SUMMARY OF FINDINGS AND SUGGESTIONS
CHAPTER VII
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The primary goal of every business is to ensure that the financial resources necessary to fund the achievement of company’s goals are available when they are needed and at the lowest cost of funds. Since the objective of every business is to maximise the wealth of the shareholders, hence, the study attempts to identify the association between liquidity of the firms and their profitability. Efficient management of assets and costs of production should ultimately improve the quality of earnings of a firm. The investments in working capital establish the liquidity position of a company which is critical to its survival. The broad objective of the study is to analyse the working capital, liquidity and quality of earnings of the firms in order to find out the interrelationship existing among them.

7.1. WORKING CAPITAL ANALYSIS

The working capital analysis was carried out under four dimensions viz., its structure, its financing policy, its trends and the efficiency in its management.

Structure of Working Capital

For studying the structure of working capital, twelve important ratios such as ratio of current assets to total assets, ratio of total inventories to current assets, ratio of total inventories of raw materials and stores to current assets, ratio of inventory of semi-finished goods to current assets, ratio of inventory of finished goods to current assets, ratio of inventory of raw materials to total inventories, ratio of inventory of semi-finished goods to total inventories, ratio of inventory of finished goods to total inventories, ratio of loans and advances to current assets, ratio of sundry debtors to current assets, ratio of sundry debtors exceeding six months to total debtors, were analysed for the sample firms. The mean values of the ratios for the study period and their co-efficient of variation are
The structure of working capital among the sample firms was analysed during the ten years of the study period. It was found that in the case of many ratios, a declining trend was noted from 1994-95 onwards. During the second half of the study period, it was seen that the proportion of fixed assets to total assets had increased. But, the proportion of sundry debtors to current assets showed a sharp increase in the year 1992-93, and had almost remained constant from 1993-94 onwards, showing very little variation.

The analysis of variance tests were applied to find out whether there was any significant difference in the working capital structural ratios based on the age, size, product group and years of the study period in respect of the sample firms. Null hypotheses were framed in respect of all the twelve ratios. The variation in year-wise performance was not found to be significant in the case of eight ratios. Only four ratios showed significant difference among years. The age-wise differences were found to be not significant in the case of four ratios. Eight ratios showed a significant difference between age groups.

The variation in size-wise performance was found to be significant in all the ratios. Similarly, differences between product groups were found to be significant in the case of eleven ratios. Only one ratio did not show any significant difference between the product groups.

**Financing of Working Capital**

It was found from the study, that a majority of the sample firms had adopted the moderate policy of financing the current asset. Only ASEL was seen to have adopted an aggressive policy throughout the study period. To understand the magnitude of risk-return trade off achieved by the sample firms, the risk values were calculated. The higher the risk value, the greater was the proportion of long term funds used in financing the current assets, and the lower the risk of insolvency. The risk values showed
to total liabilities was 40.41 per cent; the ratio of sundry creditors to current liabilities was 44.96 per cent; and the ratio of short-term bank borrowings to current liabilities was 31.22 per cent in the sample firms.

**Working Capital Trends**

The analysis of trends reveal the following;

The classification of sample firms on the basis of the product group showed that the rate of increase in the indices of current assets current liabilities and gross sales was the lowest in the case of the paints and varnishes group and the highest in the case of pesticides. The drug and fertiliser groups showed moderate increase in the indices.

The indices also revealed that during the study period the rate of increase in the current liabilities was more than proportionate to the increase in the current assets. Similarly, current assets had increased more than proportionate to the increase in sales in respect of all the product groups except paints.

The average annual growth in current assets, current liabilities and gross sales was different in the sample firms belonging to the different product groups. In the case of paints group the growth in sales was the highest (58.97%) in SNIL and it was supported by the growth in current assets of 71.03% and current liabilities of 44.49%.

In the drugs group, the highest growth in sales was achieved by NPI (196.38%) and it was supported by the current assets growth of 257.99% and current liabilities growth of 407.81%.

In the fertilisers group, the highest growth in sales was revealed by NFCL (156.33%) supported by the current assets growth of 144.43% and current liabilities growth of 23.44%, depicting a favourable position.
Efficiency in the Management of Working Capital

Among the product groups, the fertiliser group's performance was good as shown by the values of the indices. This has been possible due to all round efficiency in the management of different components of current assets. The drugs group ranks second in terms of efficiency in the management of working capital. In the paints group, though the performance indices were satisfactory, its overall efficiency was lower than the fertiliser and drug groups. The pesticides group ranks the last in terms of efficiency indices. The pesticides group as a whole had an overall utilisation index of less than 1 (0.98), but its overall performance index was 1.05.

The overall performance, utilisation and efficiency indices calculated for each sample firm for the ten year period was averaged, and the top five and bottom five companies were identified. The top five firms in term of overall performance of working capital were KCFL (1.52), GFCL (1.50), AIL (1.40), NPIL (1.36) and CFL (1.36). The bottom five firms in terms of overall performance of working capital were PII (0.91), GMC (0.93), EXEL (0.96), UPFL (0.98) and JBC (1.00).

Similarly, the top five firms in terms of working capital utilisation were ASEL (1.32), CFL (1.13), PLIL (1.09), NFCL (1.08) and HAWL (1.06), and the bottom five firms were DHANU (0.86), PII (0.87), GMC (0.91), FOL (0.93) and EXEL (0.94).

In terms of working capital efficiency, the top five firm were ASEL (2.70), CFL (1.77), KCFL (1.72), GFC (1.67) and NFCL (1.54), and the bottom five firms were EXEL (0.91), UPFL (0.99), FOL (1.00), PII (1.00) and JNIL (1.01).

It was found that most of the top performing companies belonged to the drugs and fertilisers group, while the bottom performing companies mostly belonged to the pesticides group. Though ASEL emerged as the best performing company in terms of utilisation and efficiency of working capital, it showed wide fluctuations during the study period. CFL was
good in terms of performance, utilisation and efficiency in the management of working
capital. Similarly, PII and EXEL were not successful in the management of working
capital as shown by their performance, utilisation and efficiency indices.

The year-wise performance, utilisation and efficiency indices of the product
groups showed a fluctuating trend throughout the study period. The years 1991-92 and
1998-99 were good for the paints group as shown by the index figures. The years
1994-95 and 1995-96 showed a decline in respect of all the three indices.

The year-wise performance of the drugs group was better compared to the paints group.
The first year was a very bad year for the group as revealed by the indices. It showed a
consistent increase, except in the year 1993-94 and 1995-96 in respect of utilisation indices.
The efficiency index had improved on account of the efficient utilisation of current assets.

The fertilisers group also had witnessed growth in all the three indices, except in
the year 1992-93. The utilisation of current assets was low during 1990-91 and 1992-93.
The efficiency index was seen to be the highest in the fertilisers group.

Of all the product groups, the performance of the pesticides group was poor as
shown by the indices. The performance was good only in some years during the study
period. A very low performance was seen during 1989-90, 1990-91, 1993-94 and
1997-98. This was due to poor performance in respect of the components of current
assets and also due to poor utilisation of current assets.

7.2. LIQUIDITY ANALYSIS

The study attempted to examine the various measures of liquidity. There were
basically two measures of liquidity viz., traditional measures and alternative measures of
liquidity. The traditional measures were classified into working capital position ratios,
activity ratios and leverage ratios.
position in the pesticides firms, and was very high (1.86) in the paint firms. This showed that the margin of safety for the creditors was the highest in the pesticides firms, and the lowest in the paint firms.

Under the alternative measures of liquidity, the cash conversion cycle, weighted cash conversion cycle and net trade cycle were represented in terms of days the funds were blocked in current assets after adjusting for the time the investment was financed by trade credit. The cash conversion cycle was seen to be the highest (112) in the pesticides groups, followed by the paints (104), fertilisers (97) and drugs (96) groups. The weighted cash conversion cycle was seen to be the highest in the pesticides firms, and the lowest in the drug firms. A refined measure of current ratio called adjusted current ratio was the highest in the drugs and fertilisers firms (1.62) followed by the pesticides (1.51) and paints (1.40). But, the net trade cycle revealed different results and it was the highest in paints (102) and the lowest in fertilisers (77). The net liquid balance to total assets showed negative figures, and thereby reveals that in all the sample firms the liquid assets were not sufficient to pay the liquid obligations, and so the firms have to depend on outside short-term funds. The cash flow ratio was seen to be the highest in the fertiliser and pesticides firms which shows that the cash profits from operations were high to pay off substantial portion of current liabilities.

A liquidity measure called lambda was computed in respect of the sample firms for the period 1994-95 to 1998-99 to determine the probability of facing cash shortage to meet the financial obligations. The lambda and lambda probability values had been computed for a five-year period viz., 1994-95 to 1998-1999. The computation of lambda values revealed the following: Among the paint firms, SNIL and HAWL were in the risk category, in the drugs group ARD had highest probability of facing cash shortage, while ABBL, ASCL, NPI and PDL failed in the risk category. Among the fertiliser firms
The twelve measures of liquidity were considered as independent variables and ROTA was taken as dependent variable. The regression analysis revealed the following:

In all the sample firms 29.8% of the variation in return of total asset was explained by the selected independent variables. In the less liquid firms, 31.99% of the variation in ROTA was due to the independent variables, while in the more liquid firms only 27.8% of the variation in ROTA was accounted for by the independent variables. This showed that the lower the liquidity of the firms, the higher was its impact on the profitability.

In the paints firms 48.3% of the variation of ROTA was accounted for by the liquidity measures; in drugs it was 45.0%, in fertilisers it was 21.9% and in pesticides it was 24.9%. The study has established the fact that the less liquid firms were concentrated in the paints group, and among the different product groups, the paints group had significant impact on the dependent variable viz., ROTA.

7.3. QUALITY OF EARNINGS

The firms which were able to consistently earn more than the required compensation for undertaking business and financial risk were said to have sound financial health and ultimately quality of earnings. The term ‘quality of earnings’ refers to the excess profit earned by the firms over and above the normal return on investment in the industry to which they belong. Those firms which had efficiency in cost management and asset management and those that enjoy favourable impact of leverage on earnings alone can enjoy abnormal profits. The model of quality of earnings has been applied to the different sample firms and also to the product groups.

The quality of earnings of the sample groups revealed that on an average it was the highest in the fertiliser group (0.064), followed by pesticides (0.051), and drugs (0.037). The paints group showed negative quality of earnings throughout the study period, on account of the fact that most of the paint firms had not earned more than the industrial average.
separately considered for the regression analysis. The procedure was repeated for each product group. Suitable null hypotheses were also framed. The results of the regression analysis were as follows:

Among the sample firms taken together, 17.8 per cent of the variation in the quality of earnings was explained by the selected independent variables. In the less liquid firms, 18.8 per cent of the variation in quality of earnings was explained by the independent variables.

But, the more liquid firms had influenced quality of earnings significantly, since 25.7 per cent of the variation in quality of earnings was explained by the selected independent variables.

In respect of the sample groups viz., paints, drugs, fertilisers and pesticides, 37.3 per cent, 46.9 per cent, 30.2 per cent and 40.0 per cent respectively of the variation in the quality of earnings was explained by the selected independent variables. The liquidity ratios, which had significant impact on the quality of earnings in most of the categories, were working capital turnover ratio, cash conversion cycle and net liquid balance total assets. The liquidity measures had a greater impact on profitability than on quality of earnings. But, in the drugs group, a higher impact was found on the quality of earnings by the liquidity measures.

7.4. SUGGESTIONS

Though it is difficult to outline the suggestions and recommendations on the activities on the firms covered individually, a modest attempt is made to give the following suggestions for the improvement of the overall efficiency of working capital management.
1. An optimum investment in working capital should be determined and every firm should ensure a proper balance between profitability and liquidity. The increase in sales volume should be in proportion to the increase in current assets. This can be ensured by proper capacity utilisation rather than capacity addition.

2. The amount invested in inventories was found to be very high in the sample firms thereby reducing the liquidity. Most of the sample firms were not found to have managed their inventories properly. To solve the inventory problem, it is suggested that they improve their inventory control system by using the modern sophisticated techniques such as HML (High, Medium, Low), VED (Vital, Essential, Desirable), FSN (Fast moving, Slow moving and Non-moving), SDF (Scarce, Difficult, Easy to obtain), GOLF (Government, Ordinary, Local, Foreign sources) and SOS (Seasonal and Off Seasonal).

3. The collection policy of the firms in general was not found to be satisfactory since on an average a period of 50 days was found to be the average collection period. This situation can be remedied by following an appropriate Receivables policy. A better co-ordination between sales, production and finance departments should be maintained. Prompt billing, timely reminders to defaulting customers and immediate action against delinquent accounts should be ensured. The collection policy should be evaluated periodically. A Heuristic approach is called for whereby the credit requirements, pay habits, profit margin, current ratio, total debt to asset ratio, inventory turnover ratio and qualitative factors in respect of the customers and their business are to be taken into account. Discriminant analysis can be applied to distinguish between good and bad accounts based on the credit scores given to the customers.
4. Ultimately, the real liquidity of a business can be ensured only by maintaining adequate cash balance and investments in marketable securities. For this, proper planning and control procedures have to be adopted and monitored for effective utilisation of cash. A better regulation of cash flows can be exercised by making sound cash forecasts through well projected cash statements.

5. Every firm should try to find out its competitive position in the industry. For this purpose a modified version of Quality of Earnings model may be applied by incorporating the Economic Value Added concept.