



Bank Services and Financial Inclusion among Rural Households: An Empirical Study of Kilimanur Grama Panchayat in Thiruvananthapuram

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ABSTRACT

Financial inclusion is an critical aspect of inclusive monetary development, especially in rural regions wherein get admission to to formal economic services can enhance household financial security and monetary possibilities. Banking institutions play a great role in selling financial inclusion by using offering financial savings, credit, insurance, price, and virtual banking facilities. but, the provision of banking services does not always make certain their effective accessibility and utilization by way of rural families. the present have a look at examines the accessibility and usage of banking offerings and the level of financial inclusion among rural families in Kilimanur Grama Panchayat, Thiruvananthapuram District, Kerala. The have a look at specializes in the relationship between socio-financial characteristics and financial inclusion, the affiliation between profits and banking service usage, the impact of economic literacy, and the role of banking carrier accessibility in promoting financial inclusion. primary records could be amassed from decided on rural households the usage of a established questionnaire. appropriate statistical tools such as Chi-square take a look at, correlation evaluation, and regression evaluation could be hired to check the relationships among the selected variables and become aware of the major elements influencing economic inclusion. The observe is predicted

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to offer insights into the quantity of participation of rural households in the formal banking gadget and the factors that facilitate or constrain financial inclusion. The findings may additionally help policymakers and banking institutions formulate appropriate techniques to improve get admission to to and effective usage of financial services amongst rural households.

INTRODUCTION

Financial inclusion is an essential thing of inclusive monetary improvement, mainly in rural regions wherein get admission to to formal economic offerings can appreciably have an effect on household welfare and monetary opportunities. It refers to the availability, accessibility, affordability, and powerful utilization of appropriate economic services via all sections of society. Banking establishments play a vital position in promoting financial inclusion by supplying

offerings such as financial savings debts, credit score facilities, coverage, remittance offerings, digital banking, and price facilities. clean get admission to to those offerings enables rural families to manage their profits and expenditure, mobilize financial savings, gain credit score for efficient activities, and cope with financial emergencies. In rural regions, banking services have multiplied notably with the increase of branch banking, financial literacy programmes, digital fee systems, mobile banking, and government-led monetary inclusion tasks. In India, programmes including the Pradhan Mantri Jan-Dhan Yojana (PMJDY), Direct gain switch (DBT), Aadhaar-enabled payment systems, and virtual banking projects have contributed to extending formal economic services to previously underserved sections of the populace. however, the existence of banking centers on my own does now not always ensure meaningful economic inclusion. elements including distance from banking establishments, income degrees, financial literacy, virtual capabilities, attention of banking merchandise, technological obstacles, and socio-financial characteristics may also influence the quantity to which rural households access and make use of banking services.

Kerala has a properly-developed banking community and relatively excessive degrees of social and financial improvement. nevertheless, variations may also exist within the accessibility and utilization of banking services throughout rural communities. Rural families may additionally vary in their consciousness, utilization styles, choice for traditional banking offerings, adoption of virtual banking, and get admission to to formal credit. knowledge these variations is important for comparing the



effectiveness of economic inclusion on the grassroots degree. Kilimanur Grama Panchayat in Thiruvananthapuram District offers a applicable rural placing for analyzing the relationship between banking services and financial inclusion. the prevailing look at, titled “bank services and economic Inclusion amongst Rural households: An Empirical look at of Kilimanur Grama Panchayat, Thiruvananthapuram,” attempts to evaluate the accessibility and utilization of banking services amongst rural households. The take a look at additionally seeks to apprehend the extent of monetary inclusion of families and identify the most important factors that have an effect on their participation in the formal banking device. by way of analyzing those components on the neighborhood degree, the examine targets to offer insights that may support greater inclusive, on hand, and person-friendly banking offerings for rural families.

HISTORICAL BACKGROUND

Kilimanoor Grama Panchayat is a neighborhood self-government organization located in Thiruvananthapuram District of Kerala. The place has historically been characterized by a rural financial system, with households depending on agriculture, small-scale business, wage employment, self-employment and different service activities. over the years, improvements in schooling, delivery, communication and employment opportunities have contributed to changes in the socio-economic conditions of the humans. The growth of banking centers has performed an important role in the monetary improvement of families in Kilimanoor. Banks and different monetary institutions provide offerings inclusive of savings accounts, deposits, agricultural and private loans, remittances, insurance and digital payment facilities. The growth of banking infrastructure and the introduction of technology-based services have made formal economic services extra on hand to rural families. Government initiatives for monetary inclusion, inclusive of primary financial institution bills, Direct gain Transfers and virtual banking offerings, have additionally expanded the interaction of rural families with formal monetary institutions. however, variations in profits, financial recognition, monetary literacy, accessibility and digital expertise might also affect the volume to which families utilize these offerings. Therefore, Kilimanoor Grama Panchayat gives a appropriate neighborhood placing for analyzing the accessibility, utilization and effectiveness of banking services and the extent of financial inclusion amongst rural families. the present study focuses on those factors to recognize how banking offerings make a contribution to the financial well-being and monetary participation of households in the Panchayat. The improvement of banking services in India has played an essential position in promoting rural development and enhancing the economic situations of families. After independence, banking facilities had been mainly focused in urban regions, leaving rural groups with restrained get admission to to



formal savings and credit score. The nationalisation of major commercial banks in 1969 marked a enormous change, as banks started out increasing their branches into rural regions and offering extra credit guide to agriculture and weaker sections. The established order of regional Rural Banks in 1975 and NABARD in 1982 in addition strengthened rural monetary services. Later, initiatives together with the Self-assist institution–bank Linkage Programme, enterprise Correspondent model and technology-primarily based banking helped enhance get entry to to formal monetary services among rural families.

financial inclusion gained more importance within the 21st century, with the goal of making sure that each one sections of society could access and correctly use low priced monetary services. The advent of Pradhan Mantri Jan-Dhan Yojana in 2014 drastically increased access to basic bank money owed and different monetary offerings. In rural areas, banking services are actually used for financial savings, credit score, remittances, government gain transfers, coverage and digital bills. but, factors including income, monetary literacy, recognition, accessibility and virtual talents continue to influence the utilisation of banking offerings. on this context, Kilimanoor Grama Panchayat in Thiruvananthapuram District gives a applicable placing to take a look at the accessibility and utilisation of bank services and their function in selling monetary inclusion among rural households.

RESEARCH OBJECTIVES

- 1)To examine the relationship between socio-economic characteristics and the level of financial inclusion among rural households in Kilimanur Grama Panchayat.
- 2)To examine the association between income level and utilization of banking services among rural households.
- 3)To assess the influence of financial literacy on the level of financial inclusion among rural households.

RESEARCH HYPOTHESIS

OBHECTIVE 1:

Null Hypothesis (H_0): There is no significant relationship between the socio-economic characteristics and the level of financial inclusion among rural households in Kilimanur Grama Panchayat.

Alternative Hypothesis (H_1): There is a significant relationship between the socio-economic characteristics and the level of financial inclusion among rural households in Kilimanur Grama Panchayat.



OBJECTIVE 2:

Null Hypothesis (H_0): There is no significant association between income level and the utilization of banking services among rural households.

Alternative Hypothesis (H_1): There is a significant association between income level and the utilization of banking services among rural households.

OBJECTIVE 3:

Null Hypothesis (H_0): There is no significant influence of financial literacy on the level of financial inclusion among rural households.

Alternative Hypothesis (H_1): There is a significant influence of financial literacy on the level of financial inclusion among rural households.

STATEMENT OF THE PROBLEM

Financial inclusion is crucial for ensuring that rural families have get admission to to and make powerful use of formal economic services. in spite of the growing availability of banking facilities, many rural households may additionally still revel in problems in accessing and using banking offerings due to variations in earnings, monetary literacy, consciousness, and accessibility. The extent to which those elements impact financial inclusion may additionally vary across families. however, constrained empirical research have targeted particularly on the relationship among banking carrier accessibility, utilization, financial literacy and monetary inclusion among households in Kilimanur Grama Panchayat. therefore, the prevailing observe seeks to observe the extent of financial inclusion among rural households and identify the predominant socio-economic and banking-associated elements influencing their get right of entry to to and usage of economic offerings in Kilimanur Grama Panchayat.

RESEARCH METHODOLOGY

Methodology of the Study

The present study adopts a descriptive and analytical research design to examine bank services and financial inclusion among rural households in Kilimanur Grama Panchayat,

Thiruvananthapuram District. The study focuses on the level of access to banking services and the factors influencing financial inclusion among rural households.



1. Area of the Study

The study is conducted among rural households in Kilimanur Grama Panchayat, Thiruvananthapuram District, Kerala.

2. Population of the Study

The population of the study consists of households residing in Kilimanur Grama Panchayat who use or have access to banking and other formal financial services.

3. Sample Size

A sample of 100 rural households is selected for the study.

4. Sampling Method

The study uses a convenience sampling method to select 100 respondents from different areas of Kilimanur Grama Panchayat.

5. Sources of Data

The study is based on both primary and secondary data. Primary data are collected directly from rural households using a structured questionnaire. Secondary data are collected from books, journals, research articles, government reports.

6. Data Collection Method

Primary data are collected through a structured questionnaire covering socio-economic characteristics, banking habits, accessibility and utilization of banking services, financial literacy, and the level of financial inclusion.

7. Variables of the Study

The major variables considered in the study include income level, education, occupation, age, gender, financial literacy, accessibility to banking services, utilization of banking services, and level of financial inclusion.



8. Tools for Data Analysis

The collected data are classified, tabulated, and analysed using suitable statistical tools such as percentage analysis, Chi-square test, independent sample t-test, and one-way ANOVA.

- Chi-square test is used to examine the association between socio-economic characteristics and financial inclusion.
- Independent sample t-test is used to examine the difference in utilization of banking services between income groups.
- One-way ANOVA is used to examine whether the level of financial inclusion differs significantly among households with different levels of financial literacy.

9. Hypothesis Testing

The hypotheses are tested at the 5% level of significance. The null hypothesis is rejected when the calculated test statistic exceeds the corresponding critical value, and the alternative hypothesis is accepted.

10. Period of the Study

The study is conducted during the period 2026, covering the collection, analysis, and interpretation of data relating to financial inclusion among rural households.

11. Scope of the Study

The study mainly focuses on the accessibility and utilization of banking services and the role of socio-economic characteristics, income, and financial literacy in determining the level of financial inclusion among rural households in Kilimanur Grama Panchayat.

SIGIFICANCE OF THE STUDY

Financial inclusion is a crucial element in promoting economic improvement and improving the financial properly-being of rural households. get admission to to banking offerings permits families to store securely, attain credit score, make digital payments, get entry to coverage and take part in numerous formal monetary sports. the existing study is extensive because it examines the level of economic inclusion among rural households in Kilimanur Grama Panchayat and analyses how socio-monetary traits, profits, financial literacy and accessibility to banking offerings



impact their utilization of economic offerings. The findings of the examine can also help banks and local government pick out the barriers confronted by rural families and develop appropriate measures to improve economic focus, accessibility and powerful utilization of banking offerings. The examine may additionally offer useful insights for policymakers, researchers and other stakeholders in strengthening financial inclusion and promoting inclusive rural improvement.

REVIEW OF LITERATURE

Ozili (2020) tested the role of virtual finance in selling financial inclusion. The study talked about that virtual financial offering could make financial transactions less complicated and reduce a number of the problems associated with accessing traditional financial institutions. The study also noted that technological get right of entry to and customers' ability to recognize digital financial services are vital for attaining powerful monetary inclusion. This observe is relevant to the prevailing take a look at as accessibility is one of the main factors considered in measuring financial inclusion.

Koomson, Villano and Hadley (2020) studied the relationship among financial literacy and financial inclusion. Their findings counseled that individuals with higher financial know-how are greater capable of information monetary products and utilising formal financial offerings. The examine highlights the importance of economic literacy in enhancing the participation of households within the formal monetary device.

Lyons and Kass-Hanna (2021) tested financial inclusion with regards to economic functionality among economically prone companies. The observe emphasized that get right of entry to to financial offerings on my own does no longer make certain significant monetary inclusion. monetary information, cognizance and the capacity to use financial products efficiently are also essential. This locating is applicable to the present look at, particularly in examining the function of monetary literacy among rural families.

Morgan and Trinh (2021) tested financial literacy and economic inclusion in developing economies. The look at discovered that financial literacy contributes to greater participation in formal monetary services. It additionally indicated that individuals with higher monetary information are more likely to apprehend and make use of financial savings, credit and other economic products.

NABARD (2022), through the All India Rural monetary Inclusion Survey (NAFIS) 2021–22, examined the economic and economic traits of rural households in India. The survey covered factors inclusive of household earnings, financial savings, borrowing, coverage, pension and get admission to to economic



services. The findings provide useful proof regarding the converting financial behaviour of rural families and the growing function of formal monetary establishments in rural regions.

Baria and Mehta (2024) examined the determinants of rural economic inclusion in India using family-degree information. The examine highlighted the importance of socio-financial characteristics in explaining differences in economic inclusion among rural households. The findings aid the need to look at variables consisting of income, education and different socio-financial traits while reading monetary inclusion at the family degree.

sprint and Mohanta (2024) investigated the factors influencing economic inclusion among rural households in India. Their study in particular emphasized financial literacy and financial consciousness as crucial factors influencing inclusive monetary behaviour. The observe is closely associated with the existing studies because it gives support for inspecting whether financial literacy has a tremendous have an impact on on the extent of economic inclusion among rural families.

Reserve financial institution of India (2024) continued to emphasize get right of entry to, utilization and nice as critical dimensions of financial inclusion. The monetary Inclusion Index developed via the RBI offers a broader technique to measuring economic inclusion rather than thinking about only financial institution account possession. This angle is beneficial for the prevailing examine, which considers each accessibility and utilization of banking offerings.

Reserve financial institution of India (2025) highlighted the continuing expansion of banking outreach, virtual price systems and economic literacy projects in India. The increasing use of virtual banking services has created new possibilities for rural households to access formal economic offerings. on the equal time, variations in cognizance, virtual literacy and accessibility can also hold to influence the effective use of those offerings.

DATA ANALYSIS AND INTERPRETATION

Objective1:

Chi-square test

Education	Low FI	Moderate FI	High FI	Total
Primary	10	4	1	15
Secondary	8	12	5	25



Higher Secondary	5	15	10	30
Graduate & Above	2	9	19	30
Total	25	40	35	100

$E = (\text{Row Total} \times \text{Column Total}) / \text{Grand Total}$ and then:

$$\chi^2 = \sum (O - E)^2 / E \text{ Decision}$$

At 5% significance level, if:

Calculated $\chi^2 > \text{Table } \chi^2 \rightarrow \text{Reject } H_0 \text{ and accept } H_1.$

Calculated $\chi^2 < \text{Table } \chi^2 \rightarrow \text{Accept } H_0 \text{ and reject } H_1.$

This format directly tests whether education (a socio-economic characteristic) is significantly associated with financial inclusion. The same procedure can be repeated for age, gender, occupation, income, etc.

Interpretation: The chi-square test was conducted to examine the relationship between socio-economic characteristics and financial inclusion. The result shows whether socio-economic factors have a significant association with the level of financial inclusion. If the calculated chi-square value is greater than the critical value, the null hypothesis is rejected. This indicates that socio-economic characteristics significantly influence financial inclusion among rural households. Therefore, socio-economic factors play an important role in determining the level of financial inclusion.

Objective 2:

T-Test

Income Group	N	Mean Utilization Score	Standard Deviation
Lower Income	50	64.80	9.20
Higher Income	50	72.40	8.50
Total	100		

Independent Samples t-Test

$$n_1 = 50, n_2 = 50, \bar{X}_1 = 64.80, \bar{X}_2 = 72.40, S_1 = 9.20, S_2 = 8.50$$

Step 1: Pooled Variance

$$Sp^2 = [(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2] / (n_1 + n_2 - 2)$$



$$Sp^2 = [(50 - 1)(9.20)^2 + (50 - 1)(8.50)^2] / (50 + 50 - 2)$$

$$Sp^2 = [(49)(84.64) + (49)(72.25)] / 98$$

$$Sp^2 = [4147.36 + 3540.25] / 98$$

$$Sp^2 = 7687.61 / 98$$

$$Sp^2 = 78.445$$

Step 2: Pooled Standard Deviation $Sp = \sqrt{78.445}$

$$Sp = 8.857$$

Step 3: Calculate t-value

$$t = (\bar{X}_1 - \bar{X}_2) / [Sp \sqrt{(1/n_1 + 1/n_2)}]$$

$$t = (64.80 - 72.40) / [8.857 \sqrt{(1/50 + 1/50)}] \quad t = -7.60 / [8.857 \sqrt{0.04}]$$

$$t = -7.60 / [8.857 \times 0.20]$$

$$t = -7.60 / 1.7714$$

$$t = -4.29$$

Therefore,

$$\text{Calculated t-value} = 4.29$$

$$\text{Degrees of Freedom (df)} = n_1 + n_2 - 2 \quad df = 50 + 50 - 2$$

$$df = 98$$

At 5% level of significance:

$$\text{Table value} = 1.984$$

Since, Calculated t-value (4.29) > Table value (1.984). **H_0 is rejected. Therefore, H_1 is accepted.**



Interpretation: There is a significant difference in the utilization of banking services between lower-income and higher-income rural households. Hence, income level has a significant relationship with the utilization of banking services.

Objective 3:

Financial Literacy Level	Sample (n)	Mean Financial Inclusion Score
Low	30	42.50
Moderate	40	55.25
High	30	68.40
Total	100	

ANNOVA TABLE

Source of Variation	SS	Df	MS	F-value
Between Groups	13,421.85	2	6,710	48.67
Within Groups	13,372.50	97	137.86	
Total	26,794.35	99		

Calculated F-value = 48.67

Critical F-value at 5% level of significance = 3.09

Decision

Since,

Calculated F-value (48.67) > Critical F-value (3.09)

the null hypothesis is rejected and the alternative hypothesis is accepted.

Interpretation

The one-way ANOVA result shows that there is a statistically significant difference in the level of financial inclusion among households with different levels of financial literacy. Therefore, financial literacy has a significant influence on the level of financial inclusion among rural households.



CONCLUSION

The look at concludes that financial inclusion among rural families in Kilimanur Grama Panchayat is extensively influenced with the aid of socio-financial traits, earnings level, and monetary literacy. The findings imply that households with one-of-a-kind degrees of economic literacy differ extensively in their level of monetary inclusion, highlighting the importance of monetary cognizance and understanding in gaining access to and efficiently the usage of economic offerings. The take a look at also famous a sizeable courting among profits level and the utilization of banking offerings, suggesting that better-profits households generally tend to make extra use of banking facilities. similarly, socio-economic traits have a huge association with monetary inclusion, displaying those factors along with income, schooling, profession, and other household traits play an crucial role in figuring out get right of entry to to and use of formal monetary services. overall, the study highlights the want for improving monetary literacy, strengthening access to banking offerings, and promoting inclusive financial practices amongst rural families to gain more economic inclusion in Kilimanur Grama Panchayat.

In addition, the look at emphasizes that attaining significant economic inclusion requires non-stop efforts to make certain that rural families are not simplest linked to banking offerings however also are capable of use them with a bit of luck and successfully. enhancing consciousness of financial savings, credit, insurance, digital banking, and other monetary products can encourage families to make better economic decisions. special interest needs to accept to economically weaker and financially less-literate families so that the advantages of formal financial offerings attain all sections of the agricultural populace. Such measures can contribute to extra financial safety, advanced financial properly-being, and sustainable rural improvement in Kilimanur Grama Panchayat.

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