Growth of Agricultural Credit in India: Before and after introduction of Kisan Credit Card

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A B S T R A C T

Credit is an important input for agriculture, without credit no operation of agriculture can be continued. The important objective of the study was to find out the growth of agricultural credit before and after the introduction of kisan credit scheme (KCC). Compound Growth Rate was used to find the growth rate of credit. The result showed that the total credit disbursement increased from 44.55 billion in the TE 1977 to 9421.97 billion in the TE 2016 at a compound growth rate of 18.08 per cent. The compound growth rate of long term loan of co-operatives after the introduction of Kisan credit card decreased. The compound growth rate of credit disbursed by both Scheduled commercial bank (27.69 per cent) and Regional Rural Bank (24.93 per cent) increased after the introduction of KCC. This indicates that kisan credit card played a crucial role in regulating the agricultural credit in India.

Keywords
Credit, Compound growth rate, Kisan credit card, Scheduled commercial bank

Introduction

India, as a developing country its economic transformation is crucially depends on the growth and performance of agriculture and its allied sector. Agriculture sector plays a significant role in food security and employment of rural livelihood. 54.6 per cent of work force of our country engages in agriculture activities (census 2011). Due to vagaries of monsoon, crop failure was a continuous and serious characteristic of
Indian agriculture. Because of these indebtedness of farmers became a major problem in rural India. These problems made the attention of British government in 1880’s which made them to provide Institutional credit through Co-operatives in the lines of raifeessen principle. The co-operative society went through numerous modifications during its implementation. Reserve Bank of India was established in the year 1935. RBI took various efforts to co-ordinate central government, State government and State co-operative banks in providing agricultural credit. Besides the numerous efforts taken by RBI, only 3.3 per cent of Indian farmers had access to rural credit. All India Rural Credit Survey (1954) submitted in its report as “co-operation has failed but Co-operatives must succeed”. Thus the committee recommended apart from co-operatives, it defines role for commercial banks in providing agricultural credit for specialized purposes such as production, storage, marketing and processing. All India Rural Credit Review Committee (1966) recommended that both commercial and co-operative banks should play a complementary role in providing agricultural credit. Subsequently commercial banks were nationalized in the year 1969. After the establishment of Regional Rural Bank (RRB) in the year 1975, multi-agency approach for rural credit was recommended by Kamat working group. Thus during 1978 three separate institutions emerged for providing rural credit. Committee to Review Arrangements for Institutional Credit for Agriculture and Rural development (CRAFICARD) recommended the establishment of National Bank for Agriculture and Rural Development (NABARD) in the year 1982. It undertook the entire function of ARDC and refinancing function of RBI. NABARD is the apex institution to frame the policy and to provide agricultural credit. To review the multi-agency approach, Reserve Bank of India set upped one man High Level Committee under Sri. R.V Gupta in the year 1994 submitted its report on 1998. It recommended introducing Kisan credit card scheme in Co-operative Bank, Regional Rural Banks and public sector banks. It was introduced in the year 1999 to provide short term consumption credit for raising crops. In the year 2001 Personal Accidental Insurance scheme was introduced under KCC. Further in the year 2004, the scheme was extended to cover agriculture term loans and for its allied activities. The validity of KCC increased to five years from three years. Recently in the year 2015 the government decided to include KCC card holders under Atal Pension Yojana.

The main aim of the study was to find the growth of agricultural credit in India over the years and the growth of credit before and after the implementation of Kisan Credit Card (KCC) scheme.

Materials and Methods

Secondary data based on agricultural credit disbursed by different institutional agencies were collected from Reserve Bank of India database. Data on no of Kisan credit card issued by various institutional agencies and amount disbursed under kisan credi card scheme were collected from India stat website. The percentages were worked out for Triennial Ending (TE) years.

Based on the recommendation of Dantwala (1989) and Mohan (2006), Compound growth rate was used to analyse the growth trend of agricultural credit given by the institutional agencies over the years.

\[ \ln y = a + bt \]  

(1)

Where, Y is the Agricultural credit given by Institutional agencies
\[ t \text{ is the time in years,} \]
\[ a \text{ and } b \text{ are the parameters to be estimated by Ordinary least square method.} \]

Compound growth rate can be arrived by using the following method,

\[ \text{CGR}(r) = \left[ \text{Anti log } (b) - 1 \right] \times 100 \quad \ldots \quad (2) \]

Result and Discussion

Growth of agricultural credit from Institutional agencies

Growth of credit flow across India from three major institutional agencies such as Scheduled Commercial Bank, Regional Rural Bank and Co-operative bank were studied.

Compound Growth Rate of short-term institutional credit across India

Short-term institutional credit was given for production purposes under crop production loan and agri-gold loan. Compound growth rate of short-term credit given by the institutional agencies across India were tabulated in the table 1.

The result of the analysis shows that total short term credit increased from 12.57 billion in the Triennium Ending 1977 to 7845.21 billion in the Triennium Ending 2016 with the annual compound growth rate of 17.83 per cent with the contribution of 60.89 per cent from commercial bank, 27.42 per cent from Co-operative bank and 11.69 per cent from Regional rural bank. Credit disbursement share of scheduled commercial bank increased from 19.88 per cent in the TE 1977 to 60.89 per cent in the TE 2016. Share of co-operatives decreased continuously from 78.36 per cent in TE 1977 to 27.42 per cent in TE 2016. Share of RRB increased gradually from 1.59 per cent in the TE 1977 to 14.26 per cent in TE 2016 and thereafter it decreases.

Compound growth rate of long-term institutional credit across India

Long-term loan is given majorly for the purchase of machineries, livestock, land reclamation and creation of irrigation facilities. Compound growth rate of long-term credit given by various institutional agencies across India was given in the table 2.

The result showed that total long term credit disbursement increased from 6.31 billion in the TE 1977 to 2377.77 billion in the TE 2016 with the annual compound growth rate of 15.74 per cent with the contribution of 86.11 per cent from Scheduled commercial bank, 16.51 per cent from Regional rural bank and 9.64 per cent from Co-operatives. Share of Co-operatives gradually decreased from 58.32 per cent in the TE 1977 to 3.99 per cent in the TE 2016. Share of Commercial bank increased rapidly from 38.35 per cent in the TE 1977 to 91.00 per cent in the TE 2013 with a slight decline in TE 2016. Share of RRB gradually increased from 3.16 per cent in the TE 1977 to 9.89 per cent in the TE 2016.

Compound growth rate of institutional credit across India

Compound growth rate of institutional credit includes both short-term and long-term credit. Compound growth rate of institutional credit across India was given in the table 3.

The result showed that total credit disbursement increased from 44.55 billion in the TE 1977 to 9421.97 in the TE 2016 at a compound growth rate of 18.08 per cent with the share of 72.42 per cent from commercial bank, 15.37 per cent from co-operatives and 12.20 per cent from Regional rural bank. Share of SCB increased constantly from 34.25...
per cent in the TE 1977 to 72.42 per cent. Share of RRB increased gradually from 4.89 per cent in the TE 1977 to 12.20 per cent in the TE 2016. The share of co-operatives continuously decreased from 60.85 per cent in the TE 1977 to 15.37 per cent in the TE 2016. Fig. 1 indicates that the scheduled commercial bank agricultural credit increased rapidly after the TE 2007. The credit growth of co-operatives and Regional Rural Bank increased constantly with slight fluctuations.

**Table 1 Compound Growth Rate of Short term institutional credit across India**

| Year     | Cooperatives (In billions) | SCB (In billions) | RRB (In billions) | Total (In billions) |
|----------|----------------------------|-------------------|-------------------|---------------------|
| TE 1977  | 9.85 (78.36)               | 2.5 (19.88)       | 0.20 (1.59)       | 12.57 (100)         |
| TE 1980  | 12.84 (70.16)              | 4.45 (24.31)      | 1.00 (5.4)        | 18.30 (100)         |
| TE 1983  | 19.54 (71.15)              | 6.86 (24.98)      | 1.06 (3.86)       | 27.46 (100)         |
| TE 1986  | 25.63 (64.25)              | 12.56 (31.48)     | 1.69 (4.23)       | 39.89 (100)         |
| TE 1989  | 35.62 (63.40)              | 17.78 (31.64)     | 2.77 (4.93)       | 56.18 (100)         |
| TE 1992  | 39.25 (60.35)              | 22.73 (34.95)     | 3.04 (4.67)       | 65.03 (100)         |
| TE 1995  | 74.26 (62.54)              | 37.76 (31.80)     | 6.71 (5.65)       | 118.73 (100)        |
| TE 1998  | 100.90 (55.79)             | 65.33 (36.12)     | 14.60 (8.07)      | 180.84 (100)        |
| TE 2001  | 191.60 (57.74)             | 109.56 (33.02)    | 30.63 (9.23)      | 331.80 (100)        |
| TE 2004  | 282.80 (48.03)             | 236.45 (40.16)    | 69.50 (11.80)     | 588.73 (100)        |
| TE 2007  | 412.70 (35.06)             | 597.10 (50.72)    | 167.41 (14.22)    | 1177.22 (100)       |
| TE 2010  | 580.02 (27.01)             | 1261.58 (58.73)   | 306.46 (14.26)    | 2148.07 (100)       |
| TE 2013  | 993.31 (21.66)             | 3006.91 (65.58)   | 584.73 (12.75)    | 4584.94 (100)       |
| TE 2016  | 2151.13 (27.42)            | 4776.59 (60.89)   | 917.49 (11.69)    | 7845.21 (100)       |
| CGR (%)  | 14.34                      | 21.12             | 24.08             | 17.83               |

**Source:** Reserve Bank of India database and author’s calculation
(Figures in the parentheses indicate per cent to the total)
### Table 2: Compound growth rate of long-term institutional credit across India

(In Billions)

| Year   | Cooperatives | SCB     | RRB     | Total |
|--------|--------------|---------|---------|-------|
| TE 1977| 3.68 (58.32) | 2.42 (38.35) | 0.20 (3.16) | 6.31 (100) |
| TE 1980| 5.40 (44.73) | 5.67 (46.97) | 1.00 (8.28) | 12.07 (100) |
| TE 1983| 7.57 (44.03) | 8.39 (44.80) | 1.22 (7.09) | 17.19 (100) |
| TE 1986| 9.46 (34.31) | 15.84 (57.45) | 2.26 (8.19) | 27.57 (100) |
| TE 1989| 14.34 (38.03) | 20.95 (55.58) | 2.39 (6.34) | 37.69 (100) |
| TE 1992| 17.74 (38.95) | 25.40 (55.78) | 2.39 (5.24) | 45.54 (100) |
| TE 1995| 28.54 (41.73) | 35.84 (52.39) | 4.01 (5.86) | 68.40 (100) |
| TE 1998| 40.80 (38.86) | 57.58 (54.82) | 6.61 (6.29) | 105.00 (100) |
| TE 2001| 86.87 (55.54) | 61.86 (39.55) | 7.69 (4.92) | 156.42 (100) |
| TE 2004| 114.19 (44.33) | 129.63 (50.33) | 13.76 (5.34) | 257.58 (100) |
| TE 2007| 119.91 (20.52) | 434.01 (74.26) | 30.47 (5.21) | 584.41 (100) |
| TE 2010| 87.97 (11.34) | 644.20 (83.01) | 43.88 (5.65) | 776.07 (100) |
| TE 2013| 70.45 (4.55) | 1409.35 (91.00) | 68.89 (4.44) | 1548.69 (100) |
| TE 2016| 94.96 (3.99) | 2047.11 (86.11) | 234.99 (9.89) | 2377.07 (100) |
| CGR (%)| 9.64 | 17.70 | 16.51 | 15.74 |

**Source:** Reserve Bank of India database and author’s calculation  
(Figures in the parentheses indicate per cent to the total)
Table 3 Compound growth rate of institutional credit (Short-term and long-term) across India (In Billions)

| Year    | Cooperatives | SCB     | RRB     | Total   |
|---------|--------------|---------|---------|---------|
| TE 1983 | 27.11 (60.85) | 15.26 (34.25) | 2.18 (4.89) | 44.55 (100) |
| TE 1986 | 35.09 (52.01) | 28.41 (42.11) | 3.97 (5.88) | 67.46 (100) |
| TE 1989 | 49.96 (53.22) | 38.74 (41.27) | 5.16 (5.49) | 93.87 (100) |
| TE 1992 | 57.00 (51.55) | 48.14 (43.54) | 5.43 (4.91) | 110.57 (100) |
| TE 1995 | 102.81 (54.94) | 73.61 (39.34) | 10.72 (5.73) | 187.13 (100) |
| TE 1998 | 141.71 (49.58) | 122.92 (43.00) | 21.22 (7.42) | 285.84 (100) |
| TE 2001 | 278.47 (57.04) | 171.43 (35.11) | 38.32 (7.85) | 488.22 (100) |
| TE 2004 | 396.99 (46.91) | 366.09 (43.25) | 83.27 (9.84) | 846.35 (100) |
| TE 2007 | 532.62 (30.23) | 1031.12 (58.53) | 197.88 (11.23) | 1761.63 (100) |
| TE 2010 | 668.02 (22.84) | 1905.78 (65.17) | 350.35 (11.98) | 2924.15 (100) |
| TE 2013 | 1063.77 (17.29) | 4416.27 (71.82) | 669.28 (10.88) | 6149.32 (100) |
| TE 2016 | 1448.40 (15.37) | 6823.70 (72.42) | 1149.86 (12.20) | 9421.97 (100) |
| CGR (%) | 13.33 | 20.59 | 21.86 | 18.08 |

Source: Reserve Bank of India Website and author’s calculation
(Figures in the parentheses indicate per cent to the total)
Table.4 Number of Kisan credit card issued by institutional agencies

| Year     | Cards issued by Institutions | % of share in cards issued |
|----------|------------------------------|----------------------------|
|          | Coop            | RRB | SCB | Total | Coop | RRB | SCB |
| 1998-99  | 01.56           | 0.06 | 6.22 | 7.84  | 19.90 | 0.77 | 79.34 |
| 1999-00  | 35.95           | 1.73 | 13.66 | 51.34 | 70.02 | 3.37 | 26.61 |
| 2000-01  | 56.14           | 6.48 | 23.90 | 86.52 | 64.89 | 7.49 | 27.62 |
| 2001-02  | 54.36           | 8.34 | 30.71 | 93.41 | 58.20 | 8.93 | 32.88 |
| 2002-03  | 45.79           | 9.64 | 27.00 | 82.43 | 55.55 | 11.69 | 32.76 |
| 2003-04  | 48.78           | 12.74 | 30.94 | 92.46 | 52.76 | 13.78 | 33.46 |
| 2004-05  | 35.56           | 17.29 | 43.95 | 96.8  | 36.74 | 17.86 | 45.40 |
| 2005-06  | 25.98           | 12.49 | 41.65 | 80.12 | 32.43 | 15.59 | 51.98 |
| 2006-07  | 22.97           | 14.06 | 48.08 | 85.11 | 26.99 | 16.52 | 56.49 |
| 2007-08  | 20.91           | 17.73 | 46.06 | 84.7  | 24.69 | 20.93 | 54.38 |
| 2008-09  | 13.04           | 14.14 | 58.30 | 85.88 | 15.65 | 16.46 | 67.89 |
| 2009-10  | 17.50           | 19.50 | 53.10 | 90.1  | 19.42 | 21.64 | 58.93 |
| 2010-11  | 28.10           | 17.70 | 55.80 | 101.6 | 27.66 | 17.42 | 54.92 |
| 2011-12  | 29.95           | 19.96 | 66.04 | 115.95 | 25.18 | 16.93 | 57.89 |
| 2012-13  | 26.79           | 20.30 | 82.43 | 129.52 | 20.68 | 15.67 | 63.65 |
| 2013-14  | 26.89           | 21.35 | NA   | 48.24 | -     | -     | -     |
| 2014-15  | 17.32           | 24.96 | NA   | 42.28 | -     | -     | -     |
| Total    | 507.99          | 238.47 | 627.84 | 1374.3 | 36.96355 | 17.35211 | 45.68435 |

Source: India stat website.com

Table.5 Compound growth rate of institutional credit given by the agencies before and after introduction of Kisan credit card

| Term       | Cooperatives | Scheduled Commercial Bank | Regional Rural Bank | Total |
|------------|--------------|----------------------------|---------------------|-------|
|            | Before | After | Before | After | Before | After | Before | After |
| Short Term | 11.48  | 16.62 | 16.01  | 29.46  | 20.67  | 25.88  | 13.06  | 23.88  |
| Long Term  | 11.84  | -1.22 | 14.94  | 26.77  | 16.25  | 23.37  | 13.39  | 19.97  |
| Overall    | 11.66  | 11.21 | 13.72  | 27.69  | 14.96  | 24.93  | 12.63  | 21.86  |
Number of Kisan credit card issued by Institutional agencies

Kisan Credit Card issued by various institutional agencies was given in the table 4.

From the table 4, It was showed that Commercial bank had issued 627.84 lakhs cards, followed by cooperative bank, which issued 507.99 lakh cards and Regional Rural Bank had issued 238.47 lakh cards. The percentage share of Co-operatives constantly decreases from 70 per cent in 1999 to 20.68 per cent in the year 2012. The share of RRB constantly increased from 3.37 per cent in the year 1999 to 15.67 per cent in the year 2012. The share of commercial bank increased with fluctuation from 26.61 per cent in the 1999 to 63.65 per cent in the year 2012. Besides the decline in per cent the farmers preferred to keep the KCC account in co-operatives because of subsidies and loan waiving scheme provided by the government.

From the table 5, we found that, the overall compound growth rate of co-operatives was 11.66 per cent before KCC and 11.21 per cent after the introduction of KCC. The compound growth rate of long term loan after KCC was -1.22 which was negative and non-significant. It indicates that co-operative banks had concentrated more on short term loan than long term. The compound growth rate of short term and long term loans of Scheduled Commercial Banks increased rapidly after the
introduction of KCC. It indicates that the farmers relied mostly on SCB because of their timely services. Regional Rural Bank’s compound growth rate was also increased rapidly after the introduction of KCC. The main reason for SCB and RRB increase in credit was they gave the agri gold loan under the interest subvention scheme.

Summary and conclusion are as follows:

Kisan Credit Card (KCC) scheme helped the government to regulate the credit needs of the farmer. The co-operative share of agriculture credit has been decreased over the years. The government should take necessary steps for the effective functioning of co-operatives. The government should bring all loans related to agriculture under Kisan Credit Card, so that the farmers can avail interest subvention for the loans. There is delay in the settlement of compensation in case of natural calamities or crop failure due to drought under the insurance scheme. The central government must take necessary action on insurance companies to provide the compensation at right time. Otherwise large number farmers will be indebted to banks due to crop failure.

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