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SEM-V

Subject

Cost and Works Accounting-III

Chapter 4

Management Information System (MIS)

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Supply Chain Management (SCM)

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Management Information System (MIS)

Introduction

Management Information System is a concept of the last decade or two. It has been understood and described in a number of ways. It is also known as the information system, the information and design system, the computer based information system.

Management Information System has more than one definition, some of which are given as below.

- i) The Management Information System is defined as a system which provides information support for decision-making in the organisation.
 - ii) The Management Information System is defined as an integrated system of man and machine for providing the information to support the operations, the management and the decision-making function in the organisation.
 - iii) Management Information System is defined as a system based on the database of the organisation evolved for the purpose of providing information to the people in the organisation.
 - iv) Management Information System is defined as computer-based information system.
- In short, the Management Information System is a system to support decision making function in the organisation.

Features

i) Management Oriented:

The development of Management Information System starts after deciding the management needs and keeping in view the overall objectives of management.

ii) Management Directed :

A proper Management Information System removes the lack of knowledge, enriches experience and improves analytical abilities leading to better business decisions and judgement

iii) Integrated System :

Management Information System binds together database of business system and through information interchange, integrates the organisation. It also provides adequate development resources and removes the human and organisational barriers to progress.

iv) Common Data Flow :

Management Information System provides common data flows, which try to utilise minimum data processing efforts and minimise the number of output documents.

v) Flexibility :

Management Information System design should be flexible so as to provide alternate ways of processing data and system should be easy to operate so that not much computer skills are required.

vi) Relevance :

Management Information System should deal only with operation and control of relevant information.

vii) Computerisation :

Management Information System can be computerised because of its nature. This provides speed, accuracy and consistency in creating and access of files.

viii) Periodic Evaluation :

The Management Information System is that the system should be evaluated at periodic intervals to ensure that Management Information System is achieving the objectives for which this has been installed.

Objectives

Following are the main objectives of Management Information System :

- 1) Management Information System is very useful for efficient planning and control functions of the management. Management is the art of getting things done through others. Management Information System will be instrumental in getting things done by providing quick and timely information to the management.
- 2) Management Information System is helpful in controlling about idle time, labour turnover, wastages and losses and surplus capacity.
- 3) Management Information System reports give an idea about performance of men, materials, machinery, money and management. Reports throw light on the utilisation of resources employed in the organisation. costs by giving information
- 4) Management Information System brings to the notice of the management strength (i.e. strong points) of the organisation, to take advantage of the opportunities available
- 5) By making comparison of actual performance with the standard and budgeted performance , variances are brought to the notice of management by Management Information System which can be corrected by taking remedial steps.
- 6) Management Information System reports on production statistics regarding rejection, defective and spoilage and their effect on costs and quality of the products.
- 7) Management Information System provides a system of people, computers, procedures, interactive facilities, documents collecting, sorting and transmitting information to the users. query

Procedure:-

1.To know the needs regarding information:

First, an analytical study of that information is made which are needed for the external parties related to the organisation viz., government, customers, suppliers, labour unions etc.

The needs of information are related with the size of organisation, nature of business, financial position, state government policies and several other factors.

There are two methods to judge the needs of the information. First, the users of the information may be asked as to how much information they need to accomplish their task. Secondly, they should be asked as to how they take the decision and then judge what information should be provided to them.

2. To explain the objectives of MIS:

The second step is to clearly define the objectives. Just monitoring to increase the efficiency is not sufficient. Objective should be clear in terms of what one will do with the information received by him. The size of the objectives is related with the planning, management control and continuous flow of information.

3. To determine the sources of information:

After estimating the need of information and clearly defining the objectives. The third step in installation of MIS is to determine the sources of information. There are several sources. The internal sources of are accounts, files, statistical papers etc. and external sources are commercial and government publications. Information can also be collected by personal interviews and personal inspections.

4. To set the method of collection can classification of information:

After determining the sources of information, the method of collection and classification of information is chalked out. It is decided what will be the source of information, frequency, quantity and time of information? After collection how it will be classified? Where computers are used the statistical information is feed into them, for which an outline is prepared?

5. Method of giving information:

The next step is to determine the method of giving information. It is decided as to who the information is to be given, how many copies are to be prepared, when and what will be its frequency and in which form it is to be given. They can be communicated by reports, charts, statements or even orally.

6. Cost profit analysis:

Finally, the cost to be incurred in information system should be assessed and the benefit should be estimated. The cost of information system includes the cost of its implementation, practicing it and its evaluation. These costs should be compared with the cost present system of giving information.

7. Evaluation:

Three to six months after implementation of management information system, it should be evaluated, so that, it can be judged whether the cost incurred in its implementation is less than the benefits derived from it and, also if it satisfies the needs of the persons using it. If it is not satisfactory, steps should be taken to make to more effective and useful.

PREPARATION

Preparing for a systematic and scientific Management Information System concerns with referring to the proper understanding and deciding upon a suitable model for the existing management structure. The different models of Management Information System are shown

1) The Process Model of Management Information System :

In this model, the information system is depicted as a collection of processes that are put together and occur in pre-determined sequences to gather, capture, format and present information.

A process is something that converts input into output. A process needs the following entities to function:

a) Methods or Procedures.

- b) Trained Operators.
- c) Knowledge of Method and Machinery.
- d) Materials.
- e) Machinery

2) Logical Model of Management Information System

- a) Management Information System
- b) Science and Technology
- c) Management Science
- d) Data Information Technology

Logical models are usually a graphical depiction of the logical relationship between the resources, activities, outputs and outcomes of a programme. Logical models are most used in the evaluation stage of programme; they can however used during planning and implementation.

3) Physical Model of Management Information System :

Management Information System consists of several parts or sub-systems. All the above sub-systems are interact with each other in different ways to finally produce the information in the format desired. The efficiency with which these modules interact will determine the effectiveness of Management Information System.

SUPPLY CHAIN MANAGEMENT (SCM)

Supply Chain Management is the process of overseeing how goods and services evolve from idea creation and raw materials into a finished consumer product. It includes the processes of moving and storing the materials used to produce goods, storing the finished products until they sell and tracking where sold products go so that you can use that information to drive future sales.

The process of Supply Chain Management involves every aspect of business operations, including logistics, purchasing and information technology. It integrates materials, finances, suppliers, manufacturing facilities, wholesalers, retailers and consumers into a seamless system.

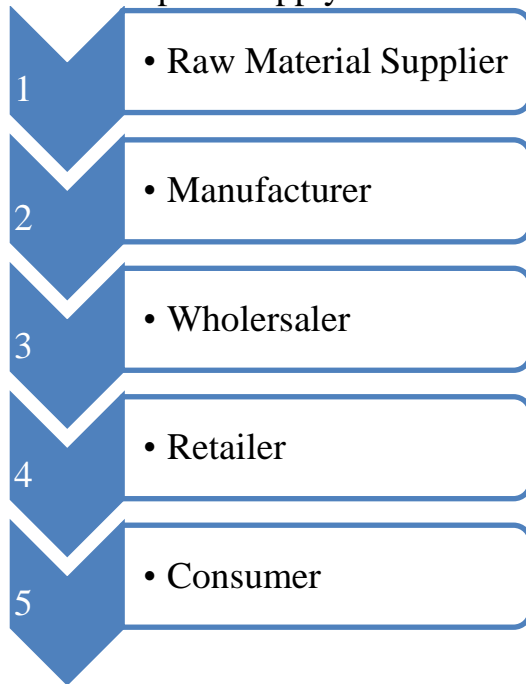
MEANING

The term Supply Chain Management (SCM) covers all the activities associated with managing an organisation's procurement with the goal of:

- i) reducing costs
- ii) improving efficiency and
- iii) satisfying demand.

Supply Chain Management (SCM) is the handling of the entire production flow of a goods or services-starting from the raw components all the way to delivering the finished product to the customer. A company creates a network of supplies ("links" in the chain) that move the product along from the suppliers of raw materials to those organisations that deal with customers.

The Concept of Supply Chain Management (SCM) can be simplified with the help of Figure



Definition

Supply Chain Management (SCM) is also defined as,

"the management of the flow of goods and services and includes all process that transform raw materials into final products. It involves the active streamlining of a businesses supply-side activities to maximize customer value and gain a competitive advantage in the market place".

Supply Chain Management represents an effort by suppliers to develop and implement supply chains that are as efficient and economical as possible. Supply chains cover everything from production to product development to the information systems needed to direct these undertakings.

It is well known that Supply Chain Management is an integral part of most businesses and is essential to organisational success and customer satisfaction.

In simple words, Supply Chain Management is the handling of the entire production flow of a goods or services to maximise quality, delivery, customer experience and profitability. Effective Supply Chain Management minimises cost, waste and time in the production cycle.

FEATURES

- 1) Plays a role in making product.
- 2) To minimize system wide cost.
- 3) Complementary to the other cost.
- 4) Deals with planning, controlling activities.
- 5) It's a management from to consumer.
- 6) Making suppliers as a partner by sharing plans
- 7) It consist 3 kinds of flows in chain- Material, Information, Finance.

MODELS

There are considered to be six generic supply chain models of which one group is oriented towards efficiency and the other towards responsiveness. Any manufacturing organisation should have a supply chain corresponding to one of the six models.

1) The Continuous Flow Models :

The continuous flow model for supply offers stability in high demand situations that vary very little. Manufacturers that produce the same items repeatedly with very little fluctuation can benefit from the continuous flow model. It is always better for commodity manufacturing and is one of the most traditional supply chain models. This model is best suitable and appropriate for matured industries that operate with a certain degree of stability. It offers stability in high demand situations. This model relies on the stability of supply and demand. Its processes are scheduled in such a way that a continuous flow of products and information is ensured.

2) The Fast Chain Models :

The fast chain model is ideal for industries that manufacture products that are trendy with short life cycles. This model works well with a business that must change their products frequently and that needs to get them out fast before the trends ends. It is flexible model suitable for fashion items. It is important that these businesses also need to get them out fast before the trend ends.

Companies that adopt the fast supply chain model focus on shortening time from time from idea to market and maximizing the levels of assumption accuracy so as to reduce market mediation cost.

Some expert identified the three main capabilities of the fast chain model are : a) From concept/idea to market in a short period, b) Highest forecast and assumption accuracy to reduce market mediation cost, and c). End-to-end efficiency to ensure affordable costs for customers.

3) The Efficient Chain Models :

This model is best suited for business operating in highly competitive markets wherein pricing plays an important role and businesses are fighting for the same group of customers. These industries are usually commoditised organisations where production cycle and competition is almost solely based on price. The steel and cement industries are the best example of this category. The important aim of the efficient supply chain model is that managers should focus on maximising end-to-end efficiency including high rates of asset utilisation in a bid to lower costs. For achieving this, inventory management and order fulfillment are prime areas of focus for the profitability of business.

4) The Custom Configured Models :

As indicated by its name, the custom configured model is focused on providing custom configurations, particularly during assembly and production. This model features a high degree of correlation between an asset and total cost. It is a combination of the agile model and the continuous flow model, a hybrid of sorts. An automobile manufacturing process is a good example of the custom configured model. The custom configured model

incorporates the continuous flow model is processes where the product is built before configuration, and the agile model is utilised for downstream processes.

5) The Agile Models :

The agile model is ideal for businesses that deal in speciality order items. This model utilizes a "made-to-order" method that allows for the manufacturing of items after receiving an order from a customer rather than complete pre-production. This model of supply chain is best suited for industries that deal with unpredictable demand and products that are made to order. It demands excess production capacity, and the processes are designed for the smallest possible batches of products. This model focuses on the supply chain's ability to sum up production on a moment's notice but can remain static when the demand is low.

6) The Flexible Models :

The flexible model gives businesses the freedom to meet high demand peaks and manage long period of low volume movement . It can be switched ON and OFF easily. The flexible supply chain model is best for industries that typically experience peaks of extremely high demand followed by extended periods of low demand. The flexible model is characterized by high level of adaptability, the capability to reconfigure internal manufacturing process to meet customer needs and ability to change easily. It is observed that, businesses that deals in products associated with particular holidays or other seasonal items benefit from the flexible model. Such manufacturing companies that must meet unexpected demand and therefore are faced with high demand peaks and long periods of low work load.

Every supply chain model should be efficient and responsive to deliver the best in support, improve productivity and meet the consumers demand.

Reference:-

- Techniques of Cost Accounting- Dr, Suhas Mahajan & Dr, Mahesh Kulkarni, Nirali Prakashan
- Costing Techniques and Cost Audit- Dr. Arun Gaikwad , H. M. Jare , Dr. Kishor Jagtap , Dr. Sunil Zagade , Success Publications