



## **The Impact in Financial Inclusion on Socio-economic Status among Tribe of Odisha : A case study on Mayurbhanj district.**

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### **Abstract:**

In today's jargon, "financial inclusion" and "inclusive growth" are key concepts. Growth that is inclusive also empowers members of vulnerable groups. This study focuses on inclusive growth with the aim of evaluating the type and degree of financial inclusion as well as its effects on the socioeconomic condition of households in vulnerable groups. By examining the main data gathered from the Revenue Divisions of Odisha and the theoretical backdrop on financial access and economic growth, this has been examined. The findings indicate that there are differences in the type and degree of financial inclusion. The paper proposes a model to make the financial system more inclusive and pro-poor based on the fact that access to and use of formal banking services pave the way to improvements in the socioeconomic status of households belonging to vulnerable sections that are correlated, leading to inclusive growth. The objectives have been verified by the application of Chi-Square test ( $\chi^2$ ) for observed results with expected results, T test for compare the means of two groups and Eigenvalues for reducing dimension space and Logit model.

**Keywords:** Financial Inclusion, Impact of Financial Inclusion, Socio-Economic Status, Inclusive Growth, Odisha, Financial exclusion

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### **Introduction:**

According to economic literature, "inclusive growth" refers to the equitable distribution of resources that benefits every segment of society. The achievement of the equality goal in growth is made possible by the participation of all societal segments and geographical areas in economic progress and in reaping its advantages. Economic growth with equal opportunity for all is referred to as the inclusive growth concept. It simply entails generating possibilities for progress and making them available to everyone, especially the underprivileged (Ali & Zhuang, 2007).

Since the inception of national plans, India has stressed the role of finance in encouraging equitable progress. The creation of rural cooperatives, Regional Rural Banks (RRB), National

Bank for Agriculture and Rural Development (NABARD), nationalisation of commercial banks, emphasis on social banking, rural credit, priority sector lending, Lead Bank Schemes, interest rate ceilings, subsidies, etc., are a few significant steps taken in this direction. Even now, after all of India's policy efforts to promote financial inclusion, official banking services still haven't reached a significant portion of households, and the poor and outcasts of society are still unable to access any financial services.

### **Review of Literature:**

1. Shanthi P. and Panicker R. (2020), The homeless and underprivileged are given access to economical meal services by street vendors. The availability of regional and local delicacies at these kiosks is another factor. The mechanics of the city's daily betting and the poor's food vending machine supply. Because it contributes to the availability of affordable food for the urban populace, urban street food survives.
2. Singh A. (2020), The project will take steps to support community organisations technically, create business plans for providers to enter the market, and collect and disseminate best practises from throughout the nation. It details what you require.
3. Panda S. and Sahoo A. (2022), examines how street vendors perceive digital payments and how they affect the success of their businesses. Data will be gathered for this purpose from Cuttak, Kurda, and Berhanpur, three Tier 2 cities in Orissa, utilising both structured questionnaire and interview methodologies. To fully achieve the aforementioned goals, this empirical study also includes both primary and secondary data.
4. Tung R.K.(2023), The report makes an effort to examine financial inclusion in all of Odisha's districts on a comprehensive basis. The current study examines the financial inclusion of Odisha at the district level for the years 2010 to 2020 using two variables: the number of branches and the number of bank accounts. The chosen variables represent, at least generally, how the banking business is distributed and, subsequently, how much it is present or absent. While a deposit account shows how to utilise and access banking, the distribution of branch locations shows how deeply people are incorporated into the financial system. Thereafter, individual indices are built for each component, resulting in the composite index known as the Index of Financial Inclusion (IFI).

### **Objectives**

1. To examine the type and degree of financial inclusion among vulnerable households in both rural and urban areas.
2. To evaluate the social and economic effects of financial inclusion on households who are part of the vulnerable groups.

### **Hypothesis:**

H0: The rural population has less access to and use of financial products and services compared to the urban population in Mayurbhanj District.

H1: There is no difference in access to and use of financial products and services between rural and urban residents of Mayurbhanj district.

Information about the city:  
The socioeconomic profile (the main respondents of the survey) was widely discussed in his

29 terms in Baripada city, based on field data. According to a preliminary report from the 2011 Indian Census, Baripada has a population of 110,058, of which 57,008 are male and 53,050 are female. Baripada City has 110,058 inhabitants. The city/city has 116,874 inhabitants, of which 60,535 are male and 56,339 are female. Also, in the education sector, there are a total of 89,421 illiterate people in Baripada city, of which 48,388 are men and 41,033 are women. Baripada City has an average literacy rate of 89.31% with male and female literacy rates of 93.45 and 84.88 respectively.

Research

scope:

By investigating whether social work professions can contribute to financial literacy, Designated Tribes can develop an understanding and knowledge of financial literacy. The contribution of social work to general financial education can be justified in terms of vocational theory. Social workers should promote financial education to alleviate poverty by connecting economically vulnerable people to key financial education providers.

Data sources and methodology

The information was gathered from both primary and secondary sources This study is descriptive and analytical in nature as it aims to describe the situation of tribes in terms of access to banking services in Baripada city, Mayurbanji district, Odisha. Field studies are conducted for research purposes. A sample size of 360 is obtained and responses are collected in a structured timeline questionnaire. Researchers determined the samples using practical sampling methods. The scheduled survey consists of 25 questions. Quantitative methods are used to analyze the collected data. Secondary data were collected from secondary sources such as websites, news channels, newspapers and government , statistical reports.

For categorical data, data were summarised and assessed using frequency and percentages. Mean, Standard Deviation, and Median were used to analyse interval data and rating scales. The economic and social impact of financial inclusion on rural and urban households has been assessed using multiple regression analysis.

In the study, the total score of the individual sub-components of the constructs was obtained by adding up the scores of each question falling under those components, followed by standardisation and sorting out using the property of normal distribution, while measuring the components of financial inclusion and its impact on socioeconomic status. The component of financial inclusion and its impact was measured independently, while the final component of inclusive growth was considered dependent. They were evaluated and classified as average, below average, and above average using normal distribution and percentile values.

The above mentioned objectives have been verified by the application of Chi-Square test ( $\chi^2$ ) for observed results with expected results, T test for compare the means of two groups and Eigenvalues for reducing dimension space.

The Logit model was used in this quantitative analysis because it captures the persistence of dependent variables with binary yes or no outcomes (Gujarati 2003). In this context, variables with binary outcomes are financial inclusion. Whether the respondent is financially involved. In this study, financial inclusion is measured by account availability and frequency of access to financial services.

Observations on the Nature, Extent, and Impact of Financial Inclusion in Rural and Urban Populations.

Table 1 :Distance as a Barrier to Banking Services

Distance as barrier to banking services	Rural	Urban	Total
No	74.8	96.1	85.45
Yes	25.2	3.9	14.55
Total	100	100	100

Note:  $\chi^2 = 115.353$ ,  $df=1$ ,  $p = 0.000 < 0.01$ , HS

Source: Survey Data

In terms of distance to access banking services, nearly 78.6% of households If the distance from which basic banking facilities or other banking facilities can be accessed is less than 5 kilometers, About 20.6% of households were within 5-10 kilometers of a formal bank, and only 0.8% of households he had to travel more than 10 kilometers to get banking services. Rural BPL households had distance problems to access basic banking and other facilities compared to urban households, which was highly statistically significant and confirmed by the chi-square test. ( $z = 115.353$ ,  $df = 1$ ,  $p = 0.000 < 0.01$ , HS )

Table 2: Distribution of Households based on the Nature of Financial Inclusion (Figures in percentage)

Nature of Financial Inclusion	Region		
	Rural	Urban	Total
Below Average	66.5	9.2	37.85
Average	26.5	44.0	35.25
Above Average	7.0	46.8	26.9
Total	100.0	100.0	100.0

Note:  $\chi^2 = 402.372$ ,  $df=2$ ,  $p=0.000 < 0.01$ , HS

Source: Survey Data

Among rural and urban households surveyed in the income sector of Orissa, CB emerged as the main channel of banking service delivery. The majority of households had access to two or more formal financial institutions for banking services and benefited from poverty eradication, risk reduction, productivity enhancement and government-sponsored human resource development programs.

Across income sectors, there were disparities in access and use of formal banking services, but those with lower incomes who had recently started using banking services were unaffected. In this regard, inter alia: 66.5% of rural households had below average financial

inclusion flat. Only 7% of rural households were in the above average category and almost 46.8% of urban households had above average levels of financial inclusion, while 9.1% were in the below average category. rice field. Overall, approximately 37.85% of households had a below-average type of financial inclusion, and 26.9% of households were in the above-average category. Across income bands, the difference between rural and urban households was statistically significant and confirmed by the chi-square test ( $\chi^2=402.372$ ,  $df=2$ ,  $p=0.000<0.01$  HS).

Table 3: Distribution of Households based on the Extent of Financial Inclusion

The extent of Financial Inclusion	Region		
	Rural	Urban	Total
Below Average	79.3	31.3	55.3
Average	4.1	12.1	8.1
Above Average	16.6	56.6	36.6
Total	100.0	100.0	100.0

Note  $\chi^2$ : =246.720,  $df=2$ ,  $p=0.000<0.01$ , HS

Source: Survey Data

On average, 79.3% of rural households had below average levels of financial inclusion. Overall, about 8.1% of households had an above-average level of financial inclusion. Among urban households, about 31.3% had below average levels of financial inclusion and were below average. 55.3% of households had above average levels. The difference between rural and urban households across income strata was highly statistically significant, as indicated by the chi-square test ( $\chi^2=246.720$ ,  $df=2$ ,  $p=0.000<0.01$ HS).

Table 4: Inter-Tribal Financial Inclusion Index (IFI) variables

Sl. No.	Variables in IFI	Mean Scores among Tribes in		t' Statistics
		Urban	Rural	
1.	Loan from financial institution	3.481	3.889	-2.2273*
		2	5	
2.	Loan under schemes	3.498	3.918	-2.5503*
		1	9	
3.	Loan under microfinance	3.504	3.559	-2.3286*
		6	9	
4.	Loan through SHG	4.454	3.867	-2.5314*

		2	6	
5.	Savings in saving account	3.421 8	3.188 7	2.8942*
6.	Savings in recurring deposits	3.811 4	3.258 3	2.5647*
7.	Savings in fixed deposits	3.902 7	3.252 8	2.7119*
8.	Daily savings in banks	3.919 4	3.418 7	2.6914*
9.	Payment of health and life insurance	3.812 3	3.098 5	2.8194*
10.	Payment of family insurance	3.755 8	3.212 2	2.7243*
11.	Usage of cheques and drafts	3.899 9	3.114 2	2.9988*
12.	Usage of mobile banking	3.821 3	3.034 1	3.0986*
13.	Usage of net banking	3.719 9	2.978 3	2.8571*
14.	Usage of money transfer	3.569 3	2.843 4	2.9294*
15.	Usage of other banking instruments	3.755 0	3.175 6	2.6576*

Significant at 5% level.

The table shows that IFI bank term deposits and daily savings are variables highly valued by urban tribes. The average values are 3.9027 and 3.9194 respectively. Among rural tribes, there are SHG loans and microfinance loans, with average values of 3.8676 and 3.5599 respectively. Regarding the IFI variables, significant differences between urban and rural tribes were found at the levels of all 15 IFI variables. This is because the corresponding 't' statistic is significant at the 5% level.

Table 5 : Important Banking Activities in Financial Inclusion (IBAFI)

Sl. No.	IBAFI	No. of Variables in	Eigenvalue	Percent of Variation Explained	Cumulative Percent of Variation Explained
1.	Loans	4	4.0867	28.27	27.29
2.	Savings	4	3.7096	24.85	51.99
3.	Value-added Services	4	3.1918	20.73	72.69

4.	E-banking services	4	2.3985	14.9 4	88.61
KMO measure of sampling adequacy: 0.8116			Bartlett's test of Sphericity: Chi-square value: 111.99*		

Significant at 1% level

The table above shows that the first two IBAFIs recognized by EFA for the intrinsic value of loans and savings are 4.0867 and 3.7096 respectively. 28.27% and 24.85% are the percentages of variability explained by these two activities. The cumulative percentage of variation interpreted by these two activities is 27.29% and 51.99% respectively. The two main activities identified by the factor analysis are value-added services and e-banking services. Their eigenvalues are 3.1918 and 2.3985 respectively. The percentage of variation explained by these two significant activities is 20.73% and 14.94% respectively. The four IBAFIs described show 16 variables at 88.61%. All four of these IBAFIs are considered for further analysis.

### Correlation analysis:

Correlations between study components were assessed by the Karl Pearson correlation coefficient and grouped into three categories. For 'r' values greater than 0.8, the first category is 'strong correlation'; for 'r' values between 0.5 and 0.8, the second category is 'good correlation' and the third category is 'moderate It was correlation. The 'r' value is between 0.3 and 0.5 between study components. Overall, the correlations between the components of financial inclusion and inclusive growth and the socioeconomic impact components of formal financial service use and inclusive growth are measured as 'good' and 'strong' correlations. was done ( 0.801 and '0.660'  $p < 0.01$ ), statistically significant.

### Regression analysis:

To assess the impact of formal financial service use on inclusive growth outcomes, a multiple regression analysis was performed using inclusive growth as a baseline and the impact of financial inclusion and financial service use as predictors. . The analysis was statistically significant ( $t=30.044$  &  $26.257$ ,  $p<0.01$ ) and at the aggregate level, the components of “financial inclusion” (type of financial inclusion + degree of financial inclusion) and “impact of financial services consumption” was suggested. ' (material change + cognitive change + perceptual change + relationship change after consumption of financial services) had a significant impact on the 'inclusive growth' component, confirmed by the standard beta values (each  $\beta = 0.572$  and  $0.500$ ). This accounts for 0.622 of the variability indicated by the  $R^2$  statistic. The regression equation that predicts the impact of financial inclusion on inclusive growth and access to finance is  $Y = 13.335 + 0.774 X_1 + 0.848 X_2$ .

### Logit model:

The Logit model was used in this quantitative analysis because it captures the persistence of dependent variables with binary yes or no outcomes (Gujarati 2003). In this context, variables with binary outcomes are financial inclusion. Whether the respondent is financially involved. In this study, financial inclusion is measured by account availability and frequency of access to financial services.

A; The estimated equation;

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \dots + \mu$$

In this study, financial inclusion is measured by account ownership and frequency of access to financial services. We used five explanatory variables, Gender, education, marital status, and financial institution defining the dependent variables.

$$(1) \text{ Frequency of assessing} = c + \beta_1 \text{male} + \beta_2 \text{educ} + \beta_3 \text{amount} + \beta_4 \text{single} + \beta_5 \text{financial institution}$$

The above formula estimates financial inclusion potential based on various characteristics. In this study, too, financial inclusion is measured by the frequency with which financial services are rated. The variables gender (= 1 if male), education, employment level, marital status (= 1 if single), having an account with a financial institution.

Table 6: Definition of variables;

Variable name	Definition of variables
Sex	=1 if male
Marital Status	=1 if single
Level of education	Level of education of tribes
No of education	=0 if no education
Primary	=1
Secondary	=2
Higher Secondary	=3
Graduation	=4
Higher Studies	=5
Daily Amount	Amount of money in Baripada town that the individual earns per day
Availability of financial institution	In any bank, micro-finance or other financial institutions
Type of financial institution	Type of bank, micro-finance and other financial institution of Baripada town
Frequency	How many times do you access , use, afford your bank account or other financial institution

Source: Interview data from field work (Dec 2022)

The choice is between logit model and Probit model and I did both but am going to report the logit model.

Table 7: Logit/ Frequency of assessing financial services

Dependent variable: Frequency of assessing

Method: ML- Binary Logit ( Newton-Raphson / Marquardt step)

Variable	Coefficient	Std. Error	Z- Statistics	Prob.
Male	0.839387	0.652732	1.165321	0.2104
Education	0.333887	0.348108	1.087714	0.2897
Amount	0.000110	6.38E-05	1.642977	0.0984
Single	0.217349	0.687126	0.382152	0.7256



Institution	1.346988	0.596285	2.560042	0.0116
C	-5.219927	1.172432	-4.581918	0
McFadden R-squared	0.275675	Mean dependent var	0.24	
S.D dependent var	0.441953	S.E of regression	0.36738	
Akaike info criterion	0.989812	Sum squared resid	13.0732	
Schwarz criterion	1.046222	Log likelihood	-38.981	
Hannan-Quinn criterion	0.964074	deviance	76.9813	
Restr. Deviance	105.8653	restr. Log likelihood	-54.918	
LR statistic	33.78553	Avg. Log likelihood	-0.3898	
Prob (LR statistic )	0.000007			
Obs with Dep=0	269	total Obs	357 Obs	
With Dep=1	88			

Standard errors

\*\*\* P<0.01, \*\* p<0.05, \* p<0.1

In my sample of 357 observations. The results show that 88 tribes accessed or used his account at least once a month in the last six months, while 269 tribes had not accessed their accounts in the last six months.

McFadden's r-squared of 0.275675 indicates that some variables (gender, education, marital status) have the expected signs, but are not statistically significant, so the model works logically well. Furthermore, the likelihood ratio test statistic of 33.78553 and the associated p-value of 0.000007 indicate that the model fits significantly better when he uses all five of his explanatory variables than when he uses fewer explanatory variables. I'm here. A coefficient of 0.00 associated with the variable amount is statistically significant at the 10% significance level. This suggests that higher income tribe are more likely than lower income tribe to access or use their accounts at least once a month in the past six months. Furthermore, the coefficient of 1.3 associated with the availability of financial institutions within the city is statistically significant at the 5% significance level. Also, schooled and single tribe access and use their accounts more than once a month in the past 6 months than out-of-school and married single tribe. more likely. , but this is not statistically significant. In summary, as noted above, financial inclusion in this study is measured by the presence of accounts and the frequency of access or use of financial services. As shown in Table 7, all five explanatory variables are positive: gender, education, marital status, amount of money, and financial institution. However, the amount is statistically significant at the 10% significance level, as shown in Table 7. Additionally, they are more likely to be financially involved, as shown in the table above. Thus, having an account and frequency of accessing or using financial services were the two dependent variables that defined financial inclusion in the study, with the availability of financial institutions in the city increasing the financial inclusion of tribe . more likely.

### Policy implications and conclusions:

Based on observations, analyses, and insights, this paper draws the following conclusions.

- i. There is a mismatch between macro-level financial inclusion in the Indian economy and revenue sources in Odisha. At the macro level, even after financial inclusion

initiatives have been implemented, there are large inequalities in the economy, with most farmers, the poor and marginalized segments of society lacking access to financial services. The study identifies differences in income distribution within states and among households belonging to socially disadvantaged sections of the population.

- ii. There is a positive association between the use of banking services and socioeconomic status of households belonging to vulnerable groups. Therefore, financial inclusion of households belonging to vulnerable groups .It can be seen as an important factor in improving the socioeconomic status of households.
- iii. The positive correlation between financial inclusion and inclusive growth can be seen as a factor underscoring the role of innovative, low-cost formal banking products in the process of inclusive growth.
- iv. In addition to basic banking products, households belonging to vulnerable groups have access to Human Development Packages, Risk Reduction Packages and Productivity Enhancement Packages. This phenomenon demonstrates the role of welfare packages in improving the absorptive capacity of vulnerable people, lifting them from cycles of economic exclusion and making them more bankable. One key segment, households, would benefit from increased financial inclusion if promoted in the broader context of economic inclusion alongside social packages.
- v. Formal financial networks have the potential to unlock the creative power of disadvantaged households, driven by increased incomes and consumption of a large proportion of the population belonging to disadvantaged groups.
- vi. A formal banking system can improve the financial condition and living standards of households belonging to vulnerable groups and generate wealth, income and emergency funds to deal with unforeseen circumstances and economic crises; increase. It also benefits from the non-leak transfer of social benefits to disadvantaged segments of the population.
- vii. Financial inclusion expands banking networks with more transactions, brings new ways of earning a living in society, and leads to inclusive growth of the economy.
- viii. Given the existence of financial exclusion associated with the Indian economy, the study rationalizes public policies focused on financial inclusion.
- ix. By confirming the link between financial inclusion and its impact on positive changes in the socioeconomic status of households in the sample area, the study supports financial sector reforms to promote financial inclusion. emphasizes the need to centre development agenda.

Stage I: Making households bankable by improving absorptive capacity. The first phase of the model proposes ways to make loans available to households belonging to vulnerable groups. This improves absorptive capacity and allows households to break the cycle of financial exclusion. This phase will introduce human development packages in areas such as primary education, basic health and vocational training, along with risk reduction and productivity packages. Strengthening household financial literacy and basic knowledge of access to formal financial services through state-sponsored campaigns through the media, banking networks, NGOs and SHG campaigns plays an important role at this stage. Local

organizations and members are joining the stream to help alleviate the concerns customers in vulnerable regions have about the banking sector. Well-informed local volunteers help strengthen each household's position. The whole process at this stage is only the beginning of true inclusive growth.

**Stage II: Providing basic banking functions for BPL households**  
In the second phase, we will adopt a compassionate approach to new customers in areas where formal support networks are weaker, in the form of no-frills accounts, withdrawal options and fewer restrictions on such accounts. Features such as electronic transfer of benefits, financial advice on how to use available financial products effectively, and one-stop delivery of all products are offered, making households more comfortable with accessing formal banking networks. Increases trust. This will also improve business opportunities for banking networks, leading to lower cost banks.

**Stage III: innovative strategy**

In the third phase, is underpinned by innovative strategies to improve the range of banking facilities. This is the phase of infrastructure sharing between banks and other organizations. Low-cost benefits from this phase can be transferred to vulnerable population households. To further strengthen the formal banking network, banks can open small extension counters with organizations that provide public services such as technological innovation. In this way, the proposed model improves the absorption capacity of households from vulnerable populations and makes them more bankable. The financial inclusion thus enacted expands access to formal finance and paves the way for more transactions that lead to formal and systematic banking. rapid economic growth; new production and employment opportunities in society; It leads to inclusive growth.

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