CHAPTER-7.

QUALITATIVE ANALYSIS THROUGH QUESTIONNAIRE.

7. In Chapter-5 quantitative analysis of some factors, which affect profitability was attempted. As per the classification (Chapter-5) there are many other factors which though cannot be quantified, but have significant effect on operational efficiency and profitability. And under this category, Management and other exogenous factors were discussed in Chapter-6. In this Chapter, qualitative opinion of the managers, about various factors (both endogenous and exogenous) and rating of working supervisors about Managerial efficiency in identified enterprises, obtained through questionnaire are being analysed.

7.1 QUESTIONNAIRE TO EXECUTIVES.

A questionnaire as at Appendix-XIV-A was issued to 30 managers in the rank of General Managers, Engineering Managers, Manager Technical Services of the plants Replies were received from 23 managers. No doubt replies were based on the experience of the respective plants of individual concerned, the tabulated results, speak out the general rating of important factors which affect the plant operation, productivity and profitability.

The rating of the various factors affecting profitability under contribution 'A' is as under:

Qr. No.	Factor in order.	'A' rating out of 23	%
4	Capacity utilisation	23	100%
17	Excess inventory	18	93
2	Neglected maintenance	16	90
3	Frequent Breakdowns	16	90
13	Managerial inefficiency	15	86

Qr. No.	Factor in order.	'A' rating out of 23	%
10	Low productivity	15	87
16	Nonavailability of power	15	87
18	Lack of dedication of workers	15	86
18	Lack of dedication of officers	12	72
11	Cost over run	12	79
8	Location	10	77
9	Out dated Technology	10	70

Other factors which are considered important are:

Qr. No.	Factor in order.	No. out of 23	%
8	Union activities	5	56
14	Lack of team spirit	10	69
	Irresponsible attitude of employees	9	72
20/21	Excess manpower and high wage bill	8	69
26	Lack of delegation by Chief Executive	6	70
	Political interference	6	65

Weighted average was also obtained by allotting marks to A-10, B-7, C-4, D-2. The position is expressed as % against each factor. This method also conclude the same rating.

Parliament and Government interference, welfare expenses, social overheads, cost of inputs, tenure of Chief Executive are not rated high as contributing factors.

7.2 QUESTIONNAIRE TO SUPERVISOR/JR. MANAGERS.

Another set of ten questions as at Appendix-XIV-B were raised to Supervisors to have their assessment for their managers, and management and their ratings obtained in A, B, C.*

Overall rating for FCI/HFC management was 'C' while rating for NFL is +C and RCF also +C. One distinction for RCF top management, as revealed during discussions is that it is decisive and it has better coordination and control.

Supervisors and Managers of FCI and HFC were critical about:

a) the role of their head offices and the Chief Executives, as they seldom move out of Delhi and visits plant sites.

b) Heavy structure and overheads of head office which can be, if not totally be, reduced atleast by 50-60%. FCI head office has 400 employees and HFC 250.

c) delays in decision on any issue.

Supervisors mentioned that for any representation or problem, there is a stock reply of local managers that the case has been referred to head office. However, in case of NFL and RCF position is little different. Chief Executives regularly visits plant which has helped them to understand the problems and take quick decisions thereof after discussions on the spot. This has improved industrial relations as well (6.5.2)

7.3 IMPRESSIONS, VIEWS, OPINIONS.

Some of the views of executives and employees of the identified enterprises, expressed in reply to questionnaire and during interviews are given below:

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* This is the practice of assessment followed in all CRs and interviews.

Views expressed by General Managers and Senior Executives of some of the selected enterprises.

i. FCI, Sindri Unit - Ex-General Manager - Shri H.S. Kohli.

The Rationalisation plant was running at an extremely low capacity utilisation due to its using an unproven technology and inferior quality raw materials.

The 180 crores worth World Bank aided Sindri Modernisation plant, which was built to replace the old plant and to utilise the infrastructure facilities and manpower already available, was initially having problem of non-availability of feed stock for over one year due to Assam agitation. It also had a design defect due to which the plant had to be stopped frequently to repair a hear exchanger E-1403 in co-conversion section, for steam leakages.

A new tube bundle of stainless steel was procured for the defective heat exchanger to avoid frequent shut downs. The modernisation plant had initial teething troubles which were subsequently rectified and theplant started giving profits.

In the rationalisation plant, some improvements were effected through renovation and also a scheme was put in operation to produce Sulphuric Acid from molten sulphur.

However, the very decision to install a plant on an unproven technology and faulty raw material was responsible for poor capacity utilisation.

The major reason for the high losses was the interest charged on previous losses on which we had no control but its cumulative effect was staggering. We convinced the Ministry of Fertilizers & Chemicals andbased on our report, financial remodelling was done thereby reducing the net loss burden to the unit.

Since the old plants were scrapped, we arranged for their disposal which fetched over Rs. 3.0 crores for the unit. Action was also initiated to dispose off the high inventory holdings.

The other problems being faced by Sindri Unit were excessively high inventory excess man-power, poor labour productivity, high overtime, high overheads and industrial unrest.

The problem of low productivity was tackled by reorganising the total units manpower and making central maintenance and operation poolsof excess staff so that workers could be put to useful work at places where it was required.

The excessive overtime and industrial unrest were contained through tough administrative measures.

Suggestions forimproving profitability:

1. The plants should be set up based on proven technology;
2. The equipment used should have high reliability and no compromise should be made on quality;
3. Modern maintenance management systems should be adopted to reduce downtime due to equipment failure, since these are highly capital intensive single stream plants.
4. If these plants have to show profits, and compete with private sector, thesocial service objective has tobe given secondary importance.
5. The chief executive should be given sufficient powers to run his unit independently and he should be held responsible if the unit incurs losses. However, there should be minimum interference from outside agencies.
6. The terms of office of the chief executive should also be sufficiently long say 5 to 7 years for him to show the desired results, for it is not possible to change overnight the fate of a project which takes anywhere from 4 to 5 years to start production.

ii. FCI, Sindri Unit - Chief Engineer Technical Services - Shri S.K. Ghosh.

'Profitability of the fertilizer plants in general is dependent primarily on capacity utilization, as the retention price formula of FICC takes care of 12% return on investment at 80% level of operation.

However, this is not all. Some of the fertilizers are not covered under FICC Schemes. In example, Ammonia Sulphate of Sindri is not produced as this product does not come under FICC and is not a profitable operation.

Adoption of unproven technology has also affected Sindri's economics to a great extent. Entire Rationalisation Scheme was simply an experiment. Probably it was too costly an experiment to be borne by the organisation. I also feel that along with large scale fertilizer production, small plants producing chemicals should be allowed to come up. These plants will not only improve profitability of the company but also reduce country's dependence on import.

In my opinion, the expansion and diversification should come spontaneously. Shrinkage of manpower need will definitely affect the society that grows around an industry. It may be concluded that once the natural growth of an organisation is throttled, its ill effect will tell upon the productivity and ultimately profitability. Other means of motivation do work as a short term measure but ultimately fails in such situation.'

iii. FCI, Gorakhpur Unit - General Manager -Shri S.K. Malik

It has been our experience that profitability of Public SectorFertilizer projects is normally affected due to low utilization capacity. When the operation of Fertilizer unit is less than 80%, the profitability seriously comes down.

One of the major constraints in production is equipment breakdown. Due to equipment breakdown the consumption norms increase beyond the standard norms.

The fixed cost part of the Fertilizer production is constant which has to be shared by fertilizer produced. When fertilizer production is less, the cost part increases resulting in decrease in the contribution to variable cost.

Frequent breakdowns, start ups and stoppages cause excess consumption of input variables like Naphtha, electricity, etc. with the result the variable cost also inflates.

The suggestions to overcome limitationsandimprove profitability for Fertilizer Industry are listed below:

(a) When a fertilizer plant is commissioned, design limitationsshouldbe normally identified and remedial actionstaken. Mostly in tropical climate in India the cooling capacity of machines is found less.

(b) For high technology plants like fertilizer industry training of manpower in higher technological skills and safety is very essential. Good initial training and constant review is necessary to keep up the high operating efficiency.

(c) Motivation scheme based on production is very essential in plants which have a turnover of the order of 100 crores of rupees per year.

(d) Involvement of supervisors and workers, suggestion schemes, quality control and good inspection also contributes to control the breakdown of costly imported equipment.

(e) Modern non-destructive techniques like signature analysis, radiography and fault detection techniques are very helpful to avoid breakdown.

iv CHIEF ENGINEER FCI, SINDRI.

"Project implementation and time and cost over runs are often talked for FCI projects handled by P&D Division. But nobody cared to improve the systems to suit the target. Experience of one Manager in one project was never utilised in the other project. Chief Executive hardly took direct interest, may be his preoccupation at Delhi in a multi unit organisation. He also cited that in case of Rourkela Project, M.D. himself used to take review meetings and if any activity was at same stage in next meeting, the officer concerned was answerable. At the same time he was prepared to hear the Problem and to provide assistance for expediting specially at Government level. This had helped to successfully commission Rourkela Plant in time."

v EX-GENERAL MANAGER, FCI, SINDRI.

"There is a general talk of 'Autonomy'. Whenever committee or commission is set up by the Government on public sector, one of the terms of references is 'Autonomy and Accountability of the Chief Executive' but the fact is CMD have full authonomy for running the plant efficiently and make organisational or other changes wherever necessary. Only 'Autonomy' is not there for diversification and investment approvals but General Managers are not given corresponding Autonomy to manage the plant. CMD does not utilise his authority fully and take risks in the decisions.

He follows the path of the least resistance. There is lack of sub-delegation, planning, coordination and control."

(It is rightly said "Authority is taken, it is not given and there is no lack of autonomy to run the given plant efficiently and achieve physical norms).

vi SR. MANAGER, FCI, RAMAGUNDAM.

"Plant is a exhibition of assorted equipment purchased from unproven sources. Coupled with the handicap of frequent break down of equipment, the quality of 'coal' and non-supply of power has affected the plant performance and capacity utilisation very adversely.

In such sophisticated single stream plants, there was no provision for stand-by equipment for critical service. This has also affected capacity utilisation. Government took lot of time to sanction additional gasifier - which may improve capacity utilisation.

I feel for each plant, there should be a 'task force' at plant level for continuous technical checks and remedial measures. Its recommendations should be quickly accepted and a challenge thrown to the 'Force' to implement and show result". This will improve performance and morale too.

vii DY. GENERAL MANAGER, HFC - Barauni.

"Plants operate because they are continuous process plants. It is a question of operating efficiency. We all talk big to improve efficiency of the public enterprises, but do not want to face reality. The environment and attitudes are not congenial. CMD is often busy in files at Delhi and hardly moved out from Delhi and visited other plants. This to some extent develops an indifferent attitude amongst employees. General Manager is kept busy by Local

Union Leaders and Government querries. Thereby little time is devoted to main operational problems, planning and control.

In nutshell there is a management crises, wasteful expenditure and lack of overall planning, coordination and control.

(This cannot be generalised, but as we hear and read, to a great extent, this is true which inhibits innovative practices).

viii EX-GENERAL MANAGER, HFC - BARAUNI.

"Plants can perform better and achieve higher capacity utilisation even with existing limitation provided operators and maintenance supervisors work sincerely and honestly and there is proper coordination and control by the Plant Managers and Engineers. Two together do not feel the responsibility of operating the plant efficiently, as it hardly affect them, their sentiments and their wages if plant does not perform well. There is lack of sense of belonging and lack of fear too, ofcourse Senior managers and GM have failed to motivate them".

(This indicate helpness of the management to creat and environment and atmosphere for interaction and to provide coordination and control).

ix EX-GENERAL MANAGER, HFC, DURGAPUR.

The productivity and operational efficiency of the plant was poordue to the type of technology and selection of equipment and machinery over which the management had little or no control. These set of parameters were given to the local management, who was to run the plant.

When the 'given plant' did not operate well, helpless and frustration set in amongst employees and vicious circle got developed.

Workers and engineers attitude and efficiency are also responsible for low productivity and the losses, but the major share, goes to the inherent technological and equipment defects for which Government alone is responsible.

x DY. GENERAL MANAGER, HFC, HALDIA.

"Let us not talk of Halida". It is misconceived and mismanaged. Whatever reasons that can be imagined and attributed to poor performance, exist in Haldia Complex - e.g. unproven technology and equipment, location, poor management, demoralisation, unwilling workers, wrong decisions, delayed decisions. It is better to write it off."

xi DY. GENERAL MANAGER, NFL (NANGAL).

"I am of the view that NFL units work better as technology adopted is good, and there is general discipline amongst Engineers/Officers and staff, environment is congenial and CMD also visits the units regularly to keep up the tempo. Frustration level amongst employees is low."

(Number of employees is comparatively less in each unit, and location factor is positive).

xii EX-GENERAL MANAGER, RCF.

"RCF plants work satisfactorily because CMD himself takes interest. Sits with the concerned managers to hear and solve problems and keep them on their toes." He also hurriedly added, probably same situation will not continue after his retirement as level two is not developed."

(This indicates CMD's involvement and high personality which could work effectively as RCF was a single unit till 1984. Such approach and individual's high personality concept also endangers development of level two and three which is precisely happening).

xiii GENERAL MANAGER, RCF - TROMBAY-V EXPANSION - GENERAL MANAGER (TROMBAY V) - SHRI M.L. OHRI.

"The construction of Trombay V Plants from grass roots level of the project alongside a huge running complex and in a thickly populated area posed its own problems. A major decision altering the feed stock from Naphtha to associated gas from Bombay high, resulted in a setback at the design stage. The variation in standards from the metric system to British system used by foreign consultants (Snam-progetti) delayed matter further as the entire computer programmes had to be recast. The foreign exchange component was not backed by any aid, and therefore each and every item had to be pushed through Director General of Technical Development for clearance of import. Port congestion, protracted strike by the port staff delayed imported items. But with better project management techniques and close follow up cost overrun could be avoided and delay reduced to minimum.

Major problems faced during commissioning and operations relate to:

a) vibration in Primary Reformer,

b) failure of boiler feed water Heat Exchangers - 10 times in two years,

c) frequent breakdown of compressors - syn. gas failed 70 times and Ammonia Compressor failed 14 times in two years.

These were attended to and design modified in consultation with consultants.

Year.	Ammonia	Urea
1982-83	56%	56%
1983-84	76%	92%

(Proper Project execution can save time and cost overruns.)

As would be seen from the above analysis, managerial inefficiency, lack of dedication of workers and officers are major constraints in keepingup the productivity and maintain profitability of the identified enterprises. Vasant Sathe, Hon.Minister for Fertilisers, while inaugurating FAI Seminar in 1984 had said "proper maintenance planning was one single factor that could make or mar the plant. Cases are not rare where goods plants had been spoiled by bad maintenance and where all plants had been made to deliver the maximum by dedicated team[1]."

It is therefore concluded that profitability hinges on managerial efficiency which in turn manages "man" who operates and maintains the machines. It is man's dedication including Chief Executive at all levels which can only bring high operational efficiency and optimum results, in a given set of conditions.

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1 Proceedings of FAI Seminar 1984.