Dwindling Viability of PACS during Period of Institutional Reforms: An Evidence from Maharashtra

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Introduction:

The withdrawal of government regulations has helped many states, especially in terms of expansion and development of their credit related activities. The state of Maharashtra is no exception to this phenomenon. In this state, there has been considerable growth in the facilities extended by the three tiers of organizational structure of credit cooperatives, especially after the period of early nineties. However, like Tamil Nadu and Gujarat, modifications in cooperative laws are yet to take place in Maharashtra. The policy reforms initiated during the early nineties and their impact on cooperative credit sector have been outlined and examined by Subrahmanyam (1999).[1] As for viability, one of the recent studies has shown an improvement in the financial viability of district level credit institution during the reform period (Shah, 2001). However, the questions that merit attention are how far the societies affiliated to district level institution are successful and how best they are managed under the relaxed market conditions. The present study carried out in Maharashtra attempts to address these questions and it comprehensively evaluates the organizational, operational and financial health of the societies affiliated to district level institution.

Data Base and Methodology:

The study was conducted in Kolhapur district of Maharashtra. It is basically a performance evaluation study of two selected Primary Agricultural Cooperative Credit Societies (PACS) affiliated to Kolhapur District Central Cooperative Bank (KDCCB). The two selected societies represented different audit class such as 'A' and 'B' and they were selected randomly from two different talukas of the district, namely, Karveer and Shirol. The selection of talukas was based on certain rationale.[2] Time series information encompassing the period from 1985 to 1998 with respect to membership pattern, share capital, reserve and other funds, deposits, investments, working capital, loan advancement, recovery and overdue, profit and loss account, asset and liability position, income and expenditure pattern, etc, were collected from the official records as well as annual reports of the selected societies. In order to evaluate the operational as well as financial performance of the societies, the entire period (1985 to 1998) was broken into two sub periods, i.e. the period before the economic reforms (1985-1991) and the period after the economic reforms (1992-1998). In order to evaluate viability of the selected societies, various financial ratios have been computed for both pre-

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and post economic reform periods using the methods outlined by Jerry A. Viscione (1977) and Clemens and Dyer (1977). Information relating to computation of various financial ratios are provided in Appendix 1.

Performance Appraisal of PACS:

The performance of two PACS affiliated to KDCCB has been evaluated in this section for the periods before and after the economic reforms A comparative position in performance indicators of the two selected societies under study is brought out in Table 1. Most of the indicators of performance provided in Table 1 are converted to reflect their per member/borrowing member basis status to bring the matter into proper perspective. Information regarding actual number of members/borrowers under each category are brought out in Appendix 2.

A comparative position revealed a decline in per member amount of share capital, working capital, deposits, cost of management and profit from society 'A' to 'B'. This held true during both the periods Further, as against the pre-economic reform, the post economic reform saw a decline in lower amounts of ST loan advances per borrowing member in the face of an increase in higher amounts of ST loan advances (Table 1).[3] Thus, with the advent of time, the farmers are taking higher amount of loan for meeting their requirements for various short term purposes. Although the crop loan finance per member was the highest for the 'A' grade society, the increase in amount of crop loan finance during the latter period over that of the former stood at much sharper for the 'B' grade society as compared to the society falling under audit class 'A'.

It is to noted that as against the pre-economic reform period the post-economic reform period was marked with fall in MT loan advances and its recovery in the face of rise in ST loan advances and its recovery, especially in the case of 'A' graded society.[4] On the other hand, recoveries of MT loan of 'B' graded society were noticed to increase sharply during the latter period as against the former period. Further, while 'A' graded society showed an increase in share of SC/ST in total ST loan advances, a marginal decline in the same was noticed for the 'B' graded society during the latter period as against the former period. Nonetheless, in general proportion of recovery to loan advance increased for both the selected societies with 'B' graded society showing higher increase in recovery as compared to 'A' graded society. Thus, except marginal improvement in recovery, both the societies showed a decline in most of the indicators during the latter period as against the former period.

Portfolio Structure of PACS:

Portfolio structure of the selected societies has been analysed with a view to further analyse various financial ratios, which are mainly based on various categories of assets and liabilities of the societies during the two time period considered. The annual average asset and liability positions of 'A' and 'B' graded societies along with their rates of growth during the pre- and post-economic reform periods are given in Table 2.

The scenario obtaining from Table 2 revealed that although the total assets of the society falling under audit class 'A' had increased by about three folds during the post-economic reform period as compared to pre-economic reform period, the growth rates in current, fixed and miscellaneous assets of this society were much faster during the former period as against the latter period. Further, as against the pre-economic reform period, the post-economic reform period was marked with faster rates of growth in current and term liabilities and slower growth in the net worth of the society. As regards the asset and liability position of 'B' graded society, there was slower expansion in assets and liabilities of this society as compared to 'A' graded society during the given period of time. The rates of growth in current and fixed assets of this society were noticed to be much slower during the post-economic reform period as compared to pre-economic reform period. The post economic reform period also saw a declining rate of growth in miscellaneous assets of this society. This society also showed a slower rate of growth in its current and term liabilities and also net worth during the latter period as against the former period. The question, however, that merits attention is that what is the implication of the changing structure in various asset and liability positions of the selected societies during the two time periods considered. A further analysis presented in the subsequent section will provide answer to this question.

Financial Ratio Analysis:

One of the angles to evaluate the operational and functional efficiency of a firm is to analyse various financial ratios. In this study, we have mainly estimated various liquidity, profitability and financial leverage ratios for both pre- and post-economic reform periods and these ratios for the selected societies are brought out in Table 3.

The estimates of current ratio revealed that while 'B' graded society turned out to be in a good position to meet its current obligations during both pre- and post-economic reform periods, such was not the case for 'A' graded society as its current assets had fallen short of current liabilities during the latter period as against the former period. Consequently, the current ratio of 'A' graded society estimated at 1.62 during the pre-economic reform period had fallen to 0.90 during the post-economic reform period (Table 3).

Both the societies also showed a sharp decline in their profitability ratios during the latter period as against the former period. Rate of return on asset and return on owner's equity have been considered profitability ratios in this study. Generally, an increase in profitability ratio is considered as a good sign for the financial health of the firm. Nonetheless, this increase could also pose a danger if the firm relies too heavily on debt. A further analyses indicated that 65 per cent of the 'A' graded society's assets were financed by debt during the pre-economic reform period and 67 per cent during the post-economic reform period. The possible reason for higher debt-asset ratio during the latter period as against the former period could be traced to the faster rate of growth in total debt of ‘A’ graded society as compared to growth in its total assets in the post-economic reform period over that of pre-economic reform period. Unlike ‘A’ graded society, the ‘B’ graded society showed a decline in its debt-asset ratio during the latter period as against the former period.

Another important ratio estimated in this study was the capitalization ratio.[5] The capitalization ratio of ‘A’ graded society estimated at 26.29 per cent during pre-economic reform period and 32.70 per cent during post-economic reform period indicated that there was 73.71 per cent and 67.30 per cent decline in the permanent capital of this society before long and medium term lender’s capital were impaired during these periods. Thus, permanent capital position of ‘A’ graded society had improved marginally during the post-economic reform period. Nonetheless, the dependency on lender’s capital was lower in the case of ‘B’ graded society as compared to ‘A’ graded society during both the periods.

A significant improvement in fixed ratio of both the societies was also noticed during the latter period as against the former period. Since this ratio measures the financial safety of the business, an improvement in the same could be considered as a good sign for the financial health of the societies. Nonetheless, it is worthwhile to mention that the net capital ratio, equity ratio, equity to asset value ratio and marginal efficiency of capital (MEC) of ‘A’ graded society had fallen during the latter period as against the former period. Even MEC of ‘B’ graded society had fallen sharply during the latter period. Nonetheless, a relatively higher increase in working capital as compared to increase in share capital in post-economic reform period over that of pre-economic reform period had led to positive high value of equalization multiplier for both the selected societies.

Inferences and Conclusions:

The overall analysis drawn from this study has raised several doubts about the efficient functioning of the selected societies. Not only the selected societies showed a decline in their current ratio, rate of return on assets, return on owner’s equity and MEC but also higher dependency on lender’s capital for their finances. This dependency was seen to be higher in the case of ‘A’ graded society. Nonetheless, ‘A’ graded society showed an improvement in its permanent capital during the latter period as against the former period. On the other hand, permanent capital position of ‘B’ graded society had declined during the latter period as against the former period. Further, in the case of ‘A’ graded society there was not much improvement in the net worth and in fact share of net worth in its total liability had declined in the post economic reform period as compared to the period preceding it. The declining share of net worth had caused an increase in debt-asset ratio of this society during the latter period as against the former period.

In fact, among various ratios the most important ratio estimated in this study was the return on owner's equity. The estimated return on owner's equity of both the selected societies were seen to fall sharply during the post-economic reform period as against the pre-economic reform period. Since the return on owner's equity is a function of as to how efficiently a firm manages its assets, the net profit margin on sales and the degree of financial leverage, a reduction in return on equity of the selected societies could, therefore, be considered as a sign of reduction in efficiency of the societies in managing their assets and liabilities, and also income and expenditure pattern. In relative terms, this reduction in efficiency was more pronounced in the case of 'B' graded society as against the 'A' graded society. Thus, both the selected societies showed inefficient functioning during the post-economic reform period as compared to pre-economic reform period. However, a programme initiative towards a favourable asset-mix may help the selected societies to improve their operational efficiency in the years to come. Some of the past studies have also shown unsatisfactory performance of credit cooperatives at the grass root level (Ambastha, 1984; Shah, 1988; Sasi, 1987; Nimmi, 1986; Shah, 1995). In fact, while examining the impact of economic reforms on cooperative credit sector, Subrahmanyam (1999) had also stressed upon not only the positive and negative effects of the policy reforms but also suggested some new steps that need to be initiated to truly restructure the cooperative credit sector in the country.

End Notes:

1. In broader terms the major reforms / steps initiated during the period from 1991 / 92 to 1997 / 98 in Cooperative Credit Sector are seen to be revolving around : (a) relaxation in branch expansion policy, (b) liberalization and relaxation in Credit Authorization Scheme, (c) permission to SCBs to introduce STOCKINVEST and Currency Chest Branches, (d) 'some additional' scheme to SCBs in National Level Consortium arrangement for financing, (e) a policy decision to permit SCBs on case by case to subscribe the Public Sector Bonds, (f) assistance to SCBs from cooperative Development Fund by NABARD to ensure proper Management Information System / to conduct research studies, (g) deregulated interest rates on advances and deposits by SCBs / DCBs, (h) preparation of Development Action Plans and entering into MOUs at the instance of NABARD, (i) applicability of Prudential norms to SCBs / DCCBs , and (j) relaxation in extending finance to individuals with a view to provide avenues for deployment of the resources. [For the details regarding likely impact financial sector reforms on agricultural credit delivery system, please also refer Gadgil (1994)]

2. The selection of talukas was based on various parameters such as number of PACS, membership, share capital, working capital, owned funds and number of borrowers per society in each taluka of the selected district. Based on these variables, standard score for each variable was calculated. And, after adding up all the scores, the total score was calculated for each taluka. This procedure helped to develop a scale for ranking all the talukas of the district. Three talukas, that scored high on this scale, were finally selected for this study.

3. As against the pre-economic reform, the post economic reform saw a decline in ST loan advances per borrowing member not only for the loans upto Rs 500 but also for the loans ranging from Rs 501 to Rs 1,000, Rs 1,001 to Rs 3,000 and Rs 3,001 to Rs 5,000. This held especially true for the society falling under audit class 'A'. On the other hand, the amount of ST loan per borrowing member for the loans ranging from Rs 5,001 to Rs 10,000 and also for the loans above Rs 10,000 had increased sharply during the post-economic reform period as against the pre-economic reform period.

4. As against 47 per cent rise in ST loan advances of 'A' graded society, the MT loan advances of this society has fallen by 25 per cent during the post-economic reform period over that of pre-economic reform period. Further, as against 76 per cent rise in recovery of ST loan, the recovery of MT loan of 'A' graded society has fallen by 26 per cent during the post-economic reform period over that of pre-economic reform period.

5. Capitalization ratio indicates the proportion of permanent capital that is financed by debt. The sum of term debt and owner's equity represent the permanent capital.

References:

Ambastha, C.K. (1984), 'Factors Underlying Growing Overdues', *The Tamil Nadu Journal of Cooperation*, October, pp. 153-162.

Clemens, J.H. and L.S. Dyer (1977), 'Balance Sheets and the Lending Banker', *Europa Publications Limited*, London, U.K.

Gadgil, M.V. (1994), ' Formal Agricultural Credit System in India : Shape of Things to Come', *Indian Journal of Agricultural Economics*, Vol. 49, No. 3, July-Sept., pp. 476-490.

Nimmi, K.G. (1986), 'An Analysis of the Extent of Diversification of Lending and Viability of PACS', *B.Sc.(C&B) Dissertation, Kerala Agricultural University*, Kerala.

Sasi, P.B.(1987), 'Performance Evaluation of Pananchery SCB', *B.Sc. (C & B) Dissertation*, Kerala Agricultural University, Kerala.

Shah, U.M. (1988), 'Organisation and Functioning of PACS', *Tamil Nadu Journal of Cooperatives*, December, pp. 366-373.

Shah, Tushaar (1995), 'Making Farmers' Co-operatives Work' , *Sage Publications*, New Delhi, pp. 54.

Shah, Deepak (2001), 'How far Credit Cooperatives are Viable in the New Economic Environment: An Evidence from Maharashtra', *Prajnan*, Vol. 30, No. 2, pp. 149-174.

Subrahmanyam, B (1999), 'Cooperative Credit Structure: A Perspective for 2000 A.D.', in 'Positioning Cooperatives in 21st Century', *Proceedings of the National Symposium*, K. Elumalai and K. Chellappan (eds.), Vaikunth Mehta National Institute of Cooperative Management, Pune, pp. 89-101.

Viscione, Jerry A. (1977), 'Financial Analysis: Principles and Procedures', *Houghton Mifflin Company*, Boston, U.S.A.

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Table 1: Comparative Position in Performance Indicators of 'A' and 'B' Graded Societies During Pre- and Post-economic Reform Periods

(Amounts in Rupees.)

Indicators	Society 'A'			Society 'B'		
	P-I	P-II	%change	P-I	P-II	%change
1. Share Capital/Member	1321	2501	89.33	524	748	42.75
2. Working Capital /Member	4931	9612	94.93	2555	3315	29.75
3. Deposits/ Member	651	3635	458.37	130	72	-44.62
4. Cost of Management/ Member	177	473	167.23	90	154	71.11
5. Profit / Member	90	112	24.44	39	10	-14.36
6. Loss / Member	-	-		6	45	650.00
7. S.T. Advance / Borrowing Member						
Upto Rs. 500	412	288	-30.10	360	298	-17.22
Rs. 501-1000	885	758	-14.35	732	670	-8.47
Rs. 1001 – 3000	2636	2256	-14.42	1912	2076	8.58
Rs. 3001 – 5000	4538	4308	-5.07	3540	4275	20.76
Rs. 5001 – 10000	7884	8141	3.26	7191	8157	13.43
Rs. 10000 and above	20473	33418	63.23	21948	16128	-26.52
Total (Average)	5496	8081	47.03	3393	4229	24.64
8. Crop Loan Finance/ Member	5376	7541	40.27	3393	4229	24.64
9. M.T. Advance / Borrowing Member	13036	9765	-25.09	8201	9378	14.35
10. Loan Recovery / Borrowing Member						
Short Term	4374	7708	76.22	3154	4158	31.83
Medium Term	4469	3317	-25.78	1378	2817	104.43
Total	8843	11025	24.67	4532	6975	53.91
11. Per-Borrowing Member Loan Recovery to Advance (%)						
Short Term	79.59	95.38	-	92.96	98.32	-
Medium Term	34.28	33.97	-	16.80	30.04	-
Total	73.70	76.44	-	60.98	67.76	-
12. Fertilizer and other input sold per Member (Rs.)	1783	3540	98.54	1320	1038	-21.36
13. Share in Total Advance (%)						
Short Term	29.66	45.28	-	29.27	31.08	-
Medium Term	70.34	54.72	-	70.73	68.92	-
14. Share of SC/ST in ST Advance (%)	3.08	3.81	-	3.74	3.45	-

Note : P-I = Pre-Economic Reform Period (1985-1991) ;P-II = Post-Economic Reform Period (1992-1998)

Table 2 : Annual Average Asset and Liability Position of 'A' and 'B' Grade Societies During Pre – and Post-economic reform periods

(Amount in lakh rupees)

Assets / Liabilities	Period – I		Period – II		% Change
	Annual Average	CGR (%)	Annual Average	CGR (%)	P-II Over P-I
SOCIETY 'A'					
Assets					
a) Current Assets	13.65	10.49***	21.27	8.75***	55.82
b) Fixed Assets	1.85	118.76**	18.96	46.15***	924.87
c) Miscellaneous Assets	0.47	290.73**	5.34	72.56***	1036.17
Total Assets	15.97	15.33***	45.57	24.57***	185.35
Liabilities					
a) Current Liabilities	8.44	4.22	23.55	28.08***	179.03
b) Term Liabilities	1.98	26.67	7.20	40.96***	263.64
c) Net Worth	5.55	29.56***	14.82	15.09***	167.03
Total Liabilities	15.97	15.33***	45.57	24.57***	185.35
SOCIETY 'B'					
Assets					
a) Current Assets	8.12	20.50***	12.54	19.61	54.43
b) Fixed Assets	5.58	51.93**	11.75	22.01***	110.57
c) Miscellaneous Assets	0.97	3.73*	1.00	-2.04	3.09
Total Assets	14.67	26.84***	25.29	10.33**	72.39
Liabilities					
a) Current Liabilities	5.13	16.84***	7.99	7.78	55.75
b) Term Liabilities	4.21	60.82***	6.71	18.21	59.38
c) Net Worth	5.33	23.20***	10.59	7.44***	98.69
Total Liabilities	14.67	26.84***	25.29	10.33**	72.39

Note : 1) P-I: Pre-Economic Reform (1985-1991) ; P-II : Post- Economic Reform (1992-1998)
CGR : Compound Growth Rate
2)***and** represent significance of growth rates at 1and 5 per cent level of probability.

Table 3: Financial Ratio of Selected Societies During Pre- and Post-Economic Reform Periods

Sr. No.	Financial Ratios	Period – I	Period – II
	Society 'A'		
1.	Current Ratio	1.62	0.90
2.	Rate of Return on Assets (%)	1.83	1.05
3.	Return on Owner's Equity (%)	5.23	3.24
4.	Debt-Asset Ratio (%)	65.25	67.48
5.	Capitalization Ratio (%)	26.29	32.70
6.	Fixed Ratio	0.93	2.63
7.	Net Capital Ratio	1.53	1.48
8.	Equity Ratio	0.53	0.48
9.	Equity to Asset Value Ratio	0.35	0.33
10.	Equalization Multiplier	-	3.92
11.	Marginal Efficiency of Capital (%)	1.83	1.17
	Society 'B'		
1.	Current Ratio	1.58	1.57
2.	Rate of Return on Assets (%)	1.60	0.33
3.	Return on Owner's Equity (%)	4.53	0.76
4.	Debt-Asset Ratio (%)	63.67	58.13
5.	Capitalization Ratio (%)	44.13	38.79
6.	Fixed Ratio	1.33	1.75
7.	Net Capital Ratio	1.57	1.72
8.	Equity Ratio	0.57	0.72
9.	Equity to Asset Value Ratio	0.36	0.42
10.	Equalization Multiplier	-	3.93
11.	Marginal Efficiency of Capital (%)	1.51	0.32

Appendix 1 : Various Financial Rations and their Computations

Sr.	Ratio	Explanation
1.	Current Ratio	The current ratio is calculated by diving total current assets by total current liabilities. The ratio is designed to assist the decision maker in determining a firm's ability to pay its current liabilities.
2.	Rate of Return on Assets	$\text{Rate of Return on Assets} = \dfrac{\text{Net Profit after Taxes}}{\text{Total Assets}} \times 100$
3.	Return on Owner's equity	$\text{Return on Owner's equity} = \dfrac{\text{Net Income after Taxes}}{\text{Owner's equity}} \times 100$ $= \dfrac{\text{Net Income after Taxes}}{\text{Total liabilities} - \text{Current liabilities} - \text{Term liabilities}} \times 100$ $= \dfrac{\text{Net Income after Taxes}}{\text{Net worth}} \times 100$ Where, Owner's equity = Preferred stock + Common stock + Paid in capital + Retained Earnings
4.	Debt – Asset Ratio	Total debt to total assets is a frequently used leverage ratio used to indicate the proportion of assets that are financed by debt. [Total debt = Current Liabilities + Term Liabilities]
5.	Capitalization Ratio	$\text{Capitalization Ratio} = \dfrac{\text{Term Debt}}{\text{Term Debt} + \text{Net Worth}}$
6.	Fixed Ratio	This ratio measures the financial safety of the business over a longer period of time. $\text{Fixed Ratio} = \dfrac{\text{Fixed Assets}}{\text{Fixed or Term Liabilities}}$
7.	Net Capital Ratio	This ratio measures the degree of financial safety over a period of time. It indicates the long liquidity position of the farm business. $\text{Net capital Ratio} = \dfrac{\text{Total Assets}}{\text{Total Debt (Current Liability + Term Liability)}}$
8.	Equity Ratio	The equity ratio, is a concept similar to the net capital ratio. This represents the creditor's contribution of capital to that of the farm. $\text{Equity Ratio} = \dfrac{\text{Net Worth}}{\text{Total Debt (Current Liability + Term Liability)}}$
9.	Equity to Asset Value Ratio	This ratio measures the overall financial position of the farm business. $\text{Equity to Asset Value Ratio} = \dfrac{\text{Net Worth}}{\text{Total Assets}}$
10.	Equalization Multiplier	Equalization multiplier shows the relation between change in the working capital and the change in share capital. It is estimated as follows: $\text{Equalization Multiplier} = \dfrac{\text{Change in working Capital}}{\text{Change in Share Capital}}$
11.	Marginal Efficiency of Capital	Marginal Efficiency of Capital (M.E.C) is a relationship between profit and working capital. It is measured as below: $\text{M.E.C.} = \dfrac{\text{Profit}}{\text{Working Capital}} \times 100$

Note: For detailed interpretations of various ratios, please refer Jerry A. Viscione (1977) and Clemens and Dyer (1977).

Appendix 2: Numerical Strength of Members/Borrowing Members of the Selected Societies During Pre – and Post-economic Reform Periods

Indicators	Period – I	Period – II	% change
Society 'A'			
1. Membership Pattern – Marginal (upto 1ha)	105	136	29.52
- Small (1-2 ha)	69	100	44.93
- Medium (2-4 ha)	35	41	17.14
- Large (above 4 ha)	13	12	-7.69
- Landless	102	137	34.31
Total	324	426	31.48
- of which SC/ST	21	28	33.33
2. No. of Borrowers – Marginal	98	128	30.61
- Small	59	93	57.63
- Medium	29	32	10.34
- Large	8	7	-12.50
- Landless	28	46	64.29
Total	222	306	37.84
Society 'B'			
1. Membership Pattern – Marginal (upto 1ha)	166	185	11.45
- Small (1-2 ha)	69	136	97.10
- Medium (2-4 ha)	54	51	-5.56
- Large (above 4 ha)	12.00	0.57	-95.25
- Landless	307	428	39.41
Total	608	801	31.74
- of which SC/ST	211	251	18.96
2. No. of Borrowers – Marginal	72	52	-27.78
- Small	56	76	35.71
- Medium	50	50	0.00
- Large	8	2	-75.00
- Landless	11	9	-18.18
Total	197	189	-4.06