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THE IMPACT OF TOTAL PRODUCTIVE MAINTENANCE (TPM) ON MANUFACTURING PERFORMANCE

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ABSTRACT

In the Indian context, most of the manufacturing organizations are currently in the introductory stage of TPM implementation. TPM is practical technique aimed at maximizing the effectiveness of facility that we use within our organization. TPM establishes a system of productive maintenance, covering the entire life cycle of equipment, covers all departments, involves participation of all employees from top to bottom and promotes small group autonomous activities. In this research we investigate the impact of TPM, terms related to productivity, benefits, personal contact criteria and safety points in the industry and these are concluded by the SPSS software, which provide the deviation point from top to bottom level of management and the labors of any industry. TPM investigation helps to improve the onward performance of the plant and benefits to improve the productivity.

KEYWORDS: TPM, Manufacturing performance, continuous improvement.

INTRODUCTION

The TPM program is a proactive and cost-effective approach to equipment maintenance. It is an integrated process requiring the support of all levels of the organization. TPM improves business performance in many aspects such as operations performance, safety and cleanliness, employee morale, and customer satisfaction. All these aspects usually lead to a significant improvement in the company's bottom line. Total Productive Maintenance (TPM) is a maintenance program which involves a newly defined concept for maintaining plants and equipment. The goal of the TPM program is to markedly increase production while, at the same time, increasing employee morale and job satisfaction.

This paper deals with:

Analyze the influence of TPM on production, employee development, quality improvement, and organization management.

- Analyze the current status of TPM on manufacturing performance measurements.
- Identify the elements of TPM and its guidelines for overall plant performance.

LITERATURE REVIEW

In this paper research investigate relationship between TPM through structural equation modeling (SEM). Also find relationship between TPM and MP (manufacturing performance) can be explained by both direct and indirect relationship [1]. This paper is to evaluate the contribution of TPM initiatives towards improving performance in Ethiopian Malt Manufacturing Industry. Implementation dimensions and manufacturing performance evaluated and validated by employing overall effectiveness [2]. This paper discuss TPM resources approach moves the paradigm of maintenance by putting emphasis on total employ employment in maintenance activities [3]. The goal of any TPM program is to improve productivity and quality along with increase employee morale and job satisfaction [4]. Research being conducted to investigate the relationship between maintenance and technical complexity, in production process, it can be defined as the extent to which human effort is placed by machine [5].

METHODOLOGY

Research is a process of planning, executing and investigating in order to find answer to our specific questionnaire. In other words research as a process through which we attempt to achieve systematically and with the support of data the answer to a question. The data was collected from questionnaires during June as well as through personal observations. This method was chosen on the basis of being cost effective and convenient for respondents to complete. The questionnaire was laid out such a manner as to cover all aspects of TPM that had been identified as being important from the literature survey. The questionnaire (scaled questions) which was used in

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conducting the survey of all level employees at the Gajra Gear Pvt. Ltd. Is as shown in below:-
A scaled question is one where the multiple choice alternatives provided give some idea of a progression in size or order of something. In the questionnaire the likert scales which are used to get people's attitudes by asking them the extent of their agreement or disagreement with a series of statement about something. The following five points range used in questionnaire.
5-Strongly agree
4-Agree
3-Neutral
2-Disagree
1-Strongly disagree

After completing the questionnaire an appointment with the respective managers was confirmed to discuss the planned surveys. At the time of the survey, 40 questionnaire were sent out and 30 responses were received, giving an overall response of 75%.

RESULT

Overall Response Rate:-

Responses	Response frequency	Percentage (%)
Attained responses	30	75%
Outstanding responses	10	25%
Total	40	100%

In this chapter the research & methodology for the study of the impact of TPM at Gajra Gear Pvt. Ltd. On manufacturing performance is explained. It was also noted that questionnaires were sent to a selected employees across all the department of the plant. For analysis and calculation we used the SPSS software. SPSS for Windows is a versatile computer package that will perform a wide variety of statistical procedures. When using SPSS, you will encounter several types of windows. The window with which you are working at any given time is called the *active* window.

CONCLUSION

In this paper we conclude analysis to implement for company in terms of Higher Overall Equipment Effectiveness, Less "firefighting" to repair machines, Lower operating costs. Also we can make some benefits for plant employee in terms of less pressure on maintenance for urgent repairs, Less pressure on production to recover from breakdown losses, Better cooperation between maintenance, production, and other departments, Reduced chance of accidents. In other form we can work on the higher job satisfaction and to improved job security.

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