A STUDY ON FACTORS INFLUENCING SELECTION OF BANKS IN AGRICULTURE CREDIT IN DAKSHINA KANNADA DISTRICT

Dr Lokesha[1],
Department of MBA
Sahyadri College of Engineering and Management,
Adyar, Mangalore, Karnataka, India

Dr Ishwara.P[2],
Department of Commerce
Mangalore University, Konaje,
Karnataka, India

Dr Vishal Samartha[3],
Department of MBA
Sahyadri College of Engineering and Management,
Adyar, Mangalore, Karnataka, India

Abstract

Availability of credit is one of the important factors for the growth of agriculture sector with several factors like climate, availability of water, manpower and such other factors. Cooperative, public, private and regional rural banks support in meeting the credit requirements of farmers in India. There is several factors influence in selection of type of banks in agriculture credit by the farmers. The present study is an attempt to understand the impact of demographic and agriculture related factors in selection of type of banks in agriculture credit in Dakshina Kannada district in India. The researchers have used chi square test to analyse the data. The results revealed that there is impact of demographic and agriculture related factors in selection of type of banks in agriculture credit in the study area.

1. Introduction:

Capital formation is one of the basic factors for increasing production. The agriculture sector also requires capital to increase production to keep pace with the increase in population and against the uncertainties of monsoon. The credit has been occupying an important place in the strategy for development of agriculture. Enhanced and stable growth of the agriculture sector is important as it plays a vital role in generating purchasing power among the rural population by creating employment opportunities (Das A, et al, 2009). The effective development of agriculture is possible with use of technology and modern inputs by the farmers. This requires support of funds by the right sources especially by institutional agencies. The co-operative banks, commercial banks, regional rural banks and informal lenders are major part of agricultural credit system in India (Umesh, K, 2009). The demand for credit depends both on kind and cash expenditure of farmers (Desai, D.K, 1988). The improvement in the credit delivery would help in development of agriculture. The small and marginal farmers were the worst sufferer as far as agriculture credit is concerned. Thus banks play major role in providing finance (Patil, V.B , 2008). By understanding the importance of agriculture sector in India's rural development, Government and Reserve Bank of India (RBI) have played a vital role in creating a broad-based institutional framework for catering to the increasing credit requirements of the sector. In order to improve the flow of credit to the agricultural sector, the Reserve Bank of India advised public sector banks to prepare Special Agricultural Credit Plans (SACP) in 1994-95 (Golait, R, 2007). Disbursement of agriculture sector for the end of 2014 stood at Rs.711,621 crores. The institutional agencies like commercial banks, cooperative banks and regional rural banks in India have issued Rs. 12.00 crore worth amount of Kisan Credit Cards Rs.10.35 crore KCCs are active as on 31st March, 2014.

2. Review of Literature:

George Biju (2002) found that total advances and the share of agriculture increased in India and Kerala substantially during the last three decades. The amount of utilization of loan for agriculture was more than 90 percent of the total amount disbursed. Repayment performance was better and overdue was quite low. It was also found that the main source of repayment was farm income itself and domestic 'needs' remained as the main reason for default in repayment of loans in time. The author also stated that there was only a slight impact of agricultural credit on crop production, income and employment opportunities after availing loan amounts by the borrowers and the amount of credit disbursed was found inadequate to undertake the desired agricultural activities.

Ghosh D N (2005) found that, commercial banks were deeply involved with rural and agricultural lending because of the inadequacy of the cooperative credit system to meet the increase in demand for credit in the wake of the green revolution since late 1960s. The statistics of agriculture lending by commercial banks also proved the fact of increased support of commercial banks in agriculture lending. The author stated that, commercial banks can move faster to exploit the potential in agriculture and allied activities in rural area with some organisational revamping. He also called for commercial banks to be the dominant player in the

existing credit infrastructure and deliver what is being expected of them in several other areas of rural lending, such as for livelihood support and easing the burden of rural indebtedness.

Singh Sukhpal *et al* **(2009)** conducted study in Punjab on Institutional finance and concluded that although the institutional credit for agriculture has increased rapidly for recent years in Punjab, it still lacked behind the productive needs of the Punjab farmers. They have to resorted to non-institutional sources to meet part of their productive as well as un-productive needs. There were several irritating and bureaucratic hassles in obtaining an institutional credit by the farmers. They suggested that there should be simple but comprehensive record book should be issued to every farmer containing information on land records and institutional transactions. This record book should be made a valid document for presentation to banks and other institutions for availing the necessary services.

Kumar *et al* **(2010)** studied about the performance of institutional credit to agriculture and the determinants of institutional agricultural credit use at households' level and found that the institutional credit flow to the agriculture has been increasing for the past four decades. The commercial banks have emerged as the major source of institutional credit to agriculture in the recent years. The choice of a credit outlet and the quantum of institutional credit availed by farming households have been found to be affected by a number of socio-demographic factors. The effect of education has indicated the need for capacity building of borrowing farmers. They suggested that procedure for loan disbursement could be made simple so that it may not be difficult for the less-educated and illiterate households to access institutional financing agencies for credit.

3. Objectives of the study:
The purpose of the paper is to understand and analyse the impact of demographic and agriculture related factors in selection of type of banks in agriculture credit in Dakshina Kannada district in India.

4. Research Methodology:
The authors have made use of both primary and secondary data. The primary data was collected through a structured questionnaire and discussion with the borrowers of agriculture credit. The borrowers of public, private sector, cooperative and regional rural banks in Dakshina Kannada district were formed the population for the study. The borrowers were selected from three public sector banks (Syndicate bank, Vijaya bank and Corporation bank), one private sector bank (Karnataka bank), one cooperative bank (Primary Agriculture Credit Cooperative bank) and one regional rural bank (Karnataka Vikasa Grameena Bank). These banks are selected based on the agriculture credit amount sanctioned the study area. The sources of secondary information collection include articles from RBI, Government of India, Proquest and Emerald. The sample size for the study constituted to one thousand one hundred sixty seven borrowers of agriculture credit. Five hundred seventy seven borrowers were selected from public sector banks (One hundred and ninety three borrowers were selected from the Syndicate bank, One hundred ninety two borrowers were selected from Corporation and Vijaya bank). One hundred and sixty one borrowers were selected from Karnataka Vikasa Grameena Bank (KVGB), three hundred twenty

nine borrowers were selected from the primary cooperative agricultural and rural development bank and one hundred borrowers were selected from Karnataka bank. The number of sample borrowers is selected based on the number of agriculture credit borrowers of selected banks or minimum 100 borrowers. The authors have used chi square and Fishers test to anlyse the impact of various factors on selection of banks.

5. Agriculture Credit by Banks in India

Agriculture credit in India is disbursed by formal and informal agencies. The formal agencies consists of commercial banks (public and private), cooperative banks and regional rural banks. The role of formal agencies has improved due to the initiatives taken by RBI and government of India. The lending to agriculture sector by the formal agencies have given below:

Table No. 1

Agriculture Credit Disbursements by Banks in India

(Amount in Rs. Crore)

Year	Cooperative Banks	Regional Rural Banks	Commercial Banks	Other Agencies	Total
2000-01	20718	4220	27807	82	52827
2001-02	23524	4854	33587	80	62045
2002-03	23935	6070	39774	80	69560
2003-04	26875	7581	52441	84	86,981
2004-05	31231	12404	81481	193	125309
2005-06	39786	15223	125477		180486
2006-07	42,480	20,435	1,66,485		2,29,400
2007-08	48,258	25,312	1,81,088		2,54,658
2008-09	46,192	26,765	2,28,951		3,01,908
2009-10	63,497	35,217	2,85,800		3,84,514
2010-11	78,121	44,293	3,45,877		4,68,291
2011-12	87,963	54,450	3,68,616		5,11,029
2012-13	1,13,203	63,681	4,32,491		6,07,375

Source: Working Group on Agricultural Credit and Cooperation, Report on the Doubling of Agriculture Credit Programme, NABARD

The table 1 shows the agriculture credit disbursement by various type of banks in India. There is increased credit support by the banks to agriculture year after year. The share of the commercial banks has increased at a faster rate compared to the other banks. This is because of the increased number of branches of commercial banks with a target of 18 percent credit to agriculture and easy process involved in credit sanction.

There is a total agricultural credit disbursement of Rs. 199486 lakhs (Crop loan of Rs.130555 lakhs and Term loan of Rs. 68931 lakhs) for the period from April 2012 to March 2013 in Dakshina Kannada. There are 196 rural bank branches and 110 semi urban bank branches in Dakshina Kannada district.

6. Results and Discussion

In order to anlyse the impact of factors influencing selection of type of bank for agriculture credit by famers, the authors have formulated two hypotheses. They are tested with chi square and Fishers test in order to understand their impact.

6.1. Demographic factors

Demographic factors of the consist of gender, age level, level of education, marital status, Income level and type of family are analysed for selection in type of bank for agriculture credit:

H_1 -Demographic factors have significant impact in selection to the type of bank for agriculturecredit.

Table No. 2

Demographic factors

Factor	TYPE OF BANK					Chi square	p Value
	Public	Private	Cooperative	RRB	Total		
SEX							
Male	492	83	267	154	996		
	85.3%	83.0%	81.2%	95.7%	85.3%		
Female	85	17	62	7	171		
	14.7%	17.0%	18.8%	4.3%	14.7%	18.738	0.000
AGE							
Below 25	10	2	2	37	51		
	1.7%	2.0%	.6%	23.0%	4.4%		
25-30	10	3	1	15	29		
	1.7%	3.0%	.3%	9.3%	2.5%		
31-35	32	2	6	7	47		
	5.5%	2.0%	1.8%	4.3%	4.0%		
36-40	64	12	28	9	113		
	11.1%	12.0%	8.5%	5.6%	9.7%		
41-45	89	12	53	23	177		
	15.4%	12.0%	16.1%	14.3%	15.2%		
46-50	198	37	119	42	396		
	34.3%	37.0%	36.2%	26.1%	33.9%		
Above 50	174	32	120	28	354		
	30.2%	32.0%	36.5%	17.4%	30.3%	217.756	0.000
EDUCATION							
No schooling	44	8	17	16	85		
	7.6%	8.0%	5.2%	9.9%	7.3%		
SSLC	291	61	179	57	588		
	50.4%	61.0%	54.4%	35.4%	50.4%		
PUC	153	17	65	21	256		

	26.5%	17.0%	19.8%	13.0%	21.9%		
Graduate	57	10	56	60	183		
	9.9%	10.0%	17.0%	37.3%	15.7%		
Post graduate	17	4	3	7	31		
	2.9%	4.0%	.9%	4.3%	2.7%		
Diploma	9	0	9	0	18	Fishers Exact test	0.000
	1.6%	.0%	2.7%	.0%	1.5%		
Any other	6	0	0	0	6		
	1.0%	.0%	.0%	.0%	.5%		
MARITAL STATUS							
Married	540	93	301	126	1060	Fishers Exact test	.000
	93.6%	93.0%	91.5%	78.3%	90.8%		
Unmarried	22	3	3	28	56		
	3.8%	3.0%	.9%	17.4%	4.8%		
Divorcee	5	3	0	0	8		
	.9%	3.0%	.0%	.0%	.7%		
Widower	10	1	25	7	43		
	1.7%	1.0%	7.6%	4.3%	3.7%		
Total	**577**	**100**	**329**	**161**	**1167**		
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**		
ANNUAL INCOME							
Less than 50000	107	28	78	37	250		
	18.5%	28.0%	23.7%	23.0%	21.4%		
50001-100000	217	41	148	58	464		
	37.6%	41.0%	45.0%	36.0%	39.8%		
100001-200000	134	20	70	16	240		
	23.2%	20.0%	21.3%	9.9%	20.6%	75.620	0.000
200001-300000	65	8	26	15	114		
	11.3%	8.0%	7.9%	9.3%	9.8%		
Above 300000	54	3	7	35	99		
	9.4%	3.0%	2.1%	21.7%	8.5%		
TYPE OF FAMILY							
Nuclear family	366	51	195	101	713		
	63.4%	51.0%	59.3%	62.7%	61.1%		
Joint family	121	37	101	23	282		
	21.0%	37.0%	30.7%	14.3%	24.2%		
Extended family	90	12	33	37	172		
	15.6%	12.0%	10.0%	23.0%	14.7%	37.171	0.000

Total	577	100	329	161	1167	
	100.0%	100.0%	100.0%	100.0%	100.0%	

Source: Field survey

It can be observed that 85.3 percent of the respondents in public sector banks, 83 percent in private sector banks, 81 percent in Cooperative banks and 95.7 percent in Regional Rural Banks (RRB) were male and rest of them were female. The Chi square test shows that male and female ratio is significantly different among the different sectors as value is18.738 and p=0.000<0.01. Males are in majority in all the sectors but females are significantly less in RRB compared to other sectors.

In case of age wise classification, 72.7 percent of respondents of age group of above 46 years are from Cooperative banks, 69 percent of respondents of age group of above 46 years are from private banks, 64.5 percent of respondents of age group of above 46 years are from public banks and 43.5 percent of respondents of age group of above 46 years are from RRBs.   There is highly significant difference among the age groups and types of sectors as Chi square test value is 217.756, p=0.000<0.01.

In case of education level, 61 percent of the SSLC qualified respondents have taken credit from Private banks, 54.4 percent of the SSLC qualified respondents have taken credit from Cooperative banks, 50.4 percent of the SSLC qualified respondents have taken credit from public sector banks and only 35.4 percent of the SSLC qualified respondents have taken credit from RRBs. In case of graduates majority (37.3%) have taken credit from RRBs. The Fishers exact test shows that p=0.000<0.01.

With regard to marital status, 50 percent unmarried respondents have taken credit from RRBs and 17.4 percent of the RRB borrowers are unmarried where as in case of Public and Private unmarried respondents are 3.8 and 3.0 respectively and least 0.9 percent in case of Cooperative sector. There is highly significant difference among the marital status and types of sectors as Fishers exact test p=0.000<0.01.

From the income perspective of borrowers, majority of the respondents have annual income of less than Rs.1,00,000. 69 percent respondents of Private banks, 68.7 percent respondents of Cooperative banks, 66.1 percent respondents of Public banks and 59 percent respondents of RRBs had have annual income of less than Rs.1,00,000. There is highly significant difference among the income level of respondents and types of sectors as Chi square test value is 75.620 and p=0.000<0.01. This is because 21.7 percent respondents of RRB had annual income of above Rs. 300000 whereas only 2.1 percent of respondents of Cooperative bank had annual income of above Rs. 300000.

In case of type family, 63.4 percent of the respondents of public sector banks, 62.7 percent of the respondents of RRBs, 59.3 percent of the respondents of Cooperative banks and 51percent of the respondents of Private banks had nuclear families. There is highly significant difference among the type of family of respondents and types of sectors as Chi square test value is 37.171 and p=0.000<0.01.

The hypothesis H_1 is accepted as the demographic factors have an impact in selection of type of banks for agriculture credit as shown by chi square and Fishers test.

6.2. Agriculture related factors

The agriculture related factors such as type of crops, land holding size, number of man days spent, years of experience in agriculjure and use of machinery has an impact on selection of type of banks is analysed. Hypothesis is formulated and tested to understand its impact.

H_2- Agriculture factors have significant impact in selection to the type of bank for agriculture credit

Table No.3
Agriculture related factors

Factor	TYPE OF BANK					Chi square	p value
Type of crops							
	Public	**Private**	**Cooperative**	**RRB**	**Total**		0.000
Paddy	41	0	63	14	11		
	7.1%	.0%	19.1%	8.7%	10.1		
Coconut	37	4	1	0	4		
	6.4%	4.0%	.3%	.0%	3.6		
Areca nut	183	55	133	67	43		
	31.7%	55.0%	40.4%	41.6%	37.5		
Rubber	23	7	11	7	4		
	4.0%	7.0%	3.3%	4.3%	4.1		
Other crops	0	6	1	0			
	.0%	6.0%	.3%	.0%	.6		
All crops	19	4	3	0	2		
	3.3%	4.0%	.9%	.0%	2.2		
Commercial crops	107	1	64	45	21		
	18.5%	1.0%	19.5%	28.0%	18.6		
Traditional Crops Rice+cocont+areca	43	12	29	21	10		
	7.5%	12.0%	8.8%	13.0%	9.0		
Coco & arecanut	124	11	24	7	16	Fishers Exact test	
	21.5%	11.0%	7.3%	4.3%	14.2		
Size of Landholding							
	Public	**Private**	**Cooperative**	**RRB**	**Total**		0.000
Less than 1 acres	43	11	11	7	72		
	7.5%	11.0%	3.3%	4.3%	6.2%		
Small (1-2)	185	32	99	37	353		
	32.1%	32.0%	30.1%	23.0%	30.2%		
Semi medium(2-4)	200	37	117	28	382		
	34.7%	37.0%	35.6%	17.4%	32.7%		
Medium(4-10)	86	6	74	38	204	94.292	

	14.9%	6.0%	22.5%	23.6%	17.5%		
	63	14	28	51	156		
Above 10	10.9%	14.0%	8.5%	31.7%	13.4%		
Number of days of agriculture in a year							
<30	0	11	8	0	19	237.670	0.000
	.0%	11.0%	2.4%	.0%	1.6%		
	42	0	24	23	89		
30-60	7.3%	.0%	7.3%	14.3%	7.6%		
	27	30	31	38	126		
61-90	4.7%	30.0%	9.4%	23.6%	10.8%		
	62	4	50	35	151		
91-120	10.7%	4.0%	15.2%	21.7%	12.9%		
	44	9	26	7	86		
121-150	7.6%	9.0%	7.9%	4.3%	7.4%		
	46	12	33	0	91		
151-180	8.0%	12.0%	10.0%	.0%	7.8%		
	34	2	21	7	64		
181-210	5.9%	2.0%	6.4%	4.3%	5.5%		
	80	11	48	9	148		
211-240	13.9%	11.0%	14.6%	5.6%	12.7%		
	242	21	88	42	393		
>240	41.9%	21.0%	26.7%	26.1%	33.7%		
Number of years in agriculture							
<2	5	7	1	0	13	95.176	0.000
	.9%	7.0%	.3%	.0%	1.1%		
	51	15	14	0	80		
2-4	8.8%	15.0%	4.3%	.0%	6.9%		
	46	20	43	15	124		
5-7	8.0%	20.0%	13.1%	9.3%	10.6%		
	55	5	13	16	89		
8-10	9.5%	5.0%	4.0%	9.9%	7.6%		
	420	53	258	130	861		
>10	72.8%	53.0%	78.4%	80.7%	73.8%		
Use of machinery in agriculture							
Yes	307	67	228	119	721		0.000
	53.2%	67.0%	69.3%	73.9%	61.8%		
No	270	33	101	42	446		
	46.8%	33.0%	30.7%	26.1%	38.2%		
Total	**577**	**100**	**329**	**161**	**1167**		
	100.0%	**100.0%**	**100.0%**	**100.0%**	**100.0%**	37.037	

Source: Field survey

With regard to types of crops, 55 percent of the respondents of private bank cultivate areca nut,

41.6 percent of the respondents of RRB cultivate areca nut and 40.4 percent of the respondents of cooperative bank cultivate areca nut. There is highly significant difference among the type of crops grown by the respondents and types of sectors as Fishers exact test p=0.000<0.01.

In case of land holding size, 37 percent of the respondents of private banks have semi medium land holding (2-4 acres), 35.6 percent of the respondents of Cooperative banks have semi medium land holdings (1-2 acres), 34.7 percent of the respondents of public banks have semi medium land holdings (2-4 acres), 32 percent of the respondents of private banks have small land holdings (1-2 acres) and 32.1 percent of the respondents of public banks have small land holdings (1-2 acres). There is highly significant difference among the type of land holdings by the respondents and types of sectors as Chi square test value 94.292 and p=0.000<0.01.

The number of days work by the farmers shows 41.9 percent of the respondents of public sector banks spend more than 240 days in a year, 30 percent of the respondents of private sector bank have spend 61-90 days in a year, 26.7 percent of Cooperative banks respondents have spend more than 240 days in a year 26.1 percent of RRBs respondents have spend more than 240 days in a year and 21 percent of private banks respondents have spend more than 240 days in a year. There is highly significant difference among the number of man days spent in year by the respondents and types of sectors as Chi square test value 237.670 and p=0.000<0.01.

The number of years of involvement in agriculture by the farmers shows that 80.7 percent of the respondents of RRB have carried out agriculture for more than 10 years, 78.4 percent of the respondents of Cooperative banks have carried out agriculture for more than 10 years, 72.8 percent of the respondents of public banks have carried out agriculture for more than 10 years and 53 percent of the respondents of private banks have carried out agriculture for more than 10 years. There is highly significant difference among the number of years of experience in agriculture by the respondents and types of sectors as Chi square test value 95.176 and p=0.000<0.01.

In case of use of machinery in agriculture activities, 73.9 percent of the respondents of RRBs, 69.3 percent of the respondents of Cooperative banks, 67 percent of the respondents of private sector banks and 53.2 percent of the respondents of public sector banks have used machinery for agriculture activities. 46.8 percent of the respondents of public sector banks, 33 percent of the respondents of private sector banks, 30.7 percent of the respondents of Cooperative banks and 26.1 percent of the respondents of RRBs have not used machinery for agriculture activities. There is highly significant difference among the opinion of respondents in use of machinery in agriculture activities and types of sectors of bank as Chi square test value 37.037 and p=0.000<0.01.

The hypothesis H_2 is accepted as the agriculture related factors have an impact in selection of type of banks for agriculture credit as shown by chi square and Fishers test.

7. Conclusion:

The banks in India have done extremely good in meeting the financial requirements of farmers in India as the achievement of disbursement were more than the target fixed every year. The cooperative banks provide agriculture loans at lesser interest rate compared to other type of banks. Commercial banks have expanded their branch network in recent years. The central government plans of access of banks to rural households also help the farmers in selection of banks over money lenders. The study shows that the demographic and agriculture related factors of borrowers have an impact in the selection of particular type of bank for agriculture credit. The study results are useful in the hands of banks to understand the factors on which borrowers of agriculture credit select their banks. The study has taken only demographic and agriculture related factors for selection in type of banks for agriculture credit in D.K. district. The future study can focus on bank and credit related factors in selection of type of banks.

8. References:

1. Das A, Senapati and John.(2009). Impact of agricultural credit on cultural agriculture production: an Empirical analysis in India. *Reserve Bank of India Occasional Papers , 3* (2).

2. Umesh, K. (2000). Institutional credit to agriculture, Present status and future challenges. *Financing agriculture, 32* (3), pp. 12-16.

3. Desai, D.K. (1988). Institutional credit requirement for agricultural production-2000 A.D. *Indian journal of agricultural economics , 43* (3).

4. Patil, V.B. (2008). Agriculture indebtness: Crisis and revival. Economic and political weekly, pp. 47-52.

5. Golait, R. (2007). Current Issues in Agriculture Credit in India: An Assessment. *RBI Occasional Papers- 28* , pp. 79-100.

6. George, B. (2002). *Role of Commercial Banks in Agricultural Financing in Kerala.* Trivandrum: Kerala University.

7. Ghosh, D.N. (2005). A Policy Approach for Agricultural Lending. *Economic and Political Weekly* , pp. 96.

8. Singh Sukhpal, Kaur, Kingra. (2009). Inadequacies of Institutional Agricultural Credit System in Punjab State. *Agricultural Economics Research Review , 22*, pp. 309-318.

9. Kumar Anjani, Singh, Sinha. (2010). Institutional Credit to Agriculture Sector in India: Status, Performance and Determinants. *Agricultural Economics Research Review , 23*, pp. 253-264.

10. Report on the Doubling of Agriculture Credit Programme, NABARD, https://www.nabard.org/pdf/DoublingofAgricultureCreditAstudyReport.pdf