

SECTION - I V

CONCLUSIONS

CHAPTER - 9

SUMMARY OF MAJOR FINDINGS

Risk and uncertainty are inseparable ingredients of business activity and as such form the most important part of the decision making with regard to firms' adaptability to environmental variations. Unlike classical and neo-classical theories of the firm, modern theories incorporate this phenomenon in their models, but still assume the firm to be a single decision making unit with optimising behaviour. A major deviation in this regard has been the Behavioural Theory of the Firm which treats the firm as a coalition of members of conflicting interests. It proposes the concept of organisational slack to explain the short-run interrelationship of the coalition members within themselves and overall performance of the firm.

Organisational slack according to this theory is used to maintain the coalition and to smoothen (stabilises) the performance of the firm under diverse environmental conditions, but is not deliberately created. It arises automatically from the bargaining and decision making process without any conscious intent on the part of coalition members. The present study proves it to be otherwise. Studies on this subject are mostly based on the empirical evidence from the western industrialised economies especially U.S.A. The major contributions of the present study are :

- (i) One of the foremost contributions of this study is to analyse the behaviour of Indian industry on a theoretical problem relating to the managerial and environmental aspects of the firm's operations. In the Indian context it may be claimed to be a pioneering work in the field of managerial economics as direct research works on the subject is still wanting.
- (ii) It introduces a new concept 'Economic Leverage' which is broader and consistent than organisational slack.
- (iii) It gives a rationale for the deliberate creation

- and management of Economic Leverage intended to smoothen the performance of the firm.
- (iv) Most of the studies have identified and analysed only a few Economic Leverage variables. The present study is the first exhaustive attempt to bring them together, to prove their presence and measure them quantitatively.
 - (v) It proposes an algorithm to estimate the approximate amount of Economic Leverage present in the firm over a period of time and
 - (vi) it proposes an alternative criterion to classify firms into Traditional and Non-Traditional ones.

The concept of organisational slack was found to be less satisfactory because of (i) the inconsistency in its definition, (ii) erroneous identification of dividends, sub-optimal pricing as organisational slacks and (iii) the logical inconsistency in the output decision process. Hence a new concept 'Economic Leverage' has been introduced to give a distinct name to all those discretionary variables that could be managed to smoothen the income streams of the firm.

It has been found, that (i) the 'top management' and (ii) the 'below the top management' deliberately create and manage Economic Leverage to smoothen the income streams of their firms, which helps them to serve their personal interests along with that of the firm. The top management does so primarily to reduce the employment risk, enhance the market value of their human capital and to acquire the services of the capital market. Whereas the later do so to enhance the market value of their human capital i.e., to increase their outside opportunity wage. Thus the present study provides a rationale for the deliberate creation and management of Economic Leverage in contrast to Cyert and March's assertion that organisational slack is not deliberately created to stabilise **the firm**.

The evidence shows that the following Economic Leverage variables were manipulated to smoothen income series : direct labour costs, administrative costs, selling costs, total operating costs, mechanisation costs, research and development expenditure, inventory at all stages, investment in subsidiaries, total investment outside, staff and workmen welfare expenditure, deferred revenue expenditure, travel expenses, perquisites, public services expendi-

ture, accounts receivables, advertising costs, remuneration of the managing directors, total manufacturing costs, commission paid to the managing directors / agents and net operating costs.

It was found that the remuneration of the managing directors were limited by the bye-laws of the firms in the sense that it was not directly linked with the level of profits. The commission paid to the managing director or agents was directly linked with the profit level. For example most of the firms pay one percent of the reported profits as commission to the managing directors / agents.

Among the performance variables net sales revenue, net operating profit and profits before tax respectively occupy the first three preferences whereas sales revenue, gross profit and total income are preferred to indifferently as a fourth choice.

First order, Second order and Third order exponential smoothing models were fitted to smooth the income series and found to be significant. These models were applied at 'two error limits

of one percent and ten percent and the total number of firms exhibiting smoothing behaviour is higher with 10 percent error limit than with 1 percent error limit. The value of exponential smoothing constants vary from 0.005 to 0.75 in the case of 1 percent error limit whereas it varies from 0.005 to 0.74 in the case of 10 percent error limit. The number of variables exhibiting smoothing behaviour varies from one to seven and from firm to firm. Out of a total of 35 firms, 32 firms exhibited exponential smoothing behaviour of income series.

An algorithm to estimate the amount of Economic Leverage from time series data is proposed in the present study.

The amount of Economic Leverage was estimated using a simple linear regression model. Out of 35 firms 34 firms showed a significant R^2 , the coefficient of determination. The average of the amount of Economic Leverage varied from 5 to 25 per cent of the total manufacturing costs in most of the firm. However majority of the firms showed an average which fell in between 5 to 10 per cent of the total manufacturing costs. This means that not only

Economic Leverage exists but its amount is quite substantial.

Gross profits stream was found to be smoothed / stable (lower standard deviation) than profits after tax and total income streams. Whereas net operating profits stream was found smoother than that of net operating expenditures. However profits after tax was smoother than that of total income.

The influence of (i) sales revenue, (ii) profits after tax, (iii) gross block, (iv) total income, (v) net worth, (vi) total funds employed, (vii) total manufacturing costs and the lagged values of (i), (ii), (vi) and (vii) on the amount of Economic Leverage was examined. It was found that variables (i), (iv), (vi) and (vii) had significant influence. In the case of variable (i) it was found to be significant by one year lag.

The impact of the size of the firm, proxied by total income, on the amount of Economic Leverage was found to be a significant determinant only in the case of 4 firms. This might be due to the fact that only large scale firms were considered. After all the impact of size of the firm could

be studied only if various sizes like medium scale and small scale firms were also considered unlike considering only large scale firms.

The amount of Economic Leverage was found to be significantly correlated with sales revenue, net operating profits, total manufacturing costs, degree of financial leverage, financial leverage, net operating expenditure, financial ratios like net profit margin, net return on assets, operating profit margin and return on worth, the differences between total income and profits before tax and gross profits and profits after tax.

The qualitative analysis of Chapter-8 revealed that most of the firms were of the opinion that Economic Leverage variables like capacity utilisation, price incentives, customer services expenditure, product line, volume of staff and workmen and capitalisation of costs, could also be deliberately managed to smoothen the income series of the firm.

Since it is the 'top and the below the top management' which deliberately creates and manages the Economic Leverage it was found that it

might exist in all firms whether it be private or public or large scale or medium scale or small scale firm.

The past studies classified firms into owner controlled and management controlled ones based on the voting stockholding criterion which was found to be less satisfactory. Hence an alternative criterion based on the presence of smoothing behaviour of income streams has been proposed.

In the Economic literature, as explained in details earlier, it is held that organisational slack is not deliberately created ; it is nobody's maximand and that it is not quantifiable. However the present study fills in this gap by showing that (i) it is deliberately created and managed, (ii) that both the top and the below the top management deliberately create and manage it, (iii) that they have sound economic motives for doing so and (iv) that it is quantifiable and measured with reasonable approximation.

The past studies classified firms into owner controlled and management controlled ones only 'roughly'. For example "Berle and Means draw the

dividing line between this majority owner control and management control at 'roughly twenty percent' of the voting stock."¹ However the present study gives a better alternative to classify firms into 'Traditional' and 'Non-Traditional' ones on the basis of the presence or absence of smoothing behaviour.

Further research can be carried out to (i) empirically examine whether the creation and management of Economic Leverage exists in medium scale, small scale and also in public firms, (ii) examine empirically the role of prices of products and production levels in smoothing the income series of the firms, and (iii) examine the creation and management of Economic Leverage taking the impact of inflation also into consideration.

NOTES

1. Monsen et al. op.cit., p-437.