CHAPTER V

LINKED AND NON-LINKED CREDIT TRANSACTIONS: SEGMENTATION BETWEEN OCCUPATION GROUPS

In this chapter, the segmentation of informal credit in terms of the choice of particular type of linkages among the two occupational groups i.e. agricultural labourers and cultivators (Section I), the association of different type of lenders with the occupation groups (Section II), the preferences of these occupation groups in availing credit for various purposes (Section III). Finally the broad conclusions are discussed in Section IV.

SECTION I

Choice of occupation groups among various types of linkages;

Land and labour market linkages in developed village and labour linkages in commercialised and backward villages are the major categories of credit linkages associated with agricultural labourers (Table-5.1). Among different types of linkages, the credit linkages with annual farm servant system (AFS) are more prevalent among agricultural labourers of all the three villages. Therefore, it reveals that AFS system is the most important "collateral substitute" available with the agricultural laboures to secure the credit contracts in all the villages.

The input and output market linkages with credit are the major types of inter linkages observed among the cultivators of all the three villages (Table-5.2). They art) highest (96.42 per cent of total linked credit) in commercialized village, followed by developed village (80.71), while they

Table 5.1

Types of Credit Linkages among Agricultural Labourers

(Amount in Rs.)

SI. No.	Types of credit linkages	Developed Village		Commercialised Village		Backward Village	
		No	Amount	No.	Amount	No.	Amount
I.	Credit linked with land market	6	39900	1	1300	-	-
			(40.74)		(1.99)		
	i) Land mortgages	3	18900	1	1300	-	-
	ii) Tenancy market	3	(19.30)		(1.99)		
			21000	-		-	-
			(21.44)				
II.	Credit linked with labour market	12	42000	23	57000	17	46700
			(42.88)		(87.38)		(70.84)
	i) Annual fart servants (AFS)	6	24000	11	28700	8	29000
	ii) Migrant labour	4	(24.50)		(44.00)		(43.99)
	iii) Casual labour	2	16000	4	11600	9	17700
			(16.34)		(17.78)		(26.85)
			2000	8	16700	-	-
III.	Credit linked with input and	4	5500	4	5830	11	16030
	output markets		(5.61)		(8.94)		(24.31)
	i) Input market	1	500	2	1630	1	260
	ii) Output market	2	(0.51)		(2.50)		(0.39)
	iii) Input-output market	1	1000	-	-	3	5300
			(1.02)		4200	7	(8.04)
			4000	2	(6.44)		10470
IV.	Other credit linkages	6	10550	2	1100	9	3195
			(10.77)		(1.69)		(4.85)
i)	Nagu (kind to kind)	3	3500	2	1100	9	3195
ii)	Vadla Voppandaa		(3.57)		(1.69)		(4.85)
	(cash to grain)	2	1050	-	-	-	-
iii)	Combination of any two of		(1.07)				
		1	6000	-	-	-	-
	All linkages	28	97950	30	65230	37	65925
			(100.00)		(100.00)		(100.00)
	NON-LINKED CREDIT	16	(49300	8	19400	15	25060

Note: 1. No, indicates number of credit transactions i.e., number of

2. Figures in brackets indicate percentages to total

Source: Field

Table 5.2
Types of Credit Linkages among Cultivators

(Amount in Rs.)

SI. No.	Types of credit linkages	Developed Village		Commercialised Village		Backward	Village
		No.	Amount	No.	Amount	No.	Amount
I.	Credit linked with land market	1	1000 (0.76)	-	-	5	13700 (17.54)
	i) Land mortgages			-	—		
	ii) Tenancy market	1	1000 (0.76)			5	13700 (17.54)
II.	Credit linked with labour market	1	1000 (0.76)	5	2450 (2.05)	3	4500 (5.76)
	i) Annual fan servants (AFS)	1	1000 (0.76)	-	-	2	2500 (3.20)
	ii) Migrant labour	-	-	-	-	1	2000 (2.56)
	iii) Casual labour	-	-	5	2450 (2.05)	-	-
III.	Credit linked with input and output markets	33	106000 (80.71)	25	115400 (96.42)	20	56890 (72.(4)
	i) Input market	9	21000 (15.99)	-	-	-	-
	ii) Output Market	9	24500 (16.65)	8	49500 (41.36)	9	41900 (53.65)
	iii) Input-output market	15	60500 (46.07)	17	65900 (55.06)	11	14990 (19.19)
IV.	Other credit linkages	15	23340 (17.77)	3	1835 (1.53)	8	3010 (3.86)
	i) Nagu (kind to kind)	11	7140 (5.44)	3	1835 (1.53)	7	2510 (3.22)
	ii) Vadla Voppandam (cash to grain)	2	2200 (1.67)	-	-	-	-
	iii) Combination of any two of	2	14000 (10.66)	-	-	1	500 (0.64)
	All linkages	50 (100.00)	131340 (100.00)	33 (100.00)	119685 (100.00)	36 (100.00)	78100 (100.00)
	NON-LINKED CREDIT	35	115900	6	19000	25	73100

Note: 1. No. indicates number of credit transactions i.e., no. of loans.

2. Figures in brackets indicate percentages to total.

Source: Field Data.

are comparatively lower in the backward village in which the amount of credit involved in the above linkages is 72.84 per cent. Among other important types of linkages, the 'other credit linkages' in developed village, land and labour market linkages in the backward village are more prevalent.

A perusal of Table 5.3 reveals that the agricultural labourers in all the villages are associated with land and labour market linkages getting a share of 90 to 100 per cent of total credit involved in the above types of linkages.1 On the other hand, the cultivators are mainly associated with input and output market linkages sharing about 80 to 95 per cent of credit involved with them. However, the credit in other types of linkages are shared by agricultural labourers and cultivators in the ratio of about 1:2 in developed and commercialised villages and in 1:1 ratio in the backward village.

Probability of households receiving loan under various types of linkages

Conditional probabilities regarding the availability of loan under various types of linkages for the two occupation groups are computed using the sample data. It is envisaged to know what is the probability, of, a farm household in a occupation group enters into a credit transaction under a type of credit linkage.

The estimated conditional probabilities furnished in Table 5.4 illustrate the pattern of credit transactions

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1. However, in the backward village 100 per cent of land market linkages are associated with cultivators only.

Table 5.3

Comparative Analysis of Types of Credit Linkages Associated with Agricultural Labourers and Cultivators

(Amount in Rs,)

Village/Size Classes	Informal Credit Interlinked with									
	Land market		Labour market		Input & output markets		Other linkages		All linkages	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Developed Village										
Agricultural labourers	6	39900 (97.56)	12	42000 (97.67)	4	5500 (4.93)	6	10550 (31.13)	28	97950 (42.72)
Cultivators	1	1000 (2.44)	1	1000 (2.33)	33	106000 (95.07)	15	23340 (68.87)	50	131340 (57.28)
All households	7	40900 (100.00)	13	43000 (100.00)	37	111500 (100.00)	21	33890 (100.00)	78	229290 (100.00)
Commrcialised Village										
Agricultural labourers	1	1300 (100.00)	23	57000 (95.88)	4	5830 (4.81)	2	1100 (37.48)	30	65230 (35.28)
Cultivators	-	-	5	2450 (4.12)	25	115400 (95.19)	3	1835 (62.52)	33	119685 (64.72!
All households	1	1300 (100.00)	28	59450 (100.00)	29	121230 (100.00)	5	2935 (100.00)	63	184915 (100.001
Backward Village Agricultural labourers	-	-	17	46700 (91.21)	11	16030 (21,98)	9	3195 (51.49)	37	65925 (45.771
Cultivators	5	13700 (100.00)	3	4500 (8.79)	20	56890 (78.02)	8	3010 (48.51)	36	78100 (54.23)
All households	5	13700 (100.00)	20	51200 (100.00)	31	72920 (100.00)	17	6205 (100.00)	73	144025 (100.00)

Note: 1. No. denotes number of credit transactions

2. Figures in brackets indicate percentages to total

Source: Field Data.

Table 5.4

Estimated Probabilities of Households Receiving Loans under Linkage Type, by Occupational Group and Study Area

Village/ Occupation group	Land market	Labour market	Input output markets	Other linkages	Total linked credit	Non-linked credit
Developed Village						
Agricultural labourers	0.136	0.272	0.091	0.136	0.636	0.364
Cultivators	0.012	0.012	0.388	0.176	0.588	0.412
Total	0.054	0.101	0.287	0.163	0.605	0.395
Commercial Village						
Agricultural labourers	0.026	0.605	0.105	0.053	0.789	0.211
Cultivators	-	0.128	0.641	0.077	0.846	0.154
Total	0.013	0.364	0.377	0.065	0.818	0.182
Backward Village						
Agricultural labourers	-	0.327	0.212	0.173	0.712	0.288
Cultivators	0.082	0.049	0.328	0.131	0.590	0.410
Total	0.044	0.177	0.274	0.150	0.646	0.354

Note: Sum of probabilities of total linked credit and non-linked is taken as 1.000

entered into by the two occupation groups under various types of linkages in the three villages of study area. In all the three villages, the probability that an agricultural labourer received loan under the credit linkages with labour market is higher than any other type of linkage. Similarly, the probability of a cultivator receiving loan through input-output linkage is more than any other type of linkage.

The foregoing analysis further confirms the choice of agricultural labourers for labour linkages since they are having higher worker dependent ratio, they utilise their labour resource as a collateral for the loan. On the other hand, the cultivators entered into input-output linkages with credit as they have higher per capita owned land and per capita crop income etc. Now it is necessary to examine the association of these two occupation groups with different types of lenders to know the sorting behaviour of various types of lenders and their preferences in selecting the right type of clients.

SECTION II

Association of occupation groups with different types of lenders:

It appears a clear dichotomy of association (segmentation) between agricultural labourers and farmer-lenders and between cultivators and trader-lenders in the study area in linked credit relations. The agricultural labourers received about three-fourths of linked credit provided by farmer lenders in developed and backward villages, while their share is about 90 per cent in commercialised village (Table-5.5). On the other hand, the

Table 5.5

Association of various Types of Lenders with Agricultural Labourers and Cultivators for Linked and Non-Linked Credit

(Amount in Rs.)

Village/ Agricultural labourers and cultivators	Linked Credit								Non-linked Credit							
	Farmer-lenders		Trader-. Lenders		Other lenders		Total		Farmer .lenders		Trader-lenders		Other lenders		Total	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No	Amount	No.	Amount	No.	Amount	No.	Amount
Developed Village																
Agricultural labourers	20	76450 (76.23)	4	5500 (4.93)	4	16000 (91.43)	28	97950 (42.72)	9	43300 (37.88)	-	-	7	6000 (11.79)	16	49300 (29.84)
Cultivators	16	23840 (23.77)	33	106000 (95.06)	1	1500 (8.57)	50	131340 (57.28)	21	71000 (62.12)	-	-	14	44900 (88.21)	35	115900 (70.16)
All households	36	100290 (100.00)	37	111500 (100.00)	5	17500 (100.00)	78	229290 (100.00)	30	114300 (100.00)	-	-	21	50900 (100.00)	51	165200 (100.00
Commercialised Village											-	-				
Agricultural labourers	22	47800 (91.77)	4	5830 (4.81)	4	11600 (100.00)	30	65230 (35.28)	5	9400 (34.31)	-	-	3	10000 (90.91)	8	19400 (50.52)
Cultivators	S	4285 (8.23)	25	115400 (95.19)	-	-	33	119685 (64.72)	5	18000 (65.69)	-	-	1	1000 (9.09)	6	19000 (49.48)
All households	30	52085 (100.00)	29	121230 (100.00)	4	11600 (100.00)	63	184915 (100.00)	10	27400 (100.00)	-	-	4	11000 (130.00)	14	38400 (100.00
Backward Village											-	-				
Agricultural labourers	22	51195 (70.71)	10	12030 (17.46)	5	2700 (100.00)	37	65925 (45.77)	12	19560 (29.43)	-	-	3	11500 (17.35)	15	25060 (25.53)
Cultivators	16	21210 (29.29)	20	56890 (82.54)	-	-	36	78100 (54.23)	15	46900 (70.57)	-	-	10	26200 (82.65)	25	73100 (74.47)
All households	38	72405 (100.00)	30	68920 (100.00)	5	2700 (100.00)	73	144025 (100.00)	27	66460 (100.00)	-	-	13	31700 (100.00)	40	98160 (100.00

Note: 1. No. indicates no. of credit transactions i.e., no. of loans

2. Figures in brackets indicate percentages to total..

Source: Field Data.

cultivators availed more than 95 per cent of linked credit supplied by trader-lenders in developed and commercialised villages and about 83 per cent in backward village. Further, almost the entire linked credit given by 'other lenders' is borrowed by agricultural labourers only. However, for the non-linked credit, farmer lenders are the major sources for both the occupation groups, since trader-lenders did not provide any non-linked credit. The share of cultivators out of the total non-linked credit provided by farmer lenders is about two-thirds in all the villages. While the agricultural labourers getting the remaining one-third.

As observed earlier, since the farmer-lenders and other lenders are mainly concerned with labour and land market linkages, agricultural labourers who are endowed with only the labour resource could get their association by entering into labour and land market linkages. At the other extreme, the trader-lenders who are associated with input and output linkages could link themselves up with cultivators, who could provide their future output as collateral substitute for the linked credit. This clear segmentation reveals that how different lenders utilised the interlinkages of credit as a "screening device" i.e. in selection of right borrowers. They rationed credit based on the collateral available with the borrowers, keeping their main business interest as a prime concern. They advanced loans only to those borrowers who come under their market control.

The estimated conditional probabilities presented in Table 5.6 reveals the pattern of borrowing by the two occupation groups from various types of lenders. In all the

Table 5.6

Estimated Probabilities of Households Receiving Linked and Non-linked Loans from Lender Type, by Occupational Group and Study Area

Village/ Occupation group	Linked credit			Non-linked credit		
	Farmer lender	Trader lender	Other lender	Farmer lender	Trader lender	Other lender
Developed Village						
Agricultural labourer	0. 714	0.143	0.143	0.563	-	0.437
Cultivators	0. 320	0. 660	0.020	0.600	-	0.400
Commercial Village			.			
Agricultural labourers	0. ,733	0.133	0.133	0.625	-	0.375
Cultivators	0. 242	0.758	-	0.833	-	0.167
Agricultural labourer	0.595	0.270	0.135	0.800	-	0.200
Cultivators	0.444	0.556	-	0.600	-	0.400

Note: Sum of probabilities of linked credit received by all lenders is considered as 1.00. So also with non-linked credit.

villages the probability that an agricultural labourer obtaining linked loan from farmer lenders is higher than the probability of their getting linked credit from any other source. On the other hand, the probability that the cultivators received the linked loans from farmer lenders is relatively low, while the probability that they availed credit from trader lenders is higher and fairly close to one. However, the probability that both agricultural labourers and cultivators getting non-linked loans from farmer lenders is higher than any other source.

Further Table 5.7 presents the estimated probabilities regarding linked and non-linked credit disbursements of three types of lenders. The results suggest that, in general, farmer lenders tend to allocate a greater number of their linked loans to agricultural labourers and trader lenders do so to cultivators. However other lenders who include the labour contractors provide their entire linked loans to agricultural labourers only (However their proportion out of total loans is small).

With regards to non-linked loans, the same farmer-lenders who allocate more share of their linked loans to agricultural labourers, provide less share of their non-linked loans to agricultural labourers and more share to the cultivators. This reveals that how the inter-linkages are acting as good collaterals to provide loans to agricultural labourers and the trader lenders who did not provide any non-linked loans are providing large volume of loans by inter-linking them. It shows that the inter-linkages are influencing the sorting behaviour of both the farmer-lenders and trader-lenders.

Table 5.7

Estimated Probabilities of Lender Type Granting Linked and Non-linked Loans to Occupation Groups in Study Villages

Village/ Occupation group	Linked credit			Non-linked credit		
	Farmer Trader	Trader Lender	Other lender	Farmer Trader	Trader Lender	Other lender
Developed Village						
Agricultural labourer	0.556	0.108	0.800	0.300	-	0.333
Cultivators	0.444	0.892	0.200	0.700	-	0.667
Commercial Village						
Agricultural labourers	0.733	0.138	1.000	0.500	-	0.750
Cultivators	0.267	0.862	-	0.500	-	0.250
Backward Village						
Agricultural labourer	0.579	0.333	1.000	0.444	-	0.231
Cultivators	0.421	0.667	-	0.556	-	0.769

Note: Sum of probabilities of each type of lender is considered as 1.000

Break-up of broad type of lenders

Further break-up of the sources of linked and non-linked credit into 10 different categories and analysis of their association with the occupation groups in providing linked and non-linked credit is presented below:

Table 5.8 reveals that among 10 different types of sources, the agricultural money lenders (30.37 per cent of total linked credit), employer-farmers (26.54 per cent), landlords (21.44 per cent) and the labour contractors (16.38 per cent) are the major sources of linked credit to agricultural labourers of developed village (Table-12). On the other hand, the employer farmers (69.60 per cent) and labour contractors (17.78 per cent) who involved with only labour linkages are the major sources in the commercialised village, and the employer farmers (66.74 per cent) who are associated with labour market linkages and the commission agents (18.25 per cent) who are engaged in input and output markets are the major sources of linked credit to agricultural labourers in backward village. It can also be observed that the labour contractors are the only source of linked credit in the other lenders category. The friends and relatives, informal mutual funds and professional money lenders did not involved in any linkages of credit. They are broadly nonlinked credit suppliers.

On the other hand, the cultivators in developed village received major proportion of linked credit (58.24 per cent) from input traders, while the commission agents (22.46 per cent) also provided considerable amount. In the backward

Table 5.8

Source-vise Distribution of Linked Credit to Occupations Groups

(Amount in Rs.)

SI. No.	Types of credit linkages	Developed Village				Commercialised Village				Backward Village			
		Agrl labourer		Cultivators		Agrl labourer		Cultivators		Agrl labourer		Cultivators	
		No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
I	Farmer-lenders	20	76450 (78.05)	16	23840 (18.16)	22	47800 (73.28)	8	4285 (3.58)	22	51195 (77.65)	16	21210 (27.16)
	i) Landlords	3	21000 (21.49)	2	5000 (3.81)	-	-	-	-	-	-	6	14200 (18.18)
	ii) Employer-farmers	8	26000 (26.54)	2	11000 (8.38)	19	45400 (69.60)	5	2450 (2.05)	12	44000 (66.74)	3	4500 (5.76)
	iii) Agricultural money lenders	9	29450 (30.07)	12	7840 (5.97)	3	2400 (3.68)	3	1835 (1.53)	10	7195 (10.91)	7	2510 (3.22)
II	Trader-lenders	4	5500 (5.62)	33	106000 (80.70)	4	5830 (8.94)	25	115400 (96.42)	10	12030 (18.25)	20	56890 (72.84)
	i) Input-traders	4	5500 (5.62)	23	76500 (58.24)	-	-	-	-	-	-		
	ii) Commission agents	-	-	10	29500 (22.46)	4	5830 (8.94)	25	115400 (96.42)	10	12030 (18.2!))	20	56890 (72.84)
III	Other lenders	4	16000 (16.33)	1	1500 (1.14)	4	11600 (17.78)	-	-	5	2700 (4.10)	-	
	i) Maistries/labour contractors	4	16000 (16.33)	1	1500 (1.14)	4	11600 (17.78)	-	-	5	2700 (4.101	-	
	ii) Friends and relatives	-	-	-	-	-	-	-	-	-	-	-	
	iii) Professional money lenders	-	-	-	-	-	-	-	-	-	-	-	
	iv) Informal mutual funds	-	-	-	-	-	-	-	-	-	-	-	
	v) Others	-	-	1	1500 (1.14)	-	-	-	-	-	-	-	
All	informal lenders	28	97950 (100.00)	50	131340 (100.00)	30	65230 (100.00)	33	119685 (100.00)	37	65925 (100.00)	36	78100 (100.00).

Note: 1. No. denotes number of credit transactions i.e., No. of loans.

2. Figures in brackets indicate percentages to total.

Source; Field data

village, the commission agents supplied 72.84 per cent of linked credit to the cultivators, followed by landlords (18.18 per cent). However in the commercialised village, the cultivators borrowed most of the linked credit (96.42 per cent) from commission agents only. Therefore, the foregoing analysis reveals that the cultivators availed most of the linked credit from commission agents and input traders only in the villages, who ration the credit through interlinkages of input and output markets.

Table 5.9 depicts the association of occupation groups with various sources of non-linked credit in the three villages. The agricultural money lenders are the major source of non-linked credit in all the villages for both agricultural labourers and cultivators. The other important lenders are friends and relatives and professional money lenders who provided non-linked credit in all the villages through relatively smaller in proportion. In developed, village informal mutual funds also played important role in providing non-linked credit to both the occupation groups.

After observing broad segmentation in the association of occupation groups with lender types especially in case of linked credit, it is appropriate to examine the purposes for which these occupation groups borrow.

SECTION III

Preferences of Occupational Groups in Availing Credit for Different Purposes:

A perusal of Table 5.10 reveals that the agricultural labourers borrowed more than two-thirds of the total informal

Table 5.9

Source-wise Distribution of Non-linked Credit to Occupations Groups

(Amount in Rs.)

SI.	Types of credit linkages	Developed Village				Commercialised Village				Backward Village			
		Agrl labourer		Cultivators		Agrl labourer		Cultivators		Agrl labourer		Cultivators	
		No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
I	Farmer-lenders	9	43300 (87.83)	21	71000 (61.25)	5	9400 (48.45)	5	18000 (94.74)	12	19560 (78.05)	15	46900 (64.16)
	i) Landlords	-	-	1	2000 (1.72)	-	-	-	-	-	-	-	-
	ii) Employer-farmers	-	-	-	-	-	-	-	-	-	-	-	-
	iii) Agricultural money lenders	9	43300 (87.83)	20	69000 (59.53)	5	9400 (48.45)	5	18000 (94.54)	12	19560 (78.05)	15	46900 (64.16)
II	Trader-lenders	-	-	-	-	-	-	-	-	-	-	-	-
	i) Input-traders	-	-	-	-	-	-	-	-	-	-	-	-
	ii) Commission agents	-	-	-	-	-	-	-	-	-	-	-	-
III	Other lenders	7	6000 (12.17)	14	44900 (38.75)	3	100000 (51.55)	1	1000 (5.26)	3	5500 (21.951	10	26200 (35.84)
	i) Maistries/labour contractors	-	-	-	-	-	-	-	-	-	-	-	-
	ii) Friends and relatives	2	3000 (6.09)	7	31000 (26.75)	3	10000 (51.55)	-	-	3	5500 (21.951	4	8700 (11.90)
	iii) Professional money lenders	-	-	3	8600 (7.42)	-	-	1	1000 (5.26)	-	-	6	17500 (23.94)
	iv) Informal mutual funds	5	3000 (6.08)	3	2300 (1.99)	-	-	-	-	-	-	-	-
	v) Others	-	-	1	3000 (2.59)	-	-	-	-	-	-	-	-
All	informal lenders	16	49300 (100.00)	35	115900 (100.00)	8	19400 (100.00)	6	19000 (100.00)	15	25060 (100.00)	25	73100 (100.00)

Note: 1. No. denotes number of non-linked loans.

2. Figures in brackets indicate percentages to total.

Source: Field data

Table 5.10

Purpose-wise Distribution of Informal Credit to Agricultural Labourers

(Amount in Rs.)

SI. No.	Purpose of borrowing	Developed Village		Commercialised Village		Backward Village	
		No.	Amount	No.	Amount	No.	Amount
I	.Crop production	16	39550	8	10930	26	26885
		(36.36)	(26.86)	(21.05)	(12.92)	(50.00)	(29.55)
II	Agricultural investment	1	7500	-	_	-	-
		(2.27)	(5.09)				
	i) Minor irrigation and bullock	-	-	-	_	8	28500
						(15.38)	(31.32)
	ii) Allied activities to agriculture (dairy. sheep etc.)	1	7500	-	-	_	_
		(2.27)	(5.09)				
III	Consumption	25	99200	25	58700	15	34300
		(56.82)	(67.37)	(65.79)	(69.36)	(28.85)	(37.70)
	i) House construction	1	12000	1	5000	1	4000
		(2.27)	(8.15)	(2.63)	(5.91)	(1.93)	(4.40)
	ii) Marriage	13	70900	12	35700	4	16000
		(29.55)	(48.15)	(31.58)	(42.18)	(7.69)	(17.58)
	iii) Medical	3	7000	4	14300	3	5200
		(6.82)	(4.75)	(10.53)	(16.90)	(5.77)	(5.71)
	iv) Clothing	1	1000	-	-	-	-
		(2.27)	(0.68)				
	v) Education	-	-	-	-	-	-
	vi) Social ceremonies	2	3000	_	_	3	5000
		(4.55)	(2.04)			(5.77)	(5.50)
	vii) Food and other consumption	5	5300	8	3700	4	4100
		(11.36)	(3.60)	(21.05)	(4.37)	(7.69)	(4.51)
IV	Other purposes	2	1000	5	15000	3	1300
	(Redemption of old debts and other purposes not specified)	(4.55)	(0.68)	(13.16)	(17.72)	(5.77)	(1.43)
	Total informal credit	44	147250	38	84630	52	90985
		(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)

Note: 1. No. indicates number of credit transactions i.e., no. of loans.

2. Figures in brackets indicate percentages to total.

Source: Field Data.

credit for consumption purposes in developed and commercialised villages. However, it is interesting to note that the consumption credit constitutes only 37.70 per cent of total credit while about 60 per cent of informal credit borrowed by agricultural labourers is for crop production (29.55 per cent) and minor irrigation purposes ([31.32 per cent) in the backward village. Since the land is unfertile and low productive in the backward village, the landed agricultural labourers resorted to informal credit for land development to make it productive through minor irrigation works. Among the consumption purposes, the credit for marriage purposes constitute the largest in all the three villages. Similar pattern is observed in case of number of credit transactions also.

The cultivators borrowed more than 80 per cent of informal credit for crop production purposes only both in developed and commercialised villages (Table-5.11). In the backward village, the proportion of credit availed by cultivators for crop production is only about 57 per cent. However, the agricultural investment and crop production purposes put together constitute more than 80 per cent of total informal credit borrowed by cultivators in the backward village also. While consumption forms about 17 per cent in both developed and backward villages, its proportion is quite meagre in commercialised village (3.93 per cent). Among different purposes of consumption, the house construction is the major purpose for the cultivators in developed village, while the marriage is the major purpose in backward and commercialised villages.

Table 5.11

Purpose-wise Classification of Informal Credit availed by Cultivators

(Amount in Rs.)

Sl. No.	Purpose of borrowing	Developed Village		Commercialised Village		Backward Village	
		No.	Amount	No.	Amount	Mo.	Amount
I	Crop production	71	200440	32	123235	41	86200
		(83.53)	(81.07)	(82.05)	(88.86)	(67.22)	(57.01)
II	Agricultural investment						
	i) Minor irrigation and	3	6500	1	10000	10	38800
	bullock	(3.53)	(2.63)	(2.56)	(7.21)	(16.39)	(25.66)
	ii) Allied activities to	-	-	-	-	-	-
	agriculture (dairy,						
	sheep etc.)						
III	Consumption	11	40300	6	5450	10	26200
		(12.94)	(16.30)	(15.39)	(3.93)	(16.39)	(17.33)
	i) House construction	3	20000	-	-	-	-
		(3.53)	(8.09)				
	ii) Marriage	2	10000	1	3000	2	10000
		(2.35)	(4.04)	(2.57)	(2.16)	(3.28)	(6.61)
	iii) Medical	4	8500	-	-	4	8200
		(4.71)	(3.44)			(6.55)	(5.42)
	iv) Clothing	-	-	-	-	-	-
	v) Education	-	-	-	-	-	-
	vi) Social ceremonies	-	-	-	-	1	2000
	vii) Food and other					(1.64)	(1.32)
	consumption	2	1800	5	2450	3	6000
		(2.35)	(0.73)	(12.82)	(1.77)	(4.92)	(3.97)
IV	Other purposes	-	-	—	-	-	-
	(Redemption of old debts						
	and other purposes not						
	specified)						
	Total informal credit	85	247240	39	138685	61	151200
		(100.00)	(100.00)	(100.00)	(100.00)		(100.00)

Note: 1. No. indicates number of credit transactions i.e., no. of loans.

2. Figures in brackets indicate percentages to total.

Source: Field Data.

Table 5.12

Analysis of Linked Credit Borrowed for Different Purposes by Agricultural Labourers and Cultivators

(Amount in Rs.)

Village/Agricultural labourers and cultivators	Crop production		Agricultural investment		Consumption		Other purposes		Total linked credit	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Developed Village										
Agricultural labourers	10	30050 (20.18)	-	-	16	66900 (84.26)	2	1000 (100.00	28	97950 (42.72)
Cultivators	47	118840 (79.82)	-	-	3	12500 (15.74)		-	50	131340 (57.28)
All households	57	148890 (100.00)	-	-	19	79400 (100.00)	2	1000 (100.00	78	229290 (100.00)
Commercialised Village										
Agricultural labourers	6	7530 (5.94)	-	-	19	42700 (98.96)	5	15000 (100.00)	30	65230 (35.H8)
Cultivators	29	119235 (94.06)	-	-	4	450 (1.04)	-	-	33	119685 "(64.72)
All households	35	126765 (100.00)	-	-	23	43150 (100.00)	5	15000 (100.00)	63	184915 (100.00)
Backward Village										
Agricultural labourers	20	22125 (24.52)	4	21000 (75.00)	10	21500 (87.76)	3	1300 (100.00)	37	65925 (45.77)
Cultivators	32	68100 (75.48)	2	7000 (25.00)	2	3000 (12.24)	-	-	36	78100 (54.23)
All households	52	90225 (100.00)	6	28000 (100.00)	12	24500 (100.00)	3	1300 (100.00)	73	144025 (100.00)

Note: 1. No. indicates number of credit transactions i.e., No. of loans

2. Figures in brackets indicate percentages to total

Source: Field Data.

It can be seen from Table-5.12 that a major share of linked credit for production purpose is received by-cultivators only in all the three villages. However, the share is highest in case of commercialised village (94.06 per cent), followed by developed village (79.82 per cent) and backward village (75.48 per cent). On the other hand, majority of linked credit gone for consumption purposes is availed by agricultural labourers only. The agricultural labourers of commercialised village received almost all (98.96 per cent) the consumption credit provided in the village. However, the shares being 87.76 and 84.26 per cent respectively in the developed and backward villages. Regarding the linked credit provided for other purposes also, only the agricultural labourers availed 100 per cent of it in all the three villages. Though there is no difference in the pattern of availing non-linked credit also for different purposes, the proportion of non-linked credit gone to agricultural labourers for consumption purposes is quite less than that of linked credit (Table 5.13). It reveals the tendency of lenders to avoid non-linked credit for consumption purposes, mainly due to the more risk of default.

The estimated conditional probabilities in Table 5.14 reveal that the probability of an agricultural labourer availing loan for consumption purposes is higher than they obtain the loans for production purpose. It is vice-versa in case of cultivators. The probability that a cultivator availing loan for agricultural production and investment purposes is more than they avail loan for consumption purposes. However, it can be observed that pattern is

Table 5.13

Analysis of Non-linked Credit Borrowed for different Purposes by Occupational Groups

(Amount in Rs.)

Village/ Occupation group	Crop production		Agricultural investment		Consumption		Other purposes		Total non-linked credit	
	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount
Developed Village	6	9500	1	7500	9	32300 -	-	-	16	49300
Agricultural labourers		(10.43)		(53.57)		(53.74)				(29.84)
Cultivators	24	81600	3	6500	8	27800 -	-	-	35	115900
		(89.57)		(46.43)		(46.26)				(70.16)
All households	30	91100	4	14000	17	60100 -	-	-	51	165200
		(100)		(100)		(100)				(100)
Commercialised Villaqe	2	3400	-	-	6	16000-	-	-	8	19400
Agricultural labourers		(45.95)				(76.19)				(50.52)
Cultivators	3	4000	1	10000	2	5000	-	-	6	19000
		(54.05)		(100)		(23.81)				(49.48)
All households	5	7400	1	10000	8	21000	-	-	14	38400
		(100)		(100)		(100)				(100)
Backward Village	6	4760	4	7500	5	12800 -	-	-	15	25060
Agricultural labourers		(20.82)		(19.08)		(35.56)				(25.53)
Cultivators	9	18100	8	31800	8	23200 -	-	-	25	73100
		(79.18)		(80.92)		(64.44)				(74.47)
All households	15	22860	12	39300	13	36000 -	-	-	40	98160
		(100)		(100)		(100)				(100)

Note: 1. No. indicates no. of credit transactions i.e., no. of loans.

2. Figures in brackets indicate percentages to total.

Source: Field Data.

different in case of agricultural labourers in th« backward village. Most of agricultural labourers in backward village are having small parcels of land. As the land is unfertile and rainfall is scanty, they resort to informal credit for land development purposes to make it productive through minor irrigation works. Hence they availed more loans for agricultural production and investment purposes than that of the consumption loans.

There is not much difference in pattern of availing linked and non-linked loans for various purposes. However, the probability of getting non-linked credit by agricultural labourers for consumption purposes is slightly lower than that of linked credit in all the villages.

Further, in order to examine sources of credit from which the occupation groups got credit for major purposes,, conditional probabilities are estimated and presented in Table 5.15. The results reveal that the probability that cultivators getting crop production and agricultural investment purposes from trader lenders is higher than any other source in all the villages except in backward village. On the other hand, the reverse is true in case of agricultural labourers. The probability that agricultural labourers receiving informal loans for crop production and agricultural investment purposes from farmer lenders is higher than that of other sources. However, the probability that agricultural labourers obtaining loans for consumption and other purposes from farmer lenders is higher than that they are getting for production purposes. The probability of farmer lenders acting as major source of consumption credit to cultivators also is higher than other sources of credit,

Table 5.14

Estimated probability of occupation groups availing linked and non-1 inkid loans for diffirmt purposes in thi itudy villagit

Village/ Occupation group	Linked loan		Non-linked loan		All informal loans	
	Agricul- tural pro- duction & investment	Consum- ption & other	Agricul- tural pro- duction & investment	Consum- ption & other	Agricul- tural pro- duction & investment	Consum- ption & other
Developed Village						
Agricultural labourers	0.357	0.643	0.438	0.562	0.386	0.614
Cultivators	0.940	0.060	0.771	0.229	0.871	0.129
All households	0.731	0.269	0.667	0.333	0.705	0.295
Commercialised Village						
Agricultural labourers	0.200	0.800	0.250	0.750	0.211	0.789
Cultivators	0.879	0.121	0.667	0.333	0.846	0.154
All households	0.556	0.444	0.429	0.571	0.532	0.468
Backward Village						
Agricultural labourers	0.649	0.351	0.667	0.333	0.654	0.346
Cultivators	0.944	0.056	0.680	0.320	0.836	0.164
All households	0.795	0.205	0.675	0.325	0.752	0.248

Note: Sum of the probabilities of loans for all purposes is considered as 1.000

Table 5.15

Estimated Probabilities of Occupation groups getting informal loans for the purposes from lender types

Village/ Occupation group	Crop production and agricultural invest- ment purpose			Consumption and other purposes		
	Farmer lenders	Trader lenders	Other lenders	Farmer lenders	Trader lenders	Other 1enders
Developed Village						
Agricultural labourers	0.121	0.022	0.043	0.474	0.053	0.184
Cultivators	0.330	0.363	0.121	0.184	-	0.105
Commercialised Village						
Agricultural labourers	0.098	0.098	-	0.639	-	0.194
Cultivators	0.171	0.610	0.023	0.167	-	-
Backward Village						
Agricultural labourers	0.247	0.118	0.035	0.464	-	0.179
Cultivators	0.271	0.235	0.094	0.286	-	0.071

Note: Sum of probabilities of two occupation groups getting loans from all lenders is considered as 1.000 for & category of purpose.

since trader lenders did not advance loans generally for consumption purposes.

The foregoing analysis clearly reveals that there is a clear segmentation of credit in two major channels as illustrated below.

1. Farmer-Lenders → Labour market linkages → Agricultural labourers → Consumption Purpose

2. Trader-Lenders → Input-Output linkages → Cultivators → Crop Production purpose

Farmer lenders provide credit to agricultural labourers through labour market linkages, which has been utilised mostly for consumption purposes. On the other hand, trader-lenders supply credit to cultivators through input-output linkages which was utilised for crop production purposes. The shares of these two channels in the selected-villages is given in Table 5.16. Under Channel II, about half of the total informal credit transacted in commercialised village, and about a quarter of the total informal credit in developed and backward villages is involved. However, under Channel I, about 18% of the total informal credit in commercialised village and only less than 10% of total credit in developed and backward villages is involved.

Binary Logit Model for Purpose of Loan

We wish to classify all the informal loans into production and investment purposes (1) and otherwise (0). Our objective is to identify in which circumstances, the probability of an household borrow loan for production purposes. We have included the following variables for the analysis.

Table 5.16

Flow of Informal Credit through Major Channels

(Figures in Percentages)

Village	Percentage share of total informal credit flow through	
	Channel I	**Channel II**
Developed Village	6.84	25.16
Commercialised Village	18.36	50.57
Backward Village	9.53	22.59

Table 5.17

Expected Signs of Explanatory Variables in Binary Logit Model

Dependent Variable: Purpose of Loan

	Explanatory Variables		**Influence on the loan being production loan**
1.	Linkage:	1 if the loan is linked one 0, otherwise	+
2.	Occupation group:	1, if the household is cultivator 0, otherwise	+
3.	Source of loan:	1, if the lender is trader lender 0, otherwise	+
4.	Source of loan:	2, if the lender is other lender 0, otherwise	-
5.	Village:	1, if the loan is in commercialised village 0, if backward village	-
6.	Village:	2, if the loan is in developed village and 0, if in backward village	-

Note: + (plus) sign means variable is positively correlated and - (negative) sign means that the variable is negatively correlated with dependent variable.

Dependent variable is 1 if a loan is for crop production and agricultural investment purposes, '0' otherwise.

Specification of Explanatory Variables

i) Linkage: 1. if the loan is a linked transaction and 0, otherwise.

ii) Occupation class: 1, if the household borrowed is a cultivator and 0, if the household is an agricultural labourer.

iii) Source of loan: 1, if the lender is trader-lender, 2, if the lender is other lender and 0, if the lender is farmer-lender.

iv) Village: 1, if the loan is transacted in commercialised village, 2, if the loan is in developed village and 0, if it is in backward village.

We now briefly denote the expected direction of variables with purpose of loan as follows. The signs of explanatory variables on dependent variable are summarised in Table 5.17.

It is already observed earlier that though there is not much difference in the pattern of in the purpose of loan both for linked loans and non-linked loans, it was noted that probability getting production loans is more in case of linked credit. Hence we expect a positive sign for the variable linkage on the dependent variable 1, for production purpose. Further, we expect positive sign for occupation class 1, i.e., cultivators, since we observed that most of the cultivators preferred production loans only. Host of the loans advanced by trader lenders is for production, while that of other lenders it is for consumption purpose. Hence we expect positive and negative signs respectively. It is also observed that proportion of consumption loans out of

total loans is highest in commercialised village (46.75%) followed by developed village (29.46%) and backward village (24.78%). Therefore we expect a negative signs for both commercialised village and developed villages.

The results of the estimates of Binary Logit model are shown in Table 5.18. The signs of all the coefficients are in expected direction. The relationship of coefficients of variables occupation class, source of loan-trader lenders, village - commercialised village and village - developed village - are statistically significant. The probability of an household getting the loan for crop production and agricultural investment purposes increases significantly a) when the household is a cultivator and b) if the lender is trader-lender. However the probability decreases significantly if the household is from commercialised and developed villages. Though the probability of availing loan for production purposes increases with the interlinkage of informal loan, it is not statistically significant.

SECTION IV

Conclusions

The agricultural labourers in the study area are associated mainly with land and labour market linkages. On the other hand, cultivators mainly associated with input and output market linkages. It reveals that the major share of linked credit supplied for production purposes is received by cultivators only, while majority of linked credit gone for consumption purposes is availed by agricultural labourers only.

Table 5.18

Maximum likelihood estimation of Dichotomous Logit Relationship (Dummy dependent variable '1' if the informal loan is for crop production and agricultural investment purposes and '0' otherwise)

Explanatory Variable		Coefficient	T Ratio
1. Linkage:	1, if the loan is linked one 0, otherwise	0.1234	0.3045
2. Occupation class	l, if the loan is availed by cultivators and 0, if agricultural labourer	1.4853*	3.8118
3. Source of loan - trader-lender	1, if the loan is lent by trader lender and 0, if it is by farmer-lender	4.3010*	4.0104
4. Source of loan - other-lender	2, if the loan is lent by other lender and 0, if it is by farmer-lender	-0.2142	-0.4710
5. Village - Commercialised village	1, if the loan pertains to commercialised village and 0, if it is backward village	-1.7262*	-3.1838
6. Village - Developed village	2, if the loan pertains to developed village and 0, if it is of backward village	-0.6776**	-1.6723
Constant:		-0.6564	-
Log-Likelihood function:		-90.000	
No. of observations		204	
Degrees of freedom:		6	
Percentage of right predictions:		77.94%	

* : Significant at 1% level

** : Significant at 5% level

It is observed a clear dichotamy of association (segmentation) between agricultural labourers and farmer lenders on one hand and that of cultivators and trader lenders on the other in the case of linked credit relations. Since the farmer lenders are mainly concerned with land and labour market linkages, agricultural labourers who are endowed with only the labour resource could get their association by entering into labour and land market linkages. At the other extreme, the trader-lenders who are associated with input-output linkages could link themselves up with cultivators who could provide their future output as collateral substitute for the linked credit. This clear segmentation reveals that how different lenders utilised the interlinkages of credit as a 'screening device' i.e., in selection of right borrowers. They rationed credit based on the collateral substitute available with the borrowers, keeping their main business interest as a prime concern. They advanced loans only to those borrowers who come under their market control.

The analysis clearly reveals that there is a clear segmentation of credit in two major channels as illustrated below:

1. Farmer-lenders → Labour market linkages → Agrl.labourers → Consumption purpose

2. Trader-lenders → Input-output market → Cultivators → Crop production purpos