

## ***Factory Automation- To be or not to be***

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### **ABSTRACT**

*The organizations have been facing the dilemma between labour intensive work units and automated ones. As company's advantage is worker's loss. The case highlights the problem faced by unit in maintaining their diminishing production levels. The major cause of reduction in production levels has been high turnover of the employees. The unit is supported by advanced high technology machinery. Majority of the staff is contractual labour. The case gives insight in to the problem faced by HR Staff in implementing any decision.*

Mr. Ashish Singh, Plant Head, Plastics Inc, PPD Division, Malanpur, near Gwalior, Madhya Pradesh was in discussion with Senior Vice President of the company, Mr. Vivek Khatri. Mr. Vivek Khatri continuously expressed his discontent for lags in the production schedule and inability to cope up with targeted production every month at Malanpur factory compound. Despite the climate being hot and humid in the month of April, a chill ran through the spine of Mr. Ashish Singh. Mr. Ashish Singh, gathered all courage said to Mr. Vivek Khatri, "Well, I believe it's time to get automated."

Plastics Inc, was founded in 1965 and is headquartered at Bangluru, Karnataka. It has been recognized forerunner in Indian plastic manufacturing industry. It handles

volume of over 5,00,000 tonnes of polymers annually, which makes the organization largest processor of plastic polymers in the country. They have 25 advanced plants spread across the country which are powered by imported technologies. The top management of the company is keen about scientific developments and innovations in the process of manufacturing and supports for the mentioned cause.

The group produces Moulded Furniture, XF Films & Products, Bathroom Fittings, Plastic Piping System, Material Handling Products, Protective Packaging, Petrochemical, Composite Cylinder, Performance Films, Industrial Products Division.

The products which were manufactured at Malanpur plant were ordered by other industries which used these products for packaging purposes, the requirement of completing the order on time was vital. Thus, the company installed state of art machinery which was efficient and required skilled labour to operate machinery. The unit became operational in year 2000 and started off with 200 employees and after 15 years the plant employs 600 employees out of them, 150 employees are permanent and rest all are provided by labour contractor. The Malanpur plant was established on 20 acres land and was equipped with modern machinery and specialized in protective packaging. Permanent staffs were skilled labours which were assigned specialized tasks. Majority of staff was performing administrative duties and were also involved in supervision of contractual labour. Contractual labour was unskilled and was involved in petty tasks which don't required specific set of skills. They carried out tasks like marking of consignment, packaging and shifting finished to warehouse. At any given point of time when number of contractual labour falls short, the routine tasks at shop floor couldn't be completed and finished product would be at shop floor resulting in increase in operating cost.

The plant was capable in production of manufacturing protective packaging nets, foam and cushions. The orders were fulfilled using batch and continuous processing method. Three types of items were produced at the plant, (1) regular items, (2) non-

regular items, and (3) value added items. The major part of revenue was recovered from fulfilment of value added orders.

Mr. Vivek Khatri visited the plant in mid of April. The intention of visit was to identify the reasons for sharp decline in the revenues during the past few years. During the conversation with Mr. Ashish Singh, Mr. Vivek Khatri realized that the production was on the lower side due to high turnover of the employees. Mr. Vivek probed more into the matter and identified that the major reason for high turnover among employees was easy availability of the job. The rate of attrition was higher during the harvesting season and marriage season. This has led to lower performance of the unit during the past few years. The losses in expected profit has dropped by 15% from past two years. The situation seems critical and time crucial. When Mr. Ashish Singh was asked to provide solution to the problem, he replied "The major problem is caused by the contractual labour. They seem to take their work for granted. They are able to earn thrice from their normal wages in a day during harvesting season. And due to acute shortage of labour in the region, they never are short of work."

As most of the work is still manual in the unit, there is requirement of labours to carry out routine chores. Automating the processes would reduce the dependency on labour and would also increase the output.

"But the cost of automation is very high. Another hurdle towards the automation of unit is that we produce variety of material having different characteristics. Could automation efficiently handle different products efficiently?" Asked Mr Vivek Khatri.

Mr. Ashish Singh briefly explained Mr. Vivek Khatri benefits of automation to the organization. He said that automation would result in decrease in injuries and/or sickness and, thus, result in decreased number of compensation claims by workers'. It could also transform the workplace in to more attractive one for those workers who are hard-to-recruit-and also helps in retaining skilled workers. Mr. Ashish Singh

further added that the number of problems faced by plant are due to unskilled labour who have extreme negligent attitude and unprofessional approach towards job.

Mr. Vivek Khatri asked Mr. Ashish "so where do you think we can introduce automation in our factory premises. Mr. Ashish replied, "We can start automation at warehousing, for sorting the raw material, at assembly line and packaging of products. It would reduce our dependency upon labour and also would help in increasing output per employee of our plant." Mr. Ashish also presented few facts. He stated that there was 10 % drop in the revenue last year due to shortage of labour. In addition, the amount of loss accrued to Rs. 20 Crore. The expenditure of automation in the three mentioned departments was Rs.100 Crore. The machinery could be bought either directly from company manufacturing it. Or there was one more option that the various companies in USA and other developed nations are selling the used automation equipment at low costs. But the benefits of automation are relatively higher. The installation of automated machinery would require huge financial obligation over the plant but, once installation is finished, it would enhance production by at least 18 % per month and would be able to reach break-even point within one and half years.

Mr. Ashish also presented a fact that on an average the employees provided by labour contractor is also limited and they have a huge attrition rate, over 20% per month. This again causes reduction in production up to 15%.

Mr. Vivek Khatri, seemingly convinced, gazed into the window and asked Mr. Ashish *"is automation worth adopting and what about those workers who would be unemployed?"*

## **Questions**

- 1. What is the problem faced by management of Plastics Inc, PPD Division, Malanpur?**
- 2. Should factory automation resolve problem faced by the management of Plastics Inc, PPD Division, Malanpur?**
- 3. What are the major issues that plant management resolve before implementing automation in the plant?**
- 4. If the plant management continues to employ labour to carry out tasks, elucidate the reasons, which have prompted the management to abandon the idea of plant automation?**