A Study of Household Borrowing in the Villages of Channarayapatna Block, Hassan District

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Abstract

The primary aim of the paper is to study the pattern of household borrowing in Villages. Using village level data of 200 household from Channarayapatna block, the study identifies the factors explaining co-existence of Money lender, Bank and Micro Finance Institutions. The result establishes that households with less landholding are much deprived of formal sources of credit, and they are charged high interest rate from Moneylender (Informal sources) and shows that household land holding, purpose of loan, education and Repayment schedule are significant factors in determining the sources of loan.

Keywords: Moneylender, Bank, Micro finance institution, landholding, repayment schedule

1. *Introduction*

Majority of the population in India lives in village and their main occupation is cultivation. Among them 50% belong to small and marginal cultivators who lack the collateral to take loan from the Bank (formal source). As a result they have to depend on the money lender (Informal source) to finance their activities, where they were trapped in debt. To reduce the role of money lender and to substitute them with the positive institutional alternative was the main concern of the policy makers in developing countries. As a positive institutional alternative micro finance institution was introduced. However presently there is a co-existence of both formal (bank & MFI) and informal sources (Moneylender) of finance in rural credit market. It is the farmer who gives food and nutrition to the entire nation.When we consider farmer households, the land-holding size rather than household income or expenditure provides a better indicator of their economic status. Keeping this aspect in mind, we examine the household borrowing by classifying farming households according to the size of their land-holdings. Thus the present study, focus on the borrowing pattern of the household and co-existence of moneylender, bank and microfinance institutions. This paper presented in three sections. The first section deals with literature review and methodology while the second section presents the empirical findings and the third section present critical analysis and conclusion based on the findings of the study.

2. *A Brief Review of Literature*

Hoff and Stieglitz (1990),outline conditions under which increasing access to formal credit may increase or decrease interest rates in the informal sector. If some borrowers can satisfy all their borrowing needs from the formal sector at lower interest rates, there will be less demand for informal credit. Bose, Pinaki (1998), the majority of small cultivators in the less developed countries are not regarded as credit-worthy by the formal sector financial institutions, and are forced to borrow from the moneylenders in the informal credit market. This models shows that when such borrowers who differ in their likelihood of default, and the moneylenders are asymmetrically informed about the client-specific degree of risk, the policy of providing cheap credit through the formal sector can generate adverse ‘composition effects’ which worsen the terms of credit and the availability of loans in the informal sector. Jain and Ghazala Mansuri (2003), Follow an entirely different route that resembles the present scenario in Bangladesh that a microfinance program may well have a “crowding in” effect on informal lenders. Under some circumstances this “crowding-in” effect might be strong enough to raise the interest rates in the informal sector.

For example, the tight repayment schedule of micro finance institutions (in Bangladesh the first weekly instalment of MFI loans is due immediately) forces many borrowers to borrow from moneylenders to repay micro finance loans. Borrowers also find difficult to finance long-gestation projects and even seasonal working capital needs for agricultural production by micro finance institutions loans.

From this theoretical background, we provide a brief overview of the empirical literature, Sinha and Matin (1998) report that about 87% of rural households in the northern Bangladesh borrow from informal sources and the percentage is higher among the micro finance institution borrowers. Husain et al. (1998) find that 11.6% of borrowers from BRAC also borrowed from moneylenders. Zeller et al. (2001) report similar practices among the rural households in Bangladesh they surveyed in 1994. Micro finance institution borrowers received 20% of their total debt outstanding from friends and relatives and another 18% from shopkeepers and other informal sources. Thus the existing evidence shows the formal and informal credit sources are complimentary as well as competitive to each other.

3. *Objectives*

- To study the pattern of household borrowing in the villages.
- To identify the factors explaining co-existence of moneylender, Bank and MFI's.

4. An overview of Households' Indebtedness in India and a scenario in Karnataka

According to 2001 censes 56.6% of the total working population, belong to agricultural and allied sector, in that 60% of them belong to small and marginal farmer categories. These farming household need credit on a continuous basis to meet their working capital needs. In reality, these small and marginal farmers do not have access to the formal credit sources. In this section we attempt to present the findings of the NSS surveys on rural indebtedness in India and a scenario in Karnataka state.

According to All India Debt and Investment Survey, 59th round (2002-03), indebted household in rural India was 27%, corresponding to 23% in 1991. At the all India level, among the institutional credit agencies, the co-operative societies and the commercial banks were the two most important agencies in rural sectors which accounted 52 per cent of the outstanding cash debt, with co-operative societies (27 per cent) accounting for a greater share than the Banks (25 per cent) and government departments 2 per cent. Among the non-institutional agencies, money lenders - both professional and agricultural were the main source of credit in rural areas their respective shares being 19.6 %and 10.0 %. The share of relatives and friends was 7.1 % of the cash dues of rural households.

Sources of Incurring Debt across Household Assets (All India)

Table 1: Percentage Shares of Institutional and Non-Institutional Agencies to the Total Cash Dues of the Households by Household Assets Holding Class

Assets holding class Rs. (000)	Institutional agency	Non-Institutional agency	All
less than 15	21	79	100
15 - 30	29	71	100
30 - 60	31	69	100
60 - 100	30	70	100
100 - 150	39	61	100
150 - 200	42	58	100
200 - 300	48	52	100
300 - 450	59	41	100
450 - 800	67	33	100
800 & above	80	20	100
All	57	43	100

Sources: All India Debt and Investment Survey, NSSO Fifty-Ninth Round

The table above shows the percentage shares of the amount of debt contracted from institutional and non-institutional credit agencies for each assets holding class at all-India level, reveals that the households of the lower asset groups were more dependent on the non-institutional credit agencies. the share of debt from the institutional credit agencies was only 21 % in the case of lowest asset group of 'less than Rs. 15,000' as against a high 80 %in the highest asset group of 'Rs. 8 lakhs and above

According to the same data sources, it was observed that among rural households, debt incurred for purposes of 'household expenditure' and 'capital expenditure in farm business' accounted for the highest portions of 35% and 27% respectively, with 'current expenditure on farm business' coming third with a share of 14%.

Purpose of Incurring Debt across Household Assets

Table 2: Percentage Share of Debt by Purpose of Loan for Each Asset Holding Class (All India)

Assets holding class Rs. (000)	productive purpose			HH Exp.	All
	Farm	Non-Farm	All		
less than 15	10	13	24	76	100
15 - 30	16	20	37	63	100
30 - 60	19	12	31	69	100
60 - 100	25	10	35	65	100
100 - 150	30	12	42	58	100
150 - 200	34	10	44	56	100
200 - 300	36	11	47	53	100
300 - 450	39	11	50	50	100
450 - 800	45	13	58	48	100
800 & above	59	13	72	28	100
All	**41**	**12**	**53**	**47**	**100**

Sources: All India Debt and Investment Survey, NSSO Fifty-Ninth Round

The above table shows that, households of the lower asset groups incurred a relatively small part of their debt for productive purposes. In the rural sector, the percentage share of debt for productive purposes is seen to increase from 24 % in the bottom asset class (upto Rs. 15,000) to 72 % in the top asset class (Rs. 8,00,000 and above). The corresponding increase in urban area was somewhat slow that increase from 15% in the bottom assets holding class to 32 % the top assets holding class. Further, the percentage share of debt against 'household expenditure' is seen to decrease from about 76 % in the bottom assets holding class to about 28 % in the top assets holding class in the rural and from 85 % in bottom assets holding class to 68 % in the top assets holding class. Having seen the picture of indebtedness in India now we concentrate on Karnataka state.

Households' Indebtedness scenario in Karnataka

According to All India Debt and Investment Survey, 59th round (2002-03), among the institutional credit agencies the co-operative societies and the commercial banks were the two most important agencies in rural sectors, these two agencies together share 65% with *co-operative societies* (35%) accounting for a greater share than the *Banks* (29%). Among the non-institutional agencies, moneylenders and traders were the main sources of credit, their respective shares being 14%and 10.0 %. The shareof *relatives and friends* was 5% of the cash dues of rural households. According to the same data source, it was observed that among rural households, debt incurred for purposes of 'household expenditure' and 'capital expenditure in farm business' accounted for the highest portions of 27% and 26% respectively, with 'current expenditure on farm business' coming third with a share of 19%.
'Nature & Dimensions of farmers' Indebtness in India and Karnataka, working paper 267, ISEC, Bangalore', shows the household indebtedness in Karnataka at regional level. In that Chamarajanagara accounted highest household indebtedness of 93.75%, in that only 19.29% belong to formal sector and remaining 80.71% is informal sector. Later it is followed by Mysore of 92.43% in that 27.13 is by formal and remaining 72.875 belong to informal sector.

Where Bangalore accounted 24.91% of household indebtedness**.** In Hassan, place of research accounted 82.71% Indebtness, in that 36.39% is from formal sector and remaining 63.63% is from informal sector. Thus, Household assets play an important role in determining sources of loan of household. The data source and methodology for this paper is presented below.

5. Data Source and Methodology

This study is both exploratory and descriptive in nature. To conduct the study, the case study approach was used, the present paper is based on the primary data collected from the 8 villages of Channarayapatna block, Hassan district. (Bagur, arasikere, turuvekare, Baddikere, Chokenahalli). Random sampling technique was used in collecting data. The total sample size was 200. The deception of the relationship among variables is presented in the following section.

6. Empirical Results or Summery of Finding

In this section of the paper, a description of the relationship among variables that emerged from the empirical work is presented below.

Distribution of household based on landholding

The descriptive statistics shows that out of 200 household (respondents), 31 percent of them own less than 0.5 hectares, 13 percent own land between 0.6 to 1 hectares, 13.5 percent own land between 1.1 to 2 hectares, 11.5 percent own land between 2.1 to 3 hectors, 15 percent own land between 3.1 to 4 hectors, and 16 percent own land more than 4.1 hectares.

Percentages share of Households on the basis of principle occupation

The descriptive statistics shows that 41 percentage of households are farmers, followed by 37.5 percentage are casual labour, 4 percentage are gold smith, 6.5 percentage are engaged in sericulture and remaining 11 percentage of them are involved in other occupation.

Landholding and the household sources of loan

Table 3: landholding and Moneylender as Sources of Loan

	Loan from Money lender		
	No	**Yes**	**Total**
less than 0.5 Hct	15 (15.2)	46 (45.5)	61(30.5)
0.6 to 1 hct	10 (10.10)	16 (15.8)	26 (13)
1.1 to 2 hct	9 (9.1)	17 (16.8)	26(13)
2.1 to 3 Hct	17 (17.2)	7 (6.9)	24 (12)
3.1 to 4 Hct	21 (21.2)	9 (8.9)	3 (15)
4.1 and above Hct	27 (27.3)	6 (5.9)	33 (16.5)
Total	**99 (100)**	**101 (100)**	**200 (100)**

Sources: Collated from field work
Note: Figers in parentheses indicate percentages

The table 3shows that out of 200 households (respondents') 101 household (50.5%) take loan from the money lender (Informal sector), among them 46 households'(45.5%) have less than 0.5 hct of land, followed by 16 household (15.8%) have the land between 0.6 to 1 hct, 17 household (16.8%) have land between 1.1 to 2 hct, 7 household (6.9%) have land between 2.1 to 3 hct, 9 household (8.9%) have land between 3.1 to 4 hct and remaining 6 households' (5.9%) have land more than 4.1 hct. It shows that household with less land holding are more to take loan from moneylender (Informal sources), compared with the household having high land holding, because the lack the collateral to take loan from Banks (Formal sources).

Table 4: Landholding and Bank as a Sources of Loan

	Loan from Bank		
	No	**Yes**	**Total**
less than 0.5 Hct	61 (47.3)	0 (0)	61 (30.5)
0.6 to 1 hct	24 (18.6)	2 (2.8)	26 (13)
1.1 to 2 hct	13 (10.1)	13 (18.3)	26 (13)
2.1 to 3 Hct	8 (6.2)	16 (22.5)	24 (12)
3.1 to 4 Hct	11 (8.5)	19 (26.8)	30 (15)
4.1 and above Hct	12 (9.3)	21 (29.6)	33 (16.5)
Total	**129 (100)**	**71 (100)**	**200 (100)**

Sources: Collated from field work
Note: Figers in parentheses indicate percentages

Table 4 shows that, 71 household (35.5%) of the total respondent taken loan from Bank (formal sector), among them 21 household (29.6%) have land more than 4.1 hct, followed by 19 household (26.8%) have the land between 3.1 to 4 hct, 16 households' (22.5%) have land between 2.1 to 3 hct, 13 households' (18.3%) have land between 1.1 to 2 hct and remaining only 2 households'(2.8%) have land between 0.6 to 1 hct. It shows that household who are taking loan from bank are good at collateral, owning at least 2 hct of land.

Table 5: Landholding and Micro Finance Institution as Sources of Loan

	Loan from Micro finance Institution		
	No	**Yes**	**Total**
less than 0.5 Hct	32 (30.8)	29 (30.2)	61
0.6 to 1 hct	10 (9.6)	16 (16.7)	26
1.1 to 2 hct	13 (12.5)	13 (13.5)	26
2.1 to 3 Hct	15 (14.4)	9 (9.4)	24
3.1 to 4 Hct	16 (15.4)	14 (14.6)	30
4.1 and above Hct	18 (17.3)	15 (15.6)	33
Total	**104 (100)**	**96 (100)**	**200**

Sources: Collated from field work
Note: Figers in parentheses indicate percentages

The table 5 shows that out of 200 household, 96 of them take loan from microfinance institutions, among them households' with less collateral (less than 0.5 Hct of land) are more to take loan from micro finance institution of 30.2 percent. Compare to the households' who owns the land more than 4.1 hct (good at collateral).

Landholding and Purpose of loan from Money Lender

The descriptive statistics shows that, household owning land less than 0.5 hct are more to take loan from moneylender for non-income generating purposes like Ceremonies, Repayment of previous loan, medical purpose and consumption expenditure of 57.1, 59.5, 53.3, and 57.1 percent respectively and only 27 percent of it for Income generating purposes. Household owning land between 0.6 to 1 hct, among them 21 percent of them takes loan for ceremonies, 16.2 percent for repayment of previous loan, 20 percent for medical purpose, other 20 percent for consumption purpose, 28.6 percent for other purpose and only reaming 7.7 percent of household take loan for investment purpose in non-form sector. Households' owning land between 1.1 to 2 hct, among them 45.5 percent of them take loan for the purpose of investment in farm sector, followed by 30.8 percent of them take loan for investment in non-farm sector, 13.7 percent of them take loan for repayment of previous loan, 6.7 percent of them for consumption expenditure and reaming 7.1 percent of households' for ceremonies/ function. Households' owning land between 2.1 to 3 hct, among them 9.1 percent of them takes loan for the investment in farm sector, followed by 15.4 percent of them for investment in non-form sector, only 2.7 percent for repayment of previous loan, 20 percent of them for medical purpose, and only 13.3 percent for consumption expenditure. Households' owning land between 3.1 to 4 hct, among them 27.3 percent of them takes loan for investment in farm sector, followed by 7.7 percent of them for investment in non-farm sector, 5.4 percent for repayment of previous debt, 6.7 and 14.3 percent of them take loan for consumption expenditure and other purposes respectively. Households' owning land more than 4 hct, among them 18.2 percent of them take loan for investing farm sector, followed by 15.4 percent of them for investment in non-form sector, 20 percent of them for medical purpose and only 7.1 percent of them for ceremonies/ function. Thus, it is clear that as the land holding increases the taking loan from the moneylender also reduces and the purpose of taking also changes from non-income generating to income generating purpose.

Landholding and Purpose of loan from Bank

The descriptive statistics shows that, among the households' taking loan from bank for the purpose of Investment in farm sector, 31.6 percent belong to households' owning land more than 4 hct, followed by 26.3 percent of households' owning land between 3.1 to 4 hct, 18.4 percent of households' owning land between 2.1 to 3 hct., 23.7 percent of households' owning land between 1.1 to 2 hct and the reaming households' with land less than 1 hct are not taking loan from the bank for Investing in farm sector.

Among the households' taking loan for the purpose of investing/ purchasing the agricultural implements, 30.8 percent belong to households' owning land more than 4 hct, followed by 15.4 percent of household owning land between 3.1 to 4 hct, 46.2 percent owning land between 2.1 to 3 hct, only 7.7 percent of household owning land 1.1 to 2 hct and reaming households' owning land less than 1 hct are not taking loan from bank due to low collateral. Among the household taking loan for the purpose of investing in non-form sector, 31.3 percent of the households' own land between 3.1 to 4 hct, followed by 25 percent of households' own land more than 4 hct, 18.8 percent of household own land between 1.1 to 2hct, 12.5 percent of household own land 2.1 to 3hct and the same percent of household hold the land between 0.6 to 1 hct. Households' who are taking loan for other purposes own land more the 3 hct. Hence it shown that households who are good at collateral having minim of an Hct try to get loan from bank for income generating purposes.

Landholding and Purpose of Loan from Microfinance Institutions

The descriptive statistics shows that household with different landholding taking loan from Microfinance institution. It is shown earlier in the table 3 that, household with less collateral (Own land less than 0.5 hct) are more to take loan from MFI for different purposes, like Animal husbandry, basket making, paped making, agarabhathi, tailoring, BD packing and other of 25.7, 35.5, 11.8, 22.2, 40, 72.7 and 50 percent respectively. The household owning land between 0.6 to 1 hct take loan for the purposes like animal husbandry, basket making, paped making, agarabhathi, and BD packing of 14.3, 17.6, 29.4, 11.1 and 18.2 percent respectively. The household owning land between 1.1 to 2 hct. Take loan for the purposes like Animal husbandry, basket making, and paped making of 8.6, 5.9 and23.5 percent respectively. The household owing land between 2.1 to 3 hct take loan only for the purposes like animal husbandry, basket making and tailoring of 8.6, 23.5 and 5.9 percent respectively. The household owing land between 3.1 to 4 hct take loan only for the purposes of animal husbandry, basket making and tailoring of 20, 5.9 and 17.9 percent respectively. The household owing land more than 4.1 hct take loan only for the purpose of animal husbandry. Thus, it is clear that animal husbandry is the main purpose where, household belongs to different landholding to take loan from microfinance institution.

Household Taking loan from Both Sectors

Table 6: Shows Household Taking Loan from both Moneylender and Bank

	Bank	
Money Lender	**No**	**Yes**
No	42 (32.6)	57 (80.3)
Yes	87 (67.4)	**14 (19.7)**
Total	129 (100)	71 (100)

Sources: Collated from field work
Note: Figers in parentheses indicate percentages

Table 6, shows that household taking loan from both financial sources. Out of 200 respondents 71 of them take loans from bank (formal sector) among them 14 households (19.7%) also take loan from money lenders for different purpose.

Table 7: Shows Household Taking Loan from both Moneylender and Micro Finance

	Micro Finance institutions	
Money Lenders	**No**	**Yes**
No	48 (46.2)	51 (53.1)
Yes	56 (53.8)	**45 (46.9)**
Total	104 (100)	96 (100)

Sources: Collated from field work
Note: Figers in parentheses indicate percentages

Table 7 above, shows that household taking loan from both financial sources. Out of 200 respondents 96 household take loans from Micro Finance Institutions, among them 45 households (46.9%) also take loan from Moneylenders.

7. Econometric Results Explaining the Co-Existences of Moneylender, Bank and Microfinance Institution

Binary Logistic Regression on Moneylender

In logistic regression, one cannot get R square like that of Ordinary least square regression (OLS), so there is different pseudo R square measured using log likelihood value. The table 6 given below provides the Cox & Snell R Square and Nagelkerke R Square.

Table 8: Value of R square

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	325.641	0.494	0.589

Sources: Analysed using SPSS

The greater the magnitude of R square better is the model. The Cox and sell R- Square for the model is 0.494. This implies that 49.4 percent variation in the dependent variable is explained by independent variables including in the model. The Nagelkerke R- Square is estimated at 0.539 that is 53.9%.

Table 9: Estimated Parameters of Factors That Explain the Existence of Moneylender

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	Gender	0.2	0.684	0.086	1	0.77	1.221
	Age	**0.037**	**0.022**	**2.838**	**1**	**0.052**	**1.038**
	Household landholding	**-0.398**	**0.135**	**8.636**	**1**	**0.003**	**0.672**
	Household Education (illiterate)	**-0.791**	**0.393**	**4.062**	**1**	**0.044**	**0.453**
	Household Occupation (farmer)	0.492	0.493	0.997	1	0.318	1.635
	Type of house (own)	**0.398**	**0.435**	**0.834**	**1**	**0.031**	**1.488**
	Moneylender Collateral (On demand)	**-0.634**	**0.399**	**2.526**	**1**	**0.012**	**0.53**
	Household Income shock (no)	**1.388**	**0.407**	**11.629**	**1**	**0.001**	**0.25**
	Purpose of loan (Productive)	**1.085**	**0.438**	**0.772**	**1**	**0.039**	**1.469**
	Household Per capita income	0	0	0.093	1	0.76	1
	Distance to bank (Km)	**0.159**	**0.093**	**0**	**1**	**0.024**	**0.999**
	Repayment schedule in Bank	**-0.238**	**0.159**	**2.242**	**1**	**0.034**	**1.269**
	Repayment schedule in MFI	**-0.441**	**0.35**	**1.587**	**1**	**0.008**	**1.554**
	Constant	-0.655	1.371	0.228	1	0.633	0.519

Sources: Analysed from SPSS

From the thirteen predictor variables fitted in the logistic regression model, ten variables had a significant (Age, landholding, Education, type of house, collateral, household with income shock, purpose of loan, distance to bank, Repayment schedule in bank and MFI) impact on influencing households' to take loan from moneylender. While three variables (gender, household occupation and Household per capita income) was not significant, implying that gender, occupation and per capita income had no impact on influencing household's to take loan from money lender.

Of the ten significant predictor variables five had positive signs (Age, type of house, household income shock, purpose of loan, distance from bank) implying an increase in either of these variables would be associated with anincrease in households` taking loan from moneylender and the other five (household landholding, education, collateral, repayment schedule in Bank and MFI) had negative signs meaning an increase in either of these variables would be associated with a decrease in taking loan from money lender.

- The positive significant coefficient of age indicates its positive influence taking loan from moneylender. Per every unit increase in age, a 0.037 increase in the log odds of taking loan form moneylender by households, holding all other independent variables constant. The most likely explanation is based on the fact that loan in banks and micro finance institutions are given to young working people. If, older people need loan (money) they have to depend on moneylender (informal sector). Significant (0.053) in the model confirms this relationship.

- The coefficient of household landholding was significant but negatively related implying that household with more landholding would be, the less likely to take loan from moneylender. Per every unit increase in household landholding, a 0.398 decrease in the log odds of taking loan from moneylender, holding all other independent variables constant. This is because household with more landholding are good at collateral so they can take loan from formal sectors (banks). Significant (0.003) in the model confirms this relationship.
- The coefficient of household education (illiterate) was significant but negatively related implying that the more educated the household would be, the less likely to take loan from moneylender. Per every unit increase in household education (illiterate), a 0.791decrease in the log odds of educated householdtaking loan from moneylender holding all other independent variables constant. The most likely explanation is based on the fact that household with less education have very limited information on bank (formal sources) and its facilities. Significant (0.053) in the model confirms this relationship.
- The coefficient of household type (own) was positively significant, implying that household having own house, are the less likely to take loan from moneylender. Per every unit increase in household type (own), a 0.398 increasesin the log odds of household type (rented) taking loan from moneylender, holding all other independent variables constant. The most likely explanation is based on the fact that household type (own) are good at collateral so they can take loan from formal sectors (banks). Significant (0.003) in the model confirms this relationship. On other dimension house will act as collateral in bank while taking loan, so one who don't have their own house them lack this collateral?
- The coefficient of collateral (on demand) was significant but negatively related implying that household with on demand as a collateral, are likely to take loan from moneylender. Per every unit increase in collateral (on demand), a 0.634decrease in the log odds of other type of collateral taking loan from moneylender, holding all other independent variables constant. The most likely explanation is based on the fact thathousehold with low collateral are more to take loan from moneylender, so while taking loan they provide on demand as collateral. Significant (0.012) in the model confirms this relationship.
- The coefficient of household income shock (no) was positively significant, implying that household who are affected by income shock are likely to take loan from moneylender. Per every unit increase in household income shock (no) taking loan, a 1.388increasesin the log odds of household income shock (yes) taking loan from moneylender, holding all other independent variables constant. The most likely explanation is based on the fact thatrural household face income shock frequently, due to many reasons (marriage, medical purposes, crop failure, etc.)so moneylender is only sources for them to overcome this shock, and this household can also repay their loan amount in different kind.Significant (0.001) in the model confirms this relationship.
- The coefficient of purpose of loan (productive) was positively significant, implying per every unit increase in purpose of loan (productive), a 1.085 increasesin the log odds of purpose of loan (non- productive) taking loan from moneylender, holding all other independent variables constant. The most likely explanation is based on the factthat household who take loan from moneylender ismainly to meet there personal need, non-income generating purposes (repayment of previous, function, medical purposes, etc...)Significant (0.039) in the model confirms this relationship.
- The coefficient of distance from bank (Km) was positively significant, indicates its positive influence taking loan from moneylender. Per every unit increase in distance from bank, a 0.159 increase in the log odds of taking loan form moneylender by households, holding all other independent variables constant. The most likely explanation is based on the fact that, as for the bank (formal sources), accessing it will difficult, due to high transaction cost, etc… Significant (0.024) in the model confirms this relationship
- The coefficient of Repayment schedule in Bank was significant but negatively related implying that per every unit increase in Repayment schedule in Bank, a 0.238decrease in the log odds of taking loan from moneylender, holding all other independent variables constant. This is because as repayment schedule increases household will get time to repay the debt. Significant (0.034) in the model confirms this relationship.
- The coefficient of Repayment schedule in Micro finance Institution was significant but negatively related implying that per every unit increase in Repayment schedule in micro fiancé institution, a 0.441decrease in the log odds of taking loan from moneylender, holding all other independent variables constant. This is because as repayment schedule increases household will get time to repay the debt. Significant (0.008) in the model confirms this relationship.

Thus, from the above regression (table 7) that variables/ factors like Age, Household Education, Household Income shock, Purpose of loan, Distance to bank (Km) explains the existence of Moneylender in villages.

Binary Logistic Regression on Bank

Table 10: Value of R Square

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	229.130a	0.428	0.595

Sources: Analysed using SPSS

The greater the magnitude of R square better is the model. The Cox and sell R- Square for the model is 0.428. This implies that 42.8 percent variation in the dependent variable is explained by independent variables including in the model. The Nagelkerke R- Square is estimated at 0.595 that is 59.5%.

Table 11: Estimated Parameters of Factors That Explain the Existence of Bank

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	Gender	-0.539	0.859	0.393	1	0.531	0.583
	Age	**-0.07**	**0.032**	**4.81**	**1**	**0.028**	**0.932**
	Household landholding	**0.146**	**0.159**	**0.846**	**1**	**0.038**	**1.157**
	Education (Illiterate)	**1.516**	**0.553**	**0.87**	**1**	**0.051**	**1.675**
	Household Occupation (Farmer)	**-1.678**	**0.636**	**6.951**	**1**	**0.008**	**5.352**
	Type of house (own)	**-0.661**	**0.947**	**2.065**	**1**	**0.051**	**3.901**
	Household Income shock (no)	**-1.452**	**0.556**	**6.807**	**1**	**0.009**	**4.271**
	Household Per capita income	**0.350**	**0.001**	**7.178**	**1**	**0.007**	**1.002**
	Distance to bank (Km)	**-0.090**	**0.151**	**0.004**	**1**	**0.052**	**1.009**
	Repayment schedule Bank	**0.388**	**0.272**	**2.036**	**1**	**0.044**	**0.679**
	Repayment schedule in MFI	0.641	0.235	1.997	1	0.848	1.554
	Bank Collateral (Panni)	-0.212	0.875	0.059	1	0.808	0.809
	Purpose of Loan (Farming)	**-1.92**	**0.963**	**3.976**	**1**	**0.046**	**0.147**
	Constant	-2.207	1.886	1.37	1	0.242	0.11

Sources: Analysed using SPSS

From the thirteen predictor variables fitted in the logistic regression model, ten variables had a significant (Age, landholding, Education, occupation, type of house, household with income shock, Household per capita income, distance to bank, repayment schedule in bank,) impact on influencing households' to take loan from moneylender. While three variables (gender, repayment schedule in MFI and collateral) was not significant, implying that gender, repayment schedule in MFI and collateral had no impact on influencing household's to take loan from Bank.

Of the ten significant predictor variables seven had positive signs (landholding, education, occupation, household type, household income shock (yes), HH per capita income, purpose of loan) implying an increase in either of these variables would be associated with an increase in households` taking loan from bank and the other three (age, distance from bank, purposes of loan (farming)) had negative signs meaning an increase in either of these variables would be associated with a decrease in taking loan from bank.

- The negative significant coefficient of age indicates its negative influence taking loan from bank. Per every unit increase in age, a 0.07decree in the log odds of taking loan form banks by households, holding all other independent variables constant. The most likely explanation is based on the fact that loan in banks are given to young working people, as it involves low risk.Significant (0.028) in the model confirms this relationship.
- The coefficient of household landholding was positively significant it, implying that household with more landholding would be, likely to take loan from bank. Per every unit increase in household landholding, a 0.146 increase in the log odds of taking loan from bank, holding all other independent variables constant. The most likely explanation is based on the fact that household having more land are good at collateral so they can use it as mortgage for loan and bank also provide loans to them who are good at collateral. Significant (0.038) in the model confirms this relationship.

- The coefficient of household education (illiterate) was positively significant implying that the more educated the household would likely to take loan from bank. Per every unit increase in household education (illiterate) taking loan from bank, a 1.516 increasein the log odds ofeducated household taking loan from bank holding all other independent variables constant. The most likely explanation is based on the fact that household with good education have information on bank (formal sources) and its facilities, they are financially literate. Significant (0.051) in the model confirms this relationship.
- The coefficient of household occupation (farmer) was positively significant, implying thatper every unit increase in household occupation (farmer) taking loan, a 1.678 decrease**i**n the log odds of household occupation is non-farmers, taking loan from bank, holding all other independent variables constant. The most likely explanation is based on the fact thathousehold whose occupation is farming will be having good size of land and they take loan for productive purposes and also they have the capacity to repay the loan. Significant (0.008) in the model confirms this relationship
- The coefficient of household type (own) was negatively significant, implying that per every unit increase in household type (own), a 0.661 decreasein the log odds of household type (rented) taking loan from bank, holding all other independent variables constant.The most likely explanation is based on the fact thatown household can also use as collateral in bank for loan. Significant (0.051) in the model confirms this relationship.
- The coefficient of household income shock (no) was negativelysignificant, implying that per every unit increase in household income shock (no) taking loan, a 1.452 decreasesin the log odds of household income shock (yes) taking loan from bank, holding all other independent variables constant. The most likely explanation is based on the fact thatbank will verify the household's economic stability before giving loan. Significant (0.009) in the model confirms this relationship.
- The coefficient of household per capita income was positively significant implying that household with higher per capita will take loan from bank. Per every unit increase in household per capita income, a 0.350 increases in the log odds of taking loan from bank, holding all other independent variables constant. This is because household with good per capita income will have the capacity to repay the loan and banks can also trust them. Significant (0.007) in the model confirms this relationship.
- The coefficient of distance from bank (Km) was negatively significant, indicates its negative influence taking loan from bank. Per every unit increase in distance from bank, a 0.091 decreases in the log odds of taking loan form bank by households, holding all other independent variables constant. The most likely explanation is based on the fact that, as for the bank (formal sources), accessing it will reduce, due to high transaction cost, etc… Significant (0.052) in the model confirms this relationship.
- The coefficient of Repayment schedule in Bank was positively significant implying that per every unit increase in Repayment schedule in Bank, a 0.383 increases in the log odds of taking loan from bank, holding all other independent variables constant. This is because as repayment schedule increases household capacity to repay the debt. Significant (0.044) in the model confirms this relationship.
- The coefficient of purpose of loan (farming) was negatively significant, implying per every unit increase in purpose of loan (farming), a 1.092 decreasein the log odds of purpose of loan (non- forming) taking loan from bank, holding all other independent variables constant. The most likely explanation is based on the factthat household who take loan from bank will main be for farming purposes income generating (agriculture). Significant (0.046) in the model confirms this relationship.

Hence, it is conform from the above regression (table 9) that variables/ factors like Household landholding, Education (Illiterate), Household Occupation (Farmer), Type of house (own), Household Per capita income, Distance to bank (Km), Repayment schedule Bank, Purpose of Loan (Farming)explains the existence of Bank in villages.

Binary Logistic Regression on Microfinance Institution

Table 12: Value of R Square

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	161.385	0.439	0.585

Sources: Analysed using SPSS

The greater the magnitude of R square better is the model. The Cox and sell R- Square for the model is 0.439. This implies that 43.9 percent variation in the dependent variable is explained by independent variables including in the model. The Nagelkerke R- Square is estimated at 0.585 that is 58.5%.

Table 13: Estimated Parameters of Factors that Explain the Existence of Microfinance Institution

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1a	Gender	-0.371	0.912	0.165	1	0.684	0.69
	Age	**-0.01**	**0.027**	**0.146**	**1**	**0.003**	**0.99**
	Household landholding	0.211	0.171	1.517	1	0.218	1.234
	Education (Illiterates)	**0.117**	**0.485**	**0.059**	**1**	**0.059**	**1.125**
	Type of house (Rented)	-0.30	0.505	0.353	1	0.552	0.741
	Purpose of loan	-22.785	6111.753	0	1	0.997	0
	Distance from Banks	**0.381**	**0.116**	**10.897**	**1**	**0.001**	**1.464**
	Household Per capita Income	**-0.001**	**0.001**	**4.336**	**1**	**0.037**	**0.999**
	Repayment schedule in MFI	**0.545**	**0.114**	**22.929**	**1**	**0.001**	**0.58**
	Loan amount MFI	0.240	0.131	4.264	1	0.398	1
	Household with Income shock	**0.038**	**0.46**	**0.007**	**1**	**0.034**	**0.962**
	Household Occupation (farmers)	**0.418**	**0.598**	**0.282**	**1**	**0.056**	**0.728**
	Repayment schedule Bank	0.478	0.272	2.036	1	0.454	0.679
	Constant	23.553	6111.753	0	1	0.997	1.7060

Sources: Analysed using SPSS

From the thirteen predictor variables fitted in the logistic regression model, eight variableshad a significant (Age, Education, distance from bank, household per capita income, repayment schedule in MFI, loan amount of MFI, HH income shock, HH occupation) impact on influencing households' to take loan from micro finance. While five variables (gender, repayment schedule in bank, household type, purpose of loan, and land holding) was not significant, implying that gender, repayment schedule in bank, household type, purpose of loan, and land holding had no impact on influencing household's to take loan from micro finance institution.

Of the eight significant predictor variables five had positive signs (education, distance from bank, repayment schedule in mfi, loan amount in mfi, occupation) implying an increase in either of these variables would be associated with an increase in households` taking loan from MFI and the other three (age, HH PCI, HH income shock) had negative signs meaning an increase in either of these variables would be associated with a decrease in taking loan from MFI.

- The negative significant coefficient of age indicates its negative influence taking loan from MFI. Per every unit increase in age, a 0.01 decree in the log odds of taking loan form MFI by households, holding all other independent variables constant. The most likely explanation is based on the fact that loan in MFI are given to young people than older people, because of risk involved in it. Significant (0.003) in the model confirms this relationship.
- The coefficient of household education (illiterate) was positively significant implying that more educated the household would likely to take loan from MFI. Per every unit increase in household education (illiterate) taking loan from MFI, a 0.117 increasein the log odds of educated household taking loan from MFI holding all other independent variables constant. The most likely explanation is based on the fact that, banks are using MFI for financial inclusion, by providing education on formal financial sources. Significant (0.059) in the model confirms this relationship.
- The coefficient of distance from bank (Km) was positively significant, indicates its positive influence taking loan from MFI. Per every unit increase in distance from bank, a 0.381 increases in the log odds of taking loan form MFI by households, holding all other independent variables constant. The most likely explanation is based on the fact that as bank (formal sources) get farer MFI will be the only sources for household to get loan from formal sector. Significant (0.001) in the model confirms this relationship.

- The coefficient of household per capita income was negative significant implying that negative influence on MFI loans. Per every unit increase in household per capita income, a 0.001decrease in the log odds of taking loan from MFI, holding all other independent variables constant. The most likely explanation is based on the fact thathousehold how are economically weaker section are more to take loan from MFI compare to household with good PCI. Significant (0.037) in the model confirms this relationship.
- The coefficient of Repayment schedule in Micro finance Institution was positively significant, implying that per every unit increase in Repayment schedule in micro fiancé institution, a 0.545increases in the log odds of taking loan from MFI, holding all other independent variables constant. The most likely explanation is based on the fact that that household how are economically weaker section are more to take loan from MFI, as repayment schedule increases household will get time to repay the debt. And there will be no need to depend on other sources for these purposes. Significant (0.001) in the model confirms this relationship.
- The coefficient of household income shock (yes) was positively significant, implying that per every unit increase in household income shock (yes) taking loan, a 0.038 increasesin the log odds of household income shock (no) taking loan from MFI holding all other independent variables constant. This is MFI loans are provided through group lending activity, so household with high risk are not allowed in group lending activity. Significant (0.034) in the model confirms this relationship
- The coefficient of household occupation (farmer) was positively significant, implying that per every unit increase in household occupation (farmer) taking loan, a 0.418 increase **i**n the log odds of household occupation is non-farmers (casual labours), taking loan from bank, holding all other independent variables constant. This is because household who are non-farmer (Casual labours) are more to take loan from MFI because they lack collateral. Significant (0.056) in the model confirms this relationship.

Hence, from the above regression (table 11) that variables/ factors like Household with Income shock, Household Occupation (farmers), Household Per capita Income, and Repayment schedule in MFI, Loan amount MFI, Distance from Banks explains the existence of MFIs in villages.

8. Conclusion

As it was observed from the field, household owning land less than 0.5hct are more to take loan from moneylender, mainly for the purpose of repayment of previous debt from MFI and consumption expenditure. Repayment schedule in the MFI's was short period (loan recovery start with in the 7 to 10th day) and the loan amount given by MFI's was inadequate, household facing shortage of working capital especially in agarabhathi making and animal husbandry. To finance their activity households has to depend informal sources (moneylender), by this moneylenders are charging high interest rate, where households are trapped in debt. The only way to get rural household out from this exploitation, is through increasing the repayment schedule/ duration and providing the adequate working capital, in this way (Ngo) non-governmental organisations can also play an important role, by providing financial literacy to the rural household and help in the process of financial inclusion. paper conclude that variables like household land holding, household with income shocks, household per capita income, repayment schedule of Bank and MFI, distance from formal source of finance explains the co-existence of Moneylender, Bank and MFI in the villages of Channarayapatna block.

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