

Application of Management Information Systems and Its Impact on Performance of Anzali Custom's Employees

**Saeed Salkhordeh Ziabari^a, Matin Amenien^b, Farzaneh Alizadeh Khatibani^c, Azadeh Asadian^d,
Masoomeh Nazari Dargah^e, Soghra Rezaei Iemanabadi^f**

^a Department Of public Management

^{b,c,d,e,f} M.A. Student of Business Management, Rasht Branch, Islamic Azad University, Rasht, Iran

ABSTRACT

Using computer systems in age of information explosion has led to improving the performance and effectiveness of the organization. Anzali Customs Office has been studied in this paper. Objectives of this study are investigation of computer systems, their application and effectiveness on performance of employees and providing solutions to enhance the performance of employees. Research method used in this study is type of descriptive-analytical method that is applicable goal. Populations studied in this research are eneral Administration of Customs of Bandar Anzali, Guilan and the headquarters of the province Guilan Customs. The statistical community includes total of 123 people and data collection tool is a questionnaire. Data analysis shows that the computer systems effect on improvement of manpower productivity, quality and improvement of job skills.

Keywords: Computer Systems, Productivity, Employee Performance, Customs Administration.

1. INTRODUCTION

Electronic government is one of the important phenomena obtained from deployment of information technology and communications (Gilaninia ,Hanifi & et al,2012). Current era is called post-industrial or information era. In today's world, information is infrastructure and main factor economic and social development of countries and plays an important role in human activity (Taheri & et al, 2012). One of the factors that divide countries to industrialized and developed world is the growth of science and technology and their profound impact on human social life. Current arena is the period of accelerated and unpredictable evolutions and companies confront with the most difficult and unprecedented competition conditions (Rezvani& et al, 2011, Tayebi & et al, 2011). Customs is an organization that two goals consider in its current duties (Eilbeigi ,Gilaninia & et al,2012).Today's, the power of human development and increasing quantity and production of goods or provide services in the organization have been linked to the level of utilization of science and its application has a direct link to the technology (Khaki, 1997). Always for adopt effective strategies need to performed review investment and pushing it toward the optimal policy (Gilaninia ,Kiani & et al,2012). Center and core of the development process is based on human thought and science, because people with their mental strength and wisdom discover within the nature and society and establish the science foundation by combining theoretical and practical research and understanding laws governing phenomena. Moreover, people develop various techniques to increase and improve the quality and quantity of performance. We should not forget that the research of principles and practical process of planning which leads to development process in an organization or a society is based on human resources working in the community. Therefore, the quantity and particularly quality of manpower and in the overall performance of employees is considered as important issues. Both public and private organizations and companies are trying and struggling to obtain their purposes and seek to advance their own purposes from various sources. Technology is an important source and PC is one of the most important equipment for optimizing (Haji Sharif, 1992). In today's business environment is characterized by increasing competition (Ziakhosoosi & et al, 2011). Information technology is a description of equipment (hardware) and computer programs (software) by which individuals access to information and also to read, save, organize, and ultimately provide the information (Niaz Azari, 2002). Today information technology is as a tool for organizations to raise the performance of their employees and adapt to change. But these organizations should encourage their employees to use technology for increasing performance in terms of educational level and more efficient and effective specialization (Daft, 2004). Mohammadi (2003) indicated that utilization of information technology in any organization increases efficiency and effectiveness of coordination between the units.

Lavdan and Price (2000) also suggested that the utilization of information technology reduces the cost of obtaining and analyzing data. Also information technology allows organizations to reduce the costs of data collection and distribution and decrease the management uncontrolled costs. Sibley (1977) with a review of his

*Corresponding Author: Saeed Salkhordeh Ziabari, Department of Public Management,

studies in the field of information technology streamline concluded that using information technology improves satisfaction of consumer, coherence of easier and faster programs, faster response and easier operational process. Studies conducted by Mahdavi (2006) show that information technology has an impact on their performance and improves employee performance obtained from training. Moreover, training through the use of computers has a positive impact on performance and causes them to be more efficient. Today, the use of computers and software packages is helpful to carry out various activities and due to high speed, accuracy and cost reduction are looked forward to administrators and owners of small and large companies. As productivity of organizations increases by this useful tool, Anzali Customs has attempted to mechanize its office system from a few years ago.

2. Problem statement

Passage of time has led to the genesis and evolution of the concept of information and replacement of initial human intelligent man. In the past two decades it has been faced with the phenomenon of information technology that has affected all the dignities of his life. On the other hand excessive increase in information has made organizing, recording and data storage more complex and their day to day use and accessibility became difficult (Khalatbari *et al.*, 2010). One of the issues raised in each country's economy is achieving to a sustainable growth in long term (Gilaninia, Salimi & *et al.*, 2012). E-commerce has been welcomed by many human societies in recent years (Ghavidel & *et al.*, 2011). Issue of productivity and performance and also effective factors in its improving are the critical subjects in today's organizations and companies. If productivity is defined as efficient use of existing facilities, how to use these facilities to establish maximum efficiency in the organization is crucial importance. Therefore, one of the factors affecting performance and productivity is to mechanize activities and different parts of an organization. For organizational development (OD) programs and management development (MD) is needed to do activities to improve efficiency and effectiveness and alternatively organizational performance. Productivity of manpower including approach to work is set through job rotation, the level of managerial skills by the education and training, supervision and skills in industrial engineering field. Management relations and personnel are dependent on the efforts of management and employees to increase productivity. Other factors include the management productivity, manpower efficiency, entrepreneurship and risk acceptance.

The main issue in this investigation is the effect of using automated computer systems on performance of Anzali Custom's employees and finally, we seek to answer this question:

Whether mechanization of organ enhances job skills, manpower productivity and quality of employees or not?

Using mechanized technology can impact on productivity. To determine the effects of mechanization (independent factor) on employee's performance (dependent factor), the level of performance of employees with above component is measured and effect of dependent factors have been investigated.

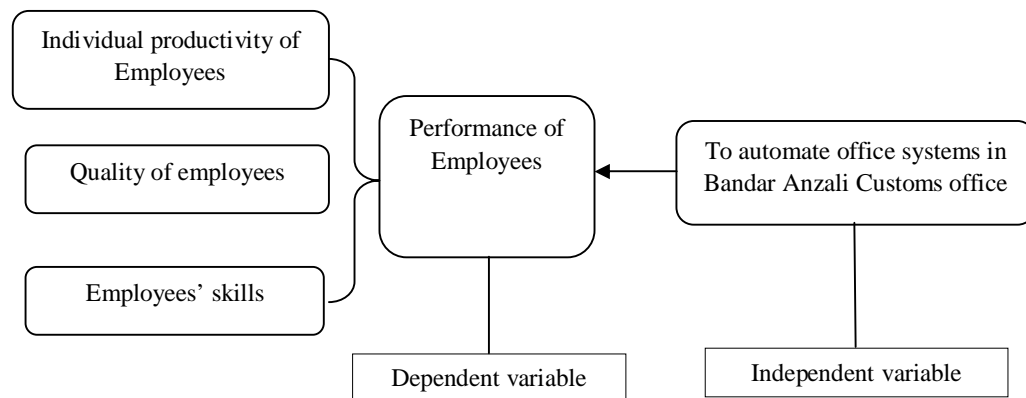


Figure 1) conceptual model of research (Salkhordeh Ziabari, 2003- 2004)

The research variables are expressed as follows:

Function: Is defined as the effect of what someone does in their job or can be defined as employee's activities for performing the duties entrusted during a certain time (Salkhorde Ziabari, 2004).

Efficiency: ratio of the production of goods and services to resources used (Abtahi *et al.*, 1991) or the ratio of actual output to expected output (Mirsepasi, 1997).

Effectiveness: the extent of objectives of research and successful mission and tasks. Effectiveness shows that how much of the efforts may lead to the desired results (Abtahi et al., 1995).

Mechanized systems: is defines as system of doing the organization data into output using advanced computer systems.

Technology: collection of methods, tools and machines that are currently in service of organization or maybe are reachable in the future.

Productivity: there are many different definitions and interpretations in term of productivity. Overall, productivity is to gain maximum benefit from manpower, using the skills of manpower, land, machinery, capital, equipment, time and place for the promotion of social luxury (Abtahi et al, 1995).

Individual productivity: the ratio of the output of each employee to input of each employee. In this study the productivity is defined as individual employee performance by computer systems.

Quality: is compliance of product or services with the demands and standards.

Skills: potential capabilities of the person that is reflected in the performances.

3. Significance of study

This research has special importance due to four reasons as following:

First reason: developing countries force to achieve development and do not remain behind of civilization. It is not possible unless making better use of technology in conducting activities and with the emergence of the computer industry appeared a huge revolution in the production and transmission of information. This transformation has been caused many institutes and companies to take the advantage of it. In our country also both public and private sector have been attempted to mechanize the various units that seems to be necessary for development.

Second reason: essential attention of institutions and organizations is to improve productivity and performance and furthermore Islamic Republic of Iran Customs Administration which pursue this goal. Their managers want to know whether mechanized systems have improved performance and efficiency or not. Because if a company or institution does not care to productivity, it will be wastage of resources and in the long period it cannot compete with other companies.

Third reason: pursues the necessity of this research. If the research results prove the practical impact of the independent variable (mechanization) on the dependent variable (performance), organization administrators will be encouraged to mechanization of systems.

Fourth reason: is the practical importance of this research. The findings of this study can be used as an applied research for managers at the Customs. Moreover, the survey results can be used as feedback and can notify managers from the implementation of these systems. Due to low long-life of mechanized systems in customs has not been done any work in the field of the mechanization influence on the efficiency of customs administrations and there is no much information about that.

4. Research hypotheses

4.1. The main hypothesis:

Application of computer systems (mechanization) has positive impact on employee performance.

4.2. Sub-hypothesis

- 1- There is a significant relationship between the computer system and increase employees' personal productivity.
- 2- There is between significant relationship between the computer system and increase the quality of employees.
- 3- There is a significant relationship between the computer systems and improving job skills of employees.

5. RESEARCH METHODOLOGY

Research methodology used in this study was descriptive- analytical and applicable goal type. This research aims to determine the relationship between various variables (personal productivity, quality and skills of employees) and computer systems. Populations studied in this research are General Administration of Customs of Bandar Anzali, Guilan and the headquarters of the province Guilan Customs. The statistical community includes of 123 people. The tool of data collection is a regular and closed questionnaire so that can test the research hypotheses. These questions were ranked using a five-point Likert scale.

Very low	Low	Average	High	Very high
1	2	3	4	5

A total of 118 questionnaires that were randomly distributed, 93 questionnaires including 80 males and 13 females were returned.

6. Analysis of data

According to data extracted from the questionnaire and K-square distribution, function is as follows:

- **First hypothesis**

H_0 : There is no significant relationship between computer systems and increasing productivity of employees

H_1 : There is significant relationship between computer systems and increasing productivity of employees

Test of first hypothesis

K-square obtained from the first hypothesis (63.2) that is higher compared with the value shown in table (13.9). Therefore, hypothesis is rejected when the significance level is $\alpha = 5\%$. It means that there is a significant relationship between computer systems and increase productivity of employees.

- **Second hypothesis**

There is no significant relationship the computer system and increasing the quality of employees: H_0

There is significant relationship the computer system and increasing the quality of employees: H_1

Test of second hypothesis

K-square obtained from the first hypothesis (43.2) that is higher compared with the value shown in table (13.9). Therefore, hypothesis is rejected when the significance level is $\alpha = 5\%$. It means that there is significant relationship the computer system and increase the quality of employees.

- **Third hypothesis**

There is no significant relationship the computer system and improving job skills of employees: H_0

There is significant relationship the computer system and improving job skills of employees: H_1

Test of third hypothesis

K-square obtained from the first hypothesis (30.7) that is higher compared with the value shown in table (~17). Therefore, hypothesis is rejected when the significance level is $\alpha = 5\%$. It means that there is significant relationship the computer system and improving job skills of employees.

7. Conclusion

Conclusions of statistical analysis of each research hypothesis are as follows:

First hypothesis: Considering the importance of productivity in the organization and productivity of manpower which are the main capitals of organization, there is a relationship between computer systems and improving productivity of employees in the present statistical community. Setting of software systems increase productivity of the organization and improvement of performance and productivity will be more in the future.

Second hypothesis: System has been able to achieve the quality improvement in speed, reducing rework, increasing the degree of accuracy and reducing errors. Since the quality is one of the major factors in performance, improvement in the quality makes employee performance improvement and the overall increases organization performance.

Third hypothesis: Skills of employees in organizations increased, however the effect was not equal in each of the skills. In this case, technical skills of employee changed more than the cognitive skills of employee. Therefore, changes in skills of employees increase productivity of employee and performance of organization.

8. Suggestions

According to the results of research assumptions and analysis in the field of automated systems and improving performance of Anzali Customs office, the following suggestions are offered:

1- According to the results of the first hypothesis, the automating system of the organization affects individual productivity. It means that the speed, quantity and amount of valuable working hours of per employee increased. Therefore it is recommended that all manual systems could replace with the computer systems.

2- With attention to results of second hypothesis, it is documented that mechanization reduced mistakes in calculating records and office tasks. Therefore it is recommended that computer systems of the organization should be equipped to the latest technology and software systems to increase the desirable features of computer systems. This due to the changing nature of work and become standard brings high-quality work to the employee.

3- With attention to results of third hypothesis, it is documented that mechanization has increased technical, administrative, human skills of employees. Therefore, it is suggested that organizations can take a help from computer specialists in all stages of program of mechanization to improve job skills.

4- Considering the higher education levels and relatively young staff that learning and teaching staff in this category is advanced, more effort be made to increase their knowledge.

5- Since that all parts of our organization do not have computer systems, therefore it is suggested that job rotation shall be at shorter time intervals as, because all the staff take advantage of existing software.

REFERENCES

- Abtahi,h; Kazemi,b. (1996). Productivity and Business Research Institute.
- Daft, R. L (2005). Foundations of Organizational Theory and Design (translators: Parsayyan and Muhammad Ali Arabi), Tehran: Cultural Research Bureau.
- Eilbeigi Asli,Sh; Gilaninia,Sh; Mousavian,S.J; Taghinejad,M;Daneshvar Ghorbani,N;Seyedin,K;Dehban,M; Zadbagher Seighalani,F.(2012). Application of Information Technology in Increasing Exports (Case study: Iranian official customs), *J. Basic. Appl. Sci. Res.*, 2(3)2708-2816, 2012.
- Gilaninia,Sh; Mousavian,S.J;Hanifi,E;Omidi,Sh; Zadbagher Seighalani,F.(2012). E-Government Development Process in Iran, *J. Basic. Appl. Sci. Res.*, 2(3)2865-2871.
- Gilaninia,Sh; Mousavian,S.J;Salimi,M.A;Aziz Zadeh,A;Makarehchian,A;Zadbagher Seighalani,F.(2012). Economic Growth in Iran and Effective Factors on Its Changes, *J. Basic. Appl. Sci. Res.*, 2(2)986-994.
- Ghorbani Ghavidel Boeini,S; Gilaninia,Sh;Najafpour,A; Najibzadeh,M; Esmaeili,H; Babaei,M; Zadbagher Seighalani,F.(2011). Challenges Application of E-Commerce in Iran, *INTERDISCIPLINARY JOURNAL OF CONTEMPORARY RESEARCH IN BUSINESS*, VOL 3, NO 8,pp 497-507.
- Haji Sharif, M. (1992). Assessment of human resources management. Volume 1.
- Khaki, Gh. (1997). Productivity Management, Volume I. Sayehnama publication.
- Khalatbari, J., Hosseini , T. L & Zamani, A. (2010). Use of information technology on organizational efficiency and effectiveness of technical and professional organization staff, Mazandaran Province, *Journal of Information and Communication Technologies in Education*. Volume 1, p 93-102.
- Kiani,E; Mo Enayati Shiraz,M.A; Ramezani,E ; Gilaninia,Sh; Mousavian,S.J.(2012). Determine Comparative Advantage of investment in Different Industries through TOPSIS Technique, *J. Basic. Appl. Sci. Res.*, 2(1)802-806.
- Mahdavi, M.N. (2006). Information technology and technology information, Chapar publishions.
- Mirsepasi, N. (1998). Human Resource Management (solving exercises and papers), Vol 1. Shervin publications.
- Mohammadi, F. (2004). Understanding of information technology, *Journal of Educational Technology*, 4.
- Niaz Azari, K. (2002). Organizational behavior and human relations training in the third millennium. Tehran: Metacognitive thinking.
- Rezvani,M;Gilaninia,Sh;Mousavian,S.J.(2011). The Effect of Relationship Marketing Dimensions by Customer Satisfaction to Customer Loyalty, *Australian Journal of Basic and Applied Sciences*, 5(9): 1547-1553.
- Salkhorde Ziabari, S (2004). Effect of computer systems application on performance of staff supervision of Customs Bandar Anzali, Gilan province. MA research project oriented public management, human resource management and planning organization in Gilan Province.
- Sibley,E.H.(1977).The impact of database technology on business systems, information processing,proceedings of ifip congree 77,ed.bruce gilchrist,north-holland,newyork,589-596.
- Tayebi,F; Gilaninia,Sh; Mousavian,S.J; Panjtan Panah,M;Ashouri,S;Touhidi,R;Nobahar,R;Azizi,N; Zadbagher Seighalani,F.(2011). The Impact of Information Technology Application on Supply Chain Performance, *interdisciplinary journal of contemporary research in business*, vol 3, no 8,pp489-496.
- Taheri,O; Gilaninia,Sh; Mousavian,S.J;Nikzad,H;Mousavi,H;Zadbagher Seighalani,F.(2012). Information Security Management on performance of Information Systems Management, *J. Basic. Appl. Sci. Res.*, 2(3)2582-2588.
- Zia Khosoosi. E; Gilaninia,Sh; Mousavian.S. J ; Alipour. H; (2011). CRM Application Impact on Customer Satisfaction in Financial and Credit Institutions (Case study: Financial and Credit Institutions in Guilan, Iran), *Journal of Basic and Applied Scientific Research* , 1(8),pp956-963,www.textroad.com.