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# MANAGEMENT INFORMATION SYSTEMS AND THE PROCESS OF DEVELOPMENT A CORPORATE COMMUNICATIONS PROJECT

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#### ABSTRACT

Rapid developments on technology affect management sciences. Management information techniques are developed and they provide ease on different sides of management. Especially the development on computer science affects the corporation that works with systems based on computer and it do creates obligatory, adaptation of innovation. The corporation gets to right information that is necessary for them at the lowest time. Administrator has to decide to continue action of the corporation and the information is necessary for this. The most important thing about this is the collected, organized, cluttered information. A lot of organizations use the information systems based on computer to organize, collect and clutter the information. Because of this using of management information systems become widespread. In this study, it is found out how management information systems are used in corporate communications. Information, information systems and corporate communications are explained. Then, the effects of management information systems on the corporate communications project are educed. Finally, the process of development of corporate communications project is presented step by step.

**Keywords:** Information, Management, information system, corporate communications.

### 1. INTRODUCTION

The main function of the management information systems is to supply right, on the right time and significant knowledge among the decision organizations which will order the relation between man, machine, raw material, material and capital in order to satisfy company goals.

It is not perceived the information systems speed and importance enough until 1980s. It is not necessary for managers to know how to collect operate and distribute data until 1980s and the technological structure was at minimum level. Knowledge was not thought as a valuable entity alone. Management process was accepted as face to face relations, personal qualifications were not high and also global coordination process was low. But today a few managers can disregard to save knowledge in company.

Management information systems are providing support to people in the organization to analyze and show data and to solve problems. The inputs of the management information systems are the data from inner and outer environment of the company. The conversion process in the system is performing data and makes it expressive.

By building management information systems manual operations are converted to computer based structure, consequently the efficiency of processing and managing the knowledge is increased. Furthermore, by integrating organization modules and enterprise network structure, the knowledge communication is picked up. Also by picking up the knowledge flow, the organization modules decision making reaction gets stronger.

In this study, the contribution of the management information systems to the corporate communications is considered and the software based corporate communications application's development process is determined.

# 2. BASIC CONCEPTS (KNOWLEDGE, DATA, INFORMATION)

The most common mistake is the consideration that data and knowledge are same. Companies have had make extraordinary expenditures to technology working that is not appropriate their requests or needs because of that the meaning of data, information and knowledge are in a mix of head (the difference between what is, what they mean). They are related to each other but they are not the same. Data means objective truths about incidents. Information can be defined as the document or visual or auditory form of a message. The knowledge is valuable resource when is processed, stored and accessed by people during the making decision time.

The information that is not ready in time has not value. Therefore, information should be considered within a system. Management information system (MIS) arranges the collected information that supports to the decisions, the management and daily activities. The company that has a good designed information system is more advantageous than the others. Data should be converted to information to help decision makers by management information systems (Adıgüzel S. et.al., 2003).

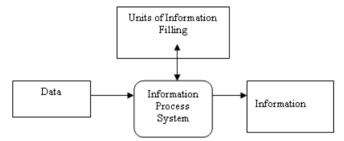


Figure 1. Transformation of data into information (Adıgüzel Ş. et.al..,2003)

#### 3. INFORMATION SYSTEMS AND MANAGEMENT INFORMATION SYSTEMS

# 3.1. Information Systems

The Information system can be defined as a set of related parts of editing, storing, processing, and collecting of information to support decision making in the organization. In addition, information systems which provide coordination and control, help to create new products and to explain complex issues, resolving problems managers and employees.

A management information system (MIS) is a system or process that provides the information necessary to manage an organization effectively. MIS and the information it generates are generally considered essential components of prudent and reasonable business decisions [5].

# 3.2. Management Information Systems

Management Information Systems (MIS), is to obtain past, current and future information which is related to corporate activities and external, in a organized way. MIS supports to assist an organization's planning, control and operational functions in decision-making process, by providing regular information within a time frame.

Management information systems are integrated information processing systems based on computer which are developed with the aim of giving effective information to managers in time.

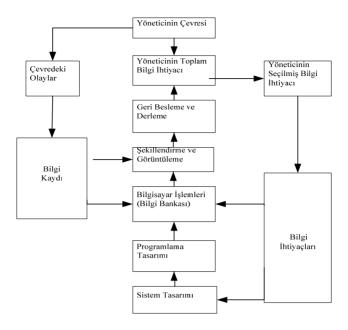


Figure 2. Management Information System (Yozgat, 1998)

#### 4. CORPORATE COMMUNICATION

Corporate communication can be defined as a social process that allows of the establishment of necessary relationships, the continuous exchange of information and ideas—between corporate and environment with the aim of the ensuring the functioning of institution and achieving their goals. The purpose of the flow of information in institutions is to achieve their goals by developing skills of the carrying on business (production). Therefore, it is important that the trusting to the channel that employees provide information to , the accessing form to the information and accessing time to the information. At this point it is important issue how the institution use resources of information.

Developments in information technology have changed corporate forms of carrying on business dramatically; today the carrying on business has become almost impossible without computers. Corporate communications become more effective with facilities such as web services and electronic mail. In this section, an assessment will be done about the using of the intranet web services that is the most important elements of corporate communication. Intranet can be defined as a form of case that can be checked and administered efficiently and is reduced requirements of the Internet's organization. Intranet is a special Internet that is based on the same technology and structure , but its structure is linked to a single organization.

The main aim of intranets' is to ensure the continuous communication and cooperation between employees. Previously, information sources stored in separate areas and people who work in that field can only access to it. the users can accessed to various databases, reports and various information about the job, through a single interface by intranet. In fact the main topic which is focused on are not computers or applications, the main target is "information". The success of institutions is related to obtaining, production and storage of information. Common areas of information will be collected can be called "institutional memory" [9].

## 5. THE DEVELOPMENT PROCESS OF A MANAGEMENT INFORMATION SYSTEM

Information systems are the elements which provide support in solving organizational problems. The developing and processing of Information system reveals a optimum a Management Information System. Management Information System Project provides documentation of the system requests analysis, system design and specification of the work the most clearly. Software project sponsors and project manager determine customer requests absolutely, they have detailed information about adequacy of analysis work and the design of the system and software modules. On the other hand,

Software, System Test Documentation and User Manuals created at the system design stage ensure customer needs and quality products with minimum maintenance for many years. A Management information systems project which is described detailed, involves defining of algorithms, preparation of data flow diagrams, entity relationship and drawing of the display using a structural language before the preparation of the software (coding).

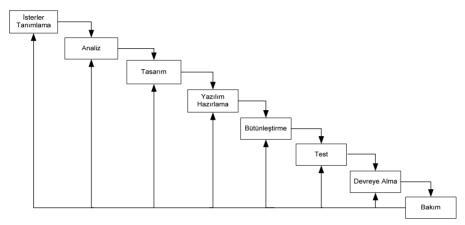


Figure 3. Project development process

Table 1. The outputs of project development process (OYTEK, 2005)

Process	Outputs of the Process
Definition of Demands	List of demands
Analysis	The document of analysis(This document contains the description of requests, functional specifications, etc)
Design	The document of design, The Plan of Test, The document of test, Preparation of the draft User's Manual
Preparation of Software (Coding)	Codes of program, software checklist
Integration	Coding
Test	The document of test, Test Document, User's Manual
Customer Acceptance Tests	Software/ System Acceptance Document
Commissioning	The document of commissioning, pilot implementation plan, results of pilot implementation plan

### 6. CONCLUSIONS

The main purpose of management information systems is to gain a working format and support to management of organization. The integrated database of management information systems provides greater flexibility to be supply information which management needs. it integrates the information flow between the function fields (accounting, marketing, production, planning, etc.). it responds the needs of information at all levels of management. Besides this, Management Information Systems has a very large and complex structure. A management information system which is designed under these conditions will provide that human resources at all level of organization work each other in harmony. In conclusion, the needs of institution should be defined and an information system project should be established in accordance.

# 7. REFERENCES

- [1] Adıgüzel Ş.ve Renk M. Ve Güven Y.,(2003), Yönetim Bilişim Sistemleri ve Uygulamaları Tez (Lisans), YTÜ Kim-Met Fakültesi (yayımlanmamış).
- [2] U.Yozgat, (1998), Yönetim Bilişim Sistemleri, İstanbul, Beta Yayınları,
- [3] OYTEK A.Ş.,(2003) Proje Geliştirme Süreci Dokümanı, İstanbul
- [4] http://www.kamubib.tbd.org.tr/dokumanlar/CG5S.doc
- [5] "Management Information Systems Comptroller's Handbook", May 199.