



## RESEARCH ARTICLE

### A STUDY OF AGRICULTURAL FINANCE BY COMMERCIAL BANKS IN INDIA: A CASE STUDY OF CENTRAL BANK OF INDIA

\*Dr. Ramakrishna

Faculty in Development Studies, Institute of Development Studies, University of Mysore, Manasagangothri, Mysore, Karnataka state, India

#### ARTICLE INFO

##### Article History:

Received 09<sup>th</sup> October, 2017  
Received in revised form  
07<sup>th</sup> November, 2017  
Accepted 22<sup>nd</sup> December, 2017  
Published online 30<sup>th</sup> January, 2018

##### Keywords:

Agriculture Finance;  
Commercial Bank;  
Chi-Square Test;  
Null Hypothesis.

#### ABSTRACT

Agricultural finance possesses its usefulness to the farmers, lenders and extension workers. The economic principles of farm financial management facilitate in obtaining control over capital and its efficient use. The investment analysis pertaining to income, repayment capacity and risk bearing ability determine the amount of capital a farm business can profitably and safely use. Hence, the farmer can determine his credit worthiness and can put forth his loan application with confidence to lender. The present study an attempt to analyze the agriculture advances by commercial banks. This study is based on secondary data. The analysis was made by the application of trend analysis; calculate ratios and chi-square test with time series analysis. Major finding of the study is that agriculture lending by sample bank has failed to reach the target which given by RBI during the study period.

#### INTRODUCTION

Agriculture in India is one of the most important sectors of its economy. It is the means of livelihood of almost two thirds of the work force in the country and according to the economic data for the financial year 2006-07, agriculture accounts for 18% of India's GDP. About 43 % of India's geographical area is used for agricultural activity. Though the share of Indian agriculture in the GDP has steadily declined, it is still the single largest contributor to the GDP and plays a vital role in the overall socio-economic development of India. Agricultural credit provide exposure to the extension worker about the structure and functioning of lending institutions which in turn helps him to guide the borrower to choose the cheap lender in acquisition of credit. Besides, he can also advise on most efficient use of credit, i.e., to maximize the returns to limited capital resources. Thus, the extension advisory service has important role in the production planning with the farmers on the one hand while on consequential plans for the acquisition and use of limited funds on the other.

#### Review of Literature

To study the agriculture finance by commercial bank, the researcher has referred to the important studies which have been already undertaken. Anjani Kumar, K. M. Singh, Shradhajali Sinha, (2010), researchers have examined the performance of agricultural credit flow and has identified the determinants of increased use of institutional credit at the farm household level in India.

#### \*Corresponding author: Dr. Ramakrishna

Faculty in Development Studies, Institute of Development Studies, University of Mysore, Manasagangothri, Mysore, Karnataka state, India

The structure of credit outlets has witnessed a significant change and commercial banks have emerged as the major source of institutional credit in recent years. But, the declining share of investment credit in the total credit may constrain the sustainable agricultural growth. The quantum of institutional credit availed by the farming households is affected by a number of socio-demographic factors which include education, farm size, family size, caste, gender, occupation of household, etc.

**Kannan, E (2011)**, Researcher has find out that the disbursement of credit through institutional sources had a large impact on improving agricultural productivity. However, it points at its inadequacy and thereby urges for widening its coverage both in terms of the amount of credit and the coverage of more number of marginal and small farmers.

**R. Govindasamy (2013)**, the researcher found that financial Institutions as effective channels of credit for farm sector, non-farm sector and other priority sector credit institutions have played a significant role in the development of rural and urban in Tamil Nadu. The credit agencies for Tamil Nadu are the aggregation of the exploitable credit potential for all the districts in the State for the years 2007-08 to 2010-11. The amount of credit non-farm sector was increased in over the period in all financial Institutions.

**Siddharth Mishra (2014)**, the researcher studies that trend of agricultural finance by commercial banks: A case study of Union Bank of India, Bank of Baroda and State Bank of India. This study is based on secondary data. The researcher evaluate

that the performance of UBI has not been satisfactory as the agricultural advances. The advances given by BOB and SBI had increased, during the study period.

**HardeepKaur (2015)**, the researcher has to examine the performance and structure of cooperative banks in the state of Haryana. The study is based on the secondary data. The paper covers the period from 2002-03 to 2009-10. Ratio analysis is also done to figure out some more facts about the cooperative banks. As statistical weapons average, percentage and coefficient of variance have been applied. The co-operative banks suffered losses during the study period.

**Seena P. C. (2015)** this paper describes the management of agricultural credit in India and the impact of various banking sector reforms on agriculture. She concluded that performance of agricultural credit in India reveals that though the overall flow of institutional credit has increased over the years, there are several gaps in the system like inadequate provision of credit to small and marginal farmers, limited deposit mobilization and heavy dependence on borrowed funds. Efforts are required to address and rectify these issues. Banking sector reforms like fixing prudential norms, reduced SLR, CRR, banking diversification all affect the Indian agricultural sector.

#### Objectives of the study

- To understand the concept of Agriculture finance.
- To examining the volume and trend of agricultural finance provide by selected bank.
- To analyze the disbursement of agricultural credit by the commercial banks and know about that bank should achieve target or not.

## MATERIALS AND METHODS

#### Population of the Study

In context of India, 93 commercial banks are in operation. These 93 commercial banks are regard as population. But, it is not possible to study these all commercial banks.

#### Sample Size

One commercial bank has been taken as sample from the whole population i.e. 93 commercial banks. The sample of the study is Central Bank of India.

#### Sampling Procedure

The selection procedure of the sample is not random. The Central Bank of India is selected for the study on the basis of convenient sampling method and non- probability sampling method.

#### Source of Data

This study mainly depends on the use of secondary data that consists of annual report of the concerned bank. However besides the annual reports various other sources of data have also been used for the study i.e. newspaper, magazine, Economic journals and RBI reports, NABARD report etc.

#### Period of the Study

The researcher has undertaken the study for seven year i.e. 2008-09 to 2014-15.

## Tools and Techniques

The following tools and techniques were employed to analyze the data with reference to fulfill the objectives of this study. Trend analysis, Ratio analysis and Chi – square test.

### Hypotheses of the Study

For the present study the researcher has formulated Null hypotheses. Hypotheses were tested with the help of statistical tools. The statements of hypotheses were as under.

### Null Hypotheses

**Ho:** There is no significant difference between the actual ratio and expected ratio of total agriculture advance to adjusted net bank credit of selected bank during the study period.

**Ho:** There is no significant difference between the actual ratio and expected ratio of direct agriculture advance to adjusted net bank credit of selected bank during the study period.

**Ho:** There is no significant difference between the actual ratio and expected ratio of indirect agriculture advance to adjusted net bank credit of selected bank during the study period.

### Limitations of the Study

- This study is mainly based on secondary data, data taken from the published annual reports, website etc.
- The statistical techniques have their own limitations. They also apply to this study.
- The researcher has covered only one commercial bank for the study so it may not generalize to whole population.
- The researcher is confined to the agricultural finance only.
- Personal view differs from one person to other.

## RESULTS AND DISCUSSIONS

**Table 1. Calculation of Trend Percentage Analysis for Total Agriculture Advances (Amount in crore)**

Year	Total Agriculture Advance (RS)	Total Agriculture Advance (%)	Variation
2008-09	14139	100.00	
2009-10	18309	129.49	+29.61
2010-11	19790	139.97	+39.28
2011-12	18848	133.30	+68.03
2012-13	24658	174.40	+121.65
2013-14	35387	250.28	+165.95
2014-15	35957	254.31	+186.19

Source: Annual report of central bank of India 2016

The above table and figure shows the trend percentages of direct agriculture advances by Central Bank of India for the period 2008-09 to 2014-15. Here, for the preparation of trend percentage statement, the initial year 2008-09 has been taken as base year. A direct agriculture advance by bank was increased year by year during the study period. It was increased to 129.61% in the year 2009-10. In the year 2010-11 it was increased by 39.28% as compared to base year. In the year 2011-12, 2012-13, 2013-14 it was increased to 168.03%, 221.65%, and 265.95% respectively. In the year 2014-15 it was increased by 20.24% as compared to previous year. During the study period it was increased by 186.19%.

**Table 2. Calculation of Trend Percentage Analysis for Indirect Agriculture advances (Amount in crore)**

Year)	Indirect Agricultural Advances (RS)	Indirect Agricultural Advances (%)	Variation
2008-09	5184	100.00	-
2009-10	6702	129.28	+29.28
2010-11	7317	141.14	+41.14
2011-12	3801	73.32	-26.68
2012-13	4809	92.77	-7.23
2013-14	11571	223.21	+123.21
2014-15	10329	199.25	+99.25

Source: Annual report of central bank of India 2016

The above table and figure shows trend percentages of indirect agriculture advances by Central Bank of India for the period 2008-09 to 2014-15. Here, for the preparation of trend percentage statement, the initial year 2008-09 has been consider as base year. The trend of indirect agriculture advance was increased in the year 2009-10 and 2010-11 by 29.28% and 41.14% respectively as compared to base year. In the year 2011-12 and 2012-13 it was decreased by 26.68% and 7.23% respectively. After 2012-13 shows increasing trends i.e. 123.21% and 99.25% respectively in the year 2013-14 and 2014- 15. In short mix trend of indirect agriculture advances by Central Bank of India during the study period.

**Table 3. Calculation of various ratios (%)**

Year	Total agriculture advance Ratio	Direct agriculture advance Ratio	Indirect agriculture advance Ratio
2008-09	19.20	12.16	7.04
2009-10	21.31	13.51	7.80
2010-11	18.64	11.75	6.89
2011-12	14.36	11.46	2.90
2012-13	16.31	13.13	3.18
2013-14	19.75	13.29	6.45
2014-15	19.05	13.58	5.47
Average	18.374	12.697	5.675

Source: Compute from annual reports of CBI 2016

Agriculture advances by CBI has fail to reach the target in the year 2011-12 and 2012-13 only. It is shows the mix trend in the ratio of total agriculture advances to adjusted net bank credit during the study period. The ratio of direct agriculture advances to adjusted net bank credit for the period 2008-09 to 2014-15 is display in table. It is observed that, on average, the ratio is 12.69%. The ratio is highest in the year 2014-15 is 13.58 % and lowest in the year 2011-12 is 11.46%. This ratio shows the mix trend during the study period. The above table represent ratio of indirect agriculture advances to adjusted net bank credit for the period 2008-09 to 2014-15. It is observed that, on average, the ratio is 5.67%. The ratio is highest in the year 2009-10 is 7.8 % and lowest in the year 2011-12 is 2.9%. This ratio shows the mix trend during the study period.

#### Analysis Total agriculture advance to adjusted net bank credi

Here, calculated value of x 2 test is 1.681. The table value of x2 at 5 % level of significance and where degree of freedom is 6 is 12.592. Hence, the calculated value is less than table value. So the null hypothesis (Ho) is accepted. There is no significant difference between the actual ratio and expected ratio of total agriculture advance to adjusted net bank credit of selected bank during the study period. Means the result is as per expectation.

#### Direct agriculture advance to adjusted net bank credit

Here, calculated value of x 2 test is 0.297. The table value of x2 at 5 % level of significance and where degree of freedom is 6 is 12.592. Hence, the calculated value is less than table value. So the null hypothesis (Ho) is accepted. There is no significant difference between the actual ratio and expected ratio of direct agriculture advance to adjusted net bank credit of selected bank during the study period.

**Table 4. Hypothesis Testing Result of chi – square test for the x 2 test of the various ratios**

Ratios	x 2 Calculated value	x 2 Table value Result	(Ho Accept / Reject)
Total agriculture advance to adjusted net bank credit.	1.681	12.592	Ho accept
Direct agriculture advance to adjusted net bank credit.	0.297	12.592	Ho accept
Indirect agriculture advance to adjusted net bank credit.	3.294	12.592	Ho accept

Note: Degree of freedom 6 at 5 % level of significance.

Indirect agriculture advance to adjusted net bank credit: Here, calculated value of x 2 test is 3.294. The table value of x2 at 5 % level of significance and where degree of freedom is 6 is 12.592. Hence, the calculated value is less than table value. So the null hypothesis (Ho) is accepted. There is no significant difference between the actual ratio and expected ratio of indirect agriculture advance to adjusted net bank credit of selected bank during the study period. Means the result is as per expectation.

#### Finding of the Study

- Researcher has found that agriculture advances by CBI has to reach target i.e.18 % of their total priority sector lending out of 40% except 2011-12,2012-13 years.
- Researcher found that there is no significant difference between the actual ratio and expected ratio of total agriculture advance to adjusted net bank credit of selected bank during the study period.
- Researcher has also found that there is no significant difference between the actual ratio and expected ratio of direct agriculture advance to adjusted net bank credit of selected bank during the study period.
- There is no significant difference between the actual ratio and expected ratio of indirect agriculture advance to adjusted net bank credit of selected bank during the study period.

#### Conclusion

The study reveals that the bank credit in India to agriculture sector has been increased in its quantum during the study period. The credit provided by the bank has increased its advances. But an effort has to be taken by bank to reduce its outstanding, so that the recovered bank credit should be pumped in to agriculture sector further for its growth. I have also suggested that need based credit should be provided to the farmers for upliftment of socio-economic development of farmers in India.

#### REFERENCES

- Anjani Kumar, K. M. Singh, Shradhajali Sinha, 2010. "Institutional Credit to Agriculture Sector in India: Status,

- Performance and Determinant”, *Agricultural Economics Research Review* Vol. 23 July-December 2010.
- HardeepKaur, 2015. “Performance and structure of cooperative banks in Agriculture Credit in Haryana”, *International journal of research in commerce and management*, vol.6 (2015), issue no. 03.
- Kannan, E. 2011. “Relationship between Agricultural Credit Policy, Credit Disbursements and Crop Productivity: A Study in Karnataka”, *Indian Journal of Agricultural Economics*, Vol. 66, No. 3.
- Govindasamy, R. 2013. “Institutional Credit and Agricultural Development”, *International Journal of Research in Commerce, Economics & Management*, Vol.3 (2013), Issue No. 10 (October).
- Seena P. C. 2015. “Management of Agricultural Credit and the Impact of Indian Banking Sector Reforms on Agriculture”, *International Review of Research in Emerging Markets and the Global Economy*, Vol. 1, Issue 3.
- Siddharth Mishra 2014. “Trend of agricultural finance by commercial banks: A case study of Union Bank of India, Bank of Baroda and State Bank of India”, *International journal of research in commerce, economics and management*. Vol NO. 4, Issue 11.

\*\*\*\*\*