



Tools used to measure the socio-economic performance of Cooperative Societies

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ABSTRACT *Mutual understanding among the members is the capital for any cooperative society. Co-operators rely in the values of honesty, openness and social responsibility. The primary motive behind promoting a cooperative society is to render the services to its members as well as to the public in general. Cooperative societies have immense importance in national economy of any country. They play a very pivotal role in fund generation and manpower development. Development in cooperative sector directly affects overall socio-economic development of any country. Proper financial planning and management are the primary necessity for successful operation of any cooperative. This study tries to find out those financial tools which are very useful to measure the socio-economic performance of the cooperative societies.*

Introduction:

"I shall help you and identify myself with you on one condition. You promise to work on the strength of your idealism and the efforts of the co-operators. Let co-operatives remain members' organisations. They shall not identify with and depend on the government, for cooperatives are basically self-reliant associations where people come together voluntarily to help each other." - Mahatma Gandhi

"The Encyclopaedia Metropolitana," 1845, says the French have the word co-operer, the Spaniards co-operar, the Italians co-operare and the Latin co-operare. The term "Cooperation" has derived from "co" and "operar" which simply means to work or to labour together to make an effort for some common purpose.

Broadly speaking, co-operation means the mutual understanding of the co-operators by sharing reasonable amount of profits. A co-operative society incurs risks and shares benefits and losses proportionately by all its members. Cooperatives are based on the values of self-help, democracy, equality, equity and solidarity. Co-operators believe in the values of honesty, openness and social responsibility.

Importance of the Study:

The present study is most significant because it throws light on many important aspects related to applications of socio-economic analysis of cooperative societies. This study covers the uses of different tools to measure the socio-economic performance of the cooperative societies. This will be very helpful for improving the overall performance of the cooperative societies. The topic is chosen with a view to study the financial efficiency and to measure the social responsibilities of the cooperative societies.

Objectives:

The main objectives of study are to evaluate the different tools and techniques used to measure the financial performance and social responsibilities and factors affecting performance of cooperative societies.

The following are the objectives of the study:

1. To study the social impact of cooperatives.
2. To assess the economic/financial performance of the cooperatives.

Background of Socio-Economic Analysis:

Each and every cooperative society prepares some financial statements every year. The financial statements are the final result of the financial reporting. It provides the financial result of the cooperatives which may be used for decision making

and policy formulation.

Judgment of financial statement totally depends on the present financial position in background of past earning.

The financial statements of the cooperatives depict the financial performance of the societies as well as how far the societies met their social responsibilities. There are various tools and techniques found using which a society can measure its socio-economic performance. This paper has analyzed some of the most important tools to measure socio-economic status of the cooperative societies.

Analysis and Interpretations of tools used for measuring socio-economic performance:

With the primary and secondary data as collected by the society, the socio-economic performance of the cooperatives can be analyzed by using the following analytical techniques:

- 1) Tabular Analysis
- 2) Growth Rate Analysis
- 3) Ratio Analysis
- 4) Capital Adequacy Analysis
- 5) SWOT (P) Analysis.

1. Tabular Analysis:

Tabular analysis means any analysis that uses tables. Generally in tabular analysis, any form of quantitative analysis is done.

The Tabular Analysis method is used to signify the data relating to the performance indicators of the societies in the most simple and easily understandable way. Simple averages and percentages are done for comparison. In addition to tabular analysis, diagrams and charts are used to indicate the general intuition of the data and to get a comparative analytical view at a glance.

Tabular analysis may be of different types. Out of all, two methods are widely used.

a) Subgroup Analysis:

This type of tabular analysis is also known as "elaboration paradigm". It is a simple method of data analysis. This analysis is the foundation of research reports dealing with categorical data.

b) Log-Linear Analysis:

In this method we can handle with more complex data i.e. we can work with many variables and this analysis is more agreeable to statistical modelling and testing. It is a flexible method. Now, this method is taken as the standard method

for analyzing multivariate categorical data.

2. Growth Rate Analysis:

It may be employed to examine the changes over a period in the selected performance indicators related to the cooperative societies. The use of growth rates is one of the easiest methods of examining future growth. However, high growth rates don't always mean a high rate of growth in the future, because economic conditions may change constantly. Growth rates of a cooperative can be examined using regression analysis technique. Regression analysis is a mathematical measure expressing an average relationship between two or more variables within an organization. Regression analysis is of two types as discussed below:

Simple Regression Analysis:

The regression analysis confined to the study of only two variables at a time is called simple regression. The growth rates of different indicators are computed by employing the following regression function:

$$y = a + bx$$

where y = Dependent variable
 a and b = Constants
 x = Independent variable

Multiple Regression Analysis: The regression analysis for studying more than two variables is called multiple regression. This method is used to analyse the effect of two or more independent variables on a dependent variable. The general Multiple Regression Model (Linear Form) can be expressed as under:

$$y(x_1, x_2, \dots, x_k) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k + \varepsilon$$

Where y is the dependent variable; x_1, x_2, \dots, x_k are the independent variables; β_0 is the "true" intercept term; $\beta_1, \beta_2, \dots, \beta_k$ are the "true slopes"; ε is the error term. As before, we assume error terms are independent and have constant variance.

3. Ratio Analysis:

The ratios are categorised under the four broad categories i.e. Liquidity, Profitability, Solvency and Operational efficiency. The financial analysis of the ratios and the general observations are as follows:

A) Liquidity Ratios:

Liquidity refers to the ability to pay in cash the obligations that are due. If the sufficient liquidity is not maintained by the cooperatives, then it is considered technically insolvent. A higher financial liquidity would generally mean a lower risk of technical insolvency showing capability of cooperatives to pay the current debts as and when they become due. To measure the liquidity performance of the cooperatives, the following ratios may be calculated.

I) Current Ratio:

This ratio is the sign of the cooperatives obligation to meet its short-term liabilities. It is a key of the cooperatives financial stability since it depicts the extent to which the Current Asset exceeds Current Liabilities. Thus,

$$\text{Current Ratio} = \text{Current Asset} / \text{Current Liabilities}$$

II) Net Working Capital:

Net working capital (NWC) indicates the excess of current assets over current liabilities. Thus,

$$\text{NWC} = \text{Current Assets} - \text{Current Liabilities}$$

B) Solvency Ratios:

These ratios examine the long term solvency of the cooperatives. The following ratios serve the purpose of determining the solvency of the business firm.

I) Debt- Equity Ratio:

The Debt Equity ratio is determined to find out the soundness of the long term financial policies of the cooperatives. The ratio signifies the level to which the cooperatives depend upon outsiders for its survival. Thus,

$$\text{Debt- Equity (D/E) Ratio} = \text{Total Debt/Shareholder' Equity}$$

C) Coverage Ratios:

The ability to service the obligations of the long-term creditors is indicated by coverage ratios. The important coverage ratios are:

I) Interest Coverage Ratio:

This ratio indicates the debt serving capacity of the cooperatives as fixed interest on long-term loan in concerned. Thus,

$$\text{Interest Coverage} = \text{EBIT} / \text{Interest}$$

II) Dividend Coverage Ratio:

This ratio measures the capacity of the cooperatives to pay dividend on shares to its members. Thus,

$$\text{Dividend Coverage} = \text{Net Profit} / \text{Dividend}$$

D) Profitability Ratios:

These ratios are the most important and reliable indicators to measure the financial performance of the cooperatives. These ratios check the current operating performance and efficiency of the cooperatives. The important profitability ratios are:

I) Net Profit as percentage of Total Income:

This ratio signifies the income generating capacity of the cooperatives. Thus,

$$\text{Net Profit to Total Income (\%)} = (\text{Net Profit} / \text{Total Income}) \times 100$$

II) Net Profit as percentage of Total Expenses:

With this ratio we will be able to analyze what is the percentage of profits out of total expenses Thus,

$$\text{Net Profit to Total Expenses (\%)} = (\text{Net Profit} / \text{Total Expenses}) \times 100$$

III) Net profit as percentage of Working Capital:

This profitability ratio serves as a key to the degree of asset deployment of cooperatives. Thus,

$$\text{Net profit to Working Capital (\%)} = (\text{Net Profit} / \text{Working Capital}) \times 100$$

V) Earning per Share (EPS) Ratio:

It shows the profitability of the cooperatives on per share basis. Thus,

$$\text{EPS} = \text{Net Profit available to shareholders} / \text{Number of shares outstanding}$$

VI) Dividend per Share (DPS):

The amount of profits distributed to share holders per share is known as Dividend per Share (DPS). Thus,

$$\text{DPS} = \text{Dividend paid to the shareholders' / Number of shares outstanding}$$

VII) Dividend Payout Ratio (D/P):

It is the ratio between the DPS and the EPS of the cooperatives. Thus,

$$\text{D/P} = (\text{DPS} / \text{EPS}) \times 100$$

VIII) Return on Ordinary Shareholders' Equity (Net Worth) Ratio:

The profitability of a cooperative from the shareholders' point of view should be measured in terms of the return to the ordinary shareholders'. Thus,

Return on Equity Fund = Net Profit / Ordinary Shareholders' Equity

IX) Return on Capital Employed (ROCE):

This ratio refers the capability of the cooperatives to earn profit on the capital employed. Thus,

Return on Capital Employed = Net Profit / Capital Employed

X) Price Earnings (P/E) Ratio:

This ratio is widely used to assess the cooperatives performance as expected by the investors of the cooperatives. Thus,

P/E Ratio = Market price of share / EPS.

E) Operating Efficiency Ratios:

Under this category Interest Earned to Total Income, Interest Paid to total Income, Total Expenses to Total Income, Total Income to Working Capital and Total Expenses to Working Capital may be considered.

I) Total Income to Working Capital Ratio:

It indicates the velocity or utilization of the working capital of the cooperatives during a year. This ratio signifies whether or not Working Capital has been effectively utilized in making income. Thus,

Working Capital Turnover Ratio = Total Income / Net Working Capital

II) Interest Earned to Total Income Ratio:

Interest earnings relate to funds based on income and represents the income from cooperative business. It shows how far working funds are effectively utilized for profit making. Thus,

Interest Earned to Total Income Ratio = Interest Earned / Total Income

III) Interest Paid to total Income Ratio:

Interest expenditure relates to funds based on expenditure and represents the cost of funds to the cooperatives. The major items of interest expenditure consist of interest paid on deposits and interest paid on borrowing. It is an indicator of the rate at which a cooperative incurs expenditure by borrowing funds. Thus,

Interest Paid to total Income Ratio = Interest Paid / Total Income

IV) Total Expenses to Working Capital Ratio:

Expenses of cooperatives indicates expenses on manpower and other expenses. It shows the operational efficiency of the cooperatives. Thus,

Total Expenses to Working Capital Ratio = Total Expenses / Working Capital

V) Spread to Working Capital:

Spread is the difference between interest earned and interest paid by the cooperatives. Spread performs a very important role in determining the operating efficiency of cooperatives. It is also one of the most important indicators to determine the profitability of the cooperatives.

VI) Burden as Percentage of Working Capital:

The non-interest expenditure not covered by non-interest income is known as burden. This is used to meet the expenses for manpower and other expenses of cooperatives.

F) Productivity Ratios:

These ratios are used to measure the efficiency in asset management, operating efficiency and ability to ensure adequate return to its shareholders. The following ratios were employed to assess the productivity of the cooperative societies.

I) Credit-Deposit Ratio (%):

This ratio of credit advanced to deposits mobilised is defined as a credit-deposit ratio. This ratio examined the extent of utilisation of resources by the COOPERATIVES. Thus,

Credit-Deposit Ratio = (Advances outstanding / Deposits outstanding) x 100.

II) Non-Performing Assets to Total Advances Ratio (%):

The portions of the bad and doubtful assets (advances) as disclosed by the cooperatives are taken as non-performing assets. Total advances included long term, medium and short term advances. Thus,

Non-Performing Assets to Total Advances Ratio = (Non-Performing Assets / Total Advances) x 100.

III) Yield on Advances Ratio (%):

This ratio is calculated to measure the yield on advances granted by the cooperatives. Thus,

Yield on Advances Ratio = (Total Interest received on Advances / Total Advances) x 100.

IV) Average Business per Employee:

Average total business included both average deposits and average advances. Average deposits and average advances are worked out considering previous year and current year figures of deposits and advances respectively. Total number of employees included total number of staff engaged in cooperatives as well as all subordinate staff. Thus,

Average Business per Employee Ratio = (Average Total Business / No. of Employees) x 100.

4. SWOT Analysis:

The term "SWOT" stands for strengths, weaknesses, opportunities and threats. This analysis is used to develop a strong business strategy by making sure that the societies have considered all of business's strengths, weaknesses, as well as the opportunities and threats they face in the market.

Strengths and weaknesses are internal to the societies. Such as reputation, registration, location, etc. The societies can change all these overtime. Opportunities and threats are external. Such as borrowers, suppliers, competitors, etc. The societies can not change all these as these are out of control and happening whether the societies like or not.

The SWOT analysis can be employed to examine the strengths as well as weaknesses of the cooperative societies in their operation and explore new opportunities which would help to fight against unforeseen problems or threats. The societies can also use a SWOT analysis to measure a changing environment and can take proper actions effectively. New cooperative societies should also use a SWOT analysis as a part of their planning process.

A SWOT analysis is accomplished using a four-square SWOT analysis template. However, societies can also make a lists for each category. Use the technique that makes simplest for the societies to systematize and comprehend the results.

Example of a SWOT Analysis:
SWOT Analysis of a Cooperative Society

Strengths	Weaknesses	Opportunities	Threats
<ul style="list-style-type: none"> · Better liquidity position · Satisfactory equity base · Higher capital adequacy ratio 	<ul style="list-style-type: none"> · Poor credit to deposit ratio · Slow growth 	<ul style="list-style-type: none"> · Can extend its market to the rural areas · Can extend its operation to other states 	<ul style="list-style-type: none"> · Poor profitability ratio · Poor return on assets · Upward trend NPA

5. Capital Adequacy Analysis:

The Reserve Bank of India introduced the internationally accepted Capital to Risk Assets Ratio (CRAR) as a tool of useful administration of banking system. The CRAR may also be applied to measure the soundness and stability of an cooperative. The capital adequacy ratio is the ratio of capital funds to risk weighted assets expressed as a percentage. As per the definition, the working capital of the bank (which may also applicable in case of cooperatives) should be eight percent of the risk weighted assets.

Thus,
Capital Adequacy Ratio = (Capital Funds / Risk Weighted Assets) x 100

For the purpose of calculation of CAR, the Capital Fund covers both Tier-I and Tier-II Capital. Tier-I Capital includes paid-up capital less equity investment and reserves & surplus less reserve for bad and doubtful debt and Tier-II Capital includes Bad and doubtful debt reserve restricted to 1.25 percent of Risk Weighted Assets. Risk Weighted Assets are comprised of 100 percent funded risk assets which includes investments excluding investments in Government securities, other trustee securities and in fixed deposits plus advances excluding guaranteed by government, advances to staff, against deposits, life policies etc. plus fixed assets plus all other assets and 50 percent of non-funded assets and off balance sheet items such as contingent liabilities like guarantees issued to third parties on behalf constituents, etc.

Conclusion:

The socio-economic growth and survival of any cooperative society fully depends upon its profits earning ability. The main motive of the societies is to provide a variety of services more efficiently to their members and the public as a whole.

The above analytical discussion may be helpful for each and every cooperative to analyze the financial performance. In addition, the tools also give the information to take decisions for planning and control of activities of the cooperatives. This paper enables the management to trace the nature and causes of changes in profits and profitability over the period of time and pinpointing the direction of action required for altering the prospects of the societies in future.

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