International Research Journal of Management and Commerce
Vol. 4, Issue 2, February 2017 Impact Factor- 5.564
ISSN: (2348-9766)

Website: www.aarf.asia Email : editor@aarf.asia , editoraarf@gmail.com

FINANCIAL INCLUSION IN ETHIOPIA: THE DEMAND AND SUPPLY SIDE PERSPECTIVE

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ABSTRACT

This study comprises a quantitative and qualitative approach to the status of financial inclusion in Ethiopia based on micro-data from surveys and macro data from secondary sources. Questionnaire was collected from 996 respondents for households living in four regional states and one administrative city. Secondary data was collected from National Bank of Ethiopia, World Bank Data Set, MixMarket, and from reports of formal financial institutions. Formal financial institutions significantly contributed to the development of financial inclusion in Ethiopia. The status of financial services from the perspective of adults with savings, credit, proportion of account holders, and insurance policy holders are very low even in comparison with developing economies. Based on Sarma (2008)[1] model estimation the recent comprehensive financial inclusion index for Ethiopia indicates that 0.1136 which is under the category of low financial inclusion. The figure is very near to financial exclusion (0.00). By understanding the weak level of financial inclusion designing policies that promote more inclusive financial systems is a key for individuals in contributing for their country's economy.

KEY WORDS: Ethiopia, Financial Exclusion, Financial Inclusion, Financial Inclusion Index

Introduction

Financial inclusion is a process that ensures the ease of access, availability and usage of the formal financial system for all members of an economy. Financial inclusion is the access to formal financial services at an affordable cost for all members of an economy, favoring mainly low-income groups. It has been recognized as a critical element in policies for poverty reduction and economic growth.[2][3]

Healthy financial services boost economic growth by mobilizing savings for productive use, allocating capital funds efficiently and managing risks. Knowing the notion that every individual must participate for the real economic upturn, financial intermediaries and financial markets are essential for a vibrant, growing economy.[4]

According to Allen et al. (2013)[5], most sub-Saharan African countries have undergone extensive financial sector reforms in the last two decades despite their financial sectors remain underdeveloped. The study showed that the percentage of Sub-Saharan Africans older than 15, who had an account with or a loan from a formal financial institution, were about 25 and 5 per cent, respectively, in 2011. Only developing countries from the Middle East and North Africa exhibited similar patterns.

The National Bank of Ethiopia has taken responsibility for the recent explicit policy objective of Ethiopia's financial inclusion as stipulated in the country's two rounds five years development plan, named Growth and Transformation Plan (GTP). The government takes financial inclusion as a policy objective and has been trying to build inclusive financial systems not only to address the previously excluded ones but also to mainstream financial institutions to reach out to the unbanked. Thus, in order to get a comprehensive picture of financial inclusion in Ethiopia, it is important to get a picture of the supply side and demand side information for the purpose of this study.[6]

It is expected that the output from this study can be useful in identifying and enhancing requisite measurement and data for more targeted financial inclusion interventions. In addition, the study can serve as a base for further studies that will establish the status of financial inclusion and welfare of individuals and households. This information is currently lacking in a number of African countries.[7]

The purpose of this study is therefore to contribute into the literature on standing of financial inclusion in Ethiopia and informing policymakers, financial sector stakeholders and development actors about existing opportunities and specific challenges that need attention and action.

Objective of the Study

The objective of this study is:

- To analyze the current status of financial inclusion in Ethiopia

Literature Review

Financial inclusion is generally defined in terms of exclusion from the financial system. Financial exclusion is concerned about all types of people who make little or no use of financial services and the processes of financial exclusion.[8][9] Financial inclusion is the proportion of individuals and firms that use financial services. It has a multitude of dimensions, reflecting the variety of possible financial services, from payments and savings accounts to credit, insurance, pensions, and securities markets. It can be determined differently for individuals and for firms.[10] Greater financial inclusion is not necessarily good. For the most part, more extensive availability of financial services allows individuals and firms to take advantage of business opportunities, invest in education, save for retirement, and insure against risks.[11]

One of the early attempts by Leyshon and Thrift (1995)[12] defined financial exclusion as referring to those processes that serve to prevent certain social groups and individuals from gaining access to the formal financial system. According to Sinclair (2001)[13], financial exclusion means the inability to access necessary financial services in an appropriate form. The Committee on Financial Inclusion in India defined financial inclusion *as "the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as the weaker sections and low income groups at an affordable cost*". [14]

Thus, most definitions indicate that financial exclusion is manifestation of a much broader issue of social exclusion of certain societal groups such as the poor and the disadvantaged. Financial inclusion can be defined as a process that ensures the ease of access, availability and usage of the formal financial system for all members of an economy. This definition emphasizes several dimensions of financial inclusion, viz., accessibility, availability and usage of the financial system. These dimensions together build an inclusive financial system. As banks are the gateway to the most basic forms of financial services, banking inclusion/exclusion is often used as analogous to financial inclusion/exclusion.[15]

Financial inclusion is defined by the Mexican National Banking and Securities Commission, as “the access to, and use of, financial services within an appropriate regulatory framework which guarantees structures for consumer protection and promotes financial education to improve the financial capabilities of all segments of the population”. This definition covers not only the availability of access (supply), but also the effective use of financial services by individuals (demand).[16]

Methodology

The basic objective of the study is to examine the status of financial inclusion in Ethiopia and to scrutinize the implication of financial institutions in expanding financial inclusion. Accordingly, this research applied both quantitative and qualitative research approach. By focusing on the quantitative aspects of financial inclusion measures and data this study provides a better clue about financial inclusion efforts in Ethiopia.

The study focused on financial services provided by formal financial institutions which encompass commercial banks, insurance companies and microfinance institutions. In order to have basic clue about the expansion of financial inclusion in Ethiopia both demand and supply side players are targeted in this study. So commercial banks, microfinance institutions and insurance companies from supplier side and households from demand side are the targeted groups for this study.

Based on the target population under study there are about 35 microfinance institutions, 18 commercial banks (17 commercial banks after Construction and Business Bank of Ethiopia was merged in to Commercial Bank of Ethiopia in 2016) and 17 insurance companies. Regarding microfinance institutions Association of Ethiopian Microfinance Institutions (AEMFI) organized for 32 microfinance institutions data. Accordingly, the examination of financial inclusion with respect to microfinance institutions secondary data is based on these 32 institutions. In addition, household units were the target populations for this paper in order to analyze variations and likeness of financial inclusion of regional states. The total population of Ethiopia currently is expected to be around 96 million. Out of these the study focused on peoples aged 18 which encompasses around 57.6 million. A total of 1050 questionnaires were distributed for respondents randomly and 996 completed questionnaires were returned.

Both primary and secondary data collection was the instrument of this study to gather the necessary information. Secondary data sources were used thoroughly in order to examine the status of financial inclusion in Ethiopia. Websites, data bases and publications were referred to do this. Quarterly and annual reports of National bank of Ethiopia and Association of Ethiopian Microfinance Institutions, Central Statistics Agency of Ethiopia reports, magazines, World Bank and IMF data set, and previous research works were the elements under consideration for the source of secondary data collection.

The data that was collected both from primary and secondary source was organized systematically and analyzed with Statistical Package for Social Science (SPSS) Version 20. The main statistical tool used in this study is a descriptive analysis through frequency table, percentages and central tendency. Trend analysis is carried out for financial inclusiveness of Ethiopia from the formal financial system perspective was done in this paper. Descriptive analysis was applied in order to see the practices and prospects of financial inclusion in Ethiopia.

Results and Discussion

In this sub-topic the standing of Ethiopia's financial inclusion is analyzed both from the survey study as well as from the view point of the secondary data collected. The focus of this study is based on the formal financial services provided in Ethiopia; specifically services provided by commercial banks, microfinance institutions and insurance companies. The result and discussion of this study is presented hereunder in two sections: demand side and supply side perspective.

The Status of Financial Inclusion – Demand Side Perspective

Saving Tradition in the Formal Financial Institutions

Table 1: Saving traditions in formal financial institutions

Savings in Micro Finance Institutions

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	No	884	88.8	88.8	88.8
	Yes	112	11.2	11.2	100.0
	Total	996	100.0	100.0	

Savings in Commercial Banks

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	No	838	84.14	84.14	84.14
	Yes	158	15.86	15.86	100.0
	Total	996	100.0	100.0	

Source: Survey, 2016

According to the World Bank report, worldwide, 22 percent of adults report they saved at a bank, credit union, or microfinance institution (MFI) in 2011. The share ranges from 45 percent in high-income economies to 11 percent in low-income economies.[10] Before modern banking came to place there were several ways of saving habits in Ethiopia. In the current study respondents were asked about their saving alternatives, if any. Savings in the microfinance institutions is reported 11.2 per cents. Savings in commercial banks is reported the highest percentage which is 15.86 per cent of the participants. This result is shown in the above table (Table 1).

Loan Practice (Credit)

Table 2: Loans from formal financial institutions

Borrowings from Micro Finance Institutions

		Frequency	**Per cent**	**Valid Per cent**	**Cumulative Per cent**
Valid	**No**	897	90.1	90.1	90.1
	Yes	99	9.9	9.9	100.0
	Total	996	100.0	100.0	

Borrowed from bank

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	No	943	94.7	94.7	94.7
	Yes	53	5.3	5.3	100.0
	Total	996	100.0	100.0	

Source: Survey, 2016

Borrowing is as important instrument to support communities in the transforming process of development and manage their personal liquidity. Here under there are various options provided for respondents from which institution or individual they have borrowed, if any. About 10 per cent of the people reported that they have borrowed from microfinance institutions and only 5.3 per cent borrowed from commercial banks.

As it can be observed from the above table borrowings from the formal sector remains very low. Global Financial Development Report also proves that adults in developing economies are three times more likely to borrow from family and friends than from formal financial institutions.[9]

Ownership of Accounts

Table 3: Ownership of accounts

Have bank book

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	No	606	60.8	60.8	60.8
	Yes	390	39.2	39.2	100.0
	Total	996	100.0	100.0	

Source: Survey, 2016

From the total of respondents of 996 about 390 respondents equaling to 39.2 per cent reported that they have bank account either at microfinance or commercial banks or both. The other 60.8 per cent of participants in this study have no pass book due to different reasons. This figure is far away from the World Bank report of 2011 for adults with account at a formal financial institution (89 per cent). It is also below the global average (50 per cent) but above the low-income economies which is only 24 percent.

Usage of Accounts

Table 4: Usage of book of accounts

No	**Particulars**	**Response**					
		No		**Yes**		**Total**	
		Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**
1	Used my account for salary/revenue collection	252	64.6	138	35.4	390	100
2	Used my account for receiving money from family	310	79.5	80	20.5	390	100
3	Used my account for sending money to family	284	72.8	106	27.2	390	100
4	Used my account for payment of credit	331	84.9	59	15.1	390	100
5	Used my account for other purposes	372	95.4	18	4.6	390	100

Source: Survey, 2016

Respondents (390 account holders out of 996 respondents) who have an account in a commercial bank or microfinance institution are asked about usage of their accounts. From the total of account holders 35.4 per cent of respondents used their accounts for salary/revenue collection purpose. 20.5 per cent of them used their account for receiving money from families or friends. 27.2 per cent of account holders used their accounts for sending money. 15.1 per cent of them used their account for payment of credit. For other purposes only 4.6 per cent of account holders used their account.

Insurance

Table 5: Insurance policy holders

Health or medical insurance

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	No	873	87.7	87.7	87.7
	Yes	123	12.3	12.3	100.0
	Total	996	100.0	100.0	

Have property insurance

		Frequency	Per cent	Valid Per cent	Cumulative Per cent
Valid	No	905	90.9	90.9	90.9
	Yes	91	9.1	9.1	100.0
	Total	996	100.0	100.0	

Source: Survey, 2016

The insurance sector is redundantly cited as the under developed section of the economy in Ethiopia. There is some development in this sector in recent times that the Ethiopian government encouraged the rural community and public servants to have a health insurance. Respondents asked about their usage of the insurance service for mitigating different perils. They have reported that only 12.3 per cent of them for health or medical insurance. 9.1 per cent of participants in this study insured for property insurance. Specifically for the health insurance Ethiopia this figure is still in very low even from the average of developing economies which is 17 per cent.[10]

Financial Inclusion - Supply Side Review

Financial Inclusion Index

To compute Financial Inclusion Index (hereinafter FII) three step processes was followed. The first step was to determine individual indicators for microfinance institutions and commercial banks. The second activity was determination of each of the financial inclusion dimensions for both microfinance institutions and commercial banks. Finally, determination of the FII for the country was done by computing each of the three dimensions from both microfinance institutions and commercial banks dimensions base on proportion.

For the dimension of penetration number of clients and number of accounts was used for microfinance institutions and commercial banks, respectively. Number of branches was used for both microfinance institutions and commercial banks and number of Automated Teller Machines (hereinafter ATM) was included for commercial banks to determine the availability dimension. Volume of deposits plus credits outstanding indicator was similar for both financial institutions to compute the usage dimension.

In order to measure financial inclusion various authors used various indicators. In this study the researcher explained individual and comprehensive index to indicate the status of financial inclusion in Ethiopia Based on Sarma (2008).[[1]] Accordingly, five financial inclusion indicators with three dimensions of financial inclusion are presented to form an index, FII. The weight of each indicator in the dimension and each dimension in the index was developed based on the quality of data and previous research studies. The financial inclusion indicators used in this study are bank accounts per 1,000 population, number of bank branches per 100,000 population, number of ATMs per 100,000 population, and volume of deposit plus loans outstanding per GDP. The three dimensions are bank penetration (represented by bank accounts per 1,000 population), availability (determined based on the average of number of bank branches per 100,000 population and number of ATMs per 100,000 population) and usage (indicates volume of deposit plus loans outstanding per GDP).

A dimension index for each of these dimensions has been first computed by the following formula:

$$di = \frac{A_i - m_i}{M_i - m_i}$$

Where A_i is the actual value of dimension i, m_i is the lower limit for dimension i, given by zero for dimension i and M_i is the upper limit for dimension i, given by the maximum value in dimension i in each year.

To calculate the values of each dimension I have referred the International Monetary Fund (IMF) data base to draw the maximum values. I have taken zero (0) as the lower limit for each observation in each year of the study. The upper limit or maximum values for each dimension, Mi, is the highest values for each dimensions in each year observed from IMF data base. Note that IMF data base includes 189 countries data in different dimensions. But the highest value was taken into account only based on the available data from IMF data base even though there are several missing data and there are also countries excluded from the data base.

For availability dimension two separate indexes are calculated for bank branches and ATMs. Then, a weighted average of these two indexes, using 2/3rd weight for bank branch index and 1/3rd weight for ATM index, are considered for the calculation of availability dimension.

Assigning appropriate weights to the dimension indexes is a difficult task. While all the three dimensions considered here are equally important for an inclusive financial system, the lack of adequate data on important indicators that completely characterize the usage dimension renders in this study to give less weight to this dimensions. In the deposit and loans outstanding data it is difficult to separate the amount mobilized by households for these figures. Because of this a weight of 2/5th is assigned for both penetration and availability dimensions. For the loans plus deposit outstanding per GDP dimension 1/5th weight is assigned.

Considering the weight of each dimension the FII result is presented in the table below. Here is Sarma (2010)[1] formula applied in calculating FII:

$$FII = 1 - \frac{\sqrt{w1(1-d_1)^2 + w2(1-d_2)^2 + w3(1-d_3)^2}}{\sqrt{w1\ x\ w2\ x\ w3}}$$

Where FII = Financial Inclusion Index; d = dimensions from 1 up to 3; and w= weight of dimensions.

Table 6: Indicators of Financial Inclusion

Variables	D1 (Penetration Index)	D2 (Availability Index)			D3 (Usage Index)	FII
Year	Bank Account	Bank Branch	ATMs	Availability	Credit plus Deposit	
2004	0.0574	0.0019	0.0001	0.00129	0.24099	**0.06747**
2005	0.0810	0.0018	0.0001	0.00125	0.23746	**0.07636**
2006	0.0978	0.0018	0.0001	0.00125	0.21942	**0.07997**
2007	0.1154	0.0545	0.0002	0.03641	0.17991	**0.09505**
2008	0.1286	0.0551	0.0003	0.03683	0.14515	**0.09391**
2009	0.1239	0.0575	0.0004	0.03849	0.12111	**0.08822**
2010	0.1377	0.0618	0.0012	0.04159	0.12482	**0.09556**

2011	0.1334	0.0639	0.0012	0.04298	0.12422	**0.09440**
2012	0.1262	0.0700	0.0017	0.04722	0.11076	**0.09077**
2013	0.1443	0.0726	0.0035	0.04956	0.11072	**0.09867**
2014	0.1535	0.0758	0.0056	0.05238	0.10631	**0.10246**
2015	0.1609	0.0850	0.0119	0.06062	0.10899	**0.10926**
2016	0.1629	0.0956	0.0136	0.06826	0.11075	**0.11360**
Average	**0.1249**	**0.0536**	**0.0031**	**0.0368**	**0.1493**	**0.0927**

Source: Own Computation

As the table indicates for the latest years in the study period the penetration index dimension scores the highest level of financial inclusion. The next highest financial inclusion dimension is usage index. The availability indicator contributes the least level of financial inclusion. For the year 2016 the individual dimensions index shows that a value of 0.1629, 0.0628 and 0.1101 for penetration, availability and usage, respectively. But the average of the study period shows a highest score for the usage dimension which is 0.1493. With respect to the FII there is an improvement during the study period. There is an increase in the penetration index throughout the study period while there is a decline in the availability index from the year 2010 to 2012. There is also relative decline in the usage dimension throughout the study period. This result is shown because of the relative decline in the credit plus deposit per GDP and an increment in the denominator value of the highest value credit plus deposit per GDP score. Even though there are ups and downs in the study period the FII scored only between 0.0675 and 0.1116. This figure is very far away from completely financially included level of score which is 1.0 (0 indicates financial exclusion).

The value of the FII a country can fall was estimated among the following three categories:

1. $0.5 \leq IFI \leq 1$ – high financial inclusion
2. $0.3 \leq IFI < 0.5$ – medium financial inclusion
3. $0.0 \leq IFI < 0.3$ – low financial inclusion

Accordingly, Ethiopia's financial inclusion is categorized under the lowest category. The recent level of FII (2016) shows that a value of 0.1136 which is nearest to financial exclusion rather than complete financial inclusion.

Based on Sarma (2010)[14] estimation of FII for 49 countries (excluding Ethiopia) using the year 2004 data Ethiopia could be ranked 48th above five countries (Bolivia, Papua New Guinea, Armenia, Uganda and Madagascar) with FII of 0.0675. The first ranked country (Austria) in FII in the same study in the same year scored 0.953 while the neighboring country, Kenya, scored 0.105 above Ethiopia.

Conclusions

Financial inclusion is a multidimensional concept that encompasses penetration, usage and availability. Hence, a comprehensive understanding of financial inclusion should consider the availability and accessibility of services, frequency of use, and suitability of financial system for all different geographical locations. The financial system that is fully working for clients should maximize the credit available to them and encourage clients to use innovative financial services like ATM.

Regardless of the recent financial sector development in Ethiopia, many individuals are still excluded from access to formal financial services. Analysis of the usage of (and access to) financial services by adults shows that Ethiopia is still lag behind other developing economies. The comprehensive financial inclusion index shows under the category of 'Low Financial Inclusion'. By protecting clients' interest the status of financial inclusion in the country is very thin. Clients should be encouraged both in expanding savings as well as availing credits at cheapest cost.

Suggestions

In the National Bank of Ethiopia divisions there is a so called Financial Inclusion Directorate established to facilitate financial inclusion in the country. This division as well as individual financial institutions should pragmatically give attention for clients to have all financial services favorable for them to a maximum extent. This is the way citizens can contribute to their development as well as to the growth of the country. They should also highly promote for national demand-side surveys. Relying on supply-side data collected by national regulators and supervisory bodies is not sufficient given that the latter does not capture information on usage and quality.

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