SUMMARY OF FINDINGS AND SUGGESTIONS

The cooperative tea factories do play a very significant role in promoting and protecting the interests of small tea growers especially in the areas of providing technical and financial input in cultivation of tea, fetching a reasonable price for the green leaves they produced, safeguarding themselves against the exploitation of private tea factories and providing them an organisational base for overall socio-economic development. Their survival, growth, continued existence and sustainability to a greater extent depends on effective and efficient management of finance. Management of finance comprises four functions viz., capital budgeting decision, capital structure decision, working capital decision and dividend decision. Of the four, working capital decision occupies a crucial place in financial management as it is concerned with the day to day management of current assets like cash, receivables and inventory which constitute a major chunk of the total assets. Effective management of each of the components would help minimise the cost and maximise the returns. This in turn would help the cooperative tea factories to provide better services to the members mainly in the form of better price for the green tea leaves procured by the members. Hence, the study of working capital management in cooperative tea factories assumes significance.
The primary objective of the study is to evaluate the efficiency in the management of working capital in cooperative tea factories. More specifically, the study aims at i) reviewing the performance of cooperative tea factories; ii) analysing the strategy of management in mobilisation and deployment of resources; iii) estimating the requirements of working capital both gross and net; iv) assessing the management of working capital with the help of operating cycle; and v) ascertaining the relationship between working capital ratios and operating profit of the cooperative tea factories.

The study is confined to fifteen cooperative tea factories located in Nilgiris district of Tamilnadu. Survey method was followed. The primary data were collected using interview schedule. The secondary data were gathered from published and unpublished annual reports, audit reports and other records and registers maintained by the factories. The study, covering a period of ten years, employed statistical tools and techniques like averages, percentages and ratios to assess the performance of the tea factories. Z - score was used to predict the soundness or otherwise of the factories. Fund flow analysis was used to study the strategy and tactics of management in mobilisation and application of resources. Efficiency in the management of working capital was assessed using the operating cycle. The relationship between working capital ratios and operating profit was examined by using correlation and regression analysis.
The findings of the study are summarised and presented.

Performance of the Cooperative Tea Factories

Nilgiris is the largest tea track in south India. A unique feature of tea cultivation is the preponderance of a large number of small tea growers. There are about fifty thousand small tea growers cultivating tea in about twenty thousand hectares which works out 60 per cent of the total area under tea cultivation. Cooperative tea factories came into existence mainly to promote the common economic interests of the small tea growers. The first factory in cooperative sector was established in 1958 based on the recommendation of Plantation Enquiry Committee in 1956. There are at present seventeen cooperative tea factories in the district. These seventeen factories at present process around 60 million Kgs of green leaves per annum and produce about 15 million Kgs of made tea which is about 17 per cent of the total tea production in the district. We present here the performance of 15 cooperative tea factories.

Around 60 per cent of the factories have been in operation for more than thirty years and thus many of them are old.

The membership of the factories have steadily grown over a period of ten years. The total membership of the factories has increased from 11351 in 1987-88 to 19353 in 1996-97 which could
be mainly attributed to the establishment of new factories in the cooperative sector during the period. But then, the increase in average membership from 873 to 1290 during the period proves the efficiency of the factories in bringing more number of members under their fold through membership drive.

The main sources of funds for the cooperative tea factories are: share capital, reserves and surplus, deposits and borrowings.

The total funds of the factories registered around three-fold increase over a period of ten years. It increased from Rs.6721.14 lakhs in 1987-88 to Rs. 1574.71 lakhs in 1996-97. All the components of funds viz., share capital, reserves, deposits and borrowings recorded growth over a period under review. However, the borrowings recorded higher growth rate with 19.82 per cent followed by reserves 9.41 per cent, share capital 7.9 per cent and deposits 5.75 per cent.

The composition of capital structure indicates that share capital constituted a major chunk of the capital representing 50 to 60 per cent of the total capital; the borrowings as percentage to total capital ranged from 30 to 40 per cent; reserves constituted 7 to 11 per cent and the share of deposits in the total fund was less than 5 per cent.
Thus, the cooperative tea factories relied much on owned funds than on borrowed funds. Factory wise analysis does indicate similar trend.

High proportion owned funds to total funds may be attributed to State participation in the share capital of the cooperative tea factories. An analysis of the pattern of share capital shows that 42 to 50 per cent of the total share capital was contributed by the State. Though State participation helps the factories to strengthen their equity base, it creates dependency culture among the cooperative tea factories which is likely to undermine the autonomy and democratic character of the factories.

The debt equity mix is quite favourable to the factories as it is around 1:2.

Procurement of green leaves is the principal function of the tea factories. The factories have opened collection centres and through such centres they procure tea leaves from the members. While procuring the tea leaves from the members, a part of the amount is paid as advance while the balance is paid to the members within fifteen days from the date of procurement.
The extent of tea leaves procured from the members shows a cyclic trend. The purchase of tea leaves exhibit a pattern of two to three years of lower purchase followed by one to two years of higher purchase. Such a cycle is attributed to fluctuations in the green leaves production and diversion of green tea leaves to private factories. The extent of tea leaves procured has increased from 379.83 lakh Kgs in 1987-88 to 563.71 lakh Kgs in 1996-97 with volatile trend in between.

The price paid per Kg of tea leaves also recorded a similar trend. The maximum price per Kg of green leaves was Rs.3.18 in 1987-88 which went up to Rs.6.60 in 1996-97. The period in between these two years recorded wild fluctuations.

The total production of made tea has increased from 88.78 lakh Kgs in 1987-88 to 142.98 lakh Kgs in 1996-97. Factory wise analysis of the production of made tea has shown that there is no substantial increase in the production of made tea. The production also shows a cyclic trend.

The value of the made tea procured by the factories rose from 1521.70 lakh in 1987-88 to 5023.44 lakh in 1996-97, the compound growth rate being 13 per cent. A comparison of growth rate on the quantity and value of tea production indicates that the value registered a higher growth rate. This shows a sharp increase in the cost of production.
The tea produced is sold both in India and abroad through auction centres at Coonoor and Cochin. Trading of tea is purely based on auction. The approved brokers alone could sell the made tea. Tea trade is dominated by brokers as it is 'buyers market'. INCOSERVE, the federation of cooperative tea factories provides active support to the factories in selling the made tea.

The quantity of tea sold has increased from 85.31 lakh kgs in 1987-88 to 138.68 lakh kgs in 1996-97, the growth rate being 5 per cent. The value of tea sold shot up from Rs. 1637.50 lakhs to Rs.5236.49 lakhs in the same period recording more than three-fold increase. The average sales per factory has shot up from Rs. 125.96 lakhs in 1987-88 to Rs.349.10 lakhs in 1996-97.

A comparison between mean of sales per factory and area registered under each tea factory shows that some factories with higher acreage under tea have recorded less average sales turnover. This is mainly due to fluctuation in the procurement of green tea leaves resulting in fluctuation in production and therefore sales.

A comparison between cost of production per kg and sales price per kg indicates a very low margin. The margin was less than Rs.3 in all the years barring one year. This low margin was one of the reasons for the losses in many of the factories.
More than 60 per cent of the factories in many of the years under review have incurred loss. The loss in cumulative terms in many of the cases exceeded Rs.20 lakhs. The number of factories which were running at profit also came down over a period. The extent of profit made is also very meagre.

A comparison between mean of operating profit per factory and the area registered under tea for the factories has shown that factories with high registered area of tea leaves have the prospects of earning more profit.

Attempt to assess the future prospects of the cooperative tea factories using Z - score indicates that six out of fifteen factories are heading towards bankruptcy. The rest also cannot be considered as healthy.

To conclude, the cooperative factories have done fairly good job in enhancing more number of small tea growers. They do maintain a favourable debt equity mix. Performance in terms of procurement of leaves, production and sales have been satisfactory as they recorded positive growth rate though there is a cyclic trend. But many factories suffered huge loss which is mainly due to low margin between sale price and cost of production and increasing overhead expenses. All the factories are facing a crisis called “risk of ruin”. They may become defunct if they don’t wake up and take appropriate measures to avert the crisis.
Fund Flow Analysis

Fund flow analysis reveals the effects of the failure of management to run the factories profitably. Due to losses in most of the years these factories could not derive additional long term funds in the form of retained earnings. They had to depend on accumulated depreciation reserve, long term loans and Government share capital for their long term funds. Short term funds were secured mostly from short term loans and increase in sundry creditors. Delay in settlement of dues to the suppliers should be reduced in order to improve the short term credit worthiness of the factories and win the loyalty of the suppliers. The fact that increase in procurement of green leaves coincided with decrease in sundry creditors shows that the timely payment of dues to the suppliers is indispensable for the improvement of the procurement without which there cannot be growth in production, sales and profit. With regard to uses of funds, investments in fixed assets did not result in proportionate increase in production and sales except in group 1. Inability to increase production and sales was due to the failure to raise procurement which in turn was due to delay in payments to the suppliers. Thus, reduction of sundry creditors would be one of the essential pre-requisites for the rejuvenation of the operations. Regarding short term uses, sundry debtors and increase therein claimed major part of the resources. Reduction of debtors through vigorous collection of dues would strengthen the cash base and help to reduce sundry creditors. In short, fund flow analysis highlights the effects of the failure and helps us to
identify the avenues of remedial action. Reduction of sundry debtors and creditors and improvement in production and sales are ought to be the spearheads of the revamping operations.

**Estimation of Working Capital Requirements**

Estimates of the requirements and availability of gross working capital and net working capital were made in chapter 5. Of the fifteen factories surplus gross working capital was found in fourteen factories largely due to the preponderance of sundry debtors and stocks. Therefore, these factories have to reduce these items in order to improve their operating efficiency. Among the fourteen factories having surplus gross working capital, five of them found to have less than the required net working capital because of the large amounts of short term loans and sundry creditors among current liabilities. These five factories should reduce the short term loans and sundry creditors in order to cultivate the loyalty of suppliers, raise production and sales, reduce the burden of interest and improve profitability. Except one factory - second factory in group 5 all of them had necessary resources but they should improve the management of funds through reduction of stocks, debtors, creditors and short term loans for toning up the efficiency of the management.
Operating Cycle

Due to perishability of green leaves gross raw material cycle was absent in the first group and was very short in the other groups - never exceeding seven days. At the same time long duration of trade creditors especially in group 2 caused negative net raw material cycle in all the groups. Because of short span of conversion process there was no opening stock or closing stock of work-in-process in any of the factories and consequently conversion cycle could not be computed for any of the factories. The storage cycle was well within the control in all the groups. However, collection cycle was inordinately long in group 1 and it was more than one month in groups - 3, 4 and 5. As a result of delay in collection, operating cycle was very long in group 1. In groups 3, 4 and 5 the delay in payments offset the effects of delay in the collection dues. As a result total operating cycle was negative or less than one hundred days except for the first two years in group 1. Delay in payment of dues and collection of dues was a serious problem adversely affecting the procurement and mobilisation of cash resources. However, all the factories have consistently brought down both duration of trade credit and collection cycle. Therefore, total operating cycle was less than fifteen days during the last three years in all the groups.
The two important goals of working capital management are profitability and liquidity. Efficient management of working capital is likely to enhance the profit of the organisation; at the same time it does help in maintaining liquidity. The study considered 13 independent variables (working capital variables) which have influence over the operating profit (dependent) of the organisation. These variables are: current ratio, quick ratio, inventory turnover ratio, accounts receivable turnover ratio, accounts payable turnover ratio, long term loan to net working capital ratios, accounts receivables to account payable ratio, total current liabilities to gross funds flow, sales to net working capital ratio, cash conversion cycle, net trade cycle ratio, comprehensive liquidity index ratio and net liquidity to total assets ratio. The relationship between working capital ratios and operating profit was studied using statistical devices like multiple correlation and regression analysis. The analysis is done in five groups of tea factories. The first four groups of factories are categorised based on acreage under tea and the last group is formed by taking into account all the factories. Correlation and regression analysis has been done group wise.

The correlation analysis for group 1 factories indicates that accounts payable ratio, sales to net working capital ratio and accounts
receivable to accounts payable ratio have positive and significant association with operating profit. The step-wise regression analysis proves that accounts payable turnover ratio explains 11.31 per cent of operating profit.

The correlation co-efficient matrices for group 2 factories indicated that accounts receivable turnover ratio, accounts payable turnover ratio and net liquid balance to total assets have significant positive correlation with operating profit, while total current liabilities to gross fund flow ratio has a very high negative correlation with operating profit. This ratio alone as per regression analysis explains 68.7 per cent of variability in operating profit. The other two variables put together explain 6.7 per cent of operating profit.

Two variables \(X_9\) total current liabilities to gross fund flow and \(X_{13}\) net liquid balance to total assets have significant association with operating profit in the case of group 3 factories. While there is a significant negative association between \(X_9\) and operating profit, the association between \(X_{13}\) and operating profit was positive. \(X_9\) alone explains 28.9 per cent of variability in operating profit; \(X_{13}\) explains 9.1 per cent of the operating profit.

In the case of group 4 factories only one variable viz., \(X_9\) has significant negative correlation with operating profit. Here again, \(X_9\)
Correlation and regression analysis for all the factories put together shows that five working capital variables viz., accounts payable ratio, sales to net working capital ratio, accounts receivable to accounts payable ratio, comprehensive liquidity index and net liquid balance to total assets ratio have significant positive association with operating profit. Regression analysis indicates that variable \(X_n\) (net liquid balance to total assets) displays the highest association explaining 12.4 percent of operating profit. The accounts payable turnover ratio \(X_5\) explains 4.8 per cent of the operating profit and sales to net working capital ratio \(X_6\) explains 2.6 per cent of the operating profit.

The association between working capital variables and operating profit revealed that of the 13 working capital ratios, accounts payable turnover ratio, sales to net working capital ratio, accounts receivable to accounts payable ratio, current liabilities to gross funds flow ratio and net liquid balance to total assets have association with operating profit. The remaining 8 ratios do not have association with operating profit.
Suggestions

The cooperative tea factories have failed; but they must succeed as the interests of thousands of small tea growers very largely depend on the effective functioning of these factories. Ineffective management of working capital is an important factor for the declining profit, though there are many other internal and external factors for the failure to operate on a profitable line. Suggestions for the effective functioning of the factories based on the inferences drawn from the study are presented.

(1) The study pointed out that investment in fixed assets did not result in proportionate increase in production and sales which is mainly due to failure to raise procurement of green tea leaves. Failure to procure adequate green tea leaves may be attributed to fluctuations in the price of tea leaves. Farmers do not get remunerative price for the tea leaves. It is therefore suggested that a “statutory minimum price” may be fixed as is done in the case of sugarcane. Such a price needs to be periodically reviewed and revised taking into account the cost of cultivation and other relevant factors. Offering of such a price may lead to increase in already escalating cost of production which is likely to substantially affect the profit of the factories. Hence the Government may think of introducing price subsidy scheme to the small tea growers.
(2) The members who supply green leaves to the factories are not paid on time. This causes fluctuations in procurement which ultimately lead to fluctuations in production. Hence it is suggested that all the member creditors be paid their dues within 15 days from the date of procurement as stipulated in the by-laws of the factories.

(3) A pragmatic financing policy for the factories would be to finance their ongoing operations with funds generated internally. This calls for strategic and operational measures to increase the internally generated cash surplus. Adoption of scientific planning and control of inventories, receivables, cash and continuous evaluation of factories production line by such techniques like contribution margin could go a long way to improve the cash flow situation on a lasting basis. Cash flow forecasts have to be prepared regularly and methodically and cash flow budget drawn up on the basis of cash flow forecasts.

(4) Factories which have surplus working capital resulting in high cost and low return must effectively manage the funds through reduction of stocks, debtors and short-term loans.

(5) Factories need to initiate appropriate measures like payment to the creditors on time, collecting dues from debtors on time, generating more cash flow, effectively utilizing the cash balance and net working capital and generating more sales.
(6) Another reason for the loss in the tea factories is the slump in sales prices which is mainly attributed to collapse of erstwhile USSR. Subsequent to the breakup of the USSR which was followed by an economic upheaval the consumers had little purchasing power. Moreover, the change from Government controlled imports to those private firms in Russia mean the pressures on the bottomline for the Indian tea industry. Russia and its erstwhile regions have started importing tea from other countries like Kenya. The situation is bound to worsen with the removal of quantitative restrictions on import under WTO regime from April 2001. Unless remedial action is initiated, the chances of plantation going out of business and in the process affecting the livelihood of thousands of small tea growers and workers appear imminent. Hence all possible efforts need to be taken to find out new avenues of exports and to restrict imports, one possible measure to restrict the import is the levy of higher import duty. On the export front, our price need to be competitive which is possible only if the cost of production is brought down.

(7) The cooperative tea factories may be exempted from excise duty and sales tax at least for a period five years so that the factories would be able to wipeout all the accumulated losses. Side by side, the factories may also seriously think of ways and means to bring down the cost of production through fuller utilization of the capacity. The cooperative tea factories through INCOSERVE may also think of
selling a part their production directly to the wholesale / retail unit by
developing appropriate marketing strategy. This would give them a
better profit margin.

(8) The management of cooperative tea factories should be
professionalised. The tea factories at present are managed by officials
deputed from the Department of Commerce and Industry. Such
officials do not have required professional knowledge in running the
cooperative tea factories. They normally look after the day-to-day
affairs of the factories. They don’t look into the future of the
factories. Hence it is suggested that professionally trained man power
is appointed at the top level of management for effectively managing
the affairs of the factories. Adequate power must be entrusted to the
elected board to dispense with the services of officials on deputation.
In the top management structure both democratic leadership and
executive leadership should be allowed to play their respective roles
effectively.

(9) The management structure of cooperative tea factories
must be strengthened by initiating management development
programmes to develop managerial competence internally.