

Direct supervision by administrative automation and its impact on improving managers' decision making in Medical Science University of Kerman

Hamed Zeinali¹, Amin Zandifard², Malikeh Beheshtifar³, Amir Farahnaki⁴

1. Hamed Zeinali (Corresponding Author), PhD of Public Administration, Assistant Professor of Vali-e-Asr University of Rafsanjan, Rafsanjan, Iran.
2. Amin Zandi, Master of Human Resources management, Islamic Azad University of Rafsanjan, Rafsanjan, Iran.
3. Malikeh Beheshtifar, Associate Professor of Islamic Azad University of Rafsanjan, Rafsanjan, Iran.
4. Amir Farahnaki, Master of Administrative Management, Islamic Azad University of Rafsanjan, Rafsanjan, Iran.

Abstract: In the era of rapid and growing changes, the pace of decision making has also taken a rapid speed. Growing use of automation by managers, to take quick decision, is inevitable. In the present research, the direct supervision by administrative automation and its impact on improving managers' decision making in Medical Science University of Kerman has been investigated. The statistical population which was used in this study included all managers of Medical Science University of Kerman which were 216 members. The sampling has been done as simple random in which Morgan table was used to select 140 individuals as the sample size. One questionnaire was also used to collect data in the current research. The validity and reliability coefficients of this questionnaire were confirmed as 0.73 and 0.899, respectively. The work process was as initially descriptive statistics of demographic variables of the research were presented and then deductive statistics were discussed. Finally, the analyzing results indicated that administrative automation system influences remarkably on managers decision making improvement, accuracy, punctuality and also economy.

Keywords: administrative automation, managers' decision making, medical sciences university, Kerman

INTRODUCTION

Growth, success and failure of organizations are the results of decisions of their managers. As a starting point in the recognition of organizational processes, decision is of crucial importance. Since decision-making forms the main essence of management, the implementation of correct and effective management tasks depends completely on it; and the existential philosophy of management creates an unbreakable bond with decision-making (Sarfazai, Sepehrnia, Kavoozi, 2010).

In an era where rapid and increasing changes are of its important specifications, the process of decision-making has also been accelerated and the need to decide quickly for dealing with the rapid interactions in the environment has created conditions in which the time of reflection and decision-making for managers has been shortened. In fact, today's managers require making decisions about diverse topics and issues in a shorter time. The decision-making for solving a problem is done by an opportunity. Being aware of the conditions and factors that are associated with a particular issue or opportunity and also knowing the different solutions that may exist to solve the problem or seize the opportunity are the most important requirements of a reasonable decision. For being effective, the information should be timely accessible for decision makers. When the information is more important and more relevant to the theme, the decision is consequently better and more effective. Thus, familiarity with methods and approaches of decision-making and also tools and ways used by managers to make better and more efficient decisions is of crucial importance (Harrison & Mc Dowell, 2007).

Office automation systems have no clear definition; users and their viewpoints uniquely determine their definition. This fact means that office automation systems have numerous definitions. Here, we refer to some of them: office automation includes all official and non-official electronic systems that are related to the establishment of information relationships between persons inside and outside the organization, and vice-versa. The main word that distinguishes office automation from data processing, management information system and decision support system is "communications". Office automation is done both orally and in writing in order to facilitate communications (McLeod, 2003).

Administrative information systems support administrations through the information technology. Modern information systems are the components of management information system and provide tools for communication and coordination among knowledge workers by creating effective management of documents and messages and meetings (Zwass, 2004, 56).

Having skills in decision-making is the key to successful planning at all levels. This not only includes the choice of a work program cause before each choice, at least three steps of effective recognition of issues, exploring solutions and the analysis of situation should be done (Kazmayer, 1991). Decision-making forms the basis of planning because obviously, plan, program and policy cannot exist unless someone has decided somewhere (Sarafrazi, Sepehrnia, Kavooosi, 2010). The first task of any manager is decision-making, this act is so important in organizations that some authors define the organization as decision web and the management as the act of decision-making. Herbert Simon considers decision-making as the main essence of management. Grift considers the process of decision-making as the heart of organization and management (Parsian & Arabi, 1997).

Rational decision-making requires some information that enables manager to reach the best decision in the present situation. In this case, the manager selects some exiting information to use and analyse. The critical role of information in decision-making is helping to reduce the uncertainty regarding an issue; this is most important factor in the process of decision-making (Nooshinfard & Nazarboland, 2013, 98).

The storage and processing of mass data required for decision-making seem to be impossible without the use of powerful computers of the new era. Computers can retain millions of data in their memory, they analyse and summarize the data with an amazing speed in different ways and according to written instructions and then they make this data available for users. The rapidity of managers in decision-making and the correctness and accuracy of their decisions depend completely on the quality and quantity of the accessible information for them. Also the information feedback of decisions provides the ability to modify and enrich them for managers (RanjiJifroodi, 2012).

Many studies have been conducted in Iran about the impact of office automation system on organizations. Fattahi, Mohammadi and Sadeghi (2015) state in their article "the role of management information systems in the improvement of decision-making process of corporate managers" that management information systems and decision support systems are systems in public relations with operating field that have a decisive role in organizational hierarchy and management decision-making process. They provide management information systems needed to manage an organization and offer decision support systems, data models and data analysis tools to help in the decision-making in unusual circumstances. Therefore, the creation and application of these systems in country's organizations can enhance the decision-making process of managers and guide the existing resources more effectively in order to accomplish organizational goals and tasks. Azimi & Pashayi (2014) conducted a study titled as "the impact of information technology on the improvement of decisions in organizations". After reviewing previous researches and studies in the field of decision-making, information technology and their application for managers, the final results indicated that information technology can help managers in the process of qualified decision-making by improving it through facilitating the process of collecting, processing, storage and transmission of information. Mashali & Ghorbanfekr (2014) conducted a study titled as "Investigation of the impact of office automation on the improvement of the managers of national organization of educational testing", they found that from the perspective of managers, the use of office automation influences the increase of speed; also the use of office automation enhances and increases the effectiveness and efficiency. On the other hand, the application of office automation helps us in the process of economisation and increases authenticity. Arabesmaeili (2014) conducted a study titled as "Investigation of the impact of office automation on the improvement of decision-making of staff managers in the governorship of Semnan province"; the researcher concluded that office automation system has positive effect on the increase of accuracy, precision, correctness and authenticity of decision-making process of managers. It also has positive impact on timely and economic decision-making; and there was no evidence to reject four mentioned hypotheses. Sheikhkabir (2014) conducted a research titled as "Investigation of the effect of office automation on the improvement of decision-making process of managers and experts of Shahroud University of Medical Sciences"; after the analysis of obtained information, all four hypotheses of this research were confirmed and it can be concluded that office automation has positive effect on the enhancement of decision-making process of managers and experts of Shahroud university of medical sciences. Ahmadi Kamarposhti (2013) conducted a study titled as "Investigation of the impact of office automation on the enhancement of decision-making process of governorship managers and staff (case study: Governorship of Mazandaran province) "; the researcher concluded that office automation system has positive effect on the increase of accuracy, precision, correctness and authenticity of decision-making process of managers. It also has positive impact on timely and economic decision-making; and there was no evidence to reject four mentioned hypotheses.

The present research and its results can be effective in recognizing the strengths and weaknesses of the system and eliminating its potential conflicts. It can also play an important role in accelerating the decision-making process, providing the requirements of modern organizations and hardware and software technologies equipment in the new era in fellow organizations. Therefore, given the importance of this subject, the impact of office automation system on the improvement of decision-making process of managers in Kerman University of medical sciences has been investigated.

RESEARCH METHOD

The choice of method depends on the purpose and nature of the subject under study. In the present study, according to its object and its purpose, descriptive-correlational method is used. In terms of objective, this is an applied study and the data were collected by field method. The statistical population of the present study consists of all male and female managers of Kerman University of Medical Sciences with a total number of 216, 140 of these managers were selected as study sample by simple random sampling method and using Krejcie & Morgan table (1970). Data collection tool is a questionnaire with the validity of 0.73; also Cronbach's alpha of the questionnaire of office automation and improvement of decision-making process of managers is equal to 0.899. This amount is acceptable for research purposes (more than 0.7). For analysing the collected data, Spss20 software was used. Firstly, descriptive statistics of demographical variables of research and then, inferential statistics were analysed and studies.

Information and data

Komolgorov-Smirnov test was used to determine the distribution of each variable.

According to table 1 and the significance level of test, since the significance level of all variables are more than 0.5, so it can be concluded that these variables are normally distributed. Thus, parametric tests were used for data analysis.

Test of hypotheses

For exploring the hypotheses of research, one sample T-test was used. It should be noted that the average benchmark for this variable is 3.

Main hypothesis

H0: Office automation system doesn't influence the improvement of decision-making process of managers in Kerman University of Medical Sciences.

H1: Office automation system influences the improvement of decision-making process of managers in Kerman University of Medical Sciences.

According to statistics of table 2, the significance level for one sample T-test is more than 0.5 and the average of the variable of office automation on the improvement of decision-making process of managers (3.72) is more than the determined average (3). Thus, the H0 is rejected and the hypothesis of research is confirmed. It means that office automation system influences the improvement of decision-making process of managers in Kerman University of Medical Sciences.

First subsidiary hypothesis

H0: Office automation system doesn't influence the accuracy in decision-making process of managers in Kerman University of Medical Sciences.

H1: Office automation system influences the accuracy in decision-making process of managers in Kerman University of Medical Sciences.

According to statistics of table 3, the significance level for one sample T-test is more than 0.5 and the average of the variable of office automation on the accuracy in decision-making process of managers (3.81) is more than the determined average (3). Thus, the H0 is rejected and the hypothesis of research is confirmed. It means that office automation system influences the accuracy in decision-making process of managers in Kerman University of Medical Sciences.

Second subsidiary hypothesis

H0: Office automation system doesn't influence the authenticity in decision-making process of managers in Kerman University of Medical Sciences.

H1: Office automation system influences the authenticity in decision-making process of managers in Kerman University of Medical Sciences.

According to statistics of table 4, the significance level for one sample T-test is more than 0.5 and the average of the variable of office automation on the authenticity in decision-making process of managers (3.71) is more than the determined average (3). Thus, the H0 is rejected and the hypothesis of research is confirmed. It means that office automation system influences the authenticity in decision-making process of managers in Kerman University of Medical Sciences.

Third subsidiary hypothesis

H0: Office automation system doesn't influence timely decision-making process of managers in Kerman University of Medical Sciences.

H1: Office automation system influences timely decision-making process of managers in Kerman University of Medical Sciences.

According to statistics of table 5, the significance level for one sample T-test is more than 0.5 and the average of the variable of office automation on timely decision-making process of managers (3.86) is more than the determined average (3). Thus, the H0 is rejected and the hypothesis of research is confirmed. It means that office automation system influences timely decision-making process of managers in Kerman University of Medical Sciences.

Forth subsidiary hypothesis

H0: Office automation system doesn't influence economic decision-making of managers in Kerman University of Medical Sciences.

H1: Office automation system influences economic decision-making of managers in Kerman University of Medical Sciences.

According to statistics of table 6, the significance level for one sample T-test is more than 0.5 and the average of the variable of office automation on economic decision-making of managers (3.49) is more than the determined average (3). Thus, the H0 is rejected and the hypothesis of research is confirmed. It means that office automation system influences economic decision-making of managers in Kerman University of Medical Sciences.

DISCUSSION AND CONCLUSION

The main purpose of the present study is the evaluation of the effect of office automation systems on the enhancement of decision-making process of managers in Kerman University of Medical Sciences. Regarding the variable of age, 5 people (3.6%) were aged less than 25 years, 42 people (30.0%) were aged between 26 to 35 years, 60 people (42.9%) were aged between 36 to 45 years and 32 people (22.9%) were aged more than 46 years. About the variable of gender, there were 61 male subjects (43.6%) and 79 female subjects (56.4%). In terms of years of service, 15 people (10.7%) had less than 5 years of work experience, 31 people (22.1%) had 5 to 10 years of work experience, 52 people (37.1%) had 11 to 20 years of work experience, and 42 people (30.0%) had more than 21 years of work experience. In terms of studies, 12 subjects (8.6%) had secondary diploma, 10 subjects (7.1%) had associate degree, 60 subjects (42.9%) had bachelor's degree, 38 subjects (27.1%) had master's degree and 15 subjects (10.7%) had Ph.D or higher degrees. Also concerning the variable of organizational position, 34 people (24.3%) had the position of manager/director/head of department or similar titles and 104 people (74.3%) had the position of expert/employee or similar titles.

The results obtained from the examination of the main hypothesis indicate the office automation system influences the improvement of decision-making process of managers in Kerman University of Medical Sciences. These results are in line with the study results of Ranjijifroudi (2012) and Safayi (2015). Also Fattahi, Mohammadi & Sadeghi (2015) state in their article titled as "The role of management information systems in the improvement of decision-making process of corporate managers" that management information systems and decision support systems are the systems in public communications with operational field, they have decisive role in organizational hierarchy and decision-making process of managers. Sheikhkabir (2014) conducted a study titled as "Investigation of the effect of office automation on the improvement of decision-making process of managers and experts in Shahroud University of Medical Sciences". After the analysis of obtained results, all hypotheses of this research were confirmed and it can be said that office automation has positive effect on the enhancement of decision-making process of managers in Shahroud University of Medical Sciences. Also Azimi & Pashayi (2014) conducted a study titled as "the impact of information technology on the improvement of decisions in organizations". After reviewing previous researches and studies in the field of decision-making, information technology and their application for managers, the final results indicated that information technology can help managers in the process of qualified decision-making by improving it through facilitating the process of collecting, processing, storage and transmission of information; These results are in line with the results of the preset study.

The first subsidiary hypothesis of research indicated that office automation system influences the accuracy in decision-making process of managers in Kerman University of Medical Sciences. Ahmadi Kamarposhti (2013) conducted a study titled as "Investigation of the impact of office automation on the enhancement of decision-making process of governorship managers and staff (case study: Governorship of Mazandaran province)"; the researcher concluded that office automation system has positive effect on the increase of accuracy, precision, correctness and authenticity of decision-making process of managers. It also

has positive impact on timely and economic decision-making; and there was no evidence to reject four mentioned hypotheses. Sheikhbaklou (2012) conducted a study titled as "Investigation of the effect of office automation on the efficiency. The researcher concluded that office automation influences the efficient use of time, quickness in responding to customers and accuracy in the accomplishment of tasks and finally it increases organizational efficiency. Rahimi (2015) conducted the study "Investigation of the effect of office automation on the improvement of performance of human resources in information and planning departments and deputies of IRIB (Islamic Republic of Iran Broadcasting). This researcher concluded that office automation has positive effect on the accretion of new skills and abilities in employees, the increase of accuracy in work, the speed and amount of task, motivation and job satisfaction and the reduction of job stress and as a result, it improves the performance of employees. The mentioned results are consistent with the results of the present study and also with the results of Ranjijifroudi (2012) and Safayi (2015).

The second subsidiary hypothesis of research showed that office automation system influences the authenticity in decision-making process of managers in Kerman University of Medical Sciences. These results are consistent with the results of Ranjijifroudi (2012) and Safayi (2015). Arabesmaeili (2014) conducted a study titled as "Investigation of the impact of office automation on the improvement of decision-making of staff managers in the governorship of Semnan province"; the researcher concluded that office automation system has positive effect on the increase of accuracy, precision, correctness and authenticity of decision-making process of managers. It also has positive impact on timely and economic decision-making; and there was no evidence to reject four mentioned hypotheses

The examination of the third subsidiary hypothesis of research showed that office automation system influences timely decision-making process of managers in Kerman University of Medical Sciences. These results are consistent with the results of Ranjijifroudi (2012) and Safayi (2015). Kazeminia (2014) conducted a study titled as "Investigation of the effect of office automation system on the efficiency of employees in the headquarters of the judiciary. This researcher concluded that office automation has positive effect on time, cost, production services and efficiency. These results are in line with the results of Arabesmaeili (2014) and Ahmadi Kamarposhti (2013).

The fourth subsidiary hypothesis of research showed that office automation system influences economic decision-making process of managers in Kerman University of Medical Sciences. These results are consistent with the results of Ranjijifroudi (2012) and Safayi (2015). Mashali & Ghorbanfekr (2014) conducted a study titled as "Investigation of the impact of office automation on the improvement of the managers of national organization of educational testing", they found that from the perspective of managers, the use of office automation influences the increase of speed; also the use of office automation enhances and increases the effectiveness and efficiency. On the other hand, the application of office automation reduces costs and helps us in the process of economic decision-making; it also increases the authenticity of decisions.

REFERENCES

- Ahmadi Kamarposhti, Marjan. (2013). Studying the effect of automation on decision-making improvement of governor and headquarter managers. International Conference on Management of Challenges and Solutions.
- Arab Ismaili., Hadis. (2014). Studying the effect of automation on decision-making improvement of governor and headquarter managers, master's thesis. Islamic Azad University of Shahrood.
- Azimi, Hosein., Pashaii, Mohsen. (2014). The effect of information technology on improving the managers' decisions in organizations. The 1st National Conference on Modern Advances in management and accounting sciences.
- E'rabi, Seyed Mmohammah, Parsian, Ali. (1996). Management. Institute for Trade Studies and Research Publications.
- E'rabi, Mohammad. , Parsian, Ali. (1997). Management, Publication of business research & studies org.
- Fattahi, Majid., Mohammadi, Fatemeh., Sadeghi, Qasem. (2015). The role of management information systems to improve decision making of organization managers. The 1st International Conference on accounting and management in the third millennium.
- Kazmayer, Leonard. (1991). Management principles. Translation A. Zomorodian / Armen Mehrozhan. Publications of Management Training Center presidential administration.
- Mash'ali, Behzad., Qorbanfekr, Mohammad. (2014). The effect of automation on improving managers' decision making in national academic assessment organization. The 2nd International Conference on Management Challenges and Solutions.
- McLeod, Jr. R., 2003, Information System Concepts. New York: MacMillan.
- Nooshinfard, Fatemeh., Nazarboland, Azadeh. (2013). Use of information on the activities of senior managers' decision making in research centers of Ministry of Science, Research and Technology. Knowledge

- (Library Science and Information Science and Information Technology). Islamic Azad University, North Tehran Branch. 7(27), 97-114.
- Rahimi, Elaheh. (2015). Studying the effect of automation on performance improvement of human resources in information and planning departments of deputies of Islamic Republic of Iran Broadcasting. An M.A. thesis. Islamic Azad University of Tehran.
- Ranji Jifroodi, Nima. (2012). Studying the effect of automation on decision-making improvement of governor and headquarter managers. An M.A. thesis. Islamic Azad University of Rasht.
- Safai, Zahra. (2015). Studying the effect of automation on decision-making improvement of welfare service managers in southern oil-rich areas. Master's thesis. Islamic Azad University of Arak.
- Sarfraz, Mehrzad., Sepehrnia, Rozita., Kavooosi, Ismail. (2010). The effect of creativity on improvement of managers' decision-making. *Creativity and innovation in sciences*. 1(1).
- Sheikh Bokloo, Sara. (2012). Studying the effect of automation on efficiency. *Management of development and evolution*. 9: 53-58.
- Sheikh Kabir., Naser. (2014). Studying the effect of automation on improving decision-making improvement of managers and of Shahrood University of Medical Sciences. An M.A. thesis. Islamic Azad University of Shahrood.