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Heterogeneous Effects of Socio-economic Factors on Informal Credit in India: Empirical Insights from NSSO Data

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Abstract

This paper examines the dynamics of the non-institutional credit market in India, with particular attention to role of various socio-economic factors in shaping non-institutional borrowing behaviour. Using unit-level data from the All India Debt and Investment Survey (AIDIS), National Sample Survey Organization (NSSO) for the NSS 70th Round, 2012-13 and NSS 77thRound, 2018-19, the study reveals a dual structure of the informal credit system. On the one hand, small loansoften continue to serve poor and asset-deficient households, meeting essential needs such as health care, education, and other social obligations. On the other hand, large loansare increasingly accessed by relatively affluent households for various commercial purposes. Further, we make an empirical attempt to analyse rural-urban variations in the disbursement of loans from the non-institutional credit market.

Key Words: Household Credit, Non-institutional Credit, Informal Credit, All India Debt and Investment Survey, National Sample Survey Organization

1. Introduction

In developing economies, access to credit plays a pivotal role in shaping household welfare, consumption smoothing, and small-scale investment (Basu, 1997, Banerjee et. al., 2013). While the expansion of formal banking has been a key policy goal since independence in India, various Reserve Bank of India (RBI) and National Sample Survey Organization (NSSO) reports reveals large segments of the population particularly rural and urban low-income households continue to rely heavily on non-institutional sources of finance (Sengupta and De, 2018). According to the NSSO classifications, non-institutional credit market broadly includes moneylenders, market traders, commission agents, friends and relatives, and other informal lenders who operate outside the regulatory purview of the central monetary authority.

The resilience of this market lies in its flexibility and accessibility. Unlike formal institutions, informal lenders often extend credit without stringent documentation, collateral requirements, or bureaucratic delays. Borrowing arrangements are typically personalized, relying on social ties, trust, or local reputation (Aleem, 1990; Kurup, 1976; Ray, 1998). Loan sizes may range from very small amounts, used for daily consumption, education, or health expenses, to large sums tied to agricultural or business activities. In many cases, the terms of borrowing are interlinked with other economic transactions, such as crop sales or input supply, making these credit relations deeply embedded within local economic structures (Sarap, 1987; Bell et. al., 1997).

Despite these advantages, the non-institutional credit sector is often criticized for its exploitative practices. Trust, local information, interlinked contracts, exotic forms of collateral and often zero rate of interest make this market operationally easy accessible one than formal sector (Stiglitz and Hoff, 1990; Braverman and Guasch, 1986). Moreover, the persistence of this sector highlights the limited reach of formal finance, particularly in rural areas, even after decades of financial sector reforms and policies aimed at financial inclusion.

1.1 Theoretical Framework

Let us assume a situation where a borrower with ‘C’ (C>0) amount of collateral requires ‘L’ amount of loan and he finds both formal loaning agency i.e. Commercial Bank (say, B) and Informal lender i.e. Local Moneylender (say, M) in his locality.

Assumptions:

(i) Bank offers L amount of loan at the rate of interest r_B whereas, moneylender offer at rate of interest r_M where, $r_M > r_B$

(ii) Each credit source requires some transaction cost which is T_B for bank and T_M for moneylender where, $T_M < T_B$

(iii) Bank is more centrally regulated, structured and collateral based. Bank offers L amount loan if borrower meet collateral requirement $C \geq C_{min}$ and strong collateral-based bank loan function is defined as,

$\phi_B(C) = \alpha . C$ …….(1) ;where, $\alpha \epsilon (0,1)$ and $\phi_B'(C)>0$

(iv) Local moneylender's economic activity is more flexible where no official collateral is required but loan disbursement more depends on trust and personalized relation. Thus, borrowers' loan availability depends on Trust (t), Borrowers' history of past transaction and reputation in the locality (R), and small informal and exotic collateral (C_I). Trust and relationship based informal loan function is defined as,

$\phi_M(t, R, C_I) = \alpha_1.t + \alpha_2.R + \alpha_3.C_I$ …….(2) ;where, α is weights attached to the factors associated with informal loan; $\alpha_1,\alpha_2,\alpha_3 >0$; $t \epsilon (0,1)$; $R \epsilon (0,1)$; $C_I \epsilon (0,1)$ and $\phi_M'(t,R,C_I)>0$

(v) Both formal and informal loaning involves some disbursement delay which is δ_B for bank and δ_M for moneylender and $\delta_M < \delta_B$, δ is measured in time unit.

(vi) Borrower obtains utility U(L) from loan amount L which diminishes with rate of interest and transaction cost i.e. $U'_r<0$ and $U'_T<0$

If the borrower obtains loan from Bank, then borrowers' utility function is defined as,

$U_B = \{U(L) - r_B.L - T_B - \theta_B.\delta_B\}$ …….(3); where, θ_B is utility cost per unit of time delay from Bank

If the borrower obtains loan from Local Moneylender, then borrowers' utility function is defined as,

$U_M = \{U(L) - r_M.L - T_M - \theta_M.\delta_M + \phi_M(t, R, C_I)\}$ …….(4); where, θ_M is utility cost per unit of time delay from Moneylender

Borrower chooses moneylenders' loan over bank loan if $U_B < U_M$ …….(5)

By substituting equations (3) and (4) we get,

$=\{U(L) - r_M.L - T_M - \theta_M.\delta_M + \phi_M(t, R, C_I)\} > \{U(L) - r_B.L - T_B - \theta_B.\delta_B\}$ …….(6)

$=(r_M - r_B).L + (T_M - T_B) + (\theta_M.\delta_M - \theta_B.\delta_B) < \phi_M(t, R, C_I)$ …….(7)

In the event, borrower has sufficient collateral i.e. $C \geq C_{min}$, borrower will choose moneylender iff-

Proposition 1: if T_B (transaction cost of bank) is high and δ_B (disbursement delay of Bank) is long

Proposition 2: if t (trust) is high i.e. $t \rightarrow 1$, and R (credit history and reputation in locality) is high

Then, trust and personalised relation premium (ϕ_M) is greater than accumulated cost advantage of bank (i.e. summation of interest cost differential i.e.($r_M - r_B$), transaction cost differential i.e.($T_M - T_B$), and disbursement delay cost differential i.e.($\theta_M.\delta_M - \theta_B.\delta_B$)) and non-pecuniary benefits of trust out weight the higher interest cost (i.e. $r_M > r_B$).

1.2 Non-Institutional Credit in India

Table 1: Region and Agency-wise Break-up of Household Credit (%) in India Since 1992

Sources of Credit	NSS 48th Round, 1992		NSS 59th Round, 2002		NSS 70th Round, 2013		NSS 77th Round, 2019	
Region	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Institutional	64	70	57.1	75.1	56	84.5	66.1	87.1
Non-institutional	36	30	42.9	24.9	44	15.5	33.9	12.9

Source: Various Reports of AIDIS, NSSO

The data reveal a clear contrast between rural and urban areas (see Table 1), as well as a gradual transformation in the overall composition of credit sources. In rural India, the share of institutional credit declined from 64% in 1992 (NSS 48th Round) to 56% in 2013 (NSS 70thRound), indicating a growing reliance on non-institutional lenders. This trend reversed by 2019 (NSS 77thRound), with institutional credit improving to 66.1%, though non-institutional borrowing still accounted for over one-third of total rural credit.

In contrast, urban areas demonstrate a more consistent and steadier shift toward formal financial channels. Institutional credit in urban regions rose from 70% in 1992 to 87.1% in 2019, while dependence on non-institutional sources sharply fell from 30% to just 12.9% over the same period. This divergence underscores the limited penetration of formal finance in rural areas relative to urban regions, despite three decades of financial liberalization and targeted inclusion policies.

Table 2: Share (%) of Various Size of Non-institutional Loan Borrowed Originally (in Rs.) to Total Non-institutional loan Borrowed Originally (in Rs.)

Size of Non-institutional Loan Borrowed Originally (in Rs.)	NSS 70th Round, 2013			NSS 77th Round, 2019		
Region	Rural	Urban	All India	Rural	Urban	All India
<4,000	11.75	9.25	10.77	4.88	3.95	4.58
4,000-7,000	14.32	11.54	13.23	8.20	6.40	7.63
7,000-10,000	15.91	13.34	14.90	11.61	9.22	10.85
10,000-20,000	18.97	17.05	18.22	17.02	13.64	15.94
20,000-35,000	11.64	11.10	11.43	13.03	12.80	12.96
35,000-60,000	14.21	16.12	14.96	19.37	18.07	18.95
60,000-1,00,000	7.25	9.90	8.29	11.50	13.31	12.08

1,00,000-2,00,000	3.99	6.65	5.03	8.32	10.89	9.14
2,00,000-4,00,000	1.42	3.29	2.15	4.01	6.76	4.89
>4,00,000	0.54	1.75	1.02	2.05	4.95	2.98
Total	100	100	100	100	100	100

Source: Author's calculation using Unit Level AIDIS, NSSO Data

At the lower end of the loan spectrum, small borrowings (<Rs.20,000) accounted for a dominant share of non-institutional loans in 2013, nearly 61% in rural areas and 51% in urban areas (see Table 2). By 2019, however, this share had dropped significantly, to about 42% in rural and 34% in urban India. Conversely, the share of medium and large loans (Rs. 35,000 and above) increased substantially between 2013 and 2019. For instance, loans in the Rs.35,000-60,000 range rose from 14.2% to 19.4% at the all-India level, while those above Rs.1,00,000 more than doubled from about 8.2% in 2013 to 19% in 2019. This upward shift was especially pronounced in urban areas, where large loans above Rs.4,00,000 grew from just 1.8% in 2013 to nearly 5% in 2019.

These figures highlight two important dynamics. First, the non-institutional credit market is no longer confined to small, short-term borrowings; it is increasingly catering to higher-value credit demand, particularly for commercial or investment-related purposes. Second, the rural-urban gap in loan size distribution is narrowing, with both regions witnessing a rise in large-value loans, although the trend is more prominent in urban India.

In this paper, we make an empirical attempt to analyse rural-urban variations in the disbursement of loans from the non-institutional credit market, and examine how different socio-economic factors influence such borrowings.

Our paper is organized into six sections. Section 1 introduces the study, theoretical structure and provides a brief overview of non-institutional credit in India. Section 2 outlines the methodology, while Section 3 describes the data and the variables used in the analysis. Section 4 presents the empirical results, and Section 5 concludes the study.

2. Methodology

In this study, we examine and compare the socio-economic and demographic characteristics of households using data from the NSS 70th Round (2012-13) and the NSS 77th Round (2018-19), across different quantiles of non-institutional credit. Further, we investigate whether these determinants vary with the size of the loan. The Ordinary Least Squares (OLS) method, which estimates only the conditional mean effect of explanatory variables on the dependent variable, often fails to account for the heterogeneous nature of data. To overcome this limitation, we employ the Simultaneous Quantile Regression (SQR) technique. Unlike OLS, SQR estimates conditional quantile functions, enabling us to capture the distributional impact

of explanatory variables on the dependent variable across different strata. The Quantile Regression (QR) framework was originally introduced by Roger Koenker and Gilbert Bassett (1978).

The q-th conditional quantile of Y_i given X_i is defined as:

$Q_q (Y_i|X_i)= X_i.ß_q$ …….(1)

;where $0<q<1$ represents the different quantiles (e.g. q= 0.10, 0.25, 0.50, 0.75, 0.90) and $ß_q$ is vector of quantile-specific unknown parameters associated with qth quantile

The linear quantile regression is described by the following equation:

$Y_i = X_i.ß_q + Ɛ_i$ …….(2)

OLS minimizes $Σ_i Ɛ_i^2$ (i.e. error sum of squares), instead QR minimizes $Σ_i |Ɛ_i|$ (i.e. absolute deviation of residuals).

Quantile regression estimator $ß_q$ is obtained by solving the following minimization problem:

$\min \sum_{i=1}^{n}(Yi - Xi.ßq)= Σ_i q|Ɛ_i| + Σ_i (1-q)|Ɛ_i|$ ……..(3)

i.e. a sum that gives the asymmetric penalties $q|Ɛ_i|$and $(1-q)|Ɛ_i|$ for overprediction.

qth quantile regression estimator $ß_q/$ minimizes over $ß_q$ the objective function-

$Q(ß_q)= \sum_{i:Yi≥Xi.ß}^{N} q.|Y_i-X_i.ß_q| + \sum_{i:Yi<Xi.ß}^{N} (1-q).|Y_i-X_i.ß_q|$ …….(4)

We use $ß_q$ instead of ßto make clear that different choices of q estimate different values of ß.

For jth regressor, marginal effect is the coefficient for the qth quantile, $\frac{dQq(Yi|Xi)}{dXj} = ß_{qj}$

A quantile regression parameter $ß_{qj}$ estimates the change in specified quantile q of the dependent variable Y_i produced by a one unit change in the independent variable X_j. The marginal effects are for infinitesimal changes in the regressor, assuming that the dependent variable remains in the same quantile.

3. Data and Variables

3.1 Data:

For the present analysis, we draw upon data from two rounds of the All India Debt and Investment Survey (AIDIS), undertaken by the National Sample Survey Office (NSSO) under the Ministry of Statistics and Programme Implementation (MOSPI), Government of India. Specifically, the study utilizes the 70thRound (2012-13) and the 77thRound (2018-19). AIDIS furnishes detailed information at both the household and individual levels. At the household level, the survey records information on the stock of assets and liabilities, incidence of indebtedness, capital formation, religion, caste, principal occupation, and other socio-economic characteristics of rural and urban households. At the individual level, data include demographic and educational variables such as age, gender, and educational attainment.

AIDIS classifies household credit into two broad categories: institutional sources and non-institutional sources. Institutional sources comprise Scheduled Commercial Banks, Co-operative Banks, Non-Banking Financial Companies (NBFCs), Insurance Companies, Provident Funds, Microfinance Institutions (MFIs), and others. Non-institutional sources include landlords, agricultural and professional moneylenders, market traders, input suppliers, friends and relatives, and other miscellaneous non-institutional credit agencies. Furthermore, AIDIS collects loan-specific details such as loan type, purpose of borrowing, interest rate, and source of credit.

3.2 Description of Variables:

Amount Borrowed originally from Non-Institutional Credit Sources: In our present study, amount borrowed originally from various non-institutional credit source has been taken as dependent variable.

Gender of Household Head: The gender of the household head is included as an explanatory variable to capture the influence of gender dynamics on household borrowing behaviour. In the analysis, male-headed households serve as the reference category.

Age of Household Head: The age of the household head is incorporated as an explanatory variable to examine the effect of ageing on informal borrowing behaviour. Since financial needs and creditworthiness are likely to vary across life stages, age is categorized into three groups: 0-30 years, working age (31-59 years), and elderly (>59 years). In this study, the 0-30 years category serves as the base group.

Education of Household Head: Highly educated individuals are expected to rely less on non-institutional credit compared to the less educated. For analytical purposes, education is classified into two categories: illiterate and literate, with illiterate household heads serving as the reference group.

Household Size: Household size is incorporated as an explanatory variable to capture the influence of family structure on credit demand. Larger households are expected to have greater consumption needs and, consequently, a higher dependence on credit markets.

Household Type: Household type, defined by the primary source of livelihood, is a key determinant of income, creditworthiness, and access to credit. For this study, both rural and urban households are classified into four categories: self-employed, regular wage/salary earners, casual labourers, and others. The “others” category-which includes pensioners, remittance-dependent households, the unemployed, and similar groups-serves as the reference category. Since households with stable and higher income sources are expected to

rely less on non-institutional credit, this classification helps to capture occupational differences in borrowing patterns.

Religion-Caste Category: Religious and caste affiliations are critical socio-cultural identifiers in the Indian context, often shaping households' access to credit. In our analysis, households are classified into major religion-caste groups: Christianity, Hindu Upper Caste, Islam Unreserved, and Jainism. Households belonging to other religious communities (such as Sikhism, Buddhism, Zoroastrianism, and others) are treated as the reference category. This categorization allows us to examine how religious–caste identity influences reliance on non-institutional credit.

Social Group: To capture these dynamics, we classify households into four categories: Scheduled Tribes (ST), Scheduled Castes (SC), Other Backward Classes (OBC), and Others. The Others category, which largely represents unreserved or general caste households, is used as the reference group. This classification enables us to evaluate how households from historically disadvantaged groups compare with relatively affluent groups in their reliance on non-institutional credit.

Region: Various NSSO suggests that regional variations play a crucial role in shaping heterogeneity in access to non-institutional credit. To account for these differences, households in our study are classified into six regional groups: Northern, Western, Southern, Eastern, EAG (Empowered Action Group) States, and North-east. We designate the North-east region as the reference category, primarily due to its relatively small population share.

Type of Loan: The tenure of loans constitutes an important dimension in the analysis of the non-institutional credit market. Informal credit requirements are often sudden and unproductive in nature, typically arising from consumption needs or family emergencies. In such cases, households tend to rely on short-term borrowing. By contrast, long-term loans are generally associated with relatively affluent households, often undertaken for investment or business purposes. For the purpose of this study, loans are classified into three categories: short-term, medium-term, and long-term, with long-term loans serving as the reference category.

Rate of Interest: Incorporating the rate of interest as a continuous variable in our model enables us to examine how borrowing costs shape household decisions regarding reliance on non-institutional credit.

Purpose of Loan: Recent AIDIS data (NSS 77th Round, 2019) indicate that a substantial share of household demand for non-institutional credit arises from business activities, medical needs, housing, and other household expenditures. To capture these dynamics, we

classify loan purposes into nine categories: business expenditure, litigation, debt repayment, financial investment, education, medical treatment, housing, other household expenditure, and miscellaneous purposes. In our analysis, other expenditure serves as the reference category. This classification enables us to assess the extent to which non-institutional loans are utilized across different purposes.

Household Member having Bank Account: It is commonly expected that a household member having bank account is likely to obtain bank loans and less likely to take a non-institutional loan.

4. Empirical Analysis

Table 3: Simultaneous Quantile Regression of selected quantiles for Rural and Urban areas for NSS 70th Round, 2012-13

Area	**Rural Area** Number of Observations =8,765 0.10 Pseudo R^2 =0.1127 0.25 Pseudo R^2 =0.1088 0.50 Pseudo R^2 =0.0960 0.75 Pseudo R^2 =0.1041 0.90 Pseudo R^2 =0.1205					**Urban Area** Number of Observations =7,490 0.10 Pseudo R^2 =0.1349 0.25 Pseudo R^2 =0.1253 0.50 Pseudo R^2 =0.1370 0.75 Pseudo R^2 =0.1512 0.90 Pseudo R^2 =0.1509				
Explanatory Variables	**10th Quantile**	**25th Quantile**	**50th Quantile**	**75th Quantile**	**90th Quantile**	**10th Quantile**	**25th Quantile**	**50th Quantile**	**75th Quantile**	**90th Quantile**
1.Gender of Household Head *Male (Ref. Category)*										
(a)Female	-.1818664*** (0.0764422)	-0.1513208** (0.0614755)	-0.121535*** (.0518946)	-0.1407304** (.0473533)	-0.0653024 (.0749391)	0.0162652 (.087334)	-0.1352524** (0.0672443)	-0.1889734** (.0528707)	-0.0979854 (.0776753)	0.0239192 (.1232317)
2. Age of Household Head *(0-30 years) (Ref. Category)*										
(a)Working Age (31-59)	-0.0020704 (0.0607796)	-0.069594 (.0573758)	-0.0381353 (0.0835131)	0.0930469 (0.0647727)	0.1001391 (0.0748364)	0.2633063** (0.0709076)	0.3132405** (0.0528754)	0.272565*** (0.0697678)	0.352325*** (0.0733102)	0.3982065** (0.0997628)
(b)Elderly (>59)	-0.0353086 (0.0983829)	-0.0500842 (.0621787)	0.0030294 (0.0921997)	0.1158263 (0.0750324)	0.1660158* (0.1019735)	0.3167652** (0.0989216)	0.2900685** (0.0786883)	0.256561*** (0.0803102)	0.4525551** (0.1018013)	0.3979041** (0.1170979)
3.Literate Household Head *Not literate (Ref. Category)*	0.1327338** (0.0615141)	0.0676278 (0.0500398)	0.0547656 (0.0474866)	0.0559316 (0.0355429)	0.01924 (0.0522005)	0.2633063** (0.0697253)	0.2520141** (0.0776613)	0.3660599** (0.0384123)	0.4440293** (0.0587373)	0.3910523** (0.0755351)
4.Household Size	.0674985*** (0.0121031)	0.069594*** (0.0075545)	0.0735919** (0.011018)	0.0672806** (0.0087125)	0.0520694** (0.0082934)	0.0429779** (0.0107756)	0.0496661** (0.0114393)	0.0546301** (0.0099206)	0.0455219** (0.0090451)	0.0341764** (0.0152546)
5.Household Type *Other (Ref. Category)*										

(a)Self-employed	0.1495625 (0.1699756)	0.0174747 (0.1011106)	-0.0542117 (0.0629187)	0.0898763 (0.093084)	0.0200935 (0.1428585)	0.0888651 (0.128842)	0.041223 (0.101992)	0.0313375 (0.109675)	0.0770259 (0.0842176)	0.1217764 (0.1612461)
(b)Regular Wage/Salary Earning	0.0405798 (0.181174)	-0.0657127 (0.0968842)	-0.0098041 (0.1073384)	0.1442797 (0.1291429)	0.0922594 (0.1504899)	0.0911942 (0.1057231)	-0.0181945 (0.1027253)	-0.0131724 (0.1218081)	-0.045636 (0.1026368)	-0.0738267 (0.1707889)
(c)Casual Labour	-0.1975177 (0.1677331)	-0.2787187** (0.0869236)	-0.3496252** (0.0753103)	-0.2010364** (0.0884165)	-0.2960273** (0.1510207)	-0.1585562 (0.1059923)	-0.3394412** (0.0957808)	-0.3237722** (0.1322391)	-0.3743805** (0.1014157)	-0.3519955** (0.1796569)
6.Religion-Caste Category *Other (Ref. Category)*										
(a)Christianity	-0.1050642 (0.1485952)	-0.0225957 (.0960116)	-0.0984021 (0.1113816)	-0.1631873 (0.1090344)	-0.1702435 (0.154197)	-0.0578591 (0.1797851)	-0.0510863 (0.1022115)	-0.0679316 (0.1360811)	-0.0238904 (0.1522261)	0.1353751 (0.1240536)
(b)Hindu Upper Caste	-0.1415654 (0.1599122)	-0.3104968** (.1057492)	-0.3620914** (0.1114678)	-0.5085015** (0.0899748)	-0.4734934** (0.1203153)	-0.1031662 (0.1826207)	-0.0938675 (0.0905179)	-0.1024901 (0.1142846)	-0.1911691 (0.1282658)	-0.3422635** (0.1178288)
(c)Islam Unreserved	-0.3132817** (0.1627305)	-0.4996856** (.1033159)	-0.6693783** (0.1105008)	-0.9495572** (0.0845731)	-0.889526*** (0.0935145)	-0.2805373 (0.1838553)	-0.1667057* (0.0978461)	-0.1566893 (0.1132189)	-0.3489048** (0.1226822)	-0.5482959** (0.1396727)
(d)Jainism	0.3691857** (0.163824)	0.3759838** (0.139029)	0.231874 (0.1508133)	0.2340656 (0.1511199)	0.3199667 (0.2571196)	0.6734307** (0.2664907)	0.6260056** (0.1965831)	0.3938436** (0.1877775)	0.2425496* (0.1476763)	0.4804528** (0.2838157)
7.Social Group *Other (Ref. Category)*										
(a)ST	-0.5292196** (0.1462277)	-0.8327313** (0.075743)	-0.8359642** (0.1031312)	-0.9372806** (0.1105782)	-1.051332*** (0.1053168)	-0.5696725** (0.1429371)	-0.6229343** (0.1124383)	-0.4370356** (0.1194603)	-0.5080526** (0.1442107)	-0.947737*** (0.1340876)
(b)SC	-0.5289822** (0.1345225)	-0.7323384** (0.1035465)	-0.7059836** (0.0949794)	-0.9048194** (0.1189889)	-0.9520801** (0.1276621)	-0.3692327* (0.2070521)	-0.4062431** (0.1146225)	-0.3531651** (0.128045)	-0.3692499* (0.168258)	-0.6141553** (0.1245314)
(c)OBC	-0.524786*** (0.20979)	-0.3549725** (0.152273)	-0.2927301** (0.1132903)	-0.3881301** (0.1184427)	-0.1672491 (0.13636)	-0.2286646 (0.1715922)	-0.145898 (0.1209422)	-0.0629581 (0.1180977)	-0.2861529* (0.1642208)	-0.4458342** (0.1501238)
8.Region *North-East (Ref. Category)*										
(a)Northern	0.2211194** (0.0705706)	0.2659288** (0.060702)	0.3085017** (0.0516145)	0.2889754** (0.0591422)	0.4542824** (0.0607249)	0.2904674** (0.0884158)	0.3660914** (0.0975486)	0.3543759** (0.060142 1)	0.4734546** (0.0463038)	0.3497595** (0.0850296)
(b)Western	0.490036*** (0.0760254)	0.5035208** (0.0670349)	0.3990349** (0.0966238)	0.3908572** (0.0836951)	0.4289504** (0.0896734)	0.3422645** (0.1088131)	0.4446213** (0.0713555)	0.3417313** (0.0754)	0.4809734** (0.0846786)	0.4557178** (0.0772754)
(c)Southern	0.707941*** (0.0972091)	0.6730684** (0.0621925)	0.5879707** (0.0525623)	0.5737103** (0.0577674)	0.5420065** (0.0903547)	0.7710131** (0.0716795)	0.7488387** (0.0581547)	0.5748485** (0.0719053)	0.5428766** (0.0687996)	0.3447469** (0.0750332)
(d)Eastern	0.6132471** (0.1205314)	0.643636*** (0.1055938)	0.539275*** (0.1197128)	0.4703771** (0.0965885)	0.4961941** (0.1466448)	0.6211476** (0.0923086)	0.4422515** (0.0703212)	0.3435303** (0.0706848)	0.3129483** (0.0941619)	0.3696114** (0.1060336)
(e)EAG	0.1732491** (0.0678696)	0.2425723** (0.0608863)	0.2408529** (0.0453381)	0.2345212** (0.0457639)	0.2226776** (0.0469024)	0.3388017** (0.0582695)	0.3736711** (0.0590291)	0.2243108** (0.0512551)	0.3029224** (0.054126)	0.2890264** (0.0431614)
9.Type of Loan *Long-term (Ref. Category)*										

(a)Short-term pledged	-0.5612788*** (0.0733915)	-0.5353271*** (0.0709844)	-0.6370111*** (0.0841795)	-0.6055765*** (0.0734895)	-0.5841816*** (0.0860568)	-0.7892427*** (0.1031643)	-0.8777961*** (0.0625062)	-0.9685467*** (0.0772956)	-0.5080526*** (0.1442107)	-0.9930614*** (0.0675421)
(b)Short-term non-pledged	-0.5937149*** (0.0576955)	-0.5448474*** (0.046571)	-0.6489173*** (0.0653303)	-0.5548544*** (0.0521376)	-0.5560321*** (0.0734575)	-0.8728286 (0.0760042)	-1.022406*** (0.0608744)	-0.9629243*** (0.0468004)	-0.3692499*** (0.1682588)	-0.9770085*** (0.0720744)
(c)Medium-term	-0.1421415*** (0.0602729)	-0.1300757** (0.0620555)	-0.2223194*** (0.0639109)	-0.2545291*** (0.0397257)	-0.3379559*** (0.0654861)	-0.1529357*** (0.0606105)	-0.3048269*** (0.0581808)	-0.3415788*** (0.0433446)	-0.4400535*** (0.0338491)	-0.5108103*** (0.0494989)
10. Rate of Interest	0.0017333** (0.0008437)	0.0009752* (0.0005282)	0.0000741 (0.000911)	-2.09e-17 (0.0007805)	-0.000897 (0.0011084)	0.001639 (0.0012444)	0.0000878 (0.0008764)	-0.0013662** (0.0006655)	-0.0023795*** (0.0006779)	-0.0041698*** (0.0011988)
11.Purpose of Loan *Other (Ref. Category)*										
(a)Expenditure in Business	0.0411675 (0.0776727)	0.1074863* (0.0574588)	0.1899673** (0.0763611)	0.1645384* (0.1019531)	0.2296555** (0.0985488)	0.1320658 (0.1337099)	0.0377985 (0.09984)	0.1530674** (0.0747327)	0.1256988 (0.1024429)	0.2193288* (0.1243719)
(b)Litigation	0.3262011 (0.555406)	0.9564286* (0.5086085)	0.4460207 (0.4396892)	0.2684425 (0.5642581)	0.14999 (0.3844542)	-0.8139718 (1.666729)	1.95738 (1.631612)	1.249175 (0.8816677)	1.117988*** (0.3280941)	1.00174**(0.4762804)
(c)Repayment of Debt	0.2613505 (0.2017667)	0.238783*(0.1407466)	0.1433282 (0.1381159)	0.112112 (0.1967483)	-0.0545166 (0.1500465)	-0.2684172 (0.192976)	-0.1882962 (0.236857)	-0.1474967 (0.1959652)	-0.1088882 (0.1212283)	-0.2470571 (0.2573686)
(d)Financial Investment	-0.2883254 (0.6036603)	0.7762333 (0.7445538)	0.3052382 (0.3550527)	0.0275235 (0.1830078)	-0.6728117 (0.4897996)	-0.0944489 (0.8042429)	0.5799398** (0.2095502)	0.0544069 (0.27134)	-0.2233638 (0.4260514)	0.3218728 (0.5736989)
(e)Education	-0.1481935 (0.172583)	-0.149872 (0.1176749)	-0.00418 (0.132667)	0.0440976 (0.1271299)	-0.0866028 (0.1237456)	-0.4895458*** (0.1442914)	-0.4804004*** (0.0872823)	-0.2707336** (0.125678)	-0.2688857** (0.1434274)	-0.2940764** (0.1360167)
(f)Medical Treatment	-0.1718807 (0.1110887)	-0.148056*** (0.0517497)	-0.1406173** (0.0722346)	-0.1694267* (0.0911424)	-0.2474428** (0.1191032)	-0.4166158*** (0.0876566)	-0.4717675*** (0.0930289)	-0.4371959*** (0.1045749)	-0.5486349*** (0.0764538)	-0.4867758*** (0.0949956)
(g)Housing	0.2801672*** (.098575)	0.2436915*** (0.0519314)	0.3229112*** (0.0734299)	0.3241466*** (0.1041261)	0.2536998*** (0.0848615)	0.3117468*** (0.1031455)	0.3448271*** (0.0737094)	0.4255241*** (0.0842336)	0.3670347*** (0.0773605)	0.283123*** (0.0893373)
(h)Other Household Expenditure	-0.2862106*** (0.0756033)	-0.3079834*** (0.0581852)	-0.2395309*** (0.0693376)	-0.2055046*** (0.09473)	-0.264839*** (0.0958931)	-0.5316817*** (0.0909615)	-0.4939958*** (0.0665981)	-0.4641613*** (0.0730258)	-0.4619428*** (0.078065)	-0.3816099*** (0.087308)
12. Household Member Having Bank Account	-0.2491784*** (0.0533565)	-0.3448592*** (0.0363983)	-0.3675113*** (0.0440404)	-0.3230881*** (0.0430087)	-0.3830293*** (0.0636937)	-0.4465679*** (0.0621556)	-0.4492048*** (0.0532541)	-0.4747549*** (0.0477176)	-0.5460763*** (0.0489545)	-0.5305242*** (0.0642746)
Constant	8.627917*** (0.2312714)	9.731495*** (0.1497801)	10.67172*** (0.1770397)	11.3489***(0.1091481)	12.32728*** (0.2143411)	8.83829***(0.3101082)	9.747094*** (0.2248212)	10.61076*** (0.2112034)	11.55463*** (0.2418048)	12.50494*** (0.2598556)

Note: Standard errors in parentheses, *p<0.10, **p<0.05, ***p<0.01
Source: Authors' calculation from unit level data of NSS 70th Round, AIDIS (2012-13)

Table 4: Model Specification Test for Rural Area for NSS 70th Round, 2012-13[1]

Amount Borrowed Originally from Non-Institutional Credit Sources	Coefficient	t	p-value
$\hat{Y}$	0.7054232 (1.349693)	0.52	0.601

[1]*Insignificance of $\hat{Y}^2$ (p-value = 0.870) indicates no functional misspecification of the model and the application of Simultaneous Quantile Regression estimation is statistically justified.*

$\hat{Y}^2$	-0.0130835 (0.0799747)	-0.16	**0.870**
Constant	-1.048279 (5.681293)	-0.18	0.854

Note: Standard errors in parentheses, *p<0.10, **p<0.05, ***p<0.01

Source: *Authors' calculation from unit level data of NSS 70th Round, AIDIS (2012-13)*

Table 5: Model Specification Test for Urban Area for NSS 70th Round, 2012-13[2]

Amount Borrowed Originally from Non-Institutional Credit Sources	**Coefficient**	**t**	**p-value**
$\hat{Y}$	1.310837 (0.4846432)	2.70	0.007
$\hat{Y}^2$	-0.0096836 (0.0283989)	-0.34	**0.733**
Constant	-0.2990147 (2.061486)	-0.15	0.885

*Note: Standard errors in parentheses, *p<0.10, **p<0.05, ***p<0.01*

Source: *Authors' calculation from unit level data of NSS 70th Round, AIDIS (2012-13)*

To understand how socio-economic variables influence non-institutional credit across various sectors of the economy, it is essential to capture rural-urban differences, as these reflect the underlying structure of the informal financial landscape. Using AIDIS NSS 70th Round, 2012-13 data, several distinct patterns emerge (see Table 3).

Female-headed households are significantly negative with non-institutional credit across almost all credit sizes in rural areas, while in urban areas this negative effect is significant only for small and medium credit. This may be attributed to lack of asset ownership and bargaining power of women in rural credit markets, which restrict their ability to negotiate with informal lenders. In urban areas, women's greater labour market participation partly reduces this disadvantage, although male-headed households still dominate overall access to non-institutional credit.

In rural areas, age has no significant effect on informal borrowing. Informal lenders in villages rely more on community reputation and collateral than age of the borrower. In urban areas, however, age becomes significantly positive with high non-institutional credit size. Working and elderly persons with strong asset base making them more attractive to informal lenders.

In rural areas, literacy matters only for small credit, suggesting that informal lenders prioritize trust and local knowledge over formal education while extending credit. In contrast, in urban areas, education is positively significant across loan sizes. This reflects that educated borrowers may have better repayment capacity associated with stable income.

[2]*Insignificance of $\hat{Y}^2$ (p-value = 0.733) indicates no functional misspecification of the model and the application of Simultaneous Quantile Regression estimation is statistically justified.*

Both rural and urban areas show a positive relationship between household size and non-institutional borrowing at small and medium loans, but the effect diminishes for larger loans. Casual labour households are consistently less likely to borrow informally in both rural and urban areas, with the negative effect stronger at larger loans. Our finding also suggests that rural casual labour households borrow more than their urban counterparts, since village level informal credit networks are often the only available option.

However, we observe a dissimilar pattern when analysing the effect of religion-caste affiliation on non-institutional credit. Among Hindu upper-caste and Muslim unreserved households, the association with informal borrowing is significantly negative across all loan sizes in rural areas, but this effect is confined only to the upper quantiles in urban areas. For Jain households, the relationship is significantly positive at lower quantiles in rural areas, while in urban areas it is positive and significant across all quantiles. This reflects the strong business orientation of Jain communities, where informal credit often plays a crucial role in financing trade and entrepreneurial activity. Overall, the evidence indicates that Hindu upper-caste, Muslim unreserved, and Jain households in urban areas are more indebted to informal credit than their rural counterparts.

While formal sector loan is based on strong collateral requirement, social status and caste remains crucial in obtaining informal credit (Khanna and Majumdar, 2020; Karthick and Madheswaran, 2018). In the case of social groups, compared to general households, our empirical analysisfinds a similar negative relationship with backward household and distribution of non-institutional credit in rural and urban areas. Overall, backward households in urban areas are in a relatively more privileged position than their rural counterparts in assessing informal credit. It is noteworthy that both in rural and urban India, households across all regions of the country exhibit a positive reliance on non-institutional credit.

Type of loan shows a negative association with non-institutional credit in both areas, stronger in urban markets. This indicates that compared to urban households, rural households are depending on short- and medium-term informal loans due to inaccessibility of formal credit, whereas urban households partly substitute towards formal institutions.

Interest rates also reveal distinct dynamics. Several studies (Mishra and Bharadwaj, 2022; Bottomley, 1975) found a positive relation between rate of interest charged by informal lenders and informal credit. Although informal credit becomes exploitative one, they prefer their neighbourhood informal lender. In rural areas, demand for small loans remains positive despite high interest rates, reflecting inelastic demand due to urgent needs such as consumption smoothing and medical expenses. In urban areas, however, medium and large

loans are negatively associated with high interest rates, as borrowers switch to formal credit options.

Rural households positively rely on non-institutional credit for business activities across all quantiles, suggesting that small-scale enterprises and agriculture still depend heavily on local moneylenders and traders for working capital. In urban areas, such relation appears only at medium and large loans, suggesting that formal lenders often hesitate to fund high capital requirements in urban business highlighting interlinkage characteristics of informal credit market (Bardhan and Rudra, 1978; Besley, 1994). Credit taken for litigation shows a significantly positive relationship with non-institutional credit at lower quantiles in rural areas, but the effect shifts to higher quantiles in urban areas. This suggests that in villages, small legal disputes are often financed through informal sources due to absence of institutional credit, whereas in urban areas, larger and costly legal cases push households towards high value informal loans. Repayment of old debt through non-institutional credit is positive significant only at the lower quantiles in rural areas, indicating that rural households often repay old loans with small informal borrowing to manage liquidity pressures. In contrast, in urban areas, non-institutional borrowing at lower quantiles is positively associated with financial investment, reflecting that small informal loans often serve as pretty trade or business ventures in cities. For education, negative significance in urban areas suggests greater reliance on formal credit schemes, whereas informal loans are less preferred. Borrowing for medical treatment shows a negative relationship at all quantiles in both sectors, but the effect is less pronounced in rural areas. This indicates that rural households still turn to informal lenders in times of health shocks, while urban households may seek institutional loan or insurance. For housing related borrowing, the relationship is significantly positive across all quantiles in both rural and urban areas. However, for other household expenditures, the relationship is significantly negative across all quantiles in both the areas. The stronger negativity in urban areas implies that rural households remain more dependent on informal sources for day-to-day consumption smoothing.

Finally, in the both the sectors, households with a bank account are significantly negatively related with non-institutional credit. This demonstrates that formal channels substitute informal borrowing when formal channels are accessible and efficient.

Table 6: Simultaneous Quantile Regression of selected quantiles for Rural and Urban areas for NSS 77th Round, 2018-19

Area	**Rural Area**	**Urban Area**
	Number of Observations =7,576 0.10 Pseudo R^2 =0.1583 0.25 Pseudo R^2 =0.1611	Number of Observations = 3,921 0.10 Pseudo R^2 =0.1747 0.25 Pseudo R^2 =0.1608

	0.50 Pseudo R^2 =0.1657 0.75 Pseudo R^2 =0.1753 0.90 Pseudo R^2 =0.1590					0.50 Pseudo R^2 =0.1605 0.75 Pseudo R^2 =0.1678 0.90 Pseudo R^2 =0.1663				
Explanatory Variables	**10th Quantile**	**25th Quantile**	**50th Quantile**	**75th Quantile**	**90th Quantile**	**10th Quantile**	**25th Quantile**	**50th Quantile**	**75th Quantile**	**90th Quantile**
1.Gender of Household Head *Male (Ref. Category)*										
(a)Female	-0.1211739**(0.0640241)	-0.1835164***(0.0506277)	-0.0662415(0.0521931)	-0.1374578***(0.0586042)	-0.0063781(0.0679231)	0.1572895**(0.0818441)	0.1211086(0.0864496)	0.0396871(0.0607384)	-0.0296073(0.066233)	-0.0956758(0.1170359)
2. Age of Household Head *(0-30 years) (Ref. Category)*										
(a)Working Age (31-59)	0.110935*(0.0675025)	0.1451765***(0.0462764)	0.162929**(0.0698369)	0.2000929***(0.0708273)	0.2329787***(0.0859443)	0.3017277***(0.1207789)	0.3253111***(0.1068644)	0.3138323***(0.1220748)	0.3918423***(0.0952483)	0.4357682***(0.1581476)
(b)Elderly (>59)	0.0895639(0.090057)	0.280478**(0.0454974)	0.2981418***(0.0766867)	0.2690594***(0.0740152)	0.3481279***(0.0875408)	0.3796819***(0.1006177)	0.3687919***(0.0848196)	0.325922**(0.1035589)	0.4417609***(0.0927478)	0.513775**(0.2046715)
3.Literate Household Head *Not literate (Ref. Category)*	0.101595**(0.0436378)	0.088858*(0.0494174)	0.0863189***(0.0318294)	0.0779056(0.0501333)	0.1206424*(0.0695278)	0.4169992***(0.1139132)	0.3593776***(0.0994323)	0.2227155***(0.0761349)	0.2375873***(0.0815538)	-0.0956758**(0.1170359)
4.Household Size	0.0619334***(0.012668)	0.0675087***(0.010867)	0.0662415***(0.011201)	0.0587271***(0.007824 3)	0.0538541***(0.0098236)	0.0813057***(0.0245103)	0.0681808***(0.016564 3)	0.0718973***(0.016892 9)	0.0469388***(0.0116257)	0.066898***(0.0173681)
5.Household Type *Other (Ref. Category)*										
(a)Self-employed	0.1554994(0.1221047)	0.1286189(0.1098498)	0.0569359(0.0809222)	0.005953(0.0791303)	0.0376957(0.1442642)	0.1793334(0.166782)	0.2219146*(0.1351925)	0.122942(0.1273408)	0.0935533(0.157512)	0.1067491(0.1598507)
(b)Regular Wage/Salary Earning	0.0366437(0.1312731)	-0.0012097(0.14287)	-0.0150117(0.1290583)	-0.0437318(0.1293908)	0.0699418(0.1830151)	0.0787331(0.1605048)	0.1125884(0.1426555)	0.0254447(0.1416742)	-0.0329114(0.1495341)	-0.0256533(0.1445448)
(c)Casual Labour	-0.0613899(0.1398134)	-0.055746(0.1171482)	-0.1005066(0.0820499)	-0.222172***(0.0707869)	-0.2681908(0.175702)	-0.2370433(0.1543809)	-0.1687707(0.1413366)	-0.2632008***(0.1170781)	-0.1934323(0.1551319)	-0.3733526***(0.1799587)
6.Religion-Caste Category *Other (Ref. Category)*										
(a)Christianity	-0.1288662(0.1149415)	-0.0766642(0.085271)	-0.3622599***(0.0665981)	-0.410526***(0.0817762)	-0.4052872***(0.1168473)	-0.0688801(0.1937541)	-0.0363866(0.1230558)	-0.1345231(0.1217846)	-0.1538737(0.1289603)	0.0056571(0.1662778)

(b)Hindu Upper Caste	-0.2401909**(0.1187597)	-0.2433231***(0.0922515)	-0.46536***(0.0910768)	-0.4879638***(0.112558)	-0.4997576**(0.138861)	-0.1054911 (0.1648687)	-0.3512087***(0.1428356)	-0.3708998***(0.143339)	-0.3087035**(0.1430635)	-0.3593633**(0.1647251)
(c)Islam Unreserved	-0.4180901***(0.1212625)	-0.5174033***(0.1056741)	-0.7025538***(0.1166787)	-0.7780703***(0.1053823)	-0.8064203**(0.1625774)	-0.029169 (0.1702041)	-0.3434995**(0.1633097)	-0.4300818***(0.154397 1)	-0.4549382**(0.1451041)	-0.4840354***(0.1474841)
(d)Jainism	0.3626077 (0.4377757)	0.2570829 (0.2909823)	-0.3385545 (0.4134444)	-0.4714056 (0.5860186)	-0.6959966 (0.8734211)	0.488846*(0.28696)	-0.2818065 (0.3461127)	-0.0719973 (0.3004249)	-0.1821541 (0.2846738)	-0.1292937 (0.3487787)
7.Social Group *Other (Ref. Category)*										
(a)ST	-0.4662452***(0.0801296)	-0.6192396***(0.0740423)	-0.8102565***(0.0821697)	-0.9160097***(0.1095798)	-1.080068***(0.1259614)	-0.2549589 (0.2169424)	-0.3807121**(0.179027)	-0.3437092**(0.153794 9)	-0.2625565**(0.1299807)	-0.6480104***(0.1634475)
(b)SC	-0.2755213***(0.1083188)	-0.2986653***(0.1123069)	-0.5644563***(0.0636495)	-0.4800666***(0.0908623)	-0.3853856**(0.1418157)	-0.7336987**(0.2156127)	-0.7337355***(0.1643816)	-0.6202388***(0.135810 3)	-0.5983411**(0.1786778)	-0.682528**(0.2953404)
(c)OBC	-0.1735357*(0.0959804)	-0.3021548***(0.0903285)	-0.2726699***(0.1080633)	-0.3453241***(0.10331)	-0.3437696**(0.1194506)	-0.2076054 (0.2121795)	-0.3066561**(0.1502033)	-0.28414**(0.124031)	-0.3923331**(0.1624495)	-0.5340002***(0.1258168)
8.Region *North-East (Ref. Category)*										
(a)Northern	0.4883763***(0.0594942)	0.4730588***(0.0500704)	0.4916924***(0.0477507)	0.4709443***(0.0539786)	0.584779***(0.0773378)	0.4483574**(0.0884634)	0.4758615***(0.0885272)	0.4056822***(0.071422 1)	0.468024***(0.0892732)	0.3583429***(0.1019125)
(b)Western	0.8072682***(0.0877937)	0.8030629***(0.0629603)	0.7079483***(0.0501965)	0.5594559***(0.0560922)	0.5218037**(0.0931387)	0.718018***(0.1221117)	0.6296221***(0.0919063)	0.4449859***(0.105025 7)	0.48307***(0.1460842)	0.3014775***(0.1164276)
(c)Southern	0.4973322***(0.0667583)	0.3864576***(0.047888)	0.3784505***(0.0524417)	0.2511146***(0.0598309)	0.2004568**(0.0772492)	0.8946424**(0.1596769)	0.7871425***(0.1160532)	0.5038351***(0.097420 9)	0.5024117**(0.10473)	0.3548818***(0.1128794)
(d)Eastern	0.7534941***(0.1130636)	0.7791492***(0.1049284)	0.7321369***(0.0839379)	0.6296403***(0.1178773)	0.6323435**(0.1202341)	0.9403331**(0.1407696)	0.8291373***(0.1095678)	0.7298536***(0.104228)	0.6258966**(0.1132578)	0.5462299***(0.1751475)
(e)EAG	0.4478283***(0.0638656)	0.4187418***(0.038106)	0.441782**(0.0471082)	0.4356334***(0.0465959)	0.5359975**(0.06612)	0.6762601**(0.0601296)	0.6646709***(0.0866774)	0.6100568***(0.066108 2)	0.5407631**(0.0729599)	0.5248207***(0.1077665)
9.Type of Loan *Long-term (Ref. Category)*										
(a)Short-term	0.71379***(0.0555024)	0.6886688***(0.0330788)	0.6068278***(0.0453328)	0.5581555***(0.0533867)	0.4599184**(0.0722028)	0.9444293**(0.0940656)	0.9338073***(0.082304)	0.7380663***(0.067075 4)	0.6980722**(0.0791242)	0.6920362***(0.1067106)
(b)Medium-term	1.011296**(0.0594169)	1.024764**(0.0456081)	1.019528**(0.0482336)	1.088186**(0.0481777)	0.9583181**(0.0635629)	1.276806***(0.0897982)	1.428289**(0.0950949)	1.361808**(0.093308 5)	1.470908***(0.0799656)	1.390177**(0.1192737)
10. Rate of Interest	0.0041412***(0.0007543)	0.0038348***(0.0010731)	0.003412**(0.0009314)	0.0031841***(0.0007026)	0.0031339**(0.0011982)	0.0036626**(0.0012458)	0.0046235***(0.0014092)	0.0022433 (0.0018602)	-0.0000357 (0.001479)	-0.0015972 (0.0022888)
11.Purpose of Loan										

Other (Ref. Category)										
(a)Expenditure in Business	0.192481*** (0.0753074)	0.2202189*** (0.0466062)	0.2381375*** (0.0505785)	0.3343632*** (0.0799588)	0.4234036*** (0.0923551)	0.1711964 (0.1510129)	0.1959776*** (0.0735744)	0.4478882*** (0.1080264)	0.5093719*** (0.1460229)	0.5686864*** (0.1736859)
(b)Litigation& Financial Investment	0.1325844 (0.6319536)	0.2919554 (0.4011766)	0.0726515 (0.3808656)	0.5015032 (0.4232492)	0.3985184 (0.8080998)	0.1158562 (0.3007483)	-0.1850994 (0.366406)	-0.1072674 (0.3856899)	0.4525254 (0.6371536)	0.1852395 (0.5017632)
(c)Repayment of Debt	0.2425827* (0.1310983)	-0.0285371 (0.1260589)	0.1245955 (0.1648816)	0.1849863 (0.188194)	0.213577 (0.1715101)	0.1918794 (0.3078424)	0.154036 (0.2603866)	0.1882041 (0.1692029)	0.2747688 (0.2176358)	0.2982564** (0.1560861)
(d)Education	-0.2115091** (0.1092526)	-0.1288056 (0.1219317)	0.0726515 (0.0847226)	0.0184348 (0.1041763)	0.0383105 (0.1547891)	-0.0721203 (0.2223709)	-0.0834338 (0.1692277)	-0.021855 (0.1024905)	0.0029797 (0.1719661)	0.2524118 (0.1808919)
(e)Medical Treatment	-0.0177431 (0.0927367)	-0.1381328*** (0.0501388)	-0.1915175*** (0.0575705)	-0.2236375*** (0.0801026)	-0.1155145 (0.0926395)	-0.2721836* (0.1696956)	-0.197054* (0.1058833)	-0.1303931 (0.0949813)	-0.0838747 (0.0796088)	-0.0510055 (0.1038555)
(f)Housing	0.2596185*** (0.0940064)	0.2830498*** (0.0737342)	0.219498** (0.0998994)	0.3651203*** (0.0978528)	0.3631803** (0.0874394)	0.3739755* (0.2296805)	0.318664** (0.1268398)	0.4989874*** (0.0904761)	0.395183*** (0.0862218)	0.4110472*** (0.0800517)
(g)Other Household Expenditure	-0.3556039*** (0.0639881)	-0.3190689*** (0.0516216)	-0.2921158*** (0.0488128)	-0.2413293*** (0.0752946)	-0.1299229 (0.0850238)	-0.326223* (0.198494)	-0.2910489*** (0.1224454)	-0.2838924*** (0.0792362)	-0.1988031** (0.0818566)	-0.1723486* (0.104903)
12. Household Member Having Bank Account	-0.0964144*** (0.0265083)	-0.114564** (0.0211542)	-0.0849544*** (0.0228854)	-0.0793432*** (0.0216726)	-0.0957894** (0.0310938)	-0.0404076 (0.0472362)	-0.128449** (0.0309919)	-0.0947685*** (0.0288775)	-0.107292*** (0.0402446)	-0.0381959 (0.0467155)
Constant	7.85214*** (0.1514631)	8.565939** (0.1766717)	9.634181** (0.1908867)	10.53241** (0.1958896)	11.15733*** (0.2369872)	6.872259*** (0.2696397)	7.972583** (0.2292656)	9.087742** (0.2735457)	9.921785*** (0.2111631)	10.57763** (0.3192328)

*Note: Standard errors in parentheses, *p<0.10, **p<0.05, ***p<0.01*

Source: Authors' calculation from unit level data of NSS 77th Round, AIDIS (2018-19)

Table 7: Model Specification Test for Rural Area for NSS 77th Round, 2018-19[3]

Amount Borrowed Originally from Non-Institutional Credit Sources	Coefficient	t	p-value
$\hat{Y}$	1.058779 (0.0181911)	58.20	0.000
$\hat{Y}^2$	-0.0153024 (0.0169479)	-0.90	**0.367**
Constant	10.77112 (0.0130413)	825.92	0.000

Note: Standard errors in parentheses, *p<0.10, **p<0.05, ***p<0.01

Source: *Authors' calculation from unit level data of NSS 77th Round, AIDIS (2018-19)*

Table 8: Model Specification Test for Urban Area for NSS 77th Round, 2018-19[4]

[3]*Insignificance of $\hat{Y}^2$ (p-value = 0.367) indicates no functional misspecification of the model and the application of Simultaneous Quantile Regression estimation is statistically justified.*

Amount Borrowed Originally from Non-Institutional Credit Sources	Coefficient	t	p-value
$\hat{Y}$	0.9008001 (1.986192)	0.45	0.650
$\hat{Y}^2$	-0.0207888 (0.1102962)	-0.19	**0.851**
Constant	-2.399613 (8.911502)	-0.27	0.788

*Note: Standard errors in parentheses, *p<0.10, **p<0.05, ***p<0.01*

Source: *Authors' calculation from unit level data of NSS 77th Round, AIDIS (2018-19)*

To capture rural-urban differences in 2018-19, we use the AIDIS NSS 77th Round data, which reflect several distinct patterns (see Table 6). Female-headed households show a significantly negative association with non-institutional credit across almost all credit sizes in rural areas, while in urban areas this relationship is positive only for small credit sizes which may reflect easier access of neighbourhood and community-based small informal loans for various activities. This pattern is slightly different from what we observed in the 2012-13 results, suggesting a shift in both credit demand and lender behaviour overtime.

In rural areas, although age had no significant role in determining access to informal credit in the 2012-13 data, the 2018-19 results show a positive and significant association between age and borrowing from informal lenders. Urban areas also reflect the same trend. This suggests that working and elderly household heads are increasingly perceived as more creditworthy, possibly because they possess greater social capital, stronger reputation within the community, and accumulated assets that can serve as implicit collateral.

In rural areas, while literacy mattered only for small-sized loans in the 2012-13 data, the 2018-19 results suggest that informal lenders increasingly prioritize education when extending credit. Households with a literate head show a significantly positive association with non-institutional credit across almost all loan sizes, possibly because education enhances financial awareness, record-keeping ability, and repayment credibility in the eyes of informal lenders. In contrast, in urban areas, education remains positively significant across most loan sizes, but the relationship turns negative for very large loans, indicating that better-educated households may rely more on institutional sources for higher credit needs, thereby reducing dependence on informal lenders.

Both rural and urban areas show a positive relationship between household size and non-institutional borrowing. Unlike the 2012-13 data, the 2018-19 results suggest a positive and significant relationship between non-institutional credit and self-employed households, but only for small-sized loans in urban areas. This may reflect the short-term working capital

[4]*Insignificance of $\hat{Y}^2$ (p-value = 0.851) indicates no functional misspecification of the model and the application of Simultaneous Quantile Regression estimation is statistically justified.*

needs of petty traders and service providers, who often rely on neighbourhood moneylenders for quick liquidity. By contrast, casual labour households are consistently less likely to borrow from informal sources in both rural and urban areas, with significance observed only at larger credit sizes. Our results also reaffirm the earlier 2012-13 pattern that rural casual labour households borrow more than their urban counterparts, possibly due to greater income volatility in agriculture-linked employment and the absence of stable formal credit avenues in rural markets.

However, we observe a dissimilar pattern in 2018-19 compared to 2012-13, when analysing the effect of religion-caste affiliation on non-institutional credit. Christian households show a significantly negative association at medium and large loan sizes, but only in rural areas, possibly reflecting both their relatively stronger integration with institutional sources and the presence of church-based community support networks that reduce reliance on informal lenders. Among Hindu upper-caste and Muslim unreserved households, the relationship with informal borrowing is significantly negative across all loan sizes in both rural and urban areas, which may indicate their greater access to formal finance. For Jain households, we find a contrasting result compared to the 2012-13 data, the relationship with non-institutional credit is significantly positive only at the lower quantiles in urban areas, suggesting that while Jains may access informal credit for small working capital needs in business, they rely more heavily on institutional finance for larger loans. Overall, we find evidence broadly consistent with the 2012-13 results that Hindu upper-caste and Muslim unreserved households in urban areas are more indebted to informal credit than their rural counterparts.

In the case of social groups, both rural and urban areas display a similar negative relationship with the distribution of non-institutional credit. However, compared to 2012-13, we observe a contrasting pattern among ST households. In 2018-19, ST households in urban areas appear to be in a relatively more privileged position than their rural counterparts in accessing informal loans, perhaps due to occupational diversification and stronger community-based networks in cities. By contrast, SC and OBC households show the opposite trend, indicating continued barriers to informal credit access in urban settings, possibly linked to social discrimination, and dependence on insecure low-wage employment. It is noteworthy that both in rural and urban India, households across all regions of the country exhibit a positive reliance on non-institutional credit.

Both short-term and medium-term loans show a positive association with non-institutional credit in both rural and urban areas, with the effect being stronger in urban markets. This indicates that, compared to rural households, urban households are more dependent on short-

and medium-term informal loans, pattern that contrasts with the 2012-13 data. One possible explanation is the rising cost of living and increasing demand for quick liquidity in urban areas, where households often face frequent cash-flow mismatches and resort to informal lenders for consumption smoothing or small business financing.

Interest rates also reveal distinct dynamics compared to the 2012-13 results. In rural areas, we find a significantly positive relationship between the rate of interest charged by informal lenders and all loan sizes, suggesting that rural borrowers remain highly dependent on informal lending practices across the credit spectrum. In urban areas, however, the relationship is significantly positive only for small loans, indicating that while informal lenders charge higher rates for small credit, may face competition from institutional sources for medium- and large-sized loans.

We find contrasting results regarding the purposes of borrowing in 2018-19 compared to 2012-13. Both rural and urban households show a positive and significant reliance on non-institutional credit for business activities across almost all quantiles, suggesting that small-scale entrepreneurial and livelihood activities continue to depend heavily on informal lenders. Repayment of old debt through informal borrowing is significant only at the lower quantiles in rural areas and at the higher quantiles in urban areas. This indicates that rural households often resort to small informal loans to roll over existing debt and manage short-term liquidity pressures, whereas in urban areas large informal borrowing is frequently used to refinance accumulated debt burdens. For education, we observe a significantly negative relationship in rural areas at the lower quantiles, suggesting that rural households with small education-related loans increasingly rely on formal sources such as government schemes, scholarships, or microfinance initiatives. Borrowing for medical treatment shows a negative association across loan sizes in rural areas, but in urban areas the effect is significantly negative only at the lower quantiles, possibly reflecting the growing availability of health insurance, employer support, and microfinance products for healthcare expenses. Housing-related borrowing, by contrast, is positively significant across all quantiles in both rural and urban areas. Finally, for other household expenditures, the relationship is significantly negative across all quantiles in both areas, suggesting that such short-term consumption needs are increasingly met through formal or semi-formal sources rather than costly informal credit. However, in both the sectors, households with a bank account are significantly negative with non-institutional credit.

5. Conclusion

The analysis of AIDIS data demonstrates that the non-institutional credit market continues to occupy a vital space in India's financial landscape, though its nature has evolved over time. Small loans remain indispensable for vulnerable households,which serves as a survival mechanism in the absence of adequate institutional finance. At the same time, the growing prevalence of large-value informal loans reflects the market's adaptive capacity, meeting the credit needs of asset-rich households engaged in commercial activities.Policymakers must recognize that informal finance simultaneously provides crucial support for the livelihood of poor households and avenues for entrepreneurial activity among the better-off. Strengthening financial inclusion requires not only expanding institutional outreach but also addressing the structural socio-economic constraints that continue to shape household dependence on non-institutional credit in India.

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