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Mediating Factors Impacting Financial Inclusion Index (FII) - A Step Towards Sustainable Development of Bottom of Pyramid (BoP)

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ABSTRACT

Financial inclusion has significant effect on the economy through higher savings collected from the vast segment of the bottom of the pyramid (BoP) population. It brings un-banked population into financial inclusion those results in accelerating the economic Growth of the country. In India, approximately 61 million of accounts have been opened under financial inclusion drive (FID during the year 2013-14. Therefore, financial inclusion has arisen as an important agenda for sustainable long-term economic growth. Purpose of the study is to identify the various supply sides and demand side factors of financial inclusion and extracting the important factor effecting financial inclusion among bottom of pyramid. And to measure the impact of both supply side and demand side factors on financial inclusion index (FII).This study would help financial intermediaries as well as RBI to reframe their financial strategies for achieving inclusive growth. This study shall provide useful insight to researchers, financial analysts, and RBI & commercial bank officials and shall assist them to assess the impact of financial inclusion on economic growth.

Keywords: Financial Inclusion, RBI, Government of India, Social change, alleviating poverty, banks, financial services.

1. INTRODUCTION

> "In pyramid of development the bottom-most layer needs to be strengthened through financial inclusion improving purchasing power of the poor."[1] –PM Modi

Financial inclusion has become a priority for banking personnel for promoting financial sector development. It refers to a process which helps to bring unbanked people into the banking fold. Banks

[1] On 15 th August 2015.

were taken initiatives for expansion of branches in rural areas over a period of time. Commercial banks played an important role to improve earnings of poorer sections of the society.

In India, the basic concept of financial inclusion is having a savings or current account with any bank. But In reality, it includes loans, insurance services, and much more. It is argued that without involvement of banks in microfinance the impact on global poverty will be negligible (Bell et. al., 2002).

Financial services to citizens consist of a range of offerings such as savings, credit, insurance; payments etc. (Abhishek Singh Arindam Das, 2016). Financial inclusion has appeared as an important topic on the global agenda for sustainable long-term economic growth. A number of central banks in developing countries have put in place various initiatives to promote financial inclusion.

According to Reserve bank of India (RBI), “Financial inclusion is the process of ensuring access to appropriate financial products and services needed by vulnerable groups such as 216 weaker sections and low-income groups at an affordable cost in a fair and transparent manner by mainstream institutional players.”[2]

The literature suggests the following definitions of Financial Inclusion.

Table 1
Definitions of Financial Inclusion

Authors	*Year*	*Definitions*
Sankharaj Roy, H Ramananda Singh and Ranjit Singh	2017	Financial inclusion means timely delivery of financial products and services at an affordable cost to the low income sections of the people who are lying at the bottom of the pyramid.
K. Manjula, Dr G Srinivas	2017	Barriers in the process of financial inclusion include socio-cultural, economic issues. It includes • lack of awareness • and illiteracy among the group of people • lack of avenues for investment such as poor bank penetration • unwillingness of banks to do financial inclusion • high cost involved in financial inclusion
Sethy Susanta	2016	Financial Inclusion is the measure of growth the economy as well as human welfare. It is a key enabler of economic and social development.

From the above definitions forms of financial inclusion is shown in Figure 1

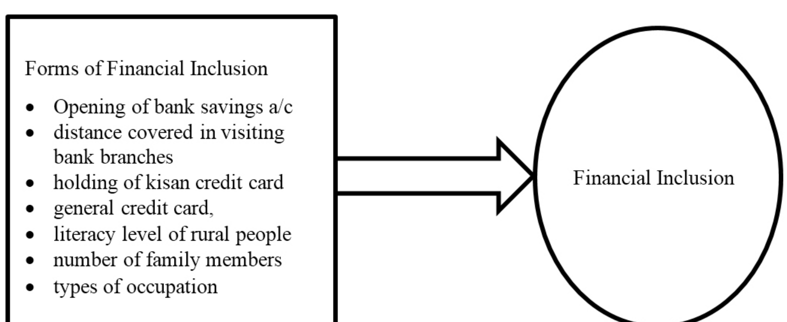

Figure 1

[2] Reserve Bank of India, “Report of the committee on Medium-term path on Financial Inclusion”, 2015, https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/FFIRA27F4530706A41A0BC394 D01CB4892CC.PDF.

Marginal farmers, landless laborers, self-employed and unorganized sector enterprises, urban slum dwellers, migrant's ethnic minorities and socially excluded groups are some of the financially excluded groups in India. It is sobering to observe that after over 35 years of bank nationalization and more than 15 years of credit targeting to agriculture, on an all-India basis the banks have a smaller outreach to Indian farmers compared to that of professional moneylenders (Nanda, 2007).

Mediating factors affecting access to financial services by the weaker sections of society in India are Lack of awareness, low incomes and assets, social exclusion, and illiteracy are the barriers from the demand side. Distance from the bank branch, branch timings, cumbersome banking procedure, requirement of documents for opening bank accounts, unsuitable banking products/schemes, language barriers, high transaction costs, and attitudes of bank officials are the barriers from the supply side. Ravichandran and Alkhathlan (2009)

Besides this, people may not be able to avail the financial services owing to the number of following reasons. Figure 2 below summarizes the barriers of Financial Inclusion in India.

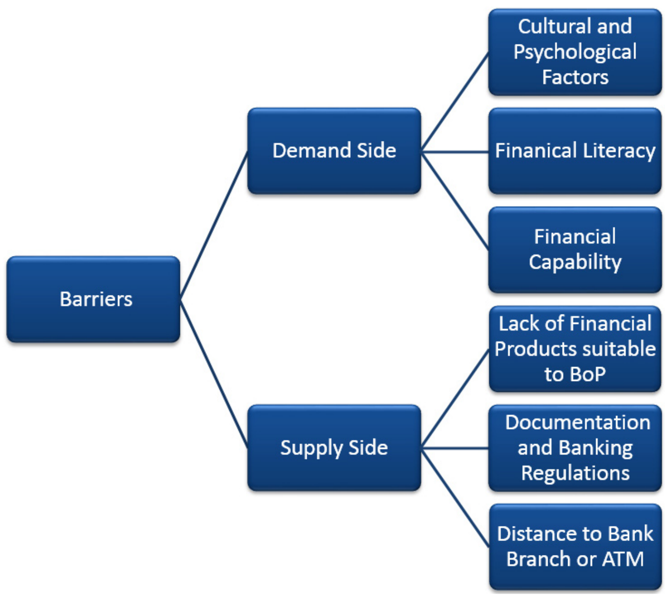

Figure 2: Barriers of Financial Inclusion

Harper (2000) notes how background and recruitment of bank staff help shape such negative attitudes, and Baydas et. al., (1997) describe how financial services for the poor can be regarded as a second class activity at the corporate level.

2. LITERATURE REVIEW

Different parameters have been used by different researchers while explaining the Financial Inclusion.

3. RESEARCH OBJECTIVES

- To identify the various supply side and demand side factors of financial inclusion
- To find out the important factor effecting financial inclusion among bottom of pyramid.

Table 2
Study by various researchers on Financial Inclusion

Author	*Year*	*Findings*
Roshny Unnikrishnana and Lakshmi Jagannathanb	2015	This study intended to find out relationship between financial inclusion and human development and it was found that changes in Financial inclusion levels is seen to affect overall human development directly in the high income and lower middle and lower income category of countries. It can be concluded that there is still no established relationship or correlation between human development and financial inclusion in higher middle income countries.
Rachel Mindra, et. al.	2017	The purpose examined the relationship between financial self-efficacy (FSE) and financial inclusion (FI) among individual financial consumers in Uganda. SPSS and AMOS™ 21, regression analysis and structural equation models were used to establish the hypothesized relationship between FSE and FI. The results suggested positive and significant relationship between FSE and FI.it also suggested that age and gender, had significant influence on an individual's usage of financial services.
Ogechi Adeola and Olaniyi Evans	2017	This study talked about financial inclusion, financial development, and economic diversification in Nigeria. The results showed that financial development has a positive effect on economic diversification. Also financial inclusion, in terms of financial access and financial usage, has positive and significant effects on economic diversification.
Sanjaya Kumar Lenka Ruchi Sharma	2017	This study reports that financial liberalization policy has contributed to the economic growth in India., the study finds a positive impact of financial inclusion on economic growth both in the long run and short run.
Sajuyigbe, Ademola S	2017	Financial inclusion and social inclusion have positive and significant influence on women–owned businesses performance. Results indicated that social inclusion is positively and significantly related with the financial inclusion.
Abel Mawuko Agoba et. al	2017	It has been found in this study that financial inclusion could be beneficial for financial stability, but it is yet to be explored how sensitive this effect could be at different levels of financial depth. The study recommended that empirical examination of the effect of financial development on the relationship between financial innovation and financial inclusion be done.
Jaya Mathew Reeba Kurian	2017	In this paper an attempt has been made to study the various initiatives taken by the authoritative bodies in India to achieve financial inclusion and its impact on the households. Various policies and participation of the various stakeholders have been undertaken.
Ravichandran and Alkhathlan	2009	Authors explained bank-SHG, bank-MFI, MFI-NBFC (with non-banking financial companies), and bank-post office linkage models and proposed new models such as rural students banking model and RBI-education institute linkage models
Vashisht Anubha, Wadhwa Bharti	2015	They found in their study that banks are facing high operating cost in extending the financial services to the remote areas. High maintenance cost of these accounts as well as small ticket size of the transactions is also adding to the problem. Reaching out to the illiterate people or people who can handle only the regional languages is also difficult without developing a suitable communication mode.

- To measure the impact of both supply side and demand side factors on financial inclusion index (FII).

4. HYPOTHESIS (H0)

- There is no significant relationship between supply side factors and Financial Inclusion Index.
- There is no significant relationship between demand side factors, and Financial Inclusion Index.

5. DATA AND METHODOLOGY

Primary and Secondary both the data were used to achieve the objectives of the research. Supply side and Demand side factors were found through primary data. A questionnaire was prepared and floated to 400 people from the rural areas of Delhi NCR. To test the adequacy of the collected data from the samples, the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy and Bartlett's test were done. To determine the factors affecting financial inclusion, statistical tools like mean and principal component analysis were used. The reliability of the items was tested by Factor Analysis using Principal components methods of factor extraction with varimax rotation.

For Secondary data reports of different organizations like RBI, National Bank for Rural and Development (NABARD), National Sample Survey Organization (NSSO) were used.

To find out the progress of financial inclusion in Delhi NCR Financial Inclusion Index for 2007 to 2011 were used and regression and correlation analysis were applied.

6. RESULTS AND DISCUSSION

Table 1 displays the total variance explained at supply side and demand side factors that affect financial inclusion among bottom of Pyramid. These factors were extracted because there Eigen value is greater than 1. Total variance explained in supply side factors is 66.34% it means some other factors also exists. And in demand side factors 36.43% variance were explained. Further

"Bank has sufficient staff to meet its customers' requirements" and "Banks follows quick problem solving approach" were found most important items under supply side factors. On the other hand "You frequently use credit facilities of the bank" were found most significant.

Table 3
Factor Analysis

Factors	*Items*	*Mean Values*	*Standard Deviation*	*Factor Loading*	*Eigen Values*	*Variance Explained*
Supply Side Factors	The bank is conveniently located	3.88	1.16	0.649	5.431	66.34
	The employees are easily accessible when needed	3.67	1.01	0.763		
	Bank is easily approachable in case of emergencies	3.57	1.07	0.548		
	You have easy access to the information that is useful	3.51	1.03	0.867		
	Employees' of bank are cooperative, friendly and knowledgeable	3.58	1.05	0.791		
	Employees' possess sufficient banking information.	3.63	0.891	0.781		
	Bank have sufficient staff to meet its customers' requirements	2.45	1.53	0.944		

(Contd...)

Factors	*Items*	*Mean Values*	*Standard Deviation*	*Factor Loading*	*Eigen Values*	*Variance Explained*
Demand side factors	The bank manager promptly redress your problems' and banking officials respond well	2.71	1.42	0.734	2.236	36.43
	This is the only bank in your area	4.14	0.563	0.867		
	loan is easily available	2.51	1.48	0.812		
	Help desk is available for filling forms	3.63	0.891	0.781		
	Banks follows quick problem solving approach	2.45	1.53	0.944		
	You frequently use credit facilities of the bank	1.93	1.2	0.867		
	You are using bank for the repayment of loan	2.03	1.27	0.855		
	You are using bank for depositing money	1.67	1.21	0.779		
	Interest charged by the bank is economical than charged by moneylender	3.97	0.47	0.811		
	You are regular visitor of the bank	3.48	1.05	0.666		

Further to measure the progress of financial inclusion in Delhi NCR the researchers interviewed 50 bank managers of different branches in NCR region providing financial inclusion fully or partially.

Table 2
Regression Analysis of Demand side factors

Variables	*Coefficient*	*Std. error*	*t*	*P-value*
Cultural and Psychological Factors	4.562	0.000	2.885	0.013
Financial Literacy	0.010	0.005	0.044	0.011
Financial Capability	0.028	0.042	0.672	0.022
Constant	–0.519	0.444	–1.164	0.441

Model Summary of Regression Results

R	*R^2*	*Adjusted R^2*	*Std. Error of the estimate*	*F-value*	*Sig. P-value*
0.884	0.782	0.732	0.10802	15.660	0.00

Linear regression would be:

$$Y = 4.562X1 + 0.010X2 + 0.028X3 - 0.519$$

The results of regression analysis for financial inclusion index (FII) on selected demand side factors are presented in Table 2. The analysis reveals that Cultural and Psychological Factors was found to be positively associated with level of financial inclusion and its *p* value (0.013) was lesser than the value at 0.01 levels. In other words Cultural and Psychological Factors exercised high influence on financial inclusion. Similarly the coefficient of Financial Literacy was negatively associated with financial inclusion index and the *p* value (0.011) was greater than the value at 0.01 levels. It implies that there was statistically significant association between Financial Literacy and FII. In the same way the coefficient of Financial Capability was also positively associated with FII and the actual *p* value (0.022) was lesser than the value at. 05 levels which implies that there was statistically significant association between Financial Capability and FII.

From the model summary the value of R^2 (0.782) explains that the 78.2% of the Demand side factors were significantly associated with the FII. It is clear from the table that co-efficient of Cultural and

Psychological Factors, Financial Literacy and financial capability were significant at 1% hence the Null Hypothesis, namely there is no significant association between FII and supply side factors, was accepted.

Table 3
Regression Analysis of Supply side factors

Variables	*Coefficient*	*Std. error*	*t*	*P-value*
Lack of Financial Products	2.318	0.000	3.345	0.004
Documentation and Banking Regulations	.398	0.302	1.314	0.020
Distance from Bank ATM	.258	0.212	1.319	0.035
Constant	–2.038	1.158	–1.750	0.102

Model Summary of Regression Results

R	*R^2*	*Adjusted R^2*	*Std. Error of the estimate*	*F-value*	*Sig. P-value*
0.834	0.712	0.653	0.12062	11.700	0.00

Linear regression would be:

$$Y = 2.318X1 + 0.398X2 + 0.258X3 - 2.038$$

Table 3 presents the results of regression for FII with reference to supply side factors. The table reveals the fact that coefficient of Lack of Financial Products (2.318) was found to have positive association with FII and the actual *p* value (0.005) was lesser than the value at 0.01 levels. Similarly Documentation and Banking Regulations (.398) was also positively associated with FII and the significant *p* value was lesser than the value at 0.01 levels which indicates fact that there was significant association between FII and Documentation and Banking Regulations. In the same way the coefficient of Distance from Bank ATM was also positively associated with FII and the actual *p* value (.258) was lesser than the value at. 05 levels which implies that there was statistically significant association between Distance from Bank ATM and FII.

From the model summary the value of R^2 (0.712) explains that the 71.2% of the Supply side factors were significantly associated with the FII. It is clear from the table that co-efficient of Lack of Financial Products, Documentation and Banking Regulations and Distance from Bank ATM were significant at 1% hence the Null Hypothesis, namely there is no significant association between FII and supply side factors, was accepted.

7. CONCLUSION

The financial system in India has grown speedily and there is still need to modify the credit and financial system to achieve greater inclusion. The banking and other financial institutions are putting their efforts for improving financial inclusion. But now it is equally important for the government to take actions to increase the earnings of the Bottom of Pyramid. The empirical evidence shows that financial literacy cultural factors and financial capability plays an important role in financial inclusion on the other hand there are some other supply side factors which impacts inclusion. For the sake of inclusive growth and the overall development of the economy, central bank along with other financial intermediaries must realize the importance of financial inclusion in promoting the banking habits among people. The banking sector is laying more emphasis on providing improved services to their customers and business clients and also upgrading their technology infrastructure, in order to increase the customer's overall experience

(Uppal Aakanksha et. al). For enhancing financial inclusion, suitable mechanism must exist for receiving & redressing customer grievances courteously, promptly & satisfactorily; ATM network in rural & unbanked areas be enhanced to serve bottom of pyramids. Financial literacy is a key factor to financial inclusion and a necessary pre-condition for success in its drive. Both, financial literacy and inclusion needs to be treated as twin pillars.

Banks must assimilate the goal of financial inclusion into their overall business strategy and accept a holistic approach to reach the financially invisible. In addition to these, the existing literature also stated some strategies to enhance the level of financial inclusion such as, extension to banking counters through wide network of post offices & fair price shops be provided; multi-language ATMs with audio-video services could be considered, subscription to financial services be made mandatory and national programme of 'Pradhan Mantri Jan Dhan Yojana' be properly implemented.

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