

Research Article

STUDY AND ANALYSIS OF MANAGEMENT INFORMATION SYSTEM FOR LARGE SCALE INDUSTRIES

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ABSTRACT

In this Information age, data has become one of the most important resources to organizations. The effective and efficient management of large quantities of data is a common problem found in many industries. All operational information and communications system is designed to assist management in controlling department like marketing, production, stores and purchase which are inter-linked for the better functioning of the organization. After collecting the feedback is the average and standard deviation is calculated for each reason and tabulated. This paper discusses the comparison and usage of management system in 50 large scale industries. To achieve this data was collected through a pre-tested questionnaire. Enhance the usage of MIS organization, there is necessary to implement computer culture and conducting various training programs, awareness, seminars, conference etc.

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INTRODUCTION

MIS plays a crucial role in the management of any contemporary enterprise such as small, medium or large organizations. The recent information revaluation has pushed information systems to centre stage of modern management. Getting a competitive advantage balancing market strength, increasing market shares, acquiring more attractive finance, introducing new products and services, reaching out to more customers and quickly gaining customers preferences are achieved through MIS. A Management Information System is an integrated man cum machine system which provides information to support the planning and control functions of managers in large scale organization (Kapur and Jagadish, 1982). The information support for functional areas of management such as Production, Marketing, Finance, Personnel and services is an absolute necessity. In manufacturing organizations, the production function occupies a central role. The role of this function is to control the entire production and operation function consisting of design, location and layout, product design, operation, production planning and control, material management, quality control, cost control etc.

An effective Management Information System supplies accurate, relevant and timely information to the manager of an organization. Management Information System helps the management at various levels and it is a means of communication, where data are collected, processed, stored and retrieved later for making decisions regarding planning operation and control of an organization. Yuemin Zhou, Bingfang Wu, Jihua Meng (2005) developed A soil and water conservation- oriented small watershed management information system based on geographic information system and remote sensing technology. In order to get a better grip on the activity of information processing, it is necessary to have a formal system which should take care of the following point.

- Complex processing of data and multi-dimensional analysis. Quick search and retrieval.
- Handling of a voluminous data. Confirmation of the validity of data and transaction.
- Mass storage and fulfilling the changing needs of the information.
- Communication of the information system to the user on time.

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Adriana Harizanova, (2003) attempted for analysis of the theory in the sphere of the Management Information System (MIS). The information needs of the various managerial levels are pointed out and the stages in the development of MIS are defined. The MIS uses computers and communication technology to deal with these points of supreme importance. It goes without saying that all managerial functions are performed through decision making for taking rational decisions, Management Information is essential and is procured through the Management Information System setup by the organizations. Success of an organization in achieving its predetermined goals and objectives lies in timeliness and quality, that is to say effectiveness of its MIS. In today's world of ever increasing complexities of business as well as management, every organization to survive and grow must have an efficient and effective MIS. An effective Management Information System supplies accurate, relevant and timely information to the manager of an organization. Management Information Systems are of vital importance for all kinds of organizations. The growing importance of the application of MIS in tailoring industry is shown. S. Chakrabarti & S. Mitra & B. Bhattacharyya (Chakrabarti *et al.*, 2007) discusses the typical problems of parameter selection and optimization in machining processes to bring out the design ideas that form the foundation of entire management information systems (MIS). Bo Yan, Yiyun Chen, Guangwen Huang (2009) introduces the main content and operation flow of the tax management information system as well as main functions of its subsystems. Then we describe the general structure and technical implementation strategy of the application system. The tax management information system can improve the taxation service, reduce the taxation cost. Weijian Huang; Hua Zhao; Liang Huang; Wei Du (Weijian Huang *et al.*, 2010) showed that the management information system is widely used in the logistics area and it improves the efficiency of logistical activities. It will be more and more advance and widely using in the logistics. These ideas can be used for creating data driven, scalable enterprise information systems. This incorporates the features of an expert system in providing the customer or end user with maximum encapsulation of technical data and much improved decision-making capabilities within the system.

Management (Davis and Gordan, 1985) is the act of directing a process to accomplish a specific task. It is the process of getting things done through and with people. Bo Yan, Yiyun Chen, Guangwen Huang (O'Brien and James, 1991) introduces the main content and operation flow of the tax management information system as well as main functions of its subsystems. Then we describe the general structure and technical implementation strategy of the application system. The tax management information system can improve the taxation service, reduce the taxation cost, and provide reliable reference for macro-economic decisions. Weijian Huang; Hua Zhao; Liang Huang; Wei Du (O'Brien and James, 1991) showed that the management information system offers the service platform to improve the efficiency of logistics. Four major functionality of logistical management information system is illustrated in this paper such as integrated principle, level principle, structure principle, relevant principle and purpose principle. The architecture of management information system illustrates the major parts of the system such as user interface, server interface and applicable database system.

Management Information System

MIS is a system having a combination of persons, machines, procedures and data base as its elements, which gather data from the intra and extra sources of an organization and after processing these data supply management information to the managers in an organization to support the decision making process of the management. The MIS is an integrated user-machine system for providing information to support operations, management and decision making functions in an organization. The system utilizes computer hardware and software, manual procedures, models of analysis, planning, control and decision making and a data base. MIS refers broadly to a computer-based system that provides managers with the tools for organizing, evaluating and efficiently running their departments. The relationship between the data and the information is as shown in Figure 1.

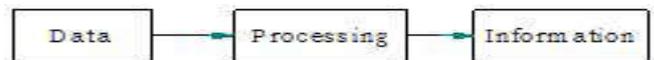


Fig. 1. Relation between Data and Information

The main function of MIS is to get the right Information to the right person at the right place at the right time in the right form at the right cost. The need of Information is to ensure effective and efficient decision-making leading to prosperity of the Organization. Different levels of management utilize different types of information as the three levels of management perform different functions in an organization. The characteristics of information, which are important for evaluation of MIS effectiveness and are relevant for an analysis of information of Managers at different levels are Timeliness, Accuracy, Relevance, Up to datedness, Adequacy, No overloading, Format, Clarity, No Duplication, Explicitness, Exception Based Reporting etc.

Data Processing Information the MIS is an integrated user-machine system for providing information to support operations, management and decision making functions in an organization (Yuemin Zhou *et al.*, 2005). The system utilizes computer hardware and software, manual procedures, models of analysis, planning, control and decision making and a data base. Decision making is an important requirement in every organization, where in different types of information obtained from different functional area of management like finance, marketing, production, personal, planning and control etc. Management Information System helps the management at various levels and it is a means of communication, where data are collected, processed, stored and retrieved later for making decisions regarding planning operation and control of an organization. In order to get a better grip on the activity of information processing, it is necessary to have a formal system which should take care of the following point

- Quick search and retrieval.
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- Handling of a voluminous data.

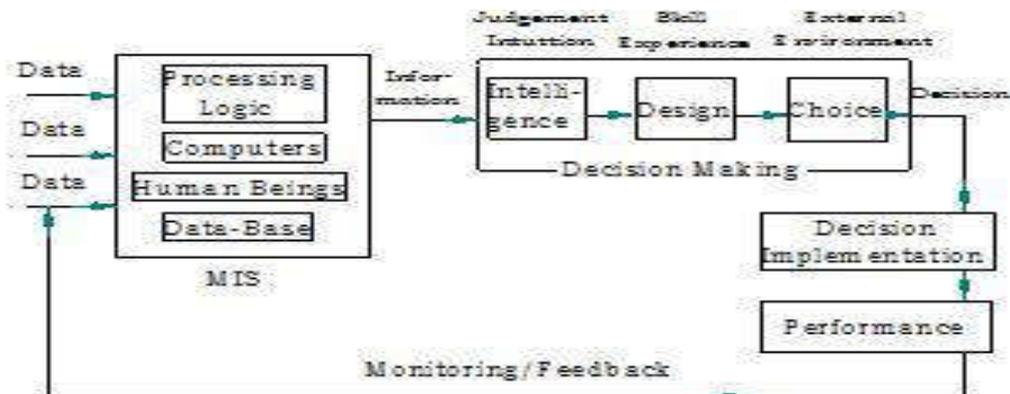


Fig. 2. Concept of MIS

Table 1. MIS usage in Large scale Industries

MIS USAGE	Large scale industries		
	Yes (%)	No (%)	Total(%)
	30	70	100

Table 2. Reasons for Non usage of MIS in Large scale Industries

Reason	Yes	NO	Total
Computerization of Organization	-	30	30
Computer knowledge of employees			SD
	1.47	0.51	
Financial status of Non usage of MIS	3.76	0.82	
Computer training not available	2.00	0.88	
Idea about MIS Knowledge	3.96	0.82	
Decision Making process	3.24	0.75	
MIS is so expensive to use	3.16	0.71	

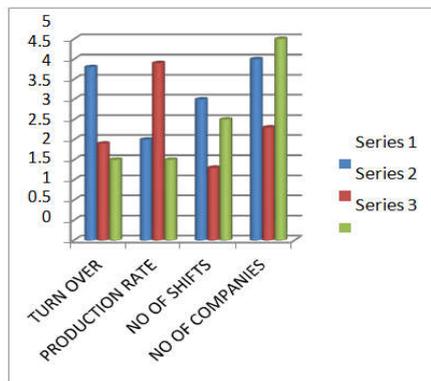


Fig. 4. MIS parameters for Large scale Industries

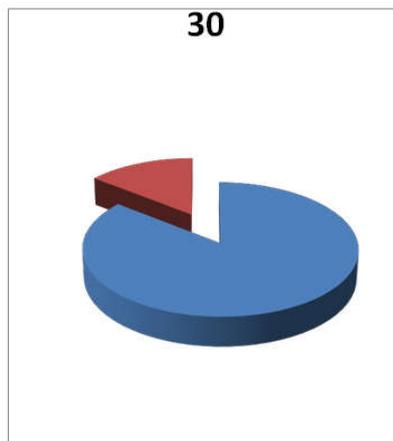


Fig. 5. Percentage of MIS for Production Industries

Merits of MIS in Organization

- Builds management competence through Information and Knowledge databases to face the competition.
- Helps to build a learning organization.
- Improves organization's effectiveness
- Ensures efficient & effective use of resources.

Better interaction between departments and organization

Challenges of MIS in Organization

- Strategic Business Challenge
- Globalization Challenge
- Information technology Infrastructure Challenge
- Information System Investment Challenge
- Ethics and Security: The responsibility and control challenge
- Workforce downsizing.
- Information overload.
- Employee mistrust.
- Difficult to built.
- Security breaches.

Research Methodology

Objective of study is to usage and acceptance of Management Information System in large scale industries. Around 100 units large scale industries were selected for the purpose of this study. These large scale industries are selected based on various parameters such as number of employees working, total turnover, production rate, number of shifts the company runs etc. The industries which are selected for the study include production industry, process industry and service industry. The study is exclusively based on the primary data collected through a sample survey. Main emphasis was laid to understand Management Information System usage and reasons which hinder its use.

Conclusion

Management information system is not being properly used in Large scale industry. The organization should be implement MIS software and potential computer applications to benefit to the employees.

The management should give training and awareness seminar to the employees for updating their management information's related to the organization. Only 30 % of industries implement the MIS procedures other 70 % of industries ignore the MIS policy and benefits. An effective implementation of MIS for organization will produce good turnover and productivity. In today's world of ever increasing complexities of business as well as management for every organization to survive and grow, must have an efficient and effective MIS which will improve the productivity of the industry. In management of almost all operational activity, the information forms a major input and as such for effective implementation of futuristic information system in overall system, it is essential to modify the existing management.

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