Effectiveness of CMMS in Optimizing Manufacturing Performance

Piyush Sehgal, Chandan Deep Singh, Harleen Kaur, Neeraj Kumar

BookRix-Edition

Effectiveness of CMMS in Optimizing Manufacturing Performance

Piyush Sehgal, Chandan Deep Singh, Harleen Kaur, Neeraj Kumar

BookRix-Edition

Piyush Sehgal, Chandan Deep Singh

Effectiveness of CMMS in Optimizing Manufacturing Performance

BookRix GmbH & Co. KG
80331 Munich

Chapter 1 Introduction

INTRODUCTION

Computerized Maintenance Management Systems have evolved over the last three decades from elementary asset tracking and preventive maintenance functionality to enterprise maintenance information systems. A CMMS makes it possible to generate real-time accurate reports about the performance of organization. With the help of CMMS, it become easy to predict which assets will require preventive maintenance improving the business of the organization while reducing costs and increasing profits. CMMS enables to structure work orders efficiently without losing time on excessive paper work and administration. It makes sure that all tasks are in order so that organizations focus on doing the job. This makes the management of organization a lot easier. Through work order schedules, inventory forecasts and other valuable reports to get immediate insights into maintenance needs. This information allows to making better and faster decisions for business giving instant solutions based on real-time data.

Definition of maintenance is “the group of all administrative, technical and managerial actions during the life cycle of item intended to restore it to a state in which it perform the function’’ [16]. Meaning of maintenance includes all activities related to maintain a certain level of availability and reliability of the system [1]. It also includes engineering decisions and actions that are necessary for optimization of equipment capability. Capability is the ability to perform specified function within a range of performance level which relates to capacity, rate, quality, safety and responsiveness [12].

Maintenance is classified into two categories:

1. Preventive maintenance is intended to reduce the chances of failure and is carried out at predetermined intervals.
2. Corrective maintenance is undertaken after failure has been allocated [16].

In recent years increasing concentration in maintenance with in business sector. As a result of continued pressure on manufacturing organizations to meet customers and corporate demands, as well as improvement in performance and availability of equipments. Therefore, maintenance has become to manufacturing organizations [17]. Maintenance has important role in organizations to help for achieving their goals and make sure the equipments operate efficiently and effectively [2].

Previous studies reported that account of maintenance between 15%-70% of the total production cost [5]. In organizations maintenances related cost estimated to 25% of overall costs [11]. Due to bad planning, over time and poor preventive maintenance there is 30% of costs are related to unnecessary expenditures. It is important that strategic management and development of maintenance considered [2].

The research established most employees who understand policies and concepts of maintenance. Increasing the in-house maintenance observed with improved all equipment effectiveness. There is also noticed that improvement in spares availability. The study noticed that modifications of equipment was still lacking in most companies. Most persons of maintenance had no access to the CMMS. It impacts negative on their maintenance planning and control. The study of CMMS recommends that employees of design background must be attached with

maintenance teams. Maintenance employees of organizations must be trained on computerized maintenance management system.

Overall a good CMMS optimizes maintenance practices by introducing features that save time while reducing costs. A well-managed maintenance process and access to accurate data in the decision making leads to improved asset reliability and higher productivity.