

A RESEARCH FOR THE USAGE LEVEL OF MANAGEMENT INFORMATION SYSTEMS BY SCHOOL ADMINISTRATORS

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ABSTRACT

Denominated as the information age of today provided a better understanding of the value of the information day by day. The use of information technology in the globalization of the economy offers a serious competitive advantage to businesses. Even though it is foreseen to provide an economic superiority in the first place, the management information systems affect the structure and functioning of many different organizations in a positive aspect.

In this context, the educational institutions that we may discuss can not be excluded. The sole aim of which is to train students in educational institutions in accordance with the objectives of the education system, the efficient use of management information systems certainly have a positive effect on this process. Decision-making processes of managers on management information systems and knowledge management provides great support to the school administrators. Management information systems in order to improve the quality of education and training in educational institutions are actively used captured that success can be said to constitute one of the pillars in the success of our young people who will shape our future.

The universe of the study consists of the schools in the city centre of Diyarbakir. As the means of collecting data, questionnaire was used in the study. The data were obtained from the survey evaluated in the 18th version of Statistical Packages for the Social Sciences.

Prepared for this purpose with this study of school administrators', working in educational institutions, utilization levels and the scope of the management information systems in their institutions are discussed.

Keywords: Management, Management Information Systems, School Administrators.

INTRODUCTION

From past to present the value of information has increased with each passing day. However, in the corporate area of information technology, as well as the increasing prevalence in daily life, has led to an increase in the amount of the resulting information. At this stage, the necessity of efficient interpretation, storage and reporting of resulting information has shown up.

We can mention about the existence of the concept of management from the beginning of communicating and doing things in common with each other. The concept of management within formation management, document management, people management, money management has a pretty large area. In order to perform the shortest path to the objectives of the management stage, it is required to reach the accurate information on time and faultlessly. To solve people's problems as knowledge-based it became necessary to create an information system by taking advantages of technology. It seems that in application of information systems and strategies, the institutions which can be used as a tool and support could go one step further in competition.

The directors who are involved in the educational institutions, performing their duties effectively and the right steps they will take as a result of the emerging knowledge ensure the success in school directly. Considering the success in a school is increased by well-educated students in a well-managed school, the effective use of management information systems will prove the importance of the strength on school administrators.

1. THE THEORETICAL INFORMATION RELATING TO MANAGEMENT INFORMATION SYSTEMS

At the present time, information, management and knowledge management are increasingly important concepts. Management information systems contribute the administrators greatly about the knowledge management. One of the organizations in which the management information systems are used is the school. Before analyzing the management Information Systems we can mention about the definitions of "management" and "information" concepts.

"To reach some particular goals the management is the sum of processes of making decisions which are compatible with each other and efficient and effective utilization of all available resources, notably people, and enforcement of these decisions" (Eren, 1996:3). In short, the management can be expressed as achieving the objectives through others.

In order to understand the importance of management information systems in enterprises first it is needed to dwell on the concept of information. We can define the information as a converted format of data considered to be as raw fact, of the useful and meaningful results which are obtained through a transformation process with the help of information processing (Ergun, 1995:3). "Data is the raw material extracted information from him. Information is the outcome associated with analyzing the data in a rational manner, manipulating and presenting to strengthen the decision-making process" (Long, 1989:10). Today, accessing to data and information is easier. However, it is observed that there is uneasiness in the analysis and synthesis.

The concept of knowledge is defined as the act of making the news and it is derived from a Latin word "informatio" as the act of forming and formatting (Ülgen, 1980:4). Information means the data processed in a certain form that is meaningful to the ones who obtained it and in terms of managerial decisions is assumed to be necessary, or which has the actual value (Davis, 1974:7). Information is also considered as a resource that can be traded (Williamson, 1975: 9). The needed management information is as a set of meaningful data for an institution, organization or company that shows their activities, that can be stored, processed, changed and most importantly, presented as a report to the

managers and stages (Parker & Case,1993). While evaluating an information system, some of the features used in the computational knowledge should be considered (Çoban, 1997:156):

1. Information, which is required and completely new for the field,
2. Information, which increases or corrects the amount of available knowledge,
3. Information, which is right or wrong,
4. Information, which verifies the available knowledge,
5. Information, which corrects the old or wrong available knowledge.

The management information systems is an integrated computer-based system that answers how to choose and save the necessary information for the institution in order to make effective decisions how to support the managers. The management information systems provide opportunities to conduct information intensity that is increasing with the development of communication. Management information systems serves the management level of organization. Processing the data obtained from a variety of sources, it generates weekly, monthly or yearly reports for managers. Every organization has its own hierarchical structure and standard operating procedures. Although each unit in the organization seems independent of each other, communication network connects each of them. via this communication network, information reaches each unit in the required form.

As Kingır and Deniz indicated that there is not an agreement on the concepts of Management Information System and Management Informatics System, so there are many possible definitions related to these concepts. Some of them can be offered at the following table" (2006:289).

Researchers	Definitions
Kreitner 1983:495	It is a computer-based network adapting the collecting, processing and transferring of information.
Kroenke and Nolan 1987:19	It is an operating system that provides information about the property and surrounding area for past, present and future
Sprague 1980:20	It is a set of systems and actions required for the use of information as a source in the organization, processing and conducting.
Holt 1987:138	It is an integrated information system supports management for decision-making process.
Davis and Olson 1985:6	It is an integrated human-machine system which supports managers for making the decisions,conducting administrative functions and actions.

"When we analyze the definitions, we see that there are three different approaches of management information system. First, those who think management information system as an information processing and providing system. The second approach is those who think it facilitates decision-making systems, the third approach can be specified as which combines both approaches, in other words those who think management information system as an information processing and providing system as well as that serves as decision support systems "(Kingır and Deniz,2006:289).

"Management information system (MIS) is the heart of the organization in a way. How is it that, in all living creatures, heart pumps blood with rhythmic bursts to provide the necessary oxygen for body to live, in the same way, the MIS produces the necessary information consistently and provides access to the necessary places for the survival of the organization. Although management information systems can only support the decision making process, it helps to make decisions about how to

resolve some recurring problems. MIS contributes the managers by providing information to ensure the integrity of the organization management. Thus, the organization as a whole, work together with all the elements for common goals in an integrated manner (Öğüt, 2003:150). In this way, the MIS provides the ability to achieve organizational goals to the managers with desired quality and quantity.

"It converts the data in data processing systems to information to manage an organization and to monitor performance. It guides to users about making decision and using the system. It provides the methods and shapes for the stages of the decision making process. It offers a general framework for analyzing and explaining a decision (Alter, 1991:128-129). The computer-aided management information systems produce information to ensure coordination, to monitor the performance and to provide basic information about the organization's work "(Alter, 1991:133). In short, the MIS has characteristics that provide required arguments for managers.

The management information systems are one of the most common forms of management support systems. It supports administrators for making daily decisions and offers a wide variety of information and indicators. By the same time, it provides access to information about the internal affairs from data bases that are updated by data processing systems (O'Brien, 1999:61). "Management information system is an integrated, human-machine interactive system that provides information for the purpose of support decision-making and management processes in an organization. This system uses computer software, hardware, methods, analysis, planning, checking, decision-making models, and a data base to provide the information" (Davis, 1985:6). In summary, MIS is a converted form of technology to serve the purpose of the human element.

2. THE STUDY OF AREA FOR SCHOOL DIRECTORS' LEVELS OF USAGE OF THE MANAGEMENT INFORMATION SYSTEMS

This study was made to detect "Computer-Aided Management Information Systems in Terms of Use Level" of executive director and deputy directors who serves at educational institutions operating in the centre of Diyarbakir. As the data collection method, survey method and the face-to-face interview were used in the research. The information about the questionnaire used in the study is included at the beginning of the questionnaire. In this context, 172 questionnaires were distributed. 161 questionnaires were returned, 5 questionnaires were not included in the analysis because of incomplete information. The total number of questionnaires used for the analyzes is 156. It is impossible to say that the universal of sampling is enough statistically while checking the numbers. But from the work of Altunışık and others (2007) and relevant chart, we can say that the sample has been reached to the acceptable size.

In the first part of the questionnaire six-question personal information form was used prepared by Neşe Gürcü Soysal (2006). In the questionnaire the task steps of school administrators, their duties, the time of computer use, information on whether they have been done in-service training about the use of MIS, the use of MIS stages at schools were asked. In the second section, the 24-item questionnaire was used to measure "The Computer-Aided Management Information Systems Level in Terms of Usage" which the 5-point Likert-type scaling is used in. Answers to the questions in this survey have been evaluated by scores ranging from 1 to 5 (1) None (2) Below average (3) Average (4) Upper Average (5) High Level. In the second part of the questionnaire, the details of "Computer-Aided Management of Information Systems Level in Terms of Usage" are described as a result of the analysis in the tables below.

Before analysing data of the research, pilot application has been done . After pre application done over 21 teachers , data reliability that obtained from collected questionnaire , has been measured and Cronbach alpha value of obtained data collected from pre application has calculated 0,87. As a

result of the test , general Cronbach alpha's of data has realized over the level of 0,7, as Nunnally's (1967) stated.

As a mean of data collection aquestionnaire form was used named "A Research on the Level of usage of Management Information Systems by School Administrators" for the primary, secondary and highschoools' education institutions administrators.The data of survey has been obtained by applying 156 school administrators who work in districts of Diyarbakir in the academic year 2012-2013. The usage levels of management information systems by school managers have been identified as a result of the findings of the analysis of data.

2.1. RESEARCH POPULATION AND SAMPLING

Population of the study is 225 primary schools, 114 secondary schools and 56 highschoools' administrators working in educational institutions in the province of Diyarbakir in the academic year 2012-2013. The sample of study consists of randomly selected 60 primary,secondary and high-level schools in the centre of Diyarbakir and their administrators (school principals and assistant principals) in the 2012-2013 academic year.

For the final form of the questionnaire and data collection, the samplewas implemented by the surveycarried outface to face by 176 out of 934 administrators working in educational institutions of the central district of Diyarbakir.

In the sense of obtaining qualified findings different types of schools and administrators using MIS systems were selected. Somultigrade class schools, adult education centers and vocational training centers, the director of teachers' lodge and science and art center were excluded.

2.2. RESEARCH FINDINGS

The obtained data after the questionnaire has been analyzed with SPSS 18 computer program. Required tests have been used on the analyzing of the obtained data. The frequency and percentage of the answers to the questions on the questionnaire have been analyzed and the ranges have been shown as tables. The evaluation of the data has been done on the based on total point of answers to the each question by the participants.

The data has been examined on the basis of descriptive and inferential statistic and evaluated with appropriate statistical techniques. On the basis of descriptive statistic the frequency range of demographical data has been examined and evaluated primarily.

The 33% of administrators work in Primary School, 28.2% work in Secondary School and 38.5% work in High School, who filled in the questionnaire. Thus, 52 of administrator are charged in Primary School, 44 administrator are in Secondary School and 60 administrator are in High School. When we examine the distribution of positions of administrators, it can be seen that 29.5 % of them are principal and 70.5% of them are deputy principal. It means, 46 of administrator are performing their task as principal and 110 of them as deputy principal.

When we look at the experience period of computer using of administrators, the 12.8 % of participants use computers on the school administration field for 0-4 years, 41 % of them for 5-9 years, 38.5 % of them for 10-14 years, 7.7 % of them for 15 years and higher. It means, 20 administrator use management information systems on the school administration computers on school administration for 0-4 years, 64 of them for 5-9 years, 60 of them for 10-14 years, 12 of them for 15 years and higher.

The 29.5 % of participants use a different information management system while the 70.5% of them do not use a different management information system program. Thus, 46 administrator use a different management information system while 110 of them do not use any other program.

According to conclusions, it has been seen that the usage percentage of a different management information system is low.

The 3.8 % of administrators who filled the questionnaire has stated that the information system was designed recently, the 15.4 of them have stated that the installation facilities were going on, the 5.1 % of them have stated that the installation facilities of information system were completed, but it has been continuing to do the works by hand, 52.6 % of them have stated that the administrative works have been executed on the frame of this systems both by hand and by using information technologies and 23.1 % of them have stated that the administrative works were being executed completely by using the information technologies in the manner supporting the installed information system. Then, the 6 administrators has stated that the information system was designed recently, 24 administrators have stated that the installation facilities were going on, the 8 administrators have stated that the installation facilities of information system were completed, but it has been continuing to do the works by hand, 82 administrators have stated that the administrative works have been executed on the frame of this systems both by hand and by using information technologies and 36 administrators have stated that the administrative works were being executed completely by using the information technologies in the manner supporting the installed information system.

In the light of this parameters, it has been seen that, on those institutions which the information system infrastructure has not been completed yet, there is no usage and the administrative works are being executed by hand. On the majority of those institutions which has a completed infrastructure, the works are being executed by hand or both by hand and by using the management information system. It has been seen that, on the low percentage of those schools which has a completed infrastructure, the administrative works are being executed completely using management information system.

The 37.2 % of administrators has stated that they have got in-service education about MIS while 62.8 % of them have stated that they have not got in-service education about MIS. Then, 58 administrators has stated that they have got in-service education about MIS while 98 administrators have stated that they have not got in-service education about MIS. It has been seen that the large majority of administrator have not got any in-service education about management information system. It can be stated that the above mentioned situation will influence negatively the jobs of administrators in term of quality and quantity.

CONCLUSION AND SUGGESTIONS

Today's institutions and organizations aim at obtaining information and forward this information to related places correctly in order to set targets and to achieve these targets as soon as possible. A good administrative level have to be formed for doing all these things on time and correctly. The management of the institution effectively, efficiently and successfully is depend on knowing the institution very well and on determining plans and objectives which are appropriate to the situation. Besides, Administration has to be conscious of organizing a good place to work for all departments in the institution and of responsibility of controlling the works continuously.

The emergence of information economy and development of all the global communication networks especially internet, together with globalization of commerce on the World has raised the importance of MIS in terms of business. New methods have been improved to show up objectives and reach the information of institutions, companies and organizations with proliferation of using internet. Comparing with the past, nowadays organizations use internet and other information technologies for running the business, more on electronic environment. By this way, flow of information and communication between units of institutions which has been obtained qualification as a result of globalizing, in different places, continues without boundaries.

Nowadays, production, dissemination, sharing, evaluation of the information and enforcement of this information in question effectively and efficiently in competitive environment, is very important for both business and governments. Countries which has been reached to public of information level as a result of technological developments and scientific studies, are working to prosper of citizens

The formation of social and economic development is directly proportional to the quality of man power of grown in the field of education. As well as social and economic development is being done for people, important tasks and responsibilities fall to people who are working in the field of education in this process. The most important factor here is no doubt that teachers and administrators who are working for educational institutions, involved in this field of professional competence levels. When the classical teaching methods are thought, perhaps, this fact will be sufficient alone, unfortunately, is inadequate considering today's changing world. Because technology world in present-day makes essential to use computers. Therefore level of professional competence lay down as a condition to use information systems actively and efficiently.

Graduating of qualified individuals from schools, well-trained and well-managed schools compel necessity. Using management information systems by school administrators actively gains importance at this stage. Because a seamless administrative structure, educational institutions need to focus on the real issues that will enable to grow qualified students allocating more time. School administrators implemented some of the key managerial activities with the help of MIS listed as follows:

- Planning of academic year,
- Preparation of syllabus,
- Enrolling in a school for students,
- Monitoring absences status of students,
- Announcing the results of exams of students,
- Preparation of school report and diplomas.

The above mentioned management activities on information systems, keeping records create chance for reporting and analyzing of outcomes from these data at the same time. It is important to realized the analyzes and both sharing with parents of the students when it is necessary and in terms of coordination between the school management and teachers. These analyzes listed as follows:

- The creation of indicators of student grades and behavior,
- Analyzing of students' academic standing,
- Decision making to increase achievement,
- Performance evaluation of school personnel,
- General disciplinary status evaluation,
- Providing access to the necessary information of all relevant persons within and outside the school.

As a result of research developed the following recommendations for managers and practitioners;

- It is thought to increase the utilization rate of the MIS when management information systems infrastructure (internet connection access, computer installation, etc.) problems managers installations fully resolved.
- If the needs and suggestions in management information systems taking into account, the increase of the number of active user who is the administrator will be seen. Changes which are needed by administrator will be done fast.

- The information must be entered by the teachers (written examinations dates, results, the guidance information which are entered by class teachers, personal information) should be put applications for entering in time. In this case, the rates will be increased efficiency and access to information of administrators.
- Access speeds of management information systems should be increased. However, decision making of administrators and situation assessments will be easier.
- Used management information systems stripped from unnecessary details should be simple and easy to use.
- If the data is processed on a regular basis in used the management information systems, realization of an effective communication will be provided between managers and other department managers.
- Managers should have an obligation to know how management information systems work. Otherwise, management information system, no matter how perfectly designed, it will not be any benefit for the manager. In this case, the content of used management information systems should be given on the use of practical seminars to the managers.
- It should be provided faster to reach accurate data as more data entry prevent by managers With established links between management information systems which are used in other institutions, management information systems which are used in schools faster access to accurate data entry should be prevented.
- A practical training should be given to managers who have sufficient information about using of computer and internet for attaining this competency. In this case, the use of management information systems for managerial jobs will increase and accelerate.

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