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INFORMATION MANAGEMENT

M.L.I.Sc., Semester – I, Paper-II

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FOREWORD

Since its establishment in 1976, Acharya Nagarjuna University has been forging ahead in the path of progress and dynamism, offering a variety of courses and research contributions. I am extremely happy that by gaining 'A' grade from the NAAC in the year 2016, Acharya Nagarjuna University is offering educational opportunities at the UG, PG levels apart from research degrees to students from over 443 affiliated colleges spread over the two districts of Guntur and Prakasam.

The University has also started the Centre for Distance Education in 2003-04 with the aim of taking higher education to the door step of all the sectors of the society. The centre will be a great help to those who cannot join in colleges, those who cannot afford the exorbitant fees as regular students, and even to housewives desirous of pursuing higher studies. Acharya Nagarjuna University has started offering B.A., and B.Com courses at the Degree level and M.A., M.Com., M.Sc., M.B.A., and L.L.M., courses at the PG level from the academic year 2003-2004 onwards.

To facilitate easier understanding by students studying through the distance mode, these self-instruction materials have been prepared by eminent and experienced teachers. The lessons have been drafted with great care and expertise in the stipulated time by these teachers. Constructive ideas and scholarly suggestions are welcome from students and teachers involved respectively. Such ideas will be incorporated for the greater efficacy of this distance mode of education. For clarification of doubts and feedback, weekly classes and contact classes will be arranged at the UG and PG levels respectively.

It is my aim that students getting higher education through the Centre for Distance Education should improve their qualification, have better employment opportunities and in turn be part of country's progress. It is my fond desire that in the years to come, the Centre for Distance Education will go from strength to strength in the form of new courses and by catering to larger number of people. My congratulations to all the Directors, Academic Coordinators, Editors and Lesson- writers of the Centre who have helped in these endeavors.

Prof. P. Raja Sekhar
Vice-Chancellor
Acharya Nagarjuna University

INFORMATION MANAGEMENT

M.L.I.Sc., Semester – I, Paper-II

Syllabus

Objectives:

1. To acquaint the student with the knowledge society and knowledge manager
2. To make the student understand the role of technology in knowledge management
3. To familiarize the student with knowledge management tools.
4. To introduce the students to the concepts of marketing and their application in information work.
5. To provide an overview of information resource Management

Unit – I

Fundamental concepts of Information Management – MIS – TQM – Change Management.

Unit – II

Knowledge Management – concept, types, scope and application to LICs - knowledge Management .Models ,Tools – Knowledge Based Systems.

Unit – III

Information Resource Management (IRM) – Issues – Nature and Types of Information Resources Management (IRM) – Print and Non Book Materials including digital Electronic Information Resources.

Unit – IV

Human Resource Management - Information Professionals Behavior – Motivational Factors - Soft skills – Performance Appraisal – Stress Management

Unit – V

Marketing Management: Concepts, Definition – Relevance in LIS - Economics of Information – Marketing Research & Marketing Segmentation - Designing & Pricing of LIC Products.

Books for study and reference:

1. Evans, G Edward. Developing Library and Information centre Collections. New York, Libraries Unlimited, 2005
2. Evans, GEdward: Management techniques for librarians, 2nd Ed., New York, Academic Press,1983.
3. Gaur, C. Ramesh. Re-engineering Library and Information Services: process, people &
4. technology. Mumbai, Allied, 2003
5. Gorman, G.E. International yearbook of Library and Information management 2003-2004 metadata applications and management. London, L.A., 2003
6. Kahn, Mirian B. Studies in Library and Information Science. 4 Vol. Vol.3: Managing electronic government information in libraries. Delhi, Pentagon, 2009.
7. Kahn, Mirian B. Studies in Library and Information Science. 4 Vol. Vol.2: Fundamentals of collection development and management. Delhi, Pentagon, 2009
8. Khan, M.A. The Principles and practice of Library science. Delhi, Academia Pub., 2004
9. Kishan Kumar. Management of libraries in Electronic environment. Delhi, Har-

Anand Publications, 2007
10. Kishore, Jugal. Personal Management in Libraries. Delhi, Ess Ess, 1981
11. Krishan Kumar. Library Manual. Delhi, Vikas, 2003
12. Krishna Kumar. Library Administration and Management. Delhi, Vikas, 2004
13. Kumar, P.S.G. Management of Library and Information Centres (paper V of UGC Model Curriculum). Delhi, B.R.Pub., 2003
14. Lahiri, Ramansu. Management of Libraries concepts and practices. New Delhi, Ess Ess, 1996
15. Lancaster, F.W. Technology and Management in Library and Information Services. London, Lib. Assoc., 1997
16. Libraries as places: buildings for the 21st century: Proceedings of the Thirteenth Seminar of IFLA's Library Buildings and Equipment section together with IFLA's Public Libraries Section, Paris, France, 28 July-1 August 2003 / edited by Marie-Francoise Bisbrouck [et al.] IFLA Publication No. 109
17. Mahapatra, Piyush Kanti, Chakrabarti, Bhubaneswar. Preservation in Libraries perspectives principles and practice. Delhi, Ess Ess, 2002
18. Mahapatra, Piyush Kanti. Collection Management in Libraries. Delhi, Cyber Tech Pub., 2006
19. Mittal, R.L. Library Administration: Theory and Practice. Delhi, Metropolitan Pub., 197319. Mukhopadhyay K K and Guha PS. Library Conservation. Calcutta, Information Research Academy, 1990.
20. Narayan, G.J. Library and Information Management. New Delhi, Prentice Hall, 1991
21. Osborne, Larry N & Nakamura Margaret. Systems Analysis for Librarians and Information professionals. 2nd Ed. Greenwood Pub., 2000
22. Poll, Roswitha et al. - Measuring quality: international guidelines for performance measurement in academic libraries. - Munich: K.G. Saur, 1996. - 171 p. - ISBN 3598218001 - (IFLA publication no. 76)
23. Raina, Roshan Lal. TQM in Library and Information services. New Delhi, Infuse Inc., 1999
24. Ramesh Chandra and Shrivastava, A.P. Information preservation in Library Management, Delhi, Gyan Books, 2003
25. Ramesh Chandra and Shrivastava, A.P. Technological changes in Libraries. Delhi, Gyan, Books, 2003
26. Saini, A.K. & Pradeep Kumar. Computer Applications in Management. Delhi, Anmol, 2003
27. Scammell, Alison. Handbook of Information management. Routledge, 2001
28. Sharma, Umesh Chandra. The Infometer. (Measuring library cost-Effectiveness). Delhi, Ess, 1995
29. Singh, Ram Shobhit. Encyclopaedia of library manual: A practical approach to management, New Delhi, Anmol Pub, 2008
30. St. Clair, Guy. Total Quality Management in information services. New York, K.G.Saur, 1997
31. Stewart, Robert D and Moran, Barbara B. Library and Information Center Management. 6th ed. Libraries Unlimited, 2002
32. Balakrishna Surya S. Performance Evolution of University Libraries. Gyan books. ISBN : 7835-906-9, 2012 .
33. Bavakutty, M & Majeed, Abdul. Methods for Measuring Quality of Libraries. ISBN : 81-7000-439-X , 2005

INFORMATION MANAGEMENT

CONTENTS

LESSON -1

FUNDAMENTAL CONCEPTS OF INFORMATION MANAGEMENT (IM)

AIMS AND OBJECTIVES

After reading this chapter, students will be able to understand:

- Basic fundamental concepts of information management (IM)
- Ten principles of effective information management

Structure

1.1 INTRODUCTION

It is the collection and management of information from one or more sources and the distribution of that information to one or more audiences. This sometimes involves those who have a stake in, or a right to that information. Management means the organization of and control over the structure, processing and delivery of information.

Information & Management serves managers, professionals, database administrators and senior executives of organizations which design, implement and manage Information Systems Applications. The major aims are:• To collect and disseminate information on new and advanced developments in the field of applied information systems;

Information management is a general terms that refers to managing any kind of information. This information that is managed varies according to the industry. Document management is also considered as information management since you are managing the information that is contained in the documents.

1.2 WHAT IS "INFORMATION MANAGEMENT"?

This interdisciplinary field draws on and combines skills and resources from librarianship and information science, information technology, records management, archives and general management. Its focus is information as a resource, independently of the physical form in which it occurs. Books and periodicals, data stored on local or remote computers, microforms, audio-visual media and the information in people's heads are all within its scope. Some of the main topics practitioners are concerned with are:

- Classification and coding
- Subject indexing
- Construction and use of thesauri and controlled vocabularies
- Cataloguing and indexing by names, places, and events
- Database design and data structures
- Physical storage of books and records, in paper and electronic form
- Storage of photographic and digitized images
- Information audits: reviews of an organisation's information resources
- Documentation of museum objects, both for management purposes and as a resource for scholarship.

In short, information management entails organizing, retrieving, acquiring and maintaining information. It is closely related to an overlapping with the practice of Data Management.

1.3 INFORMATION MANAGEMENT CONCEPTS

Following the behavioral science theory of management, mainly developed at Carnegie Mellon University and prominently represented by Barnard, Richard M. Cyert, March and Simon, most of what goes on in service organizations is actually decision making and information processes. The crucial factor in the information and decision process analysis is thus individuals' limited ability to process information and to make decisions under these limitations.

According to March and Simon organizations have to be considered as cooperative systems with a high level of information processing and a vast need for decision making at various levels. They also claimed that there are factors that would prevent individuals from acting strictly rational, in opposite to what has been proposed and advocated by classic theorists. Instead, they proposed that any decision would be sub-optimum due to the bounded rationality of the decision-maker.

According to the Carnegie Mellon School and its followers, information management, i.e., the organization's ability to process information is at the core of organizational and managerial competencies. Consequently, strategies for organization design must be aiming at improved information processing capability. Jay Galbraith [6] has identified five main organization design strategies within two categories — increased information processing capacity and reduced need for information processing.

1.4 REDUCTION OF INFORMATION PROCESSING NEEDS

- Environmental management
- Creation of slack resources
- Creation of self-contained tasks
- Increasing the organizational information processing capacity
- Creation of lateral relations
- Vertical information systems

1.4.1 Environmental Management.

Instead of adapting to changing environmental circumstances, the organization can seek to modify its environment. Vertical and horizontal collaboration, i.e. cooperation or integration with other organizations in the industry value system are typical means of reducing uncertainty. An example of reducing uncertainty in relation to the prior or demanding stage of the industry system is the concept of Supplier-Retailer collaboration or Efficient Customer Response.

1.4.2 Creation of Slack Resources.

In order to reduce exceptions, performance levels can be reduced, thus decreasing the information load on the hierarchy. These additional slack resources, required to reduce information processing in the hierarchy, represent an additional cost to the organization. The choice of this method clearly depends on the alternative costs of other strategies.

1.4.3 Creation of Self-Contained Tasks.

Achieving a conceptual closure of tasks is another way of reducing information processing. In this case, the task-performing unit has all the resources required to perform the task. This approach is concerned with task (de-)composition and interaction between different organizational units, i.e. organizational and information interfaces.

1.4.4 Creation of Lateral Relations.

In this case, lateral decision processes are established that cut across functional organizational units. The aim is to apply a system of decision subsidiarity, i.e. to move decision power to the process, instead of moving information from the process into the hierarchy for decision-making.

1.4.5 Investment in Vertical Information Systems.

Instead of processing information through the existing hierarchical channels, the organization can establish vertical information systems. In this case, the information flow for a specific task (or set of tasks) is routed in accordance to the applied business logic, rather than the hierarchical organization.

1.5 TEN PRINCIPLES OF EFFECTIVE INFORMATION MANAGEMENT

This article introduces ten key principles to ensure that information management activities are effective and successful:

- recognise (and manage) complexity
- focus on adoption
- deliver tangible & visible benefits
- prioritise according to business needs
- take a journey of a thousand steps
- provide strong leadership
- mitigate risks
- communicate extensively
- aim to deliver a seamless user experience
- choose the first project very carefully
- Each of these is discussed in the sections below.

Future articles will explore additional principles and guidelines, as well as providing a concrete approach to developing an overarching information management strategy.

1.5.1 Principle 1: Recognize (and Manage) Complexity

Organisations are very complex environments in which to deliver concrete solutions. As outlined above, there are many challenges that need to be overcome when planning and implementing information management projects.

When confronted with this complexity, project teams often fall back upon approaches such as: Focusing on deploying just one technology in isolation.

- Purchasing a very large suite of applications from a single vendor, in the hope that this can be used to solve all information management problems at once.
- Rolling out rigid standardised solutions across a whole organisation, even though individual business areas may have different needs.
- Forcing the use of a single technology system in all cases, regardless of whether it is an appropriate solution.
- Purchasing a product 'for life', even though business requirements will change over time.
- Fully centralising information management activities, to ensure that every activity is tightly controlled.
- All of these approaches will fail, as they are attempting to convert a complex set of needs and problems into simple (even simplistic) solutions. The hope is that the complexity can be limited or avoided when planning and deploying solutions.
- In practice, however, there is no way of avoiding the inherent complexities within organisations. New approaches to information management must therefore be found that recognise (and manage) this complexity.
- Organisations must stop looking for simple approaches, and must stop believing vendors when they offer 'silver bullet' technology solutions.
- Instead, successful information management is underpinned by strong leadership that defines a clear direction (principle 6). Many small activities should then be planned to address in parallel the many needs and issues (principle 5).
- Risks must then be identified and mitigated throughout the project (principle 7), to ensure that organisational complexities do not prevent the delivery of effective solutions.

1.5.2 Principle 2: Focus on Adoption

Information management systems are only successful if they are actually used by staff, and it is not sufficient to simply focus on installing the software centrally.

In practice, most information management systems need the *active participation* of staff throughout the organisation.
For example: Staff must save all key files into the document/records management system.

- Decentralised authors must use the content management system to regularly update the intranet.
- Lecturers must use the learning content management system to deliver e-learning packages to their students.
- Front-line staff must capture call details in the customer relationship management system.
- In all these cases, the challenge is to gain sufficient adoption to ensure that required information is captured in the system. Without a critical mass of usage, corporate repositories will not contain enough information to be useful.
- This presents a considerable change management challenge for information management projects. In practice, it means that projects must be carefully designed from the outset to ensure that sufficient adoption is gained.

This may include:

- Identifying the 'what's in it for me' factors for end users of the system.
- Communicating clearly to all staff the purpose and benefits of the project.
- Carefully targeting initial projects to build momentum for the project (see principle 10).
- Conducting extensive change management and cultural change activities throughout the project.
- Ensuring that the systems that are deployed are *useful* and *usable* for staff.
- These are just a few of the possible approaches, and they demonstrate the wide implications of needing to gain adoption by staff.

1.5.3 Principle 3: Deliver Tangible & Visible Benefits

It is not enough to simply improve the management of information 'behind the scenes'. While this will deliver real benefits, it will not drive the required cultural changes, or assist with gaining adoption by staff (principle 2).

- In many cases, information management projects initially focus on improving the productivity of publishers or information managers.
- While these are valuable projects, they are invisible to the rest of the organisation. When challenged, it can be hard to demonstrate the return on investment of these projects, and they do little to assist project teams to gain further funding.
- Instead, information management projects must always be designed so that they deliver tangible and visible benefits.
- Delivering tangible benefits involves identifying concrete business needs that must be met (principle 4). This allows meaningful measurement of the impact of the projects on the operation of the organisation.
- The projects should also target issues or needs that are very visible within the organisation. When solutions are delivered, the improvement should be obvious, and widely promoted throughout the organisation.

For example, improving the information available to call centre staff can have a very visible and tangible impact on customer service. In contrast, creating a standard taxonomy for classifying information across systems is hard to quantify and rarely visible to general staff. This is not to say that 'behind the scenes' improvements are not required, but rather that they should always be partnered with changes that deliver more visible benefits. This also has a major impact on the choice of the initial activities conducted (principle 10).

1.5.4 Principle 4: Priorities According To Business Needs

It can be difficult to know where to start when planning information management projects.

- While some organisations attempt to prioritise projects according to the 'simplicity' of the technology to be deployed, this is not a meaningful approach. In particular, this often doesn't deliver short-term benefits that are tangible and visible (principle 3).
- Instead of this technology-driven approach, the planning process should be turned around entirely, to drive projects based on their ability to address business needs.
- In this way, information management projects are targeted at the most urgent business needs or issues. These in turn are derived from the overall business strategy and direction for the organisation as a whole.
- For example, the rate of errors in home loan applications might be identified as a strategic issue for the organisation. A new system might therefore be put in place (along with other activities) to better manage the information that supports the processing of these applications.
- Alternatively, a new call centre might be in the process of being planned. Information management activities can be put in place to support the establishment of the new call centre, and the training of new staff.

1.5.5 Principle 5: Take a Journey of A Thousand Steps

There is no single application or project that will address and resolve all the information management problems of an organisation.

- Where organisations look for such solutions, large and costly strategic plans are developed. Assuming the results of this strategic planning are actually delivered (which they often aren't), they usually describe a long-term vision but give few clear directions for immediate actions.
- Organisations are simply too complex to consider all the factors when developing strategies or planning activities.
- The answer is to let go of the desire for a perfectly planned approach. Instead, project teams should take a 'journey of a thousand steps'.
- This approach recognises that there are hundreds (or thousands) of often small changes that are needed to improve the information management practices across an organisation. These changes will often be implemented in parallel.
- While some of these changes are organisation-wide, most are actually implemented at business unit (or even team) level. When added up over time, these numerous small changes have a major impact on the organisation.
- This is a very different approach to that typically taken in organisations, and it replaces a single large (centralised) project with many individual initiatives conducted by multiple teams.
- While this can be challenging to coordinate and manage, this 'thousand steps' approach recognises the inherent complexity of organisations (principle 1) and is a very effective way of mitigating risks (principle 7).
- It also ensures that 'quick wins' can be delivered early on (principle 3), and allows solutions to be targeted to individual business needs (principle 4).

1.5.6 Principle 6: Provide Strong Leadership

Successful information management is about organisational and cultural change, and this can only be achieved through strong leadership.

- The starting point is to create a clear vision of the desired outcomes of the information management strategy. This will describe how the organisation will operate, more than just describing how the information systems themselves will work.
- Effort must then be put into generating a sufficient sense of urgency to drive the deployment and adoption of new systems and processes.

- Stakeholders must also be engaged and involved in the project, to ensure that there is support at all levels in the organisation.
- This focus on leadership then underpins a range of communications activities (principle 8) that ensure that the organisation has a clear understanding of the projects and the benefits they will deliver.

When projects are solely driven by the acquisition and deployment of new technology solutions, this leadership is often lacking. Without the engagement and support of key stakeholder outside the IT area, these projects often have little impact.

1.5.7 Principle 7: Mitigate Risks

Due to the inherent complexity of the environment within organisations (principle 1), there are many risks in implementing information management solutions. These risks include:

- selecting an inappropriate technology solution
- time and budget overruns
- changing business requirements
- technical issues, particularly relating to integrating systems
- failure to gain adoption by staff
- At the outset of planning an information management strategy, the risks should be clearly identified. An approach must then be identified for each risk, either avoiding or mitigating the risk.
- Risk management approaches should then be used to plan all aspects of the project, including the activities conducted and the budget spent.

For example, a simple but effective way of mitigating risks is to spend less money. This might involve conducting pilot projects to identifying issues and potential solutions, rather than starting with enterprise-wide deployments.

1.5.8 Principle 8: Communicate Extensively

Extensive communication from the project team (and project sponsors) is critical for a successful information management initiative.

- This communication ensures that staff have a clear understanding of the project, and the benefits it will deliver. This is a pre-requisite for achieving the required level of adoption.
- With many projects happening simultaneously (principle 5), coordination becomes paramount. All project teams should devote time to work closely with each other, to ensure that activities and outcomes are aligned.
- In a complex environment, it is not possible to enforce a strict command-and-control approach to management (principle 1).
- Instead, a clear end point (‘vision’) must be created for the information management project, and communicated widely. This allows each project team to align themselves to the eventual goal, and to make informed decisions about the best approaches.
- For all these reasons, the first step in an information management project should be to develop a clear communications ‘message’. This should then be supported by a communications plan that describes target audiences, and methods of communication.

Project teams should also consider establishing a ‘project site’ on the intranet as the outset, to provide a location for planning documents, news releases, and other updates.

1.5.9 Principle 9: Aim To Deliver a Seamless User Experience

Users don't understand systems. When presented with six different information systems, each containing one-sixth of what they want, they generally rely on a piece of paper instead (or ask the person next to them).

- Educating staff in the purpose and use of a disparate set of information systems is difficult, and generally fruitless. The underlying goal should therefore be to deliver a seamless user experience, one that hides the systems that the information is coming from.
- This is not to say that there should be one enterprise-wide system that contains all information.
- There will always be a need to have multiple information systems, but the information contained within them should be presented in a human-friendly way.
- Ultimately, it also means breaking down the distinctions between applications, and delivering tools and information along task and subject lines.
- Improving on this, leave details should be located alongside the leave form itself. In this model, the HR application becomes a background system, invisible to the user.
- Care should also be taken, however, when looking to a silver-bullet solution for providing a seamless user experience. Despite the promises, portal applications do not automatically deliver this.
- Instead, a better approach may be to leverage the inherent benefits of the web platform. As long as the applications all look the same, the user will be unaware that they are accessing multiple systems and servers behind the scenes.

Of course, achieving a truly seamless user experience is not a short-term goal. Plan to incrementally move towards this goal, delivering one improvement at a time.

1.5.10 Principle 10: Choose the First Project Very Carefully

The choice of the first project conducted as part of a broader information management strategy is critical. This project must be selected carefully, to ensure that it:

- demonstrates the value of the information management strategy
- builds momentum for future activities
- generates interest and enthusiasm from both end-users and stakeholders
- delivers tangible and visible benefits (principle 3)
- addresses an important or urgent business need (principle 4)
- can be clearly communicated to staff and stakeholders (principle 8)
- assists the project team in gaining further resources and support
- Actions speak louder than words. The first project is the single best (and perhaps only) opportunity to set the organisation on the right path towards better information management practices and technologies.
- The first project must therefore be chosen according to its ability to act as a 'catalyst' for further organisational and cultural changes.

1.6 SUMMARY

Implementing information technology solutions in a complex and ever-changing organisational environment is never easy. The challenges inherent in information management projects mean that new approaches need to be taken, if they are to succeed. They also outline a pragmatic, step-by-step approach to implementing solutions that starts with addressing key needs and building support for further initiatives. A focus on adoption then ensures that staff actually uses the solutions that are deployed. Of course, much more can be written on how to tackle information management projects. Future articles will further explore this topic, providing additional guidance and outlining concrete approaches that can be taken.

1.7 TECHNICAL TERMS

Task –performing, vertical information system

1.8 SELF ASSESSMENT QUESTIONS

1. What is Information Management?
2. State the 10 principles for effective Information Management.

1.9 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON - 2

MANAGEMENT INFORMATION SYSTEM

AIMS AND OBJECTIVE

After reading this chapter, students will be able to understand:

- Basic fundamental concepts of information management (IM)
- Ten principles of effective information management

Structure

2.1 INTRODUCTION

A management information system (MIS) is a system or process that provides information needed to manage organizations effectively [1]. Management information systems are regarded to be a subset of the overall internal controls procedures in a

business, which cover the application of people, documents, technologies, and procedures used by management accountants to solve business problems such as costing a product, service or a business-wide strategy. Management information systems are distinct from regular information systems in that they are used to analyze other information systems applied in operational activities in the organization. Academically, the term is commonly used to refer to the group of information management methods tied to the automation or support of human decision making.

"Management Information Systems (MIS) is the term given to the discipline focused on the integration of computer systems with the aims and objectives on an organisation."

The development and management of information technology tools assists executives and the general workforce in performing any tasks related to the processing of information. MIS and business systems are especially useful in the collation of business data and the production of reports to be used as tools for decision making.

It is also defined according to accounting dictionary, "Computer-based or manual system that transforms data into information useful in the support of decision making. MIS can be classified as performing three functions":

1. To generate reports-for example, financial statements, inventory status reports, or performance reports needed for routine or non-routine purposes.
2. To answer what-if questions asked by management. For example, questions such as "What would happen to cash flow if the company changes its credit term for its customers?" can be answered by MIS. This type of MIS can be called Simulation.
3. To support decision making. This type of MIS is appropriately called Decision Support System (DSS). DSS attempts to integrate the decision maker, the data base, and the quantitative models being used.

Management Information System (M.I.S.) is basically concerned with processing data into information. Which is then communicated to the various Departments in an organization for appropriate decision-making?

Data… → Information… → Communication… → Decisions

Data collection involves the use of Information Technology (IT) comprising: computers and telecommunications networks (E-Mail, Voice Mail, Internet, telephone, etc.)Computers are important for more quantitative, than qualitative, data collection, storage and retrieval; Special features are speed and accuracy, and storage of large amount of data.

Telecommunications provide the means for one way or two-way communication and for the transmission of messages. A combination of IT is used: telephone, computer, processor, printer, etc. A lot of time and money are saved and the security of data and messages is ensured.MIS provides several benefits to the business organization: the means of effective and efficient coordination between Departments; quick and reliable referencing; access to relevant data and documents; use of less

labour; improvement in organizational and departmental techniques; management of day-to-day activities (as accounts, stock control, payroll, etc.); day-to-day assistance in a Department and closer contact with the rest of the world. It is important to note that whatever IT is installed must be appropriate to the organization, and to each department

2.2 APPLICATIONS OF MIS

With computers being as ubiquitous as they are today, there's hardly any large businessthat does not rely extensively on their IT systems. However, there are several specific fields in which MIS has become invaluable.

2.3 STRATEGY SUPPORT

While computers cannot create business strategies by themselves they can assist management in understanding the effects of their strategies, and help enable effective decision-making.

MIS systems can be used to transform data into information useful for decision making. Computers can provide financial statements and performance reports to assist in the planning, monitoring and implementation of strategy. MIS systems provide a valuable function in that they can collate into coherent reports unmanageable volumes of data that would otherwise be broadly useless to decision makers. By studying these reports decision-makers can identify patterns and trends that would have remained unseen if the raw data were consulted manually.

MIS systems can also use these raw data to run simulations – hypothetical scenarios that answer a range of 'what if' questions regarding alterations in strategy. For instance, MIS systems can provide predictions about the effect on sales that an alteration in price would have on a product. These Decision Support Systems (DSS) enable more informed decision making within an enterprise than would be possible without MIS systems.

2.4 MANAGEMENT BY OBJECTIVES

While MIS systems are extremely useful in generating statistical reports and data analysis they can also be of use as a Management by Objectives (MBO) tool.

MBO is a management process by which managers and subordinates agree upon a series of objectives for the subordinate to attempt to achieve within a set time frame. Objectivesare set using the SMART ratio: that is, objectives should be Specific, Measurable, Agreed, Realistic and Time-Specific. The aim of these objectives is to provide a set of key performance indicators by which an enterprise can judge the performance of an employee or project. The success of any MBO objective depends upon the continuous tracking of progress.

In tracking this performance it can be extremely useful to make use of an MIS system. Since all SMART objectives are by definition measurable they can be tracked through the generation of management reports to be analyzed by decision-makers.

2.5 BENEFITS OF MIS

The field of MIS can deliver a great many benefits to enterprises in every industry. Expert organizations such as the Institute of MIS along with peer reviewed journals such as MIS Quarterly continue to find and report new ways to use MIS to achieve business objectives.

2.6 KNOWLEDGE MANAGEMENT (KM)

It comprises a range of strategies and practices used in an organization to identify, create, represent, distribute, and enable adoption of insights and experiences. Such insights and experiences comprise knowledge, either embodied in individuals or embedded in organizational processes or practice.

An established discipline since 1991 (see Nonaka 1991), KM includes courses taught in the fields of business administration, information systems, management, and library and information sciences (Alavi & Leidner 1999). More recently, other fields have started contributing to KM research; these include information and media, computer science, public health, and public policy.

Many large companies and non-profit organizations have resources dedicated to internal KM efforts, often as a part of their 'business strategy', 'information technology', or 'human resource management' departments (Addicott, McGivern & Ferlie 2006). Several consulting companies also exist that provide strategy and advice regarding KM to these organizations.

Knowledge Management efforts typically focus on organizational objectives such as improved performance, competitive advantage, innovation, the sharing of lessons learned, integration and continuous improvement of the organization. KM efforts overlap with organizational learning, and may be distinguished from that by a greater focus on the management of knowledge as a strategic asset and a focus on encouraging the sharing of knowledge. KM efforts can help individuals and groups to share valuable organizational insights, to reduce redundant work, to avoid reinventing the wheel per se, to reduce training time for new employees, to retain intellectual capital as employees turnover in an organization, and to adapt to changing environments and markets

2.6.1 STRATEGIES

Knowledge may be accessed at three stages: before, during, or after KM-related activities. Different organizations have tried various knowledge capture incentives, including making content submission mandatory and incorporating rewards into performance measurement plans. Considerable controversy exists over whether incentives work or not in this field and no consensus has emerged.

One strategy to KM involves actively managing knowledge (push strategy). In such an instance, individuals strive to explicitly encode their knowledge into a shared knowledge repository, such as a database, as well as retrieving knowledge they need that other individuals have provided to the repository.[11] This is also commonly known as the Codification approach to KM.

Another strategy to KM involves individuals making knowledge requests of experts associated with a particular subject on an ad hoc basis (pull strategy). In such an instance, expert individual(s) can provide their insights to the particular person or people needing this (Snowden 2002). This is also commonly known as the Personalization approach to KM.

Other knowledge management strategies and instruments for companies include:

1. rewards (as a means of motivating for knowledge sharing)
2. storytelling (as a means of transferring tacit knowledge)
3. cross-project learning
4. after action reviews
5. knowledge mapping (a map of knowledge repositories within a company accessible byall)
6. communities of practice
7. expert directories (to enable knowledge seeker to reach to the experts)
8. best practice transfer
9. knowledge fairs
10. competence management (systematic evaluation and planning of competences ofindividual organization members)
11. proximity & architecture (the physical situation of employees can be either conducive orobstructive to knowledge sharing)
12. master-apprentice relationship
13. Collaborative technologies (groupware, etc.)
14. Knowledge repositories (databases, bookmarking engines, etc.)
15. measuring and reporting intellectual capital (a way of making explicit knowledge forcompanies)
16. knowledge brokers (some organizational members take on responsibility for a specific"field" and act as first reference on whom to talk about a specific subject)
17. Social software (wikis, social bookmarking, blogs, etc.)

2.6.2 MOTIVATIONS

A number of claims exist as to the motivations leading organizations to undertake a KM effort.Typical considerations driving a KM effort include:

1. Making available increased knowledge content in the development and provision ofproducts and services
2. Achieving shorter new product development cycles
3. Facilitating and managing innovation and organizational learning
4. Leveraging the expertise of people across the organization
5. Increasing network connectivity between internal and external individuals
6. Managing business environments and allowing employees to obtain relevant insightsand ideas appropriate to their work
7. Solving intractable or wicked problems
8. Managing intellectual capital and intellectual assets in the workforce (such as the expertise and know-how possessed by key individuals)

9. Debate exists whether KM is more than a passing fad, though increasing amount of research in this field may hopefully help to answer this question, as well as create consensus on what elements of KM help determine the success or failure of such efforts.

2.7 MANAGEMENT BY OBJECTIVES

(MBO) is a process of defining objectives within an organization so that management and employees agree to the objectives and understand what they are in the organization.

The term "management by objectives" was first popularized by Peter Drucker in his 1954book 'The Practice of Management'.[1]

The essence of MBO is participative goal setting, choosing course of actions and decision making. An important part of the MBO is the measurement and the comparison of theemployee's actual performance with the standards set. Ideally, when employees themselves have been involved with the goal setting and choosing the course of action to be followed by them, they are more likely to fulfill their responsibilities.

2.8 UNIQUE FEATURES AND ADVANTAGE OF THE MBO PROCESS

The basic principle behind Management by Objectives (MBO) is for employees to have clarity of the roles and responsibilities expected of them. They can then understand how their activities relate to the achievement of the organization. They also provide direction for the personal goals of each employee.

Some of the important features and advantages of MBO are:

Motivation – Involving employees in the whole process of goal setting and increasing employee empowerment increases employee job satisfaction and commitment.

Better communication and Coordination – Frequent reviews and interactions between superiors and subordinates helps to maintain harmonious relationships within the enterprise andalso solve many problems faced during the period.

2.8.1 CLARITY OF GOALS

Subordinates have a higher commitment to objectives that they set themselves than those imposed on them by their managers.

Managers can ensure that objectives of the subordinates are linked to the organisation's objectives.

2.8.2 DOMAINS AND LEVELS

Objectives can be set in all domains of activities (production, marketing, services, sales, R&D, human resources, finance, information systems etc.).

Some objectives are collective, for a whole department or the whole company, others can be individualized.

2.8.3 PRACTICE

Objectives need quantifying and monitoring. Reliable management information systems are needed to establish relevant objectives and monitor their "reach ratio" in an objective way. Pay incentives (bonuses) are often linked to results in reaching the objectives.

2.9 APPLICATIONS OF MIS

With computers being as ubiquitous as they are today, there's hardly any large business that does not rely extensively on their IT systems. However, there are several specific fields in whichMIS has become invaluable.

2.10 STRATEGY SUPPORT

While computers cannot create business strategies by themselves they can assist management in understanding the effects of their strategies, and help enable effective decision-making.

MIS systems can be used to transform data into information useful for decision making. Computers can provide financial statements and performance reports to assist in the planning,monitoring and implementation of strategy.

MIS systems provide a valuable function in that they can collate into coherent reports unmanageable volumes of data that would otherwise be broadly useless to decision makers. By studying these reports decision-makers can identify patterns and trends that would have remained unseen if the raw data were consulted manually.

MIS systems can also use these raw data to run simulations – hypothetical scenarios that answer a range of 'what if' questions regarding alterations in strategy. For instance, MIS systems can provide predictions about the effect on sales that an alteration in price would have on a product. These Decision Support Systems (DSS) enable more informed decision making within an enterprise than would be possible without MIS systems.

2.11 MANAGEMENT BY OBJECTIVES

While MIS systems are extremely useful in generating statistical reports and data analysis they can also be of use as a Management by Objectives (MBO) tool.

MBO is a management process by which managers and subordinates agree upon a series of objectives for the subordinate to attempt to achieve within a set time frame. Objectives are set using the SMART ratio: that is, objectives should be Specific, Measurable, Agreed, Realistic and Time-Specific

The aim of these objectives is to provide a set of key performance indicators by which an enterprise can judge the performance of an employee or project. The success

of any MBO objective depends upon the continuous tracking of progress.

In tracking this performance it can be extremely useful to make use of an MIS system. Since all SMART objectives are by definition measurable they can be tracked through the generation of management reports to be analyses by decision-makers.

2.12 BENEFITS OF MIS

The field of MIS can deliver a great many benefits to enterprises in every industry. Expert organizations such as the Institute of MIS along with peer reviewed journals such as MIS Quarterly continue to find and report new ways to use MIS to achieve business objectives.

2.13 `TECHNICAL TERMS

KM : Knowledge Management

MIS : Management Information system

2.14 SELF ASSESSMENT QUESTIONS

1. Define MIS.
2. Explain application of MIS.
3. Discuss about Knowledge Management.
4. Explain what MBO is.

2.15 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON 3

TOTAL QUALITY MANAGEMENT (TQM)

AIMS AND OBJECTIVE

After reading this chapter, students will be able to understand:

- Basic fundamental concepts of information management (IM)
- Ten principles of effective information management

Structure

3.1 DEFINITION

TQM is a philosophy that embraces all activities through which the needs and expectations of the customer (both internal and external) and the community, and the objectivesof the organization, are satisfied in the most efficient and cost-effective way

A approach to quality assurance that emphasizes a thorough understanding by all members of a production unit of the needs and desires of the ultimate service recipients, a viewpoint of wishing to provide service to internal, intermediate service recipients in the chain ofservice,

A management technique to improve the quality of goods and services, reduce operating costs and increase customer satisfaction and assuring that everyone in the organization is responsible for quality

Total Quality Management (TQM) refers to management methods used to enhance quality and productivity in organizations, particularly businesses. TQM is a comprehensive system approach that works horizontally across an organization, involving all departments and employees and extending backward and forward to include both suppliers and clients/customers.

3.2 THE TQM CONCEPT

Total Quality Management is a philosophy and not a technique. It is based on two basic concepts: quality control and employee participation. The concept has gradually evolved from the management theories such as Management by objective quality circles, strategic planning etc.

The concepts of Total, Quality and Management have been discussed below:

TOTAL:

Everyone in the organization is involved in creating and maintaining the quality of the services and products offered by the organization. It is a comprehensive way of dealing with complex sets of interacting issues involving everyone at all levels and addressing all major issues.

QUALITY:

The organization through individual and collective actions focuses on meeting customer's (agreed) needs, at lowest cost; first time and every time and hence recognizing that it is the customer's perception that identifies quality. Total quality therefore, refers to the fact that everyone, at all levels are involved in achieving quality according to some requirements orlaid down standards for everything they do.

MANAGEMENT:

While managing the system the emphasis should be towards continuous improvement and not on quick fixes. Then only Total Quality can be achieved. This requires everyone in the organisation to be responsible for managing their own job. TQM portrays a whole systems view for quality management.TQM builds on the idea that an organisation is an interactive network ofcommunication and control

3.3 ORIGINS OF TQM

In response to massive market share gains achieved by Japanese companies during the late 1970s and 1980s, U.S. producers scrambled to adopt quality and productivity techniques that might restore their competitiveness. Indeed, Deming's philosophies and systems were finally recognized in the United States, and Deming himself became a highly-sought-after lecturer and author. The "Deming Management Method" became the model for many American corporations eager to improve. And Total Quality Management, the phrase applied to quality initiatives proffered by Deming and other management gurus, became a staple of American enterprise by the late 1980s. By the early 1990s, the U.S. manufacturing sector had achieved marked gains in quality and productivity.

3.4 MAKING TQM WORK

Jablonski also identified six attributes of successful TQM programs:

Customer focus (includes internal customers such as other departments and coworkers as wellas external customers)

3.5 PROCESS FOCUS

Prevention versus inspection (development of a process that incorporates quality

during production, rather than a process that attempts to achieve quality through inspection after resources have already been consumed to produce the good or service)

Employee empowerment and compensation
Fact-based decision making
Receptiveness to feedback.

3.6 IMPLEMENTING TQM

Jablonski offers a five-phase guideline for implementing total quality management: preparation, planning, assessment, implementation, and diversification. Each phase is designed to be executed as part of a long-term goal of continually increasing quality and productivity. Jablonski's approach is one of many that has been applied to achieve TQM, but contains the key elements commonly associated with other popular total quality systems.

Preparation—during preparation, management decides whether or not to pursue a TQM program. They undergo initial training, identify needs for outside consultants, develop a specific vision and goals, draft a corporate policy, commit the necessary resources, and communicate the goals throughout the organization.

Planning—In the planning stage, a detailed plan of implementation is drafted (including budget and schedule), the infrastructure that will support the program is established, and the resourcesnecessary to begin the plan are earmarked and secured.

Assessment—This stage emphasizes a thorough self-assessment—with input from customers/clients—of the qualities and characteristics of individuals in the company, as well asthe company as a whole.

Implementation—At this point, the organization can already begin to determine its return on its investment in TQM. It is during this phase that support personnel are chosen and trained, and managers and the work force are trained. Training entails raising workers' awareness of exactlywhat TQM involves and how it can help them and the company. It also explains each worker's role in the program and explains what is expected of all the workers.

Diversification—In this stage, managers utilize their TQM experiences and successes to bring groups outside the organization (suppliers, distributors, and other companies have impact the business's overall health) into the quality process. Diversification activities include training, rewarding, supporting, and partnering with groups that are embraced by the organization's TQMinitiatives.

3.7 PRINCIPLES OF TQM

1. Add value to the process

Every action by every employee should add value to the process or product in every way all thetime. Enhance your work by your actions.

2. Deliver quality on time all the time

Develop a pattern of delivering perfect products & services on time. Rate your sources by theirability to do this.

1.3. Base business relationships on mutual trust and confidence

Providers and Suppliers build trust and confidence through quality and deliverability. Customers build it by quick payment and clear lines of communication. Reliability, Forthrightness, and Honesty are the basis of forming business relations.

4. Train individuals and teams to solve problems

Teach Problem -Solving Tools / Techniques & Teaming as the means to solve quality, safety, productivity, and deliverability problems.

5. Empower Employees to Be Responsible

For Quality, Safety, Productivity and Deliverability. Empowering means giving workers responsibility for their actions affecting their work. Share governance.

6. Deed 'Ownership' Of Process to Employees

Who have proven their capability. Reward and reinforce empowerment with Incentives, Job Security and Equity Sharing. Make employees owners of the process, not attendants.

7. Implement the new technology

Use modern information resources, INTERNET, databases, telecommunications, applications software, and project scheduling as tools to improve productivity. Use Statistical Process Control (SPC) to eliminate errors and defects and continually improve the system.

8. Collect, Measure And evaluate Data

Before Making Decisions. "It never hurts to turn the light on." (J. DeSimone). Make Decisions based on evidence. "If you can't measure it, you can't evaluate it."

9. Apply The '80/20' Principle

Use this Problem-Solving Tool to put problems into 'Trivial Many' and 'Vital Few' Categories. Record the causes and frequencies of problems on a Tally Sheet. Develop this into a Pareto Chart which plots the frequencies (most- to least-important) of the problems. 20% of the causes create at least 80% of the problems. Importance of resolving vital problems first.

10. Develop 'win-win' scenarios

Create solutions that will benefit all parties. Cooperation that develops synergism is the best solution.

11. Develop a master plan

Good Design Precedes Good Craftsmanship. A well-designed plan tracks and benchmarks an action through to its completion. "Quality begins at the Design Level." (Marty Madigan)

12. Plan for all contingencies

Prepare for all solutions by developing alternatives. If necessary, flowchart plans dealing with allpossible alternatives. Apply 'If-Then-Else' type of logic to problems.

13. Make zero defects and accidents your goal

Use the tools of TQM, SPC, and Problem-Solving to achieve these goals by detecting and eliminating the causes.

14. Qualify your sources and suppliers

Use Quality and Deliverability as the basis for selecting the source of your materials and services.

15. Deliverability

The Right Product at the Right Place at the Right Time. In world-class Just-in-Time (JIT) delivery systems, source parts are used without delay and inspection in the process.

16. Meet the needs of your customers

Customers are anyone affected by your work: co-workers, team members, management, & especially the end-users. They are the rationale for your work. The justification for your work isto deliver products or services that meet or exceed their requirements.

17. Improve continuously and always

Institute continuous improvement life-long education, principles based on the 14 Points by W. Edwards Deming. Optimize your curve. They constitute an ever expanding continuum. Add to this list.

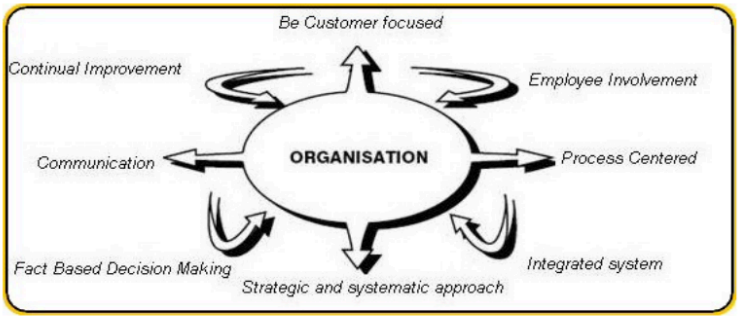
3.8 PRINCIPLES OF TQM

1. Be Customer focused:

Whatever you do for quality improvement, remember that ONLY customers determine the levelof quality, whatever you do to foster quality improvement, training employees, integrating qualityinto processes management, ONLY customers determine whether your efforts were worthwhile.

2. Insure Total Employee Involvement:

This done after you remove fear from work place, then empower employee ... you provide the proper environment.



3. Process Centered:

Fundamental part of TQM is to focus on Process thinking.

4. Integrated system:

All employees must know business mission and vision must monitor the process. An integratedbusiness system may be modeled by MBNQA or ISO 9000.

5. Strategic and systematic approach:

Strategic plan must integrate quality as core component.

6. Continual Improvement:

Using analytical and creative thinking in finding ways to become more effective.

7. Fact Based Decision Making:

Decision making must be ONLY on data, not personal thinking or situational.

8. Communication:

Communication strategy, method and timeliness must be well defined.

3.9 TQM Implementation Approaches

No one solution is effective for planning and implementing TQM concepts in all situations.Following are generic models for implementing total quality management theory:

1. Train top management on TQM principles.

2. Assess the current: Culture, customer satisfaction, quality management system.
3. Top management determines the core values and principles to be used and communicate them.
4. Develop TQM master plan based on steps
5. Identify and prioritize customer needs and determine products or service to meet thoseneeds.
6. Determine the critical processes to produce those products or services.
7. Create process improvement teams.
8. Managers should support effort by planning, training, time to the team.
9. Integrate changes for improvement in daily process management and standardizationstake place.
10. Evaluate progress against plan (step 8) and adjust as needed.
11. Constant employee awareness and feedback on status are provided and a reward/recognition process is established.

3.10 STRATEGIES TO DEVELOP TQM

1. TQM elements approach:
   Take key business process and use TQM Tools to foster improvement.
   e.g.: quality circles, statistical process control, taguchi method, quality functiondeployment.
2. The guru approach:
   Using the guides of one of the leading quality thinker.
3. Organization model approach:
   The organization use Benchmarking or MBNQA as model for excellence.
4. Japanese total quality approach:

Companies want to get deming prize use deming principles.

3.11 TECHNICAL TERMS

TQM: Total Quality Management

3.12 SELF ASSESSMENT QUESTIONS

1. Discuss the concepts of TQM.
2. Explain the basic principles of TQM.
3. How TQM is implemented?
4. Discuss the strategies of TQM.

3.13 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 4

CHANGE MANAGEMENT

AIMS AND OBJECTIVES

The aim of this lesson is to introduce the concept and trends of Change Management.

After reading this lesson, you will be able to

- Argue that the library work forms a part of service enterprises
- Explain that socio-technical change is continuous process and it has a high impact on libraries.
- Discuss the need for libraries and information centers for adopting to change is inevitable to sustain in the changing environments
- Describe various approaches for adaption to change
- Explain the strategy of planning for change.

Structure

4.1 INTRODUCTION

It is an IT Service Management discipline. The objective of Change Management in this context is to ensure that standardized methods and procedures are used for efficient and prompt handling of all changes to controlled IT infrastructure, in

order to minimize the number and impact of any related incidents upon service. Changes in the IT infrastructure may arise reactively in response to problems or externally imposed requirements, e.g. legislative changes, or proactively from seeking improved efficiency and effectiveness or to enable or reflect business initiatives, or from programs, projects or service improvement initiatives. Change Management can ensure standardized methods, processes and procedures are used for all changes, facilitate efficient and prompt handling of all changes, and maintain the proper balance between the need for change and the potential detrimental impact of changes.

The goal of the Change Management process is to ensure that standardized methods and procedures are used for efficient and prompt handling of all changes, in order to minimize the impact of change-related incidents upon service quality, and consequently improve the day-to-day operations of the organization

To ensure all changes are assessed, approved, implemented and reviewed in a controlledmanner.

- Change management is responsible for managing change process involving:
- Hardware
- Communications equipment and software
- System software

All documentation and procedures associated with the running, support and maintenance of livesystems.

Any proposed change must be approved in the change management process. While change management makes the process happen, the decision authority is the Change Advisory Board (CAB), which is made up for the most part of people from other functions within the organization. The main activities of the change management are:

- Filtering changes
- Managing changes and the change process
- Chairing the CAB and the CAB/Emergency committee
- Reviewing and closing of Requests for Change (RFCs)
- Management reporting and providing management information

4.2 RULES FOR EFFECTIVE MANAGEMENT CHANGE

Here are some rules for effective management of change. Managing organizational change will be more successful if you apply these simple principles. Achieving personal change will be more successful too if you use the same approach where relevant. Change management entails thoughtful planning and sensitive implementation, and above all, consultation with, and involvement of, the people affected by the changes. If you force change on people normally problems arise. Change must be realistic, achievable and measurable. These aspects are especially relevant to managing personal change. Before starting organizational change, ask yourself: What do we want to achieve with this change, why, and how will we know that the change has been achieved? Who is affected by this change, and how will they react to it? How much of this change can we achieve ourselves, and what parts of the

change do we need help with? These aspects also relate strongly to the management of personal as well as organizational change. For a wonderful example of managing successful ethical change in modern times.

Do not sell change to people as a way of accelerating 'agreement' and implementation. 'Selling' change to people is not a sustainable strategy for success, unless your aim is to be bitten on the bum at some time in the future when you least expect it. When people listen to a management high-up 'selling' them a change, decent diligent folk will generally smile and appear to accede, but quietly to themselves, they're thinking, "No bloody chance mate, if you think I'm standing for that load of old bollocks you've another think coming.." Instead, change needs to be understood and managed in a way that people can cope effectively with it. Change can be unsettling, so the manager logically needs to be a settling influence.

Check that people affected by the change agree with, or at least understand, the need for change, and have a chance to decide how the change will be managed, and to be involved in the planning and implementation of the change. Use face-to-face communications to handle sensitive aspects of organisational change management Encourage your managers to communicate face-to-face with their people too if they are helping you manage an organizational change. Email and written notices are extremely weak at conveying and developing understanding.

If you think that you need to make a change quickly, probe the reasons - is the urgency real? Will the effects of agreeing a more sensible time-frame really be more disastrous than presiding over a disastrous change? Quick change prevents proper consultation and involvement, which leads to difficulties that take time to resolve.

For complex changes, refer to the process of project management, and ensure that you augment this with consultative communications to agree and gain support for the reasons for the change. Involving and informing people also creates opportunities for others to participate in planning and implementing the changes, which lightens your burden, spreads the organizational load, and creates a sense of ownership and familiarity among the people affected.

4.3 RESPONSIBILITY FOR MANAGING CHANGE

The employee does not have a responsibility to manage change - the employee's responsibility is no other than to do their best, which is different for every person and depends on a wide variety of factors (health, maturity, stability, experience, personality, motivation, etc). Responsibility for managing change is with management and executives of the organization - they must manage the change in a way that employees can cope with it. The manager has a responsibility to facilitate and enable change, and all that is implied within that statement, especially to understand the situation from an objective standpoint (to 'step back', and be non- judgemental), and then to help people understand reasons, aims, and ways of responding positively according to employees' own situations and capabilities. Increasingly the manager's role is to interpret, communicate and enable - not to instruct and impose, which nobody really responds to well.

4.4 CHANGE MUST INVOLVE THE PEOPLE - CHANGE MUST NOTBE IMPOSED UPON THE PEOPLE

Be wary of expressions like 'mindset change', and 'changing people's mindsets' or 'changing attitudes', because this language often indicates a tendency towards imposed or enforced change and it implies strongly that the organization believes that its people currently have the 'wrong' mindset, which is never, ever, the case. If people are not approaching their tasks or the organization effectively, then the organization has the wrong mindset, not the people. Change such as new structures, policies, targets, acquisitions, disposals, re-locations, etc., all create new systems and environments, which need to be explained to people as early as possible, so that people's involvement in validating and refining the changes themselves canbe obtained.

Whenever an organization imposes new things on people there will be difficulties.

Participation, involvement and open, early, full communication are the important factors.

Workshops are very useful processes to develop collective understanding, approaches, policies, methods, systems, ideas, etc. See the section on workshops on the website.

Staff surveys are a helpful way to repair damage and mistrust among staff - provided you allow allow people to complete them anonymously, and provided you publish and act on thefindings.

Management training, empathy and facilitative capability are priority areas - managers are crucial to the change process - they must enable and facilitate, not merely convey and implement policy from above, which does not work.

You cannot impose change - people and teams need to be empowered to find their own solutions and responses, with facilitation and support from managers, and tolerance and compassion from the leaders and executives. Management and leadership style and behaviour are more important than clever process and policy. Employees need to be able to trust the organization.

The leader must agree and work with these ideas, or change is likely to be very painful,and the best people will be lost in the process.

4. 5 CHANGE MANAGEMENT PRINCIPLES

At all times involve and agree support from people within system (system = environment,processes, culture, relationships, behaviours, etc., whether personal or organisational).

Understand where you/the organisation is at the moment.

Understand where you want to be, when, why, and what the measures will be for having gotthere.

Plan development towards above No.3 in appropriate achievable measurable stages.

Communicate, involve, enable and facilitate involvement from people, as early and openly andas fully as is possible.

4.6 JOHN P KOTTER'S 'EIGHT STEPS TO SUCCESSFUL CHANGE'

John Kotter's highly regarded books 'Leading Change' (1995) and the follow-up 'The Heart Of Change' (2002) describe a helpful model for understanding and managing change. Each stage acknowledges a key principle identified by Kotter relating to people's response and approach to change, in which people see, feel and then change (see a more detailed interpretation of the personal change process in John Fisher's model of the process of personal change): Kotter's eight step change model can be summarised as:

Increase urgency - inspire people to move, make objectives real and relevant.

Build the guiding team - get the right people in place with the right emotional commitment, and the right mix of skills and levels.

Get the vision right - get the team to establish a simple vision and strategy, focus on emotional and creative aspects necessary to drive service and efficiency.

Communicate for buy-in - Involve as many people as possible, communicate the essentials, simply, and to appeal and respond to people's needs. De-clutter communications - make technology work for you rather than against.

1. Empower action - Remove obstacles, enable constructive feedback and lots of supportfrom leaders - reward and recognise progress and achievements.
2. Create short-term wins - Set aims that are easy to achieve - in bite-size chunks.Manageable numbers of initiatives. Finish current stages before starting new ones.
3. Don't let up - Foster and encourage determination and persistence - ongoing change -encourage ongoing progress reporting - highlight achieved and future milestones.
4. Make change stick - Reinforce the value of successful change via recruitment, promotion, new change leaders. Weave change into culture.

4.7 RESISTANCE TO CHANGE

Strong resistance to change is often rooted in deeply conditioned or historically reinforced feelings. Patience and tolerance are required to help people in these situations to see things differently. Bit by bit. There are examples of this sort of gradual staged change everywhere in the living world.

Also, certain types of people - the reliable/dependable/steady/habitual/process-orientedtypes - often find change very unsettling.

People who welcome change are not generally the best at being able to work reliably, dependably and follow processes. The reliability/dependability capabilities are directly oppositecharacter traits to mobility/adaptability capabilities.

Certain industries and disciplines have a high concentration of staff who need a

strong reliability/dependability personality profile, for example, health services and nursing, administration, public sector and government departments, utilities and services; these sectors will tend to have many staff with character profiles who find change difficult.

See the personality styles page to help understanding about different types of people.

Age is another factor. Erik Erikson's fascinating Psychosocial Theory is helpful for understanding that people's priorities and motivations are different depending on their stage oflife.

The more you understand people's needs, the better you will be able to manage change.

Be mindful of people's strengths and weaknesses. Not everyone welcomes change. Take the time to understand the people you are dealing with, and how and why they feel like they do, before you take action.

4.8 FAST CHANGING ENVIRONMENTS

Planning, implementing and managing change in a fast-changing environment is increasingly the situation in which most organizations now work.

Dynamic environments such as these require dynamic processes, people, systems and culture, especially for managing change successfully, notably effectively optimising organizational response to market opportunities and threats.

Key elements for success:

Plan long-term broadly - a sound strategic vision, not a specific detailed plan (the latter is impossible to predict reliably). Detailed five years plans are out of date two weeks after they are written. Focus on detail for establishing and measuring delivery of immediate actions, not medium-to-long-term plans.

Establish forums and communicating methods to enable immediate review and decision- making. Participation of interested people is essential. This enables their input to be gained, their approval and commitment to be secured, and automatically takes care of communicating the actions and expectations.

Empower people to make decisions at a local operating level - delegate responsibility and power as much as possible (or at least encourage people to make recommendations whichcan be quickly approved).

Remove (as far as is possible) from strategic change and approval processes and teams (or circumvent) any ultra-cautious, ultra-autocratic or compulsively-interfering executives. Autocracy and interference are the biggest obstacles to establishing a successful and sustainable dynamic culture and capability.

Encourage, enable and develop capable people to be active in other areas of the organization via 'virtual teams' and 'matrix management'.

Scrutinise and optimise ICT (information and communications technology) systems to enable effective information management and key activity team-working.

Use workshops as a vehicle to review priorities, agree broad medium-to-long-term vision and aims, and to agree short term action plans and implementation method andaccountabilities.

Adjust recruitment, training and development to accelerate the development of people who contribute positively to a culture of empowered dynamism.

4.9 TRAINING AND LEARNING

'Training' implies putting skills into people, when actually we should be developing people from the inside out, beyond skills, ie., facilitating learning.

So focus on facilitating learning, not imposing training.

Emotional maturity, integrity, and compassion are more important than skills and processes. If you are in any doubt, analyse the root causes of your organization's successes and your failures - they will never be skills and processes.

Enable and encourage the development of the person - in any way that you can.

Give people choice - we all learn in different ways, and we all have our own strengths andpotential, waiting to be fulfilled.

4.10 PLANNING CHANGE IN LIBRARIES

Change is both internally generated and externally imposed and is the center of qualitymanagement.

A useful practical guide by Curzon (1989), designed for librarians, suggests that a sequence ofsteps can be used to plan, implement and evaluate change:

1. Conceptualizing: developing awareness and envisioning the change.
2. Preparing: getting the organization ready for change, for example by listening to staff,but being committed to the change.
3. Organizing the planning group: selecting staff to participate and building them into team.
4. Planning: examining options, deciding on goals and objectives and then developing a plan.
5. Deciding: evaluating the options, deliberating and then making a decision.
6. Managing the individual: discussing the change and dealing with reactions to it, thenmonitoring its implementation.
7. Controlling resistance: identifying resistance, analyzing its source and counteracting it.
8. Implementing: formal introduction of the change at the right time and then following itthrough
9. Evaluating: re-examining the goals, identifying problems and making adjustments

4.11 TECHNICAL TERMS

CAB : Change Advisory Board

ICT : Information and Communication

RFC : Request for Change

4.12 SELF ASSESSMENT QUESTIONS

1. Driving forces of Change Management
2. Adaptation to Change
3. Ten Commandments of Change

4.13 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON - 5

KNOWLEDGE MANAGEMENT

AIMS AND OBJECTIVE

The objective of the topic are to:

- Support the implementation of KM culture in libraries and information environments
- Provide an international platform for professional communication and understanding of the significance of KM for librarians and their institutions
- To meet the demand of librarians to enhance their skills in an ever changing work environment, the Section seeks to provide theoretical and practical knowledge in areas of KM such as:
- Knowledge sharing
- Improved measures of performance
- Being value-oriented rather than just service-oriented
- Explore the "pros and Cons" of KM implementation
- Utilize interactive communication in information settings to enhance knowledge sharing
- Using IT for converting knowledge into information for use
- Knowledge retention and preservation

Structure

5.1 INTRODUCTION

The concept and name “Knowledge Management” was started and popularized in the business world during the last decade of the twentieth century. It was the business world that first recognized the importance of knowledge in the “Global Economy” of the “Knowledge Age”. In the new knowledge economy, the possession of relevant and strategic knowledge and its unceasing renewal enables businesses to gain competitive advantage. The applications of knowledge management have now spread to other organizations including government agencies, research and development

departments, universities and others.

"Libraries deal with the knowledge and the mission of the libraries is the Knowledge Management. Knowledge can be divided into two categories, tacit knowledge and explicit knowledge. Tacit knowledge is the 'know-how' acquired by persons. It is usually intuitive and generally demonstrated in how an individual makes accomplishment in his work even though this knowledge is not recorded anywhere. But one of the goals of the Knowledge Management is to make tacit knowledge more widely available."

"Explicit Knowledge is systematically documented records in any kind of format which guide the users to gain the knowledge as the individuals need and to expand base further."

Libraries, the institutions for Knowledge Management deal with both categories of knowledge, tacit knowledge for the library personnel and the explicit knowledge for the end users. Library Personnel must know the know-how of information sources, management, retrieval and dissemination as well as global access to information. They must be guided to thegateway of knowledge.

In the knowledge economy era, the management refers to effectively identifying, acquire, develop, resolve, use, store and share knowledge to create an approach to transforming and sharing of tacit and explicit knowledge, and to raise the emergency and innovation capability by utilizing the wisdom of the team.

The emerging field of Knowledge Management offers academic libraries the opportunity to create knowledge to improve organizational effectiveness, for both themselves and theirinstitutions.

5.2 KNOWLEDGE MANAGEMENT-CONCEPT

Knowledge management is generally understood to mean the sharing of knowledge inside or outside of an organization. Knowledge sharing has been greatly facilitated by modern computer based technology. There is no agreed definition of knowledge management, even among practitioners. The term is used loosely to refer to a broad collection of organizational practices and approaches related to generating, capturing, and disseminating know-how and other content relevant to the organization's business. Knowledge is not just an explicit tangible "thing", like information, but information combined with experience, context, interpretation and reflection. Knowledge involves the full person, integrating the elements of both thinking and feeling.

Jennifer Rowley stated, "Knowledge management is concerned with the exploitation of an organization. Organizations that succeed in knowledge management are likely to view knowledge as asset and to develop organizational norms and values, which support the creation and sharing knowledge."

"Knowledge management may be defined as the set of processes that create and share knowledge across an organization to optimize the use of judgment in the attainment of missionand goals."

Knowledge Management (KM) is commonly defined as the process for enabling

individuals within an organization to effectively share information and knowledge to save time and make better decisions. Knowledge management has become a strategic initiative in many organizations, yet during difficult economic times, special libraries, information centers, or knowledge management is often targeted as cost savings opportunities.

Knowledge is increasingly seen as a primary business asset and knowledge management as a key differentiator between organizations. Integral to the implementation of knowledge management is to understand the organization's information flows and implementing organizational learning practices which make explicit key aspects of its knowledge management is not about managing or organizing books or journals, searching the internet for clients or arranging for the circulation of materials. However, each of these activities can in some way be part of the knowledge management spectrum and processes. Knowledge management is about enhancing the use of organizational knowledge through sound practices of information management and organizational learning. The purpose is to deliver value to the services.

There are two foundations: utilizing and exploiting the organizations information; and second, the application of peoples' competencies, skills, talents, thoughts, ideas, intuitions, commitments, motivations, and imaginations.

The fact that a reference librarian knows something about why products or services are not utilized the way the organization desires is not of itself organizational knowledge. It becomes organizational knowledge when there are management processes in place which capture that often personal, tacit, front-line information from which others in the organization learn and make decisions. This is the meaning of knowledge management-purposeful management processes which capture personal and contextual information that can be used forthe libraries benefit.

Knowledge Management practices aim to draw out the tacit knowledge people have, what they carry around with them, what they observe and learn from experience, rather than what is usually explicitly stated. In organizations that appreciate the importance of knowledge management, the organizational responsibilities of staff are not focused on the narrow confines of traditional job descriptions. Managing knowledge goes much further than capturing data and manipulating it to obtain information. The aim of knowledge management is for services to become more competitive through the capacities of their people to be more flexible and innovative. These characteristics are organization-specific, the context is critical, and they are hard to imitate-attributes which deepen the sustainability of knowledge management as a competitive advantage.

5.3 WHAT IS KNOWLEDGE MANAGEMENT?

Knowledge Management is a newly emerging, interdisciplinary business model that has knowledge within the framework of an organization as its focus. It is rooted in many disciplines, including business, economics, psychology and information management. It is the ultimate competitive advantage for today's firm. Knowledge management involves people, technology, and processes in overlapping parts.

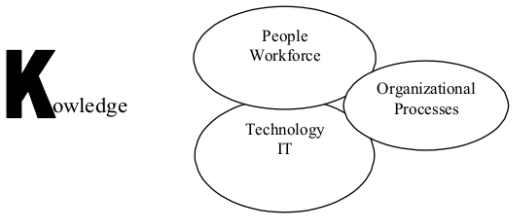


Fig.2.1.1 Knowledge Management

As can be deduced from the select definitions in fig.2.1.1 researchers as well as practitionershave yet to agree on a definition. However, each definition of KM contains several integral parts:

- Using accessible knowledge from outside sources.
- Embedding add storing knowledge in business processes, products, and services.
- Representing knowledge in databases and documents.
- Promoting knowledge growth through the organization's culture and incentives.
- Transferring and sharing knowledge throughout the organization.
- Assessing the value of knowledge assets and impact on a regular basis.

5.4 DEFINITIONS OF KNOWLEDGE MANAGEMENT

- KM is the process of gathering a firm's collective expertise wherever it resides- in databases, on paper, or in people's heads and distributing it to where it can help produce the biggest payoff (Hibbard 1997).
- KM is a newly emerging, interdisciplinary business model dealing with all aspects of knowledge within the context of the firm, including knowledge creation, codification, sharing, and how these activates promote learning and innovation (encompassing technology tools and organizational routines in overlapping parts) (Berkeley 2001).
- KM caters to the critical issues of organizational adaptation survival, and competence in the face of increasingly discontinuous environmental change. Essentially, it embodies organizational processes that seek synergistic combinations of data and information processing capacity of information technology and the creative and innovative capacity of human beings (Malhotra, 1999).
- KM is the art of creating value from an organization's intangible assets (Sveiby, 2000).
- KM is the classification, dissemination, and categorization of information and people throughout an organization (Taft, 2000).
- KM is the discipline of capturing knowledge-based competencies and then storing and diffusing that knowledge into business. It is also the systematic and organized attempt toimprove performance (KPMG, 2000).
- KM is really about recognizing that regardless of what business you are in, you are competing based on the knowledge of your employees (Johnson, 2001).

- KM is a discipline of identifying, capturing, retrieving, sharing, and evaluating an enterprise information asset (Bair, 2001).
- KM is the sharing of information throughout a company or even between business partners. It creates an environment in which the company leverages all its knowledge assets (Trepper, 2000).
- Knowledge Management is the art of creating value from the intangible assets of an organization. (Sveiby).
- Knowledge Management consists in the identification, optimization, and dynamic management of the intellectual assets possessed in explicit or implicit form by persons or communities. (Snowden, IBM).
- Knowledge Management tries to facilitate employee's access to knowledge whenever itis required for the effective development of their activities.

5.5 PRINCIPLES OF KNOWLEDGE MANAGEMENT

The following are the principles of knowledge management given by Thomas H Davenport:

- Knowledge management is expensive.
- Effective management of knowledge requires hybrid solutions of people andtechnology.
- Knowledge Management is highly political.
- Knowledge Management requires knowledge managers.
- Knowledge Management benefits more from maps than models, more from marketsthan from hierarchies.
- Sharing and using knowledge are often unnatural acts.
- Knowledge Management means improving knowledge work process.
- Knowledge Management access is only the beginning.
- Knowledge Management never ends.
- Knowledge Management requires a knowledge contract.

5.6 NEED FOR KNOWLEDGE MANAGEMENT

Knowledge management is the most important asset for a company/ organization/ institution because KM provides access to various aspects like experience, knowledge and expertise that create new capabilities which enable better performance, encourage innovation and enhance customer value. Today every organization needs to know their knowledge assets, how to manage and make use of these assets to get maximum benefits.

Environmental pressure, technological advancements and the ability to create valuable information are responsible to adopt knowledge management. Globalization and geographical dispersion also create a demand for KM needs to be applied to capture information, create knowledge, improve services to users and enable users to share and learn.

The need of KM is arising due to following reasons.

- Competitive market place.
- Accelerating rate of innovations that need to be assimilated at an even faster rate.

- Increasing mobility among employees leading to loss of knowledge.
- Competitive pressures leading to reduction in the size of the work force holding specialand strategic knowledge.
- Majorities of the employees have less and less time to acquire knowledge.

5.7 BENEFITS OF KNOWLEDGE MANAGEMENT

Knowledge Management applications could benefit in research process, curriculum development process, student and alumni services, administrative services and strategicplanning in the following ways:

- Facilitation of interdisciplinary research
- Improved speed of curriculum revision and updating.
- Enhanced faculty development efforts, especially for new faculty.
- Improved services for students.
- Improved service capability of faculty and staff.
- Improved effectiveness and efficiency of administrative services.
- Improved responsiveness and communication capabilities,
- Enhanced ability to develop up to date and market focused strategic plans.

5.8 TECHNICAL TERMS

KM: Knowledge Management

5.9 SELF ASSESSMENT QUESTIONS

1. What is Knowledge Management?
2. Write at least five definitions of KM.
3. Enumerate the principles of KM.
4. Discuss the need and benefits of Knowledge Management.

5.10 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 6

TYPES OF KNOWLEDGE MANAGEMENT

AIMS AND OBJECTIVES

- It may be noted from the literature that knowledge can be thought of in many ways and indeed there are a number of different types discussed
- Now ledge management perspective, it is useful to be able.
- to identify and categories types of knowledge as it may help to indicate.
- Which of the categories are more amenable to management than others.

Structure

6.1 INTRODUCTION

In today's new age economy, knowledge and information are the most important factors in the long-term success of both an individual and an organization. Knowledge and knowledge management have emerged as a vital component for many organizations. In fact, knowledge may soon be the only source of competitive advantage for an organization.

All too often one part of an organization repeats the work of another part simply because it is impossible to keep track of, and makes use of knowledge in other parts. A company's value depends increasingly on "intangible assets" which exist in the minds of employees, in databases, in files and in myriad documents. To manage knowledge it must first of all be captured or acquired in some useful form.

Knowledge management is a critical component of an organizations success. Knowledge assets are the knowledge that an organization owns or needs to own, to achieve its goals. Knowledge is information, extracted, filtered or formatted in some way. Every company's knowledge requirements are a unique combination of knowledge strategy, tools and technologies, processes and procedures. Knowledge

management technologies capture this intangible element in an organization and make it universally available. This approach has come to be known as knowledge management: the practice of capturing and organizing information to make it more accessible and valuable to those who need it.

Knowledge can be divided into two types, tacit knowledge and explicit knowledge. Tacit knowledge is implicit, whereas explicit knowledge is rule-based knowledge that is used to match actions to situations by invoking appropriate rules. An organization promotes the learning of tacit knowledge to increase the skills and creative capacities of its employees and takes advantage of explicit knowledge to maximize efficiency.

6.2 TYPES OF KNOWLEDGE MANAGEMENT

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6.2.1 TACIT KNOWLEDGE

- Tacit knowledge includes hands-on skills, best practices, special know-how, andintuitions. Personal knowledge that is difficult to articulate.
- It also provides for a kind of creative vitality – intuition and spontaneous insight can oftentackle tough problems that would otherwise be difficult to solve.
- Traditionally the transfer of tacit knowledge is through shared experience, throughapprenticeship and job training.
- Tacit knowledge is cultivated in an organizational culture that motivates through sharedvision and common purpose.
- These are difficult to retrieve, perceive, express, communicate and share. e.g. tacklingto a completely new and unique problem.

This kind of knowledge remains inherent within the mind of an individual. This kind ofknowledge exists at the personal level. The response of an individual.

- Varies according to the situation for the same kind of problem
- Varies according to the severity of the problem in a particular time.

But the knowledge utilized is present in tacit form in the mind of the user and is nowhereavailable in documented form.

Factors contributing to build up a Tacit Knowledge are

- Perceptions
- Insights
- Experiences
- Beliefs
- Values
- Skills
- Craftsmanship

6.2.2 EXPLICIT KNOWLEDGE

- Explicit knowledge is used in the design of routines, standard operation

procedures, andthe structure of data records. These forms of knowledge can be found in any organization. It allows an organization to enjoy a certain level of operational efficiency and control.

- Explicit knowledge promotes equable, consistent organizational responses.

Well documented, recorded form of knowledge. This form of knowledge could be easilyexpressed, communicated and shared. A explicit knowledge could be

- Documented Job Profile of the staff
- Documented Profile of the user
- Profile of the Library Collection
- Profile of the Organization/library
- Library Records

Explicit form of knowledge represents the later form of Tacit knowledge once it is captured andrecorded.

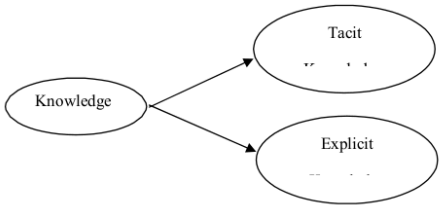

Fig.1.2: Knowledge is categorized into two forms

An organization must adopt a holistic approach to knowledge management that successfully combines Tacit and explicit knowledge at all levels of the organization. Personal knowledge is leveraged with explicit knowledge for the design and development of innovative products, services and processes.

6.3 SCOPE OF KNOWLEDGE MANAGEMENT

Knowledge Management is emerging as a large academic discipline world over. Its scope extends to finance and economics, agriculture and industry, space, media and literature. The Knowledge Management (KM) Division focuses on the characteristics and processes through which organizations facilitate the creation, sharing and use of knowledge.

6.3.1 KNOWLEDGE CREATION

Objective of libraries are to provide resources and information services to support the users' community and the resources required is knowledge and its operation in the knowledge among library users and their needs of knowledge in the library collection and knowledge of library facilities and technologies available. These types of knowledge must be put together so that new knowledge is created for the improvement and development of service to the users and functioning of the academic

library.

6.3.2 KNOWLEDGE CAPTURING AND ACQUISITION

Capturing and acquiring of knowledge is crucial to the success and development of knowledge based organization. Organizations often suffer permanent loss of valuable expert's through dismissals, redundancies, retirement and death.

Academic libraries need to develop ways of capturing its internal knowledge, devise system to identify people's expertise and develop ways of sharing it. Formal process of capturing knowledge can include collating internal profiles of libraries and also standardizing routine information update reports.

As users become more sophisticated, libraries need to develop innovative ways to respond to add value to their services. Libraries need to be aware and to aim at capturing the knowledge that exists within them. The type of enquiries for example that are most commonly received at the reference desk should be captured and placed within easy reach to serve the users in a better way in the shortest time possible.

It is important to create a folder of frequently asked questions to enable librarians to not only provide an in-depth customized reference service, but also to become knowledgeable about handling different enquiries. Knowledge acquisition is the starting point of knowledge management (San Hong, 2000).Knowledge in libraries can be acquired through existing resources.

1. Establishing knowledge links or networking with other libraries and with institutions of allkinds.
2. Attending training programme, conferences, seminars and workshops.
3. Subscribing to list servers and online or virtual communities of practice.
4. Buying knowledge products or resources in the form of manuals, blueprint reports andresearch reports.

6.3.3 KNOWLEDGE SHARING

Expertise exists in people and much of this kind of knowledge is tacit rather than explicit which makes it difficult to be shared. At its most basic, knowledge sharing is simply about transferring the dispersed know-how of organizational members more effectively. Knowledge sharing is based on the experiences gained internally and externally in the organization. Making the available knowledge to organizational will eliminate or reduce duplication of efforts and form the basis for problem solving and decision making.

6.3.4 KNOWLEDGE UTILIZATION

Knowledge Utilization can be achieved through knowledge dissemination, sharing and application. Knowledge dissemination is the process of dissemination of knowledge to other. Intranet, knowledge bases and expert databases can be used to facilitate dissemination of explicit knowledge. This can be done through enabling search to knowledge bases.

Knowledge sharing means retrieving knowledge from the knowledge repositories and making it available and accessible to users. Tacit knowledge is shared through interaction among people working together in an organization while explicit knowledge can be shared through databases, expert systems, knowledge bases, knowledge warehouses, etc.
The Library's approach to knowledge management is characterized by:

1. An interest in all dimensions of knowledge as acquired and developed by members to beused for their organizations,
2. Attention to all aspects of the knowledge lifecycle, including but not limited to knowledge creation, sharing, capture, organization, management, reuse, and preservation.
3. Innovative means to link and enable people to directly exchange ideas and learning to increase the relevant knowledge available for use in their organizations.
4. Concern for all aspects of an organization, including culture, policy, process, management and technology that affect its ability to create and transfer knowledge.
5. Focus on techniques and tools for collaboration, for organizing knowledge repositories (e.g. taxonomies, anthologies), for demonstrating the economic value of KM activities, for promoting organizational learning techniques and applications; and for increasing understanding of knowledge economics.
6. Fostering networking and collaborating with all parts of the organization, including but not limited to information technology, human resources, research & development, document management and management, to facilitate a continuous learning environment and reduce knowledge hoarding.

6.4 TECHNICAL TERMS

Explicit Knowledge

6.5 SELF ASSESSMENT QUESTIONS

1. Discuss the types of Knowledge Management.
2. Write short note on scope of Knowledge Management.

6.6 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 7

APPLICATION OF LICs - KNOWLEDGE MANAGEMENT

AIMS AND OBJECTIVES

After reading this lesson, you will be able to:

- Explain the purpose of the techniques of management in the management of library and information centers;
- Highlight the importance of managerial functions/ elements, techniques and principles of management in libraries and information centre's management;
- Describe the use and application of modern management techniques in library and information centers management; and
- Discuss the changing role of library managers and the skills needed by them in changing environment.

STRUCTURE

7.1 INTRODUCTION

In the present age libraries are considered as knowledge resource centers. The knowledge generated from these resource centers may be utilized by the number of peoples of different discipline. Hence, proper application of knowledge management is essential. The knowledge in libraries resides in databases, knowledge bases, text bases, and World Wide Web. The effectiveness of libraries may be measured not only on the provision of needed information to their users but also on the knowledge about related resources, skills and technologies involved in it. Knowledge Management in libraries includes the following aspects:

7.1.1 Knowledge Innovation Management

It refers to the production, diffusion and transfer of knowledge as well as of the network systems constructed by related institutions and organizations. It includes three aspects, namely theoretical innovation management, technical innovation management and organizational innovation management knowledge.

Theoretical innovation management is to enrich and enlarge the theoretical and practical research fields of library and information science through pursuing the latest development trends in library science the world over. Technical innovation management is to manage the network systems constructed by institutions and organizations. In their evolution from conventional libraries to electronic or digital libraries; libraries should make technical progress and build up technical facilities to support knowledge management. Organizational innovation

management is to create a set of effective organizational management systems adaptable to the requirement in the electronic library era by optimizing the functional departments and operation procedures of libraries. In this system, it is required that leaders who take charge of knowledge management activities should undertake to formulate the management plans and coordinate all knowledge management related activities.

7.1.2 Knowledge Dissemination Management

Knowledge creators do not have much time and energy to look for knowledge users. Therefore, libraries may play the part of knowledge banks, use diverse media and channels to disseminate new knowledge. In the present time, the Internet, with its mass information and extensive contents will provide people with the main approach to searching knowledge and acquiring information. But there is emerged trend like absurd, salacious, false and uncivil information resulting from seeking for commercial profits and political objectives on the net. Therefore, it is necessary to strengthen knowledge dissemination management in libraries as follows:

- By creation and development of libraries own document and information resources.
- By raising the quality of libraries staffs through continuous education.
- By giving full play to the special role of the expert system in knowledge dissemination.
- By utilization of all media to ensure security of operation of networks, prevent onlinecriminal activities and online dissemination of inappropriate information.(Sheng,1999).

7.1.3 Knowledge Application Management

In the present century, libraries should also attach importance to provision of services for people to acquire knowledge and achieve maximum functions and efficiency of knowledge information. Therefore, knowledge services based on high speed information networks should be carried outby:

- Setting up virtual libraries or information centers for government, public sector organizations, scientific research institutions and educational institutes. Libraries can do this work according to their respective information requirements by using information resources on the high speed information networks.
- Setting up digitized knowledge services, which is actually a development trend of libraries in the present time, creating step by step the users oriented information service systems such as information service systems such as information dissemination, information search, special supply of information; quickening the creation of digitized libraries; studying the methods, means and techniques of information distribution and search with the internet as the base and Web technique as the core.

Digitizing libraries resources. The electronic libraries or digitized libraries are the technical modes and development trends of library in the knowledge economy era. The knowledge services of libraries in the future will start with creation of databases comprising electronic journals and e-books that can operate on high speed information networks. Great efforts should be made to transform all existing large non-electronic information resources into electronic information

7.2 ISSUES OF KNOWLEDGE MANAGEMENT

Knowledge management does present several significant professional issues to librarians. Perhaps the most profound is in the area of proactively and confidentiality. Librarians tend to resist being proactive, particularly if it means that any information about a user might become public. Circulation records are destroyed routinely. Librarians are reluctant to ask a person how he or she plans to use the information they make available. They decline to determine institutional affiliation before committing significant resources to answering a question. Knowledge management would capture and use all this information. It would look whether a book or article in an area he or she uses frequently is available. Knowledge management can use the context of use or to put the user in contact with another person who needs his or her skill or shares his or her interest. It would use institutional affiliation to both protect sensitive information and build alliances. For libraries, knowledge management raises important issues of intellectual freedom that must be addressed.

Academic librarians, like faculty, are not very accountable for their time or resources used. It is assumed that as individual professionals, librarians know best how to manage their time and resources. They may go days or weeks without considering how they are contributing to organizational goals. Given the traditional paucity of library support and the vast quantities they organize, librarians tend to sacrifice speed in their operations. Until recently, they tended to do all their work in like-minded groups. Knowledge management, on the other hand, is based on assumptions of strategic planning, the time value of information, and cross-functional teams. If librarians are to function as key players in knowledge management, some accommodation will have to occur on these functional issues. Finally, librarians as individuals usually seek the security of a stable organization. They look to the library to guide and support their development as individuals. Knowledge management organizational autonomy recently described by Peter

Drucker. To be successful collaborators, librarians will need to take a more independent and self-directed approach to their work within knowledge organizations.

7.3 SUMMARY

Library performs a central function in the educational process and in the development of the country. The library is essentially a service unit and its foundation lays on service ability towards users. Library work is an end product 66 Principles and Practices of Management of three basic functions – acquisition, organisation and service. The operations of libraries have become increasingly complex day-by-day because of the automation of libraries. These increasing organisational complexities make it extremely important for libraries to utilise management techniques for their operation and management. The management techniques are used in libraries with necessary modifications as libraries are non-profit and service oriented organisations. Librarians are library managers, they should have the knowledge of management concepts, theories and principles and their application in library situations. All social, technical and personnel skills are also required by library managers. The challenge in the present time is to nurture the libraries for posterity.

7.4 TECHNICAL TERMS

High Speed Information Networks
Electronic Libraries

7.5 SELF ASSESSMENT QUESTIONS

1. Discuss the Application of LICs-Knowledge Management.
2. Explain the issues of Knowledge Management in brief.

7.7 SUGGESTED READINGS

- Bavakutty, M., and M. Parmeswaran. Management of Libraries in 21st Century. New Delhi: Ess Ess, 2000. Print. Bryson, J. Effective Library and Information Centre Management.
- Aldershot: Gower, 1990. Print. Evans, G. Edward. Management Techniques for Librarians.
- Orlando: Academic press, 1983. Print. 68
- Principles and Practices of Management Khanna, J.K. Manual for Administering Academic Libraries. New Delhi: Beacon, 1997. Print.
- Krishna Kumar. Library Administration and Management. New Delhi: Vikas, 1987. Print. ---. Library Management in Electronic Environment. New Delhi:
- Har-Anand, 2007. Print. Krishnamurthy, R. Library Management. New Delhi: Commonwealth, 1997. Print.
- McClure, Charles R., and Alan R. Samuels. Strategies for Library Administration: Concept and Approaches. Colorado: Libraries Unlimited, 1982. Print.

LESSON- 8

MODELS OF KNOWLEDGE MANAGEMENT

AIMS AND OBJECTIVES

After reading this Unit, you will be able to understand:

- the evolution of the concept of Knowledge Management (KM);
- the practice of KM especially in enterprises;
- the strategies of KM in enterprises;
- tools and techniques, such as, data mining, text analysis, and text mining;
- facets of preparing knowledge products.

STRUCTURE

8.1 INTRODUCTION

Knowledge management is complex and multifaceted; it encompasses everything the organization does to make knowledge available to the business, such as embedding key information in systems and processes, applying incentives to motivate employees and forging alliances to infuse the business with new knowledge. Effective knowledge management requires a combination of many organizational elements—technology, human resource practices, organizational structure and culture—in order to ensure that the right knowledge is brought to bear at the right time.

Many libraries have implemented sophisticated intranets, common repositories and other systems, largely ignoring the complex cultural issues that influence the way people behave around knowledge. By and large, those libraries have seen little improvement in their ability to manage knowledge. Too often, companies implement state-of-the-art technology and then discover that culture and behavior are slow to change.

In short, simplistic solutions and "one-size-fits-all" approaches leave executives with little in the way of practical advice about how to transform the entire knowledge-management system. It is difficult for executives to see a clear link between their knowledge-management investments and business value.

To help libraries, a framework is needed that associates specific knowledge-management strategies with specific challenges that organizations face. This Knowledge Management Framework is based on the premise that the focus should be placed on the way knowledge is used to build the critical capabilities a library needs in order to succeed—on the core processes and activities that enable it to compete.

The framework begins by assessing and categorizing the way work is done in the core process. Work can be evaluated along two dimensions. First is the level of interdependence involved—that is, the degree to which individuals and organizations need to collaborate and interact. Second is the complexity of work involved—the degree to which employees needs to apply their judgment and interpret a variety of information. Using these two factors, the Institute has identified four distinct categories of work, or "work models":

8.1.1 Transaction model

In which there is a low degree of both interdependence and complexity. Work is typically routine, highly reliant on formal rules, procedures and training, and depends on a workforce that exercises little discretion. For example: Reference Service, Reference Librarian, Library Collection Database, user database, online interaction tools, Thesaurus, Feedback mechanism,etc.

8.1.2 Integration model

In which there is a high degree of interdependence and a low degree of complexity. Work is systematic and repeatable, relies on formal processes, methodologies and standards, and depends on tight integration across functional boundaries. For example: Book Shelving, Sorting etc.

8.1.3 Expert model

In which there is low interdependence and high complexity. Work requires judgment and is dependent on "star performers." For example: Marketing, Financial Management etc.

8.1.4 Collaboration model

In which there is a high degree of both interdependence and complexity. Work involves improvisation and learning by doing, and relies on deep expertise across functions and the useof flexible teams. For example R&D cell for new library service.

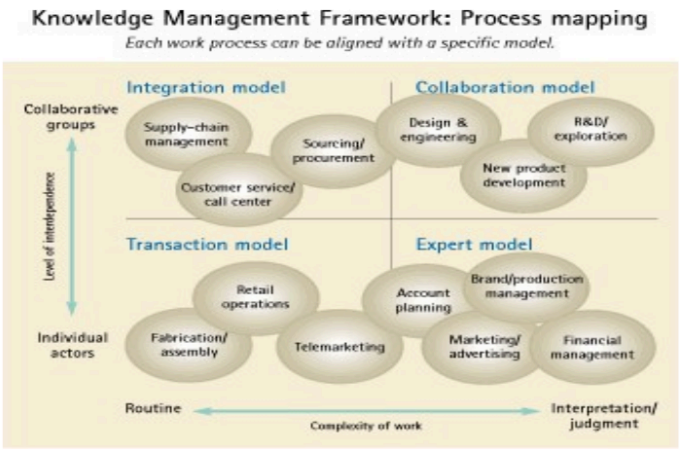

Fig. 1.3 Models of Knowledge Management

8.2 TOOLS OF KNOWLEDGE MANAGEMENT

Hoffman described the following technologies, which are being used for knowledgemanagement systems.

- Intranet /Extranet
- Groupware
- Electronic Document Management (EDM)
- Search Engines
- Data Mining
- Intelligent Agent (IA)
- Workflow Management System
- Data Analysis
- Data Warehousing
- Agent Technologies
- Helpdesk Technologies
- Machine Learning Computer-based Training
- Geographic Information Systems
- Meta Data/Meta-information/Profile Information
- Ontology

Intranet /Extranet

An internal network based on internet and World Wide Web technology, belonging to an organization, which is accessible by others with authorization. Like the internet itself, intranet is used to share information. Corporate can easily communicate, disseminate information and facilitate project collaboration with keeping out an unauthorized access.

Groupware

It is also known as 'workgroup productivity software' that helps groups of colleagues to organize their activities attached to a local area network. The groupware supports the operations like scheduling, resources allocating, e-mail, electric newsletters, and password protection for documents, file distribution, web navigation tools which ensure the collaborative activities of work groups.

Electronic Document Management (EDM)

Electronic Document Management (EDM) controls the life cycle of documents in an organization. An effective document management system ensures the finding, retrieving and sharing of information easily. It provides features at template creation to document authoring, reviewing, publishing, auditing and ultimately destroying and archiving. It promotes informationmining and KM activities.

Search Engines

A general class of program that searches documents for specified keywords and returns a list of the documents where the keywords were found. It enables users to search for documents on the WWW and Usenet newsgroups. Each search engine uses a proprietary algorithm to create indices resulting meaningful returned for each query. KM activities is largely benefited by this technological development.

Data Mining

Data mining is a class of database application that present data in new ways. It can also be used to predict future behavior of a group of data in the database. The presentation of data but also discover the previously unknown relationship among the data. It can help retails companies to gather knowledge by finding useful consumer data having common interests fromweb sites.

Intelligent Agents (IA)

An intelligent agent (IA) is software, extensively used on the web that performs tasks such as retrieving and delivering information and automating repetitive tasks. They are currently use as web browsers, news retrieval mechanisms, and shopping assistants, making searching internet, retrieving the results directly on the desktop, tracking web behavior: recording sites visit, downloading and tailoring sites as required and making user abreast about updateness offavorites sites etc.

Workflow Management System

Workflow is defined series of tasks within an organization to produce an outcome. A well-designed workgroup computing application allows knowledge workers to define workflows for different types of for a specific task at every stage in the workflow software ensures that the individual receive the data they need to execute their stage of the process. Data Analysis

Data analysis is a practice in which raw data is ordered and organized so that useful information can be extracted from it. The process of organizing and thinking about data is key to understanding what the data does and does not contain. There are a

variety of ways in which people can approach data analysis, and it is notoriously easy to manipulate data during the analysis phase to push certain conclusions or agendas. For this reason, it is important to pay attention when data analysis is presented, and to think critically about the data and the conclusions which were drawn.

Data Warehousing

Data warehouse is a collection of data designed to support management decision- making. It is also a reporting and query tools that store current and retrospective extracted from the various operational systems and consolidated foe management reporting analysis.

Agent Technologies

Agent-based approaches have been a source of technologies to a number of research areas, both theoretical and applied. These include distributed planning and decision-making, automated auction mechanisms, communication languages, coordination mechanisms, matchmaking architectures and algorithms, ontologies and information agents, negotiation, and learning mechanisms. Moreover, agent technologies have drawn from, and contributed to, a diverse range of academic disciplines, in the humanities, the sciences and the social sciences.

Helpdesk Technologies

Help Desk Technologies provide the foundation for an integrated, end-to-end approach to service management. Based on best practices, Help Desk automates the ability to submit, monitor, and manage help desk cases, change tasks, and asset inventory records.

Machine Learning Computer-based Training

Machine learning is a scientific discipline that is concerned with the design and development of algorithms that allow computers to evolve behaviors based on empirical data, such as from sensor data or databases. A learner can take advantage of examples (data) to capture characteristics of interest of their unknown underlying probability distribution. Data can be seen as examples that illustrate relations between observed variables. A major focus of machine learning research is to automatically learn to recognize complex patterns and make intelligent decisions based on data; the difficulty lies in the fact that the set of all possible behaviors given all possible inputs is too large to be covered by the set of observed examples (training data). Hence the learner must generalize from the given examples, so as to be able to produce a useful output in new cases. Artificial intelligence is a closely related field, as are probability theory and statistics, data mining, pattern recognition, adaptive control, computational neuroscience and theoretical computer science.

Geographic Information Systems

Geographic information systems (GIS) or geospatial information systems is a set of tools that captures, stores, analyzes, manages, and presents data that are linked to location(s). In the simplest terms, GIS is the merging of cartography, statistical analysis, and database technology. GIS systems are used in cartography, remote sensing, land surveying, public utility management, natural resource management, precision agriculture, photogrammetric, geography, urban planning, emergency

management, navigation, aerial video, and localized search engines.

Meta Data/Meta-information/Profile Information

Metadata is called data about data. Metadata describe how and when and by whom a particular set of data was collected, ad how the data is formatted. It has become increasingly important in knowledge base system applications. It is very essential for understanding information stored in data warehouses.

Ontology

An ontology is a formal representation of the knowledge by a set of concepts within a domain and the relationships between those concepts. It is used to reason about the propertiesof that domain, and may be used to describe the domain.

8.3 KNOWLEDGE BASED SYSTEMS

Knowledge based systems are artificial intelligent tools working in a narrow domain to provide intelligent decisions with justification. Knowledge is acquired and represented using various knowledge representation techniques rules, frames and scripts. The basic advantages offered by such system are documentation of knowledge, intelligent decision support, self learning, reasoning and explanation. (Akerkar RA and Sajja Priti Srinivas 2009).

Knowledge-based systems are systems based on the methods and techniques of Artificial Intelligence. Their core components are:

- knowledge base
- acquisition mechanisms
- inference mechanisms

Knowledge-Based Systems often called Expert Systems. The knowledge based system is contains "domain knowledge," normally provided by human experts is typically very specialized for a particular problem domain is often encoded as if-then rules may incorporate heuristics or probabilities is a valuable commodity.

Building, validating, and maintaining a knowledge base is a skill (art) called knowledgeengineering

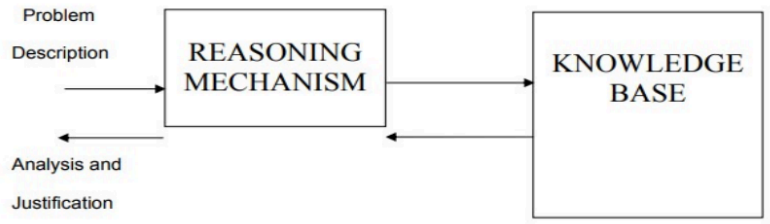

Fig.1.3 Overview of Expert System

An expert system is an artificial intelligence application that uses a knowledge base of human expertise to aid in solving problems. The degree of problem solving is based on the quality of the data and rules obtained from the human expert. Expert systems are designed to perform at a human expert level. In practice, they will perform both well below and well above that of an individual expert.

The expert system derives its answers by running the knowledge base through an inference engine, a software program that interacts with the user and processes the results fromthe rules and data in the knowledge base.

Expert systems are used in applications such as medical diagnosis, equipment repair, investment analysis, financial, estate and insurance planning, route scheduling for delivery vehicles, contract bidding, counseling for self-service customers, production control and training.

8.3.1 WHAT IS AN EXPERT SYSTEM?

Expert systems are computerized tools designed to enhance the quality and availability of knowledge required by decision makers in a wide range of industries. They augment conventional programs such as databases, word processors, and spreadsheet analysis.

Expert systems differ from conventional applications software in the following ways:

1. The expert system shell or interpreter.
2. The existence of a "knowledge base," or system of related concepts that enable thecomputer to approximate human judgment.
3. The sophistication of the user interface.

8.3.1.1 The Expert System Shell

While any conventional programming language can be used to build a knowledge base, the expert system shell simplifies the process of creating a knowledge base. It is the shell that actually processes the information entered by a user; relates it to the concepts contained in the knowledge base; and provides an assessment or solution for a particular problem. Thus, an expert system shell provides a layer between the user interface and computer operating system to manage the input and output of data. It also manipulates the information provided by the user in conjunction with the knowledge base to arrive at a particular conclusion. The structure of the shell is very similar to that of an interpreter or a front-end to a database program. The shell also manages the user interface, performing functions that range from the validation of numeric values entered on the screen to management of the mouse and the representation of graphical objects.

8.3.1.2 The Knowledge Base

The main purpose of the knowledge base is to provide the guts of the expert

system--the connections between ideas, concepts, and statistical probabilities that allow the reasoning part of the system to perform an accurate evaluation of a potential problem. Knowledge bases are traditionally described as large systems of "if then" statements, but this description is misleading because knowledge bases may not contain definitive rules at all, but may contain only associative relationships among different concepts, statistical information about the probability of certain solutions, or simply large databases of facts that can be compared to one another based on simple conventions intrinsic to the expert system.

8.3.1.3 The User Interface

For the last several years, interface designs for expert systems have hinged on graphical capabilities and unconventional methods of entering data into the system. Graphical interfaces can supply information in any number of forms: simple text "dressed up" in windows, pop-up menus, or actual graphical objects. Recently, many of those formats have been integrated into conventional applications, but they are of particular use in expert systems. An expert system may express an idea, solution, or explanation using more complex conventions than rows of numbers, pie charts, or brief messages.

8.3.1.4 The Operating System

The computer's operating system plays an important role in the implementation of an expert system. The operating system provides the basic capabilities of the machine to the expert system, including file management, some user interface support, memory management, and interfaces to other products that might be wanted to share information that is contained in the expert system. The operating system's resources and utilities may intrinsically provide needed capabilities (for example, graphic or mouse support and database management) that, therefore, ease the need for additional programming. In some cases, the operating system may even provide conventions for interfacing the expert system to other programs. The disadvantage of using the operating system's facilities is the limited control the developer has over the facilities and likely performance degradation. For example, in the PC environment, OS/2 and Presentation Manager provide much better interface support than DOS.

The purpose of the expert system is to enhance judgment on the part of the user, not to replace human judgment altogether. Expert systems can provide a relatively inexperienced userwith a lucid assessment of a problem where an expert is unavailable.

8.4 SUMMARY

Knowledge Management is a new field drawing on several disciplines, including library and information science. Knowledge management is not owned by any one group in a library, or by any one group in a library, or by any one profession. But if librarians and information specialists want to be key players in the phenomenon, they need to understand the multiple perspectives of the other players. Knowledge management requires a holistic and multidisciplinary approach to management processes and an understanding of the dimensions of knowledge work. Knowledge management should be the evolution of good management practices sensibly and

purposively applied.

How to manage knowledge will become an important subject facing libraries in near future. Knowledge management in libraries should be focused on effective research and development of knowledge, creation of knowledge bases, exchange and sharing of knowledge between library staffs including its users, training of library staff, speeding up explicit processing of the implicit knowledge and realizing of its sharing. Economic environment and information environment is changing quickly today. Since knowledge management has become a powerful tool for promoting innovation and realizing reengineering the various walks of life, it occupies very outstanding position in the creation of the knowledge innovation systems of a country. Hence it is very essential to focus on knowledge management systems in libraries and information centers by which the timely information service can be provided to the online user society.

Knowledge management enhances the organizations ability and capacity. It can be used in libraries to achieve organizational goals. Of course, promises and expectations are many, but the challenges and barriers are also not few. It is upto the individual institution and libraries how to cope with the situation and adopt pragmatic strategies and implement effective and efficient knowledge management in libraries. The main objective of library is to serve as an institution to nurture a knowledge society and to provide information free of cost or with minimum cost to promote reading and knowledge. Impact of IT and explosion of information all over the world poses problems before the libraries to fulfill the needs of the users according to their demand. So, it is necessary to restructure the traditional functions of libraries and implement the principles of knowledge management.

8.5 TECHNICAL TERMS

Knowledge: Knowledge is defined by the Oxford English Dictionary as

(i) expertise, and skills acquired by a person through experience or education; the theoretical or practical understanding of a subject;

(ii) (ii) what is known in a particular field or in total; facts andinformation; or

(iii) (iii) awareness or familiarity gained by experience of a fact or situation. Philosophical debates in general start with Plato's formulation of knowledge as "justified true belief." There is however no single agreed definition of knowledge presently, nor any prospect of one, and there remain numerous competing theories. Knowledge acquisition involves complex cognitive processes: perception, learning, communication, association and reasoning.

Management: Management in all business areas and organizational activities are the acts of getting people together to accomplish desired goals and objectives efficiently and effectively. Management comprises planning, organizing, staffing, leading or directing, and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a goal. Resourcing encompasses the deployment and manipulation of human resources, financial resources, technological resources, and natural resources.

Data: The term data refers to qualitative or quantitative attributes of a variable or set of variables. In other terms Data is a collection of facts, such as values or measurements. It can be numbers, words, measurements, observations or even just descriptions of things.

Information: Information is a human idea and thought. A human is the only living entity who possesses the knowledge and transmits it to the next generation. Necessity creates invention. When there is a need in the society, then it created research and investigation. New ideas, new concepts and new facts also come in the human mind, this is called information. In other words when the things and ideas interact between the knower and the knowee, the information 'arises'.

Tacit Knowledge: Tacit knowledge is unwritten, unspoken, and hidden vast storehouse of knowledge held by practically every normal human being, based on his or her emotions, experiences, insights, intuition, observations and internalized information. Tacit knowledge is integral to the entirety of a person's consciousness, is acquired largely through association with other people, and requires joint or shared activities to be imparted from on to another. Like the submerged part of an iceberg it constitutes the bulk of what one knows, and forms the underlying framework that makes explicit knowledge possible.

Explicit Knowledge: Explicit knowledge is an articulated knowledge, expressed and recorded as words, numbers, codes, mathematical and scientific formulae, and musical notations. Explicit knowledge is easy to communicate, store, and distribute and is the knowledge found in books, on the web, and other visual and oral means. Opposite of tacit knowledge.

Knowledge Acquisition: Knowledge acquisition is a method of learning, first proposed by Aristotle in his seminal work "Organon". Aristotle proposed that the mind at birth is a blank slate, or tabula rasa. As a blank slate it contains no knowledge of the objective, empirical universe, nor of itself.

Knowledge Base System: Knowledge based systems are artificial intelligent tools working in a narrow domain to provide intelligent decisions with justification. Knowledge is acquired and represented using various knowledge representation techniques rules, frames and scripts. The basic advantages offered by such system are documentation of knowledge, intelligent decision support, self learning, reasoning and explanation. (Akerkar RA and Sajja Priti Srinivas 2009).

8.6 SELF ASSESSMENT QUESTIONS

1. What are the Models of Knowledge Management? Explain.
2. List the tools of Knowledge Management.
3. Discuss the Knowledge Base Systems.
4. What is Expert System?

8.7 SUGGESTED READINGS

1. Drake, Meriam A. ed. (2003). Encyclopedia of Library and Information Science. Vol.2 New York: Marcel Dekker, p.1486.
2. Jewell, Elizabeth J, ed. (2001). The New Oxford American Dictionary. New York: OxfordUniversity Press, p.941.
3. Prytherch, Ray. (2005). Harold's Librarians' Glossary and Reference Book. England: Ashgate Publishing Limited, p.401.
4. Radebe, T. (2001). Challenges Facing Librarians and Information Workers in the Knowledge Age. Paper Presented at LIASA Conference on African Renaissance through libraries, Johannesburg, South Africa, September 24-28.
5. Shanhong, Tang (2000). Knowledge Management in Libraries in the 21st Century. In the 66th IFLA Council and General Conference, held at Jerusalem, Israel 13-18 Aug 2000.
6. Rowley, Jennifer. (1999). "What is Knowledge Management?" Library Management20, No. 8:p.416-419.
7. Awad, Elias M. Awad, Hassan M. Ghaziri (2004). Knowledge Management. New Delhi: Pearson Education India, p.27-28.
8. Rajeshwar Kumar, G and Indrasena Reddy, K. (2009). Knowledge Management in Academic Libraries: Challenges and Perspectives. International Conference on "Knowledge Networking in ICT Era" held during 23-24 Jan 2009 at Chennai, Tamil Nadu.Vol.I:p.243-250.
9. Davenport, Thomas H., Delong, D. W., and Beers, M. C. (1998). "Successful Knowledge Management Projects," Sloan Management Review39, No.2:p.43-57.
10. http://www.white-clouds.com/iclc/cliej/cll9lee.html
11. http://blog.searchenginewatch.com/blog/041111-084221
12. Lawrence, S. and Giles, C. L. (1999). "Accessibility of Information on the Web," Nature400:107-109.
13. Cohen, Suzanne and others, "Personalized Electronic Services in the Cornell University Libraries," D-Lib Magazine6, No.4:1-1. Available online from http:''www.dlib.org/april00/mistlebauer/04mistlebauer.html
14. http://www.accenture.com/Global/Research_and_Insights/Outlook/By_Alphabet/Knowle dgevalue.htm (22/10/10).
15. http://wiki.sla.org/display/SLAKM/Scope+Statement (22/10/10).
16. http://twb-dl.com/corporate/?p=48
17. http://archive.ifla.org/VII/s47/ (23/10/10).
18. http://www.cs.uga.edu/~potter/kbs/VaTechECE4522.4.pdf
19. http://www.ericdigests.org/pre-9220/expert.htm
20. http://foldoc.org/expert+system
21. http://en.wikipedia.org/wiki/Geographic_Information_Systems
22. http://en.wikipedia.org/wiki/Machine_learning
23. http://en.wikipedia.org/wiki/Knowledge-based_systems
24. http://www.daedalus.es/en/business-intelligence/knowledge-management/what-is-knowledge-management/

LESSON- 9

INFORMATION RESOURCE MANAGEMENT

AIMS AND OBJECTIVES

After the study of this lesson one can be able to grasp the idea about InformationResources Management (IRM).

Structure

9.1 INTRODUCTION: ISSUES & NATURE

Many far-reaching changes have occurred in the information arena. Arguably, most of these changes can be summarized in two words – technology and economics. The increasing number of microcomputers in the early 1980s followed by the growth of facsimile transmission and the advent of Internet have facilitated the delivery of

information and documents not just to the library, but to that most convenient of all locations. For nearly twenty years, the management of information in Academic institutions has been shaped by a vision of using computers and networks to integrate information management activities across all components of academic centers. Local and wide area data networks and computers that deliver high- speed real-time global communications; widespread consumer access to the internet; the restructuring of information management and financing; network-based library collections and services; the availability of digital research resources; national debate about ownership; confidentiality and research use of information; standards for the exchange of electronic information – these are some of the important features of today's information environment .

The information management challenge facing Academic Libraries today is two-fold. The first part is implementing a set of methodologies for managing the institution's knowledge store and allowing people to manipulate the knowledge store retrospectively and prospectively in real time for their own purposes. Secondly, Libraries need to build linkages from the institution's knowledge store to knowledge that is external. Despite the rapid development of global high-speed networks and the presence of technology-rich information infrastructures, the potential of academic centers to use these resources to extend the scope, reach and effect of their mission activities is not yet fully realized. There is a growing recognition that information, like other organizational resources (financial, material, and human), is a resource that needs to be managed to help organizations improve their productivity, competitiveness, and overall performance. The need for Information Resources Management (IRM) may not be new organizations, but such factors as the transition from an industrial to an information society and the development of various information technologies have triggered an increasing awareness of the potential importance of organizational IRM (Bergeron, 1996).

"Information resources management", the said term has been analysed critically from different angles. The study has been performed sharply and exhaustively which describes the conceptual framework of information as a resource, various components of information resources, information management and knowledge management, key concepts of information resources management, benefits of IRM strategy, tools and techniques for IRM.

The lesson also explains some important findings related to the IRM, such as: frequency of use of IRs, browsing of IRs, provision of information about new literature, provision of information regarding use of library, information about time period of binding of journals in libraries.

9.2 INFORMATION: A CONCEPT

Information is the outcome of the human mind which is known as knowledge. Information thus produced may be either abstract of concrete. It is also a message that can be transmitted by a transmitter to a receiver. Lack of proper, complete and authentic information seldom leads to disillusion and improper decision that bring serious threat to the various development plans. Hence, the importance of information as a resource has been recognized for centuries.

9.3 INFORMATION AS A RESOURCE

The concept of Information as a resource is quite new, especially, noting that information and the need for information have existed for a long time now (Madalli, 2002). Information, a self-regenerative resource, is a key economic element. It is a socio-economic product. Planners, policy-makers, R & D personnel, academicians etc. realize that it is an important resource for their day to day activities. It is an instrument of social change, a non-depleting resource, a commodity subject to economic analysis. Information, an invaluable resource, is being disseminated, transformed and communicated in a variety of environments. Modern understanding of information is linked to computerisation of information activities, new kinds of techniques, information processing, storing and transmitting technologies. Now information is approached as one of economic resources.

The term 'information resources' has successfully taken root, but its content is being very differently and freely interpreted by various sources. A concept of information resources is very wide and includes a number of aspects. Generally, all information is a resource with a final value established according to information quality criteria (novelty, reliability, precision, etc), potential and effectiveness of its application (Atkociunicne, 2001).

F.W.Horton in 1982 defined information resource as content (-information in a file/document) and as supporting tools (-infrastructure, personnel and capital investment). Further, Horton argued that treating information as resource means treating is as:-

Something of fundamental value, like money, capital goods, labour or raw materials;

Something with specifiable and measurable characteristics, such as method of collection, utilities and users, a life cycle pattern with different attributes at each stage, and interchangeability with other resources;

An input, which can be transferred into useful outputs that are beneficial to achieving theorganisation's goals;

An expense for which standard costs can be developed as cost accounting techniques can be used to monitor and control; and Something that presents to top management a varietyof development choices.

A modern library has to deal with various types of information resources. These includes conventional printed, non-printed, audio-visual resources and electronic resources viz. online database, Internet, E-books, E-journals, CD-ROMs, OPAC etc. Information resources can be categorized on the basis of their physical form, nature of presentation, content, levels of treatment etc. Broadly, information resources are of two kinds, namely, Documentary and Non-Documentary sources.

9.3.1 Documentary Sources:

A document embodies thought. It is a record of work on paper or other material for easy physical handling, transportation across space and preservation through time. A document may be a macro-document like book, monograph, thesis, report, etc. or a

micro-document like an article in a periodical. Documents have also been grouped as Conventional, Non-conventional, Neo-conventional, Meta documents, etc. Dr. Ranganathan has divided documents into four categories such as:

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(i) Conventional – Book, Periodical, Map etc.
(ii) Non-conventional – Standard, Patent, Data
etc.Neo-conventional – Micrographic, Audio-
Visual.
Meta-document – Direct record unmediated by human mind.

9.3.2 Non-Documentary Sources:

Non-documentary sources are institutional and human resources, both of which areimportant links in the information transfer chain.

Institutional Resources: Ministries of Government, Research Institutes, AcademicInstitutions, Research Bureaus etc.

9.3.3 Human Resources:

Colleagues in the organization;
Peers outside the organization;
Technological gatekeepers;
Guides, advisors, consultants;
and
Vendors, contractors, collaborators etc.

9.4 COMPONENTS OF INFORMATION RESOURCES

The concept "Information Resources" includes at least four different components. Theyare:-

1. Information content;
2. Information technology;
3. Information related personnel; and
4. Information related facilities (Gangatharan, 2004).

9.4.1 Information Content

It includes definitions, characteristics and uses of information.

9.4.2 Information Technology

Hardware and software are cited as the most common components of information technology resources. Hardware involves the equipment used to input and process data and useful information. Software is traditionally defined as systems

programs and software applications. As new information technologies are developed, organizations incorporate them into their operations; thus they become valuable resources forming part of the concept of information resources.

9.4.3 Information Related Personnel

The personnel involved in collecting, transmitting and working with information are valuable assets who should be managed as other components of information resources are managed. The types of personnel involved in information related facilities include technical staff, support staff, knowledge workers, information professionals and information supplier/vendors.

9.4.4 Information Related Facilities

A fourth component of information resources is the physical facilities (building, libraries, and computer centers) and information facilities (archives, communication centers and information centers) used.

9.5 INFORMATION MANAGEMENT AND INFORMATION RESOURCE MANAGEMENT

The term 'Information Management' is used ambiguously in the literature of several fields. A further difficulty in defining IM arises out of the often synonymous use of the term information resources management (IRM), the term used by the US National Commission on Federal Paperwork in its report (1977), where 'paper work' including electronic documents of all kinds was defined as constituting the information in IRM (Wilson, 2005).

Since information management is primarily concerned with effective storage and retrieval of documents, its scope always includes records retention practices. Another aspect of information management's domain is the integration of technologies/functions such as data processing, publications and printing. Such an activity widens the scope as does the view that information manager must direct and control all aspects of information handling: processing, storing and control over data file activities, records management and storage archives. The broader the domain of information management, the more synonymous it becomes with information resources management.

It is worth noting that the term 'Information Resources Management' has tended to be used by many American commentators, although the definition used is similar to that of 'Information Management' (Biswas and Kamila, 1998). Information Resources Management involves creation, acquisition, organization and dissemination of information or its resources. Hence knowledge management can be thought of as nothing else but, information management (or information resource management). Knowledge is what is documented by the authors. It then becomes information for the reader. This information when put into use for achieving some goal creates knowledge. Knowledge cannot be transferred or managed. Though certain kind of knowledge (e.g. – procedural knowledge like know-how) can be transferred as it is. Thus knowledge management is domain specific IRM (Joshi, 2002).

9.6 DEFINITIONS OF INFORMATION RESOURCES MANAGEMENT

Information Resource Management (IRM) is an idea whose time has come. While the notion has existed for more than a decade, recent developments in the world of information processing have made the concept and the philosophy underlying it not only viable but imperative. Interpreted literally, IRM suggests that data or information should be recognized as an entity independent of the technology that manipulates it. Further, it is seen as representing worth to its possessor. As such, it is recognized as a significant organizational resource in much the same way as people, machines, and capital are considered to be corporate resources. Therefore, like other resources, information should receive serious management attention.

It is important to define IRM and examine its scope for the proper understanding of the activities involved. There are various popular definitions, which, put together give a holistic picture. IRM is the management (planning, organization, operations and control) of the resources (human and physical) concerned with the systems support (development, enhancement and maintenance) and the servicing (processing, transformation, distribution, storage and retrieval) of information (data, text, voice, image) for an enterprise (Schneyman, 1985).

Forest W Horton, Jr. (1979), one of the leading experts in the area of IRM, begins his process of defining information resources management by viewing an IRM system as "a framework within which to accomplish the management of data resources in an orderly and systematic fashion". According to him, "resource management system includes all methods and procedures for collecting and processing information on a particular resource (i.e. men, money, machines, or what is germane to our subjects here, information itself) and formatting that data in a manner which is useful for management."

Probably the most comprehensive definition offered by Horton was the one published in his book 'Information resources management: harnessing information assets for productivity gains in the office, factory and laboratory (1985).' There he stated that IRM is, "a managerial discipline which views information as a resource equal to financial, physical, human, and natural resources. IRM addressed the efficient and effective handling of information resources (raw data) and the resulting information assets (knowledge)."

Another author, M.S.White (1982) defines IRM as "the process of efficiently and effectively identifying, acquiring, integrating and applying information resources to meet current and future information requirement." According to Burk and Horton (1988), information resources management is, "a management process in which traditional management processes and resource management principles are applied to the stewardship of an organization's information resources and assets." Roberts and Wilson (1987) regard IRM as, "the currently favoured concept linking managerial effectiveness and information acquisition and use." Another aspect in the definition of IRM is emphasized by Elizabeth Adams (1985). Her view is that, "IRM is a top management function to develop a set of policies, programs and procedures to efficiently and effectively plan, manage and control information requirements and supporting information handling resources." James M. Kerr (1991) in his book on information resources management defines IRM as, "the practice of managing information as a corporate asset." (Savic, 1992).

There are also many definitions in use for IRM, reflecting the various perspectives on the scope and impact of the information resource. One such IRM definition can be derived by breaking up the term "information resource management" into its component parts:

Information as something told or items of knowledge. Resource as a stock or supply that can be drawn on. Management as the professional administration of business concerns (Hoven, 2001).

IRM calls for management of information as a resource. This principle of IRM is impossible to define with any precision and attempts to do so have led to many unproductive discussions. But the concept is valuable nevertheless.

9.7 IRM: KEY CONCEPTS

The key concepts of IRM are:-

- Information handling occurs throughout the Organization;
- Information is a resource similar to other organizational resources;
- Information has dissimilarities to other organizational resources;
- Information management principles are evolving;
- Information about information resources or meta-data must be developed; and
- Policies on ownership, accountability and access must be established.

9.8 GOALS OF IRM

The main purpose of IRM is to provide quality and reliable information, also the right information, in the right place, in the right format at the right time. In IRM the followings are considered as main goals:

Treating information as a corporate asset, which must be properly utilized, in order to increase the profitability and strategic positioning of the firm?

Aligning information related planning to corporate strategic planning;

Extending the responsibility for managing information resources to all managementlevels and at all functional areas;

- Recognizing and encouraging the position of a Chief Information Officer;
- Unifying and integrating existing technologies in the company; and
- Exploring new information technologies and applications for the company (Gangatharan, 2004).

The goals of IRM presented in the Paperwork Reduction Act fell into seven major categories:

- Paperwork reduction;
- Data processing and telecommunications;Statistics;
- Records management;
- Information sharing and disclosure;
- Information policy and oversight; and
- Organization development and administration. (U.S.General Accounting Office, 1983).

9.9 CAUSES FOR INCEPTION OF IRM

The inception of information resources management was not just a mere coincidence. Itwas rather an outcome of a set of events which preceded and influenced its beginning. An analysis suggests that there are at least three events which, when combined together, triggeredthe inception of IRM. These main events are:-

- Information explosion;
- Proliferation of paper; and
- Extensive use of information handling technologies (Savic, 1992).

9.9.1 Information Explosion

Information explosion or 'information pollution' as F.W.Horton (1979) like to call it, is an important development of twentieth century which brought many changes to the way we perceive the world around us. Books, journals, newspapers, research reports, proceedings, and correspondence, as well as radio, telephone, television, computers, computer networks, online services, CD-ROMs, satellites, all contribute to the flood of information. This tremendous quantity of information unfortunately does not satisfy, on its own, our need for information, and does not solve our problems; in fact it brings some new challenges. The most implicit are economic storage, efficient retrieval, and effective use of such a mountain of information. There is an obvious need for a well organized retrieval system which will allow us to quickly find exactly what we want. Such a system has, therefore, to meet at least two objectives:

- to bring us the information that we are looking for, not something else instead; and
- to bring the required information fast, it has to be a time saving device which will be appealingand easy to use.

We need to have some management tool which will help us, not only to organize but also to select information. Computers might be a part of the answer to our question of how to store and retrieve information, but it still remains unclear as to what information we need to store. IRM imposed itself on us as the way out of this information explosion.

9.9.2 Proliferation of Paper

The second event which influenced the appearance of IRM is closely related to the above mentioned information explosion. It is the proliferation of paper; most information is still stored in paper form. "We have an obligation to direct our attention

to our own paper records. After all, about 95 percent of records are paper based" (Barber, 1990). Obviously IRM, with its objectives of economic sharing and pooling of information resources towards a common goal, comes as a way out of this paper tunnel.

9.9.3 Extensive Use of Information Handling Technologies

The third event which helped to bring about IRM was the extensive use of information handling technologies, mainly computers and telecommunications. In his book 'The Third Wave' Alvin Toffler (1980) suggested that the world will never be the same after the computer revolution. The computer technology offered an opportunity to reorganize our activities, such as the way we store, retrieve and process information. It was left to people to start exploiting this new opportunity. Management of information resources, using the great capabilities of computers to store, retrieve and process information, became the main topic for many researchers and information scientists (Savic, 1992).

9.10 SUMMARY

Whatever Information Management is, perhaps it is concerned with obtaining the best possible value for money from an organization's information resources. In other words, the buzz words in this context would be economy, efficiency and effectiveness in relation to the information or record life cycle – creation, communication, use, storage and disposal of information. To achieve the 3 Es, numerous tools and techniques, both conventional and non- conventional, have been developed. These include tools and techniques, such as, Information Technology, Standards, System Analysis, Work Analysis Techniques, Monitoring Techniques, Evaluation Techniques, Conventional Techniques of Classification, Cataloging etc. As a matter of fact, the entire lot of Management Techniques seems to be applicable to Information Management. Since these techniques have been widely discussed in library and information science literature and are well known to information professionals, details of these have not been given.

To conclude, as Best puts it "the field of Information Resources Management has never been more exciting than it is today; our pressing needs, the technologies (and techniques) available to us, and the demands of our business, Government and society as a whole present a challenge to us to find ways of satisfying demands for ever more relevant, up-to-date and accurate information at an economic cost. Whether we succeed or fail is up to us".

9.11 TECHNICAL TERMS

IRM : Information Resource Management

9.12 SELF AESSMENT QUESTIONS

1. Discuss how information is treated as a resource?
2. Discuss the various components of information resources.
3. What are the causes of inception of IRM?

4. What are the tools & techniques used for different types of IRM in libraries?

9.13 SUGGESTED READINGS

1. Adams, E. (1985). Information management: from strategies to action. *Aslib*, London. 29.
b. Atkociunicne, Z. (2001). Information resource management: manager of data; information and knowledge. *Swedish-Lithuanian seminar on information management research issues*, University College of Bords, Sweden, 21-22 September; 2003.1.(Unpublished).

1. Biswas, S.C. and Kamila, K. (1998). Information management in academic library environment: an appraisal. *National convention for automation of libraries in education and research (CALIBER-1998)*, Information and Library Network Centre, Ahmedabad and Department of Library and Information Science, Utkal University, Bhubaneswar, 5th, Bhubaneswar, 4-5 March 1998. INFLIBNET, Ahmedabad. Pp.14-18.
2. Brophy, P. (1986). Management information and decision support systems in libraries. Gower; England.
3. Burk, C.F. and Horton, F.W. (1988). InfoMap: a complete guide to discovering corporateinformation resources. Prentice Hall. 243.1.
4. Chaudhury, A.S. (1996). Exporting network information resources for collection development in libraries. *IFLA journal*, 22(1) : 191-198.
5. Cronin, B. (1985). Information management: from strategies to action. *Aslib*; London.
6. Horton, F.W. Jr.(1979) Information resources management : concepts and cases. Association for systems management; Cleveland, Ohio.
7. Horton, F.W. Jr (1982) Information management workbook: information resource management made simple. *In* Seetharama, S. Ed. Information management: tools and techniques. Information Management Press; Washington DC.
8. Hoven, J.V.d. (2001). Information resource management: foundation for knowledge management. *Information systems management,* 18(2) : 80.
9. Joshi, G. (2002). Information resource management on tea contributions of Tocklai : a case study. *Workshop on information resource management*, Documentation Research and Training Centre, Indian Statistical Institute, Bangalore and Online Computer Library Centre, Ohio, United States of America, 13-15 March. DRTC, Bangalore. AC. 1-10.
10. Kerr, J.M. (1991). The information resource management imperative. John Wiley and Sons; New York.
11. Lytle, R.H. (1986). Information resource management: 1981-1986. *ARIST*, 21 : 309- 336.
12. Madalli, D.P. (2002). Tracing developments in information resource management. *Workshop on information resource management*, Documentation Research and Training Centre, Indian Statistical Institute, Bangalore and Online Computer Library Centre, Ohio, United States of America, 13-15 March 2003.1. DRTC, Bangalore. AA.1-6.
13. Marchand, D.A. (1978). Information management in public organizations: defining a new resource management function. *The bureaucrat,* 7: 4-10.
14. Matheson, N.W. (1982). Academic information in the academic libraries center: roles for the library in information management. *Journal of medical education,* 57(10) (part-2).

15. Pandya, S.N. (2002). Change management in libraries. *ILA bulletin*, 38(2): 32-35.
16. Prasad, H.N. (1998). Information management in academic libraries – some observations. *National convention for automation of libraries in education and research (CALIBER-1998)*, Information and Library Network Centre, Ahmedabad and Department of Library and Information Science, Utkal University, Bhubaneswar, 5th, Bhubaneswar, 4-5 March 1998. INFLIBNET, Ahmedabad. pp. 9-13.1.
17. Rao, I.K.R. (1998). Information management: an overview. *National convention for automation of libraries in education and research (CALIBER-1998)*, Information and Library Network Centre, Ahmedabad and Department of Library and Information Science, Utkal University, Bhubaneswar, 5th, Bhubaneswar, 4-5 March 1998. INFLIBNET, Ahmedabad. Pp.1-8.
18. Rao, I.K.R. (2002). Issues and challenges in management of information resources. *Workshop on information resource management*, Documentation Research and Training Centre, Indian Statistical Institute, Bangalore and Online Computer Library Centre, Ohio, United States of America, 13-15 March 2003.1. DRTC, Bangalore. AD.1-13.1.
19. Roberts, N. and Wilson, T.D. (1987). Information resource management: a question ofattitudes. *International journal of information management, 7*(2): 67-75.
20. Sato, O. and Horiuchi, M. (1988). Information resource management as a coordinatingmechanism : a study in large Japanese firms. *Information and management*, 15.
21. Savic, D. (1992). Evolution of information resource management .*Journal of librarianshipand information science*, 24(3).
22. Schneyman, A.H. (1985). Organizing information resources. *Information managementreview.* Summer. Pp.35-45.
23. Toffler, A. (1980). The third wave. William Morrow; New York.
24. Trauth, E.M. (1989). The evolution of information resource management. *Informationand management,* 16(5): 257-268.
25. Vikers, P. (1985). Information management: setting a concept. *In* CRONIN (B), Ed.Information management: from strategies to action. *Aslib;* London. Pp.49-60.
26. Wilson, T.D. (2005). Information management.
27. Wikipedia

LESSON- 10

EVALUATION OF INFORMATION RESOURCE MANAGEMENT

AIMS AND OBJECTIVES

The aims and objectives of this lesson is to introduce the role of Evalution of Human Resource Management : After going through this lesson We should be able to:

- Define the term Information Resource Management
- Explain the purpose and functions of resource Management in general and also in the management of libraries and Information centers.
- Describe various channels of resource management evalution and effecting the process

Structure

10.1 EVOLUTION OF INFORMATION RESOURCES MANAGEMENT

Evolution of information resources management can be studied from still another perspective. That is, from the perspective of its relation with other concepts. The oncept has been with us for almost three decades. Numerous articles and monographs have been written about this interesting unconventional field of management, various aspects of IRM have been thoroughly studied. Many bits of gathered information were put together to form a corpus of knowledge which can be used today for any organized human activity in need of it. Still, in determining the very beginning of IRM and its evolutionary path, researchers are dealing with uncertainty and they are facing the dilemma of which research approach to adopt, which way togo.

Different possibilities for studying the evolution of information resources management are available and the choice is left entirely with researchers. Whether they want it or not, the repositories can include a spectrum of different approaches based on various points of interest which could be regarded as more important or of greater interest at a given moment. Each approach can bring a different perspective and shed new light on the evolution of IRM. However, only a comprehensive use of most of the available and applicable approaches can secure a valid and long lasting result.

While all discussions of IRM intellectually recognize that information is a valuable resource, there is wide variation in opinion as to how this philosophy should be operationalized. By tracing the origins and evolution of IRM, it can be observed that the seeds of IRM were planted in three separate disciplines :

- data base management;
- records management; and
- data processing management.

Once combined, they formed a well conceived system in which records management offered general guidelines, principles and practice in regard to the object of management i.e. information and documentation. Data management contributed the knowledge of the tools to be used, such as computers and other information technology devices. It also helped with reshaping the methodological requirements for automated management of information resources. Information management played a critical role in bringing a new dimension to the whole concept, by regarding information as a resource, similar to any other previously known resource, such as financial, human, equipment or other resources.

10.2 BENEFITS OF IMPLEMENTING AN IRM STRATEGY

If we follow the above strategies we can get the following benefits.

a. Identifies gaps and duplication of information.
b. Clarifies roles and responsibilities of owners and users of information.
c. Provides costs savings in the procurement and handling of information.
d. Identifies cost/benefits of different information resources.
e. Actively supports management decision process with quality information (Gangatharan,2004).

10.3 FUTURE ISSUES FOR IRM

The success of IRM in the future will increasingly depend upon an organization's ability to shift its management focus from the information professionals to the growing body of end users. The objective will be to achieve the benefits of end-user computing without losing the level of consistency and integrity that information managers have worked so hard to establish.

Joseph Ferreira and Philip R Harris (1985) see the changing roles of IRM professionals as the main issue in its further development. To assume leadership role, IRM professionals should redefine their functions in order to cover the following responsibilities:-

Information resource architects (which information processing and exchange activities need to be automated);

Information resource consultants (listen to clients, analyze their problems, and assess their computer literacy);

Information resource synergists (get various entities within a corporation to shareinformation); and Information resource education.

Osamu Sato and M Horiuchi in their study of IRM in large Japanese firms (1988) came to a conclusion that co-ordination between the information system (IS) department and information users are one of the important IRM functions which deserves greater attention.

10.4 TOOLS AND TECHNIQUES FOR DIFFERENT TYPES OF IRM: AN OVERVIEW

While the need for effective IRM within an institution is not new, two major trends, however, have come together to create an unprecedented awareness of the importance of information. Firstly, the growing complexity of organizational structures and operations, and secondly the impact of computing and communications technologies (collectively called IT) on work functions and patterns. Consequently, the managerial spotlight is now on information processing and information resources handling within the organizational framework (Lewis, 1985).

The question then is not What IRM but How IRM? The answer lies in the various tools and techniques available to the library and information profession, some of which are discussedbelow.

10.4.1 Information Technology

The field of librarianship and information science has undergone a sea change during the past three decades, due to the impact of information technology on the generation, processing, storage, retrieval and dissemination/transmission of information.

In addition, the advantages of IT which include : accommodation of increased workload, achievement of greater efficiency, ability for generation of new services, facilitating cooperation etc. stand in good stead in the quest for quality and productivity of L & I sources and services.

This newly introduced technology essentially based on electronics seems to be gradually replacing the conventional tools in information activities as it is amenable to integration unlike the latter. In other words, IT facilitates both manipulation and synthesis of information.

At this junction, perhaps, a listing of advances/key technologies which the market has identified as the necessary foundations on which to build an information revolution will be in order.

Information Technology Components of the New Information Age:
Invention of the Mainframe Computers acting as the first information repositories.*Invention of the Minicomputer.*
Word Processor which appeared as a special hardware quickly disappeared to be embodied inPC software for Word Processing and Desktop Publishing.

Personal Computer (PC).

Development of Computer Network and linking of PCs and Workstations to a central machine.

Development of LAN, linking individual groups of PCs together often with a minicomputer as ashared repository.

Development of WAN via satellite or landline, linking users in one network with informationstored on a remote machine or with users on that network.

Creation of Optical Storage Device capable of mass storage of text and document images(Portable on-line libraries).

Creation of Document Scanning Technology (Electronic Microfilm).

Invention of CD-ROM which is becoming the dominant distribution medium for all documents/information for a wide audience.

Invention of OCR and Intelligent Character Recognition for converting older and incomingdocuments into a medium which can be understood and indexed by computers.

Invention of Optical Juke Box for storing vast image and document libraries.

Emergence of Relational Databases making separation of data and program a reality andmaking classes of information 'stored once' reusable in many applications.

Creation of Client Server *Computing making separation of the interface from the* centralinformation repository encouraging shared data and collaboration.
Evolution of Massive Parallel Processing.

Invention of Text Retrieval techniques/methods opening up the potential for content basedsearching of unstructured information key to unlocking the value of documents.
Creation of Electronic Mail Systems for providing much more than messages between peopleand for moving information around efficiently.

Creation of Electronic Workflow and Document Routing, removing the need for serialprocessing of documents and freeing us from the wait state which reliance on paper imposes.

Creation of Electronic Document Viewing Technology (the means by which one could eliminatepaper from the equation much of the time).

Emergence of UNIX and Windows NT (possibly the nearest we shall ever get to a universaloperating system).

Emergence and domination of MICROSOFT Windows as a generic PC-based user interface.

Invention of Object Databases and Document Markup Standards.

Speech Recognition Technology to make data input just a matter of speaking into a machine,the end of the keyboard eventually.

From the above, one can recognize the role of IT as a tool in IM. Further, comprehensive treatment of the application of IT for various library housekeeping operations such as acquisitions, classification, cataloging, circulation, stock taking, serials control, etc. can be found in library literature and hence not discussed here. The role of networks, especially the arrival on the scene of INTERNET has completely revolutionized the entire gamut of activities that constitute library and IM, be it Collection Management, Information Services Management, Document Delivery Services (electronic) etc. However, some of the crucial issues that need to be addressed in a network environment include copyright management, standardization, training and education, as these would facilitate effective utilization of valuable resources and power tools available on networks.

10.4.2 Standards

Standards may be considered as important tools in IRM. For example, Indian Standards Institution (now called Bureau of Indian Standards) has developed and published a number of Indian standards for documentation pertaining to bibliographical reference, book binding, books and periodicals, cataloguing, classification, library and archives building, furniture, lighting, microfilms, proof corrections, typography etc. In addition, a number of institutions and individuals have formulated library standards, both official and non-official, useful in the planning and management of libraries and information centres. Similarly, British, European and International Standards for quality systems have been developed and if implemented successfully would lead to improved quality, reduced production cost, and enhanced ability to demonstrate credibility to the potential customers.

On the other hand, advent of computer communication facilities and their use in development of bibliographical databases has raised the hope of developing an Universal Bibliographic System through the cooperation of several national and international organizations. Consequently, standardized machine readable bibliographic formats like USMARC, UKMARC, UNIMARC, CCF, and ISO-2709, the international standard format for bibliographic information interchange on

magnetic tape were developed. The CCF record structure as a basis for exchange format is also being used in its logical aspects for formatting of bibliographic data sent online and stored on other media such as floppies and CD-ROM.

10.4.3 System Analysis

System Analysis (SA), a tool for IM, has proved invaluable in analyzing complex organizations and solving problems resulting from organizations in conflict with an environment dominated by change and the uncertainty that inevitably accompanies change. But its use in library and information environments has been limited. Increasingly, however, in recent times libraries are becoming aware of its potential usefulness to analyze and solve the problems.

10.4.4 Bibliometrics

While British Standards Institution has defined Bibliometrics as "the study of the use of documents and patterns of publication in which mathematical and statistical methods have been applied", Sengupta defines it as "the organization, classification and quantitative evaluation of publication patterns of all macro and micro communication along with their authorships by mathematical and statistical calculus". It is a quantitative science and is divided into Descriptive bibliometrics (productivity count) and Evaluative bibliometrics (literature usage count). The techniques of bibliometrics have extensive applications equally in sociological studies of science, information management, librarianship, history of science including science policy, study of science and scientists etc.

10.4.5 Work Analysis Techniques

In managerial work, it is essential to analyze operations step-by-step as this would facilitate efficiency and effectiveness of the operations. Several standard techniques have been developed to aid this type of work analysis. Some of the techniques of work analysis which will be useful for IM situations are Block Diagram, Flow Diagram, Flow Process Chart, Decision Flow Chart, Operations Analysis, Form Analysis, Man-Machine Charts, Other techniques of work analysis include Multiple Activity or GANTT, Chart, Micromotion etc.

10.4.6 Monitoring Techniques and Controlling

While controlling usually refers to checking, verifying, testing, reputing, exercising restrain or directing influence in order to successfully carry out a management process, monitoring involves looking for faults, performing of duty, giving advice and instructions and exercising caution.

A monitoring technique is a time negotiated procedure on how allowed resources will be committed in achieving objectives. It is a guideline, a tool or an aid. The best techniques are those that are not rigid as they have provisions for adjustments as future events become known. These include :

Operations Research (OR),
Management Information System

(MIS),Management By Objectives
(MBO), Network Analysis, and
Other Monitoring Techniques etc

10.4.7 Evaluation Techniques

Evaluation of any service, process or activity in management usually refers to "determining its worth" or "assessment, valuation, appraisal, criticism, review, calculation, measurement" or need to know closely the utility. Evaluation, thus is a matter of comparison of actual results, not only with anticipated results, but also with external standards, in the light of existing institutional realities which may be relevant to evaluating the future trajectory of the program or service and provide an objective basis for decision making. Some of the basic techniques which are applicable for evaluation process are:-

Performance Measurement – helps us to decide how well the information system, service or resource is operating, compared with some theoretical maximum. Some of the performance measures are cost benefit analysis measures, decision analysis, etc. Two measures of great importance to ascertain the effectiveness of information retrieval are: Recalland Precision.

Performance Evaluation – is an assessment of how well a system or service is working, according to some previously decided measure. Two sorts of measures can be used for performance evaluation – INPUT measures investigate from the viewpoint of its operators and look at the resources invested and how they are deployed, OUTPUT measures try to look at customer satisfaction and the extent to which the service is succeeding in its objectives.

Cost-Effectiveness Analysis – is the relationship between the level of performance (effectiveness) and the costs involved in achieving this level.

Cost-Benefit Analysis – refers to the relationship between the benefits of a particular product or service and the costs of providing it.

Bibliometrics – is the application of various statistical analyses to study patterns of authorship, publication and literature use. Bibliometric techniques can be used for various purposes in libraries. They can be applied successfully as evaluation techniques. For example, to evaluate journal collection, evaluate productivity of institutions and individuals, etc.

10.4.8 Conventional Techniques

It may not be out of place to mention that librarians were the first people to bring some discipline and order to IM with their classification and cataloging schemes (Cronin, 1985). However, sometimes it is argued that with automation of information retrieval it is possible to dispense with traditional methodologies/techniques for organizing information, in particular classification. The strongest counter argument to this is that classification underlies all thinking, thus is would be prima facie surprising if it found no place in online systems of the future. Svenonius (1983, 1991) has identified some uses of classification in online retrieval systems.

However, classification has such an important place in online systems that we should prepare for a resurgence of interest in both its theory and practice. A similar line of thinking can be seen in the work of Stephen Walker (1991), Liu and Svenanius (1991), Nohr (1991), Watanabe (1994) who have used classification techniques in the context of OPAC searching.

Similarly, Library of Congress Subject Headings List, Rules for Subject Cataloging, Thesauarus, and Keyword Indexing has been used for subject search and retrieval in OPACs. To state that classification has a role in information management would be to state the obvious.
It may be in relation to the user's interest profile construction, document profile construction, arrangement and presentation of information, database creation etc. Neelameghan (1992) has shown how Normative Principles of Classification are useful in designing of a database. According to him, they are useful in all the three planes of work.

It has also been shown by Seetharama (1992) that classification has a role in the generation of information services and products, especially in the arrangement of ideas in information consolidation products. In the context of bibliographic description (cataloging) of documents, the role played by AACR and CCC in the development of machine readable bibliographic record formats – US MARC, UK MARC, UNI MARC, CCF etc – is well known.

10.5 ELECTRONIC RESOURCE MANAGEMENT

Electronic resource management (ERM) is the practices and software systems used by libraries to keep track of important information about electronic information resources, especially internet-based resources such as electronic journals, databases, and electronic books. The development of ERM became necessary in the early 2000s as it became clear that traditional library catalogs and integrated library systems were not designed to handle metadata for resources as mutable as many online products are.

The idea of developing electronic resource management systems emerged in 2001- 2002, growing out of research by Tim Jewell at the University of Washington. The Digital Library Federation and NISO began work in May 2002 to develop standards for ERM data.[1] These standards were published in the 2004 as *Electronic Resource Management: Report of the DLF ERM Initiative*. Since the publication of the report, several vendors of integrated library systemshave released ERM products.

Features of systems

Features of some ERM systems include:

- Supporting acquisition and management of licensed e-resources
- May be integrated into other library system modules or may be a standalone systemMay have a public interface, either separate or integrated into the OPAC
- Providing descriptions of resources at the package (database) level and relate packagecontents (e.g. e-journals) to the package record
- Encoding and perhaps publicly displaying licensed rights such as e-reserves,

coursepacks, and interlibrary loan
Tracking electronic resources from point of order through licensing and final access Providing information about the data providers, consortia arrangements, access platformProviding contact information for all content providers
Logging problems with resources and providers
Providing customizable e-mail alerting systems (e.g. notices to managers when actionsare expected or required)
Linking license documents to resource records
Supports retrieval of SUSHI usage statistics

Examples of products

Commercial
Several library automation companies have developed ERM products, including several with generic-sounding names for specific commercial products. Some commercial systems include:
ERM as a Service from Swets Information Services
ERM Essentials from EBSCO, EBSCO Information ServicesMillennium from Innovative Interfaces, Inc.
ERMS from SirsiDynix, developed by Serials Solutions

Open-source

Some open-source ERM systems also exist, including:
CORAL from University of Notre DameCUFTS from Simon Fraser University
ERMes from University of Wisconsin–La Crosse

10.6 DIGITAL ELECTRONIC RESOURCES MANAGEMENT

Digital resources management is a process consisting of collection development, information management and digital asset management. The development of digital collections should be guided by the same principles as the development of any other library collection, those of meeting the needs of the perceived user base and of acquiring materials that might be valuable to the users of the future. In general, there are 3 different ways through which digital collections are acquired.

10.6.1 Digitizing own collection

Libraries are forced to establish a content creation section that can consist of both multimedia and scanning units. To digitize any document, the basic requirement is the need to have a suitable scanner & software like OCR. Multimedia section can also go together for adding visual and sound information. Digitized information must be clearly identified, properly indexed and well organized for archival and dissemination.

10.6.2 Acquiring or licensing from Publishers

Digital resources could be in the form of databases and even full text. They could be purchased / subscribed from the vendors or publishers. These resources may be offered to library in one of the following models

- Single user
- Site License
- Consortia

The usage based pricing concept, which defines the price based on the amount of usage by the patrons, is the emerging one. Whatever be the model, the continued access and support from the publishers are the key factors to be considered while subscribing

10.6.3 Creating resources from World Wide Web (Free Resources)

The web has a very large content and continues to grow exponentially. The content from the web could be a good resource to library. There are many free resources available from Internet like free e-journals, databases, bibliographic and full text contents. Using search engines or web crawlers, the required information can be filtered and classified to make subjectspecific portal.

10.6.4 Metadata Management

Metadata is one of the important concepts for the description, organization, exchange and retrieval of information in a networked environment. It is one of the critical components of digital resource development and use, and is needed at all stages in the creation and management of resources. Well formed metadata is the most efficient and effective tool for managing and finding objects in the complex information spaces. Information resources must be made visible in a way that allows people to tell whether the resources are likely to be useful to them. This is no less important in the online world, and in particular, the World Wide Web. Metadata is a systematic method for describing resources and thereby improving access to them. If a resource is worth making available, then it is worth describing it with metadata, so as to maximize the ability to locate it.

10.7 SUMMARY

Whatever Information Management is, perhaps it is concerned with obtaining the best possible value for money from an organization's information resources. In other words, the buzz words in this context would be economy, efficiency and effectiveness in relation to the information or record life cycle – creation, communication, use, storage and disposal of information. To achieve the 3 Es, numerous tools and techniques, both conventional and non- conventional, have been developed. These include tools and techniques, such as, Information Technology, Standards, System Analysis, Work Analysis Techniques, Monitoring Techniques, Evaluation Techniques, Conventional Techniques of Classification, Cataloging etc. As a matter of fact, the entire lot of Management Techniques seems to be applicable to Information Management. Since these techniques have been widely discussed in library and information science literature and are well known to information professionals, details of these have not been given.

To conclude, as Best puts it "the field of Information Resources Management has never been more exciting than it is today; our pressing needs, the technologies (and

techniques) available to us, and the demands of our business, Government and society as a whole present a challenge to us to find ways of satisfying demands for ever more relevant, up-to-date and accurate information at an economic cost. Whether we succeed or fail is up to us".

10.8 TECHNICAL TERMS

PC : Personal Computer

OR : Operations Research

MBO : Management by Objectives

ERM : Electronic Resource Management

10.9 SELF ASSESSMENT QUESTIONS

1. Discuss how information is treated as a resource?
2. Discuss the various components of information resources.
3. What are the causes of inception of IRM?
4. What are the tools & techniques used for different types of IRM in libraries?

10.10 SUGGESTED READINGS

1. Adams, E. (1985). Information management: from strategies to action. *Aslib*, London. 29.
2. Atkociunicne, Z. (2001). Information resource management: manager of data; information and knowledge. *Swedish-Lithuanian seminar on information management research issues*, University College of Bords, Sweden, 21-22 September; 2003.2.(Unpublished).
3. Biswas, S.C. and Kamila, K. (1998). Information management in academic library environment: an appraisal. *National convention for automation of libraries in education and research (CALIBER-1998)*, Information and Library Network Centre, Ahmedabad and Department of Library and Information Science, Utkal University, Bhubaneswar, 5th, Bhubaneswar, 4-5 March 1998. INFLIBNET, Ahmedabad. Pp.14-18.
4. Brophy, P. (1986). Management information and decision support systems in libraries. Gower; England.
5. Burk, C.F. and Horton, F.W. (1988). InfoMap: a complete guide to discovering corporateinformation resources. Prentice Hall. 243.2.
6. Chaudhury, A.S. (1996). Exporting network information resources for collection development in libraries. *IFLA journal*, 22(1) : 191-198.
7. Cronin, B. (1985). Information management: from strategies to action. *Aslib*; London.
8. Horton, F.W. Jr.(1979) Information resources management : concepts and cases. Association for systems management; Cleveland, Ohio.
9. Horton, F.W. Jr (1982) Information management workbook: information resource management made simple. *In* Seetharama, S. Ed. Information management: tools and techniques. Information Management Press; Washington DC.
10. Hoven, J.V.d. (2001). Information resource management: foundation for knowledge management. *Information systems management,* 18(2) : 80.
11. Joshi, G. (2002). Information resource management on tea contributions of

Tocklai : a case study. *Workshop on information resource management*, Documentation Research and Training Centre, Indian Statistical Institute, Bangalore and Online Computer Library Centre, Ohio, United States of America, 13-15 March. DRTC, Bangalore. AC. 1-10.

12. Kerr, J.M. (1991). The information resource management imperative. John Wiley and Sons; New York.
13. Lytle, R.H. (1986). Information resource management: 1981-1986. *ARIST*, 21 : 309- 336.
14. Madalli, D.P. (2002). Tracing developments in information resource management. *Workshop on information resource management*, Documentation Research and Training Centre, Indian Statistical Institute, Bangalore and Online Computer Library Centre, Ohio, United States of America, 13-15 March 2003.2. DRTC, Bangalore. AA.1-6.
15. Marchand, D.A. (1978). Information management in public organizations: defining a new resource management function. *The bureaucrat,* 7: 4-10.
16. Matheson, N.W. (1982). Academic information in the academic libraries center: roles for the library in information management. *Journal of medical education,* 57(10) (part-2).
17. Prasad, H.N. (1998). Information management in academic libraries – some observations. *National convention for automation of libraries in education and research (CALIBER-1998)*, Information and Library Network Centre, Ahmedabad and Department of Library and Information Science, Utkal University, Bhubaneswar, 5th, Bhubaneswar, 4- 5 March 1998. INFLIBNET, Ahmedabad. pp. 9-13.2.
18. Rao, I.K.R. (1998). Information management: an overview. *National convention for automation of libraries in education and research (CALIBER-1998)*, Information and Library Network Centre, Ahmedabad and Department of Library and Information Science, Utkal University, Bhubaneswar, 5th, Bhubaneswar, 4-5 March 1998. INFLIBNET, Ahmedabad. Pp.1-8.
19. Rao, I.K.R. (2002). Issues and challenges in management of information resources. *Workshop on information resource management*, Documentation Research and Training Centre, Indian Statistical Institute, Bangalore and Online Computer Library Centre, Ohio, United States of America, 13-15 March 2003.2. DRTC, Bangalore. AD.1-13.2.
20. Roberts, N. and Wilson, T.D. (1987). Information resource management: a question of attitudes. *International journal of information management, 7*(2): 67-75.
21. Sato, O. and Horiuchi, M. (1988). Information resource management as a coordinating mechanism : a study in large Japanese firms. *Information and management*, 15.
22. Savic, D. (1992). Evolution of information resource management .*Journal of librarianshipand information science*, 24(3).
23. Schneyman, A.H. (1985). Organizing information resources. *Information management review.* Summer. Pp.35-45.
24. Toffler, A. (1980). The third wave. William Morrow; New York.
25. Trauth, E.M. (1989). The evolution of information resource management. *Informationand management,* 16(5): 257-268.

LESSON- 11

HUMAN RESOURCE MANAGEMENT

AIMS AND OBJECTIVES

After studying this chapter, students should be able to understand:

- Ideas of Human Resource Management
- Concepts of people working together
- Organizations and human behavior
- Information professionals' behavior

Structure

11.1 INTRODUCTION

Human Resource Management (HRM) is the term used to describe formal systems devised for the management of people within an organization. These human resources responsibilities are generally divided into three major areas of management: staffing, employee compensation, and defining/designing work. Essentially, the purpose of HRM is to maximize the productivity of an organization by optimizing the effectiveness of its employees. This mandate is unlikely to change in any fundamental way, despite the ever-increasing pace of change in the business world. As Edward L. Gubman observed in the *Journal of Business Strategy,* "the basic mission of human resources will always be to acquire, develop, and retain talent; align the workforce with the business; and be an excellent contributor to the business. Those three challenges will never change."

11.2 PRINCIPLES OF HUMAN RESOURCE MANAGEMENT

Library experts note that modern human resource management is guided by several overriding principles. Perhaps the paramount principle is a simple recognition that human resources are the most important assets of an organization; library business cannot be successful without effectively managing this resource. Another important principle, articulated by Michael Armstrong in his book *A Handbook of Human Resource Management,* is that business success "is most likely to be achieved if the personnel policies and procedures of the enterprise are closely linked with, and make a major contribution to, the achievement of corporate objectives and strategic plans." A third guiding principle, similar in scope, holds that it is HR's responsibility to find, secure, guide, and develop employees whose talents and desires are compatible with the operating needs and future goals of the company. Other HRM factors that shape corporate culture—whether by encouraging integration and cooperation across the company, instituting quantitative performance measurements, or taking some other action—are also commonly cited as key components in business success. HRM, summarized Armstrong, "is a strategic approach to the acquisition, motivation, development and management of the organization's human resources. It is devoted to shaping an appropriate corporate culture, and introducing programs which reflect and support the core values of the enterprise and ensure itssuccess."

11.3 HUMAN RESOURCE MANAGEMENT DEPARTMENT

Human resource management department responsibilities can be broadly classified by individual, organizational, and career areas. Individual management entails helping employees identify their strengths and weaknesses; correct their shortcomings; and make their best contribution to the enterprise. These duties are carried out through a variety of activities such as performance reviews, training, and testing. Organizational development, meanwhile, focuses on fostering a successful system that maximizes human (and other) resources as part of larger business strategies. This important duty also includes the creation and maintenance of a change program, which allows the organization to respond to evolving outside and internal influences. The third responsibility, career development, entails matching individuals with the most suitable jobs and career paths within the organization.

Human resource management functions are ideally positioned near the theoretic center of the organization, with access to all the activities of the library. Since the HRM department or manager is charged with managing the productivity and development of workers at all levels, human resource personnel should have access to—and the support of—key decision makers. In addition, the HRM department should be situated in such a way that it is able to effectively communicate with all sections of the library

11.4 HUMAN RESOURCE MANAGEMENT—KEY RESPONSIBILITIES

Human resource management is concerned with the development of both individuals and the organization in which they operate. HRM, then, is engaged not only in securing and developing the talents of individual staff members, but also in implementing programs that enhance communication and cooperation between those individual staffs in order to nurture organizational development.

The primary responsibilities associated with human resource management include: job analysis and staffing, organization and utilization of work force, measurement and appraisal of work force performance, implementation of reward systems for employees, professional development of workers, and maintenance of work force.

11.4.1 Job analysis

Job analysis consists of determining—often with the help of other company areas— the nature and responsibilities of various employment positions. This can encompass determination of the skills and experiences necessary to adequately perform in a position, identification of job and industry trends, and anticipation of future employment levels and skill requirements. "Job analysis is the cornerstone of HRM practice in a library, because it provides valid information about jobs that is used to hire and promote people, establish wages, determine training needs, and make other important HRM decisions," stated Thomas S. Bateman and Carl
P. Zenithal in *Management: Function and Strategy*. Staffing, meanwhile, is the actual process of managing the flow of personnel into, within (through transfers and promotions), and out of an organization. Once the recruiting part of the staffing process has been completed, selection is accomplished through job postings, interviews, reference checks, testing, and other tools.

11.4.2 Organization, Utilization and Maintenance

Organization, utilization, and maintenance of a library's work force is another key function of HRM. This involves designing an organizational framework that makes maximum use of an enterprise's human resources and establishing systems of communication that help the organization operate in a unified manner. Other responsibilities in this area include safety and health and worker-management relations. Human resource maintenance activities related to safety and health usually entail compliance with laws that protect employees from hazards in the workplace. These regulations are handed down from several agencies, including the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA), and various state agencies, which implement laws in the realms of worker's compensation, employee protection, and other areas. Maintenance tasks related to worker- management relations primarily entail: working with labor unions; handling grievances related to misconduct, such as theft or sexual harassment; and devising communication systems to foster cooperation and a shared sense of mission among employees.

11.4.3 Performance Appraisal

Performance appraisal is the practice of assessing employee job performance and providing feedback to those employees about both positive and negative aspects of their performance. Performance measurements are very important both for the organization and the individual, for they are the primary data used in determining salary increases, promotions, and, in the case of library staff who perform unsatisfactorily, dismissal.

11.4.4 Reward Systems

Reward systems are typically managed by HR areas as well. This aspect of human resource management is very important, for it is the mechanism by which organizations provide their workers with rewards for past achievements and incentives for high performance in the future. It is also the mechanism by which organizations address problems within their work force, through institution of disciplinary measures. Aligning the work force with company goals, stated Gubman, "requires offering workers an employment relationship that motivates them to take ownership of the business plan."

11.4.5 Employee Development and Training

Employee development and training is another vital responsibility of HR personnel. HR is responsible for researching an organization's training needs, and for initiating and evaluating employee development programs designed to address those needs. These training programs can range from orientation programs, which are designed to acclimate new hires to the library, to ambitious education programs intended to familiarize workers with a new softwaresystem.

"After getting the right talent into the organization," wrote Gubman, "the second traditional challenge to human resources is to align the workforce with the business—to constantly build the capacity of the workforce to execute the business plan." This is done through performance appraisals, training, and other activities. In the realm of performance appraisal, HRM professionals must devise uniform appraisal standards, develop review techniques, train managers to administer the appraisals, and then evaluate and follow up on the effectiveness of performance reviews. They must also tie the appraisal process into compensation and incentive strategies, and work to ensure that federal regulations are observed.

Responsibilities associated with training and development activities, meanwhile, include the determination, design, execution, and analysis of educational programs. The HRM professional should be aware of the fundamentals of learning and motivation, and must carefully design and monitor training and development programs that benefit the overall organization aswell as the individual.

11.4.6 Meaningful Contributions to Library

Meaningful contributions to library activities are increasingly recognized as within the purview of active human resource management practices. Of course, human resource managers have always contributed to overall business processes in certain respects—by disseminating guidelines for and monitoring employee behavior. In some cases, completely new work relationships have developed; telecommuting, permanent part-time roles and out sourcing major non-strategic functions are becoming more frequent. All of these changes, which human resource managers are heavily involved in, are important factors in shaping library's performance.

11.5 TECHNICAL TERMS

HRM : Human Resource Management
OSH : Occupational Safety and Health Administration

EPA : Environmental Protection Compensation

11.6 SELF ASSESSMENT QUESTIONS

1. What is HRM? Discuss the various principles of HRM?
2. What are the primary responsibilities associated with human resource management?

11.7 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 12

INFORMATION PROFESSIONAL BEHAVIORS

AIMS AND OBJECTIVES

The aim and objectives of this lesson is to introduce the concept and behavior of the Information Professionals:

- discussion on individual behaviors and the factors influencing theindividual behavior.
- defined as those entitiesthat deliver information-based solutions to a given market.
- defined as those entitiesthat deliver information-based solutions to a given market.
- defined as those entitiesthat deliver information-based solutions to a given market.

Structure

12.1 INTRODUCTION

As we discussed in the earlier chapter that human resource management is the management of human as important resources of organization. Each human is different from one another. This difference is due to the difference of behavior of each employee. In order to manage the humans well, managers need to know the behavior of people in order to take the best out of them. Here we will be discussing some basic concepts of the Organizational Behavior. We will have detail discussion on individual behaviors and the factors influencing theindividual behavior.

12.2 INFORMATION PROFESSIONALS

An Information Professional ("IP") strategically uses information in his/her job to advance the mission of the organization. This is accomplished through the development, deployment, and management of information resources and services. The IP harnesses technology as a critical tool to accomplish goals. IPs includes, but is not limited to, librarians, knowledge managers, chief information officers, web developers, information brokers, and consultants.

Information Professionals work for information organizations, which are defined as those entities that deliver information-based solutions to a given market. Some commonly used names for these organizations include libraries, information centers, competitive intelligence units, intranet departments, knowledge resource centers, content management organizations, and others.

Consult the Resources for Employers page for information on the value of the Information Professional and how to hire an Information Professional for your organization.

The diverse responsibilities that Information Professionals may have include:

- Developing and maintaining a portfolio of cost-effective, client-valued informationservices that are aligned with the strategic directions of the organization and client groups
- Building a dynamic collection of information resources based on a deep understandingof clients' information needs
- Gathering evidence to support decisions about the development of new services andproducts
- Maintaining current awareness of emerging technologies
- Assessing and communicating the value of the information organization, including information services, products and policies to senior management, key stakeholders and clientgroups
- Contributing effectively to senior management strategies and decisions regarding information applications, tools and technologies, and policies for the organization

12.3 CONCEPTS OF PEOPLE WORKING TOGETHER

People can be more productive when working in groups than when working alone. What Managers *can* do and what Managers *cannot* do while managing people, organizations and society is the myths of management. Basic purpose of the working or existence of organization is:

- Link individuals into relationships
- Allocate the tasks to fulfill the objective
- Allocate authority to perform individual tasks
- Coordinate the objectives and activities of separate units
- Facilitate the flow of work

12.4 ORGANIZATIONAL BEHAVIOR

• OB is concerned specifically with the actions of people at work. Managers need to develop their interpersonal or people skills if they are going to be effective in their jobs. Organizational behavior (OB) is a field of study that investigates the impact that individuals, groups, and structure have on behavior within an organization, and then applies that knowledge to make organizations work more effectively. Specifically, OB focuses on how to improve productivity, reduce absenteeism and turnover, and increase employee citizenship and job satisfaction.

• OB addresses some issues that are not obvious, such as informal elements. It offers both challenges and opportunities for managers. It recognizes differences and helps managers to see the value

of workforce diversity and practices that may need to change when managing in different situation and countries. It can help improve quality and employee productivity by showing managers how to empower their people as well as how to design and implement

change programs. It offers specific insights to improve a manager's people skills. Finally, OB can offer managers guidance in creating an ethically healthy work environment.

12.5 FOCUS OF ORGANIZATIONAL BEHAVIOR

OB looks at individual behavior, which includes personality, perception, learning, and motivation. It is also concerned with group behaviors specifically in areas of norms roles, team building, conflicts and negotiation.

12.6 THE GOALS OF ORGANIZATIONAL BEHAVIOR

1. The emphasis will be on employee productivity, reduce absenteeism, and turnover.
2. Organizational citizenship—a fourth type of behavior becoming important in determiningemployee performance.
3. Attitudes are evaluative statements—favorable or unfavorable—concerning objects, people,or events.
4. An attitude is made-up of three components: cognition, affect, and behavior.
5. The cognitive component consists of a person's beliefs, opinions, knowledge, and informationheld by a person.
6. The affective component of an attitude is the emotional, or feeling, segment of an attitude.
7. The behavioral component of an attitude refers to an intention to behave in a certain way.
8. The three most important job-related attitudes are job satisfaction, job involvement, andorganizational commitment.

12.7 CONTRIBUTION OF ORGANIXATIONAL BEHAVIOR TO EFFECTIVENSS OF ORGANIZATION

The goal of OB is to explain and predict behavior of employees at work. OB focuses on both individual behavior and group behavior. Managers must understand behavior in both the formal and informal components of an organization. Managers are particularly concerned with three types of employee behaviors: productivity, absenteeism, and turnover. A fourth type of behavior, organizational citizenship, is emerging as a vital concern.

Managers must also be attentive to employee attitudes. Attitudes are value statements, either favorable or unfavorable, concerning people, events, or objects. Attitudes of special interest to managers pertain to those related to job satisfaction, job involvement, and organizational commitment.

Are happy workers productive workers? The answer to this question is not as simple as it might appear. Review the relationship between employee happiness and productivity and see what you think. Many researchers now believe that managers should direct their attention primarily to what might help employees become more productive.

Five specific personality traits have proven most powerful in explaining individual

behavior in organizations. These are locus of control, Machiavellians, self-esteem, self-monitoring, and risk propensity. Review these traits so you can be prepared to predict practical work-related behaviors. Sometimes different people will hear or witnesses the same situations yet interpret them differently. This happens because of differences in perception. Perception is the process of organizing and interpreting sensory impressions in order to give meaning to the environment. Managers need to recognize that employees react to perceptions, not to reality (if there is such a thing as "reality"). Thus, managers must pay close attention to how employees perceive both their jobs and management practices.

We constantly learn from our experiences. Sometimes we learn from rewards and punishments that are a consequence of our behavior. We learn to behave in order to get something we want or to avoid something we do not want. This is called operative conditioning. An extension of operant conditioning is social learning theory. Social learning theory emphasizes that we can learn through observation as well as direct experience. Managers can influence an employee's learning through the rewards they allocate and the examples they set.Does this advice seem equally applicable to parenting?

The behavior of individuals in groups is not the same as the sum total of all of the individuals' behavior. Individuals often act differently in groups than when they are alone. This means that managers must also understand the elements of group behavior. Library Managers,too, can serve as a guide and coach, helping employees meet organizational goals.

12.8 TECHNICAL TERMS

IP: Information Professional

OB: Organizational Behavior

12.9 SELF ASSESSMENT QUESTIONS

1. What is information professional's behavior**?**
2. What is Organizational Behavior?
3. What are the goals of organizational behavior?

12.10 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 13

STAFF MOTIVATION IN THE LIBRARY

AIMS AND OBJECTIVES

The lesson aims to introduce various motivational methods in Libraries of Library staff:

- Identifies some of the issues that affect the motivation of staff in libraries.
- As libraries become more sophisticated in their approach to quality, self-motivation will become a central issue.
- Environmental factors that had an impact on motivation.
- include: approaches to financial rewards, culture and the diversity of staff experience and roles.

Structure

13.1 INTRODUCTION

For the past 30 years librarians have been trying to move away from the traditional stereotypes set by society, and have moved toward a more professional position, leaving previous duties to others whom also work in the library. These individuals work in all departments of the library and are responsible for many different duties. At the circulation and reserve desks, some manage other workers, whether it is volunteers or students. In cataloging, collection development and reference, they are library assistants, who assist working in the department and/or

helping customers. These library assistants have taken on a few of the duties librarians have been responsible for in the past. Because of this, they are now being called, "paraprofessionals" or even "support staff." These paraprofessionals have the same type of day to day activities and problems that other organization's employees go through with managers and supervisors. They go through the routine of evaluations, meetings, training, etc. These routines are conducted in order to improve situations in the workplace. The same holds true in the realm of the library world. This chapter specifically focuses on how managers can motivate those whom they manage in order to create a more positive library service for its customers and on the routine of evaluating paraprofessional staff in a library.

Motivation is key for talent retention and performance. No matter the economic environment, the goal is to create a workplace that is engaging and motivating, where employees want to stay, grow and contribute their knowledge, experience and expertise.

Motivation is generally defined as the psychological forces that determine the direction of a person's level of effort, as well as a person's persistence in the face of obstacles. The direction of a person's behavior refers to the many possible actions that a person could engage in, while persistence refers to whether, when faced with roadblocks and obstacles, an individualkeeps trying or gives up. (1)

The responsibility for motivation is three-fold: it falls on the senior leadership, the direct manager and the employee. Numerous factors are involved, from trust, engagement and values (individual and organizational) to job satisfaction, achievement, acknowledgement and rewards. Motivation is essential for working autonomously, as well as for collaboration and effective teamwork. The ultimate focus of the organization is to successfully retain talent, meet goals and go beyond expectations. It is the role of HR and organizational leaders to foster an environment for excellence. Through a foundation of research, theory, studies and practical examples, this chapter addresses the questions of what motivates employees, what managers need to do, and what supports motivation and, thus, performance.

13.2 WHAT INFLUENCES MOTIVATION?

Motivating employees for better performance encompasses these critical factors: employee engagement, organizational vision and values, management acknowledgment and appreciation of work well done, and overall authenticity of leadership. Chana Anderson, says that motivation is influenced equally by the employee and the company: "Motivation and engagement is truly a 50-50 relationship between the employee and employer. Employees are expected to come to the workplace with the intrinsic motivation and desire to be successful, be value-added and contribute to the obtainment of an employer's vision. Conversely, it is incumbent upon the employer to provide resources, opportunities, recognition and a cohesive work environment for employees to be successful."

13.3 EMPLOYEE ENGAGEMENT

Engagement influences motivation. It is reflected in the extent to which employees commit, how hard they work and how long they stay. People join organizations for different reasons, motivated by intrinsic and extrinsic rewards.

Intrinsic rewards are reflected in actions believed to be important. Examples include an employee who wants to help people by providing excellent customer service or a senior manager who gains a sense of accomplishment from overseeing a large corporation. Intrinsic outcomes include responsibility, autonomy, feelings of accomplishment and the pleasure of doing interesting work. Extrinsic-motivated behavior includes actions performed with the goal to have material or social rewards, with outcomes such as job security, benefits, vacation time and public recognition. It is the responsibility of managers to motivate employees, with the goal for employees to contribute to the organization. Managers can best motivate employees by offering rewards that are meaningful to them. (2)

13.4 VISION AND VALUES

Employees are often motivated differently. To develop a work environment that promotes motivation, organizations need to know what is important to their employees and then to emphasize these factors. In fact, some companies and researchers are beginning to look at "work spirituality"--not in a religious sense, but in a sense that what an employee does aligns with his or her greater sense of life and purpose. Aside from monetary gain, work provides people with fulfillment on various levels, from earning a living and "doing good work" to aspiring to a vision and ultimately having an impact on the quality of life. These reasons can change over time in response to changes in people's home life and responsibilities. (3)

13.5 MANAGEMENT ACKNOWLEDGMENT AND APPRECIATION

How employees are treated is a strong determinant of employee motivation and performance. Edward E. Lawler III, author and consultant for human resource management, emphasizes that "treating people right is fundamental to creating organizational effectiveness and success. It is also easier said than done." According to Lawler, this includes "a highly complex set of actions on the part of both organizations and employees. Organizations must develop ways to treat their employees so that they are motivated and satisfied; employees must behave in ways to help their organizations become effective and high-performing." This winning combination for performance requires a partnership between the organization and the employees. Lawler states: "One can't succeed without the other. To provide people with meaningful work and rewards, organizations need to be successful. And to be successful, organizations need high-performing individuals. The challenge is to design organizations that perform at high levels and treat people in ways that are rewarding and satisfying." To describe this mutually beneficial relationship, Lawler uses the term virtuous spiral, a relationship that occurs when the organization values its employees, and in return, workers are committed to high performance. (4)

13.6 LEADERSHIP AND MAKING A DIFFERENCE

In today's pressure-cooker environment, performance is carefully noted at all levels of the organization. No matter an individual's title, everyone has the opportunity to lead in some capacity and have a positive impact on performance. Understanding the value that can be achieved through different roles is one way of providing motivation, performance and thus leadership skills. The Art of Motivating Employees," emphasizes that workers have better results when they can identify with those they serve.

Specifically, face-to-face interactions and task significance ("what I do makes a difference") are key drivers for motivation and performance.

13.7 TWELVE IMPORTANT WAYS TO MOTIVATE EMPLOYEES

- Provide employees with the information and resources they need to do a good job.
- Ask employees for their input by involving them in decisions that affect their jobs.
- Find out directly from employees what motivates them.
- Personally congratulate employees for their excellent work.
- Recognize the needs of employees.
- Establish good channels of communication-be (physically) accessible andavailable.
- Use performance as the basis for promotion.
- Have a promote-from-within policy.
- Publicly recognize employees for good work (if culturally appropriate to do sopublicly).
- Include recognition as part of morale-building activities to celebrate group success.
- Have clear goats.
- Foster a sense of community.
- Source: Adapted from Top 20 ways to motivate employees. (September 2008).Supervision, 69/9, 26.

13.8 TECHNIQUES FOR MOTIVATING PARAPROFESSIONALS:

13.8.1 Participative Management

Participative Management was the style in which more library managers wanted to practice. When implemented in a situation at the right time, place and to the right staff member(s), it could prove to convey a positive message to a staff member. This would result in a more positive outcome for the organization, thus leading to a more successful work environment. For a library this would mean, staff would feel greater satisfaction with their manager and therefore try to turn that satisfaction into being the best that they could be in library service.

Participative Management brings with it many different concepts. First, to look at the definition, one must first look at "participative," which means to participate and then management, which is self-explanatory. To put the two together, you get a management style that is based on participating in what is going on in the workplace with the staff and making them feel that they also have a say in the way in which things are run in the organization. This can be implemented in the decision-making process to find solutions, for example. This type of approach has been recommended by several studies, because it can prevent staff burnout. In this participative management, however, it should not always be left up to staff to have some type of input in every situation. For the library, studies have been conducted on this topic. Maurice Merchant, author of "Burnout and the Library Administrator: Carrier or Cure," studied twenty-two university libraries and found that those libraries which practiced a more open and

interactive form of participative management, had "the most satisfied professional staff and were rated most highly by their faculties." This study also showed that librarians had a greater satisfaction of this type of management style, which they felt was the reasoning behind "higher evaluations by library users." (Burgin & Hansel, March 91, Wilson Library Bulletin. p. 78).

Along with the positive effects to this type of management, there is also the possibility of negative effects, if not implemented properly. Problems with participative management include: when committees are appointed to offer solutions to problems within the library and then when solutions are given, these solutions are ignored. There is also the possibility of implementation of participative management into a situation where it had not existed before, and then because expectations were so high, because positive results were not shown right away, it caused a decline in staff morale. Taking these pros and cons into consideration, a library manager must look at their own situation and decide, with help from their supervisor, and possibly from their own staff, whether or not it would be to their own benefit to implement this type of management style.

13.8.2 Educating Staff

Organizations today face the task of creating a positive and motivating work environment for it employees. The library world is certainly no different in this aspect. For libraries, it is not only the librarians, but also the staff who need to have the most up-to-date computer and technological know-how. For some libraries computer training is the answer for the staff. Other advancements in the library and their implementation of technology brought with it ways to show staff that their knowledge of technology was beneficial to the library and therefore they wanted to continue this process. Another, may be to encourage staff members to get together every so often and talk about what they are learning in regards to technology and the Internet. "Encouraging people to pursue their own interests on the Internet, they'll discover things that will prove to be of great use to the library." (LaRue, James, "Raising Staff I.Q." Wilson Bulletin, 6/95, p. 80). This type of knowledge for staff is believed by librarians, staff and directors alike, to cause greater benefits for those using the staff's services.

13.8.3 Advancement for Staff

Unfortunately, with a more capable staff there is often times no room for advancement for someone in their position. In those cases where there is, most paraprofessionals are slapped in the face by the job being offered to an outsider, instead of a perfectly capable individual already within the library who knows the system.

One way a director or manager can encourage their staff toward advancement, is to allow for them to pursue a MLS or MLIS degree if they wish and while doing so, make it a point to promote their position, by adding more responsibility, for example, promoting a Library Assistant I level position to a level II or III. This type of positive re-enforcement can benefit the organization, as well as, the individual.

13.8.4 Staff Resource Web Page

Another way to help in educating your library staff is to keep them up on what is going on in the library and within the overall organization. This, of course, can be done in different ways, one, being training, and another being a "Staff Resource Web Page." This page gives the current news, both administrative and personal, library committees and workgroups, technology, library staff resources, Internet search tools, and library organizational units. All in all, this type of information resource can prove to be a helpful motivator because of its ability to educate staff on events and news that may be of some interest to them and their job.

13.9 TECHNICAL TERMS

Staff Motivational in the Library

13.10 SELF-ASSESSMENT QUESTIONS

1. What is Motivation?
2. What are the influencing factors required for Motivation?
3. Why Motivation is essential in Libraries?

13.11 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 14

SOFT SKILLS

AIMS AND OBJECTIVES

The aim f this lesson provides an overview of planning with special emphasis on soft skills:

- soft skills may be more importantover the long term than occupational skills.
- Soft skills play a vital role for professional success
- they help one to excel in the workplace and their importance cannot be denied in this age of information and knowledge.
- gamut of soft skills, some are linguistic skills, some are behavioral skills, some are virtues, some are practices and some are habits.

Structure

14.1 INTRODUCTION

There is common understanding that soft skills mean good communication, right body language, effective group discussion, team spirit, leadership, group dynamics, presentation skills, managing emotions, etc., but soft skills are not just these qualities alone. Soft skills are all about enabling one to change one's attitude and behavior, and these are the hardest things to change. Soft skills is a sociological term relating to a person's "EQ" (Emotional Intelligence Quotient), the cluster of personality traits, social graces, communication, language, personal habits, friendliness, and optimism that characterize relationships with other people. Soft skills complement hard skills (part of a person's IQ), which are the occupational requirements of a job and many other activities

A person's soft skill EQ is an important part of their individual contribution to the success of an organization. Particularly those organizations dealing with customers face-to-face are generally more successful if they train their staff to use these skills. Screening or training for personal habits or traits such as dependability and conscientiousness can yield significant return on investment for an organization. For this reason, soft skills are increasingly sought out by employers in addition to standard qualifications.

It has been suggested that in a number of professions soft skills may be more important over the long term than occupational skills. The LIBRARY profession is one example where the ability to deal with people effectively and politely, more than their mere occupational skills, can determine the professional success of a LIBRARIAN.

14.2 DEFINITION

Moss & Tilly state that the term 'soft skills 'was first used in 1972, but not widely used until the early 1990s. Moss and Tilly define soft skills as: "skills, abilities, and traits that pertain to personality, attitude and behavior rather than to formal or technical knowledge". Soft skills play a vital role for professional success; they help one to excel in the workplace and their importance cannot be denied in this age of information and knowledge. Good soft skills --which are in fact scarce -- in the highly competitive corporate world, will help you stand out in a milieu of routine job seekers with mediocre skills and talent.

Soft skills speak of a person's ability to communicate meaningfully, work in teams within the organizations, and be creative and innovative. It is the ability to manage both the human capital as well as the projects they work on , being a part of the problem solving and decision making process , while aim in at providing excellent customer care . Soft skills or social skills, in other words, are certain personal values and behavioral traits that speak of a person's ability to fit into a particular structure. Soft skills are personal attributes that enhance an individual's interactions, job performance and career prospects. Unlike hard skills, which tend to be specific to a certain type of task or activity, soft skills are broadly applicable.

Soft skills are sometimes broken down into personal attributes, such as:

- Optimism
- Common sense
- Responsibility
- A sense of humor
- Integrity
- Time-management
- Motivation.

Interpersonal Abilities, such as:

- Empathy
- Leadership
- Communication
- Good manners
- Sociability
- The ability to teach.

It's often said that hard skills will get you an interview but you need soft skills to get (and keep)the job.

14.3 WHY SOFT SKILLS?

The people most likely to be hired for available jobs have what employers call "soft skills". Soft skills "are as important, if not more important, than traditional hard skills to an employer looking to hire -- regardless of industry or job type. This could offer a major breakthrough as educators and training providers seek to develop and cluster training courses to fit business and industry needs."

The most common traits, mentioned by virtually every employer, were:

-Positive work ethic.

- Good attitude: "It is a behavioural skill, which cannot be taught. However it can be developed through continuous training. It represents the reactive nature of the individual and isabout looking at things with the right perspective.

- Desire to learn and be trained.

14.3 HARD SKILL VS SOFT SKILL

There are two types of skills required to become successful i.e. hard skill and soft skill. Hard skills are academic skills, experience and level of expertise, whereas soft skills are self- developed, interactive, communicative, human and transferable skills. It is often said, that hard skills will get you an interview, but you need soft skills to get the job. Hard skills are specific, teachable abilities that may be required in a given context.

Research suggests that hard skills contribute to only 15 % of one’s success while the remaining 85 % is contributed by soft skills .Another study conducted by Harvard University found that when a person gets job, 85 % of the time it is because of

their attitude and only 15 % of the time because of how smart they are and how many facts and figures they know .The first study emphasized on soft skills but the second study showed that it is attitude that contributes most. Many people fail to understand that .soft skills must bring changes in one's attitude and behavior; then it is meaningful. Studies on soft skills have listed ten soft skills which are essential to getting good job and career enhancement. These are;

1. Good communication skills.
2. Strong work ethics.
3. Positive attitude.
4. Time management abilities.
5. Problem solving skills.
6. Team spirit.
7. Self- confidence.
8. Ability to accept and learn from criticism.
9. Flexibility / adoptability.
10. Delivery under pressure.

14.5 HOW TO IMPROVE SOFT SKILLS?

Any process of self – improvement starts with self-analysis, which brings out the deficiencies. Once the weaknesses are identified, the next step will be to identify methods of acquiring those skills. If appearance is shabby, it can be rectified by proper dressing and grooming. If there is problem with communication skills, regular practice will deliver the results. Information and knowledge can be gathered through interaction, listening, reading, etc. Control over emotions enables one to be professional. The problem with any skill is that mere acquisition is not sufficient but one needs to practice the skills on a regular basis. It is true, that practice makes a man perfect .Regular practice helps in gaining proficiency in whatever we do, but the practice should be with a target date. A data should be decided in advance to measure the development. Improvement in soft skills cannot be a onetime process; rather, it should be on a continuous basis. At no point of time is it possible to acquire all soft skills; thus, there is always scope for improvement.

14.6 SOFT SKILLS FOR LIBRARIANS

For today's librarians having professional degrees in library and information science is not sufficient unlike in the past. There is demand for librarians having multidimensional aptitude in the areas of technical work, administrative work and also in providing user oriented services along with soft skills. Like any other profession, the soft skills are required in day-to-day working for carrying out routine jobs more effectively. The librarians working in large organizations like corporate offices are already practicing these skills through by experience or training. One may learn these soft skills easily provided they are aware what these are!! Following are soft sills required to become a successful library professional:

14.6.1 Listening skills

The library professionals must have good listening skills as he/she has to

interact with different types of users all the time. By carefully listening to users' he/she can identify the exactrequirement and then provide the service accordingly.

14.6.2 Communications skills

Command on language especially English and also regional one will improve the communication. Good communication skills also require understanding people, self-confidence.With this one can achieve lot and solve problems too.

14.6.3 Interpersonal skills

Librarians have to deal with all levels of people like Management, users, colleagues in library, vendors etc. To deal with each one on them in rightful manner requires interpersonal skills. When you work in large organization, it is most important to build rapport with all departments, which helps in managing the library and providing better services to everyone.

14.6.4 Public relations

One needs to use PR very effectively to attract users in libraries through various ways. It also helps to bond with users and vendors too. Also gives ability to work with other professionals.

14.6.5 Customer service

Customer is library user and to satisfy his information needs is customer service. The librarians are always giving attention to their users and providing services through CAS, SDI or other specialized services. The customer service emphasizes the customer satisfaction, whichguarantees that user will always come back to library.

14.6.6 Leadership skills & Teamwork

Library management especially the big library is team exercise. Hence it is required to have leadership skills to manage and guiding the team time to time, as every subordinate is important for carrying out their work efficiently for smooth running of library.

14.6.7 Negotiating skills

These skills are required on special occasions such as handling bulk purchases, specialized databases subscription with vendors etc. Also some times in delicate situations like library committee meetings or avoiding undue requirements from arrogant users etc.

14.6.8 Writing skills

The librarians are sometimes asked to submit/help in writing research proposal/ business proposal/project report, which requires good writing skills. Today there are many library professionals who are contributing to various publications even in-house or even by blogging for sharing their experiences and helping users.

14.6.9 Project management skills

In corporate sector many times, librarians are part of some project team and assigned specialized jobs such as knowledge management or digital institutional repository. These require dedication, understanding of the project, time management

for completion of work, teamwork and reporting back the results etc.

14.6.10 Presentation skills

The presentation skills are required in report writing, library committee meetings and even in daily work which represents the library management overall for users. It not only emphasizes the individual skills but also from library presentation by means of its decoration, users guides, and library ambience.

14.6.11 Teaching skills

This is essential for new user orientations or in case new service is introduced such as online database searching. It also includes motivating reading habits in users.

14.7 SUMMARY

It is not possible to overlook the importance of soft skills these days. Even well-qualified candidates fail to secure jobs in the absence of soft skills. Everyone possesses certain soft skills, but the need is to practice and acquire as many qualities as possible in order to achieve success in professional as well as personal life. In the gamut of soft skills, some are linguistic skills, some are behavioral skills, some are virtues, some are practices and some are habits. There cannot be an exhaustive list of soft skills. One must understand that if core skills or hard skills are one side of the coin then soft skills being equally important are the other side. It is not possible to compete or survive these days in the absence of soft skills.

14.8 TECHNICAL TERMS

EQ : Emotional Intelligence Quotient

14.9 SELF ASSESSMENT QUESTIONS

1. What is Soft Skills?
2. How to differentiate between Hard Skill & Soft Skill?.
3. What are the Soft Skills for Librarian?
4. How can you improve Soft Skill?

14.10 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 15

PERFORMANCE APPRAISAL AND STRESS MANAGEMENT IN LIBRARY

AIMS AND OBJECTIVES

This lesson introduces the stress among the library staff:

- Library Managers the paper explores the concept of job satisfaction and its relation to stress, job content and job conditions. .
- Library Managers the paper explores the concept of job satisfaction and its relation to stress, job content and job conditions.
- The practical implication of this information aimed at managers is to help them create a better workplace and mentally and physically healthier library staff members.

Structure

15.1 INTRODUCTION

The history of performance appraisal is quite brief. Its roots in the early 20th century can be traced to Taylor's pioneering Time and Motion studies. But this is not very helpful, for the same may be said about almost everything in the field of modern human resources management.

15.2 WHAT IS PERFORMANCE APPRAISAL?

A performance appraisal, employee appraisal, performance review, or (career) development discussion is a method by which the job performance of an employee is evaluated (generally in terms of quality, quantity, cost, and time) typically by the corresponding manager or supervisor. A performance appraisal is a part of guiding and managing career development. It is the process of obtaining, analyzing, and recording information about the relative worth of an employee to the organization. Performance appraisal is an analysis of an employee's recent successes and failures, personal strengths and weaknesses, and suitability for promotion or further training. It is also the judgment of an employee's performance in a job based on considerations other than productivity alone.

15.3 AIMS OF PERFORMANCE APPRAISAL

Generally, the aims of a performance appraisal are to:

- Give employees feedback on performance
- Identify employee training needs
- Document criteria used to allocate organizational rewards
- Form a basis for personnel decisions: salary increases, promotions, disciplinary actions,bonuses, etc.
- Provide the opportunity for organizational diagnosis and development
- Facilitate communication between employee and administration
- Validate selection techniques and human resource policies to meet federal EqualEmployment Opportunity requirements.
- To improve performance through counseling, coaching and development.

15.4 METHODS OF PERFORMANCE APPRAISAL

A common approach to assessing performance is to use a numerical or scalar rating system whereby managers are asked to score an individual against a number of objectives/attributes. In some companies, employees receive assessments from their manager, peers, subordinates, and customers, while also performing a self assessment. This is known as a *360-degree appraisal* and forms good communication patterns.

The most popular methods used in the performance appraisal process include the following:

- Management by objectives
- 360-degree appraisal
- Behavioral observation scale
- Behaviorally anchored rating scales

Trait-based systems, which rely on factors such as integrity and conscientiousness, are also commonly used by businesses. The scientific literature on the subject provides evidence that assessing employees on factors such as these should

be avoided. The reasons for this aretwofold:

1. Because trait-based systems are by definition based on personality traits, they make it difficult for a manager to provide feedback that can cause positive change in employee performance. This is caused by the fact that personality dimensions are for the most part static, and while an employee can change a specific behavior they cannot change their personality. For example, a person who lacks integrity may stop lying to a manager because they have been caught, but they still have low integrity and are likely to lie again when the threat of being caughtis gone.

2. Trait-based systems, because they are vague, are more easily influenced by office politics, causing them to be less reliable as a source of information on an employee's true performance. The vagueness of these instruments allows managers to fill them out based on who they want to/feel should get a raise, rather than basing scores on specific behaviors employees should/should not be engaging in. These systems are also more likely to leave a company open to discrimination claims because a manager can make biased decisions without having to backthem up with specific behavioral information.

15.5 STRESS MANAGEMENT IN THE LIBRARY

Many aspects of the daily life and the library profession in particular, can create feelings of stress. Stress, in fact, is a normal and inescapable part of life. However, too much continued stress can have a serious negative impact on our health, our work, our relationships, and the joyand satisfaction that we experience in library work.

Here are some interesting facts about stress:

- 43% of adults experienced adverse health effects from stress
- 75-90% of visits to a physician's office are for stress-related conditions and complaints
- The Occupational Safety and Health Administration (OSHA) has declared stress ahazard of the workplace

At present the Stress management skills can be learned and used successfully by anyone, anywhere, anytime.

15.6 WORKSHOP DESCRIPTION

This all-day workshop is specifically designed for library personnel and the type of stressors they most commonly face. It will help participants understand how stress works, and how it affects us. It will provide proven tools for building the personal strengths and emotional reserves we all need to deal successfully with the most challenging demands of the work day and modern life. Special attention will be focused on providing participants numerous actual, practical, stress management techniques and skills they will be able to use immediately.

15.7 PRELIMINARY COURSE OUTLINE

15.7.1 Understanding Stress - Where Are We Vulnerable?

- Stress is a normal part of life. Yep, especially in the library

- Professor Selyes' world famous stress theory - how stress works
- Why do we feel the way we feel - and respond the way we do?
- Flow: an Eastern perspective
- The long and short-term costs, risks, and (yes) benefits of stress

15.7.2 Building Personal Strengths And Emotional Reserves –In and Out of the Library

- The six dimensions of health - care they working for you, or against you?
- Building physical resources and healthy habits
- Sleep
- Nutrition
- Activity and exercise
- Work and lifestyle

15.7.3 Tools for Reducing Stress in the Library

- Time management & priority setting in the real-world library
- What's the real job? Acknowledging the 10%-50% reality
- The fine art of taking a break
- Balancing life and work

15.7.4 The Social Aspects of Stress Management

- Managing staff relationships - managing patron relationships
- Professionalism, openness, communication, and assertiveness
- Creating realistic expectations - ours and theirs
- Building personal relationships and peer support

15.7.5 Mastering the Day-To-Day: Finding Peace in the Eye of The Storm

- Make an oasis in the desert. How physical/mental/emotional self-management skillswork. How they help.
- Breathing & relaxation techniques
- Progressive muscular relaxation and "The Relaxation Response"
- Self-talk & reinterpretation
- Imagery - and visualizing
- Developing a productive worldview for the library - settling in on what's important to you.Cutting loose from what isn't...

15.8 TECHNICAL TERMS

OSHA : Occupational Safty and Health Administrational

Organizational Behavior: OB is concerned specifically with the actions of people at work.

Cognitive component: The cognitive component consists of a person's beliefs, opinions, knowledge, and information held by a person.

Skills & Abilities: Mental and physical capacities to perform various tasks. This comes from knowledge, learning, and experiences.

Personality: The unique combination of psychological traits that describes a person or behaviors or trends that influence other people.

Perceptions: Perception is the mental process to pay attention selectively to some stimuli and cues in our environment.

Attitudes: Attitudes are comprised of feelings, beliefs, and behaviors
.
Values: Basic convictions about what is right and wrong.

Ethics: Rules and principles that define right and wrong conduct.

15.9 SELF-ASSESSMENT QUESTIONS

1. What is Performance Appraisal?
2. Discuss the various methods of performance appraisal.
3. What are the Aims of performance appraisal?
4. What is stress management?
5. How Stress management skills can be learned and used successfully in libraries?

15.10 SUGGESTED READINGS

1. Armstrong, Michael. *A Handbook of Human Resource Management Practice.* KoganPage Limited, 1999.
2. Burstiner, Irving. *The Small Business Handbook.* Prentice Hall, 1988.
3. Green, Paul C. *Building Robust Competencies: Linking Human Resource Systems toOrganizational Strategies.* Jossey-Bass, 1999.
4. Gubman, Edward L. "The Gauntlet is Down." *Journal of Business Strategy.* November-December 1996.
5. Johnston, John. "Time to Rebuild Human Resources." *Business Quarterly.* Winter 1996.
6. Reece, Barry L., and Rhonda Brandt. *Effective Human Relations in Organizations.* Boston: Houghton Mifflin, 1993.
7. Roberts, Gary, Gary Seldon, and Carlotta Roberts. *Human Resources Management.* Washington, D.C.: Small Business Administration, n.a.
8. Rossiter, Jill A. *Human Resources: Mastering Your Small Business.* Upstart Publishing,1996.
9. Solomon, Charlene Marmer. "Working Smarter: How HR Can Help." *PersonnelJournal.* June 1993.
10. Ulrich, Dave. *Delivering Results: A New Mandate for HR Professionals.* HarvardBusiness School Press, 1998.
11. Berry, John N. Library Journal. "Professional is Only a Label." July 1994.5. P. 6.
12. Berry, John N. Library Journal. "SFPL's Hidden Edge: the Staff." Sept. 1, 1997. V. 122, n.14.4. p. 98.

LESSON- 16

MARKETING MANAGEMENT: CONCEPT & DEFINITION

AIMS AND OBJECTIVES

After reading this chapter, students will be able to understand:

- Basic fundamental concepts of information management (IM)
- Ten principles of effective information management

Structure

16.1 MARKETING STRATEGY

If the company has obtained an adequate understanding of the customer base and its own competitive position in the industry, marketing managers are able to make their own key strategic decisions and develop a marketing strategy designed to maximize the revenues and profits of the firm. The selected strategy may aim for any of a variety of specific objectives, including optimizing short term unit margins, revenue growth, market share, lon term profitability or other goals.

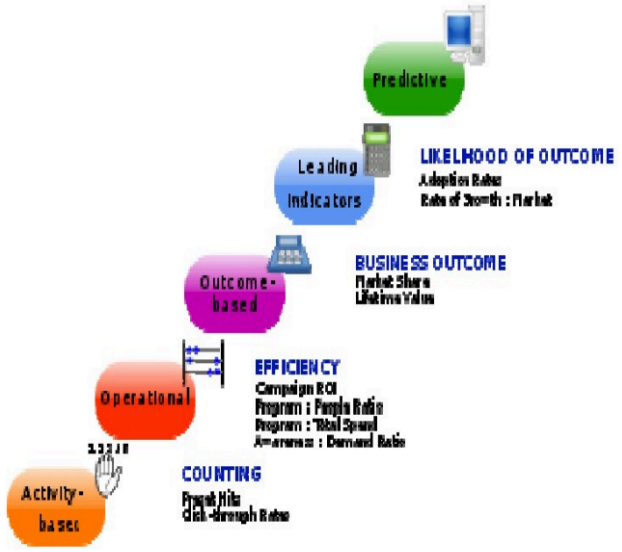
To achieve the desired objectives, marketers typically identify one or more target customers segments which they intend to pursue. Customer segments are often selected as targets because they score highly on two dimensions: 1) The segment is attractive to serve because it is large, growing, makes frequent purchases, is not price sensitive (i.e. is willing to pay high prices), or other factors; and 2) The company has the resources and capabilities to compete for the segment's business, can meet their needs better than the competition, and can do so profitably.[3] In fact, a commonly cited definition of marketing is simply "meeting needs profitably."

The implication of selecting target segments is that the business will subsequently allocate more resources to acquire and retain customers in the target segment(s) than it will for other, non-targeted customers. In some cases the firm may go so fas as to turn away the customers who are not in its target segment.

In conjunction with targeting decisions, marketing managers will identify the desired positioning they want the company, product, or brand to occupy in the target customer's mind. This positioning is often an encapsulation of a key benefit the company's product or service offers that is differentiated and superior to the benefits offered by competitive products.

Ideally, a firm's positioning can be maintained over a long period of time because the company possesses, or can develop, some form of sustainable competitive advantage.[8] The positioning should also be sufficiently relevant to the target segment such that it will drive the purchasing behavior of target customers.

16.2 IMPLEMENTATION PLANNING



The Marketing Metrics Continuum provides a framework for how to categorize metrics from the tactical to strategic.

After the firm's strategic objectives have been identified, the target market selected, and the desired positioning for the company, product or brand has been determined, marketing managers focus on how to best implement the chosen strategy. Traditionally, this has involved implementation planning across the "4Ps" of marketing: Product management, Pricing (at what price slot do you position your product, for e-g low, medium or high price), Place (the place/area where you are going to be selling your products, it could be local, regional, country wide or International) (i.e. sales and distribution channels), and People. Now a new P has been added making it a total of 5P's. The 5th P is Politics which affects marketing in a significant way.

Taken together, the company's implementation choices across the 4(5)Ps are often described as the marketing mix, meaning the mix of elements the business will employ to "go to market" and execute the marketing strategy. The overall goal for the marketing mix is to consistently deliver a compelling value proposition that reinforces the firm's chosen positioning, builds customer loyalty and brand equity among target customers, and achieves the firm's marketing and financial objectives.

In many cases, marketing management will develop a marketing plan to specify how the company will execute the chosen strategy and achieve the business' objectives. The content ofmarketing plans varies from firm to firm, but commonly includes:

An executive summary

Situation analysis to summarize facts and insights gained from market research and marketinganalysis The company's mission statement or long-term strategic vision A statement of the company's key objectives, often subdivided into marketing objectives andfinancial objectives The marketing strategy the business has chosen, specifying the target segments to be pursuedand the competitive positioning to be achieved Implementation choices for each element of the marketing mix (the 4(5)Ps)

16.3 ORGANIZATIONAL MANAGEMENT AND LEADERSHIP

Marketing management may spend a fair amount of time building or maintaining a marketing orientation for the business. Achieving a market orientation, also known as "customer focus" or the "marketing concept", requires building consensus at the senior management level and then driving customer focus down into the organization. Cultural barriers may exist in a given business unit or functional area that the marketing manager must address in order to achieve this goal. Additionally, marketing executives often act as a "brand champion" and work to enforce corporate identity standards across the enterprise.

In larger organizations, especially those with multiple business units, top marketing managers may need to coordinate across several marketing departments and also resources from finance, research and development, engineering, operations, manufacturing, or other functional areas to implement the marketing plan. In order to effectively manage these resources, marketing executives may need to spend much of their time focused on political issues and inte-departmental negotiations.

The effectiveness of a marketing manager may therefore depend on his or her

ability to make the internal "sale" of various marketing programs equally as much as the external customer's reaction to such programs.

16.4 REPORTING, MEASUREMENT, FEEDBACK AND CONTROL SYSTEMS

Marketing management employs a variety of metrics to measure progress against objectives. It is the responsibility of marketing managers – in the marketing department or elsewhere – to ensure that the execution of marketing programs achieves the desired objectivesand does so in a cost-efficient manner.

Marketing management therefore often makes use of various organizational control systems, such as sales forecasts, sales force and reseller incentive programs, sales force management systems, and customer relationship management tools (CRM). Recently, some software vendors have begun using the term "marketing operations management" or "marketing resource management" to describe systems that facilitate an integrated approach for controlling marketing resources. In some cases, these efforts may be linked to various supply chain management systems, such as enterprise resource planning (ERP), material requirements planning (MRP), efficient consumer response (ECR), and inventory management systems.

16.5 PRINCIPLES OF MARKETING MANAGEMENT WHAT'S THIS?

Marketing management principles include analyzing the market, market planning, implementing the plan and market control. The goal of these activities is to enter into an exchange with customers. Once a company understands the marketing environment, reacts to it and gathers results, it is able to evaluate the impact of its activities. In larger firms, marketing management is typically handled by a marketing manager, while in smaller firms, the owner may take the lead in marketing activities.

16.5.1 MARKET ANALYSIS

Market analysis includes taking a look at a company's past, present and future activities. With the majority of the focus being on future activities, marketing managers explore information such as competitive, economic, social, political and legal environments. Marketing managers use S.W.O.T. analysis to determine strengths and weaknesses, as well as opportunities and threats within the market. They also evaluate trends, growth, market size, distribution channels and even costs. All of these aspects affect how, when, why and what people buy, so it's important to take them into consideration.

16.5.2 MARKET PLANNING

After analyzing the market, marketing managers are able to come up with a marketing plan, which details how they will reach a company's target market. They also come up with measurable marketing objectives based on the goals of the company. This aspect of marketing management takes details such as product, placement, pricing, packaging, positioning, peopleand promotion into account.

16.5.3 MARKET IMPLEMENTATION

When marketing managers put their research and market planning into action, it's referred to as the market implementation aspect of market management. Marketing managers pay special attention to the timing of each activity and make adjustments where necessary. Examples of marketing activities include website launches, coupon promotions, distributing direct mail pieces, radio advertisements, commercials and even email marketing.

16.5.4 MARKET CONTROL

After implementation, marketing managers review the results of each marketing activity to figure out successes and failures. The only true way to know if a campaign was a success is to put measures in place to evaluate the market situation after a plan is implemented. Market control can include surveying customers, evaluating sales and feedback and tracking repeat purchases.

16.5.5 MARKETING MANAGER

Marketing managers play an integral role in following the marketing management principles from start to finish. According to the "Occupational Outlook Handbook," marketing managers work more than 40 hours a week. It's hard to pinpoint their salaries, because they vary depending on experience, location, workload, education and even company size. Most often, they hold a bachelor's or master's degree in business administration.

16.6 TECHNICAL TERMS

CRM: Customer Relationship Management

ERP : Enterprise Resource Planning

ECR : Efficient Consumer Response

MRP: Material Requirements Planning

16.7 SELF ASSESSMENT QUESTIONS

1. Define Marketing Management.
2. What is Marketing Strategy?
3. Explain how Marketing plan can be implemented.
4. Discuss the principles of Marketing Management in brief

16.8 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 17

RELEVANCE OF MARKETING MANAGEMENT IN LIS

AIMS AND OBJECTIVES

After reading this chapter, students will be able to understand:

- Basic fundamental concepts of information management (IM)
- Ten principles of effective information management

Structure

17.1 INTRODUCTION

A library is a social and service institution providing information to its members. Its traditional functions include selection, acquisition, storage, processing, circulation, and reference. But in the present era of IT and digital era the libraries have offered Internet based services and strengthened documentation services. The size of the unit and the activities undertaken, govern the design of the organization of a library/information centre into various sections have like acquisition, circulation,

etc. It may be noted that many functions in a library/information centre are back office functions. Only limited members of the staff interact with customers and that too, mostly at the initiative of the customers themselves. The focus on the customers need and satisfaction seems to be missing as the principles of marketing has not been practiced seriously although the libraries are fully aware of the benefit of application of principles of marketing management in libraries.

The five laws of library science of Ranganathan did imply a sharp focus on customer. However, a closer examination of the laws reveals that the focus is on a customer who came to the library rather than, the library reaching out to the customer. Marketing concept, as presented above (Kotler) has hardly been used in libraries/information centres in developing countries.

17.2 NEED

Marketing is dealt with a task of finding and stimulating buyers for the organizations output. The main functions of marketing are product generation, pricing, distribution, promotion, marketing tools. Librarians can make their library more responsive and service oriented towards users requirements to satisfy the users. Libraries as non-profit organizations developed their key product called information. Library must apply and adopt the marketing approach in such a way that it achieved competency, efficiency and effectiveness in LIS. For observing cost effectiveness and achieving efficiency, many tools of marketing have been entered into the libraries. Librarians and information scientists must apply the principles of marketing if their services are to sustain and survive. Due to budget crisis in all libraries in this age of IT and Electronic era it is inevitable for marketing library products and services in order to achieve andsupport economic condition of the library.

17.3 PHILIP KOTLER & S J LEVY HAVE OUTLINED NINE CONCEPTSFOR EFFECTIVE MARKETING MANAGEMENT

17.3.1 Generic Product:

A profit oriented institution like library has recognized the importance to provide a broad definition of their product and services. The basic products of LIS are journals, books, CD- ROMs, bibliographies, LAN, OPACS, internet-based services.

17.3.2 Target Group:

It consists of the students, research scholars, teachers, technical and non-teaching staffand the library has to fulfill their wants and needs timely.

17.3.3 Differentiated Marketing:

The concept of Differentiated Marketing for libraries is to determine and sets out to provide more than target group. The target groups is highly effective by differentiating its products and services offering and communication towards its users.

17.3.4 Customer Behaviors Analysis:

The modern libraries are expected to identify rapidly the requirements, expectations and behavior of customers and make regular surveys and research. The main objectives and responsibility of todays librarians is not only to satisfy user needs but also how to raise funds tostrengthen the libraries financial condition.

17.4 DIFFERENTIAL ADVANTAGE

Kotler has very rightly suggested that, "You should consider what elements of its reputation or resources can be exploited to create a special value in the minds of potential customers."Hence the library must consider various ways to reach and aware its target group
.Library must think in terms of seeking differential advantages.

17.5 MULTIPLE MARKETING TOOLS

Industrial sectors allow and adapt with multiple marketing tools to advertise and sell their products. Likewise the library can make their information products for successful selling through advertisement with the help of marketing tools and techniques.

Some of the internal and external promotional tools for LIS are as mentioned under:

- Oral presentations and demonstration of CD-ROMs.
- Distribution of leaflet, brochure and list of LIS services.
- Computer network/LAN and internet.
- Local advertising and bulletin board.
- Seminar, conferences, workshops and exhibitions.
- CAS, SDI and preparation of bibliography.

17.6 OBJECTIVES OF PROMOTIONAL STRATEGY FOR LIS:

In big libraries only personal contacts is not sufficient, therefore promotional strategy should be adopted. To define exact location of product and service is compulsory for optimal use. Library services should be displayed at the main entrance .If you offer a good service the word of praise will spread and ultimately the income will increase. Following are some of the objectives of promotional strategy for LIS:

- To create an awareness among user community of the existence and objectives ofservices.
- To attract more users by providing more and more appropriate and need based services.
- To educate current and potential users
- To built a strong and positive image of the library.
- To introduce selling ideas

17.7 INTEGRATED MARKETING PLANNING

Integration and co-ordination is the most significant need of any business or

non- business organizations to achieve its pre-planned objectives and missions. It is a key concept in library integrated marketing planning and library requires a strategic well planned co-ordination, integration with specified objectives to achieve efficiency and cost-effectiveness.

17.8 CONTINUE MARKETING FEEDBACK

It is highly essential to know and access the preferences and priorities of the users which should be a continuous feedback system to be practiced by the libraries. They must identify the problems and grievances of the users and must get in touch with them to solve their problems. The library feedback system must be continuous, flexible and open for everyone andevery time to promote best selling of their products.

17.9 MARKET AUDIT

If the feedback system is flexible then changes for new adoption is expected. Hence the library must rethink and replan its basic services, target group, differential advantages, feedback system, and user's needs and marketing tools. Marketing, therefore is not a one time activity. It is a continuous process and it has relationship with all other activist.

17.10 TECHNICAL TERMS

Relevance of Marketing Management in LIS

17.11 SELF-ASSESSMENT QUESTIONS

1. Discuss the need of marketing management in LIS.
2. Explain the nine concepts of Kotler for effective marketing management in LIS

17.12 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 18

ECONOMICS OF INFORMATION

AIMS AND OBJECTIVES

This lesson introduces the concept of marketing of Information:

- There are several subfields of information economics.
- Second, exclusion is not a natural property of information goods, though it is possible toconstruct exclusion artificially
- economics of information suppliers from the point of view of the principles of economics

Structure

18.1 DEFINITION

Economics of information is a branch of microeconomic theory that studies how information affects an economy and economic decisions. Information has special characteristics. It is easy to create but hard to trust. It is easy to spread but hard to control. It influences many decisions. These special characteristics (as compared with other types of goods) complicate many standard economic theories.

"Economics of Information" is a phrase that means different things to different people. Information plays a role in all markets. People cannot buy and sell anything without information: who is willing to sell or to buy, on what terms, what is the quality of the good or service offered, how are these things likely to change in the future? When information on these things is plentiful, public or easy to get, and reliable, the simplest kind of supply and demand theory may be applicable. When information on these things is limited, unreliable, and more easily available to some people than to others, the simplest kind of market theory does not apply, and markets may not be as effective.

On the other hand, some organizations and enterprises exist mainly for the purpose of supplying information goods and services. This chapter is mainly concerned with the economics of information in this second sense: economic analysis of information suppliers. All the same, there are some connections between the two meanings. After all, when information is the stock in trade, it makes sense to suppose that information is going to be limited, more easily available to some people than to

others (that is why the people who have it can sell it) and, in some cases, unreliable. In this chapter, however, these issues will largely be ignored. We will look at the economics of information suppliers from the point of view of the principles of economics, leaving the integration of the two kinds of economics of information for a more advanced study.

The subject of "information economics" is treated under Journal of Economic Literature classification code JEL D8 - Information, Knowledge, and Uncertainty. The present article reflects topics included in that code. There are several subfields of information economics. The first insights in information economics related to the economics of information goods. In recent decades, there have been influential advances in the study of information asymmetries and their implications for contract theory.

18.2 VALUE OF INFORMATION

The starting point for economic analysis is the observation that information has economic value because it allows individuals to make choices that yield higher expected payoffs or expected utility than they would obtain from choices made in the absence of information.

18.3 INFORMATION AND THE PRICE MECHANISM

Much of the literature in information economics was originally inspired by Friedrich Hayek's work on the knowledge problem and the communication function of prices, which did much to inspire the early work on information economics of Abba Lerner, Tjalling Koopmans, Leonid Hurwicz, and George Stigler and others.[citation needed]

18.4 INFORMATION ASYMMETRY

Information asymmetry deals with the study of decisions in transactions where one party has more or better information than the other. This creates an imbalance in power in transactions which can sometimes cause the transactions to go awry. Examples of this problemare Adverse selection and Moral hazard.

18.5 INFORMATION GOODS

Buying and selling information is not the same as buying and selling most other goods. First of all, information is non-rivalrous, which means that consuming information does not exclude someone else from also consuming it. A related characteristic that alters information markets is that information has almost zero marginal cost. This means that once the first copy exists, it cost nothing or almost nothing to make a second copy. This makes it easy to sell over and over. However, it makes classic marginal cost pricing completely infeasible.

Second, exclusion is not a natural property of information goods, though it is possible to construct exclusion artificially. However, the nature of information is that if it is known, it is difficult to exclude others from its use. Since information is likely to be both non-rivalrous and non-excludable, it is frequently considered an example of a public good.

Third is that the information market does not exhibit high degrees of transparency. That is, to evaluate the information the information must be known, so you have to invest in learning it to evaluate it. To evaluate a bit of software you have to learn to use it; to evaluate a movie youhave to watch it.

Here are some examples of the trade in information goods and services:

- A newly invented machine is patented, and the patent is licensed to a company thatplans to build and sell the machine.
- A new edition of a best-selling travel guide is published.
- A public library buys 3 copies of the travel guide to lend (free)
- A financial advisor offers his clients advice and opinions about profitable investments inreturn for a commission on their investment transactions.
- An investor consults a World-Wide Web page for the values of "leading economic indicators" (key economic statistics) supplied by the U. S. Commerce Department. Thereis no charge.
- A collection of photographs of great paintings in world museums is put on CD-ROM andsold by a computer software company.
- A record company publishes a boxed set of CD's with a digital recording of a recent performance of Mozart's "Marriage of Figaro," with Bryn Terfel singing the role of Figaro.The set includes the libretto of the opera.

18.6 TECHNICAL TERMS

Information Asymmetry

18.7 SELF ASSESSMENT QUESTIONS

1. What is economics of information?
2. Explain about information goods.

18.8 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 19

MARKETING RESEARCH & MARKETING SEGMENTATION

AIMS AND OBJECTIVES

This unit introduces the concept of marketing and discusses the relevance of marketing approach to the field library and information services and various steps involved in marketing research and marketing segmentation:

- The goal of marketing Research is to provide the facts and direction that managers need to make their more important marketing decisions.
- make decisions about potential opportunities, target market selection, market segmentation, planning and implementing marketing programs, marketing performance, and control

Structure

19.1 INTRODUCTION OF MARKETING RESEARCH

It is the systematic gathering, recording, and analysis of data about issues relating to marketing products and services. The goal of marketing research is to identify and assess how changing elements of the marketing mix impacts customer behavior. The term is commonly interchanged with market research; however, expert practitioners may wish to draw a distinction, in that market research is concerned specifically with markets, while marketing research is concerned specifically about marketing processes.

Managers need information in order to introduce products and services that create value in the mind of the customer. But the perception of value is a subjective one, and what customer's value this year may be quite different from what they value next year. As such, the attributes that create value cannot simply be deduced from common knowledge. Rather, data must be collected and analyzed. The goal of marketing Research is to provide the facts and direction that managers need to make their more important marketing decisions.

Marketing research is often partitioned into two sets of categorical pairs, either by target market:

- Consumer marketing research, and
- Business-to-business (B2B) marketing research
- Or, alternatively, by methodological approach:
- Qualitative marketing research, and

19.2 ROLE OF MARKETING RESEARCH (MR)

The task of marketing research is to provide management with relevant, accurate, reliable, valid, and current information. Competitive marketing environment and the ever- increasing costs attributed to poor decision making require that marketing research provide sound information. Sound decisions are not based on gut feeling, intuition, or even pure judgment.

Marketing managers make numerous strategic and tactical decisions in the process of identifying and satisfying customer needs. They make decisions about potential opportunities, target market selection, market segmentation, planning and implementing marketing programs, marketing performance, and control. These decisions are complicated by interactions between the controllable marketing variables of product, pricing, promotion, and distribution. Further complications are added by uncontrollable environmental factors such as general economic conditions, technology, public policies and laws, political environment, competition, and social and cultural changes. Another factor in this mix is the complexity of consumers. Marketing research helps the marketing manager link the marketing variables with the environment and the consumers. It helps remove some of the uncertainty by providing

relevant information about the marketing variables, environment, and consumers. In the absence of relevant information, consumers' response to marketing programs cannot be predicted reliably or accurately. Ongoing marketing research programs provide information on controllable and non-controllable factors and consumers; this information enhances the effectiveness of decisions made by marketing managers.

19.3 THE MARKETING RESEARCH PROCESS

Traditionally, marketing researchers were responsible for providing the relevant information and marketing decisions were made by the managers. However, the roles are changing and marketing researchers are becoming more involved in decision making, whereas marketing managers are becoming more involved with research. The role of marketing research in managerial decision making is explained further using the framework of the "DECIDE" model:

D
Define the marketing problem
E
Enumerate the controllable and uncontrollable decision factors
C
Collect relevant information
I
Identify the best alternative
D
Develop and implement a marketing plan
E
Evaluate the decision and the decision process

The DECIDE model conceptualizes managerial decision making as a series of six steps. The decision process begins by precisely defining the problem or opportunity, along with the objectives and constraints.[4] Next, the possible decision factors that make up the alternative courses of action (controllable factors) and uncertainties (uncontrollable factors) are enumerated. Then, relevant information on the alternatives and possible outcomes is collected. The next step is to select the best alternative based on chosen criteria or measures of success. Then a detailed plan to implement the alternative selected is developed and put into effect. Last, the outcome of the decision and the decision process itself are evaluated.

19.4 MARKETING RESEARCH CHARACTERISTICS

First, marketing research is systematic. Thus systematic planning is required at all the stages of the marketing research process. The procedures followed at each stage are methodologically sound, well documented, and, as much as possible, planned in advance. Marketing research uses the scientific method in that data are collected and analyzed to test prior notions or hypotheses.

Marketing research is objective. It attempts to provide accurate information that reflects a true state of affairs. It should be conducted impartially. While research is always influenced by the researcher's research philosophy, it should be free from the personal or political biases of the researcher or the management. Research which is

motivated by personal or political gain involves a breach of professional standards. Such research is deliberately biased so as to result in predetermined findings. The motto of every researcher should be, "Find it and tell it like it is." The objective nature of marketing research underscores the importance of ethical considerations, which are discussed later in the chapter.

Marketing research involves the identification, collection, analysis, and dissemination of information. Each phase of this process is important. We identify or define the marketing research problem or opportunity and then determine what information is needed to investigate it., and inferences are drawn. Finally, the findings, implications and recommendations are provided in a format that allows the information to be used for management decision making and to be acted upon directly. It should be emphasized that marketing research is conducted to assist management in decision making and is not: a means or an end in itself. The next section elaborates on this definition by classifying different types of marketing research.

19.5 COMPARISON WITH OTHER FORMS OF BUSINESS RESEARCH

Other forms of business research include:

Market research is broader in scope and examines all aspects of a business environment. It asks questions about competitors, market structure, government regulations, economic trends, technological advances, and numerous other factors that make up the business environment Sometimes the term refers more particularly to the financial analysis of companies, industries, or sectors. In this case, financial analysts usually carry out the research and provide the results to investment advisors and potential investors.

Product research - This looks at what products can be produced with available technology, and what new product innovations near-future technology can develop

Advertising research - is a specialized form of marketing research conducted to improve the efficacy of advertising. Copy testing, also known as "pre-testing," is a form of customized research that predicts in-market performance of an ad before it airs, by analyzing audience levels of attention, brand linkage, motivation, entertainment, and communication, as well as breaking down the ad's flow of attention and flow of emotion

19.6 CLASSIFICATION OF MARKETING RESEARCH

Organizations engage in marketing research for two reasons: (1) to identify and (2) solve marketing problems. This distinction serves as a basis for classifying marketing research into problem identification research and problem solving research.

Problem identification research is undertaken to help identify problems which are, perhaps, not apparent on the surface and yet exist or are likely to company image, market characteristics, sales analysis, short-range forecasting, long range forecasting, and business trends research. Research of this type provides information about the marketing environment and helps diagnose a problem. For example, The findings of problem solving research are used in making decisions which will solve specific marketing problems.

Standardized services are research studies conducted for different client firms but in a standard way. For example, procedures for measuring advertising effectiveness have been standardized so that the results can be compared across studies and evaluative norms can beestablished.

Customized services offer a wide variety of marketing research services customized to suit a client's specific needs. Each marketing research project is treated uniquely.

Limited-service suppliers specialize in one or a few phases of the marketing research project. Services offered by such suppliers are classified as field services, coding and data entry, data analysis, analytical services, and branded products. Field services collect data through mail, personal, or telephone interviewing, and firms that specialize in interviewing are called field service organizations.

Coding and data entry services include editing completed questionnaires, developing a coding scheme, and transcribing the data on to diskettes or magnetic tapes for input into the computer

Analytical services include designing and pretesting questionnaires, determining the best means of collecting data, designing sampling plans, and other aspects of the research design. Some complex marketing research projects require knowledge of sophisticated procedures, including specialized experimental designs, and analytical techniques such as conjoint analysis and multidimensional scaling. This kind of expertise can be obtained from firms and consultants specializing in analytical services.

Data analysis services are offered by firms, also known as tab houses, that specialize in computer analysis of quantitative data such as those obtained in large surveys. Initially most data analysis firms supplied only tabulations (frequency counts) and cross tabulations (frequency counts that describe two or more variables simultaneously). With the proliferation of software, many firms now have the capability to analyze their own data, but, data analysis firmsare still in demand.

Branded marketing research products and services are specialized data collection and analysis procedures developed to address specific types of marketing research problems. These procedures are patented, given brand names, and marketed like any other branded product.

19.7 TYPES OF MARKETING RESEARCH

Marketing research techniques come in many forms, including:

Ad Tracking – periodic or continuous in-market research to monitor a brand's performance using measures such as brand awareness, brand preference, and product usage.

Advertising Research – used to predict copy testing or track the efficacy of advertisements for any medium, measured by the ad's ability to get attention, communicate the message, build the brand's image, and motivate the consumer to purchase the product or service.

- Brand equity research - how favorably do consumers view the brand?
- Brand association research - what do consumers associate with the brand?
- Brand attribute research - what are the key traits that describe the brand promise?
- Brand name testing - what do consumers feel about the names of the products?
- Commercial eye tracking research - examine advertisements, package designs,websites, etc. by analyzing visual behavior of the consumer
- Concept testing - to test the acceptance of a concept by target consumers
- Coolhunting - to make observations and predictions in changes of new or existing cultural trends in areas such as fashion, music, films, television, youth culture and lifestyle
- Buyer decision processes research - to determine what motivates people to buy and what decision-making process they use
- Copy testing – predicts in-market performance of an ad before it airs by analyzing audience levels of attention, brand linkage, motivation, entertainment, and communication, as well as breaking down the ad's flow of attention and flow of emotion.(Young, p 213)
- Customer satisfaction research - quantitative or qualitative studies that yields an understanding of a customer's of satisfaction with a transaction
- Demand estimation - to determine the approximate level of demand for the product
- Distribution channel audits - to assess distributors' and retailers' attitudes toward aproduct, brand, or company
- Internet strategic intelligence - searching for customer opinions in the Internet: chats,forums, web pages, blogs
- Marketing effectiveness and analytics - Building models and measuring results todetermine the effectiveness of individual marketing activities.
- Positioning research - how does the target market see the brand relative to competitors?
  - what does the brand stand for?
- Price elasticity testing - to determine how sensitive customers are to price changes
- Sales forecasting - to determine the expected level of sales given the level of demand. With respect to other factors like Advertising expenditure, sales promotion etc.
-
- Store audit - to measure the sales of a product or product line at a statistically selected store sample in order to determine market share, or to determine whether a retail store provides adequate service
- Test marketing - a small-scale product launch used to determine the likely acceptance ofthe product when it is introduced into a wider market
- All of these forms of marketing research can be classified as either problem-identification research or as problem-solving research.

19.8 MARKETING RESEARCH METHODS

Methodologically, marketing research uses the following types of research designs:[5]

19.8.1 Based on questioning:

Qualitative marketing research - generally used for exploratory purposes - small number of respondents - not generalizable to the whole population - statistical

significance and confidence not calculated - examples include focus groups, in-depth interviews, and projective techniques

Quantitative marketing research - generally used to draw conclusions - tests a specific hypothesis - uses random sampling techniques so as to infer from the sample to the population
- involves a large number of respondents - examples include surveys and questionnaires. Techniques include choice modelling, maximum difference preference scaling, and covarianceanalysis.

19.8.2 Based on observations:

Ethnographic studies - by nature qualitative, the researcher observes social phenomena in their natural setting - observations can occur cross-sectionally (observations made at one time) or longitudinally (observations occur over several time-periods) - examples include product-use analysis and computer cookie traces. See also Ethnography and Observational techniques.

Experimental techniques- by nature quantitative, the researcher creates a quasi- artificial environment to try to control spurious factors, then manipulates at least one of the variables - examples include purchase laboratories and test markets

Researchers often use more than one research design. They may start with secondary research to get background information, and then conduct a focus group (qualitative research design) to explore the issues. Finally they might do a full nation-wide survey (quantitative research design) in order to devise specific recommendations for the client.

19.9 MARKETING SEGMENTATION

Market segmentation is a strategy that involves dividing a larger market into subsets of consumers who have common needs and applications for the goods and services offered in the market. These subgroups of consumers can be identified by a number of different demographics, depending on the purposes behind identifying the groups. Marketing campaigns are often designed and implemented based on this type of customer segmentation.

19.9.1 Definition

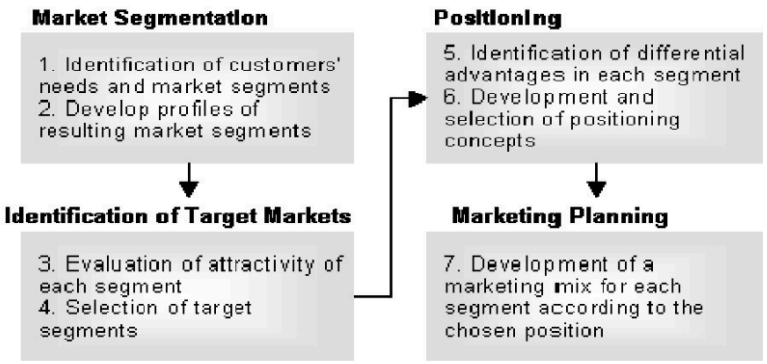
Process of defining and sub-dividing a large homogenous market into clearly identifiable segments having similar needs, wants, or demand characteristics. Its objective is to design a marketing mix that precisely matches the expectations of customers in the targeted segment. Few firms are big enough to supply the needs of an entire market, most must breakdown the total demand into segments and choose the one or few the firm is best equipped to handle. Four basic factors that affect market segmentation are (1) clear identification of the segment, (2) measurability of its effective size, (3) its accessibility through promotional efforts, and (4) its appropriateness to the policies and resources of the firm. The four basic market segmentation- strategies are based on (a) behavioral (b) demographic, (c) psychographic, and (d) geographical differences.

Further it can be defines as,"Market segmentation is the segmentation of markets into homogenous groups of customers, each of them reacting differently to promotion, communication, pricing and other variables of the marketing mix. Market segments should be formed in that way those differences between buyers within each segment are as small as possible. Thus, every segment can be addressed with an individually targeted marketing mix".

19.9.2 Why Segmentation?

When it comes to marketing strategies, most people spontaneously think about the 4P (Product, Price, Place, Promotion) – maybe extended by three more Ps for marketing services (People, Processes, Physical Evidence).

Market segmentation and the identification of target markets, however, are an important element of each marketing strategy. They are the basis for determining any particular marketingmix. Literature suggests the following steps:



The importance of market segmentation results from the fact that the buyers of a product or a service are no homogenous group. Actually, every buyer has individual needs, preferences, resources and behaviors. Since it is virtually impossible to cater for every customer's individual characteristics, marketers group customers to market segments by variables they have in common. These common characteristics allow developing a standardized marketing mix for allcustomers in this segment.

19.2.3 Reasons for Market Segmentation

It is possible to satisfy a variety of customer needs with a limited product range by using different forms, bundles, incentives and promotional activities. The computer manufacturer Dell, for instance, does not organize its website by product groups (desktops, notebooks, servers, printers etc), but by customer groups (privates, small businesses, large businesses, public/state organizations). They offer the same products to all customer groups. Nevertheless, they suggest product bundles and supporting services that are individually tailored for the needs of each particular group. As an

example, Dell offers to take on all IT-administration for companies. This service provides a huge potential for savings for corporate customers.

19.2.3.1 Higher Profits

It is often difficult to increase prices for the whole market. Nevertheless, it is possible todevelop premium segments in which customers accept a higher price level. Such segments could be distinguished from the mass market by features like additional services, exclusive points of sale, product variations and the like. A typical segment-based price variation is by region. The generally higher price level in big cities is evidence for this.

When differentiating prices by segments, organizations have to take care that there is no chance for cannibalization between high-priced products with high margins and budget offers in different segments. This risk is the higher, the less distinguished the segments are.

19.2.3.2 Opportunities for Growth

Targeted marketing plans for particular segments allow to individually approach customer groups that otherwise would look out for specialized niche players. By segmenting markets, organizations can create their own 'niche products' and thus attract additional customer groups.

Moreover, a segmentation strategy that is based on customer loyalty (see loyalty ladder model) offers the chance to attract new customers with starter products and to move these customers on to premium products.

Sustainable customer relationships in all phases of customer life cycle

Customers change their preferences and patterns of behavior over time. Organizations that serve different segments along a customer's life cycle can guide their customers from stage to stage by always offering them a special solution for their particular needs.

19.2.3.3 Targeted communication

It is necessary to communicate in a segment-specific way even if product features and brand identity are identical in all market segments. Such a targeted communications allows to stress those criteria that are most relevant for each particular segment (e.g. price vs. reliability vs. prestige).

19.2.3.4 Stimulating Innovation

An undifferentiated marketing strategy that targets at all customers in the total market necessarily reduces customers' preferences to the smallest common basis. Segmentations provide information about smaller units in the total market that share particular needs. Only the identification of these needs enables a planned development of new or improved products that better meet the wishes of these customer groups. If a product meets and exceeds a customer's expectations by adding superior value, the customers normally is willing to pay a higher price for that product. Thus, profit margins

and profitability of the innovating organizations increase.

19.2.3.5 Higher Market Shares

In contrast to an undifferentiated marketing strategy, segmentation supports the development of niche strategies. Thus marketing activities can be targeted at highly attractive market segments in the beginning. Market leadership in selected segments improves the competitive position of the whole organization in its relationship with suppliers, channel partners and customers. It strengthens the brand and ensures profitability. On that basis, organizations have better chances to increase their market shares in the overall market.

Summarizing all these advantages, the need for market segmentation is closely related tostrategic decisions:

Market segmentation is the basis for customer orientation and differentiation.

- It is well known that suppliers in mass markets mostly compete on price. Demand for those products that are clearly differentiated from competition and that offer a particular value to customers do has lower price elasticity; hence, only those products can sustain a higher price level and higher margins. The precondition for providing such value added is detailed knowledge about customers' preferences. These preferences will probably diverse in the total market, but fairly homogenous within distinguishable segments.
- Focus on attractive market segments is of special relevance in our fast moving times of Internet economy. Kalakota and Whinston say in their law of differentiation:
- As the blurring of distinctions among firms increases in electronic markets, survival requires identifying your unique role in the marketplace in terms of value to the customer.

19.10 CRITERIA FOR AN EFFECTIVE SEGMENTATION

According to Kotler the five effective segmentations are as follows:

Measurable: It has to be possible to determine the values of the variables used for segmentation with justifiable efforts. This is important especially for demographic and geographic variables. For an organization with direct sales (without intermediaries), the own customer database could deliver valuable information on buying behavior (frequency, volume, product groups, mode of payment etc).

Relevant: The size and profit potential of a market segment have to be large enough to economically justify separate marketing activities for this segment.

Accessible: The segment has to be accessible and servable for the organization. That means, for instance, that there are target-group specific advertising media, as magazines or websites the target audience likes to use.

Distinguishable: The market segments have to be that diverse that they show different reactions to different marketing mixes.

Feasible: It has to be possible to approach each segment with a particular marketing program and to draw advantages fro

19.10 TECHNICAL TERMS

MR : Marketing Research

B 2B : Business to Bussiness

19.12 SELF-ASSESSMENT QUESTIONS

1. What is Marketing Research process?
2. Discuss about various methods of Marketing Research.
3. What is Marketing Segmentation?
4. State the reasons for Marketing Segmentation.

19.13 SUGGESTED READINGS

1. Cronin, B. Information Management: *from strategies to action*. London; ASLIB; 1985.
2. Vickers, P. Information Management: Setting a concept. *In Information Management*:from *Strategies to action*, Ed. by B. Cronin; London; ASLIB; 1985; pp49-60.
3. White, Martin. Intelligence Management. *In Information Management: from Strategies toAction*, Ed. by B. Cronin. London; ASLIB; 1985; pp19-35.
4. Best D. P., Ed. The fourth resource: *information and its management*, England; Aslib/Gower; 1996.

LESSON- 20

DESIGNING & PRICING OF LIBRARY INFORMATION SERVICES AND PRODUCTS

AIMS AND OBJECTIVES

After reading this chapter, students will be able to understand:

- Basic fundamental concepts of information management (IM)
- Ten principles of effective information management

Structure

20.1 INTRODUCTION

Designing & Pricing of LIS is also known as marketing of services and products. Hence discussions have been made here for easy understanding the topic marketing of services and marketing of products are governed by the same marketing principle. Library and information services fall under the marketing services. There is difference between marketing services and marketing products. The risk in marketing services is greater than in marketing products because service cannot be stored. For

example in railway reservation of seat or a hotel room, which are service products, can't be stored for later use. Information provided in response to a query at the reference desk cannot be returned.

According to Kotler "Marketing is the art of helping customers to become better off. Marketing of any library can change the nightmare scenario of an adequate. Library service, toan informed innovative dream library environment that focuses on the customers' needs.

Pricing is one of the most important decision areas of marketing. It is a dynamic and multistage process. Pricing decisions are based on the demand and supply of goods on one hand and cost of production and benefits gained by the customer on the other. So, pricing policy of library and information products and services mainly depends on the goals and objectives of organization. Pricing decisions mainly depends on the cost of production, the demand for the product and the price of other competitors. Price helps in appropriately positioning the product/service/information centre in the mind of the target segments vis-à-vis the competition. The price services includes direct and indirect costs needed to produce the product. Pricing policy depends on the policy of library. In academic and special library environment, price relates to what the client must given to use the products/services offered. Here price refers to the overall cost of the library in relation to the value of the service. In library and information centers, the following are fee based services-Online data base search, translation service, document delivery, training and consultation, downloaded information, presentation of abstracting and indexing services and preparation of bibliography

Marketing can be considered as an ongoing review of the internal strengths and weakness and external opportunities and threats. This is referred to as SWOT (Strength, Weakness, Opportunities and Threats) analysis.

Libraries are basically a service oriented organization. There are significant differences between service and product. Therefore, it is necessary to consider the distinctive characteristic of services, such as :

Intangibility :

By varying nature services are intangible, they can't be seen, touched or tested, but theycan be experienced.

Inseparability :

Services are inseparable from a person or an organization or any other sources that provides them. The production and consumption in case of tangible products are independent activities where as in case of service both production and consumption are inseparable and most of the time they are simultaneous.

Variability :

Services are highly variable because they dependent on the sources, which provide them and there are differences in time, quality and place where they are provided. Services vary from user to user and also they vary according to the need of

the user.

Perishability :

Services can't be stored. They must be produced on demand and can't be inventoried.

Ownership

Ownership of services can't be transferred as in case of product. One can't buy and ownservices.

20.2 INFORMATION AS A PRODUCT

There are four traits of information, which helps to convince information as a product these are as followed :

- Public good Characteristic;
- Indivisibility;
- Non-depletability;
- Inherent uncertainty and risk in transition

As in the case of Industrial product market, Marketing Analysis is also essential in case of Library and Information Services. Market consists of individuals and groups of people / institutions and corporate bodies; their needs, their resources, their buying habits and their preferences. To have a successful marketing of services and products the first step in marketing analysis involves segmenting the potential market into smaller sub-markets consisting of individuals whose needs are similar. Segmentation is a customer-orientedmarketing strategy.

20.3 ROLE OF MARKETING IN LIBRARY

It is a fact that difference between good libraries or good companies and those that don't archive their goals is the quality of their marketing. The role of the marketing in the library is to :

- Achieve high levels of customer satisfaction;
- Enhance the perceived value of their services: and
- Ensure the survival of their respective institution

Need of Marketing in Library and Information Services:

In the last few years, the products and services provided by the libraries have changed considerably. So, the challenges to library services from changes in educational approaches, the impact of technology, new methods for information provision and declining budget makes marketing of services necessary. Other requirements or marketing of library product and services are as follows :

1. **To make the users aware of the product and services**

   - Create awareness of the library:

- Create awareness of its offerings and expertise;
- Taking to existing users, find out why they use the library;
- Using mass media
- Provide additional service to special groups within community
- Arrange talks, seminars, database, cultural show etc.

2. To make the user aware of the library services and products

- Online services (internet, E-Journal, e-books, networking, CD-ROM, audiovisual)
- Bibliography
- Abstracting, Indexing
- Library Catalogue
- Translation, Reprographic
- SDI/CAS
- Digest etc.

3. Dissemination of Information and knowledge by documentation services

4. Public Relation

20.4 TYPES OF USER / CUSTOMER

For a library, the obvious customers are :

- Staff members (General Staff / Parent's staff, Internal library staff, administrative staff)
- Users

20.5 FACTORS OF PLANNING FOR MARKETING INFORMATIO N PRODUCT AND SERVICE IN LIBRARY

Libraries and information centres have begun to realize that marketing of information product and services is an integral part of administration and management, especially as means for improving user satisfaction and promoting the use of services by the potential users. The main factors are :

- Information explosion
- The technological revolution
- Escalating library cost
- Shrinking library budget
- The need to be self sufficient financially

20.6 ACTIVITIES OF MARKETING INFORMATION PRODUCT AND SERVICE IN LIBRARY

The steps in marketing of information service and product in libraries are similar like marketingof other product and services, which are as follows :

I. Marketing Research and Customer / User Analysis

Before introducing any service, the libraries should have much better understanding of the user's need or information seeking behavior of the users. So user's study / need survey should be conducted regularly to identify the required service and product.

II. Development of Product and Services

Whatever the product and services of the library may be, these should be customers oriented rather than product or service oriented.

III. Pricing

Pricing is one of the important aspect of marketing. It is the pricing are that where the library differ from industries because libraries are not profit making organization and they are supported by other parent / governmental organization

IV. Distribution

Distribution pertains to dissemination of information through various channels.

V. Promotion

Promotion involves mechanism by which the target groups are informed about the resources available, services and product offered by the library

VI. Evaluation of Product and Service

It is necessary to evaluate the effectiveness of the marketing programmes to decide the effectiveness of the products and services must be evaluated in relation to organizations' objectives, internal strength weaknesses of the customers' satisfaction and demand.

20.7 AREAS OF MARKETING OF LIBRARY AND INFORMATION CENTER FOR RESOURCE GENERATION

Marketing efforts may help library information centre to improve their budget position. Some ofthe library and information products can be marketed as follows:

Membership Fee:

Library may charge a higher subscription rate to a professional society, corporate body, workingprofessionals etc. and very smaller rate students, researcher, senior citizens etc.

Dues Collection:

The fine collected because of late returns is found to be good amount.

Photocopy / Internet Access Charge :

Facilities such as photocopying, Internet access and printing from database can also help libraries to generate additional resources

Documentation Charge:

Library can also be charged for documentation services like CAS, SDI Indexing abstracting, bibliographies, etc.

Audio Video Rental:

Revenue can be generated through audio video access charges. Library can also provide audiovideo recording and displaying facilities

Training and Consultancy / Workshop / Seminars / Conference :

Training and consultancy is another means through which revenue can be generated.

Adeveloped library in the areas of implementation of technologies.

Library Publication:

Revenue can be generated through trade of library publications like Current contents, CurrentIndex, Information bulletin, Newsletter, etc

Discount on Purchase:

Discount is an important factor in the management of library expenses. A marginal increase indiscount rates can help in increasing the additional revenue for a library

Exchange Publication:

Library can have exchange of their institutional publications with similar libraries this help themin increasing their collection through mutual exchange.

Inter Library Loan:

In this regard ILL facility is a good source of expenditure management.

20.8 FACTORS TO BE CONSIDERED FOR DEVELOPMENT OF MARKETING PLAN FOR LIBRARY AND INFORMATION CENTRES

- The library should initiate action to establish a separate marketing division;
- Action should be taken to automate information services and process;
- Suitable methods like questionnaires, interview etc. should be adopted for conductinguser surveys for assessing the information needs of users:
- New product and services should be launched, tailored to user needs;

- For the convenience of users distribution channels such as mail, messenger, telephone,email, online should be used for delivery of information ;
- Pricing of product should initially be done with objective or recovering operational costand on the ability / willingness of the users paying capacity;
- Internet should be used as a tool for promoting services / products to both in-housetraining, giving incentives and describing service manuals;
- SWOT (Strength, Weakness, Opportunities and Threats) analysis should be annuallyconducted covering collection, staffs, services, infrastructure and financial aspects

20.9 INFORMATION SERVICES ON THE INTERNET

The aspects of Information Services are to provide information needs of the user on demand or in anticipation and keep the users up-to-date in the field of their specialization and in the related field. The following information services provided through Internet are OPACs, Current Awareness Services, SDI, Document Delivery Services, ILL, Reference Service, Indexing Services, Abstracting Services. Databases Access, Translation Services, Referral Services and Clearing House Centre.

1. **OPACS**
   OPAC is an important service available on the net. Using this service, many of the library catalogues can be searched through online. About 500 online access cataloguesare available on the Internet.

Examples

- NCSI Library Catalogues (http:// 144.16.72.156/ncsilib/bkcir6.html)
- University of Hyderabad (http://202.41.85.234/library.html)
- IIT, Madras, Central Library(http://www/iitm.ac.in/research/depts/centlib.html)

2. **CURRENT AWARENESS SERVICES :**
   The CAS delivers regular updates on newly available information according to interest profiles specified by the user, either through electronically or through mail. It can be classified on the basis of types of databases selected as follows :

a. Books

- Amazon books (www.amazon.com)
- Book list – ALA (http://www.ala.org/booklist
- Book browser(http://www.bookbrowser.com
- Forthcoming Books – National Library of Canada (http:www.nlc-bnc.ca/forthbks/efbintro.htm)

b. Journal Tables of Contents

1. Current contents (Institute of Scientific Information) (http://www.isnet.com)
2. American Chemical Society (http://www/acs.org)
3. IEEE Computer Society publications (http://www.computer.og/pubs.htm)
4. COPSAT –NCSI information service (http://www.ncsi.iisc.ernet.in)

c. Recent Additions:
- UNESCO (http://www/unesco.org)
- Book List –ALA (http://www/ala.org/booklist)

d. Alerting Service :
- Sci Gate – The IISc Science Information Portal(http://144.16.72.156/ncsilib/bkcir6.htm)
- IDEAL (http://www.idealibrary.com/news/ideal-alert.jsp)

e. Conferences :
- World Wide Web Virtual Library on Conferences (http://conferences.rpd.net/)\
- Blackwell's Book Services (www.unf.edu/library/conferences)

f. News Papers & Magazines
- World Wide News (http://www.world widenews.com)
- The Hindu (http://www.indiaserver.com/news/thehindu/the hindu.html)

g. NDETD (Network Digital Electronic Theses and Dissertations)

3. SDI

SDI is a method of producing personal current awareness information to individuals andgroups. It can be provided through Internet.

20.7.1.1 Databases (UNESCO-http://www.unesco.org: OCLC-http://www.oclc.org: NLM-(http://www.nlm.nih.gov)

20.7.1.2 National Information Centre, SNDT University (http://www.sndt.edu/nicindex.htm)

20.7.1.3 Informatics India (http://www.informindia.co.in)

4. Document Delivery Services

The document supply /delivery service will enable a library to request another library forcopy of a document , to be transmitted via E-mail or fax
- INGLIBNET (http://www.inflibnet.ac.in)
- SciGate –IISc Science Information Portal (http://144.16.72.156/ncsilib/bkcir6.htm)
- British Library Document Supply Centre (http://www.blds.ac.uk)

5. ILL

It is concerned with lending of a document to the user over a specific period of time by alibrary

6. REFERENCE SERVICE

Reference Service can also be provided through Internet. Web based ReferenceServices where users need to search or browse.
- Britannica.com (http://www/Britannica .com)
- All Experts.com (http://allexpets.com/)
- Ask ERIC (http://erocor.svr.edu/qa/userform.shtml)

7. INDEXING SERVICES :

An Indexing facilitates the literature searching activity and inform about the existence ornon-existence of document in response to the requests of the users.

20.7.1.4 COMENDEX –Engineering Index(http://www.CEXWen.ei.org)
20.7.1.5 Index Medicus-NLM (http://www.nlm.nih.gov)

8. ABSTRACTING SERVICES

An abstracting Services presents the summary of a publication or an articles accompanied by an adequate bibliographical description to enable the publication or article to be traced.

20.7.1.6 Dissertation Abstracts International –UMI (http://www.lib.umi.com/dissertations)
20.7.1.7 Scientific American (http://ufn.loc.as.ru/ufn.html)

9. DATABASE ACCESS

There are various types of databases. Most of the commercial databases like Dialog, STN, etc., can be accessed through net. Some databases are also available for free access. Bibliographic database services would enable to search bibliographic databases developed at national sectoral and information centres to disseminate current information and retrieveretrospective information.

- INFLIBNET (http://www.inflibnet.ac.in)
- LC (http://www.loc.org)
- UNESCO (http://www.unesco.org)
- Dialog (http://www.dialog.com)

There are database vendors who in addition to their own databases, also provide links toother databases on request.

- UMI (http://www.umi.com)
- Silver Platter (http://www.silverplater.com)
- OVID (http://www.ovid.com)
- IDEAL (http://www.idealibrary.com/news/ideal-alert.jsp)

10. TRANSLATION SERVICES

The following translator databases and tools are available through Internet.

NCTA (Northern California Translators Associations) Searchable Translator Database. It is achapter of the American Translator Association, (http://www.lai.com/ncta/trdb.htm).

UNESCO – INDEX TRANSLATIONUM – An International Bibliography of Translations(http://www.unesco.org)

WWW.Translation Page provides translation of HTML documents (http://www.systransoft.com/translate.html)

Altavista is offering a free online translation service since 1999 (http://babelfish.altavista.digital.cm/cgi-bin/translate)

Virtual Information Centre – ICICI Knowledge Park. Hyderabad (http://www.vicikp.info)

11. REFERRAL SERVICE

Requests for provision of information that cannot be satisfied by a library can be referredto another source where from the information can be had.

- LC –National Referral Centre (http://www.loc.gov)
- DARE –UNESCO Referral Database (http://www.unesco.org)
- NCSI (for all Science subjects) (http://www.nesi.iisc.ernet.in)
- DELNET (http://www.delnet.nic.in)

12. CLEARING HOUSE CENTRE

These units try to provide a single point of access to documents originating from anumber of sources, from different places, in different languages.

UNESCO – Clearing House Centre (http://www.unesco.org)

13 CONSORTIA

A wide range of abstracting and indexing resources can be accessed and full textjournals can be down loaded, which saves money and time of the individual libraries.

- INFONET (http://www.ugcinfonet.ac.in)
- INDEST (Indian National Digital Libraries in Engineering, Science and Technology(http://www.iitd. ac.in/indest)

20.10 SUMMARY

The successful implementation of the network services will depend on the demand ofthe participants to cooperate with each other with a sense of 'give' & 'take'

20.11 TECHNICAL TERMS

IM: Information Management

NDETD: Network Digital Electronic Thesis and Dissertations

INDEST : Indian National Digital Libraris in Engineering Science and Technologies

20.12 SELF ASSESSMENT QUESTIONS

1. What is marketing?
2. Why pricing of LIS products is necessary?
3. Why we need marketing in LIS?
4. Discuss the areas of marketing of LIS products in libraries.
5. Discuss the information services on the internet.

20.13 SUGGESTED READINGS

1. Broady-Preston (Judith).Strategic marketing for library and information services.London:Library Association Publication, 2000.
2. DeSaez (E.E.).Marketing concepts for libraries and information services.London: LibraryAssociation, 1993, p.5.3.
3. Helton (Rae) and Esrock (Stuart).Positioning and marketing academic libraries tostudents. Marketing Library Services12 (3), 1998.
4. Kinnear (Thomas C.) and Bernhardt (Kenneth L.).Principles of marketing .Glenview III:Scott, Foreman, 1986, 40-50
5. Kolter (Philip).Marketing management:Analysis, planning, implementation and control. New Delhi: Prentice-Hall, 1994
6. Zikmund (William G.).Marketing .5th ed.Minneapolis: West Publishing, 1996, p.170.

102ML21

M.L.I.Sc. Degree Examination January -2022

First Semester

Paper-II: Information Management

Time : Three Hours **Maximum : 70 Marks**

Answer any five of the following:

1. What is TQM? Describe the components of TQM.
2. What is MIS? Discuss it in detail.
3. What is knowledge Management? Describe the models of Knowledge Management.
4. Discuss the tools of Knowledge Management.
5. Discuss types of Electronic Resources.
6. write an account on Management of Digital Resources
7. Write an account on Motivation factors useful in libraries
8. Discuss Human Resources Management in Academic Libraries
9. Write an account on Marketing Research
10. Write an account on Market Segmentation

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