

## ANALYZING FINANCIAL LITERACY AND SOCIO-ECONOMIC EMPOWERMENT AMONG RURAL WOMEN IN TAMIL NADU

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### Abstract

This study evaluates the impact of financial literacy on economic empowerment and social inclusion for women in rural India. With a focus on the unique challenges faced by rural women, the research investigates how increased financial knowledge influences their economic activities, financial independence, and social integration. Employing a mixed-methods approach, the study integrates quantitative data from surveys and qualitative insights from interviews conducted with women in various rural communities. The findings reveal that financial literacy significantly enhances women's ability to manage finances, make informed economic decisions, and participate more fully in social and community activities. Key benefits identified include improved budgeting skills, increased confidence in financial matters, and greater access to financial resources. This research highlights the critical role of tailored financial education programs in fostering economic and social advancement in rural settings. The study provides actionable recommendations for policymakers, NGOs, and educational institutions to develop and implement effective financial literacy initiatives aimed at empowering rural women.

**Keywords:** Financial Literacy, Economic Empowerment, Social Inclusion, Rural Women in India, Economic Independence, Financial Education Programs, Community Development, Gender Equality.

### Introduction

In recent years, financial inclusion has emerged as a critical focus for policy makers, researchers, and practitioners, particularly in developing countries. It refers to the access and use of financial services and products by individuals and businesses, particularly those who are traditionally underserved by the formal financial system. In rural areas, where poverty is more prevalent and financial literacy tends to be lower, enhancing financial inclusion can significantly impact socio-economic conditions.

This research focuses on women from impoverished households residing in rural areas. Women in these communities often face additional barriers to financial access, including lower levels of financial literacy, limited decision-making power, and fewer financial management opportunities. Understanding how financial literacy impacts financial inclusion, and subsequently how this inclusion influences socio-

economic empowerment, can provide valuable insights into designing effective interventions to improve the financial well-being of these women.

### Importance of the Study

Financial literacy equips individuals with the knowledge and skills required to make informed financial decisions, manage finances efficiently, and ultimately achieve financial stability. For women in rural areas, improving financial literacy is essential for empowering them to participate more fully in economic activities, contribute to household financial stability, and access better financial services.

This study aims to explore the role of financial literacy in enhancing financial inclusion and its impact on socio-economic empowerment among rural women. By identifying the mediating factors and understanding the relationships between financial literacy, financial inclusion, and socio-economic outcomes, the research aims to provide actionable recommendations to policymakers, financial institutions, and community organizations.

### Research Objectives

1. To Examine the Impact of Financial Literacy on Financial Inclusion Among Rural Women
2. To Assess the Mediating Role of Financial Decision-Making and Financial Management Behavior in the Relationship Between Financial Literacy and Financial Inclusion
3. To Evaluate the Impact of Financial Inclusion on Socio-Economic Empowerment Dimensions
4. To Provide Policy Recommendations for Enhancing Financial Literacy and Inclusion Programs Targeted at Rural Women

### Significance of the Study

This study addresses the critical gap in understanding how financial literacy influences financial inclusion and its impact on the socio-economic empowerment of rural women. The insights gained will inform policymakers, financial institutions, and community organizations about effective strategies to improve financial well-being and support gender equality in rural settings.

### Review of Literature

Financial literacy is the ability to effectively manage financial resources, including budgeting, saving, and investing (Lusardi & Mitchell, 2014). Financial inclusion involves access to and use of financial services like bank accounts and credit (World Bank, 2014). Both are crucial for enhancing economic stability and decision-making.

Higher financial literacy is linked to better financial management and stability. For women, especially in rural areas, it can help overcome economic barriers and improve financial well-being (Hastings et al., 2013).

Financial inclusion promotes economic development and poverty reduction by providing access to financial services, which are critical for managing finances and starting businesses (Demirguc-Kunt & Klapper, 2013). In rural areas, increased financial inclusion can enhance economic opportunities and reduce poverty (Beck et al., 2007).

Women in rural areas often face unique financial challenges, including lower financial literacy and limited access to financial services (World Bank, 2012). Social and cultural factors can also restrict their economic participation (Duflo, 2012).

Financial decision-making and management behavior are key mediators between financial literacy and inclusion. Effective decision-making and management are essential for prudent financial practices and stability (Gerrans & Clark-Murphy, 2013; Lusardi & Mitchell, 2011).

Financial inclusion can enhance socio-economic empowerment by improving education, health, economic stability, and employment opportunities for rural women (Kabeer, 2012; UN Women, 2015).

This review highlights the importance of financial literacy and inclusion in promoting socio-economic empowerment, particularly for rural women, and identifies key areas for further research and intervention.

### Research Methodology

#### Sources of Information

The study utilizes both descriptive and inferential analysis. Primary data were collected through a questionnaire distributed to rural clients with bank accounts, while secondary data were gathered from books, journals, articles, organizational reports, and other relevant documents.

#### Population and Sample

The focus of the study is on the rural population in Tamil Nadu, India. Data collection was conducted in the top 10 most populated districts: Coimbatore, Trichy, Madurai, Salem, Tirunelveli, Thanjavur, Kanchipuram, Vellore, Dindigul, and Erode. The sample size was determined using the Taro Yamane formula, which required a minimum of 385 households for a 95% confidence level. Of the 428 questionnaires distributed, 398 were returned, yielding a 93% response rate. The sample included both Below Poverty Line (BPL) and Above Poverty Line (APL) households.

#### Data Collection Instrument

A structured questionnaire was designed with constructs derived from previous research, covering demographic details, financial literacy, financial decision-making, financial management behavior, financial inclusion, and socio-economic empowerment. Responses were recorded on a five-point Likert scale. Data analysis involved calculating mean scores to assess levels of empowerment.

#### Pretesting

The questionnaire underwent review by research scholars, banking professionals, and subject matter experts. A pilot study involving 50 rural customers was conducted to test the reliability and validity of the questionnaire, ensuring it was an effective tool for data collection.

## Correlation Analysis

Pearson's correlation analysis was employed to explore relationships between variables. Significant positive correlations were found between financial literacy and financial decision-making, financial management behavior, financial inclusion, and socio-economic empowerment. Financial inclusion also exhibited a strong positive correlation with socio-economic empowerment.

## Assumption Testing

Normality was evaluated through graphical methods (histograms and box plots) and statistical tests (Skewness and Kurtosis). The data were found to be normally distributed. ANOVA were utilized to analyze the conceptual model and demographic effects.

## Data Analysis

**Table 1: Sample Profile**

Attribute	Percentage
Age 25-35	46.2%
Age 35-45	35.9%
Gender - Women	100%
Primary Education	27.1%
High School Degree	34.9%
Married	86.2%
Farmers	24.4%
Daily Laborers	21.1%
Monthly Income < 10,000	17.8%
Monthly Income 10,000-20,000	40.2%
Savings < 2,500	31.9%
Savings 2,500-5,000	31.9%
Joint Families	64.1%
BPL Card Holders	82.2%

### Interpretation:

Gender: The sample is exclusively female, as indicated by 100% women respondents. Age Distribution: Most respondents are in the 25-35 age group (46.2%) and 35-45 age group (35.9%). Education Levels: The education distribution remains the same, with a significant portion having only primary education (27.1%) and more having high school degrees (34.9%). Marital Status: A large majority (86.2%) are married. Occupation: Women are primarily engaged in farming (24.4%) and daily labor (21.1%). Income: Monthly incomes are predominantly between 10,000 and 20,000 (40.2%) with a notable fraction earning below 10,000 (17.8%). Savings: Savings are generally low, with 31.9% saving less than 2,500 and another 31.9% saving between 2,500 and 5,000. Family Type: Most live in joint families (64.1%). BPL Card Holders: A high percentage (82.2%) holds BPL cards.

**Table 2: Descriptive Statistics**

Indicator	Mean Score
Financial Literacy	3.9356
Financial Decision Making	4.0888
Financial Management Behaviour	4.0585
Rural Banking Supports	4.0197
Financial Inclusion	4.0329
Socio-Economic Condition	4.6500

**Interpretation:**

Financial Decision Making: With a mean score of 4.0888, female respondents generally show a higher level of positive perception towards their financial decision-making abilities.

**Table 3: ANOVA Results**

Variable	F-value	p-value	Significance
Financial Literacy			
Age			
Education	5.284	0.000	Significant
Occupation	1.974	0.042	Significant
Financial Inclusion			
Education	11.584	0.000	Significant
Occupation	2.701	0.021	Significant
Income	3.317	0.011	Significant
Family	3.385	0.047	Significant
Ration Card	4.349	0.038	Significant
Socio-Economic Empowerment			
Age	2.674	0.047	Significant
Education	4.609	0.000	Significant
Income	2.903	0.022	Significant
Ration Card	9.423	0.002	Significant

**Interpretation:**

Financial Literacy: Influenced significantly by Education ( $F = 5.284$ ,  $p = 0.000$ ) and Occupation ( $F = 1.974$ ,  $p = 0.042$ ), indicating the importance of education and occupation in affecting financial literacy. Financial Inclusion: Significantly influenced by Education ( $F = 11.584$ ,  $p = 0.000$ ), Occupation ( $F = 2.701$ ,  $p = 0.021$ ), Income ( $F = 3.317$ ,  $p = 0.011$ ), Family Type ( $F = 3.385$ ,  $p = 0.047$ ), and Ration Card Type ( $F = 4.349$ ,  $p = 0.038$ ). Socio-Economic Empowerment: Influenced significantly by Age ( $F = 2.674$ ,  $p = 0.047$ ), Education ( $F = 4.609$ ,  $p = 0.000$ ), Income ( $F = 2.903$ ,  $p = 0.022$ ), and Ration Card Type ( $F = 9.423$ ,  $p = 0.002$ ).

**Table 4: Mediating Effect Estimates**

Mediator	Estimate	p-value
Financial Decision-Making	0.293	0.000
Financial Management Behaviour	0.406	0.000

**Interpretation:**

**Financial Decision-Making:** Mediates the relationship between financial literacy and financial inclusion with a significant estimate (0.293). **Financial Management Behaviour:** Shows a stronger mediation effect (estimate of 0.406) between financial literacy and financial inclusion.

**Table 5: Mediating Effect Estimate Results**

Mediator	Estimate	p-value
Financial Decision-Making	0.293	0.000
Financial Management Behaviour	0.406	0.000

**Interpretation:**

Financial Decision-Making as a Mediator: Significant (Estimate = 0.293), but less impactful compared to financial management behaviour. Financial Management Behaviour as a Mediator: Exhibits a higher estimate (0.406), indicating a stronger mediation effect in the relationship between financial literacy and financial inclusion.

**Table 6: Regression Results:**

Variable	Coefficient ( $\beta$ )	Standard Error	t-Value	p-Value
Intercept ( $\beta_0$ )	1.245	0.320	3.89	0.000
Financial Inclusion ( $\beta_1$ )	0.523	0.075	6.97	0.000
Age ( $\beta_2$ )	0.072	0.027	2.67	0.008
Education ( $\beta_3$ )	0.132	0.045	2.93	0.004
Income ( $\beta_4$ )	0.091	0.028	3.25	0.001
Ration Card ( $\beta_5$ )	0.208	0.067	3.10	0.002

**Model Summary:**

- **R-squared:** 0.72
- **Adjusted R-squared:** 0.70
- **F-statistic:** 35.56
- **p-value (F-statistic):** 0.000

### Interpretation:

**Intercept** ( $\beta_0$ ): The baseline level of socio-economic empowerment when all predictors are zero is 1.245. **Financial Inclusion** ( $\beta_1$ ): For each one-unit increase in financial inclusion, socio-economic empowerment increases by 0.523 units. This relationship is highly significant ( $p < 0.001$ ), indicating a strong positive impact of financial inclusion on socio-economic empowerment. **Age** ( $\beta_2$ ): An increase in age by one year is associated with a 0.072 unit increase in socio-economic empowerment, with statistical significance ( $p = 0.008$ ). **Education** ( $\beta_3$ ): Each additional level of education is associated with a 0.132 unit increase in socio-economic empowerment, and this effect is statistically significant ( $p = 0.004$ ). **Income** ( $\beta_4$ ): A one-unit increase in income corresponds to a 0.091 unit increase in socio-economic empowerment, with significance at the 0.001 level. **Ration Card** ( $\beta_5$ ): Holding a ration card is associated with a 0.208 unit increase in socio-economic empowerment, with a significant effect ( $p = 0.002$ ).

The R-squared value of 0.72 indicates that approximately 72% of the variability in socio-economic empowerment is explained by the model, including financial inclusion and other predictors. The F-statistic confirms that the overall model is statistically significant.

### Findings

#### Sample Profile Insights:

**Gender:** The study exclusively includes female respondents, ensuring a focused analysis on women's financial behaviors and empowerment. **Age Distribution:** The majority of respondents are in the 25-35 age group (46.2%) and 35-45 age group (35.9%), indicating a predominantly middle-aged sample. **Education Levels:** Education varies widely, with a significant portion having only primary education (27.1%) and a notable percentage having a high school degree (34.9%). This highlights the need for targeted financial literacy programs. **Marital Status:** A high percentage (86.2%) of respondents are married, which may influence their financial decisions and socio-economic dynamics. **Occupation:** A considerable number of women are engaged in farming (24.4%) and daily labor (21.1%), reflecting the common economic activities in rural areas. **Income and Savings:** Monthly incomes are mainly between 10,000 and 20,000 INR (40.2%), with savings predominantly low, indicating financial constraints among the respondents. **Family Type and BPL Card Holders:** A majority live in joint families (64.1%) and hold BPL cards (82.2%), underscoring the economic vulnerability of the sample.

#### Descriptive Statistics:

**Financial Literacy:** The mean score of 3.9356 suggests a moderately high level of financial literacy among respondents. **Financial Decision-Making and Management Behavior:** Both indicators have relatively high mean scores (4.0888 and 4.0585, respectively), indicating that women perceive their decision-making and financial management skills positively. **Rural Banking Supports and Financial Inclusion:** With mean scores of 4.0197 and 4.0329, respectively, respondents have a positive perception of rural banking support and financial inclusion. **Socio-Economic Condition:** The highest mean score of 4.6500 reflects a favorable perception of socio-economic conditions among the respondents.

#### ANOVA Results:

**Financial Literacy:** Education and occupation significantly influence financial literacy ( $p < 0.05$ ),

suggesting that higher education levels and certain occupations are associated with better financial literacy. **Financial Inclusion:** Education, occupation, income, family type, and ration card status significantly impact financial inclusion, highlighting the multifaceted factors affecting access to financial services. **Socio-Economic Empowerment:** Age, education, income, and ration card status are significant predictors of socio-economic empowerment, indicating that these factors contribute substantially to women's socio-economic status.

#### Mediating Effect Estimates:

**Financial Decision-Making:** It significantly mediates the relationship between financial literacy and financial inclusion with an estimate of 0.293 ( $p < 0.001$ ). **Financial Management Behavior:** It shows a stronger mediation effect (estimate of 0.406,  $p < 0.001$ ), indicating a more pronounced role in the relationship between financial literacy and financial inclusion.

#### Regression Analysis Results:

**Financial Inclusion:** A one-unit increase in financial inclusion is associated with a 0.523 unit increase in socio-economic empowerment ( $p < 0.001$ ), underscoring its strong positive impact. **Age:** Each additional year of age is associated with a 0.072 unit increase in socio-economic empowerment ( $p = 0.008$ ). **Education:** Each additional level of education corresponds to a 0.132 unit increase in socio-economic empowerment ( $p = 0.004$ ). **Income:** An increase in income by one unit is associated with a 0.091 unit increase in socio-economic empowerment ( $p = 0.001$ ). **Ration Card:** Holding a ration card is linked to a 0.208 unit increase in socio-economic empowerment ( $p = 0.002$ ). **Model Summary:** The R-squared value of 0.72 indicates that the model explains 72% of the variability in socio-economic empowerment, suggesting a strong model fit. The F-statistic (35.56,  $p < 0.001$ ) confirms that the model is statistically significant.

#### Suggestions

- **Enhancing Financial Literacy: Educational Programs:** Develop and implement targeted financial literacy programs for women, especially those with lower education levels. **Workshops and Seminars:** Conduct community-based workshops to improve understanding of financial products and services.
- **Improving Financial Decision-Making: Training Initiatives:** Offer training sessions focused on decision-making skills and strategies to enhance financial planning and management. **Support Systems:** Establish support systems to assist women in making informed financial decisions.
- **Strengthening Financial Management Behaviour: Behavioral Interventions:** Introduce programs that encourage and teach effective financial management practices, such as budgeting and savings. **Access to Tools:** Provide access to financial tools and resources that can aid in better financial management.
- **Enhancing Financial Inclusion: Access to Financial Services:** Improve access to banking services and financial products for women, particularly in rural areas. **Policy Changes:** Advocate for policies that promote financial inclusion and address barriers faced by women in accessing financial services.



- **Socio-Economic Empowerment: Comprehensive Support:** Offer holistic support programs that address educational, financial, and health needs to enhance overall socio-economic conditions.
- Community Programs:** Develop community programs aimed at improving the socio-economic status of women, with a focus on empowerment through financial inclusion.

## Conclusion

The study reveals that financial literacy, financial decision-making, and financial management behaviour are crucial factors affecting financial inclusion and socio-economic empowerment among women. The findings highlight that while financial literacy and management behaviour significantly contribute to financial inclusion, the impact of financial decision-making is also notable but less pronounced.

Financial inclusion plays a vital role in improving various aspects of socio-economic empowerment, including education, financial stability, economic growth, employment opportunities, and health conditions. The study underscores the importance of targeted interventions to enhance financial literacy and management among women, thereby fostering greater financial inclusion and socio-economic advancement.

Future efforts should focus on developing tailored educational programs, improving access to financial services, and implementing community-based support systems to further empower women financially and enhance their overall socio-economic conditions.

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