UNIT 3 INFORMATION RESOURCES MANAGEMENT

Objectives

After going through this unit, a student should be able to :

* Understand the growth processes related to MIS function in an organisation:
* Relate the issues concerned with Information Resource Management in the organisations with available frameworks.

Structure

3.I INTRODUCTION

Information has already been recognised as one of the crucial corporate resources, and that it needs to produce more information, available to a wider array of users, is being realised in the recent years. The investors need information about the financial position of the company and the vendors, and the creditors need information on the financial health of the organisation before extending any credit facility to the organisation. The Government agencies need information national planning and industry control. The organisations have long since realised the need for the availability of information resource for the interested groups, as well as, individuals.

The corporate look for the MIS function has undergone a major change. The management of information resource has also been subjected to a lot of thinking, and the organisations have been made to think seriously

the growth and development of this function as an independent support function rather than as part of a major function, such as, finance and accounting. Serious thought has been given to the involvement of the users in the information processing activity, as well as, to the conversion of the function to a profit centre by developing and implementing charge-out systems for the services rendered to the user groups.

To develop an understanding about the information resource management in organisations and other related issues, the present study discusses various concepts related to the information systems management.

3.2 INFORMATION AND THE ORGANISATION

The organisational factors play a major role in what type of information is to be processed and communicated to the decision-makers. These factors include nature of the organisation, category of the organisation, structure of the organisation, size of the organisation and the management style followed in the organisation.

Information is the primary tool that will help the management, its products and services in the competitive environment. It should be clearly understood that the information technology and quality information are not the goals but merely the competitive weapons that support the organisations in their activities.Without quality information organisations are operating in a world of uncertainty, and quality information, could be produced by taking a number of steps and making sure that the information generated and presented to the decision-makers is accurate, timely and relevant.

3.3 FUNCTIONAL NOMENCLATURE

There has been a subtle but definite in the way the MIS function is looked upon in organisations. This change is characterised by the change in the nomenclature of the titles under which the function exists in various organisations. Initially, the executive looking after the function of data processing with the help of the computer was referred to as the computer manager, and, in the sixties the same position was renamed as Electronic Data Processing Manager. During this period, the department was also named as the EDP Department. It is during the seventies and eighties that the function has been recognised as MIS function and the manager is called the MIS Manager. There are other titles also given to the information processing function. Some of the common ones are Management Services Division, Corporate Services Division and Information Resource Management.

3.4 MIS GROWTH

Growth of the MIS activity in an organisation could be studied best by applying the model developed by Richard Nolan in 1979, popularly known as the Stage Growth Hypothesis. This six-stage model very clearly explains the stage by stage development of the MIS function in an organisation. This model provides a framework for the analyst to understand the reasons for success or failure of the MIS function in an organisation and also assists in developing solutions to take the functions ahead.

According to this model, there are distinctive features associated with each and every stage of the growth of the MIS function in an organisation from which the decision-makers can understand the growth pattern and use the MIS function to the strategic advantage of the organisation. Figure 3.1 depicts the framework suggested by Nolan. In this figure, the horizontal axis shows the stages of growth and the vertical axis shows the growth processes of the MIS function. The curve on the graph shows the trend of the MIS budgets. It could be noted that the budget curve shows an upward trend till the third stage, and becomes more level towards the beginning of the fifth stage onwards. The different stages discussed in the model are as under:

Stage - 1 : Initiation

The first time the organisation buys and installs a computer system, the MIS function in the organisation has entered this phase. Since most medium and large-sized companies have installations of the computer systems, this stage is already reached as far as the majority of the organisations are concerned. During this

stage, the following features may be distinctive:

a) Functional cost reduction application ;

b) Specialist DP organisation for technological learnig ;

c) Lack of strict Planning and control in the MIS function ;

d) Hands-off training for user awareness.

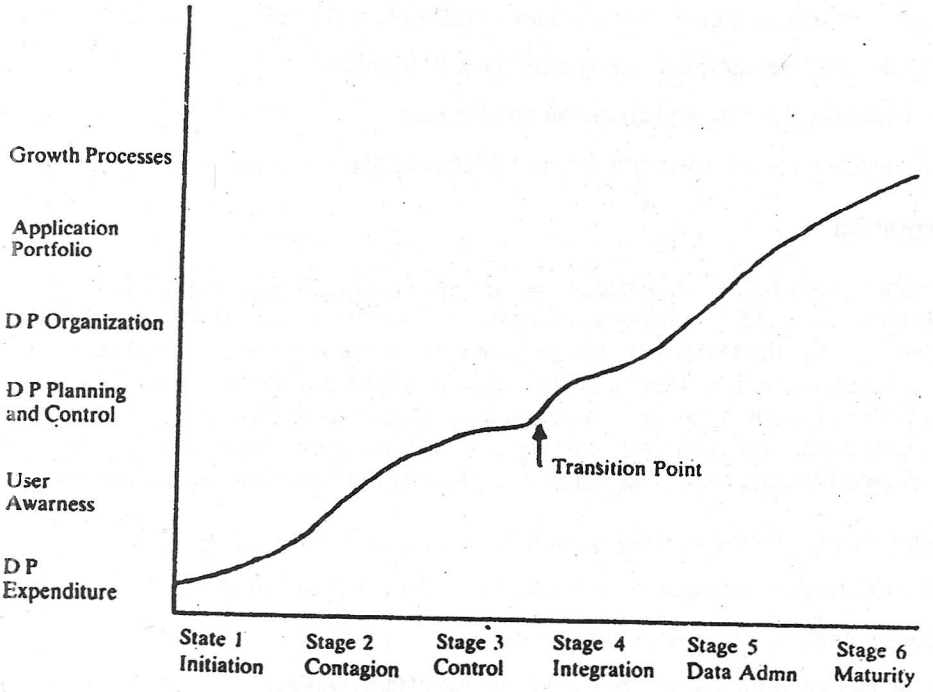

Figure 3.1: Nolan Six Stage Growth Model

Stage - 2 : Contagion

The second stage involves a rapid proliferation of the computer resource all over the organisation, sometimes based on the actual organisational needs and sometimes just to add some equipment to feel important in the organisation. This is the phase when most of the organisational units feel that they should have an access to the computer hardware, develop software and have the trained manpower working in their units. Every unit head wishes to have some computer resource controlled exclusively by himself. Due to this non-planned proliferation, this MIS function grows disproportionately and, there is, absolutely no control on the MIS budgets resulting in confusion in the organisation. The budgets go shooting up without any controls . The applications are developed in an independent manner, and this result in duplicated efforts and systems. This stage is marked by the following characteristics:

a) Proliferation of applications,

b) User-oriented departmental programmers,

c) More relaxed planning and control of MIS function,

d) Users are superficially enthusiastic without sincere involvement.

Stage - 3 : Control

It is towards the end of the second stage that the management gets conscious of the fact that the benefits being derived are not in proportion to the actual expenditure on the MIS activity, and the organisation starts exercising controls and some restraint in sanctioning the budgets. The management takes serious interest in planning the function, and it results in a better control on the activity. The MIS budgets get checked with the result that the users also get aware of the fact that information technology should be used to some meaning rather than just having some infrastructure under them. The major highlights of this stage are:

a) Upgradation of the documentation and modification of existing applications

b) Middle level mangement to look after the MIS function,

c) Formalized planning and control of MIS function,

d) Users are involved with some accountability imposed on them.

Stage - 4 : Intergration

After the management has been able to provide the control guidelines to the MIS function, the organisation starts thinking in terms of integrated applications so as to aovid the duplication of efforts and systems, as well as, providing better levels of integrity to the systems and data. Data-based systems are used and the applications are designed as subsystems of the organisational system, unlike the earlier ones. The interfunctional and intrafunctional integration is ensured through the database. Capable database management systems are used to manage the data, and the data communication facilities are used ot transfer data from one location to another. The budgets, once again, start looking high. This stage is marked by the following characteristics :

a) Retrofitting the existing applications using data base technology,

b) Establishing the computer utility and the user accounts teams,

c) Tailor-made planning and control systems,

d) The user accountability to learn and involve in the systems.

Stage - 5 : Data Administration

With the integration of the applications using a data base environment in the fourth stage, the MIS function in the organisation undergoes a major change in the functional outlook. The technical expertise looses over to the management process and responsiveness to the users, and the data becomes the most crucial resource in the organisation to be managed. Since the data is being stored, used, manipulated and processed from integrated files in the database administrator to plan, supervise, provide, control and secure the data becomes most important. The stage is characterised by the following features:

a) The applications are further integrated as per the organisational requirements,

b) The data-processing organisation is for the data administration,

c) The systems are based on data and system sharing basis,

d) The user becomes effectively accountable for the MIS systems.

Stage - 6 : Maturity

It is almost impossible to attain the sixth stage of maturity when everything has been achieved, and the MIS systems will never fail themselves or fail the organisations. The applications by this stage have been incorporated

into the organisational functioning and these are as per the strategic requirements of the organisation. The techonology has become an integral part of the organisational thinking, philosophy and systems. Some of the major features related to this stage are:

a) Integration of applications mirrors the organisational strategic choices,

b) The emphasis is on the data resource management rather than on the system management,

c) Data resource has become the key factor in strategic planning,

d) The users and data-processing professionals share the responsibility of the MIS function, jointly and willingly.

It is towards the end of the third stage that the information technology becomes a turning point for the strategic performance of the organisation and the full benefits of the information tecnology are realized by the organisation. Some of the organisations are able to go beyond this point, but some organisations may never reach this point at all. Such organisations can never have the advantages of the techonology, and may find it difficult to survive in the competitive environment.

3.5 STRATEGIC PLANNING FOR MIS

Planning of the MIS effort is very crucial for organisations. Absence of proper planning may result in the sky-rocketing of MIS budgets, thereby leading to a resource crunch during the later stages of MIS growth. In the initial stages, the application development projects and operations of completed application systems are the focus of the planning efforts. As the MIS activities grow in an organisation, the planning shifts its attention from operational planning to strategic planning. For operational planning of MIS, common techniques such as structural flow, charting, structured programming and walk throughs are used. For managerial and strategic planning of MIS, formation of steering committees composed of key executives from the user and MIS groups in a common practice. These steering committees are generally created to monitor proper functioning of MIS activity towards the achievement of long range organisational goals. Organisations commonly face the following problems in MIS planning :

a) The MIS plan may not be complete with the overall strategies and objectives of the organisation,

b) The framework of MIS structure may be difficult to design,

c) Allocations of development resources to various applications may be difficult,

d) Project management, to control time and cost schedules, may be lacking.

The overall objectives of planning for MIS have changed from linking processing strategy with business strategy in 1970s to linking the information technology strategy with the business strategy in 1980s.

3.6 TOP MANAGEMENT INTEREST AND A CORPORATE MIS PLAN

For successful growth of the MIS activities in any organisation, the top management's continuous interest as well as involvement is crucial. Not only that the top management should be involved in computerisation, it should also insist on having a corporate plan for MIS activities. The top management involvement could be in the following areas:

- Provide appropriate infrastructural facility.
- Linking with business activities.

- Monitor the level of user awareness and understanding.
- Making strategies understood among users.
- Monitoring the financial/capital requirements of all application areas on a time frame basis.
- Provide flexibility for future design.
- Review major system changes.
- Establish overall schedules for implementation.

One of the greatest hurdles to using information technology for strategic purposes, has been inability of the top management to appreciate and manage the information systems. Mostly it has been due to lack of understanding on part of the top management and a fear of uncontrollability of information system, which leads to a lower level of interest.

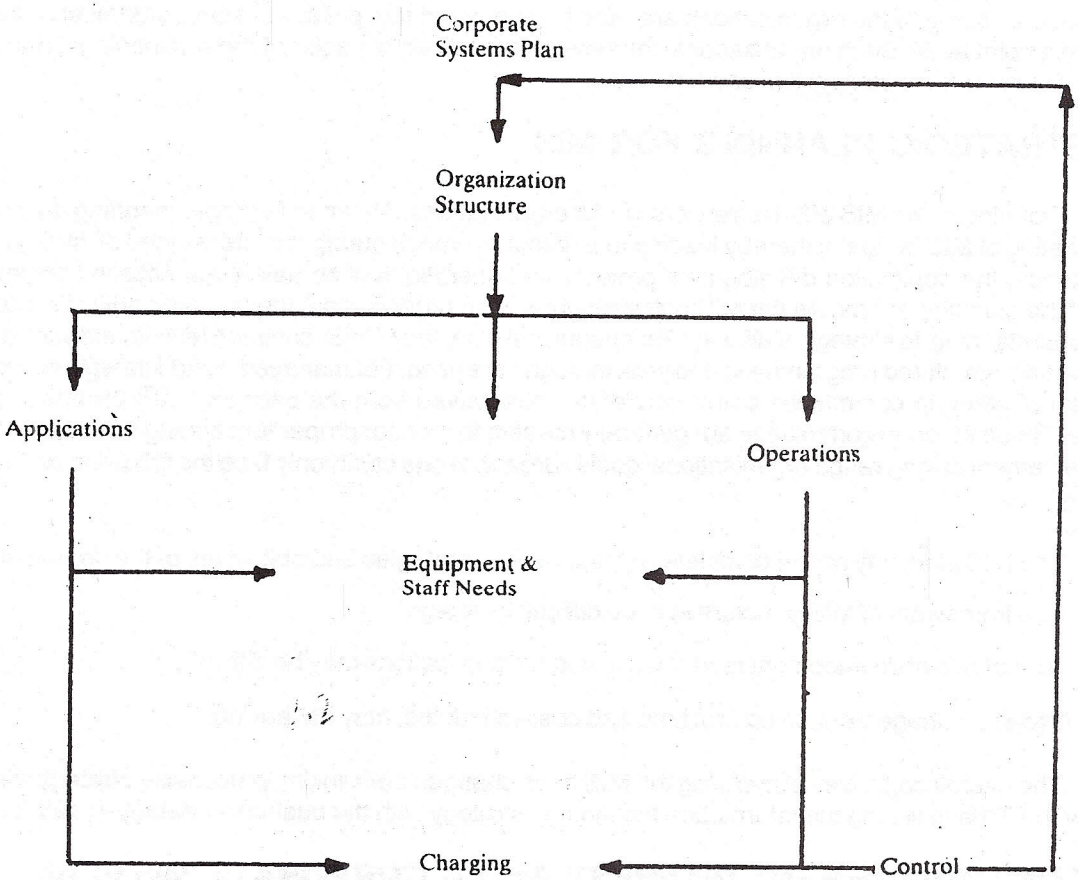

Figure 3.2: Framework for Managing IR (Information Resource)

For the top management to be involved in information processing activities, a framework for managing information systems has been suggested as shown in Figure 3.2. Positive top management action is needed in all these areas to avoid decisions by default. Since information technology affects the entire business from organisation structure to product market strategies, chief executives should not skip the corporate policy decisions by delegating or postponing.

3.7 INFORMATION REQUIREMENTS ANALYSIS

Once the overall MIS goals and strategy have been laid down, the next stage is to ascertain organisational information requirements. Information requirerments are vital for MIS planning, application, identification and planning an information architecture. Three levels at which the information requirements need to be established for design and implementation of CBIS have been identified:

- Organisation level to define the overall information system, and to specify a portfolio of applications and data bases,
- Database level to specify data models and other specifications,
- Traditional approaches adopted by system analysts to assess information requirements are as follows:

  a) Asking questions from the usres by available methods

  b) Deriving from an existing system, or from descriptions in textbooks/hand books,

  c) By object system analysis,

  d) Experimentation with an evolving information system.

3.8 CRITICAL SUCCESS FACTOR (CSF) METHOD

John F. Rockart, while advocating the "CSF" approacah, evaluated the existing four methods of determining executive information needs. viz., the by-product technique, the null approach, the key indicator system and the total study process.

These four techniques have their relative merits and demerits, and to overcome the disadvantages, the Research Team at Sloan School of Management, suggested a creative approach termed as CSF approach for information requirement, analysis. Its application was found effective and response-provoking amongst the executives. As a part of the exercise, the executive goals and the CSFs are identified and reviewed to the satisfaction of both the executives and the system analysts.

The CSFs for any business are the limited number of areas in which results, if they are satisfactory, will ensure succesfull competitive perfomance for the organisation. These are a few areas where the things "must go right" for the business to flourish. The CSFs must receive constant and consistent attention from the management as well as individual managers. CSFs differ from company to company and from manager to manager and like organisations may have differing CSFs. There are four prime soures for identifying the CSFs as listed below:

- Structure of the particular industry,
- Competitive strategy, industry position and geographical location of the company,
- Environmental factors,
- Temporal organisational factors needing immediate attention.

The CSFs, are generally not meant for strategic planning, since the data requirerments are impossible to pre-plan. The CSF method centres around information needs for management control where data requirements could be defined and pre planned. Most executive have four to eight CSFs.

3.9 RESOURECE ALLOCATION

Allocation of resources is one of the important issues related to the MIS function in an organisation. It is during this stage that we prioritise the application and decide on their implementation schedules. The following four factors should be kept in mind while allocating resourecs to different applications:

- Quantifiable returns,
- Judgmental benefits,
- Institutional factors of constraints,
- System priority factors.

Intangible benefits, such as, improved levels of service, better financial control, standardisation and better quality of information are also considered important while considering resource allocation.

3.10 CHARGING FOR SERVICES

It is an accounting approach for allocating costs of information systems to their users. There are two different ways of charging the users of the information services:

- Charging by allocation of costs to the users as corporate overhead, and
- Charging for services the individual users get.

The second approach is based on the users's willingness to buy the information sevices and willingness to pay for the new system development.

The reasons for having a charge-out system include cost assignment, control, incentives and budgeting. The different techniques which are used for allocating costs are·

i) No Charge-out,

ii) Complete Charge-out,

iii) Partial Charge-out.

3.11 INFORMATION RESOURCE ASSESSMENT

The lower arrow in Figure 3.3 represents 'Information Resource Assessment' (IRA) - a process of using information and knowledge to support the developement of the organisation's strategic business direction. In effect, it is the mirror image of 'Strategic Planning for Information Resource', in the sense that it is the process through which information and knowledge are used to identify the strategic comparative advantages and to create and evaluate new strategies, i.e., to influence change in the 'Organisational Strategy Set'

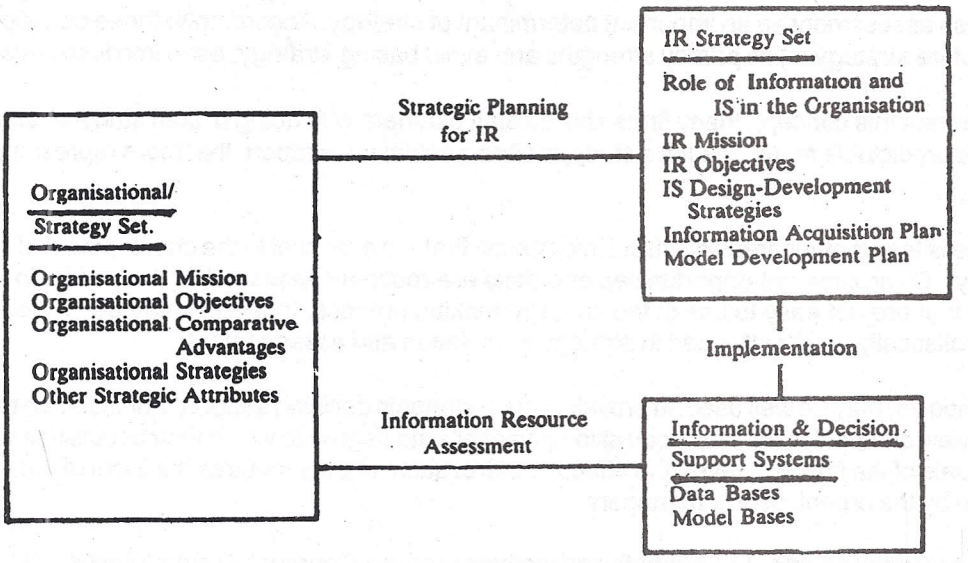

Figure 3.3: Operationalizing Information as a Strategic Resource

(SOURCE : Management Information Systems : The Technology Challenge Edited by Nigel Piercy; Croom Helm London & Sydney Nichols Publishing Company New York; 1987 Pg.240 Figure 11.1)

Figure 3.3 shows that this influence does not come directly from the Infromation Resource (IR) Stategy Set, but rather from the Information Systems (IS) databases and model-bases that have been created to implement the 'IR Strategy Set'.

The basic IRA process is one of identifying information that is crucial, or potentially crucial to the organisation's strategy set. This may be of the nature of 'new' information, that has not previously been used to advantage, or it may be information that has been re-evaluated and updated. Such information and knowledge may be put to use in creating information products or in developing new and more effective business strategies, or organisational missions.

One variety of IRA influences the creation of information that is available to the firm through its IS.

However, the creation of information products is only one of the ways in which information can be made to be a strategic resource. King and Cleland, (1978) have developed a technique of 'strategic databases' that may be used to illustrate the way in which IRA can be conducted. The basic idea is that much of the data on which the organisation's strategy may be based is often routinely collected and analysed as 'data', rather than as strategic 'information'. The distinction between data and information may appear to be pedantic, but it is a useful one to be made in this instance.

Data are the numbers, letters and other symbols that are used to represent events, activities, entities, etc. (The best-known set of organised data may be the telephone directory.) Information is data that has been evaluated for some use or purpose. (For instance, a name and phone number on a message that says that your offer to purchase a house has been accepted, is information rather than data.)

Information is clearly required for the effective support of strategic planning and for the making of good decisions in an organisation. Yet, many of the processes that are directed towards decision-support utilise and present data rather than information.

Illustrative of this, are the strength-weakness assessments that are frequently made by a firm in support of its strategic decision-making and planning. Most concepts of strategic management and plannning incorporate strength-weakness assessment as an important determinant of strategy. According to these concepts, the firm should base its future strategy on its primay strengths and avoid basing strategy, even implicitly on weakness.

To implement this concept, many firms charge staff planners with doing a 'staff study' of strengths and weaknesses. The predictable result of such a study, is often a voluminous report, that more represents data than information.

The same is true in other areas of critical information that are essential to the development of an effective business strategy. Environmental opportunities and risks are routinely assessed and reported in the form of voluminous data that are not easy to use in the strategy-making process. Indeed, it may be argued, that such reports cannot realistically be directly used in strategy formulation and assessement.

Formal models, may be well used, in providing such strategic decision support. For instance models may 'automatically' review companies for their 'acquisition potential' - the degree to which their acquisition would serve to enhance the goals of the firm. However, the effective use of such models requires the input of criteria that can only be generated by the organisation's managers.

These 'acquisition criteria', like strength and weaknesses, environmental opportunities, and a variety of other strategic information, must be developed through the organisational processes that are here termed as 'IRA'. The 'Strategic data bases' represent one way to implement IRA. They are concise statements of the **most significant** strategic parameters that will guide the use of the models that are in the IS and their application to the development of strategy. A set of criteria to be used in the evaluation of the acquisition of the candidates is a strategic database (SDB), if it is developed through an organisational process that ensures that the different points of view of the managers of various functions and poduct-market groups have been taken into account, that there is a reasonable degree of organisational consensus concerning it, and that it is accepted by the organisation's managers. So too may a concise of organisational strengths and weaknesses be a strategic database, if it has the same characteristics.

To illustrate this, consider, for example, the traditional process that might be used in an organisation to conduct a strength-weakness assessment. This approach commonly relies on staff analysts, who gather data and prepare documents which are to serve as background information for the support of planning activities and strategic choices. Because the planners and analysts, who perform these tasks, cften have neither the managerial expertise nor the authority to make the significant choices that are involved in any information evaluation process, the typical output of such an exercise is a document, which seems to have been prepared on the basis of 'not leaving anything out'.

Such an emphasis on ensuring that nothing relevant is omitted rather than on attempting to distinguish the most strategically relevant information from the mass of the less relevant serves only to perpetuate the existing state of affairs regarding the informational support provided to managers at all levels: top executives and planners are deluged with irrelevant information, while, at the same time, they are unable to find the elements of information which are crucial to the identification of comparative advantages and to the determination of strategy.

The 'strategic database' approach to implementing IRA, on the other hand, involves the institutionalisation of ongoing process in which task forces, each of which is made up of managers representing various of the parochial interests, within the organiation, are charged with gathering and evaluating the data in strategic areas, such as, strength-weakness analysis, acquisition criteria, etc. In effect, these task forces use the information resources of the organisation to change and up-date its organisational stragegy set. Such 'strategic databases' prodcue and represent information in its most valuable form rather than data since, in this process, large quantities of data have been evaluated and condensed to a form which can be feasibly used in the direct support of strategic decision-making.

The strength-weakness, SDB may be, used as an illustration. A task force, composed of key managers in each of the major functional and product sub-units of the organisation, is charged with developing a **concise *concensus list of the most important strengths on which the company (business) should base its future* and the most significant,weaknesses on which it should avoid having its future become dependent.** Thus, a team is given the job of producing the strength-weakness 'answers' and of making the strategic information choices of those strengths and weaknesses on which the future will depend.

This team of managers, supported by their staff, is charged with arriving at conclusions concerning a specified approximate number (usually from 10 to 15) of the most important strengths and weaknesses which should influence the future of the organisation.

The development of conclusions on the 10 to 15 most important organisational strengths and weaknesses can be, as any experienced manager knows, a difficult task, when it involves managers representing various organisational interests and points of view. Developing a twenty page list of strengths and weaknesses could be accomplished relatively easily, but a list of the 10 to 15, most significant ones requires substantial analysis, debate and negotiation among the various individuals and interest areas that are involved. This is so both because of the judgements which are needed and the potential organisational impact which such a list will inevitably have as it is used in the development of strategy.

The strength-weakness, SDB, that may be so developed, is clearly a substantial basis for assessing potential comparative advantages, and for evaluating proposed strategies. For instance, once such an SDB is in place, proposed strategies. can be screened, using it as a standard, in a somewhat mechanical fashion, just as a proposed acquisition candidate might be 'automatically'screened using an 'acquisition criteria' SDB that has been similarly developed. In the case of the strength-weakness SDB, this would be done through the routine application of a set of questions:

a) Which specific strength of our firm does the proposed strategy build on?

b) What is the relative importance of each strength to using the proposed strategy in achieving the firm's goals?

c) Does the proposed strategy, implicitly or explicitly, assume the existence of some strength that the firm does not possess?

d) Is the proposed strategy explicitly or implicitly dependent on any weakness, even though it may be primarily based on strengths?

This illustration of a strength-weakness SDB process illustrates the information resources assessment process of Figure 3.3. It is a routine organisational process that is used to translate the informational resources of the organisation into sources of potential strategic comparative advantage.

It is, in effect, the mirror-image of the 'strategic planning for information resources' process, which makes the reverse transformation to ensure that business strategies are supported by appropriate information and knowledge bases.

3.12 MANAGEMENT STEERING COMMITTEES

Due to active involvement of human beings, organisational powers, needs and politics in the functioning of the MIS department, a steering committee composed of senior personnel from various user groups, such as, the finance and EDP function proves to be a better alternative to prepare the priority list for allocation of resources. Though this method also suffers from major disadvantages, such as, the time wasted on meetings and negotiations and powerful group politicking, some of the experts have considered the steering committee approach as the

most suitable approach to get the best results in the MIS function. The user involvement can be ensured by having their representatives on the steering commiittee. A steering committee formed under the chairmanship of the chief executive with 5-10 members has been found to be an effective experience.

3.13 LOCATION OF MIS FUNCTION IN ORGANISATION

One of the issues of crucial organisational importance is that of the positioning of the MIS function in an organisation. Some researchers prefer a direct reporting of the chief of MIS function to the Chief EXecutive, whereas others have favoured a decentralized user group reporting. The alternative locations of the MIS function suggested by experts are as shown in Figure 3.4. The top executive of MIS could be:

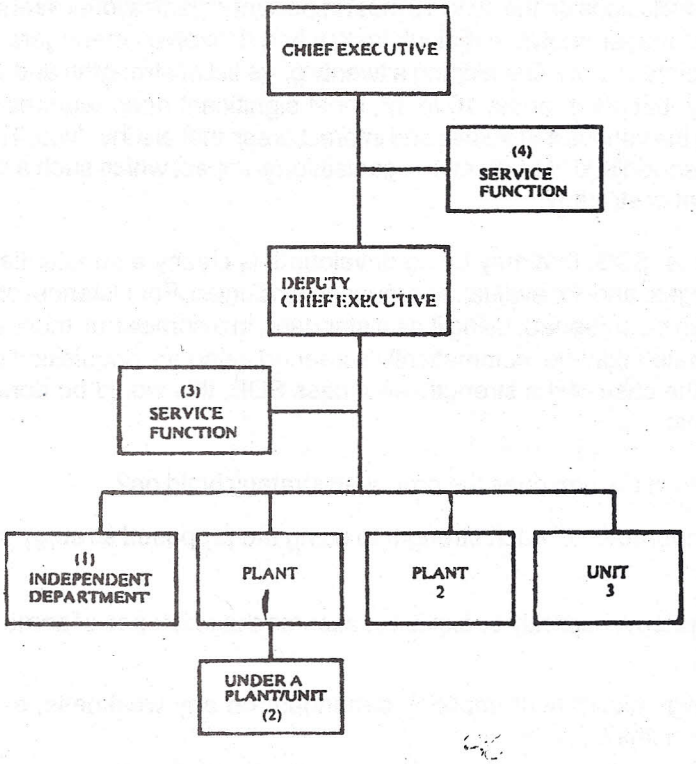

Figure 3.4: Alternative Locations for MIS Function

- a manager holding an independent charge of the MIS function equivalent to other line functions,
- a senior executive reporting to the user line managers,
- a service function reporting to the level of the top management,
- a service function reporting to the chief executive.

Partly due to historical reasons and mainly due to frequency and quantum of use, the MIS function is always found to be reporting to the accounting and finance function. The focus of the MIS function and its importance in any organisation is indicated by the reporting relationship. The MIS function pays more attention to the department, where it is located. Usually, the MIS function when placed under an independent charge is likely to do much more than providing just DP services. The following guidelines for fitting the MIS function into the overall organisation could be of help to the organisation :

- The level of reporting has a correlation with the performance of the MIS function. The organisation where MIS function reports to Chief Executive has showed a higher success rate; and,

- For enhancing capabilities of the MIS function beyond providing services to a select user group or limited range of services, it is very important to have MIS as an independent function.

3.14 THE FUTURE

Indeed, even the newly-emerging computer systems concept of 'information resource management' (IRM) merely 'upgrades' the computer system and its attendant information to the position of a resource that is to be husbanded and administered, much as are other organisational resources, such as, raw materials and labour.

Even Nolan's (1979) notion of evolutionary stages in the life-cycle of integrating data processing into an organisation does not deal with the realisation of the real potential of computers. In his 'last stage (VI) - Maturity' - he speaks of 'data resources management' in terms of 'the applications portfolio being complete' with its structure 'mirroring' the organisation and the information flows in the company. Thus even in the most advanced stage of development in Nolan's model, the computer resource is still treated as a service function rather than a strategic resource.

Such notions as IRM and a maturity state at which the computer system is operating synchronously with the organisation have clear merit. During the era when the computer was relegated to the back-room, it was not subjected to the same levels of 'hard nosed' management as was virtually every other element of the business firm. A basic management technique, such as, perfomance quotas which are common in areas as diverse as production and sales, have been only recently instituted in the computer area. Thus, better management is a clear need that has begun to be understood and implemented.

However, the potential for information management is much greater than that which is the province of IRM. There is a stage of development, only beginning to be perceived and realised, that goes beyond Nolan's notion of 'maturity'. The role of computer systems in organisations is beginning to change dramatically. With this changing role will come the potential for vast change in the impact of computers and for the realisation of a knowledge society.

This emerging role of computer technology in business is easy to envision. One need only view a major business firm to see that new computer-based technology is being introduced in quantity at many locations-word processing systems, electronic mail and filing, electronic communications networks, desk top computers, etc. Moreover, these technologies are rapidly being linked together into more comprehensive systems. For instance, the concept of a decision support system (DSS) reflects the integration of a number of technologies that have existed for some time.

A major implication of this explosion of technology is that far more people- from clerks to executive-will be directly involved with the computer system than ever were before. Computers and appurtenant technology will no longer be relegated to the 'back-room' as a specialised service function that has little to do with the day-to-day activities of most people in the firm. They will be 'out in front in virtually every office, workstation and production.

In the past, only a small number of computer specialists were in direct contact with, and were direct 'users' of, the computer system. In many organisations, one member of each department or unit has been specifically identified to perform this role.

With the technological revolution that is occurring, virtually everyone will be a 'user' of the computer system. This widespread 'intrusion of computers into the lives of so many, will have a profound impact, and while it will not be without problems, it will tend to increase understanding, reduce apprehensions, and enable many

more people to better envision the widespread potential for computer applications. Heretofore, many such applications have been envisioned only by computer specialists, who often had difficulty selling their ideas to management or have gone unseen because computer specialists lacked the requisite business knowledge and experience to relate computer capabilities to business needs.

This pervasiveness of computers and the increasing familiarity of people at all levels of the organisation with them will, inevitably lead to a wide variety of new computer applications. More importantly, however, will be the amplification and acceleration of a phenomenon that is already beginning to be experienced - **the creation of a comparative business advantage through information.**

3.15 SUMMARY

The unit discusses various issues related to the management of information resource in organisations. Nolan's Six Stage Growth Hypothesis has been discussed to show how the MIS function grows in an organisation. Initially, the organisations commit their financial resources little realising that these commitments have to be carried on even subsequently. The control stage of this model explains the relevance of management intervention in the functioning of the MIS department, so as to develop certain control measures to avoid the unplanned growth of the MIS resource. It is during the second part of the growth cycle from the fourth stage onwards that the actual benefits of technology could be realised in organisations. There is a long felt need to plan for the growth of the MIS activity in the organisation. Top management interest is indicated by way of steering committees, set up to forward the cause of the MIS function and the relative organisational position of the chief of MIS function. A policy for charging for the services rendered to the users could be in the interest of the MIS function, because only then the function can justify its existence. Critical success factor analysis has been identified as the best approach to assess the need for this function in any organisation.

3.16 SELF-ASSESSMENT EXERCISES

1) How do you trace the growth of MIS function in an organisation?

2) What is the relevance of the Nolan's Stage Growth Model for the study of information systems in today's organisation?

3) "The success of MIS function in any organisation will depend upon the relative position of the Chief of the MIS function in that organisation." Comment.

4) What are the different ways of allocating resources to different applications in an organisation?

5) "Management Steering Committees are the biggest hurdle in the growth of MIS function in an organisation." Discuss.

6) Evaluate Critical Success Factor Method for the purpose of Information Requirement Analysis.

3.17 FURTHER READINGS

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