inclusion in moderating remittances on income inequality. Remittances and financial inclusion have a significant negative effect on income inequality. The estimated results found a non-linear relationship between GDP per capita and income inequality. The interaction between remittance and financial inclusion has a negative relationship with income inequality. Thus, higher remittances increase the level of financial inclusion and hence a reduction in income inequality.

The last objective of this thesis is to contribute to the literature by examining the role of institutional quality in the financial inclusion and poverty nexus. This is motivated by the widely accepted view that financial inclusion can contribute to financial growth and poverty reduction. Therefore, to sustain modern development theory we can express that better financial inclusion reduce poverty if there is strong institutional quality. This objective used system GMM in a group of 87 countries during the 2005-2012 period. The coefficient of the interaction term between financial inclusion and institutional quality is negative and significant, suggesting that stronger institutions further enhance the role of financial inclusion and thus reduce poverty.
Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

**PENENTU RANGKUMAN KEWANGAN DAN KESANNYA KE ATAS KETAKSAMAAN PENDAPATAN DAN KEMISKINAN**

Oleh

**BALACH RASHEED**

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Tesis ini bertujuan untuk mengenalpasti faktor penentu kewangan dan kesannya terhadap ketaksamaan pendapatan dan kemiskinan. Objektif utama kajian ini adalah untuk mengkaji kesan budaya dan jurang jantina terhadap rangkuman kewangan. Objektif kedua kajian ini adalah untuk menyiapkan peranan rangkuman kewangan dalam mengurangkan kiriman wang terhadap ketaksamaan pendapatan. Akhir sekali, kami menilai peranan kualiti institusi dalam mengurangkan rangkuman kewangan dan kemiskinan.


Objektif terakhir kajian ini menyumbang dengan mengkaji peranan kualiti institusi dalam hubungan rangkuman kewangan dan kemiskinan. Ini didorong oleh pandangan yang diterima secara meluas bahawa rangkuman kewangan boleh menyumbang kepada pertumbuhan kewangan dan pengurangan kemiskinan. Oleh itu, selari dengan teori pembangunan moden, kami dapat menunjukkan bahawa rangkuman kewangan yang lebih baik mengurangkan kemiskinan jika ada kualiti institusi yang kuku. Objektif ini menggunakan sistem GMM dalam kumpulan 87 negara bagi tempoh 2005-2012. Pekali interaksi antara rangkuman kewangan dan kualiti institusi adalah negative dan signifikan, ini menunjukkan bahawa institusi yang lebih kuku meningkatkan lagi peranan rangkuman kewangan dan sekaligus mengurangkan kemiskinan.
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I would like to express my gratitude to my supervisor Assoc. Prof. Dr. Siong Hook Law for encouragement and guidance throughout my candidature. I also would like to thank Assoc. Prof. Dr. Lee Chin for guidance and kind assistance throughout my candidature. Finally, I would like to thank member of my supervisory committee Prof. Dr. Muzafar Shah Habibullah for helpful comments and suggestions.

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I would also to thank Lasbela University who awarded me scholarship and great opportunity to complete PhD. Heartiest thank to Lasbela University for assistance throughout my candidature. Many thanks are due also to all staff of the Faculty of Economics and Management whose warm hospitality and support enable me to complete my thesis.

Above all, my special and deepest thanks to my parents and my uncles for their constant support and loving care they have given me during all these years of study. My family members and all my siblings in their own ways have continuously provided me with love and inspiration. I really love all of them.
I certify that a Thesis Examination Committee has met on 1 March 2017 to conduct the final examination of Balach Rasheed on his thesis entitled "Determinants of Financial Inclusion and their Impacts on Income Inequality and Poverty" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) were adhered to.

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Name of Chairman of Supervisory Committee: Associate Professor Dr. Siong Hook Law

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INTRODUCTION

1.1 Introduction

Financial development can be defined as the approaches, elements, and the institutions that lead to the efficient intermediation and effective running of financial markets. A strong financial system offers hazard expansion and viable capital allocation. Increased financial development would lead to higher mobilisation of savings and improved return on projects. King and Levine (1993) stressed the significance of the financial sector in economic development.

Financial institutions incorporate banks, insurance agencies, mutual funds, pension funds, and other kinds of nonbanking financial institutions. Financial markets are principally stock and bond markets. Financial development can be measured and characterised as a combination of depth (size and liquidity of markets), access (ability of individuals and companies to access financial services), and efficiency (ability of institutions to provide financial services at low cost and with sustainable revenues, and the level of activity of capital markets) as shown by Figure (1.1). This multi-dimensional way to deal with characterising financial development advancement follows the financial framework attributes created by Čihák et al. (2012).

![Financial Development Pyramid](source: Adopted from International Monetary Fund (Čihák et al., 2012))

Figure 1.1: Financial Development Pyramid
(Source: Adopted from International Monetary Fund (Čihák et al., 2012))
1.2 Financial Inclusion

Financial inclusion is an important global research topic when considering long-term sustainable economic growth. Financial inclusion is the availability of banking services to low income groups and the deprived population at an affordable cost. The meaning of financial inclusion is the provision and access to affordable financial services such as, savings, loans, remittance services, insurance facilities and access to payments via the formal financial system in a fair and timely manner. People that have easy access to all essential financial services are considered to be financially included. Financial inclusion has become an important area of investigation for researchers (Demirgüç-Kunt and Klapper, 2012). Without access to formal financial institutions, individuals and firms have to rely on their own resources to satisfy their financial needs, such as, savings, investments, education and on-going business opportunities.

Demirgüç-Kunt and Klapper (2012) estimated that globally 50% of the adult population have a formal financial institution account. However, the majority of these accounts are in high income countries. Approximately, 89% of the adults in high income countries have accounts at formal financial institutions whereas only 41% of adults in developing countries have accounts at formal financial institutions. Globally, approximately 2.5 billion adults use informal financial institutions and the majority of these people are in developing countries. The contrast between male and female account holders is large particularly in developing countries where 46% of men and only 37% of women are formal financial account holders. This statistic shows a gender gap of 6-9% amongst the developing economies. However, in rural areas the physical distance from banks and other financial institutions is the core barrier to their utilisation. A lack of advanced technology and innovation in these rural areas, such as internet access, which may help users to overcome this distance barrier is also observed. In Sub-Saharan Africa, the percentage of formal bank account holders has increased to 23% of the population whilst in South Asia it is only 14% of the population. This can be explained by Sub-Saharan Africa’s policy makers’ relaxing the documentation requirements to open accounts, resulting in an increase in the share of adult users of formal accounts up to 23% (Demirgüç-Kunt and Klapper 2012).

Figure 1.2 shows account penetration amongst different regions of world. It describes the differences between high income countries and developing countries. In high income economies 89% of adults are using the formal financial sector which contrasts to the Middle East and North Africa which had the lowest account penetration amongst regions, with only 18% of adults using a formal financial account. In South Asian countries only 33% of the adult population are using formal financial accounts.
1.3 Culture and Gender gap

An appropriate definition of culture is given by Boyd and Richerson (1985): culture is defined as “transmission from one generation to the next, via teaching and imitation, of knowledge, values, and other factors that influence behavior.” Demirgüç-Kunt and Klapper (2012) highlighted the existence of a large gap among individuals holding formal financial accounts in developing economies, where 46% of males hold formal financial accounts whereas 37% of females hold such accounts. In essence there prevails a broader gender gap of 6-9% points within income groups amongst developing economies. Meanwhile adults in the developing world that lay within the richest demographics (the top 20% of income distribution within an economy) are considered to be twice on average basis as compared to the poorest to possess a formal financial account.

Figure 1.5 shows accounts in formal financial institutions broken down by gender. The gender gap is significant in South Asia, the Middle East and North Africa. In the case of Sub-Saharan Africa the gap is relatively small, where 27% of males and 22% of females have accounts in formal financial institutions. From Figure 1.5 the gender gap is significant in all regions.
Culture can influence the use of financial institutions through various channels. The values that are prevalent in a country rely on upon its religion and culture. For instance, charging interest can be a sin in one religion yet not in another. Religion and culture can also influence institutions. For example, the legal framework may be affected by cultural values. Religion and culture can also influence how resources are distributed in an economy. Religions that encourage spending on churches remove resources from investment in production (Stulz and Williamson, 2003). A significant role can be played by Sharia complaint financial products and instruments for increasing financial inclusion within Muslim demographics. An estimated of 700 million of the world's poor live in Muslim dominated countries. Islamic finance has received great attention as a primary means to boost financial inclusion within Muslim demographics (Mohieldin et. al, 2011). However, the core issue lies in that Sharia compliance has levied certain requirements which have resulted in the exclusion of Muslim households, micro, small and medium enterprises from formal financial markets. The Islamic legal system enacted certain norms that avoid interest bearing loans. Financial providers are also obliged to make their due efforts in risk sharing of business activities in which they serve financial services (profit and loss sharing). Therefore, certain bounding requirements and traditional services fail to find a viable fit among religious oriented Muslim individuals and firms for financing.

A 2010 Gallup poll revealed that 90% of adults who are part of the Organization of Islamic Cooperation (OIC) member countries believe religion is the basic component of their lives. This fact helps to explain why only of 25% of the adults in OIC members countries possess a formal account at a financial institution. This figure lies below the global average of 50%. The study of Demirgüç-Kunt, et. al.(2013) revealed that 18% of adults in non-Muslim countries possess a formal saving account whilst only 9% of Muslim adults have such accounts. However, 4% of non OIC countries consider

---

**Figure 1.3 : Adults With An Account At A Formal Financial Institution (%Per Adults Population) (Source: Demirgüç- Kunt and Klapper (2012))**
religion as a reason for lacking formal financial accounts as compared with 7% of OIC countries Table 1.1 and 12% from the Middle East and North Africa.

Table 1.1 : OIC Countries With Rest Of World

<table>
<thead>
<tr>
<th>% of respondents</th>
<th>All</th>
<th>OIC countries</th>
<th>Non- OIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have an account at formal financial institution*</td>
<td>50</td>
<td>25</td>
<td>57</td>
</tr>
<tr>
<td>Religious reasons*</td>
<td>5</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Distance*</td>
<td>20</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>Account too expensive*</td>
<td>25</td>
<td>29</td>
<td>23</td>
</tr>
<tr>
<td>Lack of documentations*</td>
<td>18</td>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td>Lack of trust*</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Lack of Money*</td>
<td>65</td>
<td>75</td>
<td>61</td>
</tr>
<tr>
<td>Family members already has an account*</td>
<td>23</td>
<td>11</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: Global Financial Inclusion (Global Findex) Database, World Bank.*t- test Shows 1% significant level.

Figure 1.6 shows the correlation between financial inclusion and the gender gap in Catholic countries averaged over the period (2004-2013). The fitted line displays a positive relation between financial inclusion and the gender gap. This means that as financial inclusion increases, the gender gap declines and vice versa. In the case of Protestant countries represented in Figure 1.7, this also shows a positive correlation between financial inclusion and the gender gap. However, Figure 1.8 demonstrates the correlation between financial inclusion and the gender gap is horizontal in Muslim countries. It shows that the impact of gender gap on financial inclusion is also dependent on culture.
Figure 1.4: Correlation Between Financial Inclusion and Gender Gap in Catholic Countries (Average 2004-2013)

Note: Gender equality index is used and higher the value of gender gap shows greater the gender equality.¹

¹The index for gender equality namely, wage discrimination in formal employment sector, female education and labour force participation over male.
Figure 1.5 : Correlation Between Financial Inclusion And Gender Gap In Protestant Countries (Average 2004-2013)

Note: Gender equality index is used and higher the value of gender gap shows greater the gender equality.
1.4 Financial Exclusion

It is important to measure whether the obstacles in accessing formal financial institutions are price or non-price based barriers. Additionally, a distinction between the possibility of use and actual use of financial services must be observed. Financial exclusion can be voluntary or involuntary, where price barriers or discrimination may influence the adoption of formal financial services. If a distinction is not made, it can complicate any efforts to measure the level of access to financial services. Financial market imperfections are likely to restrict the poor, micro and small enterprises, as they lack collateral land credit histories. Without inclusive financial systems, these individuals usually have limited access to their own savings and earnings. These access dimensions are often overlooked, perhaps because of serious data gaps on those who have access to which financial services and a general lack of systematic information on the barriers to broader access to financial services.

Figure 1.3 states that financial exclusion can be divided into voluntary and involuntary financial exclusion. Voluntary financial exclusion is linked to the segment of the population that decides not to use formal financial services because of cultural and religious barriers. Involuntary financial exclusion refers to the segment of the
population that do not use formal financial services due to market imperfections and lack of sound institutional quality.

**Figure 1.7 : Voluntary And Involuntary Exclusion**  
(Source: Adapted from World Bank (2014))

Figure 1.4 presents the use and non-use of formal financial institutions. It shows 50% of the population are having bank accounts and rest are using the informal financial sector. The reasons for non-use of financial institutions are principally lack of trust, physical distance to banks and cultural/religious barriers. Figure 1.4 also displays that 11% of the population do not have enough money to use the formal financial sector.

**Figure 1.8 : Use Financial Service And Barriers**  
(Source: Global Financial Inclusion report (2014))
1.5 Financial inclusion, Income Inequality and Poverty

Financial inclusion has been comprehensively perceived simply as decreasing poverty and accomplishing comprehensive economic development. Studies demonstrate that when individuals participate in the financial system, they are better ready to begin and grow businesses, invest in education and retain financial shocks (Beck, Demirgüç-Kunt, and Levine, 2007). Better access to financial services for both individuals and firms may help to decrease income inequality and accelerate economic development (Beck, Demirguc-Kunt, and Martinez Peria, 2007). Beck, Demirguc-Kunt, Laeven, and Levine (2008) found a connection between financial development, decreased income inequality, poverty alleviation and the total utilisation of financial services. Whilst more robust financial systems seem to diminish Gini coefficients which are an estimation of income inequality.

Financial inclusion is seen as expanding the poor's access to financial services, it is frequently considered as a successful tool that can diminish poverty and lower income inequality. Understanding the connection between financial inclusion, poverty, and income inequality at the country level will help policymakers plan and implement programs that will widen access to financial services, prompting a reduction in poverty and income inequality. Significantly, the findings of (Park and Mercado, 2015) show that financial inclusion reduces poverty and income inequality. Brune et al. (2011) found that expanded financial access through savings accounts in rural Malawi enhanced the prosperity of poor households. Allen et al. (2012) found that by tapping underprivileged families, commercial banks can enhance financial access of the poor in Kenya.

GDP per capita plays a key role in the level of formal financial account penetration worldwide. Demirguc-Kunt and Klapper (2012) countries that enjoy GDP per capita exceeding US$15000 had close to universal account penetration (exceptions being Italy and the US with account penetration of 71% and 88% respectively). GDP per capita explains the level of enrolment of adults with formal financial accounts with a variation of 73% worldwide based on country level percentages. It also shows that income inequality is correlated with financial account ownership. Demirguc-Kunt and Klapper(2012) showed that a country’s inequality in the usage of formal financial accounts goes together with a country's income inequality. Income inequality has a high correlation between account penetration and Gini co-efficient. Deep analysis postulated that account penetration; income level and income inequality is driven by the quality of institutions in an economy.

1.6 Income inequality, Remittance and Financial Inclusion

Income inequality is a main concern in development and welfare economics, particularly as it relays to developing countries. Such inequality can be deciphered as an indication of injustice, insider benefit, unequal job opportunity, and social instability. In developing countries, income inequality is seen to be ruinous and dangerous to society and the economy (Tan and Law, 2012). Remittances are the main means of financial transaction for the demographic that has limited access to formal
banking services. The value of remittances has been on the rise over the past decade. The World Bank (2013) has revealed the official estimated record of international migrant remittances for developing countries to amount to US$401 billion in 2012. This includes the sum of workers’ remittances, employee compensation and transfers shown by migrants. Meanwhile remittances within a country from one province to another are of a specified and calculable amount. Many countries prioritise remittances for the reason that they have a positive macroeconomic impact which can for example affect exchange rates.

Demirguc-Kunt et al. (2008) showed the far reaching effects financial systems have on economic growth. Good financial systems effectively provide the efficient generation of funds to be utilised in production. Importantly, accessible financial systems allow people to be able to save, make payments and manage risk but also to provide opportunities for growth. The absence of an inclusive financial system results in the poor and small companies relying on their own internal resources for investing in education, entrepreneurial activity and growth.

Figure 1.9 shows the negative correlation between income inequality and remittance in high financial inclusion countries. This means that as remittances increase, income inequality declines and vice versa. A World Bank study by (Demirgüç-Kunt and Klapper, 2012) documented that 89% of adults are using formal financial institutions in high income countries. In the case of medium financial inclusion, nearly 39% of the adult population are using formal financial institutions as represented in Figure 1.10, which also shows a negative correlation between income inequality and remittance. Figure 1.11 demonstrates that there is a positive correlation between income inequality and remittance within low financial inclusion countries. In the Middle East and North Africa the percentage of adults with accounts at formal financial institutions are quite low, at around only 18%.
Note: In Italy, Argentina, Japan, Latvia, Lithuania, Canada, Netherlands, Chile, Croatia, Norway, Czech Republic, Poland, Denmark, Russian Federation, Finland, Slovak Republic, France, Slovenia, Germany, Spain, Greece, Sweden, Hungary, United Kingdom, Iceland, United States, Ireland, Uruguay, Israel, Venezuela 89% of adults at a formal financial institution (Demirgüç-Kunt and Klapper, 2012).

**Figure 1.9 : Correlation Between Income Inequality And Remittance In High Financial Inclusion (Average 2005-2012)**

Note: In Bolivia, Brazil, Guatemala, Colombia, Honduras, Costa Rica, Mexico, Nicaragua, Dominican Republic, Panama, Ecuador, Paraguay, El Salvador and Peru 39% of adults at a formal financial institution (Demirgüç-Kunt and Klapper, 2012).

**Figure 1.10 : Correlation Between Income Inequality And Remittance In Medium Financial Inclusion (Average 2005-2012)**
Note: In Jordan, Morocco, Egypt, Tunisia, Iran, West Bank and Gaza, Iraq and Yemen 18% of adults at a formal financial institution (Demirgüç-Kunt and Klapper, 2012).

**Figure 1.11 : Correlation Between Income Inequality And Remittance In Low Financial Inclusion (Average 2005-2012)**

1.7 Poverty and Financial Inclusion

The number of citizens living below the poverty line of a given country is best obtained by inquiring the national population data. According to World Bank, (2001) the primary means to define poverty is by referring to poverty lines (1993 purchasing power parity terms) typically this defines the number of citizens surviving on US$1 or US$2 daily. As reported by World Bank, (2001) the number people surviving on US$1 per day in the world is around 20% of the world’s population (1.2 billion people) and those surviving on US$2 per day is 46.7% of the world population (2.8 billion people).

With reference to the (World Bank, 2000) poverty is deep rooted within the society’s economic, political and social occurrence. It is thus certain system that outcomes destitution, neediness, impoverishment among each other. Hence their helplessness is revealed with manifest lack of vigour for reaching other factors in their stance. The ruthless chain of poverty is what to be considered as its ruthless property (Basu, 1984). Albeit, the concept emerged, poverty as a result of ignorance from psychological, socialness, shelter needs most probably due to helplessness and absolutism. However, in poverty research greater consideration is over facts and definitions and meanwhile lesser worth to its cause and strategies for reimbursing poverty issues (Wilson, 1996). Albeit, equally greater consideration needs to be given to its policies and strategies so as to get it eradicated (UNDP, 2003)
“Whether you are a public sector financial regulator or a private sector bank, it is in your interest to get everyone access to financial services. This is good for the world and will help us end poverty.” World Bank Group President, Jim Yong Kim (2014)

Less than half of the population in developing countries have accounts in formal financial institutions. In Africa the figure drops to less than one in five households. The lack of access to financial institutions for generating constant income equality and slower growth is mentioned in recent development theories. Poorer people and small enterprises usually rely on their limited savings and earnings to invest on their education, to become entrepreneurs or to take advantage of promising growth opportunities because of the lack of inclusive financial systems. Financial sector policies are central not only to stability but also to growth, poverty reduction, and more equitable distribution of resources and capacities because it encourages competition, provides the right incentives to individuals and helps to overcome access barriers (Demirguc-Kunt and Klapper, 2012).

Figure 1.12 shows the share of adults living on less than US$2 per day who have an account at a formal financial institution. Internationally 23% of adults have an account at a formal financial institution. In South Asia and in East Asia and the Pacific 27% of the population living on less than US$2 per day have an account at a formal financial institution as compared to the Middle East and North Africa where only 6% hold accounts.

Figure 1.12 : Adults Living Less Than 2$ Per Day
(Source: Demirguc-Kunt and Klapper (2012))
Financial markets and institutions redress the effects of information asymmetries and transaction costs that prevent the direct pooling and investment of society’s savings. Savings and payment services facilitate the exchange of goods and services and are mobilised by the financial institutions. Moreover, savings and payment services produce and process information about investors and investment projects. Eventually, it enables the efficient allocation of funds to monitor investments and exert corporate governance after those funds are allocated. Thus risk is diversified, transformed and managed. After satisfactory results, the financial institutions and markets give opportunities to all competitors and they take advantage out of the investments. Hence they boost growth, improve income distribution and reduce poverty. Contrary to that, when results are not appreciated, growth opportunities are missed, inequality lies and inflation appears in extreme cases.

1.8 Problem Statement

In recent years, financial inclusion has become an important phenomenon in developed and developing countries for policy makers. Financial inclusion is the process that removes barriers thus enabling society to use formal financial services, such as deposits, payments and insurance. The Global financial development report 2014 stated that financial exclusion is divided into voluntary and involuntary financial exclusion. The voluntary financial exclusion is linked to the segment of population that decides not to use the formal financial services because of some cultural or religious barrier. The other category of financial exclusion is involuntary which refers to the segment of population that does not use formal financial services due to market imperfections or a lack of sound institutional quality. In developing countries, the formal financial institutions are facing a number of barriers routinely which cause the use of informal financial institutions, for instance, cultural differences, weak institutions, poor information systems and moral hazard.

The gender dimensions or gender gap related to the access to formal financial institution is a relatively unexplored research topic. Literature explored on this topic has found that access to finance for females is unfavourable as compared to males and the gap between males and females using formal financial institutions. The usage of saving, lending and holding bank accounts is significantly lower amongst females. Moreover, it has been observed that females pay higher interest rates on loans. The gender gap with regards to access to financial sectors can be typically explained by differing cultural differences where laws and societal norms may form a barrier for females to utilise formal financial institutions. Laws, local customs and gender norms are also reasons why women have less usage of financial services or obtain less benefit from formal financial institutions. A question emerges, whether culture and the gender gap have an impact on financial inclusion? The current study aims to fill the existing gap in the literature.

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2 For example (Conroy, 2005; Mohan, 2006; Leyshon, A., and Thrift, N., 1995; Rangarajan Committee, 2008)
3 World Bank (2014)
4 See Demirgüç-Kunt et al. (2008); GPFI (2011); Muravyev et al (2009)
The correlation between financial inclusion and the gender gap in Catholic and Protestant countries is positive. This means that as financial inclusion increases, the gender gap declines and vice versa. However, the correlation between financial inclusion and the gender gap is horizontal in Muslim countries. It predicts that culture characterises an important relation between financial inclusion and the gender gap. Another question also arises, how the impacts of the gender gap on financial inclusion depend on culture?

Financial market imperfections have levied certain limitations for accessing finance that plays a key role in perpetuating inequalities. Cross country data and other policy experiments show that lower inequality persists for the more developed financial systems whereas theory witnessed greater financial access which would maximise the risk for inequality (Demirgüç-Kunt, 2008). Related literature robustly suggested to financial sectors that better accessibility to finance would result in both boosting the economic growth and reduction of income inequality. Income inequality can be widening due to a lack of inclusion and other obstructions to the financial system. Mookerjee and Kalipioni (2010) showed that income inequality can be reduced by increasing access to banks and income inequality increases by lack of access to banking services. But it is also found that there can be large variations in financial inclusion and income inequality between countries. For example, by considering the case of United Kingdom and United States. Both countries have similar Gini coefficients but a huge difference in financial inclusion in the poorest income quintile. It is reported that 26% of adults in this group in the United States are without formal financial accounts as compared to the United Kingdom where the level is only 3%. In the United States, a huge difference of account holding between rich and poor is found in the FDIC2009 survey. What are the reasons for the presence of these two contradictory conclusions? In order to clarify the contradictory conclusions in previous literature this study empirically investigates the effects of financial inclusion on income inequality.

Policy makers and development economists are very keen to know about the link between income inequality, international remittance and economic growth in this era of globalisation and labour mobilisation. Gaps between rich and poor still exist both in less developed and developed countries despite having better economic growth. Recent studies have found that remittances increase financial inclusion through the use of deposit accounts. Studies have found that financial inclusion reduces income inequality and remittances have a positive impact on financial inclusion. Remittance is one of the major source of income for recipient countries. In recent literature there is contradictory evidence on the impact of remittances on income inequality. Some of them have found that remittances tend to reduce income inequality though others opined that remittances reinforce income inequality.

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5 Conroy (2005)  
6 Demirgüç-kunt and klapper (2012)  
7 Federal Deposit Insurance Corporation  
8 See Easterly (2001); Gaston and Rajaguru (2009)  
9 Peri et al., (2014)  
10 See Demirgüç-Kunt (2008); Conroy (2005) and Mookerjee and Kalipioni (2010)  
Nevertheless, Adams (1992) found that there is no significant relation between remittances and income inequality. On the other side, remittances tend to reduce income inequality (Brown and Jimenez, 2008; Koechlin and Leon, 2007).

In countries with high financial inclusion with 89% of adults holding an account at a formal financial institution, the relationship between remittances and income inequality is negative. Similarly, in countries with low financial inclusion 18% of adults hold accounts at a formal financial institution which has positive effects on both remittance and income inequality. This study hypothesises that financial inclusion plays an important role on the relationship between the remittance and income inequality nexus. Significantly, it is worth investigating the role of financial inclusion in moderating remittances on income inequality. International evidence on this issue is not sufficient to analyse this important factor worldwide.

Currently, it is widely accepted that the role of financial inclusion can better contribute to financial growth and poverty reduction. Hannig and Jansen (2010) elucidated that the living standards of the poor can be improved positively if improved access to financial services is provided. Formal financial intermediaries are not used by the majority of the world’s poor. Consequently, it is hard for the poor to make future decisions and use efficient resources in the absence of financial services. In Nigeria the low level of financial inclusion is accountable for the rising rate of poverty. Also, in India poverty is the main reason of low financial inclusion.

The absence of an inclusive financial system would result in the poor and small companies being solely reliant on their internal resources for investing in education, for being entrepreneurial or availing the opportunity for growth. Like the findings of Honohan (2008) and Park and Mercado (2015) good governance and high institutional quality altogether increase financial inclusion. Maintaining high quality rule of law will diminish involuntary financial exclusion for extensive portions of the populace.

Therefore, for the sustainability in modern upliftment theory has expressed the worth of better financial inclusion can reduce poverty if there is high level of institutional quality. In order to achieve this, when the financial system is less developed, the people in low income households are more physically remote area from the formal financial system. Moreover, they are unable to open transaction accounts in formal financial systems due to barriers. Additionally, these people cannot avail the benefits of financial services such as insurance, deposits and loans. The level of institutional quality must be improved for financial inclusion because both are significantly correlated with decreasing poverty. Therefore, financial inclusion is not the only factor for decreasing poverty. Whether better financial inclusion can reduce poverty depends on institutional quality. Hence, the focus of this research is to find

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12 For example Sansui (2011)
13 Gwalani and Parkhi (2014)
14 Demirgüç-Kunt et al. (2008)
15 For example see Claessens, 2006; Honohan, (2008)
the role of institutional quality in moderating financial inclusion and poverty, which has been rarely investigated.

1.9 Objectives of study

This study focuses on the empirical analysis of financial inclusion, income inequality and poverty. We analyse the objectives of the study using the system generalised method of moments (GMM) on the group of 94 countries during the period 2004-2013. The specific objectives are as follows;

1. To examine the effects of culture and gender gap on financial inclusion.
2. To investigate the role of financial inclusion in moderating remittances on income inequality.
3. To evaluate the role of institutional quality in moderating financial inclusion and poverty.

1.10 Significance and Contribution of study

This study contributes to the existing literature by 1) using two different proxies of the financial inclusion measure which utilises available cross-country data namely, Commercial bank branches per 100,000 adults and ATMs per 100,000 adults 2) empirically focusing on 94 developing and developed economies, and 3) understanding the link between financial inclusion and cultural issues. This study will use dummy variables of religion and language to capture culture. 4) A limited number of studies have used advanced econometrics tools. So this study will use generalised method of moment (GMM) to answer the objectives of the study.

This study portrays the question as to whether national culture and gender gap has an impact on financial inclusion. This study is also analogous to Aggarwal and Goodell (2013) in the case of cultural elements where they examined data of eighty-five countries to the determinants of cross-national differences in access to finance of firms as well as the determinants of loans, equity and venture capital. Thus, this study is an empirical investigation of national culture and the gender gap on financial inclusion that adds significantly to Aggarwal and Goodell (2013). The literature review suggests that financial inclusion is affected by various factors such as institutional quality. However, this study extends the prior literature to analyse the effects of culture and the gender gap on financial inclusion.

Another major contribution of the research is to provide the indirect link between income inequality, remittance and financial inclusion. This study also contributes to previous literatures to find the relationship between income inequality and remittances at different levels of financial inclusion. Similarly, this study highlights the interaction effects of financial inclusion in remittances-income inequality relation by using generalised method of moment (GMM).

16 Language results are presented in Appendix A.
The major contribution of this study is to investigate the indirect relationship between institutional quality in the financial inclusion-poverty nexus. This study also contributes to existing literature by using the data of poverty. To measure poverty, this study uses five different proxies, namely poverty headcount (US$1.90) which is the share of population living on less than US$1.90 per day, poverty headcount (US$1.25) which is the share of population living on less than US$1.25 per day, poverty gap (US$1.90) which is the poverty line of US$1.90 per day measured as a share of poverty, poverty gap (US$1.25) which is the poverty line of US$1.25 per day measured as a share of poverty, and lastly, household consumption per capita. More importantly, the findings of the study would aim to come up with policies for international policy makers to stabilise economic development, boost institutional quality to achieve targeted financial inclusion, and eradicate poverty.

1.11 Organization of the study

This study is organized into five chapters. The first chapter presents a general background of the study and a brief introduction. This chapter also comprises with Problem Statement, Objectives, Contribution, and Significant of the study. The latter chapter 2, reviewed the related literature. This chapter highlights theoretical and empirical background of the study. Chapter 3 presents methodology of the study. This chapter comprises with empirical model and details of data description. Chapter 4 presents and discusses the empirical results. An attempt has been made to provide in-depth empirical findings including extensive robustness checks. Finally, Chapter 5 provides concluding remarks and relevant policy implications as well as limitation of the study and future research recommendations.
REFERENCES


