# International Journal of Chemical Studies

P-ISSN: 2349–8528 E-ISSN: 2321–4902 www.chemijournal.com IJCS 2020; SP-8(4): 247-253 © 2020 IJCS Received: 25-05-2020 Accepted: 27-06-2020

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# Performance of primary agricultural credit societies (PACS) in Kolhapur district

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#### DOI: https://doi.org/10.22271/chemi.2020.v8.i4d.9998

#### Abstract

The credit plays an important role in agriculture sector. The Primary Agricultural Co-operative Societies (PACS) form the basic foundation of cooperative credit system essential for farming community. PACS organized, managed and benefitted by member farmers. Credit Societies at all India level are 95238 with total membership consist of 1305.47 lakhs. The financial institutions directly associated with agricultural finance at grass root level in the State are Primary Agricultural Credit Co-operative Societies (PACS) which provide short-term crop loans to their cultivator members. Kolhapur is district is agriculturally progressive district. The capital intensive sugarcane crop is the major crop contributes around 25 per cent share in total cropping pattern of the district. PACS plays an important role to provide timely credit to the farming community. Present study was conducted with to the growth in physical performance indicators of PACS, to estimate the growth in financial performance indicators of PACS and to examine the cropwise loan disbursement by PACS in the district. The study concluded that the number of PACS and membership of PACS has increased marginally but the loan advanced by them increased tremendously in Maharashtra during last 50 years. The short term loan disbursed by PACS in Maharashtra contributed more than 84 per cent in total loan disbursement. Karveer tahsil has maximum number of PACS and maximum number of members of PACS in Kolhapur district. The share capital, working capital, loan disbursement and loan outstanding has increased during the year 2019 over the year 2019 in all tahsils in the district. The loan for sugarcane crop contributed more than 97 per cent of total loan disbursement by DCCB through PACS during the period under study and recorded significant CAGR 4.55 per cent per annum. The loan advances through PACS were increased significantly in the District. The PACS from Karveer tahsil recorded positive growth for last five years in all physical and financial indicators and showed better performance than PACS from Kagal tahsil.

Keywords: PACS, share capital, working capital, loan disbursement, CAGR

#### Introduction

India economy is basically known as agrarian economy. The agriculture sector contributed more than 50 per cent of country's GDP during 1960 which decreased upto 12 per cent in 2018 but at present more than 50 per cent employment is from agriculture and allied sector. Capital is one of the major factors of agriculture production and Cooperative credit institutes plays important role in agricultural finance. The Primary Agricultural Co-operative Societies (PACS) form the basic foundation on which the entire short and medium term cooperative credit system is built. The member agriculturists are having direct contact with PACS at village level, the Central Co-operative Bank at district level and the Apex Bank at the state level. These societies are generally organized, managed and benefited by the member farmers. The success of the Cooperatives in general and credit structure in particular, depends to a very large extent on the success of these PACS.

The country's foodgrains production touches new height every year. The advance estimates state that foodgrains production of the country will cross 285 million tonnes during 2019-20, which was just 50 million tonnes during 1950-51. The Primary Agricultural Co-operative Credit Societies at all India level are 95238 with total membership consist of 1305.47 lakhs. The financial institutions directly associated with agricultural finance at grass root level in the State are Primary Agricultural Credit Co-operative Societies (PACS) which provide short-term crop loans to their cultivator members. In Maharashtra PACS advanced loan of Rs. 15,461 crore during 2016-17, of which loan advanced to small & marginal farmers was more than 40

per cent (Rs. 6,314 crore). Thus PACS plays vital role in every farmer in the state so the research study 'Performance of Primary Agricultural Credit Societies (PACS) in Kolhapur District' was conducted with following specific objectives viz., i) To study the growth in physical performance indicators of PACS ii) To estimate the growth in financial performance indicators of PACS iii) To examine the cropwise loan disbursement by PACS

#### Methodology

Kolhapur district is purposively selected for the study as this district has more than 9 per cent Primary Agricultural Credit Societies (PACS) of the total Primary Agricultural Credit Societies (PACS) in the State. The secondary data were collected from Economic Survey of Maharashtra, NAFSCOB website, office of Commissioner for Co-operation & Registrar of Cooperative Societies, Maharashtra State, DDR office, Kolhapur, KDCC Bank, Kolhapur District Statistical Abstract, AR office, Karveer and AR Office Kagal. Karveer (251) and Kagal (166) tahsils were selected as they have more than 20 per cent PACS of the total PACS (1865) in the district. The annual reports 20 PACS (12 from Karveer and 8 from Kagal tahsil) were collected for last five years to study physical and financial performance of these societies. The progress and performance of PACS analyzed by using simple statistical tools viz., mean, percentages, percentage change and for estimating annual compound growth rates of physical and financial indicators an exponential form of equation was used.

i)  $Ya = ab^t and Yp = ab^t$ 

Where,

Ya and Yf = annual physical and financial indicators, respectively

a = Constant,

b = Trend coefficient

t = Time period

Annual compound growth rate in percentage is calculated as, CAGR (%) = (Antilog of b - 1) x 100.

#### Results

#### 1. Performance of PACS in Maharashtra

Cooperative credit societies are playing important role in the rural finance. The share of cooperative banks reducing every year but the in quantum of credit disbursement increased over the period. The performance of PACS in Maharashtra since 1971 is presented in Table 1.

The total number of societies working in the year 2017 were 21067 which were recorded 5.26 per cent growth over the year 1971 in Maharashtra. The decrease of 2.61 per cent was recorded during the year 1991 over the year 1971. The membership of PACS in the state showed continuous increasing trend during the year 1991, 2001 and 2017 over the year 1971. The membership was increased from 31.36 lakh to 147.13 lakhs during the study period The share capital was increased from Rs.52.31 crores to Rs. 2391.49 crores recorded 4471 per cent growth. The same trend was observed in case of owned funds, deposits, borrowing with higher magnitude. The loan advanced, loan demanded and loan recovered were also increased tremendously during the period under study. The percentage of overdues to outstanding loan was declined from 36.4 per cent 8 per cent during period under study over the base year 1971.

Table 1: Physical and financial progress of PACS in Maharashtra (Rs. in Lakh)

Sr. No	Particulars	1971	1991	% change over 1971	2001	% change over 1971	2017	% change over 1971
1	Societies	20014	19491	-2.61	20524	2.55	21067	5.26
2	Membership (000)	3136	7507	139.38	10121	222.74	14713	369.16
3	Share capital	5231	30719	487.25	96019	1735.58	239149	4471.76
4	Owned Funds	6277	37914	504.01	122414	1850.20	369132	5780.71
5	Deposits	405	2157	432.59	8792	2070.86	21131	5117.53
6	Barrowings	14302	123831	765.83	516790	3513.41	1090934	7527.84
7	Working capital	20984	178399	750.17	698768	3230.00	1937811	9134.71
8	Loan advanced	11493	76855	568.71	373412	3149.04	1528929	13203.13
9	Loan Demanded	15408	127693	728.74	451903	2832.91	1636767	10522.84
10	loan recover	9224	78417	750.14	276550	2898.16	1091455	11732.77
11	% of recovery to demand	59.9	61.4	2.50	61.1	2.00	66.7	11.35
12	Loan outstanding	16483	135192	720.19	530827	3120.45	1347788	8076.84
13	Loans overdue	6184	49276	696.83	164498	2560.06	545312	8718.11
13	% of overdues to outstanding	37.5	36.4	-2.93	30.99	-14.13	40.5	8.00
14	Societies in profit	10684	11992	12.24	8212	-23.14	8791	-17.72
15	Amount in profit	298	7356	2368.46	11044	3606.04	58222	19437.58

The profit earned by PACS during 2017 was increased by 194 times over the year 1971 but number of societies in profit decreased by 17 per cent during the same period. The amount of profit was showed increase from Rs. 2.98 crore to Rs.582.22 crore indicating importance of PACS in the life of member farmers.

# **2.** Dynamics of Categoriwise Agril. Finance by PACS in Maharashtra

The information regarding changes in categoriwise agricultural finance i.e. loan advanced, laon demand and loan overdues by the PACS in Maharashtra since 1961 is presented in Table 2.

The total loan advanced by PACS in the sate were 249.93 crores during the year 1961 which increased tremendously upto Rs. 15289.29 crores during the year 2017. The PACS are mainly providing crop loan (short term loan) for various crops for their member farmers. The maximum share of short team loans advanced in total loan advanced by PACS was noticed in the year 1961 (86.87 per cent) and was minimum during the 2001 (77.53 per cent). The share of long Term loan advance in the total loan advanced by PACS was very less which ranges between 0.20 to 2.23 per cent.

The loan recovery of total loan was 57.26 per cent during the year 1961 which improved during the year 2017 and reached upto 66.68 per cent. The categoriwise loan recovery showed that the short term loan ware recovered efficiently than

medium term and long term loan over the period. The total amount of overdues tuned to Rs. 5453.12 crore out of which

**Particulars** 1961 % 2001 % 2011 % 2017 % Loans advanced During the year (Rs. in lakh) 1291263 Short Term 21712 86.87 289502 77.53 679649 84.35 84.46 Medium Term 3231 12.93 75600 20.25 111808 13.88 206909 13.53 50 0.20 8310 2.23 14305 1.78 30757 2.01 Long Term Total 24993 100.00 373412 100.00 805762 100.00 1528929 100.00 Loan Demand (Rs. in lakh) 76.59 Short Term 28892 82.54 903676 79.73 1363200 83.29 325624 Medium Term 6061 17.32 88087 20.72 204497 18.04 221380 13.53 2.23 Long Term 51 0.15 11457 2.69 25294 52187 3.19 35004 425168 100.00 1133467 100.00 1636767 100.00 Total 100.00 Recovery (Rs. in lakh) Short Term 17878 89.19 214530 82.30 550971 82.36 949425 86.99 2155 10.75 112472 Medium Term 41200 15.81 105734 15.80 10.30 12286 29558 11 4940 1.84 2.71 Long Term 0.05 1.90 20044 100.00 260670 100.00 1091455 100.00 668991 100.00 Total Overdues (Rs. in lakh) Short Term 10914 72.93 111094 67.54 352705 75.94 413775 75.88 Medium Term 4006 26.77 46887 28.50 98763 21.26 108908 19.97 Long Term 40 0.27 6517 3.96 13008 2.80 22629 4.15 Total 14965 100.00 164498 100.00 464476 100.00 545312 100.00

Table 2: Dynamics of Categoriwise Agril. Finance by PACS in Maharashtra (Rs. in Lakh)

### **3.** Performance of PACS in Kolhapur district Status of PACS in Kolhapur district

The tahasilwise information PACS on various physical and financial indicator for the year 2019 is presented in Table 3. The total number of PACS working in Kolhapur district during 2019 are 1865 out of which maximum numbers 251 in Karveer tahsil followed by Panhala 250 and Bhudargad 205. The total members of PACS are 5.71 lakh during the year 2019 in Kolhapur district. The maximum members are in

Karveer tahsil (0.83 lakh) followed by Radhanagari (0.69

lakh) and Hatkangale (0.67 lakh). The value of share capital which in the district was Rs. 57.10 crore in which Karveer contributes higher share (13.41 per cent) followed by Shirol (12.47 per cent) of the total share capital of PACS in the district. The PACS has borrowed Rs. 1445.19 crore mainly from Kolhapur District Central Cooperative Bank to fulfill credit demand of their member farmers during the year 2019. The maximum borrowing out of the total borrowing were taken by PACS in Shirol tahsil (17.64 per cent) followed by Kagal (13.80 per cent) and very less by PACS in Ajara Tahsil.

75.88 per cent were related to short term loans.

Sr. No.	Name of tahsil	No. of PACS	<b>Total Member</b>	Share Capital	Borrowings	Working capital	Loan disbursed
1	Shahuwadi	97	41613	106701	753952	1074651	473038
2	Panhala	250	60281	476153	1496095	2390664	2042381
3	Hatkangale	136	67720	422915	1454270	3473696	1747839
4	Shirol	149	60802	550686	2549136	4139116	1776559
5	Karveer	251	83903	592116	1538088	3389044	1409442
6	Gaganbawada	69	11108	130284	496751	693743	340823
7	Radhanagari	199	69572	442155	1068789	1851995	942603
8	Kagal	166	36895	493955	1993955	3041209	1581637
9	Bhudargad	205	29578	294731	755276	1202538	771797
10	Ajara	108	29683	197517	56722	94416	533153
11	Gadhinglaj	106	47698	323538	957947	1572791	1286066
12	Chandagad	129	32235	386289	1330949	2071129	1400013
	Total	1865	571088	4417040	14451930	24994992	14305351

Table 3: Status of PACS in Kolhapur district, 2019 (Rs. in '000')

The PACS in Kolhapur district has disbursed Rs. 1430 crore during the year 2019 for crop loan, agriculture development loan and loan for purchase of livestock and machinery. The PACS from Panhala tahsil ranks first by disbursing 14.28 percent of total loan disbursed by PACS in the district during the year 2019. In case of outstanding loan PACS from Panhala, Shirol, Hatkangale and Karveer contributes more than 50 per cent of total outstanding loan in the district mainly due to long duration crops and loan advanced for other agribusiness activities.

#### 4. Performance of PACS in Kolhapur district

The performance of any financial institution is judged by using various physical and financial indicators over a period of time. The physical performance indicators viz., changes in number of PACS and members of PACS during the year 2019 over the year 2009 were estimated and presented in Table No. 4

The number of PACS has increased marginally (4.66 per cent) in Kolhapur district during 2019 over the year 2009 and almost all tahsils except Shirol and Gadhinglaj. Maximum increase of 21 per cent was observed in Bhudargad tahsil followed by Ajara tahsil (10.20 per cent). The membership of PACS has decreased from 8.44 lakh to 5.71 lakh during last 10 years in Kolhapur district (32 per cent). Karveer thahsil stood first in case number of member of PACS in Kolhapur district for both years with magnitude of share in total membership i.e. 13.25 per cent and 14.69 per cent during the

year 2009 and 2019, respectively. The decline in membership was maximum (58.78 per cent) followed by membership in

Kagal tahsil.

	r. No. Name of tahsil		PACS	D	No. of N	lembers	Demonst change over 2000	
Sr. No.	Name of tansii	2009	2019	Percent change over 2009	2009	2019	Percent change over 2009	
1	Shahuwadi	5.22	5.20	-0.38	11.96	7.29	-39.05	
2	Panhala	13.64	13.40	-1.76	8.21	10.56	28.62	
3	Hatkangale	7.52	7.29	-3.06	10.57	11.86	12.20	
4	Shirol	8.42	7.99	-5.11	8.88	10.65	19.93	
5	Karveer	13.69	13.46	-1.68	13.25	14.69	10.87	
6	Gaganbawada	3.70	3.70	0.00	1.67	1.95	16.77	
7	Radhanagari	11.05	10.67	-3.44	8.93	12.18	36.39	
8	Kagal	8.70	8.90	2.30	10.13	6.46	-36.23	
9	Bhudargad	9.48	10.99	15.93	7.24	5.18	-28.45	
10	Ajara	5.50	5.79	5.27	6.21	5.20	-16.26	
11	Gadhinglaj	6.00	5.68	-5.33	7.15	8.35	16.78	
12	Chandagad	7.07	6.92	-2.12	5.79	5.64	-2.59	
	Total	100.00	100.00		100.00	100.00		
	Total	(1782)	(1865)		(8.44)	(5.71)		

 Table 4: Changes in physical indicators of PACS in Kolhapur district (Per cent)

The financial performance of PACS has judged by estimating growth in share capital and working capital, loan disbursement loan outstanding in PACS working the Kolhapur district during the period of 10 years since 2009 and presented in Table 5 and Table 6.

The share capital and working capital increases the financial strength of financial institution. The share capital has recorded 439 per cent growth during the year 2019 over the year 2009 in Kolhapur district. The maximum growth of 5854 percent was noticed in PACS's of Kagal tahsil in case of

share capital as their initial value of share capital was very less compared to values during the year 2019. The share capital of PACS in Kolhapur district was increased from Rs. 81.83 crore to Rs. 441.70 crore indicating 439 per cent increase during the year 2019 over the year 2009. The same trend was (525.74 per cent increase) observed in growth of working capital of PACS in Kolhapur district. Considerable increase in working capital of PACS was observed in APMC's of Bhudargad Kagal and Radhanagari tahsils and least in PACS's of Ajara tahsil.

Table 5: Changes in Share capital and working capital of PACS in Kolhapur district

C. No	Nome of tabail	Share Capital		Damaan 4 ah amaa amaa 2000	Workin	g Capital	D
Sr. 10.	Name of tahsil	2009	2019	Percent change over 2009	2009	2019	Percent change over 2009
1	Shahuwadi	2.44	2.42	434.95	2.52	4.30	969.22
2	Panhala	13.43	10.78	333.38	16.69	9.56	258.55
3	Hatkangale	10.43	9.57	395.73	19.79	13.90	339.48
4	Shirol	12.88	12.47	422.53	19.56	16.56	429.83
5	Karveer	11.71	13.41	518.09	12.84	13.56	560.55
6	Gaganbawada	4.99	2.95	219.20	5.29	2.78	228.39
7	Radhanagari	14.21	10.01	280.16	2.27	7.41	1939.31
8	Kagal	1.01	11.18	5854.13	2.35	12.17	3142.02
9	Bhudargad	1.19	6.67	2926.61	0.39	4.81	7707.17
10	Ajara	6.40	4.47	276.84	2.30	0.38	2.61
11	Gadhinglaj	10.26	7.32	285.33	10.19	6.29	286.42
12	Chandagad	11.06	8.75	326.93	5.81	8.29	791.85
	Total	100.00 (81.83)	100.00 (441.70)	439.76	100.00 (399.45)	100.00 (2499.49)	525.74

(Figures in parentheses are capital in Rs. in crore)

Disbursement of loan to their needy farmer members and recovery of this loan in stipulated time are the major function of PACS. The changes in loan disbursement and the amount of loan outstanding during last decade (2009 to 2019) is presented in Table 6.

Table 6: Changes in disbursement and outstanding loan of PACS in Kolhapur district

Sn No	Name of tahsil	Loan	disbursement	Percent change over 2009	Loan of	utstanding	Percent change over 2009
Sr. 10.	Ivalue of tailsh	2009	2019		2009	2019	Percent change over 2009
1	Shahuwadi	23.47	3.31	-56.77	15.91	4.26	512.07
2	Panhala	4.64	14.28	843.46	17.70	16.81	2069.47
3	Hatkangale	10.61	12.22	253.42	5.69	11.80	4641.65
4	Shirol	10.76	12.42	254.33	5.74	12.12	4726.02
5	Karveer	15.60	9.85	93.83	6.76	11.73	3862.93
6	Gaganbawada	1.25	2.38	482.64	3.41	2.86	1815.17
7	Radhanagari	4.97	6.59	307.19	12.04	6.94	1217.40
8	Kagal	18.44	11.06	84.01	14.30	9.42	1404.66
9	Bhudargad	0.86	5.40	1815.98	4.71	4.90	2275.14

10	Ajara	1.78	3.73	541.72	3.32	3.64	2399.10
11	Gadhiglaj	4.81	8.99	473.63	4.18	6.61	3507.87
12	Chandagad	2.80	9.79	974.34	6.24	8.92	3165.21
	Total	100.00 (466.11)	100.00 (1430.53)	206.91	100.00 (79.22)	100.00 (1809.76)	2184 .56

(Figures in parentheses are loan in Rs. in crore)

The amount to credit disbursed by PACS in Kolhapur district was Rs. 466 crore during the year 2009 which increased upto Rs. 1430 crore during the year 2019 and showed 1430 per cent growth in credit disbursement. PACS in Panhala has maximum share (14.28 per cent) followed by Shirol, Hatkangale, Kagal and Karveer in total credit disbursement in Kolhapur district. The changes in loan disbursement by PACS in the district was 206 per cent during last decade. The maximum increased was noticed in PACS of Bhudargad tahsil followed by PACS in Chandgad tahsil.

The recovery of loan means the amount of loan which was recovered upto a point of time by the financial institutions wheras loan outstanding loan can refer to the outstanding principal, unpaid interest or the total value of both. This amount has increased from Rs. 79.82 crores to Rs. 2184 crore and registerd 2184 per cent growth during last ten years. This is mainly due to more than 95 per cent of total loan disbursement in the district is for sugarcane crop. Maximum loan outstanding was observed in PACS of Shirol followed by PACS in Hatkanagale tahsil.

The major role of PACS is to provide crop loan to the member farmers to carry out their main occupation and capital is crucial input essential for purchase of various inputs viz., seed, fertilizer, pesticides and meeting expenses on hired labour and irrigation. PACS borrows loan from DCCB for fulfilling the credit requirement of their members. The data on cropwise loan disbursed by Kolhapur District Central Cooperative Bank since 2015 were collected analyzed and presented in Table 7 and Table 8.

Sr. No.	Year	Particulars	Sugarcane	Oilseeds	Grapes	Other crops	Banana	Total
1	2015	No. of Members	180319	495	560	11882	-	193256
		%	93.31	0.26	0.29	6.15	-	100.00
		Area (ha.)	138441	570	336	3434	-	142781
		%	96.96	0.40	0.24	2.41	-	100.00
		Amount (Rs. Crore)	1219.45	1.53	6.72	21.64	-	1249.34
		%	97.61	0.12	0.54	1.73	-	100.00
2	2019	No. of Members	169861	474	277	6944	34	177590
		%	95.65	0.27	0.16	3.91	0.02	100.00
		Area (ha.)	126943	495	110	4719	28	132295
		%	95.95	0.37	0.08	3.57	0.02	100.00
		Amount (Rs. Crore)	1563.32	2.08	3.35	22.18	37.07	1591.31
		%	98.24	0.13	0.21	1.39	0.02	100.00

Table 7: Change in cropwise disbursemen	nt of loan by Kolhapur DCCB
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The credit borrowed for various crops tuned to Rs. 1249 crore during the year 2015 which increased to Rs. 1591 crore during the year 2019. The maximum share i.e. 97.61 per cent was of credit to sugarcane crop in total crop loan disbursement during the year 2014. The share credit to sugarcane crop was increased to 98.24 in the total crop loan disbursement.

The annual compound growth rates for the period of 5 years i.e. from 2015to 2019 in number of members securing crop loan, area under particular crop and amount of loan disbursed were worked out and presented in Table 8.

Table 8: Compound growth rate	s of cropwise loan dist	oursement by Kolhapur DCCB
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Sr. No.	Particulars	No. of members	Area	Loan Amount
1	Sugarcane	-2.31 <sup>NS</sup>	2.80 <sup>NS</sup>	4.55**
2	Oilseeds	4.55 <sup>NS</sup>	-1.21 <sup>NS</sup>	8.33**
3	Other crops	7.43 <sup>NS</sup>	6.93 <sup>NS</sup>	-21.06 <sup>NS</sup>
4	Grapes	18.26***	-22.13***	-15.29**
5	Banana	-28.81***	-31.03**	-28.12**
6	Total crop loan Amount	-2.56*	2.53 <sup>NS</sup>	4.27**

Major crop credit disbursed by PACS in the district are sugarcane, paddy, oilseeds, banana and grapes. The loan amount borrowed for sugarcane, oilseeds and total crop loan has been increased significantly during the last five years but the numbers member farmers taking loan for sugarcane and banana decreased significantly wheras the member farers taking loan for grapes increased.

#### 5. Performance of Selected PACS in Kolhapur district

In all 1865 PACS are in operation during the year 2019 in Kolhapur district. Performance of individual PACS has also been assessed by selecting twenty PACS from two tabils i.e.

from Karveer (12) and Kagal (08) as these two tahsils contributes more than 20 par cent of number of PACS, number of members and amount loan disbursement in the district. The secondary data on various aspects ware collected for last five years. Various physical and financial performance indicators were estimated of selected PACS for last five year and presented in Table 9.

The number of PACS has showed increase in both the tahsil with varied magnitude. Though the number of PACS increased by 7 per cent in Kagal tahsil which is more than Karveer tahsil but members of PACS increased in Karveer tahsil which was decreased in Kagal Tahsil. The PACS in Karveer tahsil has showed better performance than PACS in Kagal tahsil in case of fixed assets, Share capital, investments

deposits cash in hand and cash in bank during 2019 over the base year 2014.

Dentionaleur	Kar	veer	Democrat Change and 2015	Ka	gal	Democrat Change amon 2015
Particulars	2015	2019	Percent Chang over 2015	2015	2019	Percent Chang over 2015
No. of Years	73	77	5.48	58	62	6.90
Total members	1707	1709	0.12	1496	1362	-8.96
Fixed assests	37.84	59.75	57.90	12.00	11.05	-7.92
working capital	576.76	825.71	43.16	100.00	177.00	77.00
Share capital	80.39	130.38	62.18	50.87	60.03	18.01
Investment	200.98	339.89	69.12	41.15	50.87	23.62
Borrowings	210.57	264.93	25.82	225.13	397.05	76.36
Deposits	215.49	355.42	64.94	7.44	5.92	-20.43
Cash in Hand	2.94	5.83	98.30	0.23	0.12	-47.83
Cash at Bank	28.05	59.77	113.08	16.44	7.84	-52.31
Loans advanced	275.84	394.21	42.91	179.18	331.11	84.79
Profit	6.54	14.17	116.67	1.78	6.52	266.29

Average loan advanced by sample PACS in Karveer tahsil was Rs. 3.94 crore which is higher than loan advanced by sample PACS in Kagal tahsil. Profit earned by sample PACS increased by 116 per cent, 265 per cent in Karveer tahsil and Kagal tahsil, respectively. The magnitude of profit earned was higher in sample PACS in Karveer tahsil than sample PACS in Kagal Tahsil.

The annual compound growth rates for various physical and financial indicators for sample PACS from Karveer and Kagal tahsil were worked and presented in Table 10.

The results of annual compound growth rate analysis indicated that the numbers of PACS members declined significantly by 2.71 per cent per annum during last five years in case of sample PACS in Kagal tahsil. The annual compound growth in fixed assets, working capital, share capital and investment were more than 9 per cent for sample PACS in Karveer tahsil. The CAGR in borrowing was only 6.73 per cent per annum for sample PACS in Karveer tahsils which was 14.96 for sample PACS in Kagal tahsil during the study period.

The sample PACS in Kagal tahsil has advanced loan by 15.73 per cent per annum while sample PACS in Karveer tahsil advanced loan by 9.58 per cent per annum mainly due to sample PACS from Kagal tahsil disbursed less loan during the base year 2015. The sample PACS in Karveer tahsil were consistent in profit earning than PACS in Kagal tahsil as the CAGR for profit for sample PACS of Kagal tahsil was non-significant for period under study

Table 10: CAGR of Physical and financial indicators of sample PACS

Sr. No.	Particulars	Karveer	Kagal
1	Total members	0.12 NS	-2.71 *
2	Capital		
	Fixed assests	14.39 **	-1.63 <sup>NS</sup>
	Working capital	9.83 ***	15.81 ***
	Share capital	11.69 **	4.11 ***
	Investment	14.26 ***	4.23 <sup>NS</sup>
3	Borrowings	6.73 *	14.96 **
4	Deposits	13.9 ***	-4.97 <sup>NS</sup>
5	Cash in Hand	17.44 *	-8.49 <sup>NS</sup>
6	Cash at Bank	20.66 *	3.59 <sup>NS</sup>
7	Loans advanced	9.58 **	15.73 **
8	Profit	18.27 **	21.47 <sup>NS</sup>

(NS: non-significant '\*', '\*\*' & '\*\*\*': significant at 10, 5 & 1 per cent level of significance, respectively)

#### 6. Conclusions

- i. The number of PACS and membership of PACS has increased marginally but the loan advanced by them increased tremendously in Maharashtra during last 50 years.
- ii. The short term loan disbursed by PACS in Maharashtra contributed more than 84 per cent in total loan disbursement in almost all years under study and short term loan repayment was more promptly then medium and long term loans.
- iii. Karveer tahsil has maximum number of PACS and maximum number of members of PACS in Kolhapur district.
- iv. The share capital, working capital, loan disbursement and loan outstanding has increased during the year 2019 over the year 2019 in all tahsils in the district.

- v. The loan for sugarcane crop contributed more than 97 per cent of total loan disbursement by DCCB through PACS during the period under study and recorded significant CAGR 4.55 per cent per annum.
- vi. The PACS from Karveer tahsil recorded positive growth for last five years in all physical and financial indicators and showed better performance than PACS from Kagal tahsil
- vii. The magnitudes of CAGR for loan advanced by PACS in Karveer and Kagal tahsils were positive and significant indicated the importance these financial institutions in farm economy in Kolhapur district.

#### 7. References

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