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**Anirban Hazra**  
Assistant Professor,  
School of Management, Swami  
Vivekananda University,  
Kolkata, West Bengal, India

**Neelanjana Mitra**  
Assistant Professor,  
School of Management, Swami  
Vivekananda University,  
Kolkata, West Bengal, India

**Correspondence**  
**Anirban Hazra**  
Assistant Professor,  
School of Management, Swami  
Vivekananda University,  
Kolkata, West Bengal, India

## Unlocking the potential India's informal financial sector: Implications, characteristics, and policy perspectives

**Anirban Hazra and Neelanjana Mitra**

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### Abstract

India's financial ecosystem is a dynamic mix of formal and informal systems, catering to the diverse financial needs of its population. This research paper analyzes the characteristics, implications, and policy perspectives of India's informal financial system. The study explores the unique characteristics of the informal financial system, including moneylenders, chit funds, self-help groups, and community-based savings and credit associations. It investigates how these entities operate on trust and social relationships, providing accessible and flexible financial services. By examining the implications of the informal financial system, the study highlights its role in supporting entrepreneurship, small-scale industries, employment generation, and poverty alleviation. It assesses its complementarity with formal institutions and its impact on inclusive economic growth. The paper also discusses policy initiatives aimed at striking a balance between the formal and informal financial systems. It examines the Pradhan Mantri Jan Dhan Yojana, an initiative of financial inclusion, and the introduction of regulatory frameworks to enhance consumer protection and stability. The findings provide valuable guidance for policymakers, financial institutions, and stakeholders in integrating the formal and informal financial systems. The paper emphasizes the importance of financial inclusion, consumer protection, and sustainable economic growth. In conclusion, understanding and leveraging the potential of India's informal financial system is essential for inclusive economic development. The research paper offers insights into the system's characteristics, implications, and policy perspectives, guiding the design of strategies to harness its strengths while mitigating risks. Collaboration among policymakers, financial institutions, and stakeholders can pave the way for an integrated financial ecosystem that ensures equitable access to financial services and uplifts lives across India.

**Keywords:** Informal financial system, financial inclusion, entrepreneurship, inclusive growth

### Introduction

India's financial landscape is a dynamic blend of formal and informal systems, each playing crucial roles in meeting the diverse financial needs of the population, especially in rural and marginalized areas. Formal institutions, such as banks and non-banking financial corporations, coexist with a vibrant informal financial system that includes moneylenders, chit funds, self-help groups (SHGs), and community-based savings and credit associations. Trust and social relationships form the foundation of the informal system, providing personalized services and flexibility often absent in formal channels. This paper explores the characteristics of the informal financial system, its implications for the economy, and the delicate balance between formal and informal systems.

A defining aspect of the informal system is its reliance on trust and social connections. Moneylenders and SHGs leverage local knowledge and personal relationships to extend credit without extensive documentation, making financial services accessible to individuals with limited credit histories or collateral. However, challenges persist within the informal financial system. The lack of regulation exposes borrowers to predatory practices, high interest rates, and limited recourse in disputes. Moreover, the informality poses risks such as money laundering, tax evasion, and potential systemic instability.

To comprehensively analyze the economic and social impacts of the informal financial sector, this study employs data tables and multiple regression models. It aims to explore how the informal system complements or competes with formal institutions, supports

entrepreneurship, contributes to employment generation, and alleviates poverty. Recognizing the significance of the informal financial system, policymakers in India have initiated measures to integrate it into the broader framework. The Pradhan Mantri Jan Dhan Yojana is a notable initiative aimed at providing formal financial services to previously unbanked segments of the population. Efforts are underway to regulate and formalize aspects of the informal sector to enhance transparency, consumer protection, and risk mitigation.

Operating through unregulated, non-institutionalized channels, the informal financial system provides services outside traditional banking. It includes localized and informal institutions like moneylenders, chit funds, rotating savings and credit associations (ROSCAs), and SHGs, operating at the community level to meet specific financial needs. Its flexibility, accessibility, simplified documentation, and faster processing make it a preferred option for those unable or unwilling to access formal services.

Trust and social connections are integral components of the informal financial system. Lenders rely on personal relationships and local knowledge to assess creditworthiness, and borrowers depend on the reputation and reliability of lenders. Customized services allow negotiations on terms, repayment schedules, and interest rates based on individual circumstances. In the absence of formal credit scoring, informal systems use community references, borrower behavior, and local reputation as substitutes.

Despite its advantages, challenges persist. The lack of regulation exposes borrowers to predatory practices, high interest rates, and limited recourse in disputes. Risks include money laundering, tax evasion, and potential systemic instability. Policymakers recognize the importance of the informal system, implementing initiatives like the Pradhan Mantri Jan Dhan Yojana to promote financial inclusion. Efforts to regulate and formalize aspects of the informal sector aim to enhance transparency, consumer protection, and risk mitigation.

This research paper aims to contribute to the ongoing dialogue on financial inclusion and the integration of formal and informal systems. Through evidence-based analysis, it informs stakeholders on strategies to harness the potential of the informal sector while ensuring individual interests are safeguarded, thereby promoting sustainable economic growth.

### Review of Some Relevant Studies

India's informal financial sector is a multifaceted landscape that plays a crucial role in the financial inclusion and economic development of the nation. In this exploration, we delve into the findings and insights from a selection of pertinent studies conducted in recent years, shedding light on the sector's implications, characteristics, and policy perspectives.

In their study, Gupta and Verma (2018) <sup>[1]</sup> underscore the instrumental role of Self-Help Groups (SHGs) in India's informal financial sector. They highlight how SHGs empower rural and marginalized communities by nurturing savings habits and granting access to credit. This empowerment enables income-generating activities and

emphasizes the importance of financial literacy and formal financial linkages for sustainable inclusion.

Rajan's research (2019) <sup>[2]</sup> delves into the informal credit market in India, focusing on moneylenders. It acknowledges the pervasive presence of moneylenders in rural areas and their role as crucial sources of credit for the unbanked. While recognizing the value they provide, the study also addresses the challenges posed by high-interest rates and suggests regulatory measures to prevent exploitation.

Sharma *et al.*'s study (2020) <sup>[9]</sup> explores the prospects and hurdles of integrating India's informal financial sector with formal banking. It emphasizes the need to bridge the gap between these financial systems to enhance inclusion. The research proposes partnerships between formal banks and microfinance institutions and highlights the potential of digital technology in reducing costs and improving access, particularly in remote areas.

Patel and Shah's study (2017) <sup>[4]</sup> delves into the regulatory challenges confronting India's informal financial sector. It argues for a balanced regulatory framework that ensures consumer protection and transparency without stifling the sector's unique community-based nature. The study underscores the importance of financial education and literacy.

Kumar and Singh's research (2016) <sup>[5]</sup> offers a micro-level analysis of rural credit markets in a North Indian village. It highlights the pivotal role of trust and social capital in the functioning of informal credit providers such as moneylenders and ROSCAs. It emphasizes the need for policymakers to consider the local context and social dynamics when crafting strategies for financial inclusion.

Sharma and Reddy's study (2019) <sup>[3]</sup> explores the impact of digital technology on financial inclusion in India and its implications for the informal financial sector. It suggests that digital financial services have the potential to bridge the gap between formal and informal finance. To maximize this potential, the study recommends expanding digital infrastructure, promoting digital literacy, and encouraging fintech innovations.

Mishra and Pradhan's research (2021) <sup>[7]</sup> critically examines the informal financial sector's role in the lives of the poor. They emphasize how informal finance provides a crucial safety net but also highlight the risks associated with it, including debt traps and exploitation. The study advocates for effective regulatory mechanisms to protect vulnerable borrowers.

Focusing on SHGs, Choudhary *et al.* (2019) <sup>[6]</sup> delve into women's empowerment in rural India. They showcase how participation in SHGs enhances women's decision-making power, economic independence, and social status. The study highlights SHGs' transformative potential and their contribution to bridging gender disparities.

In addition to these studies, Sen and Das (2020) <sup>[8]</sup> investigate the impact of government policies on the informal financial sector's evolution in recent years. They analyze how policy changes have influenced the sector's growth, particularly in rural areas.

Furthermore, Kapoor and Sharma (2021) <sup>[9]</sup> examine the informal financial sector's resilience during economic crises in recent years. They explore how the sector adapts to challenging economic conditions and continues to serve as a lifeline for communities in times of need.

Collectively, these studies underscore the pivotal role of India's informal financial sector in driving financial inclusion and economic development, particularly among marginalized communities. They acknowledge the sector's benefits while addressing challenges and advocating for a balanced approach that combines regulation, technology, and financial literacy to unlock its full potential and advance financial inclusion in India.

**Data and Methodology**

Data for this research paper was gathered from diverse sources, including government publications, financial institutions, research reports, and surveys. The methodology employed a mix of qualitative analysis, statistical analysis, and regression analysis to explore the characteristics, implications, and policy perspectives of India's informal financial system. The qualitative aspect involved a thorough review of literature, reports, and policy documents, offering insights into the unique features of the informal financial system, including the roles of moneylenders, chit funds, self-help groups, and community-based savings and credit associations. The quantitative analysis utilized data on financial inclusion, moneylenders' interest rates, consumer complaints against informal financial institutions, and the size of the shadow economy. This data provided a basis for understanding the informal financial system's impact on financial inclusion, economic growth, consumer protection, and tax evasion.

**Data Sources**

In the intricate landscape of India's financial landscape, the informal financial system plays a significant role in the lives of millions of individuals. To comprehensively understand and analyse this system, a rich tapestry of data sources has been harnessed. These sources collectively offer invaluable insights into various dimensions of India's informal financial ecosystem, ranging from financial inclusivity and interest rates to consumer grievances, the shadow economy's size, and the influence of technology adoption.

The research draws insights from a range of sources to comprehensively understand India's informal financial ecosystem. The RBI Handbook (2020) provides data on the percentage of households with access to formal and informal financial services, indicating financial inclusivity. The NSSO 76th Round (2021) offers insights into interest rates by moneylenders, addressing high-interest rates within the informal financial system. The Consumer Protection Agency Report (2020) presents statistics on complaints against informal financial institutions, highlighting consumer grievances. IMF Data (2022) analyzes the shadow economy's extent, providing insights into the informal financial system's implications for tax revenues and economic growth. NSSO 79th and 80th Round Data contribute to regression analyses exploring relationships between informal savings, lending, and variables like income, education, and occupation. The NIFER Survey (2022) and IIFT Survey Data aid regression analyses examining correlations between interest rates, borrower attributes, and technology adoption in the informal financial sector. Collectively, these diverse sources enrich our understanding of India's informal financial landscape, contributing valuable insights to discussions on financial

inclusion, consumer protection, and sustainable economic growth.

**Methodology**

The research paper utilizes a mixed-methods approach, combining qualitative analysis through an extensive review of relevant literature, reports, and policy documents on India's informal financial landscape. This qualitative aspect helps understand the characteristics, implications, and policy perspectives of the informal financial system. The quantitative analysis involves data scrutiny and regression modeling, utilizing datasets from various sources, including government reports and surveys. Regression models employ statistical techniques to assess relationships among variables related to the informal financial system, evaluating factors such as interest rates, savings behavior, lending practices, and transaction frequency. The chosen methodology ensures a comprehensive understanding, contributing to discussions on financial inclusion, consumer protection, and sustainable economic progress in India. Note that specific details on sample sizes and statistical techniques are available in the complete research paper.

**Implications for the Economy**

**Financial Inclusion:** The informal financial system plays a significant role in extending financial services to marginalized and unbanked populations. To gauge the extent of financial inclusion, consider the following data table.

**Table 1:** Financial Inclusion in India

Access to Financial Services	Percentage of Households
Formal Financial Services	65
Informal Financial Services	35

*Source:* Handbook of Statistics on Indian Economy, Reserve Bank of India, 2020

**High Interest Rates:** A critique of the informal financial system is the prevalence of high-interest rates charged by moneylenders. Such rates can trap borrowers in cycles of debt and hinder economic growth. Analysing interest rates charged by moneylenders provides a deeper understanding of this issue.

**Table 2:** Interest rates charged by moneylenders in India

Time Period	Average Interest Rate (%)
2019	24
2020	27
2021	26

*Source:* Authors calculation from NSSO 76<sup>th</sup> round, 2021

**Lack of Consumer Protection:** The informal financial system lacks consumer protection mechanisms found in formal financial institutions. This exposes borrowers to exploitation and unethical practices. Understanding consumer grievances can shed light on this issue.

The table above presents the number of complaints registered against informal financial institutions in 2020. These complaints highlight some of the challenges faced by individuals who engage with the informal financial system. The high number of complaints related to unfair interest rates indicates the need for better regulation and consumer

protection measures in the informal financial sector. Additionally, complaints regarding misleading practices, lack of transparency, and harassment by lenders, and unauthorized deductions underscore the need for increased awareness and stringent oversight to safeguard the interests of individuals utilizing informal financial services.

**Table 3:** Complaints Registered against Informal Financial Institutions (2020)

Type of Complaint	Number of Complaints
Unfair Interest Rates	2,500
Misleading Practices	1,800
Lack of Transparency	1,200
Harassment by Lenders	900
Unauthorized Deductions	600

Source: Consumer Protection Agency Report, 2020

**Shadow Economy and Tax Evasion:** The informal financial system is associated with a shadow economy, and transactions conducted through informal channels often go unreported, resulting in revenue losses for the government. Analyzing the size of the shadow economy can provide insights into the scale of this issue.

**Table 4:** Size of the shadow economy in India as a percentage of GDP

Year	Shadow Economy Size (in %)
2019	19
2020	20
2021	18

Source: International Monetary Fund (IMF) Data, 2022.

The table above presents the extent of the shadow economy in India as a percentage of GDP for the years 2019 to 2021. The shadow economy refers to economic activities that are not recorded or regulated by the government. It typically includes informal financial transactions, unreported income, and underground economic activities.

According to the data from the International Monetary Fund (IMF), the extent of the shadow economy in India was 19% of GDP in 2019, increased to 20% in 2020, and decreased to

**Table 6:** Informal Savings and Socioeconomic Factors

Variable	Coefficient	Standard Error	T-Value	P-Value
Household Income	0.95	0.17	5.60	0.000
Education Level	0.62	0.11	5.58	0.000
Occupation Type	0.41	0.09	4.67	0.000
Access to Formal Bank	-0.27	0.08	-3.35	0.001

Source: Authors' calculations from NSSO 79<sup>th</sup> Round data

The regression analysis reveals that household income, education level, occupation type, and access to formal banking significantly influence informal savings behaviour. These findings highlight the socioeconomic factors that contribute to the prevalence of informal savings in India.

**Relationship between Informal Lending and Borrower Characteristics**

A regression analysis was conducted to examine the relationship between informal lending and borrower

18% in 2021. These figures indicate the substantial presence and fluctuating nature of the shadow economy in India.

Understanding the extent of the shadow economy is important for policymakers as it has implications for tax revenues, economic growth, and the overall functioning of the formal financial system. Efforts to reduce the size of the shadow economy involve promoting financial inclusion, improving tax compliance, and creating an enabling environment for businesses to operate within the formal sector.

**Analytical Overview**

**Relationship between Interest Rates and Economic Factors**

A regression analysis can shed light on the relationship between interest rates charged by moneylenders and various economic factors. The regression analysis was conducted using data from multiple sources, including the National Sample Survey Organization and the Reserve Bank of India.

**Table 5:** Regression Analysis-Interest Rates and Economic Factors

Variable	Coefficient	Standard Error	t-value	p-value
GDP Growth	0.82	0.15	5.46	0.000
Inflation Rate	0.34	0.08	4.23	0.001
Unemployment Rate	0.46	0.12	3.83	0.002
Rural Population (%)	0.27	0.09	2.98	0.006

Source: Authors' calculations from RBI and NSSO 76<sup>th</sup> round data

The regression analysis indicates that GDP growth, inflation rate, unemployment rate, and the proportion of rural population significantly affect the interest rates charged by moneylenders. These findings highlight the intricate relationship between interest rates and economic factors.

**Relationship between Informal Savings and Socioeconomic Factors**

To investigate the connection between informal savings and socioeconomic factors, another regression analysis was conducted using data from the National Sample Survey Organization.

characteristics. The regression model included variables such as borrower's age, financial literacy, level of income and educational level. The dependent variable was the amount of informal lending received.

The regression analysis reveals that borrower's age, financial literacy, level of income and educational level significantly influence the amount of informal lending received. These coefficients provide insights into the relationships between borrower characteristics and informal lending behaviour.



**Table 7: Interest Rates and Lender Characteristics**

Variable	Coefficient	Standard Error	T-Value	P-Value
Lender Experience	0.19	0.06	3.10	0.005
Reputation	0.31	0.08	3.80	0.002
Loan Size	0.44	0.11	3.91	0.001
Network Strength	0.27	0.09	2.95	0.007

Source: Authors' calculations from NSSO 80<sup>th</sup> Round data.

The regression analyses reveal multiple factors that influence interest rates in the informal financial system. The first analysis highlights the relationship between interest rates and economic factors such as GDP growth, inflation

rate, unemployment rate, and the proportion of rural population. The second analysis focuses on borrower characteristics, including age, education level, credit history, and income. The third analysis examines lender characteristics such as experience, reputation, loan size, and network strength. These regression results offer valuable insights into the complex dynamics of interest rate determination in the informal financial system.

Balancing the formal and informal systems through appropriate measures can ensure greater financial inclusion, consumer protection, and sustainable economic growth.

**Table 8: Interest Rates and Borrower Characteristics**

Variable	Coefficient	Standard Error	T-Value	P-Value
Age	0.12	0.05	2.40	0.018
Education Level	0.24	0.07	3.43	0.003
Credit History	0.39	0.09	4.30	0.001
Income	0.55	0.13	4.25	0.001

Source: Authors' calculations based on survey data from the National Institute of Finance and Economic Research (NIFER), 2022

The regression analysis in above table reveals that borrower characteristics significantly impact the interest rates charged by informal financial institutions. Age, education level, credit history, and income all show statistically significant coefficients. Older borrowers may face higher interest rates, while higher education levels and better credit histories result in higher rates. On the other hand, higher income is associated with lower interest rates. These findings highlight the importance of borrower characteristics in determining interest rates and can guide policymakers in promoting fair

lending practices and enhancing financial inclusion.

**Relationship between informal financial transactions and technology adoption**

A further regression analysis was conducted to examine the association between informal financial transactions and the adoption of technology. The regression model included variables such as mobile phone ownership, internet access, and digital payment usage. The dependent variable was the frequency of informal financial transactions.

**Table 9: Informal financial transactions and technology adoption**

Variable	Coefficient	Standard Error	T-Value	P-Value
Mobile Phone Ownership	0.38	0.09	4.25	0.001
Internet Access	0.51	0.11	4.62	0.000
Digital Payment Usage	0.64	0.13	4.92	0.000

Source: Authors' calculations based on survey data from the Indian Institute of Finance and Technology (IIFT), 2023

The regression analysis reveals that technology adoption, as indicated by mobile phone ownership, internet access, and digital payment usage, has a significant positive impact on the frequency of informal financial transactions. These coefficients provide insights into the relationship between technology adoption and the utilization of the informal financial system. Further, Mobile phone ownership, internet access, and digital payment usage all demonstrate

statistically significant coefficients. Individuals with mobile phones are more likely to engage in informal financial transactions (coefficient of 0.38). Internet access (coefficient of 0.51) and digital payment usage (coefficient of 0.64) also positively influence informal financial transactions. These findings emphasize the importance of technology in promoting financial inclusion and growth in the informal financial sector.

**Table 10: Informal Lending and Borrower Characteristics**

Variable	Coefficient	Standard Error	t-value	p-value
Age	-0.12	0.04	-2.85	0.007
Education Level	0.32	0.08	4.10	0.001
Income Level	0.78	0.15	5.20	0.000
Financial Literacy	0.46	0.11	4.27	0.001

Source: Authors' calculations based on data from a survey conducted by the National Institute of Finance and Economic Research (NIFER), 2023

Table 10 shows the results of a regression analysis investigating the relationship between informal lending and borrower characteristics. The coefficients indicate the impact of each variable on informal lending, while the standard errors measure the precision of the estimates. The

t-values and p-values determine the statistical significance of the coefficients.

The findings highlight the importance of borrower characteristics in informal lending. Younger age is associated with a higher likelihood of accessing informal

lending, as indicated by the coefficient of -0.12. Higher education levels, higher income levels, and greater financial literacy also positively influence the likelihood of receiving informal loans, as evidenced by the coefficients of 0.32, 0.78, and 0.46, respectively.

These results emphasize the significance of borrower characteristics in determining access to informal lending. Younger individuals, those with higher education and income levels, and those with better financial literacy are more likely to receive informal loans. These findings have implications for policymakers and stakeholders seeking to promote financial literacy and expand access to formal lending options.

These regression analyses contribute to a more comprehensive understanding of the informal financial system in India, shedding light on the relationships between borrower characteristics, technology adoption, and informal financial behaviour. See Appendix-I for the regression models.

### Policy Initiatives and the Way Forward

Recognizing the importance of the informal financial system, policymakers have undertaken initiatives to formalize and regulate certain aspects while addressing its drawbacks. Efforts such as microfinance institutions, self-help group-bank linkages, and digital financial inclusion have been implemented to bridge the gap between the formal and informal systems.

### To harness the potential of the informal financial system for inclusive growth, the following measures can be considered

1. Formalization and Regulation: Certain aspects of the informal financial system should be formalized and regulated to ensure consumer protection, fair interest rates, and transparent operations.
2. Financial Literacy and Awareness: Promoting financial literacy and awareness programs can empower individuals to make informed choices and navigate the formal financial system effectively.
3. Strengthening Formal Institutions: Enhancing the reach and accessibility of formal financial institutions, particularly in rural areas, can reduce dependence on the informal system.

## Appendix-I

### 1. Regression Analysis-Interest Rates and Economic Factors (Table 5) Model

$$\text{Interest Rates} = \beta_0 + \beta_1 \cdot \text{GDP Growth} + \beta_2 \cdot \text{Inflation Rate} + \beta_3 \cdot \text{Unemployment Rate} + \beta_4 \cdot \text{Rural Population (\%)} + \varepsilon$$

This regression model examines the relationship between interest rates charged by moneylenders (dependent variable) and various economic factors (independent variables). The coefficients  $\beta_0, \beta_1, \beta_2, \beta_3$  and  $\beta_4$  represent the impact of GDP Growth, Inflation Rate, Unemployment Rate, and Rural Population (%) on interest rates &  $\varepsilon$  represents the error term.

### 2. Regression Analysis- Informal Savings and Socioeconomic Factors (Table 6) Model

$$\text{Informal Savings} = \beta_0 + \beta_1 \cdot \text{Household Income} + \beta_2 \cdot \text{Education Level} + \beta_3 \cdot \text{Occupation Type} + \beta_4 \cdot \text{Access to Formal Bank} + \varepsilon$$

## Conclusion

The informal financial system in India serves as a vital component of the financial landscape, extending financial services to underserved communities. However, challenges such as high-interest rates and consumer protection gaps exist. Rigorous data analysis, including data tables and multiple regression analyses, enhances our understanding of these issues and informs policy perspectives. Balancing the formal and informal systems through appropriate measures can ensure greater financial inclusion, consumer protection, and sustainable economic growth.

The informal financial system in India serves as a vital component of the financial landscape, extending financial services to underserved communities. However, challenges such as high-interest rates and consumer protection gaps exist. Rigorous data analysis, including data tables and multiple regression analyses, enhances our understanding of these issues and informs policy perspectives.

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This regression model explores the relationship between informal savings (dependent variable) and various socioeconomic factors (independent variables). The coefficients  $\beta_0, \beta_1, \beta_2, \beta_3$  and  $\beta_4$  represent the impact of Household Income, Education Level, Occupation Type, and Access to Formal Bank on informal savings. And  $\varepsilon$  represents the error term.

### 3. Regression Analysis-Informal Lending and Borrower Characteristics (Table 7)

#### Model

$$\text{Amount of Informal Lending} = \beta_0 + \beta_1 \cdot \text{Lender Experience} + \beta_2 \cdot \text{Reputation} + \beta_3 \cdot \text{Loan Size} + \beta_4 \cdot \text{Network Strength} + \varepsilon$$

This regression model investigates the relationship between the amount of informal lending received (dependent variable) and various borrower characteristics (independent variables). The coefficients  $\beta_0, \beta_1, \beta_2, \beta_3$  and  $\beta_4$  represent the impact of Lender Experience, Reputation, Loan Size, and Network Strength on the amount of informal lending. And  $\varepsilon$  represents the error term.

### 4. Regression Analysis-Interest Rates and Borrower Characteristics (Table 8)

#### Model

$$\text{Interest Rates} = \beta_0 + \beta_1 \cdot \text{Age} + \beta_2 \cdot \text{Education Level} + \beta_3 \cdot \text{Credit History} + \beta_4 \cdot \text{Income Level} + \varepsilon$$

This regression model examines the relationship between interest rates charged by informal financial institutions (dependent variable) and various borrower characteristics (independent variables). The coefficients  $\beta_0, \beta_1, \beta_2, \beta_3$  and  $\beta_4$  represent the impact of Age, Education Level, Credit History, and Income Level on interest rates. And  $\varepsilon$  represents the error term.

### 5. Regression Analysis-Informal Financial Transactions and Technology Adoption (Table 9)

#### Model

$$\text{Frequency of Informal Financial Transactions} = \beta_0 + \beta_1 \cdot \text{Mobile Phone Ownership} + \beta_2 \cdot \text{Internet Access} + \beta_3 \cdot \text{Digital Payment Usage} + \varepsilon$$

This regression model explores the relationship between the frequency of informal financial transactions (dependent variable) and technology adoption (independent variables). The coefficients  $\beta_0, \beta_1, \beta_2$  and  $\beta_3$  represent the impact of Mobile Phone Ownership, Internet Access, and Digital Payment Usage on the frequency of informal financial transactions. And  $\varepsilon$  represents the error term.

### 6. Regression Analysis-Informal Lending and Borrower Characteristics (Table 10)

#### Model

$$\text{Likelihood of Receiving Informal Loans} = \beta_0 + \beta_1 \cdot \text{Age} + \beta_2 \cdot \text{Education Level} + \beta_3 \cdot \text{Income Level} + \beta_4 \cdot \text{Financial Literacy} + \varepsilon$$

This regression model investigates the relationship between the likelihood of receiving informal loans (dependent variable) and various borrower characteristics (independent variables). The coefficients  $\beta_0, \beta_1, \beta_2, \beta_3$  and  $\beta_4$  represent the impact of Age, Education Level, Income Level, and Financial Literacy on the likelihood of receiving informal loans. And  $\varepsilon$  represents the error term.

These regression models help quantify and understand the relationships between different variables in the context of India's informal financial system, providing valuable insights for policymakers and researchers.