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Impact of financial inclusion on socio-economic development of rural households in Andhra Pradesh state

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Abstract
The role of financial inclusion in the socio- economic development of the rural households is far appreciable in the changing economic conditions of the country. The present study was conducted during the year 2019-20 with an attempt to analyze the impact of financial inclusion on socio economic development of rural households and the constraints of financial inclusion. A total of 410 rural households of Andhra Pradesh were selected using multistage sampling procedure and 120 non account holders were selected to identify the constraints of financial inclusion. The data on the impact of financial inclusion was analyzed through multiple linear regression using SPSS version 20.0 software and responses collected on constraints of financial inclusion were analyzed using Garrett Ranking. The socio-economic development of rural households was highly influenced by education, number of financial services accessed, number of years of banking, status of usage of banking services and beneficiary of government aided programmes linked to bank at one percent level of significance. Regular usage of financial services paved the way to the positive changes in the socio-economic development as observed from highest regression coefficient (5.537). Among the constraints identified, lack of sufficient and regular income emerged as the top most constraint of financial inclusion. It is suggested to conduct financial literacy camps by the financial literacy centres and the rural bank branches for effective utilisation of banking services by the rural households and thus attain socio-economic development.

Keywords: Financial inclusion, multiple linear regression, garrett ranking, socio economic development

1. Introduction

Financial inclusion is the delivery of financial services at affordable cost to socially deprived and low-income segments of society. It plays a very crucial role in the process of economic growth and is useful to facilitate economic transaction, manage day to day resources, improve quality of life, protect against vulnerability, make productivity enhancing investments and leverage assets (Sharma and Sumita, 2013) [1]. Though the socio-economic development is influenced by different factors, the role of financial inclusion is crucial in the present context for equitable growth of the rural households. The factors associated with the financial inclusion particularly the access and usage of the financial services is very important, as they are related with the poverty alleviation. It helps them to overcome several barriers that hinder overall development. The Government of India has implemented various programmes after the year 2014 such as Pradhan Mantri Jan-Dhan Yojana (PMJDY), other social security schemes viz., Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Atal Pension Yojana (APY) and Pradhan Mantri Mudra Yojana (PMMY) besides creating facilities like ATM, Kisan credit card, Net banking, Mobile banking etc., that have changed the financial inclusion landscape. It is on the part of rural households to make use of the financial services for their overall development, as still there are traces of voluntary financial exclusion by rural households in the study area. Therefore, there is a dire need to study the impact of financial inclusion on socio economic development of rural households and also the reasons for the financial exclusion, to formulate the effective policies by the government towards achieving complete financial inclusion and improving socio economic status of rural households.

2. Methodology

2.1 Sample selection

Andhra Pradesh state was purposively selected for the present study. A multistage sampling technique was adopted to select the rural household respondents. Based on the CRISIL (Credit Rating Information Services of India Limited) Inclusix 2018 [2] results, two districts each with the highest and lowest CRISIL Inclusix score from each of the three regions of Andhra Pradesh viz., Srikakulam and Visakhapatnam from North Coastal region, Krishna and Nellore from South Coastal region and Kadapa and Kurnool from Rayalaseema region were selected. Two mandals from each of the selected district based on the maximum and minimum number of bank branches respectively, were selected. Further the top two villages with the highest rural population and at least one bank branch were selected from each of the selected twelve mandals. The total account holders of the banks in all the 24 selected villages were considered as the total population for final selection of the respondents. Sample size was derived using Cochran's formula. The final respondents were selected by simple random sampling, in proportion to the population size, from each of the selected village. Thus a total of 410 rural households were selected for collecting the data relevant to the objective of the study i.e., to assess the impact of financial inclusion on socio-economic development of rural households and five non account holder respondents from each of the twenty four villages were selected for the purpose of collection of data on major constraints associated with the financial inclusion.

2.2 Analytical tools

2.2.1 Multiple Linear Regression

In order to analyse the impact of financial inclusion on socio-economic development, 15 statements related to socio-economic development were considered. The items were measured in a questionnaire on the five-point "Likert-scale" measured by "1= Strongly Disagree; 2= Disagree; 3= Neutral; 4= Agree; 5=Strongly Agree". The score of all the statements were combined to arrive at the socio-economic development of each respondent.

The MLR was used to assess the impact of financial inclusion on socio-economic development of rural households.

$$y = a + \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \cdots + \beta_6 x_6 + \varepsilon$$

y = socio-economic development

a = constant term

x_1 = access to credit (dummy variable; access =1, no access = 0)

x_2 = education status (dummy variable; illiterate=0, below metric=1, above metric=2)

x_3 = financial services accessed (in number)

x_4 = years of banking (in years)

x_5 = usage of banking services (dummy variable; yes =1, no = 0)

x_6 = Beneficiary of government aided programmes linked to bank (Number)

ε = the model error term (also known as the residual)

2.2.2 Garrett Ranking Technique

Garrett Ranking technique was used to study the constraints of financial inclusion among the rural non-account holders. The order of merit given by the respondents was converted into percent position by using the formula.

Percent position = 100 $(R_{ij} - 0.5)/ N_j$

Where,

R_{ij} = Rank given for the i^{th} variable by j^{th} respondent; and N_j = Number of variables ranked by j^{th}respondent.

The percent position of each rank was converted to score by referring to tables given by Garrett and Woodworth (1969) [3]. Then for each factor; the scores of each individual were added and then total value of scores and mean values of scores were calculated. The factor having highest mean value was considered to be the most important factor.

3. Results and Discussion

3.1 Socio-Economic profile of the rural households

The results in Table 1 revealed that out of the total 410 respondents, seventy percent of respondents were without formal education, 15.60 percent obtained metric level education, 14.40 percent of the respondents attained above metric level qualification, indicating the low literacy rate among the respondents. Nearly 35.12 percent rural households availed one or two services and 32.68 percent households availed 3-4 formal financial services. There were only 17.32 percent of the households accessing more than four financial services, still there were 14.88 percent households who were not availing any formal financial services. Around 40.97 percent of the households were availing formal banking services from six to eight years and about 40 percent rural households were beneficiaries of minimum two government aided programmes. Further 57.80 percent of the households were having access to credit and 59.50 percent of households were using the banking services regularly.

3.2 Association of Factors of Financial Inclusion and the Socio-Economic Development

The association between the various factors of financial inclusion which are considered as the independent variables and the dependent variable i.e., socio-economic development of rural households, was analysed by the correlation analysis and the results are presented in Table 2. It is observed that all the six independent variables i.e., access to formal credit (X1), education status (X2), number of financial services accessed (X3), number of years of availing financial services (X4), status of usage of banking services (X5) and beneficiary of government aided programmes linked to bank (X6) exhibited significant association with the dependent variable i.e., socio-economic development at 1% level of significance.

The number of financial services availed and usage of banking services regularly showed stronger relationship with the socio-economic development, since the households involved in regular banking operations could probably make savings and investments. The households having access to credit were found to have good association with the socio-economic development, as it may assist the households in arranging the money needed for their personal & professional requirements and investments. The results also indicated indirectly that the rural households' development not only linked with their own sources of income but also from the assistance received from the government through development programmes. The results also revealed that the higher the education qualification, the more would be the socio-economic development.

Table 1: Socio-economic profile of the sample respondents

Socio-economic variable	Particulars	Frequency	Percentage
Education qualification	Illiterate	287	70.00
	Upto metric	64	15.60
	Above metric	59	14.40
Number of formal financial services availed by the households (No.)	Zero	61	14.88
	1-2	144	35.12
	3-4	134	32.68
	> 4	71	17.32
Number of years of banking (No.)	1 to 5	91	22.20
	6 to 8	168	40.97
	Above 8	151	36.83
Number of government aided programmes through which household are benefitted (No.)	Zero	35	8.54
	1	134	32.68
	2	164	40.00
	3	77	18.78
Access to credit	No	173	42.20
	Yes	237	57.80
Usage of banking services	No	166	40.50
	Yes	244	59.50

3.3 Impact of financial inclusion on socio-economic development

The socio-economic development of the rural households was regressed on factors like access to formal credit, education status, number of financial services accessed, number of years of banking, status of usage of banking services and beneficiary of government aided programmes linked to bank using Multiple Linear Regression analysis.

Table 2: Association and impact of factors on socio-economic development of rural households (n=410)

Variables	Correlation coefficient ®	β value	t value	VIF factors
Constant		39.476	39.476	
Access to formal credit (X_1)	0.428***	0.308	0.394 NS	1.699
Education status (X_2)	0.384***	1.151	2.333***	1.484
Number of financial services accessed (X_3)	0.635***	1.672	6.267***	2.363
Years of availing financial services (X_4)	0.437***	0.358	3.431***	1.409
Usage of banking services (X_5)	0.602***	5.537	7.253***	1.596
Beneficiary of Govt. aided programmes linked to bank (X_6)	0.224***	1.984	5.617***	1.082
R= 073, R^2 = 0.541, F value = 79.151				

(*** Significant at 1 percent level; NS= Not Significant)

From the results of Table 2, the MLR equation could be formed as:

Socio-economic development = 39.476 + 1.151(education status) +1.672 (number of financial services accessed) + 0.358 (years of availing financial services) + 5.537 (usage of banking services) + 1.984 (beneficiary of govt. aided programmes)

The value of R (multiple regression coefficient) was 0.73 indicating a good level of prediction. The R^2 (coefficient of determination) value was 0.541 which indicated that the independent variables explained 54.10 percent of the variability of the dependent variable *i.e.* socio-economic development of rural households. The computed F-value 79.151 was found to be significant at 0.01 level of probability, agreeing with the results of Brooks, 2003[4], who concluded that very often regression models with cross section data are found to have low R-squared values.

The coefficients of five variables i.e., education status, number of financial services accessed, number of years of banking, status of usage of banking services and beneficiary of government aided programmes linked to bank were statistically significant at one percent level of significance, indicating positive influence on the socio-economic development of rural households. The coefficient of the remaining variable i.e., access to formal credit had positive effect on the dependent variable but was statistically not significant there by indicating that there was no significant influence on socio-economic development. The lower VIF values indicated that there was no / negligible multi-collinearity between the variables selected for the study.

Statistical non-significance of access to formal credit could be due to the fact that the loan amount offered might be misutilised or the lack of proper guidance and untimely sanction of loan might led to the no significant impact of access to formal credit on the socio-economic development. Shruti (2015) [5] reported the similar results indicating the non-significant effect of access to credit on the aspects of income generation due to misutilization of the credit or the untimely sanction of the credit.

Other things remaining constant, a unit change in the education, number of financial services accessed, number of years of banking, regular usage of banking services and government aided programmes would respectively increase the socio economic development of the rural households by 1.151, 1.672, 0.358, 5.537 and 1.984 units, indicating their positive significant impact.

The education status of the household makes them aware about the usage of the appropriate financial products and services. Shruti (2015) [5] reported similar results indicating that the education had significant influence on the households to move out of the poverty and could influence the income of the households. Accessing to more number of financial services played a significant role on the socio-economic development. Rural households could benefit from deposit, savings, payments, insurance services and money transfer facilities, which would allow the individuals to take advantage of business opportunities, invest in education, save for retirement and insure against risks. The result is in agreement with Uma *et al.*, (2013) [6] where the outreach of various banking products and services like deposit accounts, credit products, micro insurance, transfer of money, payment of money *etc.*, led to general improvement in the standard of living of hitherto unreached poor and deprived section of people.

The number of years of banking had a significant impact to establish a trusty relationship between the customers and bankers. The banking habits of the customers over the years influenced the banks in extending the services to be utilized by the households for their socio-economic development. Sanghvi (2019) [7] also reported the similar results indicating that the number of years of group formation, time period of respondent joining the self-help group were statistically significant in making the respondents economically empowered. The usage of banking services is also important as it indicates the active status of the account and inculcates the habit of thrift.

The benefits of the government welfare programmes like human development programmes (assistance for school children), employment generation programmes (MGNREGA), production enhancement programmes (crop related), when reached the rural households in a proper channel without any leakages, the development of the households is possible in all aspects. The decision of the central and state governments to link the pension, scholarships and wage related schemes directly to the bank accounts helps the households included in financial main stream and to utilise the banking services. Thus, the household benefitted from the maximum programmes would definitely have access to banking services leading to efficient usage of financial products and thereby improving their socio-economic status.

The regression coefficients indicating the relative contribution of the explanatory variables revealed that usage of banking services like savings, borrowings, ATM debit card, mobile banking etc had the highest regression coefficient (5.537), contributing to socio-economic development. The second important variable was beneficiary of government aided programmes linked to bank (1.984), which made it possible to avoid leakages in the government assistance given for school children, distribution of wages earned from employment programmes and production enhanced subsidies for agriculture. All these would definitely contribute to the socio-economic development of rural households. It could be further pointed out that the ‘b’ value was found to be positive non-significant in case of access to credit with the positive correlation coefficient, indicating that in the presence of other variables, the variable - access to credit behaved differently.

3.4 Constraints of financial inclusion

The financial inclusion of rural households is influenced by many factors that lead to voluntary or involuntary financial exclusion. Hence the constraints of financial inclusion for non-account holders were analysed. Inspite of the availability of financial infrastructure, some of the respondents in the study area are financially excluded and this may be a voluntary exclusion owing to different constraints. The constraints faced by non-account rural households for not availing the financial inclusion services are given in the Table 3 along with the Garrett mean score and ranks.

It is observed from Table 3, the Garrett mean score for different constraints of financial inclusion among the non-account rural households varied from 50.53 to 69.12. The rank is given to the constraints based on the highest Garrett mean score. It is observed that the lack of sufficient and regular income with mean score of 69.12 was given the first rank. It was followed by one active account in the family, no need of other account (66.75) and poor educational background (58.98). The other problems reported were not enough financial transactions, unfamiliarity towards banking activities and timings of the banking operations followed with mean score of 57.00, 56.06 and 50.53 respectively.

It is of the fact that the participation in the formal financial system is linked with the income levels of the households. Without adequate or regular income the access of the non-account holders to the formal financial institutions is difficult. The second ranked constraint was the presence of one active account in the family. In other words, rural people do not feel the same need to have several accounts in the household as do urban or rich individuals.

The third constraint was the poor education background of the respondents makes them difficult to approach the formal financial institutions. Lack of enough financial transactions make the respondents choose not to have a bank account, hence financially excluded.

Unfamiliarity towards banking activities, make the respondents feel fear of approaching the formal institutions and there by the usage of banking services. The respondents also felt inconvenient with the timings of the banking operations as most of them go for informal works. Hence, approaching the bank during working hours would lead to loss of wages for the day.

Table 3: Garrett mean score and rank of different constraints of non-account holders (n =120)

S. No.	Constraint	Garrett’s mean score	Rank
1	Lack of sufficient and regular income	69.12	1
2	One active account in the family, no need of other account	66.75	2
3	Poor educational background	58.98	3
4	Not enough financial transactions	57.00	4
5	Unfamiliarity towards banking activities	56.06	5
6	Timings of the banking operations	50.53	6

4. Summary and Conclusions

All the six independent variables exhibited significant association with the dependent variable i.e., socio-economic development. The independent variables altogether explained 54.10 percent of the variability of the dependent variable. It is found that the coefficients of five variables i.e., education status (1.151), number of financial services accessed (1.672), number of years of banking (6.358), status of usage of banking services (5.537) and beneficiary of government aided programmes linked to bank (1.984) were statistically significant at one percent level of significance indicating their positive influence on the socio- economic development of rural households.

Lack of sufficient and regular income was the major constraint faced by the non-account holders with Garrett mean score of 69.12, followed by one active account in the family so, no need of other account (66.75) and poor educational background (58.98). The other problems reported were not enough financial transactions and unfamiliarity towards banking activities and inconvenient timings of the banking operations with mean score of 57, 56.06 and 50.53 respectively.

5. Policy implications

- Increasing the employment opportunities to rural households through the implementation of developmental programmes like MGNREGA is necessary to expect an assured regular income.
- Financial literacy centres and the rural bank branches should conduct financial literacy camps for effective utilisation of banking services by the rural households.

6. References

1. Sharma A, Sumita K. An analytical study: Relevance of financial inclusion for developing nations. Int J Eng Sci. 2013;2(6):15-20.
2. CRISIL Inclusix. Financial inclusion surges, driven by Jan-Dhan Yojana. 2018;4:1-86.
3. Garrett HE, Woodworth RS. Statistics in Psychology and Education. Bombay: Vakils, Feffer and Simons Pvt. Ltd.; c1969.
4. Brooks C. Introductory Econometrics for Finance. 1st ed. Cambridge University Press; c2003.
5. Shruti S. Financial inclusion and its impact in India: A comparative analysis of Andhra Pradesh and Kerala. PhD Thesis. Indira Gandhi National Open University, New Delhi, India; c2015.
6. Uma HR, Rupa KN, Madhu GR. Impact of bank-led financial inclusion model on the socio-economic status of rural saving account holders. Indian J Res. 2013;2(9):50-52.
7. Sanghvi RC. Measuring the impact of financial inclusion on rural poor in selected districts of Saurashtra region - Analyzing the demand side and supply side. PhD Thesis. RK University, Gujarat, India; c2019.