A STUDY ON COOPERATIVE BANK FINANCE FOR RURAL DEVELOPMENT

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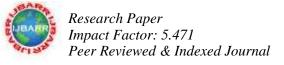
Abstract
The Indian cooperative movement, like its counterpart in other countries of the world, has been essentially a child of distress. It has emerged out of that turmoil and dissatisfaction which prevailed during the last quarter of the 19th century and worked as a direct consequence of the Industrial Revolution. The Revolution led to the decay of cottage industries and growing pressure on land, making agriculture an uneconomic venture; greater mobility of rich people from village to towns and of capital to new channels of investment; the growth of middlemen acting as parasites to the disadvantage of small products; new debt legislations which changed completely the borrowing and the lending system; the change in the method of payment of land revenue from kind to cash, throwing the cultivators into the clutches of the moneylenders etc.

Keywords: cooperative finance, agriculture credit loan facilities membersbenefit etc.

Introduction
The Indian cooperative movement, like its counterpart in other countries of the world, has been essentially a child of distress. It has emerged out of that turmoil and dissatisfaction which prevailed during the last quarter of the 19th century and worked as a direct consequence of the Industrial Revolution. The Revolution led to the decay of cottage industries and growing pressure on land, making agriculture an uneconomic venture; greater mobility of rich people from village to towns and of capital to new channels of investment; the growth of middlemen acting as parasites to the disadvantage of small products; new debt legislations which changed completely the borrowing and the lending system; the change in the method of payment of land revenue from kind to cash, throwing the cultivators into the clutches of the moneylenders etc. All these destroyed the self-sufficient economy of the villages and indebtedness of the farmers increased by leaps and bounds. Their belief is in deep ditch of stagnation, dejection and disappointment. The government first took indirect steps to check the growing influence of the Mahajan but much success could not be achieved. Thereafter, various legislative measures were adopted for granting loans and credit facilities to the farmers for their agricultural pursuits. Among these measures, mention may be made of the Deccan Agriculturists' Relief Act of 1879, the Land Improvement Loans Act of 1883, and the Agriculturists' Loan Act of 1884. Some thoughtful intelligent persons also strove to establish an Agricultural Bank in the Purandhartaluks of the Poona district, but they could not succeed. The need for providing cheap credit facilities to the farmers went on becoming strong and the idea of starting cooperative credit societies was hatched in 1892. The Madras Government sent Sr.Frederick Nicholson for studying the cooperative movements in European countries. Nicholson's report was received in 1899 and it was brought to the notice of the Government of India, Nicholson remarked, "Find Raiffeisen". Meanwhile, some 200 cooperative societies and Nidhis in UP and Madras had already come into existence. In 1903 their membership and working capital stood at 36000 and Rs.75 lakh respectively. The Government of India appointed in 1901 a Committee under the Presidentship of Sir Edward Law to study the question of starting cooperative credit societies in India. This committee also recommended the establishment of cooperative societies on the Raiffeisen model. The Famine Committee of 1901 also recommended the setting-up of Mutual Credit Associations. Accordingly, the Cooperative Credit Societies Act was passed in 1904. This Act provided the scope for the establishment of credit societies both in rural and urban areas, providing credit facilities at cheap rates to small men living in the same locality. Rural societies were to be organised on the Raiffeisen model while the urban societies were to be established on the Schulze Delitzsch pattern. Provision was also made in the Act for the appointment of Registrars in every province. The modern cooperative movement in India, thus, may be said to have started with the passing of this Act. The cooperative movement in India has not born all of a sudden, but it has a long history undergoing different changes.

Objectives of The Study

The following are the objectives of the study:
1. To compare the agriculture and non – agriculture beneficiaries on the basis of certain demographic variables.
2. To find out the impact of cooperative bank finance on rural development
3. To find out whether the farmers experience problems related to cooperative bank finance.
4. To identify the underlying dimensions of the cooperative bank services, banker problems and farmers' cooperative finance attitude through factor analysis technique.
5. To offer suitable suggestion for the betterment of the cooperative bank finance for benefit of agriculture farmers.

Statement of The Problem

The present study intends to find out the role of cooperative bank finance in promoting rural development. The cooperative sector banks play a crucial role in the integrated rural development by advancing loans to farmers for agricultural and non-agricultural activities. It is expected that by obtaining loans from the cooperative banking sectors, the agricultural community would benefit a lot in promoting their economic and social development. Both the central and state governments are following a liberalized credit policy to revamp the rural conditions of the people. To what extent the people are benefited out of the credit policy followed by the cooperative banks is the major concern of the present study. For this purpose, the Primary Agricultural Cooperative Banks in Coimbatore District are taken for analysis to find out their loan operations for the benefit of farmers, the extent of benefit accrued by the beneficiaries as a result of loan advanced, the problems faced by the beneficiaries and officials as a result of the cooperative credit and the attitude of the beneficiaries towards cooperative bank credit.

Research Questions

The following research questions area set forth to find solutions through the present study.
1. Do the Primary Agricultural Cooperative Banks carry out their mission in fostering rural development through cooperative finance?
2. Do such activities on the part of Primary Agriculture Cooperative Banks have a positive impact on rural development in India?
3. While carrying out their mission of revamping agriculture sector, do the officials of Primary Agriculture Cooperative Banks face problems in achieving their target?
4. Do the farmers who availed agriculture and non agriculture loan from the Primary Agriculture Cooperative Banks benefit out of the credit policy of the cooperative bank finance?
5. Like the bankers, do the farmers experience any problem in their relationship with Primary Agriculture Cooperative Banks in the loan transaction process?
6. What is the attitude of agriculture beneficiaries towards cooperative finance?.

Methodology

Research is a systematic process of collecting and analyzing information to increase an individual's understanding of the phenomenon under the study. It involves formal, systematic and intensive process of carrying out a problem through scientific methods (Good and Hatt, 1981). The validity of the problem under investigation largely depends upon the systematic methodological procedures. It is the function of research to contribute to the understanding of the phenomenon under study and to communicate that understanding to others. The methodological procedures followed in the present study are outlined in this chapter.
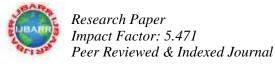
Research Strategy

The following research strategy is planned in the present study

Stage I : Problem Clarity

In order to properly understand the concept of cooperative finance, literature scanning is done.

Stage II : Selection of Research Method

At this stage, a promising method to study the problem is selected on the basis of literature review and expert opinion.

Stage III : Developing Research Tool

At this stage, relevant questionnaires are developed and validated to collect objective data from the agriculture and non – agriculture beneficiaries, and bank officials.

Stage IV : Selecting Sample

At this stage, the unit of analysis is identified. Appropriate sampling techniques and size of the sample are decided based on the topic under investigation.

Stage V : Administration of Tools and Collection of Data

This stage involves collection of data from sources. Both primary and secondary sources are identified to collect relevant data for the study. The validated tools are administrated among the beneficiaries and officials for quantification of data and interpretation of results.

Stage VI : Data Analysis

The classified and tabulated data are analyzed by using relevant statistical techniques.

Stage VIII : Presentation of Results

The analysed data are presented in terms of findings.

Research Method

Research method is a systematic procedure through which the designed outcomes are achieved by setting up of situations in such a form that the investigator gathers information and draws conclusion on the basis of the collected data (Carter Good, 1945).

In this study, normative survey method was used in order to provide facts related to bank finance of the Primary Agriculture Cooperative Banks (PACB) with special reference to agriculture and non – agriculture credit services rendered by these cooperative sector banks to foster rural development.

Sampling Procedure

Multi-stage sampling procedure was followed for the present study. The following table explains the sampling procedures followed for the selection of DCCB and PACB and the subjects involved in the present study.

In the multi-stage sampling procedures, regarding the selection of the district, Coimbatore district, Tamilnadu State was selected by means of purposive sampling technique. Within the district, the District Central Cooperative Bank (DCCB) was selected through purposive sampling technique. The Primary Agriculture Cooperative Banks (PACB) which are under the control of the District Central Cooperative Bank, Coimbatore are the primary analysis of the study. For this purpose, the PACBs located in 6 blocks in the selected unit are identified by means of random sampling technique. Due consideration was given for high level and low level business transactions of the PACBs. This led to the identification 12 PACBS on the basis of stratified random sampling technique. From the 12 identified PACBs, beneficiaries were selected by means of stratified random sampling technique. The stratification was done on the basis of agriculture and non – agriculture beneficiaries. Thus a total sample of 720 agricultural and non – agricultural beneficiaries was selected in the study and the relevant data were collected from the beneficiaries.

To study the problem experienced by the PACBs, data were collected from 50 bank officials working in the 12 Primary Agriculture Cooperative Banks by adopting simple random sampling technique.

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Sampling Description

Stages	Details	Sampling technique	Sampling
I	Selection of district and nature of banking	Purposive	Coimbatore District Central Cooperative Bank
II	Selection of Block	Simple Random Sampling	6 Blocks in Coimbatore
III	Selection of societies	Stratified random techniques	12 PACBs were selected based on the bank business performance (one from high performance and another one from low performance.
IV	Selection of Beneficiaries	Stratified Random Techniques	720 farmers
V	Selection of bankers	Simple random	50 bank officials

Impact of Cooperative Bank Finance On Rural Development : Regression Analysis
In order to find out whether the farmers accrue benefits as a result of cooperative bank finance, Multiple Regression Analysis was applied. The results of the analysis are explained below:

Hypotheses Test
There is greater impact of cooperative bank finance on rural development.

Loan Benefit :   Multiple Regression Analysis

Model Summary				
Loan Benefits	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
	.371	.137	.123	.49836

ANOVA						
Loan Benefits		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
	Regression	27.959	12	2.330	9.381	.000
	Residual	175.591	707	.248		
	Total	203.550	719			

Independent variable	Instand. Beta Co-eff.	Std. Error	Std. Beta Co-eff	't'	Sig
(Constant)	.369	.243		1.519	.129
To rennovate the existing house x1	.101	.062	.175	1.643	.101
To construct new house x2	**.045**	.019	.086	2.401	**.017**
To purchase new machine x3	**-.113**	.047	-.193	-2.414	**.016**
To purchase new computer x4	**.044**	.023	.084	1.950	**.052**
To purchase new landx5	.007	.024	.011	.278	.781
shifting from rented to own building landx6	.025	.043	.041	.574	.566

To continue existing workx7	**.068**	.013	.200	5.132	**.000**
Investing the capital in new business x8	**-.041**	.015	-.099	2.632	**.009**
To Purchase new automobile carx9	.011	.013	.033	.871	.384
For children education x10	**.080**	.030	.123	2.634	**.009**
To deposit into savings accounts x11	**-.063**	.023	-.109	-2.777	**.006**
To purchase gold x12	**.175**	.026	.263	6.769	**.000**

Multiple R= 0.371, F Value= 9.381, P-value < 0.01, R. Square = 0.137
Y=0.369=0.101x1+0.045x2+(0.113)x3+0.044x4+0.007x5+0.025x6+0.068x7+(0.041)x8+0.011x9+0.080x10+(0.063)x11+0.0175x12.

Interpretation
Where Y is the estimated values of benefits of cooperative bank finance for agriculture and non agriculture operations.

The above equation shows the impact of cooperative bank on farmers for their agriculture and non agriculture activities. From the regression analysis, it is found that the farmers have accrued benefits in rennovating their existing houses, constructing new houses, purchasing new machines, purchasing new computers, purchasing new lands, settlement related to shifting from rented to own building, continuing existing work, investing the capital in new business, purchasing new four wheeler automobile vehicles, spending for the education of their children, depositing into savings accounts and purchasing gold ornaments. These benefits bear the testimony of the positive impact of cooperative bank finance on rural development.

The above equation describes that, on an average if the benefit of the cooperative agriculture is by one unit, there will be 0.045 unit increase in the benefits of agriculture, when other variables are kept constant and the similar conditions applied for other variables also. The results of the 't' test reveals that the calculated partial regression co-efficients 0.045,(-0.113),0.044, 0.068, (-0.041), 0.080, (-0.063) and 0.0175 are significant at 1 per cent level. The multiple R found to be 0.371 reveals that there exists a significant relationship among benefit items (Beta Coefficient = 0.369). The R square value of 0.137 confirms that the explanatory variables explain 13.7% of variation of benefits from the banks. The 'F' test shows that the explained variation was highly significant at 1 per cent level. From the above co-efficient values, it is found that the agricultural farmers have benefited a lot by availing loans for construction of new house, purchase of new machine, new computer, continuing existing work, investing the capital in new business, investing in children education and investing in gold. Thus the analysis clearly testifies the positive impact of cooperative bank finance on rural development.

It is concluded that the Primary Agriculture Cooperative Banks in Coimbatore District through their loan operations have helped the farmers to a greater extent for their agriculture and non agriculture based activities. The contribution of cooperative bank finance in improving rural development programmers is understood from the present study.

Cooperative Finance Services: Factor Analysis Suitability Tests

Kaiser - MegerOlkin measures of sampling adequacy		0.640
Bartlett's test of sphericity	Approx. Chi-square	4.312E3
	Significance	.000

In the present analysis, Bartlett's test of sphericity value 4.312E3 is highly significant. Thus the hypothesis that the inter – correlation matrix involving the twelve variables of agriculture loan benefit is an identity matrix is rejected. From the perspectives of Bartletts test, factor analysis is feasible in the present study.

The KMO value calculated (0.640) is above 0.5 and it indicates the validity for factor analysis and thus it supports factor analysis. Having established the feasibility for factor analysis, extraction of factors was done through principal component analysis.
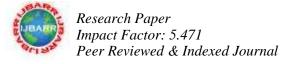
The communality values are presented below:

Cooperative Finance Services: Communality Values

Item No	Items	Initial	Extraction
1	New land purchase	1.000	.793
2	Dry land development	1.000	.827
3	Construction of new well	1.000	.653
4	Developing old well for agriculture purpose	1.000	.906
5	New pipe line connection	1.000	.738
6	Irrigation facilities	1.000	.538
7	New agriculture input	1.000	.428
8	Purchase of new tractor	1.000	.515
9	Purchase of new motor	1.000	.750
10	Investment in Gold	1.000	.706
11	House renovation	1.000	.676
12	Investment in Agriculture Instruments	1.000	.677
13	Investment in Children education	1.000	.609
14	Health Loan	1.000	.711
15	New business Venture	1.000	.767
16	Purchase of new Kisan credit card	1.000	.613
17	Investment in Bank	1.000	.537
18	National Bank document purchase	1.000	.914
	Extraction Method: Principal Component Analysis		

Interpretation
From the table, it is known that the highest percentage of variance (91.4%) is accounted for by the item number 18 which deals with the service related to national bank document followed by the item number 4 that deals with the service related to strengthening old well for irrigation purpose (90.6% of variance).

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Among 18 items, the lowest percentage of variance is accounted for by the item number 7 which describes about new agriculture input. It is known that except this item, all other items have communality values above .5 which indicate fair contribution of items to the variance.

Factor extraction was done through principal component analysis which resulted in the identification of seven significant factors. The total variances explained by the factors are presented below in a tabular form:

Cooperative Finance Service Scores: Rotated Component Matrix (SPSS Output)

Item No	Item	Rotated component matrix						
		Component						
		1	2	3	4	5	6	7
2	Dry land development	.885						
9	To Purchase New Motor	.841						
5	To Lay Pip Line	.836						
18	National Bank Document Purchase		.933					
4	Developing Old well		.930					
8	To Purchase New Tractor		.682					
3	To construct New well			.778				
17	Investment in Bank			.729				
6	For Irrigation Facilities			.713				
7	New Agriculture Input			.624				
1	To Purchase New Land				.888			
15	To Start New Business				.859			
11	House purchase and renovation					.760		
13	Loan for children education					.686		
14	Health loan						.764	
10	Investment in gold						.752	
12	Investment in agriculture insurance							.757
16	To get New Kisan credit card							.666
	Eigen value	2.815	2.228	2.129	1.574	1.384	1.154	1.072
	Percentage of Variance	13.160	13.097	11.699	8.967	7.702	7.704	6.969
	Cumulative Variance	13.160	26.257	37.957	46.923	54.625	61.673	68.641

Interpretation

In Principal Component Analysis, a factor loading of 0.4 and above is taken as a significant factor loading. According to Thurstone (1947), "A projection of factor loading of 0.20 accounts for only 4 percent of the total variance of a test. We have not regarding projection as significant in naming a factor it is as large as 0.4". Therefore, in the present study, factor loadings of 0.4 and above are taken up for the interpretation and naming the factors.

The Factor I has three significant items. All the items have above .8 projections. All the items indicate the credit for land innovation. Hence this factor is termed as "Loan for Innovative Land Use".

The Factor II again has three significant items. While the item number 17 has .933 projection, the item number 6 has the projection of .682 which is the lowest among the three items. The other item (number 4) has .930 loading which is significant. All the three items emphasize modernization of agriculture. Hence this factor is labelled as "Loan for Agriculture Modernization".

The Factor III has four significant items. The common element running through the four statements is irritation. Hence this factor is named as "Loan for Irrigation Activities".

The Factor IV has only two significant items. Here the loadings are above .8. The two items explain about new business venture. Hence this factor is called as "Loan for Business Venture".

The Factor V has only two significant items. Here the loadings are above 0.6. The statements deal with "Loan related to family". Hence this factor is labelled as "Loan for Family Development".

The Factor VI has given two significant items having above .7 factor loading. The items talk about health and gold investment. Hence this factor is termed as "Loan for Personal Activities".

The Factor VII has two significant items. The two items describe about investment in agriculture insurance and purchase of Kisan Credit Card. Both items explain about insurance. Hence this factor is called as "Loan for Insurance".

Major Findings of The Study
The following findings are presented after analysis

Results of Multiple Regression Analysis
i) The Primary Agriculture Cooperative Banks in Coimbatore District through their loan operations have helped the respondents to a greater extent for their agriculture and non agriculture activities. The positive impact of cooperative bank finance on rural development is understood from the study.
ii) The respondents experience level of the problems in availing both agriculture and non agriculture loans from PACBs, Coimbatore district.

Results of 't' Test
The respondents undertaking agriculture and non agriculture activities do not differ in their problems related to cooperative finance and attitude towards cooperative finance.

Results of Factor Analysis
1) **The cooperative finance service scores are suitable for factor analysis. There are seven dimensions in cooperative finance services. They are**
   a. Loan for innovative land use
   b. Loan for agriculture modernization

  c. Loan for irrigation activities
  d. Loan for business venture
  e. Loan for family development
  f. Loan for personal activities
  g. Loan for insurance

2) **The banker problem construct scores are suitable for factor analysis. The factor analysis reveals the identification of the following five dimensions of the variable:**
  I. Parallel loan structure
  II. Time constraint
  III. Superior negative attitude
  IV. Normal work disturbance
  V. Resource inadequacy

3) **The cooperative bank finance attitude is also suitable for factor analysis. The factor analysis reveals the following seven dimensions of the construct:**
  a. Beneficiary life style
  b. Economic environment viability
  c. National development
  d. Rural empowerment
  e. Beneficiary need fulfillment
  f. Cooperative policy structure and
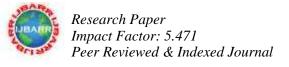 g. Individual development

Conclusions
The study reveals that the PACS are generally weak organizations as their resources are inadequate. They are unable to meet the credit requirements of their members. Consequently, they need outside financial help, technical guidance and administrative advice. Mere supervision and assistance in their routine work are of no use unless they get financial support from some higher organization. Hence it was realized that the PACS should be federated into some financial union. According to All India Rural Credit Survey Committee in many ways the position of Central Cooperative Banks is of crucial importance in the cooperative credit structure. They form an important link between the State Cooperative Bank and the Primary Agricultural Credit Society (PACS) at the base.

The study reveals raising resources and attaining self- sufficiency of resources are the important goals of Central Cooperative Banks to finance PACS. Guiding the Primary Agricultural Credit Societies and other member societies in all respects and to supervise the working of the primary societies. In addition to the financial help, the Central Banks can help the primaries in maintaining proper accounts; propagate the value of cooperation and cooperativisation of the rural economy.

To help the primaries to increase the membership and to bring the entire farming sector under the fold of cooperation, by opening their branches in, unbanked rural centers. By this process they not only take the cooperative banking habits to rural and semi-urban areas, but also help the primary societies to improve their operation by creating close contact with branches of Central Cooperative Bank.

In perfecting and popularizing the crop loan system, the role of the Central Banks needs no emphasis. The crop loan system with a decade of service to the farmers needs certain modifications and dynamism. To take its benefits to the entire farming community long strategy is to be formed and this could be done only by Central Cooperative Bank.

Initiating programmers of revitalization of the Primary Agricultural Credit Societies; seeing all Primary Credit Societies to have full time paid Secretaries. In this respect if circumstance permits, they can organize the management cadre to man the village credit societies with qualified personnel.

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