# FINANCIAL STATEMENT ANALYSIS OF CONSUMERS' CO-OPERATIVE SOCIETIES

MAY MAY PLA

M.Com. Thesis

December, 19

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# FINANCIAL STATEMENT ANALYSIS OF CONSUMERS' CO-OPERATIVE SOCIETIES

by

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TO MY PARENTS

ACCEPTANCE

Accepted by the Board of Examiners of the Department of Commerce, Institute of Economic, in partial fulfilment of the requirements of the degree, Master of Commerce.

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# INTRODUCTION

The co-operative sector in Burma forms an integral part of the socialist economic system and is considered the second pillar of the economy. The sector contributes towards the total net output of the nation and the three areas of contribution are the production, services and trade sectors. Under the 20 year economic plan, at the end of the planned period, i.e., 1993-94, the co-operative sector is targeted to fulfil (26.0%) of the total national output. The contribution of the co-operative sector is the highest in the trade sector, which accounts for about (48.0%). The main focus of the trade sector is on the primary co-operative societies, i.e., the Village Co-operative Societies and the Consumers' Co-operative Societies. At the present juncture, the societies amount to (70.3%) of total number of societies, in Burma. The performance appraisal of the co-operative societies is conducted through the use of financial ratio analysis.

In the present study, the (1,259) Consumers' and Village Co-operative Societies in Rangoon Division is studied and the focus of attention is on the financial ratios used for performance appraisal. The main objective of the study is to examine and evaluate the co-operative societies over a six-year study period on the basis of the financial ratios. At the same time a development of empirical norms for these ratios is undertaken. Concurrent to the study, the examination of the factors which affects the performance of the co-operative societies is also made.

In Chapter One, various aspects dealing with the appraisal of business firms, financial appraisal, analysis of financial statements, financial ratios used in co-operatives, interpretation of the measurements and limitations of ratio analysis is described and discussed. Chapter Two deals with the co-operative movement in Burma outlining its development, the importance of the co-operative sector in socialist economy, the organization of co-operative societies and the nature of Consumers' and Village Co-operative Societies. Chapter Three forms the main portion of the thesis. The empirical analysis carried out is described in two parts. In the first part, financial statement analysis using ratios conducted on the 1,259 co-operative societies is described and a taxonomic exercise leading to a classification of co-operative societies in terms of its performances is discussed. In the second part, detailed systems study of thirty co-operative societies is elucidated and the results of the identification of variables which discriminated societies in terms of its performances is described. Finally in Chapter Four, the main findings of the study, its constraints and weaknesses and the directions for further research is discussed as the conclusion of the study.

# CHAPTER I

## THEORETICAL CONSIDERATIONS

### 1.1. - Appraising a Business Firm

A business organization is an economic institution. Its chief aim is to provide goods or services which are needed or desired and are compatible with the nation's social attitudes. From the customers' point of view, there is no reason for the existence of the business except the service it renders. Under the competitive economy, the objective of a business is to maximize the profit in consistent with the long-term growth of the firm. There usually exist other objectives which have social implications. However, any such objectives are still dependent upon and successfully supported only by effectively meeting the objective which is to satisfy the customers' needs or desires.

Appraising a business from over-all vantage-point may be approached in many ways. However, the following aspects should be taken into consideration during the process of analysis:[1]

(1) The organization,

(2) The environment,

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[1] Management Consulting: A guide to the profession (5th impression; Geneva: International Labour Office, 1980), p.66.

(3) Input resources,

(4) Objectives, policies, plans,

(5) Finance,

(6) Marketing,

(7) Production,

(8) Research and development,

(9) Personnel,

(10) Performance (over-all),

(11) Management and organization.

An understanding of the nature, importance, interrelationship and effectiveness of each of these aspects will facilitate the analyst who appraises the business.

(1) The organization

Under this heading, one should examine the key information on the nature, purpose, role and major characteristics of the organization. The elements relating to the organization are activity, history, importance (goodwill, position in country, sector, region, etc.), ownership, influences (main owners, centres of control) and location. The analyst should be particularly interested in historical events which may have shaped the organization in a particular way and be the origin of various deeply-rooted traditions and behavioural patterns.

(2) The environment

The organization should be seen in the context of a

socio-economic environment with which it interacts. One may find that environmental factors are economy, natural resources, people, socio-culture, government, politics, legality etc. However, it may not be necessary to review all the aspects, in most cases only selected environmental considerations will apply.

(3) Input resources

The input resources available to the organization should be considered in a global way, without entering into questions concerning the organization management of resources that fall specifically under financial management, personnel management etc. The main purpose is to review the broad proportions between the principle resources groups and to examine how far these resources are adequate for the purpose, the main objects and the development opportunities of the organization. The resources to be examined are capital, people, plant and equipment, etc.

(4) Objectives, policies, plans

The study of the organization's objectives and policies is a key element and is a basis for performance appraisal. The analyst must examine whether the organization has formally defined objectives, what sorts of objectives are used and how they are determined. Not only should the firm's objectives be known, but also there should exist specific objectives for each operating division. The same applies

to policies, i.e., the main rules (written and non-written). The policies should support the objectives. Then, the system of planning for both long-term and short-term plans should be reviewed. Finally, the analyst needs to know how the objectives, policies and plans are inter-linked and harmonized.

(5) Finance

This is one of the key areas in appraising a business because the financial strength and results of business organizations reflect the potential and results of all the other areas and functions. The financial appraisal concentrates on the analysis of the organization's reports for the preceding years as a means of assessing strength and weakness, measuring past performance and establishing upward and downward trends. The findings of the financial appraisal are used to orient further investigations and remedial activities in other functions and areas of management. To realize the importance of the financial appraisal one must first examine carefully the extent of its scope and methods and this will be discussed in the latter sections.

(6) Marketing

The marketing function provides an essential link between the organization and the environment. It is necessary to get the picture of the market that is available and of the market strategy followed. It is also needed to examine the effectiveness of marketing strategy and its impact on production, research and development, purchasing and other functions. Various components of the marketing function such as the organization of sales, advertising, the location of stocks, warehousing, tran-

sport, etc., may be briefly reviewed if appropriate.

(7) Production (operations)

The analyst may find interest in the very large and diversified area of production. He has to concentrate his efforts on two issues.

(i) an examination of the organization of production and the lay out of production departments, the relationships between operating divisions,

(ii) an examination of key indicators of effectiveness of production activities such as capacity utilization, volume and distribution of work in progress, utilization of working time of production workers, quality of production, etc.

(8) Research and development

The first question on research and development should be that of its role in the organization. The interesting elements in research and development (R and D) area are, relations in the total cycle of research-development-manufacturing-marketing, R and D expenditure, and its utilization, the relationship of R and D management to general management of the firm, etc. Even in organizations which has little or no internal R and D, some relationship to external R and D may exist. For example, new technologies bought in the form of equipment.

(9) Personnel

The critical issue in the personnel area is the impact of personnel policy on the performance and development prospects of the

organization. The personnel policy refers to criteria applied to selection, recruitment, promotion and renumeration. It is important to get a true picture of how and by whom personnel decisions are made and how this affects the moral and motivation of people. Career planning and development, personnel performance appraisal and the role of staff training should be examined. It is also needed to assess both financial instruments, i.e., wage policy and profit sharing and other motivational factors, such as challenging work opportunities, employment security, social services, etc.

(10) Performance (over-all)

The examination of the organization's objectives, policies and plans, resources, main activities and results in particular functional areas helps the analyst to make some judgement on the over-all performance of the organization. In this manner one may assess whether this performance is fully satisfactory and point out necessary improvement. The indicators used for this purpose may include the rate of growth, productivity, profitability, stability of employment, etc. The rate of growth should be reviewed from the aspects of output, market share, sales, capital, employment, etc.

(11) Management and organization

One who appraises a business will have to extend and deepen his knowledge and understanding of the organization's management. This will help him in determining the relationship between the weakness discovered and the way in which

decisions on important matters are prepared, taken, implemented and controlled. It may be necessary to pay special attention to the competence and personality of those who are in key positions.

## 1.2. Financial appraisal

The objectives of business enterprise are derived from the nature of business itself. In general, most of the business enterprises are designed to produce goods and services with the ultimate objective of seeking profit. However, profit in themselves is not enough to sustain the firm for long periods. To maintain the continued success of the firm, it needs not only to maximize profit but also to have the capacity to meet all the maturing obligations. Therefore, liquidity can also be viewed as the objective of an enterprise. Liquidity is desirable for two major reasons, one of which is to pay all claims and the other is to fulfil cash requirements arising from uncertainties.

Sometimes, the objective of profitability and liquidity may be viewed as opposite propositions. In general, the more allocation of resources in liquid assets, the lower chance to use resources in profit generating activities. However, the proper allocation of resources among business activities which maximizes the profit - even investment in cash can be viewed as promoting profit. A certain minimum amount of

cash is necessary to maintain a sound credit position which tends to reduce future costs of capital. In a sense, liquidity objective is not competing with profitability objective, and they may be viewed as twin objectives. The finance function, then, ideally involves efforts to derive a financial scheme which will maximize profit whilst maintaining liquidity of a business.

It is already mentioned that assessing the financial strength and results of a business organization is important in appraising the business firm. One who examines the soundness of business organization should center his efforts to the area of finance. The financial condition and results of a business firm are of interest to management, shareholders, creditors, labour unions, governmental agencies and prospective owners and creditors. A basic methodology utilized to appraise a firm's financial condition is financial analysis. The analysis is based on financial statements and records. The results recorded in the books of account are summarized on financial statements for the purpose of interpreting financial conditions. With the proper application of analytical techniques, it becomes possible to derive valuable information from the statements.

## 1.3. Analysis of Financial Statements

Financial statements and records are the main sources

of information for financial analysis. Two main statements which will be based in financial analysis are a balance sheet and an income statement.

The balance sheet is a snapshot of assets and liabilities of the firm on one particular day of the year, expressed in financial terms. It shows the sources of capital in terms of share capital, loan capital and retained earnings. It also shows how the resources are currently deployed in the form of land, building, machinery, plants, stocks and cash. It shows how much is owed to the company by debtors and what the company owes to creditors and the bank.[1]

The income statement tells the story of the year's activities in terms of sales, costs and profit. It shows the sales revenue, the change in stock levels, the manufacturing cost of goods sold, the expenses of administration, selling and distribution and research and development, the operating profit, the interest expense, profit before tax, taxes and net profit after tax.[2]

The usefulness of these statements depends upon their reliability and completeness and the ability of the user to understand and appreciate the significance of what is presented. It is also important to know the significance of each individual item and of each group of items on the reports.

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[1] Ibid., p.77.

[2] Ibid., p.77.

To make possible a correct interpretation and use of financial statements, it is necessary:

(1) That the statements be prepared in the proper forms with proper classifications of the items that they contain.

(2) The items appearing on the statements be correctly stated both as to the amount and as to the title.

(3) That proper comparisons be made to show the present financial condition and the change that has taken place during the fiscal year.[1]

In order to obtain the information desired, one has to analyse the financial reports carefully. Anyone with some knowledge and experience in financial matters may be able to review financial statements and arrive at some logical conclusion about the business. However, most of the items appearing in the statements often mean little or nothing in themselves. Very often, the use of absolute figures is misleading. Therefore, analysis of financial statements is only possible when the figures are expressed as percentages or ratios.

In addition to a review of the absolute data, financial statements can be studied in a number of different ways, such as vertical analysis, horizontal analysis, ratio analysis, etc. The analysis can be based on a single set of financial statements as

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[1] James O. McKinsey and Howard S. Noble, Accounting Principles. (Cincinnati: South - Western Publishing Company, 1944), p.805.

well as on comparative reports.

The measurement of individual items in terms of other items of the same date or period is called vertical analysis. This method is used in checking the distribution of expenses in the income and expense statement or assets and liabilities in the balance sheet. And by the use of percentage components, the financial statements of different companies in the same industry can be compared.

The measurement of changes in financial data from one period to another is called horizontal analysis. Trends can be expressed by preparation of percentage statements. The techniques is to select a base period and to give a weighting of 100. Each similar item in other periods is related to the comparable value of the base period. In practice it may not be necessary to apply such a technique to all the items in the statement, but only to those values which should bear some relationship to each other. Moreover, if the relationships developed from data of the current period are to have more interpretative value they should be compared with similar previous periods. The essense here is that the over-all picture presented by current year's figures and the picture that emerges from studying trends over a period of years are both necessary in financial analysis.

Ratio analysis is one of the major analytical methods used in judging the condition portrayed by the financial statements. It centers on efforts to derive quantitative measures concerning financial condition and results of the business. It involves the

computation of a specific ratio of one figure to another from financial data to make the statements more meaningful. The special advantage of working out ratios is that financial position and performance can be properly judged.

However, a ratio of itself is not necessarily helpful. To serve the need of analyst, it must be based upon a logical and meaningful operational relationship. One ratio might suggest the need for others. In this manner a logical pattern can be constructed. At this point the analyst must clearly understand what the given ratio is intended to measure if any value is to be gained. All the ratios and measurements are not to be used, but rather as a selection of those ratios which are relevant to the type of investigation that is being made. Each analyst is likely to develop his own favourite set of financial indicators. One can not hope to present a selective set of financial indicators which are crucial or useful in any situations.

Moreover, one has to realize that ratio analysis is the basic methodology utilized by investors to appraise a firm's financial condition. This approach, because it is used primarily by outsiders, is referred to as the external approach to financial analysis. From the point of view of both present and potential investors, financial analysis is to derive some notion of a firm's ability to meet its obligations. Nevertheless, financial analysis is employed for this purpose and because businessmen, creditors and owners often require the existence of some sort of minimum

financial status before extending credit at all (much less on the most favourable of terms), efficient financial management must concern itself with this problem. Therefore, ratio analysis will be used to some extent by financial management itself before it either seeks or extends credit. But for the purpose of internal control, ratio analysis is usually woefully inadequate.[1]

Although ratio analysis is undoubtedly useful, frequently more importance is attached to this tool rather than is warranted. Because of the preciseness a calculated ratio appears to have a higher degree of reliability or significance may easily be attached to it than is desirable. Financial analysis involves a variety of alternative approaches, and ratio analysis should be viewed as only one of several means of gaining understanding from financial data.[2]

In the following sections, a few financial ratios which are used in co-operative societies in Burma will be discussed. These ratios should not be considered all inclusive, other special ratios and measurements may be suggested to various groups or analysts, depending upon their particular interests.

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[1] Stephen H. Archer and Charles A. D'ambrosio, Business Finance: Theory and Management (New York: The Macmillan Company, 1967), pp. 483-484.

[2] W. T. Anderson, C. A. Moyer and A. R. Wyatt, Accounting: Basic Financial, Cost and Control Concepts (New York: John Wiley & Sons, Inc., 1965), p.518.

## 1.4. Ratios used in Financial Analysis of Co-operative Societies in Burma

There are 15 financial ratios used in co-operative societies in Burma. They are classified into three groups as follows:

(a) Ratios to examine the structure of capital and assets:

(1) Vulnerability of stocks

(2) Inventory turnover

(3) Utilization of working capital

(4) Added value per kyat of operating assets

(5) Utilization of fixed assets

(b) Ratios to examine liquidity:

(6) Current ratio

(7) Acid-test ratio

(8) Cash ratio

(c) Ratios to examine profitability:

(9) Return on total investment

(10) Return on stockholders' equity

(11) Gross profit ratio

(12) Operating expense ratio

(13) Net profit ratio

(14) Operating ratio

(15) Return on operating assets

(a) Ratios to examine the structure of capital and assets

(1) Vulnerability of stocks

$$\frac{\text{Stocks}}{\text{Working capital}}$$

Only a few authors have described comments on this ratio in their books.

According to Solomon J. Flink and Donald Grunewald, this ratio is referred to as inventory ratio. They declare, "The inventory ratio measures the extent to which the net working capital is financing a current asset item (inventory) which shows generally the least liquidity. Thus, an inventory ratio of less than 1 indicates that the working capital of the firm is greater than the inventory. In this situation, the remainder of the current assets (cash and receivables), including the excess of net working capital over inventory, are available to meet the current liabilities."[1]

They also state that if the inventory ratio is greater than 1, it follows that (1) a portion of the net working capital is tied up in inventory, and (2) that the excess of inventory over net working capital has been financed by outside sources.[2]

In the ILO book, "Management Consulting", it is stated

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[1] Managerial Finance (New York: John Wiley & Sons, Inc., 1969,) p.83.

[2] Ibid.,

that if stocks form a large part of working capital, price falls may necessitate considerable write-offs from profits; thus the business is more vulnerable to trade fluctuations and a large investment in stocks can also result in cash shortages.[1]

(2) Inventory turnover

$$\frac{\text{Cost of sales}}{\text{Average inventory}}$$

Many authors have mentioned their comments on this ratio. A few are interesting and are presented below.

R. M. S. Wilson points out that this measures the speed with which stock is turned over, hence, the efficiency of the buying department or production control department and whether capital is locked up in unnecessary large stocks.[2]

In addition, Joseph A. Mauriello states, "A low turnover may indicate a condition of obsolete, slow-moving merchandise or of over investment in merchandise. A rapid turnover is caused by higher sales total, should result in a larger net profit, first because of the increased gross profit resulting from the increase in volume of sale, and, secondly, because of the failure of expense items of fixed amount to increase correspondingly."[3]

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[1] ILO, op. cit., p.87.

[2] Financial Control: a system approach (London: McGraw-Hill book company, 1974), p.79.

[3] Intermediate Accounting (New York: The Ronald Press Company, 1950), p.598.

On the other hand, Howard S. Noble and Niswonger declare, "The improvement in the turnover resulted from an increase in the cost of goods sold, combined with a decrease in average . inventory. The variations in type of merchandise is too great to permit any generalizations as to what constitutes a satisfactory turnover."[1]

Moreover, W. T. Anderson, C. A. Moyer and A. R. Wyatt say that, in general, a high inventory turnover is desirable as long as customers are not dissatisfied because of shortages in stock or poor assortment of merchandise. They also state that a high inventory turnover is desirable because the turnover is directly related to the capital required to finance the business and to the profitability of the concerned.[2]

Besides, Robert N. Anthony mentions in his book, "management Accounting", as follows. "Inventory turnover is an indication of the velocity with which merchandise moves through the business. An increase in the absolute size of inventory, for example, may represent the additional stocks required by an expanding business, or it may represent an accumulation of merchandise because sales have dropped off. In the latter case, the inventory turnover will

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[1] Accounting Principles (Cincinnati: South-Western Publishing Company, 1961), p.680.

[2] Op. cit., p.521.

decrease. A decrease in the inventory turnover ratio may therefore be a significant danger signal. If the cost of sales figure is not available, a turnover ratio may be computed using the sales figure instead. Such a ratio does not then show literally how many times the inventory turned over during the year, but if the profit margins remain roughly constant, a comparison of this ratio for several years may nevertheless be useful."[1]

Furthermore, I. J. Chaykin and M. Zimering state, "In all cases, average inventories are presumed to represent the average stock carried and may be computed as the average of the opening and closing figures or where the information is available, as the average of monthly, weekly or daily balances."[2]

Although many comments have been given by different authors, they are not much different from the comments mentioned above.

(3) Utilization of working capital

$$\frac{\text{Sales}}{\text{Working capital}}$$

Only a few authors have mentioned this ratio in their writing.

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[1] Management Accounting (Revised ed.; Homewood, Illinois: Richard D. Irwin, Inc., 1960), p.265.

[2] Advance Accounting Problems; Theory and Practice (New York: John Wiley & Sons, Inc., 1958), p.150.

According to ILO book, "Management Consulting", comments on this ratio is described as follows. "From the performance point of view, the faster working capital is turned over, the better for working capital is used to generate sales. However, if the turnover is too fast it can indicate inadequate working capital. A sudden drop in income or a slowing down in collections from debtors can leave the company very short of money."[1]

On the other hand, Joseph A. Mauriello declares that this ratio measures the number of times that net working capital was turned over, i.e., the degree of activity of net working capital.[2]

Similarly, Solomon J. Flink and Donald Grunewald say that this ratio reflects the turnover of the firm's net working capital in the course of the year.[3]

Besides, J. Brooks Heckert and James D. Wilson state, "An increase in sales volume is usually accompanied by an increase in receivables and inventories. Because of this relationship, analysts have developed the ratio of net sales to working capital as a measure of the efficienoy in the use of working capital."[4]

They also point out, "Such a ratio has limited use because of the many factors influencing working capital. A low turnover may

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[1]ILO, op. cit., p.87

[2]Op. cit., p.598.

[3]Op. cit., p.89.

[4]Controllership (2nd ed.; New York: The Ronald Press Company, 1963), p.63.

result from heavy inventories or receivables. But it might be the effect of a large cash balance. A high ratio could be the result of favourable turnovers of receivables and inventories. But it might also reflect inadequate working capital -- current assets kept high through a substantial increase in current liabilities which may mature before the inventories can be converted into cash."[1]

(4) Added value per kyat of operating assets

$$\frac{\text{Added value}}{\text{Operating assets}}$$

In the book"Management Consulting", published by ILO, comments on this ratio is stated as follows. "This ratio is a refinement of sales to operating assets. Growth in terms of sales turnover is not necessarily an indication of improvement, as the increase may be due to an increase in the cost of material used. Deducting the cost of materials from the sales figure has the advantage that it discounts any fluctuation in material costs."[2]

According to Eric L. Kohler, added value is defined as follows. "Any of the segments of the selling price of a commodity or service attributable to the present or a prior

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[1] Ibid.

[2] ILO, op. cit., pp.85-86.

stage for its origin."[1] Therefore, in the case of Consumers' Co-operative Societies which deal in retailing goods, added value is the difference between the buying cost and the sales revenue.

(5) Utilization of fixed assets

$$\frac{\text{Added value}}{\text{Fixed assets}}$$

In the book "Management Consulting", it is stated that this is a refinement of the ratio of sales to fixed assets. The ratio is a breakdown of ratio --"Added value per $ of operating assets", and should be used in conjunction with that ratio to determine whether a fall in asset utilization denotes poor utilization of fixed or of current assets.[2]

(b) Ratios to examine liquidity

(6) Current ratio

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

Many definitions and comments on this ratio have been put forward through the decades. A few are interesting and are as follows.

Paul A. Carlson, Hamden L. Forkner and Alva Leroy Prickett say "In order to discover the ability of the busi-

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[1] A Dictionary of Accountants (5th ed., New Jersey: Prentice-hall, Inc., 1975), p.22.

[2] ILO, op. cit., p.86.

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ness to pay its current liabilities, the current assets are compared with the current liabilities. As the current ratio shows the ability of a business to pay its current liabilities, it is generally considered that the current assets should be considerably greater than the current liabilities. After paying the liabilities, there must be enough cash and other current assets available to use as working capital to operate the business."[1]

Moreover, John N. Myer declares that, naturally, the analyst expects to find in a solvent business a considerable excess of current assets over current liabilities, because, while the debts are rarely reduced in other ways than by payment, the assets available to liquidate them may be subject to shrinkage.[2]

Similarly, Solomon J. Flink and Donald Grunewald state, "As a barometer of liquidity, the current ratio suffers from two defects. In the first place, it treats all current asset items alike. No distinction is made -- in the ratio — between such current assets as cash, receivable and inventory. The second reason for the inadequacy of the current ratio is to be found in the accountant's treatment of "current". Basically, the accountant will treat an asset, or liability, as current if it matures within the next twelve months. From the viewpoint of financial

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[1] 20th Century Book-keeping and Accounting (20th ed.; Cincinnati: South-Western Publishing Company, 1953), p.401.

[2] Financial Statement Analysis (4th ed.; New Jersey: Prentico-hall, Inc., 1969), p.186.

management, it is of little consolation to know that the receivables will be collected in 90 days or that the inventory will be sold for cash in six or nine months if the obligations to suppliers will mature in thirty or sixty days. It is for the above two reasons that many financial analyst look with suspicion at a current ratio of less than 2:1. This ratio is a so-called rule of thumb. However, in some lines of business, a ratio of 15:1 may be highly satisfactory. By the same token, in some lines of business, a ratio of 3:1 or even 5:1 may represent minimum level of reasonable liquidity."[1]

In addition, Homer A. Black, John E. Champion and R. Gene Brown say, "From the viewpoint of outside creditors, a decrease in the current ratio is usually considered undesirable if no significant change has taken place in asset turnover or composition. However, if the business still is able to meet its debts when they come due without financial strain, a decrease in the current ratio should not cause alarm. Indeed, a decrease in the current ratio might mean that the assets of the business are being used more efficiently than previously. A change in the current ratio must, therefore, be viewed in conjunction with data of similar firms and with many other factors which affect the financial position and income potential of the business. The current ratio is used in an attempt to predict whether available resources in

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[1] Op. cit., p.78-79.

the near future will be on hand in sufficient quantities and at sufficient times to pay the liabilities as they mature. It gives only approximation, and is subject to a margin of error to the extent that the assets will be collected or the liabilities will mature at irregular intervals."[1]

Besides, Robert K. Jaedicke and Robert T. Sprous state, "Debt-paying ability depends on the availability of cash. In general, the more rapidly receivables and inventories are converted to cash, the smaller the current ratio required in order to pay short-term debts promptly."[2] They also declare that if it takes a long time to collect receivables and if inventories used up slowly, the current ratio must be relatively high. A current ratio may be unnecessarily high as well as uncomfortably low.[3]

In addition to the comments mentioned above, W. T. Anderson, C. A. Moyer and A. R. Wyatt, Joseph A. Mauriello, Wilbert E. Karrenbrock and Harry Simons, William A. Paton, Bion B. Howard and Miller Upton, John R. Cerepak and George J. Geier, Howard S. Noble and Niswonger and many other authors have also given comments on this ratio.

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[1] Accounting in Business Decisions (2nd ed.; New Jersey: Prentice-hall Inc., 1969), pp.333-334.

[2] Accounting Flows (New Jersey: Prentice-hall, Inc., 1965), p.139.

[3] Ibid.

(7) Acid-test ratio

$$\frac{\text{Quick assets}}{\text{Current liabilities}}$$

Many definitions and comments on this ratio have been put forward through decades. A few are interesting and are as follows.

Robert N. Anthony and James S. Reece state, "Some current assets will not in fact be converted into cash, e.g., prepaid insurance. Also, inventory may not be able to be sold quickly. Therefore, another liquidity measure exists which considers just the quick assets, i.e., current assets other than inventory and prepaid expenses. This measure is called the quick ratio or acid-test ratio, and measures the extent to which liquid resources are readily available to meet current obligations. Generally, an analyst would expect to see a quick ratio of at least 1:1 unless the inventory of the firm was fast-moving and not subject to obsolescence."[1]

Similarly, Stephen H. Archer and Charles A. D'ambrosio declare "The current ratio was developed many decades ago as a means of deriving a rough idea of the liquidity of a firm. Because some questions might arise regarding their possible value in the event of liquidation, the typically least liquid of all the current assets, inventories, is often dropped

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[1] Management Accounting Principles (3rd ed.; Homewood, Illinois: Richard D. Irwin, Inc., 1975), p.254.

from the numerator. The result -- the ratio of the sum of cash, marketable securities and receivables to current liabilities -- is often presumed to be a better guide to the short-term debt-paying capacity of a firm. Actually this ratio does not entirely supplant the current ratio; rather, it partially supplements it and, when used in conjunction with it, tends to give a better picture of the firm's ability to meet its short-term debt out of short-term assets. The traditional standard for this ratio is 1:1."[1]

In addition, Solomon J. Flink and Donald Grunewald say "An acid-test ratio of 1:1 or better generally indicates that the firm will be able to meet its current obligations without depending upon an early sale (for cash) of a portion of its inventory. On the other hand, an acid-test ratio of less than 1:1 often points up the following facts. The firm's inventory must be readily marketable if the current liabilities are to be met at maturity, unless the firm can obtain an extension of the due date from the suppliers or a loan from a financial institution. In essence, the acid-test ratio is a measure of the firm's dependence on its inventory for liquidity."[2]

On the other hand, Robert K. Jaedicke and Robert T. Sprouse point out, "The inclusion of inventories among current assets

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[1] Op. cit., p.515.

[2] Op. cit., p.80.

sometimes raises questions both as to their liquidity and as to the method of valuation. Comparisons of firms using the FIFO method with firms using LIFO method necessarily introduce error. Unfortunately, information about the current value of inventories is rarely provided. One way of handling the problem of "doubtful" inventories is to eliminate them from the calculation. The resulting ratio is often referred to as the "acid-test ratio" or "quick-current ratio". The adequacy of this ratio must be determined by comparing it with a similar companies and by comparing it with previous periods."[1]

Moreover, Joseph A. Mauriello mentions in his book "Intermediate Accounting" that the higher the acid-test ratio, the more secure are the claims, of short-term creditors, and therefore, the less objectionable is a low ratio of current assets to current liabilities. Although, a ratio of one to one is considered satisfactory, adequacy of the ratio should be judged with reference to the several factors mentioned in the discussion of the working capital ratio.[2]

In addition to the comments mentioned above, W. T. Anderson, C. A. Moyer and A. R. Wyatt, Wilbert E. Karrenbrock and Harry Simons, William A. Paton, Bion B. Howard and Miller Upton, John N. Myer and many other authors have also given comments on

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[1] Op. cit., p.140.

[2] Op. cit., p.597.

this ratio.

(8) Cash ratio

$$\frac{\text{Cash + marketable securities}}{\text{Current liabilities}}$$

Only a few authors have mentioned thisratio in their books.

Solomon J. Flink and Donald Grunewald state that this ratio is obtained by subtracting both the inventory and the receivables from the current assets. They also declare that few firms would be expected to, or care to, have a ratio of 1:1 and such a ratio would imply that the firm has enough cash on hand to meet all current liabilities.[1]

Besides, Joseph A. Mauriello points out, "This ratio is the strictest of liquidity. It measures the ability of the concerned to retire its current liabilities without converting its receivables or inventories into cash. A ratio of one to one is considered excellent, but will ordinarily prove to be the exception rather than the rule."[2]

Stephen H. Archer and Charles A. D'ambrosio refer to this ratio as absolute-liquidity ratio. They say, "As a logical consequence of the concept of eliminating inventories as a liquid asset in the acid-test ratio because of their questionable value in liquidation,another step is taken in

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[1] Op. cit., p.81.

[2] Op. cit., p.597.

an effort to derive a still more meaningful measure of liquidity. Although receivables are generally more liquid in nature than inventories, there may be doubt concerning their liquidity also. By eliminating receivables and inventories another measure of liquidity is had by relating the sum of cash and marketable securities to the current liabilities. 50 per cent is an acceptable standard for the absolute-liquidity ratio. This ratio is not designed to supplant entirely either the current ratio or the acid-test ratio."[1]

Again, Robert K. Jaedicke and Robert T. Sprouse declare, "Although the peculiar distortions inherent in conventional accounting for inventories are eliminated in the acid-test ratio, its validity still is affective by the liquidity of receivables. The valuation of receivables does not ordinarily introduce a problem of any significance. Their valuation is dependent upon the estimate of uncollectibles, but that is usually (not always) a small percentage of the amount owing from customers. If the liquidity of receivables is in question, essentially the same alternatives are available as in the case of inventories -- eliminate them from the caloulation or test their liquidity independently. When receivables are dropped from the oaloulation of short-term debt-paying ability, the resultant ratio is unusually referred to as the cash ratio. Marketable securities are

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[1] Op. cit., p.517.

properly included in the cash-ratio computation in as much as they can be converted to cash esentially as rapidly as a bank deposit. Indeed, they are presumably held as secondary cash reserves."[1]

(c) Ratios to examine profitability:

(9) Return on total investment (Return on capital)

$$\frac{\text{Profit before tax}}{\text{Capital + fixed liabilities}}$$

$$= \frac{\text{Profit before tax}}{\text{Working capital + fixed assets}}$$

This ratio is presented by many authors. A few are as follows.

Robert N. Anthony states, "Return on total investment looks at income in relation to the total of the permanent funds invested in the enterprise. The permanent funds consist of stockholders' equity plus noncurrent liabilities; or the same figure may be found by subtracting current liabilities from total assets. The earning on these funds are usually taken as net income before taxes, plus interest on non-current liabilities. The return-on-total-investment ratio is a measure of how well management has used all the permanent funds entrusted to the business. Or, put in another way, this ratio is intended to measure the earning power of

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[1] Op. cit., p.142.

the net assets (net working capital plus other assets) of the business."[1]

In addition, Robert N. Anthony also declares, "Return on investment can be calculated in another manner which, although it is longer and gives the same result, is often more illuminating. Two subsidiary ratios, investment turnover and operating profit on sales, are calculated first. Many consider this to be the most useful way of looking at the over-all performance of a business. It suggests that performance can be improved either by generating more sales volume per dollar of capital employed or by increasing the profit margin on each sales dollar generated."[2]

In the ILO book "Management Consulting", comments on return on capital is described as follows. "Return on capital is the fundamental index of profitability. It indicates to the consultant whether the client's business generates output commensurate with the resources invested. Although profit is often expressed as a percentage of sales, the effect of turnover of capital is frequently overlooked; it is important that these two factors be considered together. Return on capital is a function of both profit to sales, and the rate of capital circulation in number of times per year. When an adverse trend in

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[1] Op. cit., p.267.

[2] Op. cit., p.268.

return on capital employed is indicated, further analysis of the secondary ratios will help to isolate the reasons."[1]

R. M. S. Wilson says "This is the measure of performance, as it indicates the comparative efficiency with which the whole company is run. In other words, it measures the earning power of the total permanent (or long-term) capital of the enterprise. This can be computed by multiplying the capital turnover by the net profit margin as derived from the secondary ratios.[2] A satisfactory return on investment indicates an efficient use of funds, and this is of crucial interest to both management and shareholders. However, relating a balance sheet item (capital) to a profit and loss account item (profit) raises problems of definition in attempting to find a suitable measure of performance."[3]

In addition, J. Brooks Heckert and James D. Willson point out the factors which effect the rate of return on total investment, and their relationship to each other.[4] They say, "It can be seen that there are two principle elements: (1) earning on net sales, expressed as a percentage and (2) turnover. Why consider each element separately? Why not simply divide net income by total investment to determine the rate of return? The answer

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[1] ILO, op. cit., pp.83-85.

[2] According to R. M. S. Wilson, return on investment is computed by dividing the net profit before interest by the total permanent capital.

[3] Op. cit., pp.82-83.

[4] According to J. Brooks Heckert and James D. Willson, return on investment is the relationship of the net income to the capital employed.

is that return on capital employed responds to movement in each of these factors and each, therefore, must be analysed. If there has been no change in selling price, then any improvement in the profit sales ratio indicates cost reduction. If on the other hand, there is no change in selling price or in total investment, then an improvement in turnover indicates that capital is being utilized more effectively, that management is securing more sales volume out of the same working capital and plant. The management which can control both of these relationships has done much to control over-all corporate financial performance."[1]

On the other hand, William A. Paton states, "The rate of earning on total resources employed, express the degree of success achieved by the enterprise as an entity without reference to the form of capital structure employed, it measures earning power from the standing point of all capital invested, regardless of source. This earning rate is especially useful in comparing enterprises having different forms of capitalization, and in comparing different periods in the history of a particular enterprise which has undergone changes with respect to the relative amounts of borrowed and proprietary capital."[2]

In addition,to the comments mentioned above, other authors, Wilbert E. Karrenbrock and Harry simons, John N. Myer,

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[1] Op. cit., pp.39-40.

[2] Essential of Accounting (New York: The Macmillan Company, 1938), p.818.

Robert N. Anthony and James S. Reece have also given the comments on this ratio.

(10) Return on stockholders' equity

$$\frac{\text{Net income after taxes}}{\text{Stockholders' equity}}$$

Some comments on this ratio are presented below.

J. Brooks Heckert and James D. Willson declare, "Another broad profit guide is the relationship of net income to stockholders' equity. Where only common stock is outstanding the percentage is determined by dividing net income by the total ownership equity however described. If preferred stock exists, then earning must be reduced by preferred stock dividends and related to only the equity of the common shareholders. A great many business executives feel that the ultimate test of stewardship is the amount of net income produced in relationship to shareholders' capital. For the owners of the business this is certainly an important test. The trend should be watched from year to year. It may be seen that the financial structure of the business enterprise may have an important bearing on this ratio. Through judicious use of cheaper funds, for example, the return on shareholders' capital may be multiplied . This is known as trading on the equity, or leverage. In using this ratio, as in all others, consideration must be given to the existing

circumstances."[1]

On the other hand, Homer A. Black, John E. Champion and R. Gene Brown state, "Because of the dominance of the income objective in business, one of the most widely used measures of business operating performance is the rate (or percentage) of income as compared with stockholders' equity. This is one of a number of useful comparisons which determine a rate of change. The rate of income, or return, on stockholders' equity is a measure of the profitability with which management has used the capital of the stockholders. It may be compared with the rate of return of the same company for earlier periods, with that of similar companies, and with the plan rate, with due attention given to the limits of comparability. The point of view is that of the corporation, not of the stockholders as individuals. Rarely, and only by coincidence, will the total amounts which stockholders have paid for their shares equal the stockholders' equity on the books of the corporation."[2]

They also state, "Unusual items, such as extraordinary charges and credits, which are sometimes used in the measurement of net income, can not be expected to recur with the same degree of certainty as can operating revenues and expenses. The interpreter of the statement should, therefore, assign them a different

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[1] Op. cit., p.38.

[2] Op. cit., pp.325-326.

weight. This is facilitated by computing a rate of income before extraordinary items, in addition to computing the rate of income."[1]

Besides, Robert N. Anthony and James S. Reece point out "Return on owners' equity reflects how much the firm has earned on the funds invested by the shareholders (either directly or through retained earnings). This figure is clearly of interest to a present or prospective shareholder, and is also of concern to management, which presumably operates the business in the owners' best interest. The figure is not generally of interest to lower-level managers, however, who properly concern themselves with the efficient us of assets, without concern for the relative roles of creditors and shareholders in financing those assets."[2]

Mcreover, John R. Cerepak and George J. Geier say "This ratio aids in measuring the firm's over-all performance by determining the rate of return on the resources provided by stockholders' investment. Shareholders may use this computation as a basis for deciding whether an alternate use of their money might offer a better potential return on their investment. The calculation should preferably be based on the average stockholders' equity maintained during the year, since the income was earned throughout the year."[3]

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[1] Op. cit., p.326.

[2] Op. cit., pp.239, 241.

[3] Accounting for Business (Columbus, Ohio: Charles E. Merrill Publishing Company, 1968), p.504.

Similarly, William A. Paton mention in his book, "Essentials of Accounting", that the rate earned on the total equity of proprietors or stockholders express the relation of the net available to the proprietary equity after all interest charges and income-taxes to the amount of such equity including retained earnings as well as original investment. They also say that this rate is more widely used in financial analysis than the rate of earning on total capital, in part because of general lack of understanding of the importance of the other form of computation, and in part because of the inadequacy of the data commonly available.[1]

In addition to the comments mentioned above, other authors, Wilbert E. Karrenbrock and Harry Simons, R. M. S. Wilson, W. T. Anderson, C. A. Moyer and A. R. Wyatt, Howard S. Noble and Niswonger, and Stephen H. Archer and Charles A. D'ambrosio have also given comments on this ratio.

(11) Gross profit ratio

$$\frac{\text{Gross profit}}{\text{Sales}}$$

Many authors have presented their comments on this ratio. A few are interesting and are as follows.

R. M. S. Wilson states, "This is a particularly important indicator of profitability showing the profit potential before charging financial, administrative and selling expenses. The

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[1] Op. cit., p.147.

percentage of gross profit represents the average mark-up on products sold, and raises the important topic of price-fixing and profit margins."[1]

Similarly, Joseph A. Mauriello says, "This percentage measures the margin available to cover selling, administrative, and financial management expenses. A high gross profit ratio may not produce a high total gross profit. Thus, with a lower sales price, implying a lower gross profit ratio per unit, volume may so expand as to produce a total gross profit in excess of that otherwise obtainable."[2]

Another author, Robert N. Anthony points out, "This ratio indicates the average mark-up or margin obtained on products sold. Since it is an average, it does not necessarily represent the mark-up on individual products and these may differ widely from the average."[3]

In addition, Robert N. Anthony and James S. Reece say that, gross margin percentages vary widely among industries, but within an industry the percentages for individual companies tend to be similar.[4]

Moreover, J. Brooks Heckert and James D. Willson declare, "The business must secure a gross profit high enough to cover

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[1]Op. cit., p.81.

[2]Op. cit., p.600.

[3]Op. cit., p.263.

[4]Op. cit., p.249.

operating expenses and return a normal profit. Changes in the volume of sales, manufacturing costs, and mixture of products sold will affect this ratio. A low gross margin may be evidence among other things of intense price competition, poor pricing policies, or insufficient volume to cover fixed manufacturing costs adequately."[1]

(12) Operating expense ratio

$$\frac{\text{Operating expense}}{\text{Net sales}}$$

A few interesting comments on this ratio are as follows.

J. Brooks Heckert and James D. Willson state, "A widely used device for internal management purposes as well as external analysis, is the measurement of operating expenses against net sales. This review can be made by individual types of expense, groups of expenses, or total functional expense in relation to net sales. The resulting percentages indicate in part the ability of the management to adjust expenses to varying sales volumes. Of course, merely measuring such expenses in relation to net sales can be extremely misleading in that sales volume may account for the lower ratio and management might interpret the results as stemming from increased efficiency. It, therefore, becomes important that the controller compare trend percentages and absolute data as well

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[1] Op. cit., pp.64-65.

as percentage of expense to net sales."[1]

They also say that, from a control standpoint, those expenses which increase at a relatively high rate should be analyzed to determine what reductions can be effected -- or whether the company is receiving full value for money paid out. Standard ratios and individual expense standards are useful in evaluating results of such analysis.[2]

Besides, Paul A. Carlson, Hamden L. Fokner and Alva Leroy Prickett declare, "Various trade associations have developed national averages for these various expense items that show the ratio of each type of expense to sales. These national averages of percentages or ratios of each type of expense may be secured from trade associations or the United States Department of Commerce, or such organizations as Dun & Bradstreet."[3]

They also say, "If each profit and loss statement has a percentage ratio column, the manager can compare the operations of his business from period to period. He may also compare the percentage of each item in his business with the national averages and determine what expenses are out of line in terms of other business. By a careful study of these expenses he may be able to reduce some of them."[4]

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[1] Op. cit., p.65.

[2] Op. cit., p.67.

[3] Op. cit., p.407.

[4] Op. cit., p.407.

On the other hand, W. T. Anderson, C. A. Moyer and A. R. Wyatt point out, "We may also calculate the ratio that any particular expense bears to sales. A comparison with former years or with other companies would indicate whether the ratio was favourable. For example, in 1965 advertising expense consumed 5.0% of each sales dollar, whereas in 1964 advertising amounted to only 3.6% of each sales dollar. This rather substantial increase within a one-year period might warrant management study."[1]

(13) Net profit ratio

$$\frac{\text{Net profit}}{\text{Net sales}}$$

This ratio is presented by some authors. A few are as follows.

R. M. S. Wilson mentions in his book "Financial Control" that this ratio is considered by some people to be the single most important measure of performance, but profitability should be related to the investment required to generate the income and this ratio directs attention to price fixing and profit margins, but to be significant it must be related to variations in volume.[2]

Similarly, Robert N. Anthony declares, "The net income

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[1] Op. cit., p.520.

[2] Op. cit. p.82.

percentage is a measure of over-all profitability. Some regard it as the most important single measure of a company's performance, but, as pointed out above, this is not so, since the net income percentage does not reflect the amount of investment utilized in earning the income."[1]

Another author, Joseph A. Mauriello states, "This percentage measures the proportion of each dollar of sales which adds to the capital of the corporation. The greater the merchandise turnover due to a greater turnover of total capital means that the net profit may be smaller and still yield the desired rate of net profit on capital."[2]

On the other hand, John R. Cerepak and George J. Geier say, "This ratio is a measure of the firm's overall profitability and is used to analyse the firm's operating efficiency. The ratio determines the relationship between the net revenue generated within an accounting period and the net income which was earned within the same period. By relating these two amounts, the net profitability of each sales dollar is measured."[3]

Moreover, Solomon J. Flink and Donald Grunewald point out, "This ratio highlights the success of the firm to obtain a price for its products above the total cost of making and/or selling

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[1] Op. cit., p.263.

[2] Op. cit., p.600.

[3] Op. cit., p.504.

the goods. The ratio of profit to sales plays an important role in two management areas. In the area of financial management, the ratio serves as a valuable indicator of the firm's ability to utilize effectively (i.e., profitability) outside sources of funds. Suppliers and lenders are more readily inclined to extend credit to a company that shows a high profit per dollar of sales than to another company in the same line of business."[1]

In addition to the comments mentioned above, other authors, Gilbert W. Cooke and Edwin C. Bomeli, I. J. Chaykin and M. Zimering, Robert N. Anthony and James S. Reece and J. Brooks Heckert and James D. Willson have also given comments on this ratio.

(14) Operating ratio

$$\frac{\text{Cost of sales plus expenses}}{\text{Net sales}}$$

Only a few authors have mentioned this ratio in their books.

Joseph Mauriello says, "This ratio or percentage measures the extent to which sales are absorbed by the elements serving to decrease net profit. A high operating ratio suggests instability. Costs and expenses include fixed charges which do not decrease with reduced volume. Accord-

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[1] Op. cit., p.85.

ingly, a small reduction of sales in the face of relatively smaller decline in cost and expenses may readily convert profit into loss. The higher the ratio, the greater the need for a sustained volume of sales and rapid turnover of merchandise and capital in order to yield satisfactory profits. The components of cost of sales, selling expenses, administrative expenses, and financial management expenses may be separately correlated with net sales as a base. The sum of the resulting ratios equals the operating ratio."[1]

Besides, W. T. Anderson, C. A. Moyer and A. R. Wyatt state, "For many enterprises a significant ratio relates operating expenses to sales. For purposes of calculating this ratio operating expenses are generally considered to include the cost of goods sold as well as the selling and administrative expenses. In general, the closer the operating ratio is to 100.00%, the more risky the profit position. This is generally true because it is frequently difficult to reduce expenses as rapidly as sales decline in periods of recession."[2]

In addition, Gilbert W. Cooke and Edwin C. Bomeli declare, "Operating expense may also be labeled as administrative and selling expenses. It should be noted that operating expenses do not include interest on long-term debt and/or federal income-taxes.

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[1] Op. cit., p.599.

[2] Op. cit., p.520.

Were the "other income" items to be added to revenue from sales, the operating ratio would change slightly. However, an advantage would be incurred analytically since the residue of earnings before interest and taxes (EBIT) would permit a complement of the operating ratio. The $\frac{\text{EBIT}}{\text{Revenue}}$ ratio is the complement of the operating ratio and together they equal 100.00%. The operating ratio measures the ability of the management to hold down costs and administrative expenses or to increase selling prices or quantity sold. In a given industry, the more efficient firms have a lower operating ratio."[1]

According to William A. Paton, operating ratio is the relationship of the total expenses to total revenue. He points out, "The operating ratio is usually deemed to be the most important income statement ratio. This ratio represents the percentage of net sales or other form of revenues consumed by cost requirements, and is closely watched by management. In general, the lower the operating ratio, the better, but it should be recognized that an apparently favourable condition at this point does not demonstrate a high level of earning power."[2]

He also says, "The operating ratio in a broadest sense is

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[1] Business Financial Management (New York: Houghton Miffin Company, 1976), p.52.

[2] Op. cit., p.817.

computed by comparing the total of all revenue deductions, including losses and taxes with the total of all revenues, including unusual gains. This calculation may be less significant to internal management, however, especially if special charges and credits are present in large amounts. Where a business has a number of distinct departments or divisions it may be useful to determine the relation of department or division costs to the corresponding revenue totals. The validity of such a ratio is of course limited by the difficulties in the way of making satisfactory allocations of certain kinds of expenses and other revenue charges. The ratio of any broad group of charges or of any special expense to revenue may be viewed as a subordinate operating ratio. Such ratios are of particular interest to operating management, effective control of costs involves close observation of relationships as well as amounts."[1]

(15) Return on operating assets

$$\frac{\text{Net operating income}}{\text{Total operating assets}}$$

A few interesting comments on this ratio are as follows.

Robert K. Jaedicke and Robert T. Sprouse declare, "This measurement is made before taxes in order to be independent of capital of the enterprise (except for leasing).

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[1] Op. cit., p.817.

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Neither operating income nor operating assets are affected by the absence or existence of long-term debt and outstanding preferred stock. This is not to say that management has no responsibility for obtimizing capital structure. But a separate measure of over-all profitability can be made which takes capital sturcture into consideration and thereby tends to isolate management's performance in that regard. The relationship between the efficiency ratio and the profitability ratio should be apparent."[1]

In the ILO book, "Management Consulting", it is stated as follows. "This ratio gauges the effectiveness of all decisions on investment of funds and planning and control of activities made by all levels of management from shop foreman to managing director. Again, this ratio can be divided into two components as follows.

$$\text{Return on operating assets} = \frac{\text{operating profit}}{\text{sales}} \times \frac{\text{sales}}{\text{operating assets}}$$

This ratio is another way of looking at capital employed. Non-operating assets[2] are excluded from the calculation in order to arrive at the figure for assets available to management."[3]

On the other hand, Bion B. Howard and Miller Upton point out that earning power can be calculated in many ways. They say

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[1] Op. cit., p.157.

[2] Non-operating assets are the assets which are not used in the operation of a business. For example, a building which is rented to other organization.

[3] ILO, Op. cit., p.85.

that the asset items are used for earning power calculations by management and others when the desire is to judge the operating performance of the business unit as a whole. For this purpose the operating assets test is the most meaningful and the one most often used."[1]

1.5. Interpretation of the Measurements

The computation of ratios is the simplest phase of ratio analysis. After the analyst has computed a ratio he must interpret his measurements. The interpretation of financial condition and progress which result from the ratios computed have varying degrees of propriety, depending on the experience and skill of the analyst. In short what the analyst must decide is whether the relationship is satisfactory or not. Generally, a specific ratio standing by itself is of limited usefulness even to one who has experience in financial analysis. It should be noted that arbitrary conclusions can not be reached from an individual ratio. One should recognize, however, the ratio can be interpreted meaningfully only when used as a basis for making comparisons. To gain meaning, a ratio must have one or more standards of comparison. Then, the question arises as to what standards are to be used for the various ratios. It is difficult to find

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[1] Introduction to Business Finance (New York: McGraw-Hill Book Company, Inc., 1953), p.147.

data which are fully comparable with those of the specific concern under consideration. Differences in geographic location, accounting policy, amortization or depreciation policy, credit policy, etc., may affect the ratios. The specific condition of the business may result in different ratios. The proper interpretation of the financial condition may be achieved only when one uses a correct or suitable measuring stick.

There are four types of standards against which an actual figure can be compared:[1]

(1) experience;

(2) a goal;

(3) an historical figure; and

(4) an external figure, that is, a figure for performance in another company, or other companies.

(1) Experience - The manager or analyst gradually builds up his own idea as to what constitutes "good" or "poor" performance. One of the important advantages that an experienced person has over inexperienced ones is that he possesses a feeling for what are "right" relationships in a given situation, developed on the basis of his knowledge about similar situations. (Of course, if he is not competent, his feeling may well be incorrect.) These subjective standards of a competent analyst or manager are more important than

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[1] Anthony and Reece, op. cit., p.260

standards based on mechanical comparisons.[1]

(2) Goals - Many companies prepare budgets, which show what performance is expected to be under the circumstances prevailing. If actual performance corresponds with budgeted performance, there is a reasonable inference that the performance is good. There are two important qualifications that affect this inference, however. First, the budgeted figures may not have been set carefully in the first instance, the comparison can of course be no more valid than the goal figures themselves. Secondly, the goals were necessarily set on the basis of certain assumptions as to the conditions that would be prevailing during the period, and if these assumptions turn out to be incorrect, the goals figures are also incorrect as a measure of results "under the circumstances prevailing". Nevertheless, the budget is a type of standard that has fewer inherent difficulties than either the historical standards or the external standards.[2]

(3) Historical standards - A comparison of current performance with past figures for the same company usually does not run into the problem of differences in accounting practice. If practices have changed, the change is presumably known to

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[1] Anthony and Reece, op. cit., p.261.

[2] Anthony and Reece, op. cit., p.261.

the analyst. Moreover, the analyst can also recollect or find out from supplementary data, some of the circumstances that have changed between the two periods and thus allow for these changes in making his comparisons. At best, however, a comparison between a current figure and an historical figure in the same company can show only that the current period is "better" or "worse" than the past. In many cases this does not provide a sound basis for judgement, for the historical figure may not have represented an acceptable standard.[1]

(4) External standards - When one company is compared with another, the environmental and accounting differences affecting the two sets of figures may raise serious problems of comparability. If, however, the analyst is able to allow for these differences, even approximately, he obtains an outside check on performance that has advantage. over a standard derived from internal sources, of being arrived at independently. Moreover, the two companies may well have been affected by the same set of economic conditions, so this important cause of non-comparability may not be operating.[2]

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[1] Anthony and Reece, op. cit., p.261.

[2] Anthony and Reece, op. cit., p.262.

## 1.6. Limitations of Ratio Analysis

Ratio analysis is undoubtly useful but one should be aware of its limitations also. It should be borne in mind that ratios are not satisfactory substitute for judging financial condition.

In general, ratios are clues, not bases for immediate conclusions. Even where deviations from accepted standards are disclosed either in single ratio or ratio-trends it is not wise to assume without further investigations, that a condition either peculiarly favourable or unfavourable is present. In fact, it is seldom if ever safe to make decisions with respect to the affairs of the enterprise, either in internal administration or in other connections, solely on the basis of an examination of ratios.[1]

The calculation and presentation of an unorderly summary of ratios as a feature of report is probable to bring about obscurity rather than clarity and understanding. Besides, there are difficulties in making comparisons between the actual and the standard. Some of the problems are described below.

(1) Differences in the situations being compared - Differences in the factors that affect one company's performance this year as compared with those that affect the

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[1] Paton, Op. cit., p.827.

same company's performance last year, on the performance of another company, are complex and difficult to evaluate. Nevertheless, some attempt must be made to allow for these differences. In general, this task is least difficult when all figures being compared pertain to the same company (although even here changes in size, in the functions performed by the company, in outside influences, and so on, may make comparisons of tenuous validity). The task is more difficult when attempting to compare one company with another, even if they are both of the same size and in the same industry, and it becomes exceedingly difficult if the two companies are in different industries, or if they are of substantially different size.[1]

(2) Changes in the value of dollar and assets - Accounting convention requires the use of historical cost data. Two problems arise from this practice: price-level changes (i.e., changes in the value of dollar) are generally not recognized so that the market value of assets may be greater or less than the book value: and changes in the value of assets are recorded only when realized. Assets are realized when they are converted or sold, at which time any change in value is recorded.[2]

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[1] Anthony and Reece, op. cit., p.259.

[2] Cooke and Bomeli, op. cit., p.47.

(3) Differences among the accounting methods used - There are different methods of valuing inventory; of computing the depreciation expense; of renting, leasing, or owning tangible property; and adjusting accrued or deferred expenses and income -- all of which may prevent an accurate comparison of items in both the income statement and the balance sheet to industry averages.[1]

(4) Hidden short-run changes - A balance sheet may not reflect the average or typical situation. A balance sheet is prepared as of one moment of time, and it tells nothing about short-term fluctuations in assets and equities that have occurred within the period bounded by the two balance sheet dates. A company that is analyzing its own data can study the seasonal movements by using monthly rather than annual balance sheets, but these are ordinarily not available to the outsider. The outsider analyst should also recognize that companies have been known to tkae deliberate steps to "clean up" their balance sheets. They may, for example, pay off loans just before the end of the year, which usually increases the current ratio; then they borrow again early in the next year. Such transactions which are called window dressing, may not be discernible on the balance sheet.[2]

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[1] Cooke and Bomeli, op. cit., p.47.

[2] Anthony and Reece, op. cit., p.260.

(5) The past as an indication of the future - Financial ratios of necessity, are an expression of the past. It is very dangerous to assume that past results will prove typical of future periods. To be sure, the calculation of financial ratios for a particular firm over a series of years may indicate certain minimum standards, but even then, there is no certainty that future operations will continue as in the past.[1]

In using ratio analysis to interpret the financial statements, one must recognize clearly the limitations inherent in them.

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[1] Cooke and Bomeli, op. cit., p.47.

# CHAPTER II

## CO-OPERATIVE MOVEMENT IN BURMA

### Historical Development of Co-operatives

In Burma, co-operatives started functioning in 1904-05 with the intention of concentrating on the supply of credit, particularly to farmers. The number of co-operatives increased rapidly from the year 1914 onwards. But, the failure to repay the government loans led to an inquiry into the operations of the movement in 1928-29. Before the Second World War, the great economic recession hit the co-operative movement and many co-operatives went into liquidation.

In 1914-15, the State Colonies Department formed the agricultural co-operatives which lasted until recently. They began as a branch under the co-operatives department. These societies gradually transformed into the Village Co-operatives after the 1970 Co-operatives Plan.

The first outstanding development of co-operatives was in 1946-47, immediately after the war. The Consumers' Co-operative Scheme was included as one of the important projects at the time when the Two Year Plan for economic development of Burma was put forward.

1951 saw the Five Year Co-operative Plan defining the economic fields where business may be conducted. They were to carry out various projects on the co-operatives basis, viz.;

- the production and marketing in agriculture, fisheries and cottage industries;
- the import and distribution of essential goods;
- some sections of transport, commercial banking and the promotion of people's savings.

The Revolutionary Council came into power on March 2, 1962. The governing policy of this council was the Burmese Way to Socialism and a comprehensive co-operative plan was announced in May 1970, assigning the Ministry of Co-operatives to implement it. The long - term aim is to expand the number of co-operatives and increase their membership to cover all peasants and workers unifying them in the direction of eliminating the middle-man.

The main objectives of the 1970 Co-operative Plan are as follows:[1]

(1) to distribute the legitimate benefits of the Co-operatives to the producers of goods and to the consumers for their relief and welfare by doing away with the middle-man and his exploitation,

(2) to encourage the union citizens to carry on trade through co-operative societies rather than individually in accordance with

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[1] Tin Tun, U, The Co-operative Movement in Burma (Rangoon: Ministry of Co-operatives, 1982), p.36.

the necessity to trade in groups for the advancement of the national economy, and

(3) to encourage the peasants and workers to take active part in business by forming co-operative societies.

The announcement of the division of the national economy into State, Co-operative and Private Sectors was made in the year 1972. Following that announcement, the implementation of the Co-operative Plan of 1970 went ahead through all organizational and other difficulties under the leadership of the Burma Socialist Programme Party with the assistance and co-operation of the Central People's Workers' Council and the Peasants' Council.

2.2. The Role of Co-operative Societies in Internal Trade

In accordance with the 1970 Co-operative Scheme, new co-operative societies were formed every year. With an increase in the number of societies, the activities of the societies were extended. The progress of the co-operative societies can be seen in Table 2-1. As seen from it, the total number of co-operative societies rose from 20,999 in 1979-80 to 21,281 in 1983-84, i.e., within a period of five years the number of co-operative societies grew by 282 or by 1.3%. Looking at the yearly growth we find that it grew by 0.6% in 1980-81, 0.3% in 1981-82, 0.3% in 1982-83 and 0.1% in 1983-84. Although the number of societies increased yearly, we find to the contrary that the rate of increase is

TABLE 2.1 - Progress of Co-operative Societies

| Sr. No. | Type of Societies | 1979/80 | | | 1980/81 | | | 1981/82 | | | 1982/83 | | | 1983/84 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Society (no.) | Member/Member Society (no.) | Turnover (kyat in millions) | Society (no.) | Member/Member Society (no.) | Turnover (kyat in millions) | Society (no.) | Member/Member Society (no.) | Turnover (kyat in millions) | Society (no.) | Member/Member Society (no.) | Turnover (kyat in millions) | Society (no.) | Member/Member Society (no.) | Turnover (kyat in millions) |
| 1 | Central Co-operative | 1 | 298 | - | 1 | 298 | - | 1 | 298 | - | 1 | 298 | - | 1 | 298 | - |
| 2 | Township Co-operative Syndicate | 16 | 335 | 325.0 | 16 | 335 | 402.6 | 16 | 334 | 406.5 | 16 | 334 | 410.6 | 16 | 334 | 416.7 |
| 3 | Township Co-operative | 298 | 17851 | 2577.4 | 298 | 18414 | 2826.4 | 298 | 18419 | 3201.6 | 298 | 18419 | 3521.8 | 298 | 18419 | 3909.2 |
| 4 | Primary Co-operative Syndicate | 174 | 987 | 43.0 | 155 | 1125 | 43.7 | 153 | 1161 | 55.8 | 152 | 1150 | 58.1 | 148 | 1107 | 61.0 |
| | Total | 489 | 19471 | 2945.4 | 470 | 20172 | 3272.7 | 468 | 20212 | 3663.9 | 467 | 20201 | 3990.5 | 463 | 20158 | 4386.9 |
| 5 | Agricultural Producers' Co-operative | 107 | 20313 | 4.1 | 101 | 22719 | 5.5 | 98 | 22066 | 5.1 | 97 | 21876 | 5.2 | 95 | 21726 | 5.4 |
| 6 | Pilot Co-operative Farm | 883 | 93240 | 126.2 | 914 | 99099 | 126.9 | 95 | 94110 | 86.8 | 936 | 97079 | 105.0 | 937 | 97091 | 109.1 |
| 7 | Fish Producers' Co-operative | 620 | 54235 | 40.8 | 619 | 56290 | 41.3 | 647 | 56329 | 50.3 | 649 | 56154 | 52.3 | 652 | 56781 | 55.4 |
| 8 | Forest Product Producers' Co-operative | 59 | 5664 | 6.8 | 64 | 6865 | 6.9 | 67 | 7028 | 8.0 | 67 | 7028 | 8.3 | 66 | 6906 | 8.8 |
| 9 | Mineral Producers' Co-operative | 33 | 3564 | 5.8 | 35 | 4199 | 11.8 | 36 | 4033 | 12.8 | 36 | 4033 | 13.1 | 36 | 4033 | 13.5 |
| 10 | Industrial Producers' Co-operative | 609 | 93248 | 83.4 | 667 | 104901 | 112.4 | 671 | 105121 | 148.7 | 677 | 105684 | 156.1 | 678 | 105864 | 171.7 |
| 11 | Village Tract Co-operative | 12529 | 4322969 | 1403.9 | 12505 | 4271603 | 1682.8 | 12489 | 4342130 | 1754.2 | 12506 | 4346576 | 1771.7 | 12516 | 4350622 | 1798.3 |
| 12 | Consumers' Co-operative | 2413 | 1489502 | 1255.9 | 2427 | 1502858 | 1262.6 | 2436 | 1509740 | 1469.2 | 2442 | 1510168 | 1527.3 | 2444 | 1512437 | 1603.6 |
| 13 | Armed Forces Co-operative | 349 | 169253 | 183.6 | 364 | 177460 | 188.5 | 370 | 185904 | 216.8 | 371 | 186714 | 225.5 | 372 | 187157 | 236.8 |
| 14 | People's Police Force Co-operative | 295 | 37408 | 24.7 | 301 | 39297 | 31.0 | 300 | 40308 | 35.6 | 303 | 40474 | 36.3 | 303 | 40474 | 37.7 |
| 15 | Co-operative Credit Societies | 2602 | 707806 | 417.7 | 2635 | 718328 | 372.0 | 2667 | 737614 | 519.8 | 2696 | 745251 | 503.6 | 2697 | 745489 | 530.9 |
| 16 | Services Co-operative | 11 | 319 | 0.6 | 20 | 668 | 2.7 | 20 | 668 | 6.8 | 22 | 693 | 7.2 | 22 | 693 | 7.3 |
| | Total | 20510 | 6997521 | 3553.5 | 20652 | 7004287 | 3844.4 | 20726 | 7103051 | 4314.1 | 20801 | 7121730 | 4411.6 | 20818 | 7129273 | 4578.5 |
| | Grand Total | 20999 | - | 6498.9 | 21122 | - | 7117.1 | 21194 | - | 7978.8 | 21268 | - | 8402.1 | 21281 | - | 8965.4 |

* Does not engage in business activities

Source : Report to the Pyithu Hluttaw

decreasing. The turnover also increased from K. 6,498.9 million in 1979-80 to K. 8,965.4 million in 1983-84, thereby achieving an increase of 38.0%.

As the number of co-operative societies extend and their business developed, their contribution to the total net output of the State also increased. The changes in the value of net output by State, Co-operative and Private sectors can be seen in Table 2-2. In this table it is found that the share of the Co-operative sector increased from K. 546.1 million in 1980-81 to K. 736.2 million in 1983-84, i.e., from 3.5% to 3.9%. Though the Co-operative sector's contribution to the total net output increased slightly every year, it is much less than the contributions of the State and Private sectors. It is necessary for the Co-operative sector to extend their share because the planned targets for 1993-94, the last year of the 20 Year Plan, for the Co-operative sector is 26.0%.[1] The total value of contribution by the Co-operative sector consist of goods produced, services rendered and the volume of trade transacted. The above total contribution in 1983-84, fall into the ratio of 33.7%, 18.3% and 48.0%, for the goods produced, services rendered and the volume of trade respectively. As seen from this finding

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[1]The plan targets of the share of contribution to total net output in the last year of 20 Year Plan can be seen in Table 2-3.

TABLE 2.2 - Shares of Value of Net Output by State, Co-operative and Private Sectors.

(At 1969/70 constant producers' prices) (kyat in millions)

| Sr. No. | Particulars | 1980-81 | | | | 1981-82 | | | | 1982-83 | | | | 1983-84 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | State | Co-operative | Private | Total | State | Co-operative | Private | Total | State | Co-operative | Private | Total | State | Co-operative | Private | Total |
| 1 | Goods | 1754.1 | 131.7 | 6349.9 | 8235.7 | 1908.2 | 192.8 | 6760.3 | 8861.3 | 2071.0 | 217.1 | 7174.9 | 9463.0 | 2317.3 | 248.1 | 7566.3 | 10131.7 |
| 2 | Services | 2678.3 | 98.9 | 1221.8 | 3999.0 | 2921.8 | 106.9 | 1259.0 | 4287.7 | 3194.5 | 121.1 | 1337.6 | 4553.3 | 3170.8 | 135.0 | 1419.0 | 4724.8 |
| 3 | Trade | 1552.5 | 315.5 | 1614.9 | 3482.9 | 1632.3 | 325.9 | 1609.8 | 3568.0 | 1691.4 | 343.0 | 1661.0 | 3695.4 | 1776.6 | 353.1 | 1719.4 | 3849.1 |
| 4 | Total net output (1 + 2 + 3) | 5984.9 | 546.1 | 9186.6 | 15717.6 | 6462.3 | 625.6 | 9629.1 | 16717.0 | 6856.9 | 681.3 | 10173.5 | 17711.7 | 7264.7 | 736.2 | 10704.7 | 18705.6 |
| 5 | Share of contribution to total net output (percentage | 38.1 | 3.5 | 58.4 | 100.0 | 38.7 | 3.7 | 57.6 | 100.0 | 38.7 | 3.8 | 57.5 | 100.0 | 38.9 | 3.9 | 57.2 | 100.0 |

Source: Report to the Pyithu Hluttaw

TABLE 2.3 - Plan targets of the Share of Contribution to Total Net Output in 1993-94 the last year of 20 Year Plan.

| Sr. No. | Sector | Percentage |
|---|---|---|
| 1 | State Sector | 48.00% |
| 2 | Co-operative Sector | 26.00% |
| 3 | Private Sector | 26.00% |
| | Total | 100.00% |

Source : Report to the Pyithu Hluttaw.

it is noticed that most of the contribution of the Co-operative sector comes from the trade sector. Those Co-operative societies that performed trading are the Consumers' Co-operative Societies and the Village Co-operative Societies. Hence, it is found that amongst all the co-operative societies, the Consumers' Co-operative Societies and the Village Co-operative Societies surpass others in number forming 70.3 in percentage according to Table 2-1.

Table 2-4 shows the volume of internal trade by State, Co-operative and Private sectors. One can study the procurement by co-operative societies from this table. The State sector do both types of procurement by purchasing domestic products and by importing, whereas the Co-operative and the Private sectors do purchasing only domestic products. The main reason is that the Co-operative and Private sectors are not permitted to import goods. The co-operative societies procure goods from the Trade Corporations and the Industries Corporations as well as from other co-operatives. The volume of total internal trade in 1973-74 was K. 11,875.3 million and in 1983-84 it was K. 50,846.9 million, showing an increase of 428.2%. The co-operative societies purchased goods worth K. 1,828.5 million in 1973-74 and K. 5,410.2 million in 1983-84, which is an increase of 295.9%. Therefore, it can be seen that the percentage of increase in procurement by the co-operative societies is less than the percentage in the

TABLE 2.4 - Volume of Internal Trade by State, Co-operative and Private Sectors

(kyats in millions)

| r. o. | Particulars | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 | 1978-79 | 1979-80 | 1980-81 | 1981-82 | 1982-83 * | 1983-84 ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Total internal trade (2 + 3) | 11,875.3 | 16,043.8 | 21,090.9 | 25,601.5 | 29,726.8 | 31,505.4 | 35,120.5 | 37,965.9 | 43,255.0 | 47,829.9 | 50,846.9 |
| 2 | Purchases by the state sector | 4,022.1 | 6,611.3 | 8,022.7 | 9,115.0 | 10,524.9 | 11,398.3 | 12,952.1 | 14,698.3 | 16,101.8 | 17,548.5 | 17,704.6 |
| 3 | Purchases by the co-operative and private sectors | 7,853.2 | 9,432.5 | 13,068.3 | 16,486.5 | 19,201.9 | 20,107.1 | 22,168.4 | 23,267.6 | 27,153.2 | 30,281.4 | 33,142.3 |
| 4 | Procurement of co-operative societies (5 + 6) | 1,828.5 | 1,837.6 | 2,461.0 | 3,006.0 | 3,605.5 | 2,984.7 | 3,031.1 | 3,318.4 | 3,896.3 | 4,435.6 | 5,410.2 |
| 5 | Trade Corporations and State-owned industries | 1,529.5 | 1,702.0 | 2,234.8 | 2,605.2 | 3,018.9 | 2,515.8 | 2,605.0 | 2,701.8 | 3,031.4 | 3,461.6 | 3,964.9 |
| 6 | Co-operative wholesales | 299.0 | 135.6 | 226.2 | 400.8 | 586.6 | 468.9 | 426.1 | 616.6 | 864.9 | 974.0 | 1,445.3 |
| 7 | Ratio of procurement by co-operative societies to total internal trade | 15.4% | 11.5% | 11.7% | 11.7% | 12.1% | 9.5% | 8.6% | 8.7% | 9.0% | 9.3% | 10.6% |

Source : Report to the Pyithu Hluttaw

* Provisional actual
** Provisional

volume of internal trade. On the other hand, out of the total internal trade the procurement by the co-operative societies decreased from 15.4% in 1973-74 to 10.6% in 1983-84. It is also needed to compare the sectors of the total internal trade and the total internal trade itself. The purchases made by the Co-operative sector is only 10.6% of the internal trade, whilst the Private sector purchased about 54.6% of the internal trade during the year 1983-84. Thus, it is seen that the purchases by the Co-operative sector is much less than the Private sector. Although the participation of the Co-operative sector in internal trade is low, the Central Co-operative Society is arranging to increase its participation by extending the number of co-operative societies and expanding their activities. If the goal of expanding the activities of the co-operative societies is achieved, the co-operatives would prosper and at the same time meet the target laid down by the 20 Year Economic Plan.

## 2.3. Organization of Co-operative Societies

There are four main types of primary co-operative societies. They are the Consumers' Co-operatives, the Village Co-operatives, the Producers' Co-operatives

and the Savings and Credit Co-operatives. Besides the above there are other types, such as the Armed Forces Co-operatives, the People's Police Force Co-operatives, the Services Co-operatives, etc.

The purpose of the Village Co-operatives are not only to produce consumer goods and distribute them but also to provide services to the public. The Consumers' Co-operatives are formed in every ward of towns and cities. Those eligible to join as members of the Consumers' Co-operatives and the Village Co-operatives are the heads of the families permanently residing in the area. There are such co-operatives as the Single Purpose Producer Co-operatives which can be formed in both agricultural and industrial sections. And there are also co-operatives formed for the purpose of giving loans to the members which can be formed by the employees of government departments, factories and workshops.

The Primary Co-operative Societies within a township were organized into the Township Co-operative Societies. Their major functions are marketing of agricultural and industrial products of their own societies, procurement of goods and services on their behalf and to organize, promote and supervise the Primary Co-operative Societies.

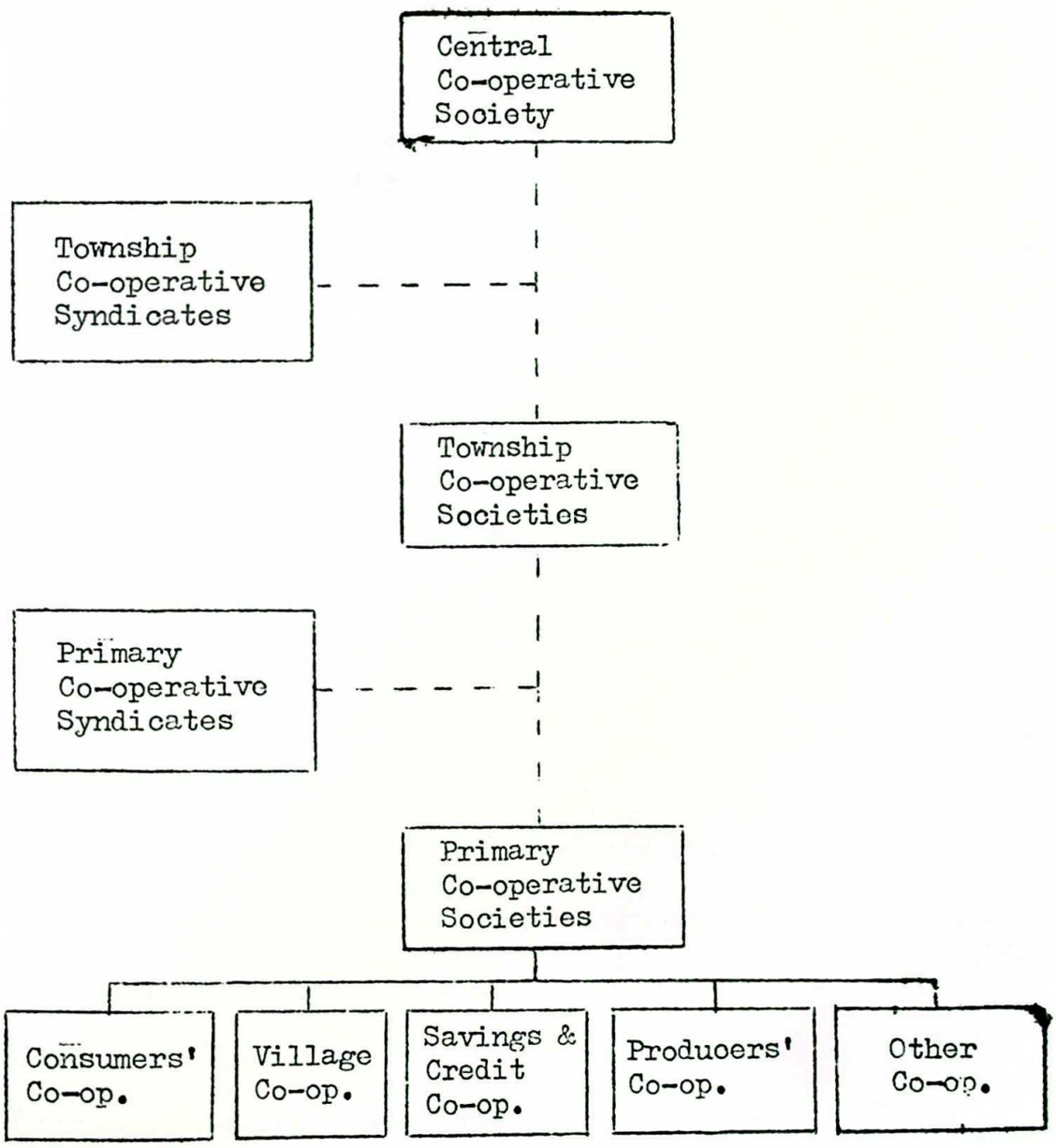
The Primary Co-operative Societies can be formed into a Primary Co-operative Syndicate to perform certain economic

functions of common interest. Likewise, the Township Co-operative Societies can collectively form into a Township Co-operative Syndicate or State/Divisional Co-operative Syndicate to undertake economic activities jointly.

The Township Co-operatives were combined together to become a Central Co-operative Society, the highest body in the movement. It is the duty of the Central Co-operative Society to co-ordinate the co-operatives and see that they operate within the framework of the State Economic Plan. This body is just a co-operative federation and does not take part in commercial activities. It is chaired by the Deputy Minister of Co-operatives.

The chart in the following page indicates the organizational structure of the co-operative societies.

. . - Organization of Co-operative Societies



All the co-operative societies have to perform their business activities under the guidance of the Ministry of Co-operatives. The Ministry of Co-operatives has two departments. They are (i) the Co-operative Department and (ii) Cottage Industries Department. The Co-operative Department takes responsibility for the development and expansion of co-operatives in addition to the exercise of statutory functions. Therefore, this department has to carry out many functions such as maintenance of law, planning, management, etc. One function is to supervise and control the activities of the co-operative societies in the course of implementation of the Co-operative Sectorial Plan and to also report and submit the statements and accounts. Besides, the Co-operative Department has to organize co-operative societies to register, educate and supervise the societies and to investigate and take necessary action.

The Cottage Industries Department is responsible for technical assistance in the establishment and the promotion of small and medium-scale industrial co-operatives. At present, the Economic and Technical Division under this department carries out project identification and feasibility studies and provides advisory services to improve performance of industrial co-operatives. Actually, the Cottage Industries Department act as a Technical Service Directorate of the Ministry in assisting the Co-operative

Sector, through the co-operative societies, on all industrial technical matters.

2.4. Overview of the Consumers' Co-operative Societies and the Village Co-operative Societies

2.4.1. Consumers' Co-operative Societies

In order to have an understanding of the Consumers' Co-operative Societies in general, one may need to realize the following facts:

(1) The aim,

(2) Eligibility for membership,

(3) Capital,

(4) Management,

(5) Commercial transactions,

(6) Allocation of profit.

(1) The aim - According to the book, "Bye-laws of the Consumers' Co-operative Societies"[1] of the Central Co-operative Society, the aim of the Consumers' Co-operative Societies is defined as follows.

The Consumers' Co-operative Societies are to procure proper goods which are essential for the members of the society and sell them inexpensively at any time when

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[1] Bye-laws of the Central Co-operative Societies (Rangoon : Central Co-operative Society Press, 1970), p.1.

needed and while performing the above, profiteering should not be the main purpose but to price the goods just to earn a small return in order to increase the capital.

(2) Eligibility for membership - To be eligibile for membership, a person must fulfil the following requirement.

(a) Permanent resident of a given location,

(b) The head of a family as shown in the family list recognized by the immigration department,

(c) A person who has completed the age of 18,

(d) A person who has agreed to follow the rules of the society.

(3) Capital - The capital of a Consumers' Co-operative Society consists of the following:

(a) The shares of the members;

(b) Funds of the society;

(c) Loans from the State Banks (in some cases).

(4) Management - A Consumers' Co-operative Society is managed by an executive committee. This committee can authorize other sub-committees or form a working body and let it run the business. The executive committee appoints employees, assigning them certain duties and giving them instructions to run the business.

(5) Commercial transactions

(a) Procurement of commodities - Commodities are obtained from the Industries Corporations, Trade Corporations, Township Wholesale Corporatives, Township Co-operative Societies, Agricultural Producers' Co - operative

Societies, Industrial Producers' Co-operative Societies, other Consumers' Co-operative Societies, private producers and private brokerage houses. Purchases of consumers' goods include both contracted and non-contracted. The contracted commodities from Industries Corporations and Trade Corporations are purchased through the Township Co-operative Societies. Settlement for the acquired commodities is made on cash basis in down payment, deferred payment and on credit basis.

(b) Storage of goods - Goods are procured and stored to be distributed to the consumers. In storing the goods, the societies either use their own warehouses or rented warehouses. In order to prevent loss, damage and wastage, goods need to be stored securely, to be cleaned, aired, sprinkled and sprayed with insecticide.

(c) Pricing - If there exists a price fixed by the government godds are sold accordingly. If not they are sold by the price fixed by the Township Co-operative Society or according to the one fixed by the Township Whole-sale Co-operatives. If none of the above mentioned fixations exist, the goods are to be sold at a mark up of 8.0% as prescribed by the government.

(d) Distribution - Goods are sold to the members and their families, permanent residents within a given area who are not members and their families and to visitors who

reside in a given area temporarily. However, the non-members can only buy those goods that are sold on open sale basis. Sales of goods are made in such systems as application method, rationing and allocation system and open sale method. Whichever system is used, goods are sold on a cash down basis.

(6) Allocation of profit - The annual profit of the Consumers' Co-operative Society are allocated according to the following priorities.

(a) Income-tax is paid according to the ratio prescribed by the government;

(b) Contribution to the various funds of the society;

(c) Distribute dividends on the shares;

(d) Give rewards in cash to the employees;

(e) Rebate, i.e., refund to the members according to the ratio they have spent on buying.

2.4.2. Village Co-operative Societies

Village Co-operative Societies are primary co-operative societies like the Consumers' Co-operative Societies. These societies not only procure and sell goods but also produce agricultural products and do animal breeding. Trading is the main commercial business of the Consumers' Co-operative Societies whereas agriculture and animal breeding are the basic business of the Village Co-operative Societies. Apart from the above mentioned distinction the business of the two

societies are the same.

In order to run the business of agriculture and livestock and fish breeding systematically, the Village Co-operative Society has to form such committees as agricultural committee and livestock and fish breeding committee out of its members.

(1) Way of doing agricultural business - To do agricultural work the committee has to acquire land from those who have obtained the right to cultivate the land and of course the owners' consent is necessary. To get the best production land development must first be done.

Buffaloes, bullocks and agricultural materials are also needed to be gathered. These are looked after by the members who are assigned to do so. If the animals and the materials are not sufficient they may be hired from third parties. Rain water, natural fertilizers, insecticides and paddy seeds are also acquired by the society.

Ploughing, sowing and harvesting jobs are assigned beforehand to each individual member accordingly. This assignment is done according to each member's physical and mental ability.

There are members who are able to participate both land and person and there are those who can contribute land only. In case of insufficiency of manpower, labourers can be hired at prevailing wages. To meet the

unexpected losses or to procure more animals, pumps, tractors, etc., some of the profit is saved.

Income from the agricultural work is divided on the basis of how the work was carried out. When the land is pooled into one plot, the income is allotted into the funds of the contributions of land and labour according to the rated proportion. The profit is shared according to the ratio of land and labour contributions. If one's land is worked on by the owner on the collective basis, then the income from the land is enjoyed by the owner. 5.0% of this type of income or any other rate resolved by the society is to be contributed towards the fund of the society as capital for investment.

(2) Live-stock and fish breeding business - Live-stock and fish are obtained from the Township Co-operative Society or from other obtainable sources and are distributed among those members undertaking to do the breeding. Feeding and herding these animals are carried out by these members. The society members take turn to keep the animals systematically and to acquire fodder. At the same time, veterinary work is also done by the society.

Members who do the breeding have to contribute their bred live-stock and fish and the products to the society. In return the society pay out the net settlement after deducting the costs of the offsprings, fodder and veterinary charges.

# CHAPTER III

# EMPIRICAL ANALYSIS

## 3.1. Objectives of the study

The aims of forming co-operative societies in Burma are to boost the economy of the State and to fulfil the needs of the members as much as possible. To achieve these objectives co-operative societies need to do their business successfully. The aim of this study is to reflect and scrutinize the performance of these co-operatives. Hence, the following two principle purposes of this study are established.

(1) To ascertain the financial situation of Primary Co-operative Societies.

(2) To determine the variables that affect the performance of Primary Co-operative Societies.

It is also hoped that this study will be of some benefit to the Primary Co-operative Societies.

## 3.2. Design of the study

This study is restricted only to Rangoon Division. Also, only the Consumers' Co-operative Societies and the Village Co-operative Societies which serve mainly as retail distribution points, would be analysed.

In 1982, there were 626 Consumers' Co-operative Societies and 633 Village Co-operative Societies in 38 townships of Rangoon Division, totalling 1259. These societies form the

basis of the present study, which is divided into the following phases.

(1) Phase One - Analysis of the Financial Statements of the 1259 Primary Societies in Rangoon Division was done by using financial ratios as analytical measures. The Financial Statements of each society for the past six years (1975/76 to 1980/81) were taken into consideration.

(2) Phase Two - Three townships in Rangoon Division were chosen for the purpose of detailed analysis. On the basis of analysis in phase one, 10 societies from each township were selected, totalling 30 societies for the three townships. After field study for these societies, detailed analysis was made to assess the variables of performance.

## 3.3. Data Collection

This study was conducted with the help of 15 assistants, comprising five personnel from the Central Co-operative, five from the Rangoon Divisional Co-operative Syndicate, and five graduates from the Institute of Economics.[1]

The financial statements of the Consumers' Co-operative Societies and the Village Co-operative Societies of Rangoon Division were taken from the Central Co-operative to perform the phase one of this research. The number of the Consumers'

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[1] This study was undertaken with the help and assistance of Rangoon Divisional Co-operative Syndicate.

Co-operative Societies and the Village Co-operative Societies of the 38 townships of Rangoon Division is shown in the following table

TABLE 3.1. - Number of Consumers' Co-operative Societies and Village Co-operative Societies in Rangoon Division

| Sr. No: | Townships | Type of society | | Total |
|---|---|---|---|---|
| | | Consumers' Co-operative | Village Co-operative | |
| 1. | Insein | 22 | 11 | 33 |
| 2. | Mingaladon | 19 | 8 | 27 |
| 3. | North Okkalapa | 44 | - | 44 |
| 4. | Hlaing | 21 | - | 21 |
| 5. | Mayangon | 27 | - | 27 |
| 6. | Kamayut | 14 | - | 14 |
| 7. | South Okkalapa | 55 | - | 55 |
| 8. | Thingangyun | 49 | - | 49 |
| 9. | Yankin | 17 | - | 17 |
| 10. | Ahlone | 16 | - | 16 |
| 11. | Kemmendine | 22 | - | 22 |
| 12. | Sanchaung | 22 | - | 22 |
| 13. | Lanmadaw | 12 | - | 12 |
| 14. | Botataung | 10 | - | 10 |
| 15 | Kyauktada | 9 | - | 9 |
| 16. | Pazundaung | 10 | - | 10 |

TABLE 3.1. - (continued)

| Sr. No. | Townships | Type of society | | Total |
|---|---|---|---|---|
| | | Consumers' Co-operative | Village Co-operative | |
| 17. | Bahan | 22 | - | 22 |
| 18. | Mingala Taungnyunt | 26 | - | 26 |
| 19. | Thaketa | 36 | - | 36 |
| 20. | Seikkan | 3 | - | 3 |
| 21. | Latha | 9 | - | 9 |
| 22. | Pabedan | 10 | - | 10 |
| 23. | Dagon | 6 | - | 6 |
| 24. | Tamwe | 25 | - | 25 |
| 25. | Dawbon | 15 | - | 15 |
| 26. | Dallah | 17 | - | 17 |
| 27. | Seikkyi/Kanaungto | 8 | - | 8 |
| 28. | Syriam | 17 | 28 | 45 |
| 29. | Kyauktan | 7 | 52 | 59 |
| 30. | Kayan | 4 | 52 | 56 |
| 31. | Thongwa | 8 | 50 | 58 |
| 32. | Kungyangon | 7 | 43 | 50 |
| 33. | Kawmhu | 2 | 55 | 57 |
| 34. | Hmawbi | 6 | 42 | 48 |
| 35. | Taikkyi | 8 | 69 | 77 |
| 36. | Tantabin | 5 | 60 | 65 |
| 37. | Twante | 9 | 90 | 99 |
| 38. | Hlegu | 7 | 73 | 80 |
| | Total | 626 | 633 | 1259 |

Based on the above presented societies' financial statements, Phase One of the research was done with the help of the research group.

To perform the Phase Two, a field study tour was made for two months within the three townships selected from Rangoon Division. These townships were Kemmendine, Insein and Syriam. To accomplish the field study, the research group was divided intwo three smaller groups, each consisting of five members. Each of these groups took the responsibility to cover 10 co-operative societies of a given township, whereby 30 co-operative societies were covered. Data were acquired at interviews, analysis of the documents and by observations. From the data collected, analysis was made with the help of the research group.

## 3.4. Analysis of Financial Statements

### 3.4.1. Financial ratios of co-operative societies

In implementing the 20 years economic plan, the co-operative societies must accomplish fully the yearly plan. On the other hand they are also comeplled to make profit in doing business in accordance with clause 63(i) of the 1970 Law of the Burma Co-operative Societies. In doing so the co-operative societies are required to invest their capital beneficially and to maintain a good liquid position. In other words, co-operative societies

are expected to make profit and at the same time maintain the characteristics of Co-operatives. Therefore, as the co-operative societies develop, it becomes necessary to review their financial situation more closely.

The co-operative societies employ the ratio analysis to analyse the financial situation. In fact, it has been mentioned in Chapter I that the ratio analysis is more practicial for both present and potential suppliers of capital. Management of the co-operative societies in Burma apply the ratio analysis as the prime method of analysing the financial situation of their societies' business.

The co-operative societies analyse their financial statements using ratio analysis in the following areas.

(1) The structure of capital and assets - Capital is needed to do business. Therefore, on the establishment of the co-operative societies members contribute their share of capital into it. In case of insufficiency of capital or expansion of business, loans can be taken from the State banks. Out of these capitals some can be used to obtain essential fixed assets while others can be utilized as working capital proportionately. Hence, it becomes necessary for the co-operative societies to analyse how their capital is procured and how they are invested. That is, to analyse the capital structure of the business.

(2) Liquidity - The co-operative societies are required to settle their payments promptly. For this reason, the co-operative societies must have sufficient ready cash to meet their obligations. However, it often happened that societies did not have enough cash needed to settle their accounts. In such cases, other current assets, such as receivables and inventories could be converted into cash to settle the payment. Failure to meet the demand for payments lowers the integrity of the society. However, unlike private business, payment of debts can be postponed by bilateral agreements. Therefore, the co-operative societies do not pay as much attention to liquidity as private business. However, it is expedient to have enough funds available either in the form of cash or receivables and inventory to satisfy the demand of creditors.

(3) Profitability - Making profit is not the major aim of the co-operative business. However, it is important that not only expenses are covered but also a reasonable profit is earned at the end of financial period if the co-operative business is to survive in the long run. Sustained losses over a period of time would force co-operative societies out of business. For this reason, it is inevitable to see that the societies make profit and that the capital is used beneficially.

The following financial ratios are selected to oversee the above mentioned areas.[1]

Ratios to examine the structure of capital and assets:

(1) Vulnerability of stocks

(2) Inventory turnover

(3) Utilization of working capital

(4) Added value per kyat of operating assets

(5) Utilization of fixed assets

Ratios to examine liquidity:

(6) Current ratio

(7) Acid-test ratio

(8) Cash ratio

Ratios to examine profitability:

(9) Return on total investment

(10) Return on stockholders' equity

(11) Gross profit ratio

(12) Operating expense ratio

(13) Net profit ratio

(14) Operating ratio

(15) Return on operating assets

To find out the financial situation of the Primary Co-operative Societies, the financial statements of the Consumers' Co-operative Societies and the Village Co-operative Societies of Rangoon

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[1] The calculation and the use of the financial ratios has been discussed in Chapter I.

Division were analysed. Based on the financial statements of the 626 Consumers' Co-operative Societies and the 633 Village Co-operative Societies, totalling 1259 in number of Rangoon Division, the above mentioned ratios were calculated. Calculations were made for the year 1975/76 to 1980/81, covering a period of six years.

Further, to scrutinise the obtained ratios, the mean ratios of Rangoon Division were also determined. The management of co-operatives uses certain standard ratios prescribed in management accounting texts.[1] The mean financial ratios along with the standard values of the Consumers' Co-operative Societies and the Village Co-operative Societies of Rangoon Division is shown in Table 3.2.

TABLE 3.2 - Mean Ratios of the Consumers' Co-operative Societies and Village Co-operative Societies in Rangoon Division

| Sr. No. | Financial Ratios | Norm | Mean Value | |
|---|---|---|---|---|
| | | | Consumers' Co-operative | Village Co-operative |
| | Ratios to examine the structure of capital and assets: | | | |
| 1. | Vulnerability of stocks | - | 51.5% | 49.0% |
| 2. | Inventory turnover | 6 times | 26.8 times | 30.4 times |
| 3. | Utilization of working capital | - | 17.7 times | 9.2 times |
| 4. | Added value per kyat of operating assets | - | 55.6% | 76.4% |

[1] These norms have been indicated in the booklet produced by the department of co-operative with the original intention of not considering them as standards. However, in practice, most of the co-operative societies have been treating them as such and accordingly evaluation of the societies have been undertaken using these measures.

TABLE 3.2 - (continued)

| Sr. No. | Financial Ratios | Norm | Mean Value | |
|---|---|---|---|---|
| | | | Consumers' Co-operative | Village Co-operative |
| 5. | Utilization of fixed assets | - | 394.7% | 148.6% |
| | Ratios to examine liquidity: | | | |
| 6. | Current ratio | 2:1 | 32.0:1 | 28.6:1 |
| 7. | Acid-test ratio | 1:1 | 15.0:1 | 22.1:1 |
| 8. | Cash ratio | 20.0% | 939.1% | 1323.4% |
| | Ratios to exaine profitability: | | | |
| 9. | Return on total investment | 8.0% | 25.1% | 10.0% |
| 10. | Return on stock-holders' equity | - | 80.3% | 65.2% |
| 11. | Gross profit ratio | 8.0% | 8.4% | 11.5% |
| 12. | Operating expense ratio | 4.0% | 6.0% | 12.2% |
| 13. | Net profit ratio | 4.0% | 2.2% | 3.6%* |
| 14. | Operating ratio | 96.0% | 98.1% | 98.0% |
| 15. | Return on operating assets | 8.0% | 16.7% | 9.7% |

* Although the operating expense is higher than gross profit on sales, many Village Co-operatives earn other income enough to show net profit in the final results.

The financial ratios mentioned above will be considered as follows.

Ratios to examine the structure of capital and assets:

(1) Vulnerability of stocks

$$\frac{\text{Inventory}}{\text{Working capital}}$$

This ratio represents the percentage of working capital employed as inventory.

In co-operative societies studied, it was found that year end stationery and office supplies were added to the balance of stock. There is no standard set against which this ratio can be compared. From the table one can see that the ratios of vulnerability of stocks are 51.5% and 49.0% for Consumers' Co-operatives and Village Co-operatives respectively. Thus, we find that approximately half of the working capital in invested in stock. A possible explanation for this is the fact that the societies are mainly in the distribution of goods. The expediency of having more than half of the working capital in stock can be further examined by computing the inventory turnover rates.

(2) Inventory turnover

$$\frac{\text{Cost of sales}}{\text{Average inventory}}$$

This ratio is a measure of the speed with which stock is turnover. The rate given by this ratio can serve as an

indicator for either overstocking or understocking. Thus, co-operatives can regulate the amount of inventory held.

The standard rate set for this ratio is 6 times. That is, it is alright to hold an item of inventory for a period of two months. However, it is found that the Consumers' Co-operative Societies and the Village Co-operative Societies have the turnover rate of 26.8 times and 30.4 times respectively. In other words, the Consumers' Co-operative Societies take 14 days and the Village Co-operative Societies take 12 days to sell their goods once put on sale. A high inventory turnover rate is usually taken as a measure of success for the business, but societies with high inventory turnover should take care to prevent stock outs. This would entail frequent replenishment of stocks often every 14 or 12 days, thereby increase the cost of procurement. The high inventory rate in co-operative societies can be explained by the following factors. (a) Co-operative societies deal in basic consumers goods, (b) frequent replenishment due to (i) inadequate capital, (ii) shortage of storage space and (iii) insufficient supply from suppliers.[1]

In conclusion, we can say that the co-operative societies which deal mostly in basic consumer's goods would naturally

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[1]However, latter observations point out that the current ratio, the acid-test ratio and the cash ratio are very much higher than the standard rates set for co-operative societies so that inadequate capital can not be one of the reasons for frequent replenishment.

have higher turnover rate than other type of business, viz., production business. So that the standard set at 6 times is lower than what it should be. It is assumed that the co-operative societies should have at least 12 times of inventory turnover each year. The 12 times of inventory turnover compared to the 26.8 times and the 30.4 times in practice is a big difference. Perhaps if the stock balance at year end is less than the normal period, the inventory turnover may be higher than in the normal situation. Further, as the co-operative societies are rapid sellers with high inventory turnover, it seemed to be fair that half their working capital is invested in the inventory, in order not to face shortage of goods.

(3) Utilization of working capital

$$\frac{\text{Sales}}{\text{Working capital}}$$

Applying this ratio, it can be determined whether the working capital is used beneficially or not. In practice, there are 17.7 times for the Consumers' Co-operative Societies and 9.2 times for the Village Co-operative Societies. This shows that the Consumers' Co-operative Societies are able to utilize the working capital more beneficially than the Village Co-operative Societies. This can be explained by the two reasons. (a) The Village Co-operative Societies are located far from the Township Co-operatives, i.e., the main

sources of goods and (b) they have transportation problems.

(4) Added value per kyat of operating assets

$$\frac{\text{Added value}}{\text{Operating assets}}$$

This ratio is used to examine how much added value is received on the investment value of one kyat used in the operating assets. Again, no norm is set for this ratio. If one studies this ratio one finds that it is 55.6% for the Consumers' Co-operative Societies and 76.4% for the Village Co-operative Societies. In this condition it can be said that the added value received by the co-operative societies is not small. But the Village Co-operative Societies are getting more added value than the Consumers' Co-operative Societies. The reasons may be that the Village Co-operative Societies fixed the gross profit percentage higher than the Consumers' Co-operative Societies. or may be that the labour and conveyance cost of goods bought are high or may be both.[1] Perhaps, another reason may be that the Village Co-operatives have less operating assets than the Consumers' Co-operative Societies.

(5) Utilization of fixed assets

$$\frac{\text{Added value}}{\text{Fixed assets}}$$

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[1] The gross profit ratio for the Consumers' Co-operative is 8.4% and for the Village Co-operative is 11.5%

This ratio is applied in determining the condition of the added value resulting from the utilization of fixed assets. The utilization of fixed assets of the Consumers' Co-operative Societies is 394.7%. Therefore, the added value resulting from the investment in the fixed assets appears to be high. The cause of this is that the Consumers' Co-operative Societies, mainly run the business of goods distribution, need not invest much in the fixed assets on aocount of their nature of business. The utilization of fixed assets of the Village Co-operative Societies is only 148.6%, as it is seen. Therefore, one can find that the utilization of fixed assets of the Village Co-operative Societies is not so high as that of the Consumers' Co-operative Societies. The reason may be that the Village Co-operative Societies, besides the distribution goods, do other business, such as agricultural business, renting motorized launches, tractor hiring business, etc., which requires considerable amount of investment in fixed assets.

Ratios to examine liquidity:

(6) Current ratio

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

A current ratio is used to measure a firm's liquidity. The standard current ratio of the co-operative societies is set as 2:1. In practice, it is found that the current ratios

of the Consumers' Co-operative Societies and the Village Co-operative Societies are 32.0:1 and 28.6:1 respectively. In other words, if the current liabilities of a business is one kyat, the current assets of the Consumers' Co-operative would be 32 kyats and the Village Co-operative Societies would be 28.6 kyats respectively. From this finding it is prominent that the current ratio of the co-operative societies are rather high. This may be explained by the reason that the co-operative societies are having only small amount of liabilities as transactions are mostly on cash basis. In most cases there is non-availability of short-term credit from suppliers.

(7) Acid-test ratio

$$\frac{\text{Quick assets}}{\text{Current liabilities}}$$

The acid-test ratio is used to measure the extent to which liquid resources are immediately available to meet current obligations. The standard acid-test ratio of the co-operative societies is 1:1. According to the results from this study it is found that this ratio of the Consumers' Co-operative Societies is 15:1 and that of the Village Co-operative Societies is 22:1. That is to say, if the current liabilities of a business is one kyat, the quick assets of the Consumers' Co-operative Societies willbe 15 kyats and that of the Village Co-operative Societies will be 22 kyats. Here also we find that the acid-test ratio is much higher than the standard

ratio which is 1:1. The reason is the same as current ratio, i.e., due to co-operatives having very small amount of liabilities.

(8) Cash ratio

$$\frac{\text{Cash}}{\text{Current liabilities}}$$

Whether or not a current liabilities could be settled in cash is measured by the cash ratio. The standard of this ratio has been rated as 20.0% for co-operative societies. Practically, the cash ratio of the Consumers' Co-operative Societies is 939.0% and of the Village Co-operative Societies is 1323%. Here again, we find that the cash ratio of the co-operative societies is very high.

Further, it is necessary to analye the liquidity of the co-operative societies basing on the above mentioned three ratios. It has been found that the ratios showing the liquidity were very high. The liquidity ratios are all out of line because there is no or low liability. In co-operative societies all or most of the transactions are on cash basis. It can also be presumed that the cause of this is because the co-operative societies do not utilize the working capital effectively, i.e., they hold cash in hand more than needed to run their business. This excessive cash can be considered as hoarded money in the business. The reason for keeping this excessive cash in hand may be due to the unpredictable nature of the commodities in relation to the timing

and the availability. It may also be that they kept it as a margin of safety which management maintains in order to allow for the inevitable unevenness in the flow of funds through the current assets and liability accounts

If the reason is the latter, then one may say that the excessive cash kept as a margin of safety is unnecessarily an overflow. It may, therefore, be presumably concluded that the co-operative societies are not utilising their capital judiciously.

Standards for the liquidity ratios of the co-operative societies are set based on the text books of management accounting literature. But for those co-operative societies that do not sell on credit and on the contrary in their turn either purchase on credit or on deferred payments basis, these standard ratios tend to point more towards the maintenance of the margin of safety than towards the liquidity of their business. Once again, from the findings it is seen that the current assets of co-operative societies are much higher than their current liabilities. As such, the above mentioned ratios show more of the utilization of working capital than liquidity. In fact, it may be sufficient to use the current ratio and the cash ratio to measure the liquidity of the co-operative societies whose stock turnovers are quite high and which do not sell goods on credit.

Ratios to examine profitability:

(9) Return on total investment or Return on capital

$$\frac{\text{Profit before taxes}}{\text{Capital + fixed liabilities}}$$

$$= \frac{\text{Profit before taxes}}{\text{Working capital + fixed assets}}$$

The return on investment ratio is used to measure how well the management used all the permanent funds entrusted to it to run the business.

Studying the return on investment of the co-operative societies, we find that it is 25.0% for the Consumers' Co-operative Societies and 10.0% for the Village Co-operative Societies. In general, it is found that the return on investment of the Consumers'Co-operative Societies is higher than that of the Village Co-operative Societies. Here again, it is to be noted the different natures of business of the two types of co-operative societies. The Consumers' Co-operative Societies deal mainly in the distribution of goods, whereas the Village Co-operative Societies do the business of producing goods and rendering services. That is to say, the Village Co-operative Societies do their business with a larger amount of investment than the Consumers' Co-operative Societies. This may be the reason for the return on investment of the Village Co-operative Societies being lower than that of the Consumers' Co-operative Societies.

The standard set for this ratio is 8.0%. However, in

practice, the return on investment of the co-operative societies is higher than the standard rate. It would not be satisfactory if the return on investment of the co-operative societies is lower than 8.0%. On the other hand, also , it can not be said that the situation is satisfactory even though their return on investment is 8.0%. The norm, 8.0% is the standard rate fixed according to the bank interest rate. Therefore, the return on investment of the co-operative societies should be at least 8.0% and higher in order to reach up to a certain limit of satisfactory situation. If, in the long run, the business is intended to be extended it is assumed that the return on investment of the co-operative societies should be higher than 8.0%.

(10) Return on stockholders' equity

$$\frac{\text{Net income after taxes}}{\text{Stockholders' equity}}$$

The return on stockholders' equity is a measure of how well the management used the owners' equities in the business.

No standard rate is fixed for this ratio. In practice, it is 80.3% and 65.2% for the Consumers' Co-operative and the Village Co-operative Societies respectively. On the whole, the return on stockholders' equity of the co-operative societies is good and the percentage of the return

on shareholders' equity of the Consumers' Co-operative Societies is higher than that of the Village Co-operative Societies.

In co-operative societies, however, only the share capital is used in determining the return on stockholders' equity. In fact, to reflect the current situation, the actual stockholders' equities should be used. In other words, besides the share capital, the retained earnings, business extension funds and general funds should be included for computation. Then, only would it be known the return on shareholders' equities actually invested in the business.

(11) Gross profit ratio

$$\frac{\text{Gross profit}}{\text{Net sales}}$$

In order to measure how much gross profit has been marked-up on the sale of goods by co-operative business, this ratio is used.

The standard rate for this ratio is 8.0%. In practice, the gross profit percentage of the Consumers' Co-operative Societies and the Village Co-operative Societies are 8.4% and 11.5% respectively. Therefore, it is seen that the mark-up of the Consumers' Co-operative Societies is in accordance with the standard and the one of the Village Co-operative Societies is higher than the standard rate.

In general, it is assumed that it is natural that the percentage of gross profit of the Village Co-operative Societies is higher than that of the Consumers' Co-operative Societies. For, as previously discussed, the nature of business of the Consumers' Co-operative Societies and the Village Co-operative Societies are not the same. Because of this, if the two types of co-operative societies are compared, there is a likelihood of the Consumers' Co-operative Societies being able to control the expenditure better than the Village Co-operative Societies. Thus, only when the standard gross profit ratio of the Village Co-operative Societies is higher than the standard rate of the Consumers' Co-operative Societies, the Village Co-operative Societies will be able to cover their operating expenses.[1]

(12) Operating expense ratio

$$\frac{\text{Operating expenses}}{\text{Net sales}}$$

This ratio is used in determining the operating expense percentage of sales in doing commercial business.

For the co-operative societies, the standard set for this ratio is 4.0%. In practice, the operating expense

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[1] The ratio of the operating expenses of the Village Co-operative Societies being 12.2%, it is seen that the gross profit is not enough to cover the operating expenses.

ratio of the Consumers' Co-operative Societies is 6.0% and of the Village Co-operative Societies is 12.2%. Hence, it is found that the operating expense ratio of the co-operative societies are higher than the standard. The operating expense ratio of the Consumers' Co-operative Societies is not very much higher than the standard set. But, as the operating expense ratio of Village Co-operative Societies is higher than the gross profit ratio, it can be said that they are not in a position to control their operating expenses. Therefore, it becomes necessary that the components of the operating expenses be separately correlated with net sales.

One of the reasons for the Village Co-operative Societies facing difficulty to control their operating expenses is that they are not only distributing goods, but also is concerned with production and the rendering of services. As the nature of business of the Village Co-operative Societies is diverse, it is assumed that the operating expense ratio of this co-operative should be rated higher than that of the Consumers' Co-operative Societies.[1]

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[1] It has been mentioned that the gross profit ratio of the Village Co-operative Societies should be rated higher than that of the Consumers' Co-operative Societies.

(13) Net profit ratio

$$\frac{\text{Net profit}}{\text{Net sales}}$$

The net profit ratio is used to measure the over-all profitability.

The standard rate of this ratio is 4.0% for the co-operative societies. So far as the empirical results are concerned, the net profit ratio of the Consumers' Co-operative Societies is 2.2% and that of the Village Co-operative Societies is 3.6%. Because the operating expense ratios of the Consumers' Co-oporative Societies are higher than the standard, the net profit ratios become lower than the standard. Therefore, if the operating expenses of the Consumers' Co-operative Societies could be decreased, the net profit percentage would increase.

Although, the operating expense ratio of the Village Co-operative Societies is higher than the gross profit percentage, the net profit ratio is 3.6%. This is not the result of profit from operating, but of other incomes.[1] If the Village Co-operative Societies do not get other income considerably, there is a possibility of facing losses. As a matter of fact, the Village Co-operative Societies should not

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[1] Other incomes comprise the money obtained from the sales of old news-papers, old gunny bags, empty drums, extra rice, etc.

depend on other incomes but mainly on operating profit. Hence, they should cut down the operating expenses as much as possible and strive to get profit from operating. It is assumed that a ratio concerning other incomes (ratio of other income to net sales) should be fixed. In other words, there should be a control over other income from dominating the net profit. Thereupon, the business performance, can be appraised more meaningfully and at the same time be able to take care not to harm the interest of the consumers.

(14) Operating ratio

$$\frac{\text{Cost of sales + expenses}}{\text{Net sales + other income}}$$

This ratio is used in determining the total operating expenses as percentage of sales.

The standard of this ratio for the co-operative business is 96.0%. In practice, it is 98.1% for the Consumers' Co-operative Societies and 98.0% for the Village Co-operative Societies. Therefore, the operating ratios of the co-operatives are higher than the standard established. It is not because of the cost of goods sold but because of the operating expenses. If the co-operatives can reduce the expenses, the operating ratio will decrease and the net profit will increase. Furthermore, it is found that other incomes and expenses are included in calculating this ratio. In cases where the volume of other incomes is large, the

operating ratio would not be able to reflect the true image of the business, because of its domination. In the Village Co-operative Societies, though the total income is higher than the total expenses, the total income is dominated by other incomes.

(15) Return on operating assets

$$\frac{\text{Operating profit}}{\text{Total operating assets}}$$

The return on operating assets ratio is used in measuring whether or not it is capable to utilize the operating assets of the business to the utmost advantage.

The standard ratio is set for 8.0% in co-operative business. In effect, the return on operating assets of the Consumers' Co-operative Societies is 16.7%, while that of the Village Co-operative Societies is 9.7%. Hence, it is seen that the return on operating assets ratios of the co-operatives are higher than the norm and that the Consumers' Co-operative Societies' return on operating assets is better than that of the Village Co-operative Societies. The difference in the return on operating assets of the two co-operatives may be because of the dissimilarity in the nature of their business.

Moreover, the societies may subsist on loans in the form of capital invested in the total operating assets. Therefore, it would not be proper to say that the return is good just

because the return on operating assets is 8.0%. It would be appropriate to conclude that the percentage of the return on operating assets is good only when it is at least 8.0% and above. Besides, they use the total assets in computing this ratio instead of using the total operating assets figure. In fact,the assets that is not being utilized in the operating of the business should be excluded from the total assets calculation. For example, a warehouse which is rented to other organization.

### 3.4.2. Assessing the success of the Consumers' Co-operative Societies and the Village Co-operative Societies by using financial ratios

The 15 financial ratios used in assessing the financial situation of the co-operative societies have been discussed. In continuation, a ratio that can be used to evaluate the success of the co-operative societies was selected in this section. The success of the co-operative societies of the Rangoon Division was measured on a township basis.

In assessing the success of the business, profitability takes part as the most important factor. The reason is that it is the indicator which should be considered as significant both in assessing the financial situation and in evaluating the over-all performance of the business. In general, a ratio that can represent the financial ratios used to measure the profitability is assumed to be the operating ratio. Therefore, the operating ratio was applied in assessing the

success of the co-operative societies.

Firstly, the success of the Consumers' Co-operative Scocieties within the Rangoon Division was measured townshipwise. In doing so, two classifications were made based on the mean operating ratios of each township. The first falls into the category of successful and unsuccessful townships. The standard ratio used by the co-operative societies was applied as a norm in classifying them. Secondly, townships were classified into acceptable townships whose success are acceptable, and non-acceptable townships whose success are not acceptable by using the mean operating ratio of the Rangoon Division as a norm. As mentioned earlier, the standard operating ratio of the co-operatives is 96.0% and the mean operating ratio of the Consumers' Co-operative Societies is 98.11% The findings are as shown in the table on the next page.

TABLE 3.3 - Condition of Success of the Consumers' Co-operative Societies within the Rangoon Division

| Sr. No. | Townships | Operating Ratio (Percentage) | Classification according to Standard | Classification according to Mean |
|---|---|---|---|---|
| 1. | Taikkyi | 95.02 | Successful | Acceptable |
| 2. | Pabedan | 95.67 | " | " |
| 3. | Syriam | 95.76 | " | " |
| 4. | Lanmadaw | 96.85 | Unsuccessful | " |
| 5. | Tantabin | 97.03 | " | " |
| 6. | Thaketa | 97.45 | " | " |
| 7. | Sanchaung | 97.51 | " | " |
| 8. | Kyauktada | 97.54 | " | " |
| 9. | Thongwa | 97.58 | " | " |
| 10. | Latha | 97.67 | " | " |
| 11. | Twante | 97.70 | " | " |
| 12. | Hmawbi | 97.82 | " | " |
| 13. | Dallah | 97.87 | " | " |

| Sr. No. | Townships | Operating Ratio (Percentage) | Classification according to Standard | Classification according to Mean |
|---|---|---|---|---|
| 14. | North Okkalapa | 97.91 | Unsuccessful | Acceptable |
| 15. | Hlegu | 98.00 | " | " |
| 16. | Mingaladon | 98.02 | " | " |
| 17. | Dagon | 98.05 | " | " |
| 18. | Bahan | 98.10 | " | " |
| 19. | Kemmendine | 98.13 | " | Non-acceptable |
| 20. | Mayangone | 98.17 | " | " |
| 21. | Insein | 98.19 | " | " |
| 22. | Tamwe | 98.19 | " | " |
| 23. | Hlaing | 98.21 | " | " |
| 24. | Kamayut | 98.22 | " | " |
| 25. | Mingala Taungnyunt | 98.28 | " | " |
| 26. | Kawmhu | 98.38 | " | " |
| 27. | Thingangyun | 98.42 | " | " |
| 28. | Kyauktan | 98.48 | " | " |

TABLE 3.3 - (continued)

| Sr. No. | Townships | Operating Ratio (Percentage) | Classification according to Standard | Classification according to Mean |
|---|---|---|---|---|
| 29. | Ahlone | 98.51 | Unsuccessful | Non-acceptable |
| 30. | Dawbon | 98.53 | " | " |
| 31. | Botataung | 98.85 | " | " |
| 32. | Pazundaung | 98.90 | " | " |
| 33. | Kayan | 98.93 | " | " |
| 34. | South Okkalapa | 99.00 | " | " |
| 35. | Kungyangon | 99.15 | " | " |
| 36. | Yankin | 100.01 | " | " |
| 37. | Seikkyi/Kanaungto | 100.71 | " | " |
| 38. | Seikkan | 100.03 | " | " |

TABLE 3.3 - (continued)

As it is seen in the above table, Taikkyi, Syriam and Pabedan were successful townships. The others were unsuccessful townships. Therefore, the standard 96.0% is incapable of reflecting the situation that is prevailing. Further, applying the mean ratio of Rangoon Division, it was found that there were 18 townships whose success are acceptable and the remaining 20 whose success are not acceptable. The acceptable townships were Taikkyi, Syriam, Pabedan, Lanmadaw, Tantabin, Thaketa, Sanchaung, Kyauktada, Thongwa, Latha, Twante, Dallah, North Okkalapa, Hlegu, Mingaladon, Dagon and Bahan.

Secondly, the condition of success of the Village Co-operative Societies of Rangoon Division was evaluated according to townships and the results are shown in the following table on the next page. (The mean operating ratio of the Village Co-operative Societies is 98.02%).

TABLE 3.4 - Condition of Success of the Village Co-operative Societies within the Rangoon Division.

| Sr. No. | Townships | Operating Ratio (Percentage) | Classification according to Standard | Classification according to Mean |
|---|---|---|---|---|
| 1. | Tantabin | 96.21 | Unsuccessful | Acceptable |
| 2. | Hmawbi | 97.27 | " | " |
| 3. | Twante | 97.54 | " | " |
| 4. | Hlegu | 97.65 | " | " |
| 5. | Taikkyi | 97.68 | " | " |
| 6. | Kayan | 98.20 | " | Non-acceptable |
| 7. | Mingaladon | 98.22 | " | " |
| 8. | Kyauktan | 98.50 | " | " |
| 9. | Syriam | 98.52 | " | " |
| 10. | Kungyangon | 98.84 | " | " |
| 11. | Insein | 98.98 | " | " |
| 12. | Thongwa | 99.08 | " | " |
| 13. | Kawmhu | 99.53 | " | " |

Applying the standard used by the co-operatives it was found that all the 12 townships studied were unsuccessful. On the other hand, when the mean ratio of Rangoon Division was used and it was found that the state of success of five townships, viz., Htantabin, Hmawbi, Twante, Hlegu and Taikkyi were acceptable while the remaining eight townships' state of success were not acoeptable.

Further, it would be necessary to analyse in detail the reason why some of the co-operative societies are successful while others are not. Therefore, in the latter sections, variables that could affect the performance of the co-operative societies would be determined.

## 3.5. Systems study

### 3.5.1. Selection of Societies

In order to analyse the Consumers' Co-operative Societies and the Village Co-operative Societies in detail, study tours were made within the Rangoon Division. Three out of 38 townships of the Rangoon Division were selected by purposive sampling. They are (i) Kemmendine Township, (ii) Insein Township and (iii) Syriam Township.

10 societies each of these townships, making a total of 30, were selected on the basis of net profit ratio and return on operating assets ratio, calculated in the phase one of this study. Selection of societies from each

township was made as described below.

It was found that there were 22 Consumers' Co-operative Societies in Kemmendine Township. They were listed from the highest to the lowest according to the percentage of net profit. In accordance with the list obtained, they were arranged into three groups, each comprising of one third of the number of the societies. Thus, the societies that had the highest ratios were placed in the first group. Those that ranked in the middle between the highest and the lowest were in the second group and those that had the lowest ratios were in the third group. Likewise, the societies in the Kemmendine Township were arranged and grouped again according to the return on operating assets ratio.

Then, those societies which were in the first group according to the net profit percentage as well as percent return on operating assets were categorised as high performance societies. In other other words, they were high in both of the ratios and that was why they were termed as high performance societies. Again, those grouped in the second according to the net profit percentage and the percent return on operating assets, that is to say, those societies ranking in between were categorised as the medium performance societies. Finally, those falling in the last group or those having the lowest in both of the ratios were classfied as the low performance societies.

According to the above classification the 10 societies selected from the Kemmendine Township can be seen in the following table.

TABLE 3.5 - Selected Consumers' Co-operative Societies of the Kemmendine Township

| Sr. No. | Societies | Net Profit Percentage | Percent Return on Operating Assets | Performance |
|---|---|---|---|---|
| 1. | Bor Gar | 2.6 | 16.6 | High |
| 2. | Hteedan Set Myc | 2.5 | 19.0 | " |
| 3. | Kayen Ahmyothar | 2.4 | 19.1 | " |
| 4. | Zaygyi Anout | 2.3 | 13.7 | Medium |
| 5. | Sayyodan Nyein Chanye | 2.2 | 15.3 | " |
| 6. | Oh Bo | 2.1 | 14.7 | " |
| 7. | Zay Gala | 2.1 | 13.7 | " |
| 8. | Thadu Anout | 1.8 | 11.8 | Low |
| 9. | White-hall | 1.4 | 11.6 | " |
| 10. | Set San and Out Yon | 1.0 | 8.1 | " |

In the Insein Township, 5 out of 22 Consumers' Co-operative Societies and 5 out of 11 Village Co-operative Societies, making a total of 10 were selected, whereas in the Syriam Township 10 out of 28 Village Co-operative Societies were selected. The basis of selection in detail was the same as before.

The selected societies in the Insein Township and the Syriam Township can be seen in the following tables.

TABLE 3.6 - Selected Consumers' Co-operative Societies of the Insein Township

| Sr. No. | Societies | Net Profit Percentage | Percent Return on Operating Assets | Performance |
|---|---|---|---|---|
| 1. | Ah Kyin Htaung | 2.7 | 30.8 | High |
| 2. | Aung San | 2.4 | 17.4 | " |
| 3. | Peinne Gone | 2.0 | 14.5 | Medium |
| 4. | Kannar Ahle | 1.8 | 13.4 | Low |
| 5. | Taung Thu Gone | 1.1 | 9.8 | " |

TABLE 3.7 - Selected Village Co-operative Societies of the Insein Township

| Sr. No. | Societies | Net Profit Percentage | Percent Return on Operating Assets | Performance |
|---|---|---|---|---|
| 1. | Nyaung Ywa | 3.5 | 15.5 | High |
| 2. | Hlau Kar | 2.8 | 13.7 | " |
| 3. | Zigone | 2.3 | 12.1 | Medium |
| 4. | Shan Chaung | 2.1 | 8.3 | " |
| 5. | Oak-hpo | 1.7 | 4.3 | Low |

TABLE 3.8 - Selected Village Co-operative Societies of the Syriam Township

| Sr. No. | Societies | Net Profit Percentage | Percent Return on Operating Assets | Performance |
|---|---|---|---|---|
| 1. | Phya Gone | 4.7 | 16.5 | High |
| 2. | Ka La We | 3.5 | 18.1 | " |
| 3. | Chaung Souk | 3.0 | 12.4 | " |
| 4. | Ba yet | 2.3 | 10.6 | Medium |
| 5. | Sit Pin Kwin | 2.1 | 9.4 | " |
| 6. | Day Zat | 2.1 | 8.3 | " |
| 7. | Tha Bye Gone | 2.0 | 7.3 | Low |
| 8. | Mingalunn | 1.4 | 5.2 | " |
| 9. | Nga Bye Ma | 0.9 | 7.1 | " |
| 10. | Pagan Taung | 0.5 | 1.6 | " |

The number of the selected societies of Rangoon Division to be studied are tabulated as follows.

TABLE 3.9 - Number of Selected Societies of Rangoon Division

| Sr. No. | Townships | No. of societies | | | |
|---|---|---|---|---|---|
| | | High Performance | Medium Performance | Low Performance | Total |
| 1. | Kemmendine | 3 | 4 | 3 | 10 |
| 2. | Insein | 4 | 3 | 3 | 10 |
| 3. | Syriam | 3 | 3 | 4 | 10 |
| | Total | 10 | 10 | 10 | 30 |

3.5.2. Variables Taken into Consideration

There are many factors which may influence the performance of co-operative societies. Among them the main factors are (i) Economic factors, (ii) Organization factors and (iii) Social factors. Moreover, some variables, pertinent to these factors, are chosen as the variables which may affect the performance of the co-operative societies.

(i) Economic factors - The factors which affect the economic activities of the societies directly are referred to as economic factors. The variables, pertinent to the economic factors are as shown in the following table.

TABLE 3.10 - Variables Taken into Consideration - Economic Factors

| Sr. No. | Particulars | Methodology | | |
|---|---|---|---|---|
| | | Interview Questionnaire | Data Analysis | Observation |
| 1. | Year of establishment | x | | |
| 2. | Change of shop location | x | | |
| 3. | Ownership of main building | x | | |
| 4. | Business branches | x | | |
| 5. | Mini market | x | | |
| 6. | Growth in the number members | x | | |
| 7. | Monetary rewards to the E. C. members | x | | |

TABLE 3.10 - (continued)

| Sr. No. | Particulars | Methodology | | |
|---|---|---|---|---|
| | | Interview Questionnaire | Data Analysis | Observation |
| 8. | Payment of dividend | x | | |
| 9. | Volume of dividend (last time) | x | | |
| 10. | Benefits other than dividend | x | | |
| 11. | Sources of commodities | | | |
| | (a) Agricultural & Farm Produce Trade Corp. | x | | |
| | (b) Township Co-operatives | x | | |
| | (c) Other Township Co-operatives | x | | |
| | (d) Private wholesalers | x | | |
| 12. | Commissioned goods | x | | |
| 13. | Distribution of goods | | | |
| | (a) Application method | x | | |
| | (b) Rationing and allocation system | x | | |
| | (c) Open sales method | x | | |
| 14. | Loans from Township Co-operatives | x | | |
| 15. | Bank loan | | x | |
| 16. | Current liabilities | | x | |
| 17. | Wastages | | x | |
| 18. | Storage system | | | x |

TABLE 3.10 - (continued)

| Sr. No. | Particulars | Methodology | | |
|---|---|---|---|---|
| | | Interview Questionnaire | Data Analysis | Observation |
| 19. | Display | | | |
| | (a) Displaying goods to attract the interest of consumers | | | x |
| | (b) Displaying goods in a practical way | | | x |
| | (c) Displaying goods securely | | | x |
| 20. | Cleanliness | | | x |

(ii) Organization factors - The factors relevant to the persons who work for the the societies are referred to as organization factors. The variables, pertinent to the organization factors, are as in the following table.

TABLE 3.11 - Variables Taken into Consideration - Organization Factors

| Sr. No. | Particulars | Methodology | | |
|---|---|---|---|---|
| | | Interview Questionnaire | Data Analysis | Observation |
| | Educational training factors: | | | |
| 1. | Training and education | | | |
| | (a) Propagation of basic ideologies of Socialism and Co-operative | x | | |

TABLE 3.11 - (continued)

| Sr. No. | Particulars | Methodology | | |
|---|---|---|---|---|
| | | Interview Questionnaire | Data Analysis | Observation |
| | (b) Seminars and courses | x | | |
| | (c) Selection of trainees to attend Co-operative Courses | x | | |
| | E. C. members: | | | |
| 2. | Number of voted and government appointed E. C. members | x | | |
| 3. | Re-enactment of the E. C. members | x | | |
| 4. | Number of old and new E. C. members | x | | |
| 5. | Full time and part time E. C. members | x | | |
| 6. | Part time E. C. members' time at work | x | | |
| 7. | Number of E. C. members who have training experience | x | | |
| 8. | Number of E. C. members who attended E. C. meetings regularly | x | | |
| 9. | Taking action against E. C. members | x | | |
| 10. | Age of E. C. members | x | | |
| 11. | Educational qualification of E. C. members | x | | |
| 12. | Occupation of E. C. members | x | | |

TABLE 3.11 - (continued)

| Sr. No. | Particulars | Methodology | | |
|---|---|---|---|---|
| | | Interview Questionnaire | Data Analysis | Observation |
| 13. | Service of E. C. members | x | | |
| 14. | Party membership | x | | |
| 15. | Level of Party membership | x | | |
| : | Employees: | | | |
| 16. | Number of employees according to categories of employment | x | | |
| 17. | Number of old and new employees | x | | |
| 18. | Service of employees | x | | |
| 19. | Age of employees | x | | |
| 20. | Educational qualification of employees | x | | |
| 21. | Full time and part time employees | x | | |
| 22. | Number of employees who have training experience | x | | |
| 23. | Procedures of departmental action for employees | x | | |
| 24. | Taking action on the employees | x | | |

(3) Social factors - The factors relevant to the interrelationship of the persons within the society and the relationship between the society and environment, i.e., other organizations or consumers are referred to as social factors. The variables, pertinent to the social factors are as in the following table.

TABLE 3.12 - Variables Taken into Consideration - Social Factors

| Sr. No. | Particulars | Methodology | | |
|---|---|---|---|---|
| | | Interview Questionnaire | Data Analysis | Observation |
| 1. | Majorities of buyers | x | | |
| 2. | Contact with society members | x | | |
| 3. | Social functions | | | |
| | (a) Health | x | | |
| | (b) Education | x | | |
| | (c) Culture | x | | |
| 4. | Contact with Township Society | x | | |
| 5. | Contact with Divisional Society | x | | |
| 6. | (a) Relationship between supervisors and employees | | | x |
| | (b) Interrelationship between employees | | | x |
| | (c) Relationship between staffs and consumers | | | x |

Therefore, the main hypothesis of this study can be described as follow.

If the economic factors, organization factors and social factors are favourable, the performance of the co-operative societies would be successful.

3.5.3. Findings

Economic factors:

(1) Year of establishment - Out of all the societies, 46.7% were established in the year 1970, 40.0% in 1971, 10.0% in 1972 and 3.3% in 1975.

Of the high performance societies, it was found that 40.0% were established in 1970, 50.0% in 1971 and 10.0% in 1972. Within the medium performance societies 50.0% were formed in 1970, 40.0% in 1971 and 10.0% in 1972. 50.0% of the low performance societies were found to have been created in 1970, 30.0% in 1971, 10.0% in 1972 and the remaining 10.0% in 1975.

(2) Change of shop location - Out of all the societies 56.7% change the locations of their shops and the remaining 43.3% stay put. Among the high performance societies 30.0% change the locations of their shops, while the others, 70.0% remain at the place of origin. 60.0% of the medium performance societies change the sites of their shops and the other 20.0% can be seen at the usual place. On the part of the low performance societies, 60.0% change the locations of their shops, while the remaining 40.0% stay at the same place.

(3) Ownership of main buildings - 80.0% of the societies operate in their own buildings, while 20.0% of them do their business in rented buildings. 70.0% of the high performance societies own buildings and 30.0% of them do not own any. 70.0% of the medium performance societies own buildings and 30.0% rent buildings. Here, it is to be noted that all the low performance societies operate in their own buildings.

(4) Business branches - The Consumers' Co-operative Societies operate the following branches. They are (1) retail shops, (2) cold drinks shops, (3) meat and fish distribution shops, (4) clinics, (5) animal breeding, (6) farming, (7) procurement of paddy and sales of rice, (8) motor vehicles hiring business, (9) water pump hiring business, (10) motor launches hiring business, (11) tractor hiring business, (12) charcoal distribution business, (13) fodder sales business and (14) nursery schools.

Out of those societies studied 70.0% have business branches and 30.0% do not. The high performance societies that have such branches stand at 70.0% and 30.0% of them do not have any business branches. 60.0% of the medium performance societies have business branches and the remaining 40.0% do not have any. Out of the low performance societies, 80.0% have business branches and 20.0% do not have.

(5) Mini markets - 6.7% of all the societies run retail shops and the rest 93.3% have no such activities. It is worthy of

note that the high performance societies have not one retail shop while the medium and the low performance societies have 10.0% each out of all their shops.

(6) Growth in the number of members - Studying the whole societies from the date of establishement up to now we find that there is a growth of 45.5% in the number of members and 0.4% decrease making a net growth of 45.1%. The high performance societies have a growth of 46.8% without any decrease. The medium performance societies have a growth of 35.8% without any decrease. The low performance societies have a growth of 62.2% with 1.5% decrease, making a net growth of 60.7%.

(7) Monetary rewards to the Executive Committee members - Executive Committee members , working on a full time basis are granted monetary rewards. Among the societies studied, 63.3% grant monetary rewards to their E. C. members, i.e., those societies that have full time working E. C. members and 36.7% do not grant monetary rewards, i.e., those that do not have full time working E. C. members.

60.0% of the high performance societies grant monetary rewards and 40.0% do not. 70.0% of the medium performance societies grant monetary rewards and 30.0% refrain from doing so. Looking at the societies of low performance, we see that 60.0% of them allow monetary rewards and 40.0% do not.

(8) Payment of dividend on shares - Those societies that disburse dividends annually totalled 40.0% of all the societies studied

and 60.0% did not disburse annually. 50.0% of the high performance societies did and 50.0% did not disburse dividends annually. 30.0% of the medium performance societies disburse dividends annually and 70.0% did not. Among the low performance societies 40.0% disbursed annually and 60.0% did not.

(9) Volume of dividend on shares (last time) - Out of the societies that were studied 36.7% of them did not disburse any dividend on shares, 13.3% disbursed 1 to 5 kyats, 33.3% disbursed 6 to 10 kyats, 6.7% disbursed 11 to 15 kyats and 1.0% disbursed over 15 kyats. Out of the high performance societies, 40.0% did not disburse any dividend on shares, 10.0% gave out between 1 and 5 kyats, 40.0% disbursed between 6 and 10 kyats and 10.0% gave above 15 kyats. Among the medium performance societies 40.0% did not disburse any dividend on shares, 20.0% disbursed between 1 and 5 kyats, 20.0% disbursed between 6 and 10 kyats, 20.0% disbursed between 11 and 15 kyats. Out of the low performance societies 30.0% did not disburse dividend on shares, 10.0% disbursed between 1 and 5 kyats, 40.0% disbursed between 6 and 10 kyats and 20.0% disbursed above 15 kyats.

(10) Benefits other than dividends - Some co-operative societies give stock dividend or scarce commodities in kind to the consumers instead of distributing dividends. Out of those societies studied, it was found that 46.7% gave other benefits for the non-disbursement of cash dividends on shares while 53.3% did

not do such thing. 50.0% of the high performance societies gave such benefits; the remaining 50.0% did not. Among the medium performance societies, 20.0% gave other benefits instead of cash dividends and 80.0%did not. 70.0% of the low performance societies gave other benefits instead of the cash dividends and 30.0% did not.

(11) Sources of commodities:

(a) Agricultural and Farm Produce Trade Corporation - Rice, beans and pulses are the major goods which the co-operative societies purchase from the Agricultural and Farm Produce Trade Corporation. 86.7% of all the societies procured the commodities from the Agricultural and Farm Produce Trade Corporation and 13.3% obtained from other sources. 80.0% of the high performance societies acquired their commodities from the above mentioned Corporation and 20.0% did not. 90.0% of the medium performance societies obtained goods from the mentioned Corporation and 10.0% procured from elsewhere. Among the low performance societies 90.0% acquired their goods from the mentioned Corporation and 10.0% got grom outside.

(b) Township Co-operative Societies - Co-operative societies procure foodstuffs, textiles and consumer goods from the Township Co-operatives. 96.7% of the societies studied procured commodities from the Township Co-operative Societies and 3.3% acquired from other sources. All the high

performance societies procured their goods from the Township Co-operatives. 90.0% of the medium performance societies got goods from the Township Co-operative Societies while 10.0% acquired from other sources. 100.0% of the low performance societies depended on their Township Co-operatives for their goods.

(c) Other Township Co-operative Societies - 53.3% of the societies studied purchased goods from other Township Co-operative . Co-operative Societies while 46.7% did not buy from other Township Co-operatives. 50.0% of the high performance societies acquired goods from other Township Co-operative Societies and 50.0% did not. 70.0% of the medium performance societies obtained commodities from other Township Co-operatives and 30.0% did not. The low performance societies of whose societies obtained goods from other Township Co-operatives stood at 40.0% and the remaining 60.0% did not buy from other Township Co-operative Societies.

(d) Private wholesalers - 53.3% of the societies purchased goods from private wholesalers and 46.7% did not. 70.0% of the high performance societies bought commodities from private wholesalers and 30.0% bought from other sources, i.e., from Township Co-operatives and from Corporations. 60.0% of the medium performance societies procured goods from private wholesalers and 40.0% did not. 30.0% of the low performance societies got their commodities from private wholesalers and 70.0% did not.

(12) Commissioned goods - 6.7% of the societies which were studied accepted commissioned goods while 93.3% did not. 100.0% of the high performance societies did not accept commissioned goods. Among the medium performance societies 10.0% accepted commissioned goods and 90.0% did not. Also among the low performance societies 10.0% accepted commissioned goods and 90.0% did not.

(13) Distribution of goods :

(a) Application method - Certain scarce goods such as milk-powder, torch-lights, dry cells, etc. are sold by using the application method. 80.0% of the societies studied sell goods by using the application method and 20.0% did not. use this method. Among the high performance societies 80.0% use this method and 20.0% did not.90.0% of the medium performance societies used this method and 10.0% did not. 70.0% of the low performance societies distributed their goods by using the application method while 30.0% did not.

(b) Rationing and allocation method - This method was applied by all the societies.

(c) Open sale method - Open sale method was applied by 83.3% of the societies studied and 16.7% did not. This method was also used by 100.0% of the high performance societies. 70.0% of the medium performance societies applied the open sale method and 30.0% did not. 80.0% of the low performance

societies applied this method and 20.0% did not use this method.

(14) Loans from the Township Co-operatives - Out of the societies studied 26.7% received loans from the Township Co-operatives and 73.3% did not. 20.0% of the high performance societies obtained loans from the Township Co-operatives and 80.0% did not. Among the medium performance societies 20.0% received loans from the Township Co-operatives while 80.0% did not. 40.0% of the low performance societies received loans from the Township Co-operatives and 60.0% did not.

(15) Bank loans - Among the societies studied, 20.0% have taken bank loans and 80.0% did not. Also among the high performance societies 20.0% took bank loans and 80.0% did not. Only 10.0% of the medium performance societies took bank loans and 90.0% did not. Out of the low performance societies 30.0% took bank loans and 70.0% did not.

(16) Current liabilities - Among the societies studied it was found that 3.3% had no current liability, 26.7% owed between K1.00 and Ks. 499.00, 40.0% owed between Ks. 500.00 and Ks. 999.00, 3.3% owed between Ks. 1000.00 and Ks. 1499.00 and 26.7% owed Ks. 1500.00 and more. Out of the high performance societies 40.0% has a current liability of K. 1.00 to Ks. 499.00, 40.0% owed between Ks. 500.00 and Ks. 999.00, 20.0% owed Ks. 1500.00 and above. Among the medium performance societies 30.0% owed between K. 1.00 and Ks. 499.00, 30.0%

owed between Ks. 500.00 and Ks. 999.00, 10.0% owed between Ks. 1000.00 and Ks. 1499.00, 30.0% owed Ks. 1500.00 and above. Out of the low performance societies, 10.0% had no debt to settle, 10.0% owed between K. 1.00 and Ks. 499.00, 50.0% owed between Ks. 500.00 and Ks. 999.00 and 30.0% owed Ks. 1500.00 and above.

(1&) Wastages (during 1982-83) - Among the societies studied 16.7% showed no wastages, 23.3% showed Ks. 500.00 and less, 20.0% showed between Ks. 501.00 and Ks. 1000.00, 20.0% showed between Ks. 1001.00 and Ks. 1500.00 and 20.0% showed the value of damages and wastages as Ks. 1500.00 and above.

Among the high performance societies there were 10.0% which had no damages and wastages, 20.0% showed between Ks. 500.00 and less, 30.0% showed between Ks. 501.00 and Ks. 1000.00, 10.0% showed between Ks. 1001.00 and Ks. 1500.00, 30.0% showed Ks. 1500.00 and above. Among the medium performance societies 10.0% showed no damages and wastages, 50.0% showed Ks. 500.00 and less, 20.0% showed between Ks. 501.00 and Ks. 1000.00, 20.0% showed between Ks. 1001.00 and Ks. 1500.00. Among the low performance societies 30.0% showed no damages and wastages, 10.0% showed between Ks. 501.00 and Ks. 1000.00, 30.0% showed between Ks. 1001.00 and Ks. 1500.00, 30.0% showed above Ks. 1500.00.

(18) Storage system - The storage of goods were studied basing on four conditions. They were; (i) whether the different types

of goods were stored separately or not, (ii) whether the goods which can be perishable by rain or sun were stored under the shelter or not, (iii) whether the pungent goods were stored separately from others which are not pungent or not and (iv) whether there were wastages during storage.

Depending on each of the conditions mentioned above, marks were given for proper storage and improper storage. On the whole, it was found that out of all the marks given 75.0% were given for proper storage and 25.0% were given for improper storage. Among the high performance societies there were 70.0% of the marks obtained for proper storage and 30.0% of the marks were obtained for improper storage. Among the medium performance societies 77.5% were obtained for proper storage and 22.5% of the marks were obtained for improper storage. Among the low performance societies 77.5% of the marks were obtained for proper storage and 22.5% were obtained for improper storage.

(19) Display of goods - Display of goods were studied from three view-points, viz., (a) whether they were displayed attracting interest from the buyers or not, (b) whether they were displayed in a practical way or not and (c) whether they were displayed securely. Marks were given depending on the fact that goods were displayed according to the point studied.

Among all the societies studied, 48.8% of all the marks given were obtained for displaying goods in a way that would

attract the interest of the consumers while 51.2% were obtained for the contrary. Among the high performance societies 55.0% of the marks were obtained for attracting interest of the consumers and 45.0% for the opposite. The medium performance societies obtained 38.8% for attracting the consumers and 61.2% for the opposite. The low performance societies obtained 52.5% for attracting the consumers and 47.5% for the opposite.

Among all the societies 81.3% of all the marks given were obtained for displaying goods in a practical way while 18.7% were obtained for the contrary. The high performance societies obtained 88.0% of the marks for displaying goods in a practical way and 12.0% for the contrary. The medium performance societies obtained 72.0% for the positive and 28.0% for the negative. The low performance societies obtained 84.0% for the display of goods in a practical way and 16.0% for the opposite.

In all societies studied, out of all the marks given 84.2% were obtained for displaying goods securely and 15.8% for the opposite. The high performance societies obtained 82.5% of the marks for displaying goods securely and 17.5% were obtained for the opposite. The medium performance societies obtained 80.0% for displaying goods securely and 20.0% for the opposite. The low performance societies obtained 90.0% of the marks for displaying goods in a secured

manner and 10.0% for not doing so.

(20) Cleanliness - In determining cleanliness of a shop, marks of 1 to 10 were fixed as the basis depending on how well they were kept clean. In studying the cleanliness of the shops 20.0% obtained marks between 1 and 3, 36.7% obtained between 4 and 6, and 43.3% obtained between 7 and 9. Among the high performance societies 20.0% obtained marks between 1 and 3, 30.0% obtained between 4 and 6 and 50.0% obtained between 7 and 9. Among the medium performance societies 30.0% obtained between 1 and 3, 40.0% obtained between 4 and 6 and 30.0% obtained between 7 and 9. Among the low performance societies there were 10.0% which obtained between 1 and 3 marks, 40.0% which obtained between 4 and 6 and 50.0% which obtained 7 and 9 marks.

Organization Factors:

Educational training factors (organizational wise):

(21) Training and education:

(a) Propagation of basic ideologies of Socialism and Co-operatives - 23.3% of the societies that were studied propagated the two basic ideologies while 66.7% did not. Propagation of the said ideologies were effected among 50.0% of the high performance societies and none among the remaining 50.0%. 30.0% of the medium performance societies propagated the two basic ideologies and 70.0% did not. Among the low performance societies 20.0% did

propagation work of the said ideologies and 80.0% did not.

(b) Seminars and courses - 30.0% of all the societies studied held such seminars and courses and 70.0% did not. 50.0% of the high performance societies held the seminars and courses while the remaining 50.0% did not. 20.0% of the medium performance societies organized such seminars and courses and 80.0% did not. Among the low performance societies 20.0% arranged to hold such seminars and courses and the rest 80.0% did not.

(c) Selection of trainees to attend co-operative courses - 80.0% of the societies studied selected E. C. members and employees to attend co-operative courses and 20.0% did not. Among the high performance societies 80.0%did and 20.0% did not select trainees. 70.0% of the medium performance societies selected such trainees to attend co-operative courses and 30.0% did not. 90.0% of the low performance societies did and 10.0% did not select trainees to attend such courses.

E. C. members:

(22) Number of voted and government appointed E. C. members - Among the 30 societies which were studied, it was learned that there were altogether 306 executive committee members. Out of this number 62.6% were elected to the committee by the members of the societies, while 37.4% were appointed by the government.

The high performance societies have 61.2% elected executive committee members and 38.8% government appointed executive committee members. The medium performance societies have 58.8% elected executive committee members and 41.2% government appointed executive committee members. Among the low performance societies 67.9% were elected E. C. members and 32.1% were government appointed E. C. members.

(23) Re-enactment of the E. C. members - Out of all the societies 23.3% re-enacted the out-going E. C. members and 76.7% did not. 20.0% of the high performance societies re-enacted the out-going E. C. members and 80.0% did not. Also like the high performance societies 20.0% of the medium performance societies re-enacted and 80.0% did not. On the part of the low performance societies 30.0% re-engage the out-going E. C. members and 70.0% did without them.

(24) Number of old and new E. C. members - Out of the total societies there were 2.1% old E. C. members and 97.9% new E. C. members. Within the high performance societies there were 1.9% old E. C. members and 98.1% new ones. In the medium performance societies 1.8% were old E. C. members and 98.2% were new E. C. members. The low performance societies had 2.7% old and 97.3% new E. C. members.

(25) Number of full time and part time E. C. members - Out of the societies studied 11.0% of their E. C. members worked full time and 89.0% worked part time. Among the high performance

societies 7.8% worked full time and 92.2% worked part time. Among the medium performance societies 16.5% worked full time and 83.5% worked part time. Out of the low performance societies 8.3% worked full time and 91.7% worked part time.

(26) Part time E. C. members' time at work - 38.7% of part time E. C. members of all the societies worked at their societies about 1 to 2 hours, 44.4% worked 3 to 4 hours, 7.0% worked 5 to 6 hours and 9.9% worked 7 hours and above. Among the part time E. C. members of the high performance societies 25.5% worked 1 to 2 hours, 51.1% worked 3 to 4 hours, 8.5% worked 5 to 6 hours and 14.9% worked 7 hours and above at their societies. Out of the part time E. C. members of the medium performance societies 47.3% worked 1 to 2 hours, 42.8% worked 3 to 4 hours, 4.4% worked 5 to 6 hours and 5.5% worked 7 hours and above at their societies. Among the part time E. C. members of the low performance societies 43.4% worked 1 to 2 hours, 39.4% worked 3 to 4 hours, 8.1% worked 5 to 6 hours and 9.1% worked 7 hours and above.

(27) Number of E. C. members who have training experiences -

Among those societies that were studied 63.6% of their E. C. members have attended co-operative training courses while 36.4% have not yet attended. Among the high performance societies 65.7% have attended and 34.3% have not. Out of the medium performance societies 64.2% have attended and 35.8% have not. Among the low performance societies

61.1% have attended and 38.9% have not.

(28) Number of E. C. members who attended E. C. meeting regularly - Out of all the societies studied, 97.5% of their E. C. members attended meetings regularly and 2.5% were not regular at the meetings. Among the high performance societies 98.0% of their E. C. members attended meeting regularly and 2.0% were irregular. Out of the medium performance societies 94.5% of their E. C. members were regular at the meeting and 5.5% were not. All the E. C. members of the low performance societies were regular at the meetings.

(29) Taking action against E. C. members - E. C. members of the 13.3% of the societies studied have been taken action upon while the remaining 86.7% of the societies were free of those who should be taken action upon. Among the high performance societies 40.0% have their E. C. members who were taken action upon and 60.0% did not. The medium and low performance societies were free of those E. C. members who were taken action upon.

(30) Age of E. C. members - Studying the co-operative societies it was found that 10.4% of the executive committee members were between 20 and 29 years of age, 26.3% were between 30 and 39, 32.6% were between 40 and 49, 21.3% were between 50 and 59 and 9.4% were 60 and over. Among the high performance societies 10.8% of the E. C. members ranged from 20 to 29, 32.4% from 30 to 39, 28.4% from 40 to 49, 21.5% from 50 to 59 and 6.9% were 60 and above. The medium performance socio-

ties''9.2% of E. C. members ranged from 20 to 29, 17.4% from 30 to 39, 40.4% from 40 to 49, 21.1% from 50 to 59 and 11.9% were 60 and above. Out of the low performance societies 11.1% ranged from 20 to 29, 29.6% from 30 to 39, 28.7% from 40 to 49, 21.3% from 50 to 59 and 9.3% were 60 and above.

(31) Educational qualification of E. C. members - 33.9% of the E. C. members of the societies studied were of primary school level, 33.2% were of middle school level, 21.9% were of high school level and 11.0% were of university level. Out of the high performance societies 24.5% were of primary school level, 40.2% were of middle school level, 23.5% were of high school level, and 11.8% were of university level. Among the medium performance societies 35.8% were of primary school level, 25.7% were of middle school level, 21.1% were of high school level and 17.4% were of university level. Out of the low performance societies 40.7% were of primary school level, 34.3% were of middle school level, 21.3% were of high school level and 3.7% were of university level.

(32) Occupation of E. C. members - Among all the societies 51.5% of the Executive Committee members were government employees and the remaining 48.5% did private business. Out of the high performance societies 58.3% were government employees and 41.7% did private business. In the medium performance societies 57.9% of the E. C. members were government employees and 42.1% were private businessmen. Out of the low performance

societies 37.5% of their E. C. members were government employees and 62.5% were private businessmen.

(33) Service of E. C. members - 64.3% of the E. C. members' service were under two years, 18.8% were between 3 and 4 years, 15.7% were between 5 and 6 years, 1.2% were 7 years and above. Among the high performance societies 72.5% were under 2 years, 17.6% were between 3 and 4 years, 5.9% were between 5 and 6 years, 4.0% were 7 years and above. Out of the medium performance societies 56.0% were under 2 years, 22.9% were between 3 and 4 years, 21.1% were between 5 and 6 years; there was none whose service was 7 years and above. Among the low performance societies 64.8% were under 2 years, 15.7% were between 3 and 4 years, 19.5% were between 5 and 6 years and none who had completed 7 years of service.

(34) Party membership - Out of the societies studied 85.0% were Party members and 15.0% were not. Among the high performance societies 89.2% were Party members and 10.8% were not. Out of the medium performance societies 85.3% were Party members and 14.7% were not. Out of the low performance societies 80.6% were Party members and 19.4% were not.

(35) Level of Party membership - 54.2% of the E. C. members were of full membership and 45.8% were candidates. Among the high performance societies 60.4% were of full membership and 39.6% were candidates. Out of the medium performance societies 53.8% were of full membership and 46.2% were candidates.

Among the low performance societies 48.3% were of full membership and 51.7% were candidate members.

Employees:

(36) Number of employees according to categories of employment - Among all the societies studied 67.3% of the employees were appointed as salary earning employees, 19.7% worked for daily wages and 33.0% worked on contract. Among the high performance societies salary earning employees comprised 68.3% employees on daily wages 28.0% and 3.7% worked on contract. 66.6% of the medium performance societies' employees were salary earners, 16.7% worked for daily wages and 16.7% were employed on contractual basis. 67.0% of the employees of the low performance societies were salary earners, 14.8% worked for daily wages and 18.2% were on contractual basis.

(37) Number of old and new employees - 20.1% of the societies studied were old employees and 79.9% were new ones. Out of the high performance societies 24.4% were old and 75.6% were new employees. 16.7% of the medium performance societies were old employees and 83.3% were new ones. The low performance societies had 19.3% old employees and 80.7% new ones.

(38) Service of the employees - Among the societies studied 47.5% of the employees had worked for 5 years and less, 31.8% for 6 to 10 years, 17.5% for 11 to 15 years, 3.2% for 16 years and above. Out of the high performance societies 52.0% had worked for 5 years and less, 26.7% for 6 to 10 years, 17.3%

for 11 to 15 years, 3.0% for 16 years and more. Among the medium performance societies 36.8% had service of 5 years and less, 39.5% 6 to 10 years, 19.7% 11 to 15 years, 4.0% 16 years and more. Out of the low performance societies 54.1% had worked for 5 years and less, 29.2% for 6 to 10 years, 15.3% for 11 to 15 years and 1.4% for 16 years and more.

(39) Ages of the employees - 34.1% of the employees of the societies were 30 years and less, 46.2% were between 31 and 50, 19.7% were 51 years and over. Among the high performance societies 36.0% were between 30 years and less, 41.3% were between 31 and 50 and 22.7% were 51 and over. Out of the medium performance societies 38.2% were 30 years and younger, 48.7% were between 31 and 50 and 13.1% were 51 and over. Among the low performance societies 27.8% were 30 years and younger, 48.6% were between 31 and 50 and 23.6% were 51 and above.

(40) Educational qualification of employees - Out of the societies taken into consideration, 24.2% of the employees' educational qualification level was primary school, 30.9% were of middle school level, 36.8% were of high school level and 8.1% were of university level.

Among the high performance societies 24.0% of the employees were of primary school level, 21.3% were of middle school level, 38.7% were of high school level and 16.0% were of university level. Out of the medium performance societies

22.4% of the employees were of primary school level, 35.5% were of middle school level, 36.8% were of high school level and 5.3% were of university level. Among the low performance societies 26.4% of the employees were of primary school level, 36.1% were of middle school level, 34.7% were of high school level and 2.8% were of university level.

(41) Number of full time and part time employees - There were 96.0% full time employees and 4.0% part time employees in the co-operative societies where the study was made. Among the high performance societies there were 94.7% full time employees and 5.3% part time employees. In the medium performance societies there were 94.7% full time employees and 5.3% part time employees while the low performance societies had 98.6% full time and 1.4% part time employees.

(42) Number of employees who had training experience - Among all societies studied 32.7% of their employees had attended training courses, while the rest 67.3% had not. The high performance societies had 26.8% of their employees who had attended training courses and 73.2% had not. In the medium performance societies 31.0% of their employees had attended training courses and 69.0% had not. 39.8% of the employees of the low performance societies had attended training courses and 60.2% had not.

(43) Procedures of departmental action for employees - 83.3% of the societies studied had procedures of departmental action

and 16.7% had no procedures of departmental action for employees. Among the high performance societies 70.0% had procedures of departmental action and 30.0% had no procedures of departmental action for employees. 90.0% of the medium performance societies had procedures of departmental action and 10.0% had not. Similarly, the low performance societies out of which 90.0% had procedures of departmental action for employees and 10.0% had not.

(44) Taking action on the employees - Among all the societies 26.7% possess employees who had been dealt with departmental action and 73.3% had not. 40.0% of the high performance societies had employees who had been taken action and 60.0% did not have any. Turning to the medium performance societies it was found that 30.0% of them had employees who had been taken action and 70.0% were free of them. On the part of the low performance societies only 10.0% of them had employees who had been taken action and 90.0% did not have any.

Social factors:

(45) The majority of the buyers - The majority of the buyers of the 96.7% societies studied were members and 3.3% societies whose majority buyers were not members. The majority of the buyers of all the high performance societies and the medium performance societies were members. The majority of the buyers of the 90.0% of the low performance societies were members and the majority of the buyers of the 10.0% of the societies

were not members.

(46) Contact with society members - Among all the societies studied it was found that 20.0% of them had contact with their members outside of general meetings, while 80.0% did not have any. The high performance societies of which 30.0% had contact with their members outside of general meetings and 70.0% did not. 30.0% of the medium performance societies had contact with their members outside of general meetings and 70.0% did not. All the societies of the low performance societies did not have any contact with their members outside of general meetings.

(47) Social functions:

(a) Health - 23.3% of those societies studied carried out social functions pertaining to health and the other 76.7% never did such work. Looking at the high performance societies 30.0% of them did the above mentioned work and 70.0% refrained from doing so. 30.0% of the medium performance societies carried out social functions pertaining to health and 70.0% did not. Out of the low performance societies 10.0% only did such work and 90.0% refrained.

(b) Education - 33.3% of the societies studied carried out social functions pertaining to education and 66.7% stayed still. 40.0% of the high performance societies carried out such work and 60.0% did not. The medium

performance societies had 40.0% which performed social work pertaining to education and 60.0% refrained to do so. 20.0% of the low performance societies did such work and 80.0% did not.

(c) Culture - 16.7% of those societies studied carried out social functions pertaining to culture and 83.3% did not. 30.0% of the high performance societies did such work and 70.0% did not. Out of the medium performance societies 10.0% carried out social functions pertaining to culture, while 90.0%refrained from doing so. 10.0% of the low performance societies also did such works and 90.0% of them did not.

(48) Contact with Township Co-operatives - All the societies studied had contact with their Township Co-operatives.

(49) Contact with Township Co-operative Syndicates - Among all the societies studied 10.0% were visited by members of the executive committee of the Township Co-operative Syndicate, while 90.0% were not visited. It was found that none of the high performance societies were visited by such persons. 20.0% of the medium performance societies were visited and 80.0% were not. 10.0% of the low performance societies were visited by these officials and 90.0% were not visited.

(50) (a) Relationship between supervisors and employees - It was found that among the societies studied,3.3% had bad relationships between the supervisors and the employees, 23.3%

had fair relationships and 73.4% had good relations. Among the high performance societies relations between the supervisors and the employees there were 40.0% of them fair and 60.0% of them good. Among the medium performance societies 10.0% were bad and 90.0% were good in relations between the supervisors and the employees. Among the low performance societies 30.0% were fair and 70.0% were good in the said relationship.

(b) Interrelationships between employees - Among the societies studied 40.0% were fair and 60.0% were good in relations between the employees. 60.0% of the high performance societies were fair and 40.0% were good in relations between the employees. 20.0% of the medium performance societies were fair and 80.0% were good in relations between the employees. Among the low performance societies 40.0% were fair and 60.0% were good in relations between the employees.

(c) Relationship between staffs and consumers - There were 40.0% of the societies which had fair relationships between the staffs and the consumers and 60.0% had good relationships. Among the high performance societies there were 50.0% which had fair relationships between the staffs and the consumers and 50.0% which had good relationships. Among the medium performance societies there were 30.0% which had fair relationships and 70.0% which had good relationships between the staffs and the consumers. Among the low performance societies 40.0% of

them had fair relationships between the staffs and the consumers and 60.0% had good relations.

Application of a statistical method is performed to find the significant variables, i.e., the variables that affect the performance of the co-operative societies. The problem here is to decide whether the performance of the co-operative societies is dependent on the variables observed. This is solved by the test of significance,[1] i.e., the Chi-square Test. When the value of $X^2$ is greater than the critical value,[2] it is decided that the performance of co-operative societies is dependent on the variable concerned. Otherwise, when the value of $X^2$ is less than the critical value, it is decided that the performance of co-operative societies is independent of the variable observed. The Chi-square Test is performed for each variable at three levels of significance, i.e., 0.01, 0.05 and 0.1 levels. According to the test the variables which are significant are as follows.

(1) Part time E. C. members' time at work,

(2) Taking action against E. C. members,

(3) Educational qualification of E. C. members,

(4) Occupation of E. C. members,

(5) Service of E. C. members,

(6) Number of employees according to the categories of employment,

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[1] The details of the test of significance is described in Appendix A.

[2] The critical value is given in the Chi-square Distribution table.

(7) Educational qualification of employees.

It is interesting to note that all the statistical significant variables pertain to the organization factors. Out of these seven variables, five have to do with the E. C. members and the remaining two concern the employees. Therefore, high performance of a business depends much on the E. C. members. It is seen that management plays a significant role for co-operative societies.

The educational qualifications of the E. C. members and of the employees appear to be significant. It is found that those societies having E. C. members and employees with high educational qualifications perform well. When there are educationally well qualified E. C. members in a society they serve better in decision making, in supervising and directing business activities and in planning the expansion of the business. Therefore, the more E. C. members with high educational qualification there are, the better it is for the business.

There also is a correlation between the occupation of the E. C. members and the performance of a business. In the high performance societies the majority of the E. C. members are employees of the government establishments, while there are a few government employees and more private businessmen in the low performance societies. The E. C. members who work for the government establishments take more interest in the co-operative business and are able to spare more time in it than those E. C. members who have private business. Moreover, most of the E. C. members who are government employees

have a higher level of education. It has been discussed that the more E. C. members with high educational qualification there are, the better it is for the societies.

Furthermore, it is found that higher performance is obtained when there are more employees who work on salary basis and less employees who work on daily wages and contractual basis. It has been seen that there are more employees with high educational qualification in the high performance societies. In appointing employees to work on salary basis, more attention is paid to the educafional qualifications of the candidates. Because employees who work on salary basis are more secured economically than those who work on the daily wages basis and contractual basis and they take more interest in their work and are industrious. Therefore, having economic security is one of the supporting factors which help to achieve success in a business. Although we do not find significant variables concerned with the economic factors, one can consider the categories of employment pertaining to economic security as an economic factor.

It is found that the E. C. members of the high performance societies are capable to spare more time for their societies than those E. C. members of the medium performance societies and the low performance societies. The more participation of part time E. C. members the more helpful it is for the activities of the business. Thus, the longer the period of work of the part time E. C. members, the better will be the performance obtained in business.

Furthermore, it is found that more frequent actions have been taken upon E. C. members in the high performance societies. As a result new E. C. members were elected more often. They seem to be more dynamic in business and thus bring about success to the organizations. It was proved by the fact that the percentage of E. C. members with shorter service in high performance societies are higher in number than those of the medium performance and the low performance societies. The E. C. members with less service take more interest in the business and they are more active, more industrious and more aggressive than those E. C. members with longer service. Therefore, it can be seen that those societies having more E. C. members with less service give high performance in business.

# CHAPTER IV

## CONCLUSION

In the present study, (626) Consumers Co-operative Societies and (633) Village Co-operative Societies were studied using financial ratio analysis. Fifteen financial ratios were computed for these societies over a six-year study period, i.e., 1975/76 to 1980/81. On the basis of the analysis performed, the empirical norms were derived for the Co-operative Societies. Using the ratio which appears to reflect the over-all performances of the Co-operative sectors, i.e., Operating Ratio; the townships within the Rangoon Division were classified in terms of their performances as indicated by this ratio. Empirical analysis were carried out in three townships, i.e., Kemmendine, Insein and Syriam, every ten societies in each township. From the analyses, the variables which affect the performance of the Co-operative Societies is identified.

From the analyses, it was found that empirical variables of the financial ratios differ significantly from the standard norms established. This is more pronounced in relation to the liquidity ratio. The reason for the discrepancies may either be due to the established norms or the actual performance. It was found that the Consumers' Co-operative Society appears to fare better in contrast to the Village Co-operative Society.

There are apparent inherent weaknesses in the Village Co-operative Societies, principally in the lack of cost control.

Over fifty variables were used to measure the societies. Of them, the following variables were found to be significant in discriminating societies.

(i) Part time E. C. members' time at work,

(ii) Action taken against E. C. members,

(iii) Educational qualifications of E. C. members,

(iv) Occupation of E. C. members,

(v) Length of service of E. C. members,

(vi) Number of employees according to the categories of employment,

(vii) Educational qualifications of employees.

Invariably, there is room for improvement in this thesis. In the conduct of financial ratio analysis, the data requirements are somewhat formidable. Given the number of societies, further detailed analysis could not be performed due to computational constraints. In the empirical analysis, only the Operating Ratio was used as the criterion and weighted computations were not performed. Some difficulties were also encountered in the collection of required data.

On the basis of the present work, it was felt that the development of standard norms for financial ratios evaluating Co-operative Societies should be carried out. At the same time the feasibility of developing a composite ratio for performance evaluation of Co-operative Societies should be determined. It is hoped that the present study will facilitate further work in this direction and that similar study of the same line be conducted for the townships and higher levels.

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APPENDIX A

TABLE 3.13. - Test of Significance

| Sr. No. | Variable | Value of $X^2$ | Decision |
|---|---|---|---|
| | Economic Factors | | |
| 1. | Year of establishment | 2.64 | b |
| 2. | Change of shop location | 3.77 | b |
| 3. | Ownership of main building | 3.75 | b |
| 4. | Business branches | 0.95 | b |
| 5. | Mini market | 1.06 | b |
| 6. | Growth in the number of members | - | - |
| 7. | Monetary rewards to the E. C. members | 0.28 | b |
| 8. | Payment of dividend on shares | 0.84 | b |
| 9. | Volume of dividend (last item) | 7.46 | b |
| 10. | Benefits other than dividend | 5.09 | b |
| 11. | Sources of commodities | | |
| | (a) Agricultural & Farm Produce Trade Corporation | 0.57 | b |
| | (b) Township Co-operatives | 2.09 | b |
| | (c) Other Township Co-operatives | 0.87 | b |
| | (d) Private wholesalers | 3.48 | b |
| 12. | Commissioned goods | 1.06 | b |
| 13. | Distribution of goods | | |
| | (a) Application method | 1.26 | b |
| | (b) Rationing and allocation system | - | - |
| | (c) Open sales method | 3.35 | b |

b - non-significant

TABLE 3.13 - (continued)

| Sr. No. | Variable | Value of $X^2$ | Decision |
|---|---|---|---|
| 14. | Loan from Township Co-operatives | 1.36 | b |
| 15. | Bank loan | 1.25 | b |
| 16. | Current liabilities | 6.50 | b |
| 17. | Wastages | 11.99 | b |
| 18. | Storage system | 0.80 | b |
| 19. | Display | | |
| | (a) Displaying goods to attract the interest of consumers | 4.90 | b |
| | (b) Displaying goods in a practical way | 4.60 | b |
| | (c) Displaying goods securely | 1.60 | b |
| 20. | Cleanliness | 1.79 | b |
| | Organization Factors | | |
| | Educational training Factors (organizational wise) | | |
| 21. | Training and education | | |
| | (a) Propagation of basic ideologies of Socialism and Co-operatives | 3.30 | b |
| | (b) Seminars and courses | 2.84 | b |
| | (c) Selection of trainees to attend Co-operative Courses | 1.26 | b |
| | Executive Committee members | | |
| 22. | Number of voted and government appointed E. C. members | 2.12 | b |
| 23. | Re-enactment of the E. C. members | 0.35 | b |
| 24. | Number of old and new E. C. members | 0.25 | b |

b - non-significant

TABLE 3.13 - (continued)

| Sr. No. | Variable | Value of $\chi^2$ | Decision |
|---|---|---|---|
| 25. | Full-time and part-time E. C. members | 5.16 | b |
| 26. | Part-time E. C. members' time at work | 13.62 | a** |
| 27. | Number of E. C. members who have training experience | 0.50 | b |
| 28. | Number of E. C. members who attended E. C. meetings regularly | 6.91 | b |
| 29. | Taking action against E. C. members | 9.23 | a* |
| 30. | Age of E. C. members | 9.86 | b |
| 31. | Educational qualification of E. C. members | 17.23 | a*** |
| 32. | Occupation of E. C. members | 12.50 | a** |
| 33. | Service of E. C. members | 21.63 | a*** |
| 34. | Party membership | 3.09 | b |
| 35. | Level of Party membership | 2.66 | b |
| | <u>Employees</u> | | |
| 36. | Number of employees according to the categories of employment | 12.60 | a** |
| 37. | Number of old and new employees | 1.59 | b |
| 38. | Service of employees | 6.47 | b |
| 39. | Age of employees | 4.40 | b |

a - significant
b - non-significant
* - significant at 0.10 level
** - significant at 0.05 level
*** - significant at 0.01 level

TABLE 3.13 - (continued)

| Sr. No. | Variable | Value of $X^2$ | Decision |
|---|---|---|---|
| 40. | Educational qualification of employees | 12.87 | a** |
| 41. | Full-time and part-time employees | 1.29 | b |
| 42. | Number of employees who have training experience | 3.40 | b |
| 43. | Procedures of departmental action for employees | 1.91 | b |
| 44. | Taking action on the employees | 2.37 | b |
| | Social Factors | | |
| 45. | Majorities of buyers | 2.09 | b |
| 46. | Contact with society members | 1.89 | b |
| 47. | Social functions | | |
| | (a) Health | 0.75 | b |
| | (b) Education | 0.60 | b |
| | (c) Culture | 3.81 | b |
| 48. | Contact with Township Society | - | - |
| 49. | Contact with Divisional Society | 2.22 | b |
| 50. | (a) Relationship between supervisors and employees | 6.35 | b |
| | (b) Interrelationship between employees | 3.33 | b |
| | (c) Relationship between staffs and consumers | 0.84 | b |

a - significant
b - non-significant
** - significant at 0.05 level

APPENDIX B

Htee Dan Set Mye Consumers' Co-operative Society, Kemmendine Township
Profit and Loss Statement for the Year Ended 31st March, 1983.

1

| | Kyats | | Kyats |
|---|---|---|---|
| Stock balance (1.4.82) | | Sales | |
| Main shop | 55690.30 | Main shop | 827085.48 |
| Retail shop | 1445.73 | Retail shop | 243381.55 |
| Procurement | | Stock balance (31.3.83) | |
| Main shop | 762911.09 | Main shop | 56144.86 |
| Retail shop | 217340.28 | Retail shop | 2821.84 |
| Trading costs | | Shortages | |
| Transportation | 7726.17 | Main shop | 370.66 |
| Loading/unloading | 7291.90 | Retail shop | 1750.44 |
| Purchase costs | 930.30 | | |
| Special sales costs | 230.00 | | |
| Gross profit | 77989.06 | | |
| | 1131554.83 | | 1131554.83 |
| Administrative costs | | Gross profit | 77989.06 |
| Salaries | 15803.60 | Other incomes | |
| Wages | 6236.00 | Sale of stationery | 439.20 |
| Monetary rewards to the E. C. members | 2510.00 | Excess from sales | 246.90 |
| Accountants' salaries | 1645.00 | Commission | 93.50 |
| Overtime wages | 1348.74 | Refund of living allowances | 375.00 |
| Special sales wages | 628.00 | Interest | 44.50 |
| Meetings' costs | 2940.00 | Refund of overtime wages | 40.00 |
| | | Reconciliation | 0.55 |

Profit and Loss Statement (continued)

| | Kyats | | Kyats |
|---|---|---|---|
| General expenditure | | | |
| Entertainment | 4973.05 | | |
| Social security | 580.80 | | |
| Periodicals | 131.40 | | |
| Petty expenses | 833.85 | | |
| Maintenance costs | 656.90 | | |
| Transportation | 540.00 | | |
| Bank charges | 33.00 | | |
| Municipalities' taxes | 43.80 | | |
| Printing of plastic bags | 50.00 | | |
| Labour charges | 113.95 | | |
| Renting charges | 733.00 | | |
| Office expenditure | 149.78 | | |
| Co-operative education stipend | 40.00 | | |
| Plan achievement award | 120.00 | | |
| Training costs | 261.00 | | |
| Meter charges | 284.45 | | |
| Miscellaneous | 10.00 | | |
| Stationery | 4198.95 | | |
| Fire insurance | 757.91 | | |
| Reserves | | | |
| Pension fund | 1580.36 | | |

Profit and Loss Statement (continued)

| | Kyats | | Kyats |
|---|---|---|---|
| Leave pay | 790.18 | | |
| Medical care | 316.07 | | |
| Audit fees | 567.09 | | |
| Annual meeting fund | 3500.00 | | |
| Depreciation | | | |
| Main building | 167.05 | | |
| Retail shop | 54.92 | | |
| Furniture | 100.71 | | |
| Office equipment | 618.54 | | |
| Shortages | | | |
| Main shop | 370.66 | | |
| Retail shop | 1750.44 | | |
| Net profit | 23789.51 | | |
| | 79283.30 | | 79283.30 |

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Hteedan Set Mye Consumers' Co-operative Society, Kemmendine Township

Profit and Loss Appropriation Account for the year 1982-83

| | Kyats | | Kyats |
|---|---|---|---|
| Income-tax | 1835.34 | Net profit | 23789.51 |
| Society shares (45%) | | | |
| Expansion funds (25%) | 5488.54 | | |
| Social & cultural fund (15%) | 3293.12 | | |
| General fund (5%) | 1097.71 | | |
| Staff shares (25%) | | | |
| Honorarium for E. C. members (10%) | 2195.42 | | |
| Honorarium for staff (10%) | 2195.42 | | |
| Welfare fund (5%) | 1097.71 | | |
| Members share (30%) | | | |
| Dividends on shares (25%) | 5488.54 | | |
| Rebates (5%) | 1097.71 | | |
| | 23789.51 | | 23789.51 |

Hteedan Set Mye Consumers' Co-operative Society, Kemmendine Township

Balance Sheet as at March 31st, 1983

| | Kyats | | Kyats |
|---|---|---|---|
| Capital | 22560.00 | Fixed assets | |
| Net profit | 23789.51 | Main building | 3340.98 |
| Reserves | | Retail shop | 1098.40 |
| Expansion fund | 54075.72 | Furniture | 2014.26 |
| Social & cultural fund | 6861.91 | Office equipment | 6185.44 |
| Welfare fund | 7224.28 | Investments | |
| Leave pay | 2913.53 | Township share | 1500.00 |
| Medical care | 1165.41 | Paddy project | 1000.00 |
| General fund | 7224.28 | Kerosene project | 2000.00 |
| Current liabilities | | Current assets | |
| Dividends on shares and rebates | 8438.37 | Pension fund | 1692.80 |
| Pension fund (for 1977-78 to 1982-83) | 13276.99 | Fish retail shops | 28798.12 |
| Honorarium for E. C. members | 762.97 | Commission | 711.57 |
| Wholesales (Kemmendine Township) | 28798.12 | Sign | 40.00 |
| | | Staff loan | 1000.00 |
| | | Deposit for bottles | 4241.75 |

Balance Sheet (continued)

| | Kyats | | Kyats |
|---|---|---|---|
| Provisions | | Stock balance | |
| Audit fees | 567.09 | Main shop | 56144.86 |
| Annual meetings costs | 3500.00 | Retail shop | 2821.84 |
| Depreciation - 1980-81 | 1743.30 | Stationery balance | 1004.05 |
| 1981-82 | 867.90 | Bank balance | 71116.53 |
| 1982-83 | 941.22 | Reconciliation for | |
| Reconciliation for | | shortages | 2121.10 |
| shortages | 2121.10 | | |
| | 186831.70 | | 186831.70 |