

# Knowledge and Information Management: Effective System for Organizational Growth

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## ABSTRACT

Knowledge Management is necessary in organizations to enhance competitive advantage and decision making. Through Knowledge Management, we can share, develop and apply this knowledge for organizational growth. The purpose of paper is to elicit knowledge from the information collected from faculty and students of learning institutions, academies so that in-house training on skills required for training purpose can be planned. The objective is to identify the type of skill required by potential candidates based on IT industry need, resources in terms of skilled trainer available to train students. Another aspect is to identify the gap of skill required, skill available for training and to identify, plan the area where in-house training is required for faculty members.

**Keywords:** Knowledge, Skill, Information, In-house trainings, Information, Organization.

## 1. INTRODUCTION

Knowledge Management is recognized at the enterprise level and is helpful for decision support system [1]. According to Petersen and Pouffelt, Knowledge management (KM) is about developing, sharing and applying knowledge within the organization to gain and sustain a competitive advantage. Human resource management (HRM) is integrated with Knowledge Management. Strategy, selection and hiring, training, performance management, and remuneration work as motivational factors for the creation and distribution of knowledge within firms [2]. ICT (Information and communication technologies) plays important role in knowledge sharing. Regular advancements in Information technology and systems drive the organizations. [3]. According to Handzic et al., knowledge resources should be utilized effectively by organizations to survive in extremely competitive environment. Knowledge Management involves the process of collection and integrates knowledge to increase competitiveness [4].

### 1.1 Types of Knowledge:

**Explicit Knowledge:** Explicit knowledge is considered to be formal and objective, and can be expressed unambiguously in words, numbers and specifications. Hence, it can be transferred via formal and systematic methods in the form of official statements, rules and procedures and so is easy to codify. According to Brown & Duguid, this type of knowledge is formalized and codified, and is sometimes referred to as “know-what”. This is the type of knowledge most easily handled by KMS, which are very effective at facilitating the storage, retrieval, and modification of documents and texts.

**Tacit Knowledge:** is subjective, situational and intimately tied to the knower’s experience. Thus, it is difficult to formalize, document and communicate to others. It is sometimes referred to as “know-how” and refers to intuitive, hard to define knowledge that is largely experience based. Because of this, tacit knowledge is often context dependent and personal in nature. According to Nonaka, it is hard to

communicate and deeply rooted in action, commitment, and involvement [5].

### 1.2 Knowledge and Information Management System Approach:

A Knowledge Management approach is the conscious integration of the people, processes, and technology involved in designing, capturing, and implementing the intellectual infrastructure of an organization. It encompasses not only design and implementation of information systems but also the necessary changes in management attitudes, organizational behavior, and policy. It is what enables people within an organization to develop the ability to collect information and share what they know, leading to action that improves services and outcomes. A Knowledge Management and Information System approach can be used to provide educational institutions with a method to focus their strategies and practices, making best use of their energies and resources. This approach provides a framework that can be used to focus attention on three specific areas-people, processes and technology-as a way to illuminate and address organizational obstacles regarding issues of information use and access. Each of these three areas functions as an integral part of the ongoing organizational dynamics, and institutions need to devise strategies to determine how the organization’s structures and institutional processes can give shape to how people use both technology and information systems in meeting their information needs. The basis of Knowledge Management and Information Systems is a process of shaping, supporting, and managing this endeavor through a delicate balance among attention to organizational processes, the people who partake in them, and technology investments.

### 1.3 Information Systems:

An Information System is an arrangement of people, data, processes, interfaces, networks and technology that interacts to support and improve both day-to-day operations in a business as well as support the problem-solving and decision-making needs of management. An information system collects, processes, analyzes and disseminates information for a specific purpose. Due to the rapid advancement in technology, our society has changed from an industrial to an information society. Information is an important resource just like any other physical resource such as men, materials, machines and money. Today Information systems are the back-bones of any organization. Information Systems have created such an impact on the organizations that it has almost become impossible for organizations to survive without an information system.

## 2. ROLE OF KNOWLEDGE MANAGEMENT IN ORGANIZATIONS

The information collected through primary and secondary data can act as input and that information is processed through computerized way, database is collected and makes it

available to top management as well training officers for effective decision making related to training and software development. It acts like creating an expert system computer programs that include such knowledge are called knowledge-based system and it is used to create knowledge Repository which involves finding and collecting internal knowledge and best practices. Some of the knowledge is collected through presentations, report, Detailed Project Reports and other knowledge is discovered through discussion.

**Improve Knowledge Access:** It involves determining ways to facilitate finding the person with the required knowledge and transferring the knowledge to another person. It becomes very helpful in conducting in-house training as it decreases our dependency on a single resource person.

**Enhance Knowledge Environment:** Employees should be encouraged to share knowledge as well as reuse existing knowledge. Coaching and training in learning and sharing practices will probably be necessary.

### 3. ROLE OF MANAGEMENT INFORMATION SYSTEM IN ORGANIZATIONS

Management Information System in organization aims at supplying information from the processed data to various cadres of management like Branch Managers, Training Officers to support their decision making process. The use of computers for processing of data actually started with data processing. These systems are designed for providing information to the key functionaries in an organization. The information can be collected through questionnaires; feedback forms, group discussions among staff members. These systems make use of this data and generate information reports after processing data. Formal information system is followed in organizations where all those who are using information are authorized to use it and is also responsible for dissemination of specific information. Formal information systems follow the hierarchical structure of the organization. Computerized information systems are developed and utilized to increase in-house capability. It results in better decision making as it depends on the vital input of information so as to support the functions that a manager performs. The information systems make use of resources such as hardware, software, men and as well as procedures. Information could be defined as a set of facts, figures, information collected from men for the current decision making situation. The information systems are designed for the job positions rather than for individuals. Regardless of who is the individual holding the job position, the information systems are designed keeping in mind the job responsibilities that the individual is supposed to perform and depends upon the information needs of the individual in the organizational hierarchy. Information can be integrated by way of databases. The redundancy in storage of data, processing of data and generation of reports is avoided by way of integration of information systems. This information system becomes helpful for supplying information to managers in different functional areas like marketing, finance, production, personnel, materials etc. This information systems are facilitated with electronic equipment such as computers.

### 4. RESEARCH METHODOLOGY:

Questionnaire, Feedback Forms, Delphi Techniques, Group Discussions are various methodologies for collecting data. Apart from it, there are journals, magazines, surveys of government organizations and agencies.

In Section 4.1, there is sample questionnaire to gather information and opinion from students on teaching methods and programmes. It acts as the primary data for effective decision making in Academic Institutions.

#### 4.1 Sample Questionnaire:

1. Do you think notes are necessary in the end of every chapter?  
a) Yes b) No
2. Which teaching method do you feel more effective?  
a) Lectures b) Tutorials  
c) Lab work d) Workshops
3. Are you people interested in studying through e-learning medium?  
a) Yes b) No
4. Should teachers follow as per the syllabus prescribed or according to the competitive environment?  
a) Yes b) No c) Uncertain
5. Tutorials provided by teachers should include:  
a) Exercises b) Exercises along with solutions  
c) Both
6. Which method of delivering lecture is more preferable according to you?  
a) Projectors b) Practicals c) On lecture boards
7. Which subject do you people want to add to your course curriculum as per industry need?  
a) Web applications b) Cloud  
c) Databases d) Android
8. What methods should we follow to fulfill the gap of skills required in Industries? Write in brief.
9. Approximately how much time is sufficient for practical work?  
a) one hour b) two hours  
c) more than 2 hours
10. Preparation of Entrance tests for industries should go side by side along with studies. Give Comments.
11. Project work should be there along with practical exercises:  
a) Agree b) Disagree c) No idea

### 5. ADVANTAGES OF KNOWLEDGE AND INFORMATION MANAGEMENT SYSTEM

- Helps in decision making.
- Identify those areas where knowledge is lacking.
- It provides the competitive edge over others.
- Dependency on single resource person reduces.
- Growth and economy of the organization increases.
- Increases innovation and environment for research and development.
- Provides motivation to employees and enriches their knowledge as per requirement of market.
- Improves efficiency and knowledge sharing.
- Leads to greater productivity.
- Helpful in disseminating e-governance services.

### 6. CONCLUSION AND FUTURE SCOPE

The proposed study suggests the knowledge management and Information Systems among the staff members and students of small institutions or computer academies. It not only updates the knowledge as well as reduces the dependency on single resource person in terms of training. It increases the potential, resources, training work within the organization and capabilities of employees can be utilized in the form of research and development in organization. Some methods for

collection of data which includes primary and secondary methods are discussed. Questionnaires and feedbacks collected from employees, students and trainers become primary data. Collections from journals, research papers, conferences become secondary data. This data can act like an Expert System. These methods are also helpful in forecasting about the changing scenario in technologies. But for making this approach successful and to increase its scope, students, employees of other institutions, universities can be involved.

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