

Exploring Banking Patterns and Service Accessibility Among Tribal Households: An Empirical Investigation

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Abstract: The study assesses the factors influencing the banking habits and service accessibility of tribal community people. The study is confined to the Odisha province of India. ANOVA and explorative factor analysis followed by linear regression have been applied for the impact assessment. The study analysed the responses from 274 tribal households. It is found that factors like employee cooperation, convenience location, and service banking have a significant impact on tribal community households, but banking habit has no such impact. Additionally, it implies that other aspects of financial accessibility should be investigated, from having a bank account to fully utilizing contemporary financial tools. The research findings on the banking structure and service access patterns of tribal Households in Odisha, India, have several implications for policymakers and financial service providers. First, identifying the population's banking usage pattern would enable the customization of service provision to meet their needs. More accessible and individualized services would contribute to unprecedented economic empowerment of tribal communities through financial inclusiveness. Second, identifying barriers to banking services can help design and implement targeted initiatives to bring a more significant number of tribal people into the fold of the formal financial system. These findings would contribute to more effective ways of educating and mainstreaming tribal people, facilitating their socio-economic development.

Keywords: Banking habit, Service accessibility, Perception, Financial Inclusion, Tribal Community.

1. INTRODUCTION

Providing cheap banking services to a large segment of underprivileged and low-income populations is known as financial inclusion. An open and effective society must have unrestricted access to public goods and services. Since banking services are similar to public goods, the main goal of public policy should be to ensure that everyone has equal access to banking and payment services. In India, the current goal of financial inclusion is limited to providing everyone with the barest minimum of access to a savings bank account devoid of any extras. Internationally, financial exclusion has been viewed from a much wider perspective (Mishra & Chowbwy, 2012). In addition, the provision of suitable financial services to vulnerable groups, such as low-income groups and weaker parts who lack access to even the most basic banking services at a reasonable cost and promptly, is known as financial inclusion. Additionally, researchers focus on strategies used by different Indian banks to achieve the ultimate goal of financial inclusion for inclusive growth in India and examine previous years' progress and accomplishments to understand better financial inclusion and its significance for the general development of society and the nation's economy (Garg & Agarwal, 2014). This way, financial inclusion can lift the economic condition of low-income people and those from back homes. Furthermore, it can improve their living standards and

thus help them achieve betterment. Access to affordable financial services, especially credit and insurance, broadens the livelihood (Sahoo *et al.*, 2013).

A sense of empowerment is gained from having a solid understanding of finance. It also facilitates improved planning and decision-making on the appropriate allocation of various asset classes to meet short-term and long-term financial objectives. Over the past ten to fifteen years, we have observed a global shift in individual investors' awareness of the significance of this topic. The main issue investors face is that many options are available. It has also become challenging to understand the jargon associated with various financial products, and the way investment solutions are packaged with a lot of complexity necessitates that each investor be financially literate (B Dhananjan, 2021). Tribal communities in India are reported to have remained backwards in many aspects of socio-economic development. They are found to be one of the vulnerable groups in society in respect of resource allocation, income disparity etc. Studies show that tribal communities are vulnerable to exploitation by moneylenders and indebtedness. As India's economy transformed from an agriculture-based society to an industrialized society, their miseries have been seen to take an increasing trend. Nonetheless, losing land rights because of urbanization have been pushing them towards an uncertain future. Being inhabitants to their geographical remoteness add to their disadvantage. As the tribal communities historically remain detached from mainstream India, they may be unable to realize the benefit of accessing financial services from formal financial institutions. The purpose

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of the study was to examine how tribal households of Odisha perceived the bank's service accessibility in light of all these circumstances. However, this study focuses on measuring the factor influencing banking habit and service accessibility of tribal households. Measurement done on the basis of above criteria.

There are six sections in this study. The introduction is covered in the first section, followed by a review of the literature in the second, objectives in the third, methods, results and analysis in depth in the fourth, and a conclusion, limitations and policy implications in the final section *i.e* fifth.

2. REVIEW OF LITERATURE

Choudhary *et al.* (2013) In the banking industry, microfinance has been acknowledged as a tool for combating poverty. It offers the underprivileged hope that they can manage their financial resources but cannot refinance because of a lack of funds. Additionally, attempts have been made to provide some workable, doable solutions to the predicament of this significant segment of the population. Nayakaman *et al.*, (2021) was described as "accepting money from the public, refunding it on demand or otherwise cleaving" in the Banking Regulation Act of India, 1949. This study examines several topics not yet covered in the literature on mica ability checks, draft orders, or other related topics. Commercial banks, financial institutions, state-level development banks, non-banking financial companies (NBFC), and other market intermediaries like stock brokers and money lenders are the main players in the Indian financial system. These are some of the oldest NBFC variations and market participants.

Guha S. *et al.* (2017) investigated the financial behaviours of tribal groups in Madhya Pradesh's Jhabua district and offers a microfinance strategy that might work well there. Pradeep, (2017) discovered that around 94.8 percent of the tribes in this state's tribally governed district had bank accounts. Ninety-eight percent of the houses in Kuruma, one of the largest non-indigenous tribal groupings, have bank accounts. Tribal banking has been made possible in large part by government labor market intervention through programs.

Singh (2020) combined panel data in a study with time-series and cross-sectional data. The study also examines the dynamic relationship between development indicators like each district's GDP and measures of financial inclusion, including credit flow to each district, bank deposits, and the number of bank branches per 1,000 square kilometers. Restrictions/Impacts: The experimental impacts of

financial inclusion are measured by this data analysis. Additionally, Mallik G. and Singla A. (2021) studied have revealed that compared to their rivals, the micro and micro-service sectors have much greater levels of financial literacy and also discovered that entrepreneurs with advanced degrees had attained high financial literacy across the board. On other hand, Struckell *et al.*, (2022) examined, with a particular emphasis, how self-reliance is becoming more common as financial knowledge in the U.S. drops. Focusing on two in-depth studies and a significant U.S. population survey, we support a positive association between financial literacy and self-reliance on an American issue, using a sample of 15,069 participants in the 2015 and 2018 National Economic Skills survey. Gender and race in writings on self-reliance and entrepreneurship. High financial literacy scores do not significantly alter the relationship between respondents who are non-white and white in America. While the Sarma (2008) index is useful for measuring the level of financial inclusion, the DFM method is more appropriate for predicting the level of financial inclusion, according to the authors of ALI *et al.* (2021), who evaluate and criticize two different approaches. The results indicate that Sarma's (2008) index reflects the level of financial inclusion, while the previous change in the DFM-based index reflects the current level of financial inclusion. Furthermore, for a more thorough understanding, distinct metrics should represent the macro and local components of financial inclusion. Ghosh, P. (2016) investigated that many Indian tribes were essential to the colonial attempt to convert land and property into a revenue zone, primarily to provide agricultural and forest resources. They were consequently compelled to abandon their original land and relocate. The subcontinent saw an uprising by the indigenous peoples due to their intense unhappiness, and mainstream political discourse was also apparent. The Jharkhand movement was the oldest of them all.

Pradhan *et al.* (2021) evaluated the short- and long-term dynamics of financial inclusion, economic growth, and the development of ICT infrastructure between 1991 and 2018. We present evidence of both short- and long-term strong temporal causes within these variables. Our experimental results demonstrate that coordination of ICT infrastructure development, financial inclusion policies, and economic growth strategy is necessary for these Indian states to achieve sustained economic development. Zhang H. and Liu L. (2021) discovered that as college students experienced higher levels of financial stress, the relationship between risk credit behaviour and financial literacy grew stronger and their research indicates that there is a partial mediation effect between risk credit behaviour and financial literacy. By outlining the history of

consumer credit behaviour, personal financial literacy, and financial self-efficacy, this study adds to the body of knowledge on financial literacy. However, Priyadarshini *et al.* (2020) study was to examine the extent of financial inclusion among farmers as a means of integrating the vulnerable and weaker segments of society into an inclusive financial system that will enhance and safeguard future generations through seven strategies. Hundreds of farmers were chosen using a multistage sample procedure, and data were gathered using an index survey that the researchers ran. Sharma P. and Barik R. (2020) examined the significance and primary obstacles associated with financial inclusion for the transgender population in Odisha. The purpose of that study was to address the main obstacles and difficulties that the transgender population in Odisha has in achieving financial inclusion. Seventy-six respondents were interviewed in-depth in order to achieve the aforementioned goal. According to the survey, official financial institutions are not providing transgender people with appropriate financial goods and services. This expulsion is caused by both supply-side and demand-side causes. Because of recent corporate scandals, there has been a huge increase in demand for this specialty. In some places, the cordial demeanor of bank staff and authorities is associated with supply-side variables, resulting in a reduced availability of government-issued legal documents.

There have been many studies in the past regarding 'banking habit and service accessibility on tribal households.' This study was conducted in Odisha, where a few studies investigated the impact of banking habit and service accessibility on tribal people. Moreover, many studies have been undertaken with fewer sample sizes, which does not represent the actual scenario. So, it is important from a developmental perspective and a geographical point of view to fill all these gaps.

3. ABOUT DATA AND METHODOLOGY

Both Primary & Secondary data are used in this research. The primary data is collected to fulfil the information requirements of specific objectives. The study is based on secondary and primary data collected from the individuals through the interview method with the help of a well-structured schedule. The questionnaire was distributed via Google Form online and offline, and the collected data was encoded in SPSS software for further processing.

3.1. Scale Development and Variable Justification

This study aims to inquire into Odisha tribal community people perception towards banking habits

and service accessibility. The first section of the questionnaire gathers personal information from the respondents, such as gender, income level, caste, marital status, number of earning family members, educational background, and occupation. In the latter section of the survey, respondents' opinions and perceptions are explained using a 5-point Likert scale ranging from strongly agree to strongly disagree. There are two scales used to measure the variables: ordinal and nominal.

3.2. Scope of the Study

This study focuses on factors that impact the education, occupation, and income of tribal households on service accessibility of the bank. Moreover, this study focuses on measuring the factor influencing banking habit and service accessibility of tribal households.

4. RESULTS AND DISCUSSION

4.1. Reliability Test (RT)

Table 1: Analysing the Entire Sample's Reliability

Reliability Statistics	
Cronbach's Alpha	N of Items
.780	16

Source: Compiled by Authors.

A reliability test (RT) is performed to ascertain the precision and dependability of the item measurement and internal consistency. Using Cronbach's Alpha, the dependability statistics for every item in this case .780, which is higher than the suggested threshold of 0.7 (Cronbach, 1951; Nunnally, 1978) and indicates strong internal consistency.

4.2. Exploratory Factor Analysis (EFA)

Exploratory factor analysis (EFA) uses Principal Component Analysis (PCA) to create factors from a set of variables, requiring adequate and spherical sampling before proceeding.

Adequacy and Sphericity of Sampling

The Bartlett and Kaiser-Meyer-Olkin (KMO) statistics are displayed in Table 2. The adequacy of the sample is gauged by the Kaiser-Meyer-Olkin values. Such a number has a range of "0" to "1," with a value closer to 1 and higher than 0 sufficient for a factor analysis. According to Kaiser (1970) and Shree *et al.* (2017), these values should be higher than .5 and .6. The KMO value is excellent between .7 and .8, according to Hutcheson & Sofroniou (1999), excellent

Table 2: Tests of Sampling Adequacy Kaiser-Meyer-Olkin (KMO) and Sphericity Bartlett's

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Sampling Adequacy Measure.		.633
Bartlett's Test of Sphericity	Approx. Chi- Square	300.692
	DF	78
	Sig	.000

Source: Compiled by Authors.

between .9 to .9 and 8 to 9. The KMO value in this study is .633, which is still within the suggested ranges for all categories and still in good condition.

Using Bartlett's Test of Sphericity, the study rejects the null hypothesis of uncorrelated variables because the p-value is less than 0.05, showing that the variables are related and suitable for factor analysis.

The rotated component matrix explains the component loading, which represents the correlation between the variables and factors (Panda *et al.*, 2021). Only the variables with factor loadings greater than 0.5 for most of the variables were considered. Additionally, we considered two variables with factor loadings closer to .5 and higher than 0.5. As long as the sample size exceeds 100, a factor loading of 0.4 or higher is also considered favourable (Budaev, 2010). Through the use of exploratory factor analysis (EFA), we were able to produce five constructs with thirteen variables for additional study.

By the goal, the dependent variable is Banking Habit (BH) and Service Accessibility (SA) where the independent variables are Convenience (CV), Cooperation (CO) and Service of Bank (SB).

4.2. Regression Results

Table 4: Parameters for Regression

Parameters	Recommended Value
R Square	.267
Adjusted Square	.057
Durbin- Watson Stat	1.764
F Stat	59.56

Source: Compiled by Authors.

The R square shows the percentage of the dependent variable's variance that the independent variables account for. In this case, the figure of 0.267 indicates that the CV, CO and SB account for just 26.7% of the BH. If auto-correction occurs in the residuals at lag 1, it is found using the Durbin-Watson test. The range of 1.5 to 2.5 is where Durbin-Watson statistics should fall. A value nearly equal to the required value is 1.764 in this case. Thus, the absence of autocorrelation can be concluded. A p-value of less than .05 and a F statistic of 59.56 are present. Convenience, collaboration, service accessibility, and bank service work together to make the model fit.

Table 3: Rotated Component Matrix

Factors	Variables	Loadings
Convenience (CV)	Your bank is conveniently located	.788
	The loan is easily available	.743
	Employees help make information available	-.482
Cooperation (CO)	Bank follows quick problem approach	.647
	Employees of the bank are cooperative, Friendly and knowledgeable	.637
	Advance schemes of the bank are frequently used	.566
Banking Habit (BH)	You save money frequently	.744
	You have easy access to the information which is useful	.550
Service Accessibility (SA)	Field workers promote various schemes of the bank	.785
	A banking institution is easily approachable	.686
Service of Bank (SB)	Bank provide insurance services	.708
	Account opening formalities are easy	.672
	You are a regular visitor of the bank	-.470

Source: Compiled by Authors.

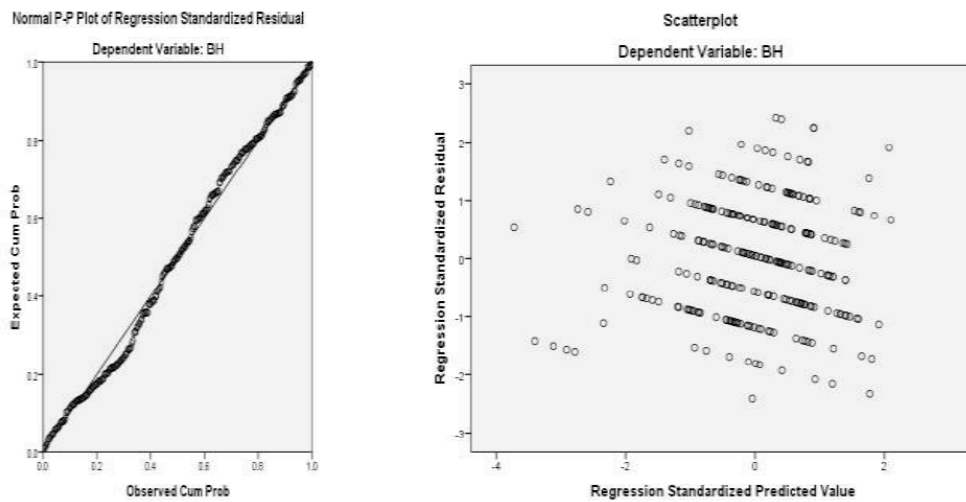


Figure 1: PP and Scatter plot.

Source: Compiled By Authors.

The PP plot's data points in Figure 1 are closer to the normal distribution line. The residual scatter plot shows that the plots are dispersed around the region. It's not creating a specific pattern, either. The two images above show that the residuals have a normal distribution. As a result, residuals are continuously changing, which is what the regression model requires.

Notable in this respect is the following regression equation.

Relationship of between BH and SB, CV, CO, SA

$$BH = \alpha + CV + CO + SA + SB + e$$

The coefficients of regression are measured in Table 5. Because the p-value is smaller than 0.05, it is determined that, at the 5% level of significance, employee cooperation and service banking have a significant impact on banking habits. However, because the p-value is more than 0.05, the accessibility of services and convenience have no discernible effects on the banking habits of tribal community people. Given that the tolerance values are more than 0.2 and the VIF value is less than 5, there is also no

problem with multicollinearity (Hair *et al.*, 2011). Employee cooperation has an unstandardized beta value of 0.158, meaning that BH will grow by 0.158 units for every unit increase in employee cooperation. In a similar vein, SB's value is 0.283. The results of the regression are presented below.

$$\text{Banking Habit} = 1.134 + .158 * \text{Employee Cooperation} + 0.283 * \text{Service Banking}.$$

4.4. Impact of Convenience Located (CV), Employee Cooperation (CO), Banking Habit (BH) and Service Banking (SB) on Service Accessibility by Tribal Community People

The scatter plot of residuals shows that the plots are scattered and spread across the scatterplot and are not forming a particular pattern. Thus, it can be concluded that residuals are varying constantly which is a requirement of the regression model. The distribution of the residuals indicates that all data points are within the histogram. Data points are also closer to the PP plot. So, both images above imply that the residuals are normally distributed.

Table 5: Regression Coefficients

Model	Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
Constant	1.134	.387	2.931	.004		
CV	.080	.077	1.041	.299	.957	1.045
CO	.158	.079	2.009	.045	.936	1.069
SA	.044	.062	.705	.481	.931	1.075
SB	.283	.086	3.300	.001	.924	1.082

Note: Dependent Variable: Banking Habit (BH)

Source: Authors own compilations

Ho: There is no significant impact of banking habit on employee cooperation, service banking.

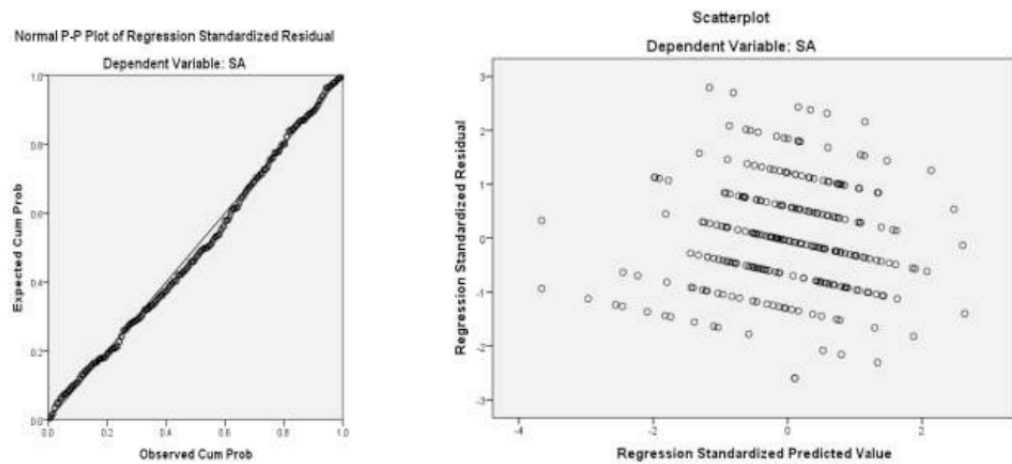


Figure 2: PP and Scatter plot.

Source: Compiled by Authors.

The regression equation that follows is noteworthy in this regard.

$$SA = \alpha + CV + CA + BH + SB + e$$

The coefficients of regression are measured in Table 6. Because the p-value is smaller than 0.05, it is determined that, at the 5% level of significance, convenience located and service banking have a significant impact on service accessibility. However, because the p-value is more than 0.05, the banking habit and employee cooperation have no discernible effects on the service accessibility of tribal community people. Given that the tolerance values are more than 0.2 and the VIF value is less than 5, there is also no problem with multicollinearity (Hair *et al.*, 2011). Convenience located has an unstandardized beta

value of 0.152, meaning that SA will grow by 0.152 units for every unit increase in convenience located. In a similar vein, SB's value is 0.225. The results of the regression are presented below.

$$\text{Service Accessibility} = 1.353 + .152 * \text{Convenience Located} + 0.225 * \text{Service Banking}$$

Most of tribal area people are getting lack of facilities of banking. So the impact of CV, CO and SB on SA is studied. The outcome demonstrates that CV, CO, BH, and SB significantly influence the tendency for banking activities to be facilitated. Table 6 displays the result of the ANOVA test.

We discovered from Table 7 that the F value is 5.156, which is significant at 1%. The null hypothesis is

Table 6: Regression Coefficients

Model	Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
Constant	1.353	.376	3.600	.000		
CV	.152	.075	2.036	.043	.968	1.033
CO	.115	.077	1.482	.140	.929	1.076
SB	.225	.085	2.666	.008	.912	1.097
BH	.042	.060	.705	.481	.920	1.087

Note: Dependent Variable: Service Accessibility (SA).

Ho: There is a no significance relationship between service of accessibility and Convenience located, service banking.

Table 7: ANOVA

Name of Group	Sum of Squares	DF	Mean Square	F	Sig.
Between group	12.950	4	3.238	5.156	0.001
Within the Groups	168.897	269	.628		
Total	181.848	279			

Note: Dependent Variable: Service Accessibility.

Independent Variable: Convenience located, employee cooperation, service banking, banking habit.

rejected since the p-value is less than 0.01. Therefore, it can be concluded that CV and SB have a significant effect on the accessibility of the service. So it has a greater impact on the tribal community people with regard to service accessibility.

5. CONCLUSION, LIMITATIONS AND POLICY IMPLICATIONS

This study looked into how easily accessible banking and services were for Odisha's tribal people. Given their socioeconomic circumstances, we have also examined how the indigenous people perceive things. From the analysis, we found that factors like convenience located, service banking, and employee cooperation have a significant impact on the tribal community people with regard to the banking habit and service accessibility. Additionally, private businesses have started initiatives to promote financial inclusion in the country. The aforementioned private firms devised and executed initiatives to include low-income populations in developmental projects. These programs include DCM's Haridali Kisan Bazaar, ITC's Echoupal or E-Sagar, Hindustan Unilever's Project Shakti, and numerous others. Additionally, it lessens the gap that separates financial institutions from their clients, which helps to sustain a positive rapport. Financial inclusion will enable all economic agents in the country to access formal financial services and contribute to the economy's overall growth. Although more people are gaining access to bank accounts, there is still a need to improve financial literacy and sophisticated use of bank services. Additionally, it implies that other aspects of financial accessibility should be investigated, from having a bank account to fully utilizing contemporary financial tools.

As per limitations point of view, the current study is restricted to particular topographical regions in Odisha, India. The tools and methods used for the procedure, sample, and data collection depended on the resources available for the study. The Santal tribe is the exclusive focus of this investigation. The study is limited to Santali tribals, who are prevalent in the study area and comprise roughly half of the 62 tribal communities in Odisha. No other tribal community has access to the data and information for the study. Future researchers should explore other tribal communities more in-depth and also try to find out other factors that will lead to greater accessibility, which ultimately leads to excellent financial inclusion.

In policy and implications, the study on banking practices and service accessibility of tribal households in Odisha, India, highlights the immediate requirement for focused inclusivity interventions. To that effect, the government and financial institutions should consider

establishing branches and encouraging the launch of mobile banking services within the tribal terrain. Specialized financial education programs should also be implemented, and the target group should be taught about banking services and encouraged to adopt them. These interventions will contribute to reducing the financial divide, hence economically empowering the tribal households towards embracing inclusive development in the region.

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CONFLICT OF INTEREST

The authors assert that they have no competing interests.

DATA AVAILABILITY STATEMENT

Data available upon request.

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