

## 6. Implementation And Evaluation Of MIS

### *Implementation Process*

*Implementation of a system is as much important as the creation of it. Implementation can easily destroy the good work done in the earlier phases and bring the system to a standstill. Implementation requires technical and managerial skills as the implementers work as change agents. Implementation is also a process that has a series of sequential steps which culminate in making operational the new system.*

*Implementation as an activity has to be carefully managed. It requires client interaction at every stage. The implementers need the full support and cooperation of the client and the IS department functionaries to successfully execute the implementation of information systems. In order to help them perform this task of implementation smoothly, a series of predefined steps are followed. These implementation tasks are as follows:*

- 1. Implementation Plan*
- 2. Organizing the MIS Department*
- 3. Selection and Procurement of Hardware*
- 4. Procurement of Software*
- 5. Creating the Database*
- 6. Training of Users*
- 7. Creating Physical Infrastructure*
- 8. Transition to the New System*

### *Planning the Implementation*

*It is the series of action-oriented steps planned for making the implementation smooth. It normally involves the following steps:*

- 1. Creating a master schedule of the implementation activities*
- 2. Setting timelines for critical and non-critical activities*
- 3. Identifying major bottlenecks and their solutions*
- 4. Communication of the plan.*

*This step is required to help the user community understand the timeframe for installation of the new system. Communication plays a vital role in the implementation and without proper communication especially, from the top management on the installation and implementation*

of  
the new system the change management will be difficult. Resistance to change related issues will  
come to the fore making the difficult task of implementation more difficult. Communication of the  
plan of implementation to the user community helps the users to prepare for the change and  
make them mentally prepared for it. The communication is required to be formal so that rumors  
cannot be spread about the system. The communication process may itself be in several phases.  
The top level can communicate the general intent of the new system and then detailed briefings  
to staff may be left to the divisional heads. The communication process also indicates (indirectly),  
the role each employee is required to play in the implementation process.

#### *Acquisition Of facilities And Space Planning*

For the installation of a new system to replace a current one may require a major revision of  
facilities as well as completely new office, computer room etc.

The MIS project manager must prepare rough layouts and estimates of particular floor areas that  
are felt to be needed. The manager then prepares cost estimates.

Space planning must be done by the space to be occupied by people, the space occupied by  
equipment and the movement of people and equipment in the work progress. A large investment  
in good working conditions will repay its cost many times.

#### *IS Organization And Procedure Development*

The MIS department will be the custodian of the new system. Hence, they have to be geared up to  
support the new system. Organization of the department is therefore necessary before the new  
system becomes operational. The roles of each member of the MIS department have to be clearly  
laid out before the new system becomes operational. Effort is made to ensure that the role of the  
MIS staff is understood by each member of the organization. Training is provided to those who  
need training on the new system so that they in turn can help others. This process of organizing  
the MIS department starts much before the actual implementation process begins as it entails  
some hiring and training which requires some lead time. The organization is done in such a  
time frame that staff is available when the actual implementation starts. This enables the MIS staff  
to provide support to the implementation team, when the implementation process starts. This  
will  
also help the MIS staff to understand the nitty-gritty of the new system as they will be able to get a  
hands-on experience in the implementation of the new system.

After organizing the personnel for implementation the next task is to develop or prepare the procedures for implementation. As the project leader has the network plan for proceeding with the implementation, this leader calls the key people in the project to prepare more detailed procedures for system installation.

Procedures for evaluating and selecting hardware must be spelled out. Procedures for phasing in part of the MIS or operating the MIS in parallel must be developed.

The major part of implementing the MIS is the testing of each segment of the total system as it is installed.

#### *User Training*

Implementation is a larger issue than installation. The new system may get installed but without proper training of users, it may not be of good use. Implementation is a larger concept and focuses on the installation and hand-holding part of the transition process. A training needs assessment is done to understand the training needs of the users. A training programme is planned and the required training is given to users. This is an important part of the implementation process and helps in reducing the resistance to change related behavior among the user community. The training also helps users to appreciate the new features of the new system and helps build trust and appreciation for the new system.

#### *Acquisition Of Hardware And Software*

This acquisition is usually the limiting factor in getting an MIS implementation. These tasks should be started during the design stage.

The decision is to be needed, whether to buy or lease the hardware. Capital expenditure analysis is only one of many factors involved in this decision. Others are prestige, usage etc.

The new system being implemented will have been created based on assumptions of operating

environment of the organization. Procurement of system software is done on similar lines as the

procurement of hardware. The only difference in the case of procurement of software is that the choice of what software to purchase is already made at the design stage of the system development and hence, the RFP preparation process is straightforward. The implementation

team need not prepare the specification for the system software. They only need to procure the

system software that the new system is designed to run on. The rest of the process is almost similar to the hardware procurement process.

#### *Creation Of Forms And Database*

For controlling the marketing, a sales person has to fill out the form summarizing the data

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activities. The form ensures the right information to be supplied for computer storage.

Forms are required not just for input and output but also for transmitting data at intermediate stages.

The new system to be implemented will have data stores. In modern systems, data stores are databases. These databases are relational database management systems, which is a separate application software package. The database has to be created and structures inside the database have to be created in order to enable it to store data. The implementation team creates the database, its structures and rules so that the application system being implemented can be plugged into the database and start working.

### Testing

As the total system is installed, tests should be performed with the test specifications and procedure. A test during installation stage consists of component tests, subsystem tests and total system acceptance tests.

Components may be equipment (that can be new or old), new software programs, new data collection methods, work procedures, reporting formats. Difficulties that occur during component tests may lead to design changes.

As more components are installed, subsystems may be tested. There is a difference between the testing of component and the testing of a system.

System tests require verification of multiple inputs, complex logic systems, and timing aspects of many parts.

### Changeover

This is the last step in the implementation process. The transition if done wrongly leads to a lot of pain. Hence, it is necessary to move slowly on the transition front. Normally, after the new system is installed and ready, the new system and the old system are both used for a period to ensure that the company performance does not suffer due to transition problems. Slowly when the users gain more capability to handle the new system the old system is phased out.

### Hardware and Software Selection

This step of the implementation process is an important step as it involves huge investments. Proper care is taken to ensure that the organization gets the best deal from such selection and procurement of the hardware. The process of selection and procurement of hardware also varies greatly from firm to firm depending on the size of the firm and the sector in which it operates the type of management. However, the following procedure is followed:

1. Preparation of vendor list - a list of reliable vendors is prepared. This list of vendors may be prepared after analyzing the vendor management experience of the organization with different

*t vendors may be prepared based on some accepted list of vendors in that business space prepared by some organization of repute or some industry body/regulatory body.*

- 2. Preparation of RFP- the implementation team must prepare the request for proposal document based on their understanding of the hardware requirement of the new system. The RFP must have complete technical details about the required hardware systems including specifications, format, performance expectation, and warranty and service quality requirements. This document is prepared by the implementers in consultation with the development team, management of the organization and the MIS team of the organization so that the need for each specification is well established and there is no scope for any difference of opinion.*
- 3. Request for bids/proposal to select vendors- after the RFP is prepared it is sent by some mode of communication to the enlisted set of vendors. The communication medium can be an open advertisement in print or electronic media or may be in the form of a letter to the vendors with a deadline for submission of the proposal.*
- 4. Evaluation of RFP- this is a difficult process. After bids are received before the deadline, they are checked (preliminary check) for basic errors. Those found to be prima facie proper are then evaluated. Several methods of evaluation exist. The evaluation could be on the basis of cost alone or quality alone or may be a mix of both cost and quality.*
- 5. Selection of vendor- based on the evaluation as a single vendor or a select set of vendors are chosen for delivery of hardware. Contract negotiations and price negotiations are held with this select group of vendors and following the successful completion of the negotiation the final contract will be signed.*

#### *Requirement Analysis*

*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 need of the persons using it. If it is not satisfactory, steps should be taken to make it more effective and useful.*