Volume - 5, Issue- 2, February 2017 e-ISSN : 2347 - 9671| p- ISSN : 2349 - 0187
EPRA International Journal of Economic and Business Review SJIF Impact Factor(2016) : 6.484
ISI Impact Factor (2013): 1.259 (UAE)
Research Paper
www.eprawisdom.com

FINANCIAL INCLUSION AND DEVELOPMENT NEXUS: EVIDENCE FROM ETHIOPIA

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ABSTRACT

This study is aimed to examine the relationship between the vast dimensions of financial inclusion and development of Ethiopia. Secondary data is applied and collected from National Bank of Ethiopia, World Bank Data Set, MixMarket, and from reports of formal financial institutions for the years 2004 up to 2016. Unfortunately the data for Human Development Index is not available for the years 2015 and 2016. Based on the results and discussion of this study there is a positive association between Human Development Index and various dimension(s) of financial inclusion, specifically financial inclusion index itself, banking penetration and usage of banking services, and negatively related with availability of banking services. The causality relationship indicates the change in financial inclusion index highly explains the variation in development. Financial inclusion plays a key role in developing a strong and an efficient financial infrastructure, which facilitates development. The discussion leads in the favor of deepening of the financial institutions, and therefore, policymakers can look forward to these findings to maintain inclusive development.

KEYWORDS: *Financial Services Coverage, Financial Inclusion Index, Human Development Index*

INTRODUCTION

Access to a well-functioning financial system, by creating equal opportunities, enables economically and socially excluded people to integrate better into the economy and actively contribute to development and protects themselves against economic shocks. A large body of empirical literature suggests that developing the financial sector and improving access to finance may accelerate economic growth along with a reduction in income inequality and poverty. Without an inclusive financial system, poor individuals and small enterprises have to rely on their own limited savings and earnings to invest in their education and entrepreneurship to take advantage of growth opportunities.[1]

Recent empirical evidence on the impact of financial inclusion on economic development and poverty varies by the type of financial service in question. In the access to basic payments and savings, the evidence on benefits, especially among poor households, is quite supportive. In insurance products, there is also some evidence of a positive impact. However, in access to microcredit, the data on dozens of microcredit experiments and from other cross-country research paint a rather mixed picture.[2][3] A common message of the underlying research is that effective financial inclusion means responsible inclusion.[4]
Financial development has an important bearing on the growth of human capital and thus, in turn, influences

the level of human development. There might be indirect channels whereby one reinforces the other. Several attempts have been made in the literature to establish the causal link between financial development and human development. In fact, income inequality and poverty act as a hindrance to human development. It has been argued that financial development disproportionately boosts the income growth of the poorest quintile, reduces income inequality, and is thus strongly associated with poverty alleviation.[5] Intuitively, the lower the level of poverty, the higher is the level of human development. Thus, financial development positively influences the level of human development. Over the period 1961-2000, the expansion of rural branches significantly lowered the level of rural poverty in India.[6] The enhancement of economic opportunities through banking inclusion has an indirect effect upon the attainment of education and health opportunities and this, in turn, induces the level of human development. In Ethiopia there is no study conducted to show relationship between financial inclusion and development and this study is undertaken for this purpose.

OBJECTIVE OF THE STUDY

The objective of this study is to scrutinize the relationship between financial inclusion and human development of Ethiopia.

HYPOTHESES

H_1: Financial inclusion is not significantly related to human development,

H_2: Human development has no association with number of bank accounts in Ethiopia,

H_3: Human development has no association with number of availability of financial services,

H_4: Human development has no association with usage of financial services in Ethiopia,

H_5: Financial inclusion does not significantly influence development in Ethiopia.

LITERATURE REVIEW

Based on 1990 Human Development Report, human development is a process of enlarging people's choices. The most critical ones are to lead a long and healthy life, to be educated and to enjoy a decent standard of living. People with higher human development, notably with good health and education, are more resilient than those who are malnourished, without education and thus in a weaker position to change their activity or location in reaction to adverse shocks. Owning assets enables people to protect their core capabilities by using these assets when circumstances deteriorate. Some groups, such as the poor may not have much savings or many assets to fall back on. When adversity strikes, they have to resort to harmful coping strategies such as cutting back on food or reducing spending on health or children's education.[7][8]

United Nations experts prefer to use the human development index to measure a country's development. This composite index is a simple average of three indexes reflecting a country's achievements in health and longevity (as measured by life expectancy at birth), education (measured by adult literacy and combined primary, secondary, and tertiary enrollments), and living standard (measured by GDP per capita in purchasing power parity terms). Achievement in each area is measured by how far a country has gone in attaining the following goal: life expectancy of 85 years, adult literacy and enrollments of 100 percent, and real GDP per capita of $40,000 in purchasing power parity terms. These goals have not yet been fully attained by any country and the actual indicators are expressed as decimal shares of the ideal.[9]

The economic opportunities created by growth need to be made available across the entire spectrum of the population including the vulnerable sections of society. The process of financial inclusion facilitates the creation of an environment for providing better access to economic opportunities. In order to ensure equal access, it is necessary to strengthen human capabilities to enable the people to qualify for productive employment. On the other hand, a social protection system through the provision of a social safety net is required for the chronically poor, which would enable them to survive with dignity.[10]

METHODOLOGY

The basic objective of the study is to examine the relationship of financial inclusion and development by applying quantitative research approach. The study focused on financial services provided by formal financial institutions which encompass commercial banks and microfinance institutions. Based on the target population under study there are about 35 microfinance institutions, and 18 commercial banks (17 commercial banks after Construction and Business Bank of Ethiopia was merged in to Commercial Bank of Ethiopia in 2016). 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.

The study is based on secondary data sources using 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 from 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 and inferential statistics through correlation and regression.

RESULTS AND DISCUSSION

In this section the dimensions of Ethiopia's financial inclusion and development (Human Development Index) is analyzed. The data collected from secondary data about financial services provided by commercial banks and microfinance institutions and Human Development Index is discussed independently and their relationship is given emphasis.

Financial Inclusion Coverage

Table 1: Coverage of Financial Services

Variable / Year	Number of Bank Accounts	Growth Rate	Number of Bank Branches	Growth Rate	ATMs	Growth Rate	Credit plus Debit per GDP	Growth Rate
2004	1,934,650		358		8		0.5589	
2005	2,480,846	0.28	389	0.09	8	0.00	0.5458	-0.02
2006	4,108,981	0.66	421	0.08	13	0.63	0.5404	-0.01
2007	4,972,565	0.21	1340	2.18	18	0.38	0.4946	-0.08
2008	5,693,744	0.15	1404	0.05	31	0.72	0.4059	-0.18
2009	6,438,532	0.13	1649	0.17	46	0.48	0.3630	-0.11
2010	7,318,749	0.14	1712	0.04	145	2.15	0.3962	0.09
2011	8,052,133	0.10	2103	0.23	160	0.10	0.4109	0.04
2012	9,752,896	0.21	2591	0.23	241	0.51	0.3808	-0.07
2013	13,680,710	0.40	3109	0.20	518	1.15	0.4071	0.07
2014	16,729,507	0.22	3697	0.19	825	0.59	0.4098	0.01
2015	19,683,207	0.18	4393	0.19	1773	1.15	0.4216	0.03
2016	23,837,990	0.21	5187	0.18	2120	0.20	0.4326	0.03
Average	**9,591,116**	**0.24**	**2,181**	**0.32**	**454**	**0.67**	**0.44**	**-0.02**

Source: NBE, IMF, WB, AEMFI, Ethiopian commercial Banks and own computation

Number of Accounts

It is usually difficult to find out the number of depositors or account holders in commercial banks since a depositor might have more than one account. Accordingly, in this study the number of accounts is used as one of the indictor of outreach. Currently the number of deposit accounts reached about 24 million (including accounts at commercial banks and microfinance institutions). From the above table it can be understood that the number of accounts increased 12 times from the year 2004 to the current period. The yearly growth rate during the observed period recorded highest in the year 2006 which is 66 per cent. During this period an average of 24 percent growth rate of deposit accounts was recorded.

Despite the increased number of accounts in commercial banks and microfinance institutions it is very low in terms of the number of adults having deposits. In the year 2004 the number of accounts to adult population is only 5 per cent. Now (2016) it reached 43 percent of the adult population which is a huge improvement in terms of number of deposits. Still this figure is below the global average of 50 per cent deposit accounts even from the 2011 report.[11] 2014 Global Findex Data indicates that the number of accounts at a formal financial institution is reported 34 per cent of adults which is somewhat similar to Ethiopia's number of accounts percentage (32 per cent).

Branch Outreach

The number of bank branches has increased by almost 14 fold over the last 12 years to stand at 5,187 branches at the end of 2016 Ethiopian fiscal year. This is an important progress for the contribution of financial inclusion. The expansion of branches was observed in the major cities of the country mainly in Addis Ababa. For example 35.5 percent bank branches are concentrated on Addis Ababa on the report period of 2016. In 2016 one branch serves 12,196 adults. This figure is a significant development when it is compared to the year 2004 in which one branch served 111,700 adults.

Deposit Mobilization and Credit Outstanding

Table 2: Deposit Mobilization and Credit Outstanding in Ethiopian Birr (ETB)

Year	Deposit (in ETB)	Growth Rate (%)	Credit (in ETB)	Growth Rate (%)
2004	33,089,134,819	-	15,718,205,993	-
2005	39,099,064,099	0.18	19,463,198,480	0.24
2006	46,174,856,324	0.18	25,503,914,853	0.31
2007	55,038,079,769	0.19	30,672,347,333	0.20
2008	64,445,428,630	0.17	37,122,124,443	0.21
2009	80,375,433,931	0.25	42,290,199,488	0.14
2010	101,189,067,721	0.26	51,694,872,461	0.22
2011	144,227,776,796	0.43	67,422,669,840	0.30
2012	192,764,996,625	0.34	91,818,933,775	0.36
2013	245,219,645,504	0.27	107,746,559,835	0.17
2014	304,366,499,125	0.24	130,313,854,325	0.21
2015	380,754,264,234	0.25	166,486,591,368	0.28
2016	456,585,556,700	0.20	204,375,663,000	0.23
Average		**0.25**		**0.24**

Source: NBE, IMF, WB, AEMFI, Ethiopian commercial Banks and own computation

Deposit mobilization

Commercial banks and microfinance institutions deposit mobilization has shown an average growth rate of 24.6 per cent during the observed periods. Total deposit liabilities reached Birr 456.6 billion at the end of 2016 with a 25 percent annual growth rate. The highest increment was recorded in the year 2011, a growth rate of 43 percent. As it can be seen from the above table in tandem with the increase in the customer of the banking system and branch expansion the deposit amount mobilized by banks showed an increasing amount during the observed periods.

Loan service

Here the above table presented only loans outstanding to the non-government units (credit to the private sector including cooperatives). The banking sector is one of the major sources in financing the economy by providing loan to individuals. There is a notable increase in the cooperative and private sector loans outstanding during the period under the study. The outstanding loans for cooperative and private sector disbursed by the banking sector reached Ethiopian Birr 204.38 billion in 2016, indicating nearly 13-fold increase to the level of loan outstanding in 2004. The average annual rate of growth of loan outstanding by both commercial banks and microfinance institutions over 2004 – 2016 period indicates 24 per cent. There is a growth of loans outstanding throughout the study period observed even though the increment varies from year to year. A minimum of 14 per cent growth rate observed in the year 2009 and maximum growth rate of 36 per cent was recorded in the year 2012.

The indicator that shows the usage of financial services (named credit plus deposit per GDP) indicates an average decline of 2 per cent over the study period (2004-2016). This result is observed because of the variation in the increment of the numerator and denominator values. The pace of growth in these values differs throughout the year. For example the average growth rate of both credit plus deposit indicates 24 percent where as that of GDP recorded 27 per cent. As a result an average decline 2 percent and a decline in the early period of the study period in credit plus deposit per GDP is observed. A growth is recorded for this indicator in the latest times of the study period.

Measuring Development

The development of countries was measured with the Human Development Index. It is a simple tri-variable average of health, education and income.[[12]] The HDI takes the mean from the addition of the GDP per capita, the life expectancy and the literacy rate. As such it calculates development without purely being based on income. The HDI has been successful due to its simplicity to compute and to understand. Because of this HDI has been chosen as the measure of development in this study. The HDI is published annually by the United Nations Development Program, and is computed for the majority of countries and the researchers used the UNDP's annual report for the periods 2004 up to 2014.

According to the United Nations 2015 report Ethiopia's HDI is improved throughout the study period of this paper. In 2004 it was 0.31 and reached 0.442 in 2014. This score is under the category of low Human Development Index.[13]

Correlation Coefficient

Table 3: Correlation coefficient between HDI, and FII and Financial Inclusion Dimensions

Correlations

		FII	IBankAcc	IAvailability	ICrDptperGDP
HDI	Pearson Correlation	.791**	.878**	.891**	-.948**
	Sig. (2-tailed)	.004	.000	.000	.000
	N	11	11	11	11
**. Correlation is significant at the 0.01 level (2-tailed).					

From the correlation coefficient result it is evident that Financial Inclusion Index (IFI) has significantly positive association with development Human Development Index (HDI) (pd"0.01) at 1 per cent level of significance. Therefore, the hypothesis 'Financial inclusion is positively significantly associated to Human Development Index (HDI)' is accepted.

The number of bank accounts is also positively significantly related to development (HDI) (pd"0.01). Further the availability of financial services index is positively related to Human Development Index where as the index of credit plus deposit per GDP has negatively significantly associated to Human Development Index.

The Human Development Index is strongly correlated with financial inclusion and its dimensions (0.791 and above correlation coefficient). The development and financial inclusion in Ethiopia shared high percentage of variation between them, keeping other things constant. The proposed null hypotheses are rejected in this regard.

Regression Result

Table 4: Results of Regressing Financial Inclusion Index (FII) on Human Development Index (HDI)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df 1	df 2	Sig. F Change
1	.791a	.625	.584	.03315	.625	15.020	1	9	.004
a. Predictors: (Constant), FII									

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.017	1	.017	15.020	.004[b]
	Residual	.010	9	.001		
	Total	.026	10			

a. Dependent Variable: HDI
b. Predictors: (Constant), FII

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	.042	.089		.467	.652			
	FII	3.847	.993	.791	3.876	.004	.791	.791	.791

a. Dependent Variable: HDI

The regression result in the above table indicates human development is significantly influenced by financial inclusion. The regression coefficient of FII is significant. Therefore, the null hypothesis 'financial inclusion does not significantly affect development' is rejected and the alternate hypothesis is accepted. The value of R Square is .791 and the adjusted R Square value shows 0.584. It implies that 58.4 per cent variation in Human Development Index is occurring due to financial inclusion, keeping other things constant. Finally, the regression equation is fit; because, the value of 'F' statistics is significant at 0.01 level of significance.

CONCLUSION

In analyzing the relation between financial inclusion and development Financial Inclusion Index is used for proxy of financial inclusion and Human Development Index is an indicator of development of Ethiopia. Based on the finding of this study the financial inclusion and overall development index have strong correlation. HDI has a strong association with the sub-indexes of financial inclusion. It is significantly and positively related with all indicators except the indicator of usage of financial services sub-index. The variation in development is highly explained by the change in financial inclusion. If an individual is financially excluded she/he has a high probability of social exclusion. Since HDI is measured based on the average of health, education and income a person without financial services implies she/he he cannot afford for these overall and sub-development indicators.

SUGGESTIONS

This research study is limited only to some of the indicators of financial services including number of bank accounts, bank branches, ATMs, credits and deposits outstanding. For further research it is better toinclude other financial services also like the number of insurance policy holders, payments, internet and mobile banking usage, and others. Other financial service providers have to be considered in addition to microfinance and commercial banks in order to understand the overall financial landscape of Ethiopia. Based on the result of this study development of a country like Ethiopia is possible when there is an inclusive financial system under the regulation of National Bank of Ethiopia and government policies.

REFERENCES

1. *World Bank. 2008. Global financial development report 2014: Financial inclusion.* World Bank, *Washington D.C.*
2. *Bauchet, J., Marshall, C., Starita, L., Thomas, J., & Yalouris, A. (2011, December). Latest findings from randomized evaluations of microfinance. In Access to finance forum (Vol. 2). Washington, DC: CGAP.*
3. *Roodman, D. (2011). The Commitment to Development Index: 2011 Edition. Washington: Centre for Global Development.*
4. *McKee, K., Lahaye, E., & Koning, A. (2011). Responsible Finance: Putting Principles to Work. Focus Note, 73.*
5. *Beck, T., & Demirguc-Kunt, A. (2006). Small and medium-size enterprises: Access to finance as a growth constraint. Journal of Banking & Finance,30(11), 2931-2943.*
6. *Burgess, R., & Pande, R. (2004). Do rural banks matter? Evidence from the Indian social banking experiment.*
7. *United Nations Development Programme. (1990). Human Development Report. UNDP.*
8. *United Nations Development Programme. (2015). Human Development Report. UNDP.*
9. *Soubbotina, T. P., & Sheram, K. (2000). Beyond economic growth: Meeting the challenges of global development. World Bank Publications.*
10. *Kuri, P. K., & Laha, A. (2011). Financial inclusion and human development in India: an inter-state analysis. Indian Journal of Human Development, 5(1).*
11. *World Bank. 2014. Global financial development report 2014: Financial inclusion.* World Bank, *Washington D.C.*
12. *Dervis, K., & Klugman, J. (2011). Measuring human progress: the contribution of the Human Development Index and related indices. Revue d'économie politique, 121(1), 73-92.*
13. *United Nations Development Programme. (2015). Human Development Report. UNDP.*