



## **IMPACT OF PRODUCTION MANAGEMENT TECHNIQUES ON THE ORGANIZATION FOR TRANSFORMATION: A CASE STUDY**

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### **ABSTRACT:**

A plant engaged in extraction of minerals from beach sand and located in the eastern coast of India commercially began production in the year 1986. The plant had manpower of 1300 and a fair-weather port to facilitate export of minerals. Since then, the plant was plagued with various industrial relations issues as well as technical problems; as a result, the plant could never achieve rated capacity. The trade unions supported by vested political interests made it impossible for management to enforce discipline. The management often succumbed to pressure tactics of trade unions. The plant accumulated huge losses. Then there came a change of management for transformation with new vision. With the introduction of innovative techniques of management, reforms, and rehabilitation measures, production could be achieved more than the rated capacity, thus wiping out the losses and bringing a new lease on life to the plant. This paper discusses the various measures/managerial techniques adopted for the turnaround.

**Keyword:** Production Operation Management, Organisation, Management Techniques.

### **1. INTRODUCTION**

This paper examines the strategies for change that a particular plant in Orissa, India adopted for achieving a turnaround from loss to profit. The plant, engaged in mineral extraction from beach sand, declared commercial production in the year 1986. It had at the time a total manpower of 1300 employees and a fair-weather port to facilitate export of its products. Since then, however, it was bogged down with various problems relating to industrial relations and technical problems, because of which it could never achieve its rated capacity. The trade unions, supported by vested political interests, made it impossible for the management to enforce discipline, and the latter often succumbed to union pressure tactics. As a result, the plant accumulated huge losses. Then came a change in management and the new management team had a vision to transform the loss-making enterprise to a profit making one. With the introduction of innovative management techniques, reforms and rehabilitation measures, the plant could achieve production levels higher than the rated capacity, thus wiping out the losses and bringing a new lease of life.

### **2. VARIOUS TECHNIQUES FOR IMPROVEMENT IN ORGANISATION 2.1 Trade Unionism**

The trade union movement in India had its worst period during the 1980s, particularly in the eastern region. Fragmentation among political parties led to a crisis in their political identities, and to counter this they tried to increase their mass base and sphere of influence. During that period, the practice of industrial managers dividing workers for easy administration proved handy for them. To serve their vested interests, the political parties extended affiliation to each group of workers.

The main goals of such affiliations were:

- 1) To increase the mass base of the party through the trade unions
- 2) To extend its sphere of influence
- 3) To exercise control over the managements of industrial units for achieving their own ends and
- 4) To control industrial infrastructure to their advantage.

The passive attitude of the State as well as the district administration helped them, and compounded the difficulties that the management faced in maintaining discipline. The management became a tool in the hands of these political parties. There was a total collapse of administration and the



conditions were totally chaotic, with various workers' unions fighting against each other. The plant almost came up for closure.

## **2.2 Change of Leadership**

Then there came a change in leadership, as a last-ditch attempt to save the plant. The new leader set an example by uniting the workers. It was a difficult task but constant persuasion of the various unions, political group leaders, the district administration as well as the State government ultimately yielded result. The leader set himself up as an example by following the rules and regulations that he had established. The leader encouraged discipline, ensured participation of workers in decision making, implemented fair decisions, undertook an unbiased approach in performance monitoring, ensured transparency in administration, encouraged, and recognized good work, and motivated workers to give their best effort. These efforts created trust in the new leadership, which had been missing earlier. Welfare measures were taken up for all employees as well as in the surrounding villages. This created necessary goodwill both in the plant and in the nearby locality. Thus, the leader was accepted by all.

## **2.3 Rehabilitation of plant equipment**

The plant equipment was not performing as desired during the first couple of years of its operation, due to various reasons. This was one of the factors that led to decline in motivation of the employees, with consequent indiscipline and chaotic conditions. It is true that whenever a new plant is commissioned, it faces several teething problems. These problems are normally solved during the plant's gestation period. But in this case, the prevailing chaotic conditions arising from trade unionism and infighting among various groups compelled the management to devote more time to sorting out their differences instead of concentrating on rehabilitation of the equipment. Later, when the management became totally ineffective, this problem lost its priority and took a back seat. The new leader recognized this fact, and undertook a time-bound rehabilitation program for the plant's equipment.

## **2.4 Motivation of workers**

Ordinarily, various techniques are available for motivating employees. But in this case, since the workers were split by internal differences, it was difficult to motivate them. Therefore, it was decided in a workers' participation meeting to form teams with each team led by a manager who would act as team leader, appropriately supported by a group of officers. The officers were selected based on expertise in the concerned field. This strategy yielded the desired results. The rehabilitation program was divided into different tasks, and each team was assigned one task. Initially the teams were asked to analyse the problems assigned to them and come out with solutions within a given time-frame. This forced the teams to call regular meetings of their group and discuss and formulate a joint strategy. Later, the strategy formulated by each team was discussed and finalized at plant review meetings where all teams were present. Necessary support was extended by all departments. This strategy not only cemented the various groups of workers but also created harmony among officers and workers, which had been missing earlier. It also generated a healthy competition among the various teams, to complete their assignments within the time-frame that they had fixed. The motivation among the teams was greatly enhanced.

## **2.5 Effective utilization of working hours**

Earlier, working hours were not effectively used. The competition generated among the various teams to complete their assignments within their stipulated time-frames, motivated them not only to work harder but also to put in extra hours if required. The management, in recognition of their extra efforts, suitably rewarded them. The management also extended support by providing certain welfare measures at the work area. Certain welfare measures were also provided to all employees closer to their work environment, which resulted in the elimination of much unnecessary activities. This helped increase the effective utilization of working hours.

## **2.6 Harmony among employees**

Since the workers had earlier been divided amongst themselves and infighting was high, often instigated and intensified by their politically affiliated leaders, the management thought it fit to bring



harmony among them. Through the human resource department, the management instituted various social and community development activities. Both employees and their families were encouraged to participate in these programs. Management also introduced various incentives in recognition of meritorious service. Biweekly meetings were also organized in the plant for interaction amongst various teams, and team members were encouraged to talk about the problems they faced with respect to their work. This helped to improve understanding and co-operation among the teams, which ultimately translated into increased productivity. Inadequate resource and material requirement planning, purchase and not getting material in right time, lower quality of material received, etc. were some of the problems discussed. These were sorted out and, as a result, possible delays were avoided. The required material or spare parts could hereafter be issued at any time of the day.

### **2.7 Focus on Information Technology**

Consequent on the introduction of ISO -9001, all the departments were computerized for easy accessibility of information. The entire network was connected by LAN. This further helped towards procurement of material in time and the smooth functioning of all other sub-systems. A Management Information System department was created to analyse and suggest corrective or remedial measures if any, to be taken up in case of any deviation in production or any other system.

### **2.8 Focus on Training**

Training and re-training of workers plays an important part in developing and improving the skill of employees. Training and refresher training courses were formulated keeping in mind the needs of the hour. Expert faculties were invited to provide training to the employees in various fields. Representatives of equipment manufacturers were invited to speak about latest developments to update the knowledge of operators. Maintenance workshops were organized to further develop the skills of maintenance staff. Management courses were organized for officers to familiarize them with latest developments in management techniques. Behavioural science classes were conducted to understand the psychology of workers as well as their leaders and various measures were adopted to keep them motivated. Shop floor training classes were also organized.

### **2.9 Commitment**

Commitment toward achieving the set goals, targets and objectives was monitored by the leader and discussed every month in a review meeting. Each team manager along with the respective group set their goal/commitment to meet the organizational objectives. Each section, while discussing the progress, further divided the commitment to groups and individuals and monitored the progress on a day-to-day basis. Feedback was received of their performance/commitment to their objective. Good work was encouraged by publishing their names and photographs in the respective section's notice board. Thus, a healthy competition was generated amongst the employees to perform better.

### **3.0 Competition**

In addition to fostering a competitive attitude among members within a team, a similar competition was also organized amongst the various sections/teams while comparing their group work and performance in review meetings. At first, it was difficult to compare performances across teams, as the nature of the work/responsibility was different. However, a common ground and common goal/commitment of each team was set as a basis to measure the team's relative performance. This helped mostly increase productivity, and losses were minimized. Unnecessary costs were cut down or reduced. Job scheduling and material segment planning were studied and improved and unnecessary activities were eliminated, which had a further incremental effect to companies bottom-line. This also improved the cost and quality of products, considering that the product became more competitive.

### **3.1 Openness/Transparency**

Earlier, there had been a strong feeling among all the teams that the administrators were not transparent. The administration was not open, and as a result employees did not have trust in the management. Lack of transparency was not only a cause of indiscipline but also intensified groupism



and division among the workers, thus leading to further loss of confidence in the management. The human resource department was therefore revamped; new managers with creativity, innovative thinking, and the ability to generate confidence amongst the employees were inducted. Thus, the entire human relations/industrial relations environment was changed.

### 3.2 Welfare

The new management worked towards welfare of employees. Certain steps/provisions of welfare were extended to all employees. All were provided with one type of uniform, without having any distinction amongst workers and officers. Rules were set for everyone to follow, workers and officers alike. All of them were required to report to work in uniform and required to punch the timecard in a punching machine. Welfare measures were provided to all without any distinction.

### 3.3 Monitoring

Review meetings were conducted every month to review the performance of each team/group/section. Higher standards in achievements were encouraged by a system of publicly recognizing meritorious work. Where goals/commitments could not be achieved, the same was analysed. The strengths and weaknesses of the section/group leader and their representatives were analysed. The new leader extended an unequivocal helping hand to strengthen the groups and eliminate the weakness.

### 3.4 CONCLUSION

With all these initiatives, the plant, which had earlier been considered for closure, got a new lease of life. The plant could reach more than its name-plate capacity and could export the entire production, thus generating good profit. The accumulated losses were wiped out in a couple of years and the plant continued to make profit. This boosted the morale of the employees and they worked with more enthusiasm and renewed vigor. The turnaround was achieved with a change in management philosophy that introduced new and efficient strategies to completely transform the work environment.

### 3.5 REFERENCES

- [1] Woodruff, L.G, Critical mineral resources of the United States, Titanium, 2017. [2] Attributes, Characteristics, and Applications of Titanium and Its Alloys.
- [3] Joseph Gambogi Titanium and Titanium Dioxide, Mineral Commodity Summaries, 2010.
- [4] Executive summary by Titanium feed stock industry.
- [5] E.A. Walpole by Austpac resources N.L, 1998.