VISION: Journal of Indian Taxation
Vol. 7(1), Jan-Jun 2020, pp. 49-71
DOI: 10.17492/vision.v7i1.195936
www.journalpressindia.com/vjit

Mediating Role of Financial Inclusion in Eastern Uttar Pradesh

Alka Singh and Nancy Gupta***

ABSTRACT

Financial inclusion depends on both the demand and supply side factors. Intellectually, the research combines the impact of common action with financial intermediation to enhance financial inclusion. Financial intermediation theory avoids the impact played by common action in the intermediation procedure among the deficit and surplus units. The outcomes cleared that common action remarkably mediates amongst financial inclusion and financial intermediation in Uttar Pradesh. In this the research suggests that the mediated model is a lot more ratios above the non- mediated model in SEM in assist. Besides the outcomes show that both common action and financial intermediation have important and direct effect on financial inclusion in UP by using structured equation modelling. Excluding this article also assume Baron and Kenny's study to keep regardless if the circumstances for mediation via combined measures endure. Which propose that the usual measures boost the financial intermediaries for greater financial inclusion in UP residents?

Keywords: *Mediating effect; financial inclusion; Structural equation modelling; financial intermediation; Collective action; AMOS.*

1.0 Introduction

Since 2005 banks under financial inclusion try to promote the banking scheme and services of every household at the national and district level were unbanked, who do not have a bank account for those Opening accounts by banks under the RBI guidelines (Ramji, 2009 and Ramasubbian and Duraiswamy, 2012). Financial inclusion scheme was promoted by the Govt. of India with the help of RBI. As per committee of Rangarajan, 'the process of providing adequate credit and financial services timely at an affordable cost whenever needed by a vulnerable group of people is called financial inclusion'.

**Associate Professor, Department of ICME, SRMU, Lucknow, Uttar Pradesh, India. (Email: alka.mgmt@srmu.ac.in)*
***Corresponding author: Research Scholar, Department of ICME, SRMU, Lucknow, Uttar Pradesh, India. (Email: 23nancygupta@gmail.com)*

Recently, in 2014 and 2018 to give leverage to financial inclusion drive 'Pradhan Matri Jan Dhan Yojana' and 'Indian Payment Banks' Under the chairmanship of Rangarajan, 'Committee was launched respectively. Table 1 explains the key phases in the advancement of financial inclusion started by the government since the 1960s.

Table 1: Advancement of Financial Inclusion Since 1960s*

Year	Evolution
The 1960s- 70s	• Focus on Unbanked and vulnerable group of people. • Bank's nationalization. • Development of the rural banking ecosystem including • Lead Bank Scheme launched for rural leading.
The 1980s- 90s	• Foundation of National Bank for Agriculture and Rural Development (NABARD) to issue refinance to banks issuing Credit to agriculture. • Further NABARD introduced SHG Bank linkage program.
The 2000s	• The first time, the word "Financial Inclusion" was introduced in RBI's annual policy statement 2005-06. • Bank asked to offer 'No Frill Account'. • Know Your Customer (KYC) norms shorten. • Banking Facilitator and Banking Correspondent came into existence. • 100% financial inclusion drive introduced. • Electronic bank Transfer Scheme introduced to transfer social advantages electronically to the bank account of the Recipient. • Pradhan Mantri Jan Dhan Yojana (PMJDY) • Atal Pension Yojana (APY) • The merger of Nationalized banks. • Stand Up India Scheme • Pradhan Mantri Mudra Yojana • Pradhan Mantri Suraksha Bima Yojana (PMSBY) • Sukanya Samriddhi Yojana • Jeevan Suraksha Bandhan Yojana • Credit Enhancement Guarantee Scheme (CEGS) for Scheduled Castes (SCs) • Venture Capital Fund for Scheduled Castes under the Social Sector Initiatives • Varishtha Pension Bima Yojana (VPBY).

Source: Naik, (2013). Financial inclusion-key to economic & social development. CSR Mandate, June-July, 14-17.

India has made lots of contributions to socio-economic development. There are various innovative ways for the empowerment of financial inclusion starting with-

Establishments of banks, Schemes of lead bank were promoted, RRB's were Established, Approaches were given to service area, SHG- bank linkage program, Introduction of PMJDY and post offices introduced Indian Payment Banks scheme etc.

The RBI has taken various steps over the years to increase credit access and availability to the weaker sections of the society. Kuri and Laha (2011) addressed it as a 'process of filling the difference between the common and vulnerable portions of society in an organized manner of the financial system. It also creates accessibility and availability of financial services within time & an adequate manner at an affordable cost to the vulnerable group of the society. Sarma and Pais (2008) describe financial inclusion as, 'the procedure that adds the accessibility, availability, and usage of the mechanism of formal financial to the population of an economy'. Bagli and Dutta (2012) refer to formal financial institutions covers the opening of savings bank account, deposit of money in the account, taking insurance policies, etc. In wider means, accessibility of finance & financial services to the society in a fair, equal and balanced manner at a reasonable cost (Sarma, 2008 and Solo, 2008).

Murari and Didwania (2010) denote it as 'usage and availability of financial services at a minimum cost to the wider sections of the people, who have got no advantage and are weaker groups including Enterprises, Society, SMEs, Businesses, etc. Financial services include credit, savings, insurance, and payments & remittance facilities. Providing banking services to masses including high income and low-income groups at reasonable terms and conditions without any discrimination (Gopisetti and Padma, 2013, and Raman in 2012). According to Paramasivan and Ganeshkumar (2013), it can be described as, 'by delivering easy accessibility of banking services to prescribed financial facilities and their usage by the society of the country's economy'. Financial inclusion is an important tool to achieve inclusive development.

Financial inclusion is the method to provide product and services like saving account, Recurring deposit account, Public Provident Fund, etc. of banks and post office to the weaker sections and low-income groups at an affordable cost in an easy & transparent manner (Uma and Rupa, 2013; Choithrani, 2013; Sharma and Kukreja, 2013; Srinivas and Upender, 2014; Banerjee and Francis 2014 and Shyni and Mavoothu, 2014). Financial inclusion means providing financial products and services to all the population in the society, which includes the Rich, Middle Man and low-income group. It means not only to open a term deposit account of the society but also includes providing E-Services; credit services ATM services, financial advice, insurance, and Green banking (Garg, 2014).

2.0 Literature Review

Financial inclusion plays an important role in removing the disparities, bringing the life at par of the rural people with the people living in urban areas, reducing unemployment, developing human capital, improving access to credit for purchasing power, influencing key decisions, managing household's expenditure and increasing the savings, minimizing uneven distribution of micro finance, increasing concentrations of wealth on direct income redistribution, which as a means of increasing incomes and assets for excluded groups and the socio-economic development of the society (Charkrabarty, 2010; Rautela *et al.,* 2010; Ellis *et al.,* 2010; Arputhamani and Prasannakumari, 2011; Kumar and Sharma, 2011; Das, 2012; Raman, 2012; Sajeev and Thangavel, 2012).

According to the study of Sarma (2008), the states have a direct relationship between deposit and credit penetration i.e. higher the credit penetration higher will be the deposit penetration. The deposit and credit penetration are continuously improving since a decade. The population density has a bad influence on deposit penetration. Status of economic situation is an important determinant of financial inclusion which creates Banking penetration. Allen (2016) says in his study that formal banking system has taken a step ahead by almost increase the number of families with a Bank Account. Whereas 36% of the sample was not included from any kind of prescribed or not prescribed savings account. The indicator of financial inclusion is an access to credit and its usage and the bank accounts are being opened mostly to receive government assistance. The usage and awareness amongst the account holders remain low. Barik (2009) found that utmost of the population deprived of formal banking facilities suffers from a higher incidence of poverty. Financial inclusion focuses on rural areas where people are underprivileged, requirement of inspiration of poor, and less skilled rural families. It purposes at increasing the financial condition, increasing the standard of living, giving access to reasonable financial services especially credit and insurance enlargement of livelihood opportunities through adoption of different economic activities etc. It ultimately leads to an increased number of economic activities and employment opportunities for rural households. It acts as a monetary fuel for the overall economic and inclusive growth. As per the research of Nagadevra (2009) economic growth of a country largely depends on its financial development. Factors such as the twelve-monthly income, various age group and self-occupied house effect financial inclusion from requirement side. On the other hand media exposure, gender issues, typology, and marital status are the factors affecting financial inclusion from source side.

Rautela *et al.,* (2010) and Murari and Didwania (2010) both has his focus on Micro-finance and said that it is a powerful tool for poverty alleviation and rural development which along with financial inclusion aids in lifting up poor above the level of poverty. It increases the employment opportunities and also makes them credit worthy.

Sarma (2010) has clear his clear view, which discovered that availability, penetration, access and usage are the signs of financial inclusion. Austria was on the high in the list of International Financial Inclusion amongst 49 countries with an IFI rate of 0.953 while Madagascar ranks the lowest with 0.009 values. India somewhere lies moderately higher in terms of volume of credit and deposits in spite of low density of bank branches. According to the studies of Ellis *et al.,* (2010), it was discovered that an access to financial amenities facilitates households to participate in activities, which tends to a high future income and eventually development. It was also disclosed that if obstacles through which are lack of financial literacy, high charges, and minimum balance requirement are decreased then it can find investments. Thus, it will contribute to development and poverty reduction. Upto 80% of the population of India had an access to bank accounts in 2017 as compared to 55% in 2014. The services generally available are savings account and loans. The impoverished villages mostly constitute Hindus, scheduled castes that are financially excluded. Also, the average caste people having non-formal loans and families with minimum level of education are likely not to be included financially Cnaan *et al.,* (2011).

As per the study of Anjuman (2011), the self-help group (SHG) programmes have had a substantial impression on the access to financial services in terms of taking by households. Here in India, the marginal farmers tend to avail only institutional borrowings and reject non-institutional borrowings. The gender biasness also subsists when it comes to access to financial services. The study also revealed that SHG bank linkage program increased the progression of financial inclusion between the landless but there could be no linkage inferred for marginal and small farmers. It also determined that SHG bank linkage had increased the institutional credit and discouraged non-institutional borrowings. Whereas Kodan and Chhikara (2011), Have focused on credit and deposit ratio of Haryana and other states, where kodan found that status of deposit accounts in Haryana is somewhat better than other states of India & status of credit account is better in other states of India than Haryana.

Also there is no distinction amongst Haryana & India related to the availability of banking services in conditions of population per Bank office. In fact, the status of Haryana in terms of availability of banking goods and services is superior to aggregate other states of India. The study represents the positive and strong association between usage ratios and growth of NSD/GDP, which found that the usage ratio of Haryana is low as compared aggregate other states of India.

3.0 Research Gap

The above-mentioned studied literature presented that many hypothetical studies have been focused on financial inclusion but limited observed studies that too with limited geographical consideration, have exaggerated distinct descriptions of financial inclusion. Further, there is lack of empirically recognized relation between financial inclusion and factors associated with financial inclusion and economic empowerment/ area development and financial inclusion and social development/social empowerment (Padma and Gopisetti, 2013; Arputhamani and Prasannakumari, 2011; Murari and Didwania, 2010). Impact of no-frill account on financial inclusion Barik, 2009), non-urban-non-rural & age aspect of financial inclusion (Sarma, 2010), and financial inclusion role in development &empowerment (Kumar and Sahoo, 2011) have been integrated into one scale i.e., access, availability, usage, social empowerment/area development, &economic empowerment/economic development and the extent of its impact on economic development have been measured among beneficiaries residing in five districts namely, Lucknow, Kanpur, Prayagraj, Varanasi, and Gorakhpur of Uttar Pradesh.

4.0 Theory and Hypothesis Development

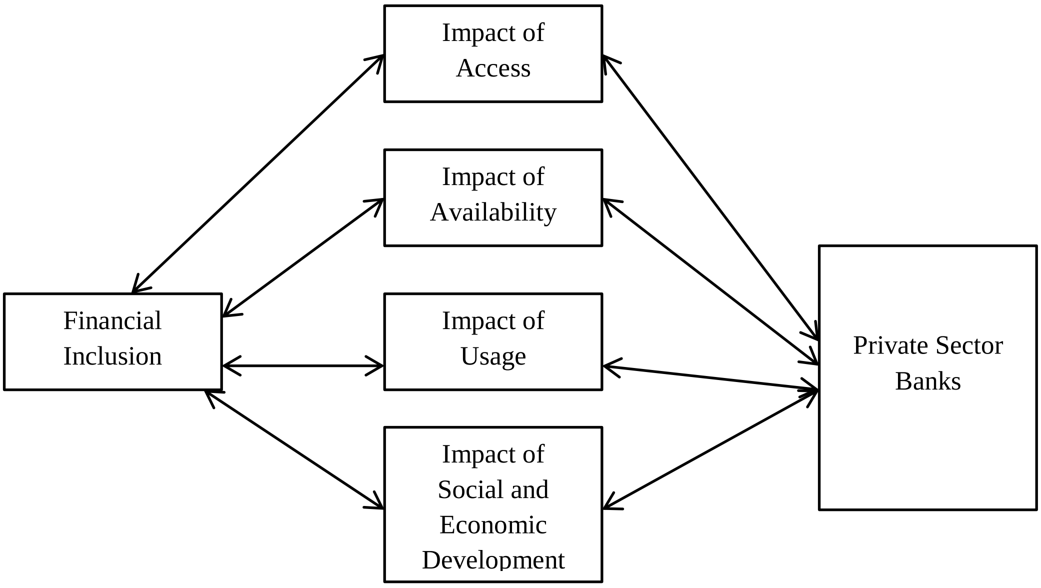
To analyse the impact of financial inclusion mentioned in Figure 1 on private sector banks of the rural areas of Uttar Pradesh.

4.1 Hypothesis

- $H_{1:}$ There is no significant impact of access of private sector banks on financial inclusion.
- H_{1a}: There is a significant impact of access of private sector banks on financial inclusion.
- $H_{2:}$ There is no significant impact of availability of private sector banks on financial inclusion.
- H_{2a}: There is a significant impact of availability of private sector banks on financial inclusion.

- $H_{3:}$ There is no significant impact of usage of private sector banks on financial inclusion.
- H_{3a}: There is a significant impact of usage of private sector banks on financial inclusion
- $H_{4:}$ There is no significant impact of social and economic development private sector banks on financial inclusion.
- H_{4a}: There is a significant impact of social and economic development private sector banks on financial inclusion.

Figure 1: Proposed Conceptual Model



Source: Author compilation

5.0 Data and Methodology

The study is based on empirical data, which is collected from the beneficiaries of the private sector banks. It examines the impact of financial inclusion on different factors of financial inclusion i.e. Access, Availability, Usage, and socio-economic development. The study used primary sources for collecting required information pertaining to research problem. The study was conducted in five major five districts of Uttar Pradesh (U.P.) i.e. Allahabad, Varanasi, Gorakhpur, Kanpur and Lucknow, which are representative of various regions of eastern U.P. Secondary information has been collected from journals and various reports published articles, white papers, newspapers reports, books and data available online through websites of authorized agencies like banks, financial regulatory agencies like RBI etc. The proposed study shall provide useful insight to researchers, financial analysts, RBI & commercial bank officials and shall assist them to measure the impact of financial inclusion on socio-economic development along with testing other important relationships i.e., financial inclusion & socio-economic empowerment, financial inclusion & area development.

5.1 Sampling techniques and data collection

An elaborate questionnaire was made covering various aspects of the subject; questionnaires were distributed among the target population to seek their response. Business correspondents of villages were contacted, however eighteen such correspondents either did not cooperate or did not agree to share details. Primary data was collected from 625 beneficiaries, which includes both male female respondents on judgment sampling; criteria adopted are availability and willingness to respond. The schedule consisted of two sections, one general and other to elicit information about four dimensions of financial inclusion namely, access, availability, usage, social and economic development. Schedule comprised of total 127 items, out of which 11 pertained to general information, 44 items related to financial inclusion (17 of access, 18 of availability & 9 of usage), 25 items of social empowerment/ area development, 11 items of economic empowerment/ economic development, and remaining 7 items pertained to reasons for not having a bank account.

6.0 Data Analysis, Results and Interpretation

Several most common indicators, which expresses magnitude of Financial Inclusion (FI) has been the number of bank accounts. This index of FI has been worked out on four dimensions for measurement (i) Access to financial services termed as AC, (ii) Availability of financial services i.e. AV, (iii) Usage (US), (iv) Social Development (SD) and Economic Development (ED). Such dimensions or a factor provides information on the inclusiveness of the financial system of an economy of a region of interest.

6.1 Data analytical and techniques

Data collected from the study were categorized, organized, and consecutively numbered. The data collected from the survey were captured into SPSS 19 (statistical packages for social sciences) analytical tool and checked that there are no data entry errors, outliers and missing values were performed this is done by generating frequencies and descriptive statistics, while box plots were used to test for existence of outliers in the data. With the help of factor loadings and variance explained after scale purification (rotated component method)* the results identified, which is reflected in Appendix Table 2. Reliability and validity of latest constructs, discriminant validity of latest constructs, results of CFA fit indices and finally fitness of the of structural model were checked with the help- of AMOS, which can seen in Tables 3, 4, 5 and 6 respectively given in the Appendices.

More so, analysis of moment structures (AMOS) software was adopted to run confirmatory factor analysis (CFA) and structural equation model for both the measurement and structural models. Prior to performing CFA and SEM, exploratory factor analysis (EFA) was performed to ensure convergent validity among all the items under each of the variables. The results of the EFA indicated that all the items loaded well to each other with eigenvalues greater than 1 and absolute value above 0.5 to explain each of the variables under study.

6.2 Results

6.2.1 Demographic characteristics

86% respondents are male and 14% are female, which revealed that male headed most of the rural households. It is found that male are more interested in opening bank accounts and female are still reluctant to open an account in bank even if it is a no frill account. Age-wise distribution of respondent's shows that majority of the respondents are in the age group of 25-35 years which constitute 33% of the total respondents. Respondents in the age group of up to 25 years consist of only 14.00% and 18.00% i.e., 108. Belongs to 35-45 years age group. The age group above 55 years and above comprises of 60 respondents that contributes 10.00% to the total respondents. Thus, it reveals that middle age people are more interested in opening accounts and availing the benefits of government schemes. It is found that 81% (486) respondents are married, 16.00% (96) respondents are unmarried and 3.00% i.e. (18) Respondents are Divorcee. Thus, it can be concluded that married respondents are more family & saving oriented and unmarried want to spend money. As far as income of respondents is concerned, it is found that 66.00% of the respondents are having savings up to Rs. 5,000. 26.00% respondents are having annual savings of 5,000-10,000. Respondents with 10,000-20,000 savings per month are 7.00% or 42 approx. in number. Whereas only 1.00% respondents are having saving above 20,000. Thus, it is found that maximum respondents are having savings up to 5,000. Finally the study found that 56.00%

respondents are having qualification of Below Graduation, whereas 14.00% respondents are Graduate. Another group of respondents who are qualified up to Post Graduate & above Post Graduation are 4.00% & 2.00% respectively. 144 i.e. 24% Respondents are having Professional qualification. Thus, it becomes clear that financial inclusion drive is covering everyone whether they are illiterate or highly qualified.

6.2.2 Structural model

Subsequently using CFA and testing for consistency and rationality, SEM is directed by operating AMOS (version 16.00) to measure appropriateness of essential standard.

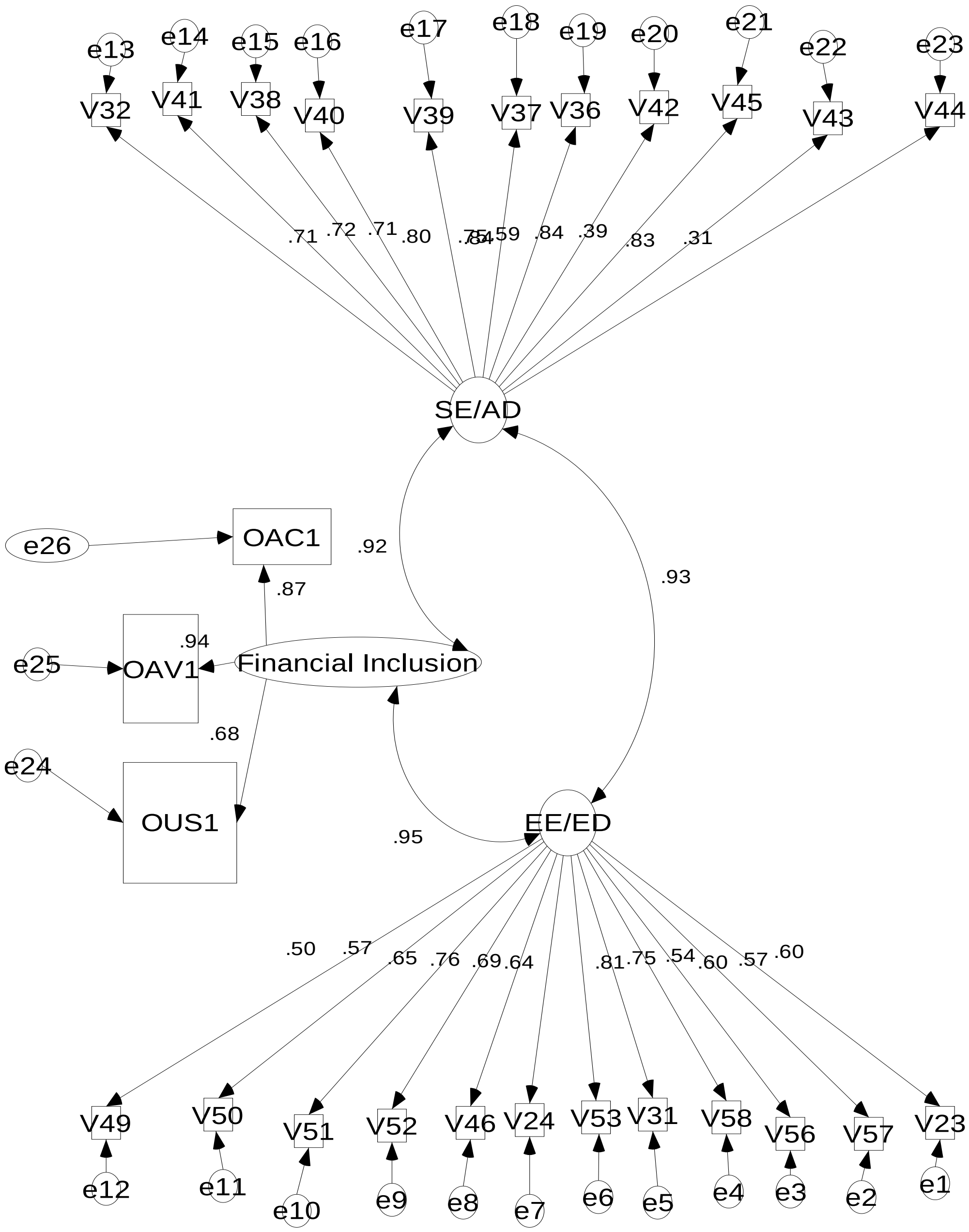
The technique of SEM is an important statistical tool, which is used while doing hypothesis test and represented in Figure 2. As recommended by Hair et al. (2009), the suggested hypothetical standard is shaped in a recursive approach to escape the difficulties connected with statistical connection. Around 20 gauges comprised in the ultimate structural standard. Every gauge is associated to the fundamental hypothetical paradigm in a reflective approach.

The operational association amongst latent paradigms signified by specific directed traditional arrows, which is identified fitting to the assumptions recognized. In the instantaneous, prevailing fundamental standard involves (a) route from FI to SE/AD (b) path from FI to EE/ED, and (c) path from SE/AD to EE/ED. The suggested model attempted to categorize the financial inclusion effect on socio-economic growth. By operating consistent and authorized four paradigms actions, the anticipated imaginative standard is verified and evaluated in this segment to recognize the best-fitted standard.

Full SEM standard including all gauges are verified. The fit indicators for the proposed standard are accessible in the Table 6. After incorporating modifications to the standard, the tailored standard established an improved standard fit and is used as the final standard (Table) for hypothesis testing (CMIN/DF = 3.510, GFI = .821, AGFI = .741, TLI = .840, NFI = .836, CFI = .875, RMSEA = .118)

OAC1= Access; OAV1= Availability; OUS1= Usage; FI= Financial inclusion; EE/ED= Economic Empowerment/Economic Development; SE/AD= Social Empowerment/ Area Development; V44= FI has changed your personality & life style; V43 = You are socially more developed after being covered under FI drive; V45 = FI has increased your confidence level; V40 = You are free to move to any NGO or any other for any kind of help or support; V36 = You are free to move to any SHG or any other for any kind of help or support; V37 = Income is equally distributed; V39 = Your family supports your business decisions; V42 = You avail those special schemes that are offered by the govt; V38 =Good road connectivity exists; V41 =Good health services are available, V32 = A regular doctor (Govt./private) visits in the village.

Figure 2: Overall Structure Equation Model

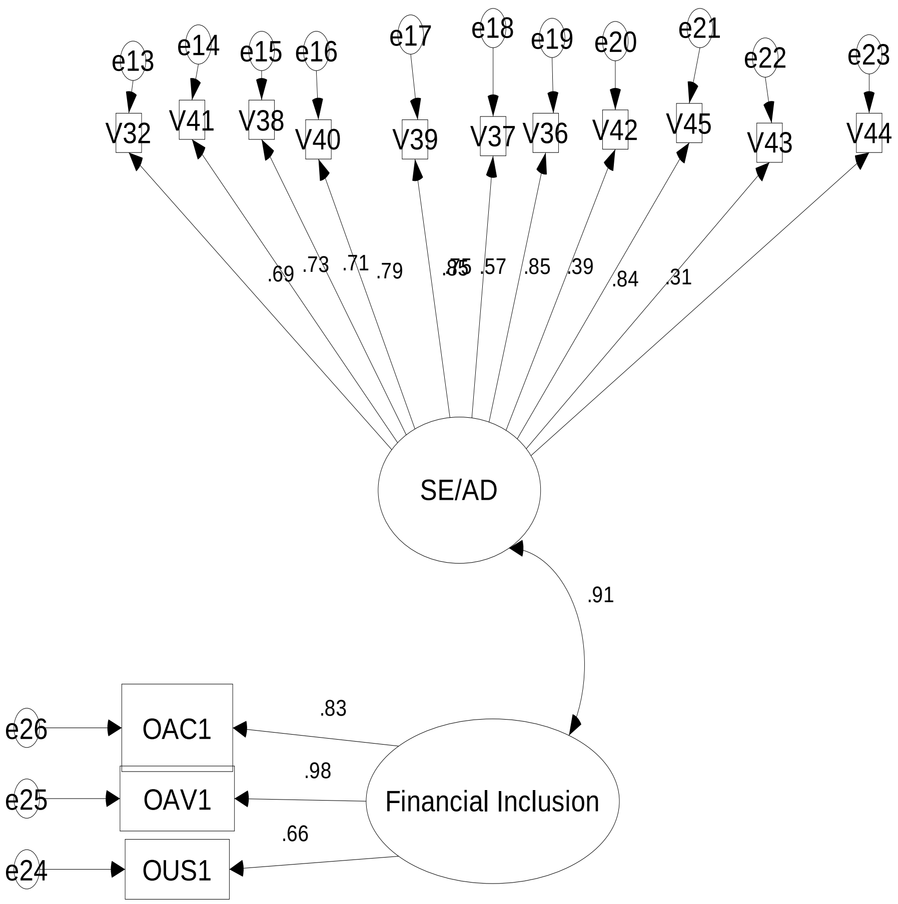


Source: Author compilation

V23 = FI has prepared you for emergencies; V57 = FI has increased your purchasing power; V56 = You have enough savings to meet any contingent situation; V58 = FI has raised your living standard;V31 = FI enabled your children to get better education; V53 = FI has reduced your need to borrow money or goods; V46 =FI created new employment opportunities; V52 =FI has made you independent decision making; V51 =FI directly effects capital formations & technological investment; V49 = FI has led to progress of the village; V50 =FI had made you independent regarding spending of your savings; and V24 = FI has increased your purchasing power.

6.2.3 Mediation in FI-SE/AD link

Figure 3: Mediation in Fi-Se/Ad Link

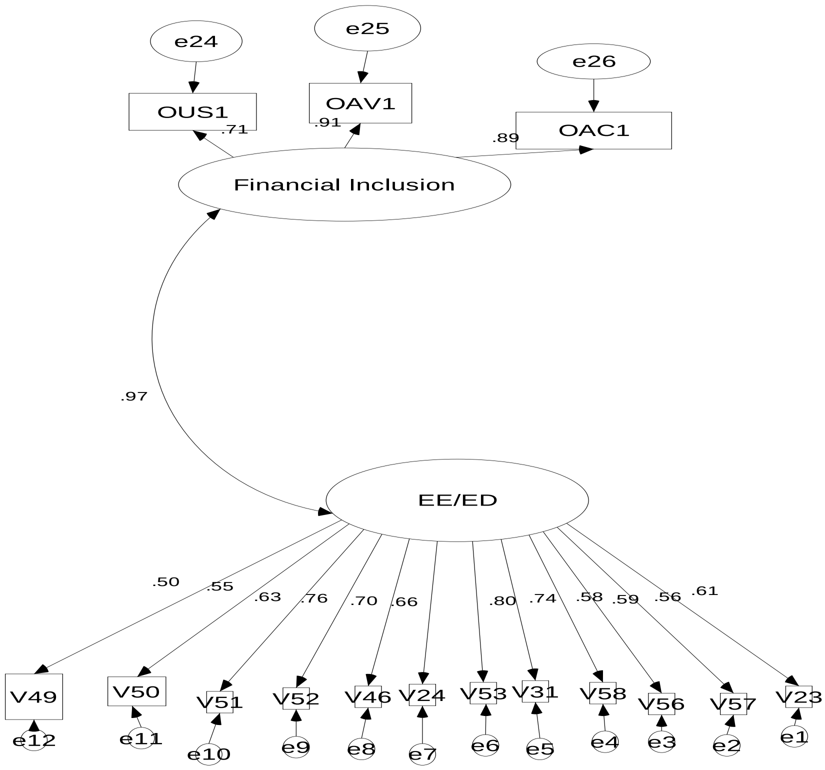


Source: Author compilation

SEM (Structural equation modelling) has been expended to check different anticipated associations mentioned in Figure 3; it is a multivariate procedure that seeks to describe the association amongst various factors (Kalpana, 2000). In the existing analysis, the association amongst financial inclusion, area development and social empowerment have been evaluated. In order to analysis the intermediating consequence, all the circumstances explained by Baron and Kenny (1986) are primarily satisfied. These situations are (a) the association amongst independent and dependent factors of social empowerment and area development ought to be significant (b) the association amongst independent and third factor i.e. facilitator like access, availability and usage ought to be significant. Through structural analysis the impact of financial inclusion on social empowerment and area development analysed (Figure 3), which is significant (SRW= 0.91, p<0.01). Hence, fulfilling the circumstance for mediation.

6.2.4 Mediation in FI-EE/ED link

Figure 4: Mediation in FI-EE/ED Link

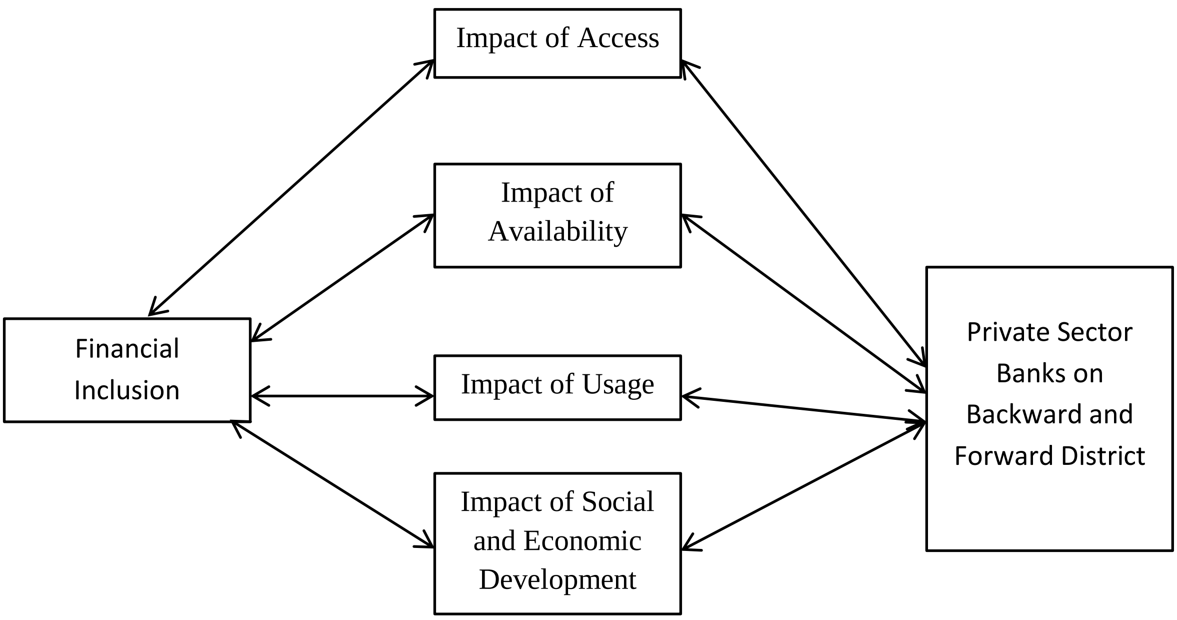


Source: Author compilation

7.0 Conclusion

India as a developing economy has lot of dependence on the banks both public as well as private and other financial institutions like post offices to work as mobilizers of savings and allocators of credit for production and investment and has a pivotal role to play. Banks as a financial intermediary contributes towards the economic growth of any region as it fuels the commercial activities and allocating credit and other financial services to the population (Chakravarty and Pal, 2013). This study was primarily based on the primary data collected towards getting the answers keeping in view for various dimensions like access, availability, usage, social empowerment, area development, economic empowerment and economic development. For the regions of interest, it has indicated that all of them have a direct implication on the aspect of financial inclusion of the region and its impact on the public and private banks in the rural area of the region of interest (Figure 5). This paper is only a first step in the direction of appropriately measuring financial inclusion over time and across regions and the same methodology could be adopted to obtain results for other regions as well to get better picture regarding FI and its impact on banking sector.

Figure 5: Managerial Implication of the Study



Source: Author compilation

8.0 Future Research Directions

- The exploratory nature of the study provides opportunities for further research on areas related to financial inclusion.
- Not all the elements and factors of the phenomenon were captured. More research might determine whether more items would provide for a more comprehensive scale, as suggested by the literature.
- Extending the scope of the studies to other states .The study could also be replicated to similar Population within the other states in India.

9.0 Limitations of the Study

- The study was restricted to five districts in the eastern region of U.P, however to get an better picture and clarity the same needs to be extended to other districts like Kanpur, Meerut, Muradabad etc. of western region as well as has diversity in socio-economic factors.
- Stratified (Random) sampling technique is applied for data collection which itself have limitations.
- The study has covered financial inclusion beneficiaries through public, private sector banks and post offices only. Other institutes like, cooperative banks, regional rural banks, cooperative societies, SHG's besides other are excluded from the study.

References

Allen, (2016). Measuring financial inclusion core set of financial inclusion indicators. Retrieved from https://www.afi-global.org/sites/default/files/publications/fidwg-core-set-measuring-fi.pdf.

Anjuman, M. (2011). Impact of SHG-bank linkage program on financial inclusion- rural household study in Tamil Nadu. *The BWT Bulletin,* (03), 1-17.

Arputhamani, J., & Prasannakumari, K. (2011). Financial inclusion through micro finance: The way to rural development (A case study of Rajapalayam block in Virudhunagar district. *KKIMRC International Journal of Research in Finance and Accounting, 01*(01), 94-115.

Bagli, S. & Dutta, P. (2012). A study of financial inclusion in India. *Journal of Radix International Educational and Research Consortium, 1*(8), 1-18.

Banerjee, S. & Francis, G. (2014). Financial inclusion and social development. *International Journal of Scientific Research and Management,* ISSN (E) 2321-3418, 13-18.

Barik., B. B. (2009). Financial inclusion and empowerment of Indian rural households. Retrieved from http://skoch.in/index.php?option= com content& view=article & id= 1659.

Baron & Kenny (1986). *Structural equation modeling with LISREL, PRELIS and SIMPLIS: Basic concepts, applications and programming, Mahwah.* New Jersey: Lawrence: Erlbaum Associates.

Chakravarty. S. R., & Pal. R. (2013). Financial inclusion in India: An axiomatic approach. *Journal of Policy Modeling, 35*(5), 813-837.

Charkrabarty, K. C. (2010), Inclusive growth – Role of financial sector, National finance conclave 2010 organised by KIIT University on November 27, 2010 at Bhubaneswar.

Chhikara, K. S. & Kodan, A. S. (2011). Financial inclusion, development and its determinants: an empirical evidence of Indian states. *Asian Economic Review, 53*(01), 115-134.

Choithrani, S. (2013). Financial inclusion: Need of the hour. *International Journal of Management Research and Review, 3*(9), 3565-3568.

Cnaan, R., Moodithaya, M. S. & Handy, F. (2011). Financial inclusion: Lessons from rural South India. *Journal of Social Policy, 41*(01), 183-205.

Das. K. (2012). Financial inclusion- a gateway to sustainable development for the impoverished. *Journal of Rural Development, 31*(01), 115-128.

Ellis, K., Lemma, A. & Rud, J. P. (2010). Financial inclusion, household investment and growth in Kenya and Tanzania. Retrieved from www.odi.org.uk/50years.

Garg, B. (2014). Financial inclusion and rural development. *Research Journal of Commerce, 2*(1), 1-6.

Kalpana., K. (2000). The vulnerability of "self help": women and microfinance in South India (IDS Working Paper 303). Brighton, UK: Institute of Development Studies, British Library, University of Sussex.

Kumar, K. S., & Sahoo, S. (2011). Enhancing financial inclusion: An overview of the catalytic role of MFIs in India. *VSRD International Journal of Business & Management Research, 01*(04), 232-244.

Kumar, P., & Sharma, C. S. (2011). People empowerment & financial inclusion through microfinance in India. *Journal of Applied Management & Computer Science, 04,* 1-11.

Kuri, P. K., & Laha, A. (2011). Determinants of financial inclusion: a study of some selected districts of West Bengal, India. *Indian Journal of Finance, 5*, 29-36.

Murari, K., & Didwania, M. (2010). Poverty alleviation through financial inclusion: an analytical study with special reference to India. *Revelation the Research Journal of K. P. B. Hinduja College, III*, 60-72.

Nagadevra., V. (2009). Identifying supply and demand side factors that influence financial inclusion: an application of Anns. *Journal of International Business and Economics, 09*(04), 88-93.

Naik, P. (2013). Financial inclusion-key to economic & social development. *CSR Mandate*, June-July, 14-17.

Padma., A., & Gopisetti, R. (2013). Financial inclusion-a way forward to rural development. *International Journal of Advanced Research and Innovations, 1*(5), 133-142.

Paramasivan, C., & Ganeshkumar, V. (2013). Overview of financial inclusion in India. *International Journal of Management and Development Studies, 2*(3), 45- 49.

Raman, A. (2012). Financial inclusion and growth of Indian banking system. *IOSR Journal of Business and Management, 1*(3), 25-29.

Ramasubbian, H., & Duraiswamy, G. (2012). The aid of banking sectors in supporting financial inclusion - an implementation perspective from Tamil Nadu state India. *Research on Humanities and Social Sciences, 02*(03), 38- 46.

Ramji, M. (2009). Financial inclusion in Gulbarga: finding usage in access. Retrieved from http://ifmr.ac.in/cmf/publications/wp/2009.

Rautela, R., Pant, G., Anand, S. & Sharma, D. (2010).Micro finance –a new mantra for rural development. *International Journal of Science, Technology & Management*. Retrieved from http://doc.istanto.net/pdf/1/micro- finance--a-new-mantra-for-rural-development.html.

Sajeev., B. U., & Thangavel., K. (2012). Impact analysis of financial inclusion through SHG-bank linkage using clustering techniques. *International Journal of Research and Reviews in Computer Science, 03*(02), 1580-1589.

Sarma, M. (2008). Index of financial inclusion. *Working Paper No. 215,* Retrieved from http://www.icrier.org/pdf/Working_Paper_215.pdf.

Sarma, M. (2010). Index of financial inclusion. Retrieved from http://202.41.10.25/Academics/Schools/SchoolOfInternationalStudies/CITD/Disc ussion Papers/DP05_2010.pdf. Accessed on 27-09-2014.

Sarma, M., & Pais, J. (2008). *Financial inclusion and* development: a cross-country analysis. Paper presented at the Annual Conference of the Human Development and Capability Association, New Delhi.

Sarma. (2010). Financial inclusion in India. *International Journal of Research in Finance & Marketing, 3*(7), 49-60.

Sharma, A., & Kukreja, S. (2013). An analytical study: relevance of financial inclusion for developing nations. *Research Inventory: International Journal of Engineering and Science, 2*(6), 15-20.

Shyni. V. K., & Mavoothu., D. (2014). Financial inclusion - the way towards inclusive growth. International Journal of Advanced Research, 2(2), 649-655.

Solo, T. M. (2008). Financial exclusion in Latin America - or the social costs of not banking the urban poor. *Environment and Urbanization, 20*(1), 47-66.

Srinivas, M., & Upender, P. (2014). Financial inclusion - a proactive role played by the Indian banking sector & RBI in economic development. *International Journal of Innovative Technology & Adaptive Management, 1*(5), 143-149.

Uma, H. R., & Rupa, K. N. (2013). The role of SHGS in financial inclusion: A case study. *International Journal of Scientific and Research Publications, 3*(6), 1-5.

Appendices

Table 2: Results Showing Factor Loadings and Variance Explained after Scale Purification (Rotated Component Method)*

Factor-wise dimension	Mean	Standard deviation	Factor loading	Eigen value	Variance explained %	Cumulative explained %	Communality	Alpha (α)
Access								
Factor 1: Information accessibility				3.553	59.221	59.221		.868
You have easy access to the information which is useful Banking officials respond well	3.60	.894	.835				.697	
Banking officials respond well	3.69	.751	.745				.556	
Employees' of bank are cooperative, friendly and knowledgeable	3.60	.897	.787				.619	
Employees' possess sufficient banking information	3.66	.783	.710				.504	
The employees are easily accessible when needed	3.54	.914	.814				.662	
The bank manager promptly redress your problems	3.73	.723	.718				.516	
Factor 2: Physical accessibility				1.930	64.349	123.57		.673
Bank is easily approachable in case of	3.69	.742	.610				.372	

emergencies								
ATM service is nearby from your place	3.46	1.13	.892				.796	
The bank is conveniently located	3.40	1.19	.873				.762	
Availability								
Factor 1: Loan availability				1.419	70.938	70.938		.500
Loan is easily available	3.42	1.13	.842				.709	
Loan is available within time limit	3.50	1.08	.842				.709	
Factor 2: Support and assistance				1.409	70.433	141.371		.500
Help desk/assisting staff is available for filling withdrawal/ deposit form	3.58	.900	.839				.704	
Bank follows quick problem solving approach	3.75	.901	.839				.704	
Factor 3: Promotion				1.328	66.418	207.789		.500
New bank schemes are advertised frequently	3.49	1.08	.815				.664	
Attracting Saving schemes are available	3.58	.864	.815				.664	
Usage								
Factor 1: General usage				.264	13.209	13.209		.500
Advance schemes of bank are frequently used by you	3.88	.854	.463				.132	
You are using bank for the repayment of loan	3.56	.921	.463				.132	
Factor 2: Specific usage				2.405	80.151	93.36		.749
You are a regular visitor of the bank	3.43	1.14	.897				.805	
You withdraw money frequently	3.50	1.11	.844				.713	
You frequently use credit facilities of the bank and post office	3.42	1.16	.942				.887	
Social Empowerment/ Area Development								
Factor 1: Creditworthiness				1.572	52.399	52.399		.613
FI has changed your personality & life style	3.43	1.124	.887				.787	
You are socially more developed after being	3.54	.932	.764				.583	

covered under FI drive								
FI has increased your confidence level	3.77	.738	.449				.202	
Factor 2: Liberation				1.667	83.335	135.734		.500
You are free to move to any NGO or any other for any kind of help or support	3.46	1.11	.913				.833	
You are free to move to any SHG or any other for any kind of help or support	3.48	1.10	.913				.833	
Factor 3: Awareness				.576	28.775	164.509		.500
You avail those special schemes that are offered by the govt.	3.60	.898	.536				.288	
Your family supports your business decisions	3.83	.678	.536				.288	
Factor 4: Balanced development				1.11	55.896	220.405		.500
Income is equally distributed	3.46	1.10	.748				.559	
Good road connectivity exists	3.69	.785	.748				.559	
Factor 5: Health indicators				1.24	62.407	338.708		.500
Good health services are available	3.49	1.11	.790				.624	
A regular doctor (Govt./private) visits in the village	3.69	.772	.790				.624	
Economic Empowerment/ Economic Development								
Factor 1: Stability				4.243	60.616	60.616		.812
FI has prepared you for emergencies	3.78	.728	.778				.649	
FI has increased your purchasing power	3.59	.898	.509				.801	
You have enough savings to meet any contingent situation	3.70	.745	.515				.511	
FI has raised your living standard	3.75	.760	.783				.650	
FI enabled your children to get better education	3.59	.895	.434				.757	
FI has reduced your	3.49	.947	.437				.577	

need to borrow money or goods								
Factor 2: Employability				1.968	65.614	126.231		.720
FI created new employment opportunities	3.49	1.09	.877				.770	
FI has made you independent decision making	3.16	.889	.756				.571	
FI directly effects capital formations & technological investment	3.58	.891	.792				.627	
Factor 3: Growth and Development				2.134	53.346	179.577		.726
FI has led to progress of the village	3.58	.891	.886				.785	
FI had made you independent regarding spending of your savings	3.61	.889	.747				.558	
FI has increased your purchasing power	3.59	.898	.814				.662	

**Source: Survey*

Table 3: Reliability & Validity of Latent Constructs*

Constructs	AVE	Cronbach's alpha (α)
Access	0.682	.882
Availability	0.579	.913
Usage	0.639	.708
S/AD	0.735	.796
EE/ED	0.812	.799

**Source: Survey*

Table 4: Discriminant Validity of Latent Constructs*

	CR	AVE	MSV	Max R (H)	Access	Availability	Usage	SE/AD	EE/ED
Access	0.865	0.682	0.318	0.880	**0.826**				
Availability	0.844	0.579	0.151	0.871	0.324	**0.761**			
Usage	0.841	0.639	0.232	0.853	0.482	0.388	**0.799**		
SE/AD	0.893	0.735	0.318	0.901	0.564	0.339	0.410	**0.857**	
EE/ED	0.928	0.812	0.139	0.964	0.191	0.373	0.176	0.176	**0.901**
No Validity Concerns - Wahoo!									

*AC = Access, AV = Availability, US = Usage, SE = Social empowerment, EE = Economic empowerment, ED = Economic development, and AD = Area Development *Source: Survey*

Table 5: Results of CFA Fit Indices*

Constructs	CMIN/DF	GFI	AGFI	CFI	NFI	TLI	RMSEA (P CLOSE)
Access	3.973	.968	.937	.966	.956	.947	.013
Availability	4.726	.982	.945	.985	.981	.968	.034
Usage	5.065	.996	.958	.992	.990	.952	.153
Social Empowerment	3.504	.984	.955	.988	.983	.974	.133
Area Development	.006	1.00	1.00	1.00	1.00	1.006	.970
Economic Empowerment	4.903	.978	.933	.975	.969	.941	.007
Economic Development	.544	1.00	.995	1.00	.999	1.006	.711

**Source: Survey*

Table 6: Fitness of the Structural Model*

Model	CMIN/DF	GFI	AGFI	CFI	NFI	TLI	RMSEA
Modified Model	3.510	.821	.741	.875	.836	.840	.118

**Source: Survey*