Studying the Effect of Official Automation on Making Decision Process of Governor’s Offices’ Managers

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Abstract
This paper mainly aims to study the effect of official automation systems on making decision process of governor’s offices’ managers and includes secondary goals such as recognizing the effect rate of official automation on problem recognition, recognizing approaches, evaluating approaches, determining optimum solution, performing and finally recognizing effect rate of official automation on outputs resulted from performing optimum solution. Also presenting suitable properties of a complete official automation system to inform managers is another goal of this paper. Official automation system as an independent variable and improvement of managers’ making decision is presented by qualities of problem recognition, recognizing and computing solutions, determining measure of evaluation and evaluating solutions, determining the best solutions and performing them as dependent variables. Research method is causal-comparative and results of research show that official automation system effects on increasing managers’ knowledge of problem, solutions recognition, solutions evaluation, the best solution selection, solution performance and result of managers’ solution performance positively. It is suggested that employees learn automation systems generally and comprehensibly with its all subsystems in public offices and in a framework based on developing organizational culture.

Key words
Official automation, Problem recognition, Recognizing and computing solutions, Determining measure of evaluation and evaluating solutions

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1. Introduction

In new age, organizations have to use computer systems, information technology and developed media and future is in hands of those who study these systems exactly by recognizing their exact and correct advantages and disadvantages and learn others’ experiences without reaccepting costs resulted from those experiences.

High development of computer in recent years makes the most important changes in knowledge system of printing invention in fifteenth century and even line invention. Along with this wonderful change, new networks and media are surprisingly developed; this development replaces data and information.

Making decision can be considered as gathering and processing information, having exact, related, in time and fast information raises correctness and speed of making decision and prevents many incorrect decisions. In this time program an efficient manager can’t manage organization and achieve predetermined goals without having necessary information.
Considering environmental variables and in order to face environment and achieve the organization goals, managers should analyze environment, recognize its variables and make properly decision about them. It needs enough inter- and intra- organization information and using them optimally.

Performing microcomputers in offices, while propagating new communication, computer products, saving information and making basic changes are associated with performance method of official affairs. First computer systems were used to write letters independently. But computers gradually joined together. This joint lets user not only to use writing files commonly but can send massages to each other. Today there are several official automation systems. This paper studies the effects of automation system on making decision process of governor’s offices’ managers.

2. Importance and necessity of research

International changes and the speed of these changes persuade government to draw a view of their strategic movement while increasing efficiency and reducing costs in international area. In fact drawing a view is a future view of a country explaining values, ideals and thoughts of the country policymakers. Strategic and national decisions based on creating electronic government, 1404 Iran view and its strategic decisions along with this view and explaining general goals and policies performing in fifth development program and explaining challenges and directions to approach goals, making standard operations and satisfying customers and also making Iran interested in entering commission of countries as member of world trade company and accepting it as an inspector member after rejecting several demands, Iran participation in international companies and commissions and emphasizing the fourth comprehension paragraph on developing public information and expanding technology and researches present some introductions for organizational system in which official automation is one of them. To solve problems occurring in a company some stages such as recognizing problem correctly, studying several fields of solving problem, selecting the best solution, performing it and ensuring and controlling its operation in a correct way are passed. In order to understand problem correctly companies save much time to study and determine solutions of problem. Solving some complicated problems takes a long time and automation system provides a great and effective support to perform management duties such as programming, making decision and a suitable control for managers.

Preparing instruments by which official processes are done fast and exactly is so important. So, using official automation system as a modern method in one hand accelerates work and in other hand makes a suitable field to accelerate daily affairs by gathering information about all official activities and classifying them. Automation software as a part of integrated management information system is designed and produced by studying models of governmental official activity and commercial institutes and can meet mentioned needs well; now other information and software presenting it are as a power in managers’ hands.

Increasing expand and development of computer science and the world approach towards it in all area and incredible successes of this industry pioneers make us sensitive to high development of this industry in all dimensions of our country, because pioneer companies place in the main way of this technology while determining needs of providing this technology and its provisions such as official and financial automation in time.

This research and its results not only can be effective to highlight weak and strong points of this system and removing probable contradictions of automation system in related company, but also can accelerate making decision process in dimension of providing modern software and hardware technology in companies, the subsets of home office and other companies effectively.

3. Studying research history

1) Studying the comparison of Butane Company before and after performing automation plan Mohammad Hasanzadeh (1384) shows that there is a positive relation between two variables of automation and operation and automation causes to improve the operation of the company.

2) Studying the effect of informatics systems in operation of transformation repairs company (Akhtar barq) Hamidi (1388) shows that informatics systems effect on the main operation dimension of “Transportation repairs company” that is proper timing program, speed of doing repairs, non-repeating repair works and finally useful operation hours of personnel, and in other words the effect on every secondary question is examined by performing “Friedman test” among “related questions” to that secondary question to
inform about weak and strong points of using “informatics systems” in view point of research society and finally the effect on “main questions” by doing “Friedman test” among all secondary questions is observes. However all four secondary questions and main questions of research are approved based on statistical results and this show the effect of informatics systems on all company operation dimensions.

3) Studying the effect educating use of computer information bank on accuracy coefficient and recovering information by research Tavakolizadeh (1379) shows that determining proper keywords relates to increasing subject knowledge and knowing especial needs, but it is necessary to determine keywords primarily. Hypotheses were used by variables of correctness and accuracy and information update in analytical model, so result of hypotheses research was accepted.

4) In a research as computer system operation from efficiency dimension in Fars registration administration office Delpasand (1383) explains that:

**Question 1:** Does computer operation effect on increasing accuracy in company activities?

**Question 2:** Does computer operation effect on increasing activity speed?

**Question 3:** Does computer operation effect on decreasing costs?

About questions 1 and 2 statistical society considers 0/95 meaningful level for effect of computer operation on speed and accuracy of doing activities. But about question 3, cost decrease, statistical society doesn’t consider 0/95 meaningful level for effect of computer operation on cost decrease.

5) In a research as “studying and designing automation system levels” in California university Kay (2004) explains that recently automation system was designed more and more in order to optimize works and several official levels in order to save costs, human force and time. Automation facilitates doing service affairs and increases efficiency. Automation process needs to provide directions and draw system activities. Automation is designed based on system’s manner and operation and several structural processes of system are done based on it.

4. Research method and hypotheses

4.1. Research method

As this research is a descriptive (measuring) one, so needed information are resulted from designing and distributing questionnaires to managers of governors’ offices. In this regard, first questionnaires were designed experimentally and distributed among managers and experts of Bandar Abbass governor’s offices and needed results were obtained and some changes were done. Finally confirming by professors questionnaires were prepared and distributed among governors and assistants in governor’s offices.

Questions of the questionnaires were closed, spectral and graded ones which were provided and regulated based on Likert spectrum. Also to approve the accuracy of speeches relation to determine indexes Kronbouch alpha test was used. Quantitative method including description and deduction was used to analyze data resulted from questionnaires, it means that several tests including correlation, t, z of doing and abundance, diffusion rate middle, flow and average are presented. Also information was analyzed by machinery and based on spss software and hypotheses were examined.

4.2. Research hypotheses

Official automation system has effect on increasing managers’ knowledge of problem.

Official automation system has effect on managers’ knowledge of problem solutions.

Official automation system has effect on evaluating solutions by managers.

Official automation system has effect on selecting the best solutions by managers.

Official automation system has effect on performing solutions by managers.

Official automation system has effect on the result of performing solutions by managers.

5. Statistical society and sample

Statistical society of this research includes a group of governors and assistants of governor’s office prospering official automation system located in company. They are 31 people and regarding accessibility of statistical society, gathering information is by all-numbering method and includes all of statistical society. Period of the research is from 1390 to 1391.
6. Data analysis

To analyze data resulted from questionnaire and examine research hypotheses T test and Pearson correlation test were used to examine the effect rate and kind of relation between research variables.

1-6 Test related to hypothesis one

**Hypothesis one**: Official automation system has effect on increasing managers’ knowledge of problem.

**H0**: Official automation system doesn’t have effect on increasing managers’ knowledge of problem.

**H1**: Official automation system has effect on increasing managers’ knowledge of problem.

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Number of respondents</th>
<th>Average</th>
<th>Standard deviation</th>
<th>Average standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers’ knowledge</td>
<td>31</td>
<td>1.9247</td>
<td>35182.</td>
<td>06319.</td>
</tr>
</tbody>
</table>

Table 6-1. T and correlation tests, the effect of official automation on managers’ knowledge

According to table 6-1 and comparing 0.00 meaningful level with amount of 0.05 it is shown that the effect of official automation system on managers’ knowledge by average of 1.92, freedom degree of 30 and correlation coefficient of 0.286 is more than zero and regarding that numbering rate among variables related to this index includes 5: completely disagree, 4: disagree, 3: no idea, 2: agree and 1: completely agree and meaningful level of 0/000 is less than 0/05 and average is less than 2, so, respondents by confidence of 95% explains much effect of official automation system on increasing managers’ knowledge.

2-6 Test related to hypothesis two

**Hypothesis two**: Official automation system has effect on managers’ knowledge of problem solutions.

**H0**: Official automation system doesn’t have effect on managers’ knowledge of problem solutions.

**H1**: Official automation system has effect on managers’ knowledge of problem solutions.
Table 2-6 T and correlation tests, the effect of official automation on managers’ knowledge of problem solutions

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Number of respondents</th>
<th>Average</th>
<th>Standard deviation</th>
<th>Average standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem solution</td>
<td>31</td>
<td>2.0323</td>
<td>.36873</td>
<td>.06 623</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Statistics T rate</th>
<th>Freedom degree</th>
<th>Meaningfulness level</th>
<th>Deviations average</th>
<th>95% confidence interval for deviations from average</th>
<th>Correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem solution</td>
<td>30.687</td>
<td>30</td>
<td>000.</td>
<td>2.03226</td>
<td>1.8970 – 2.1675</td>
<td>0.506</td>
</tr>
</tbody>
</table>

Curve 2-6. Correlation coefficient between official automation and managers’ knowledge of problem solutions

According to table 2-6 and comparing 0/00 meaningful level with amount of 0/05 it is shown that the effect of official automation system on managers’ knowledge by average of 2/03, freedom degree of 30 and correlation coefficient of 0/506is more than zero and regarding that numbering rate among variables related to this index includes 5:completely disagree, 4:disagree, 3:no idea, 2:agree and 1: completely agree and meaningful level of 0/000 is less than 0/05 and average is more than 2, so, respondents by confidence of 99% explains much effect of official automation system on managers’ knowledge of problem solutions.

3-6 Test related to hypothesis three

Hypothesis three: Official automation system has effect on evaluating solutions by managers.

H0: Official automation system doesn’t have effect on evaluating solutions by managers.

H1: Official automation system has effect on evaluating solutions by managers.

Table 3-6. T and correlation tests, the effect of official automation on evaluating solutions by managers

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Number of respondents</th>
<th>Average</th>
<th>Standard deviation</th>
<th>Average standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluating solution</td>
<td>31</td>
<td>1.9355</td>
<td>.35921</td>
<td>.06452</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Statistics T rate</th>
<th>Freedom degree</th>
<th>Meaningfulness level</th>
<th>Deviations average</th>
<th>95% confidence interval for deviations from average</th>
<th>Correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluating</td>
<td>30.000</td>
<td>30</td>
<td>000.</td>
<td>1.93548</td>
<td>1.8037 – 2.0672</td>
<td>0.589</td>
</tr>
</tbody>
</table>
Curve 3.6. Correlation coefficient between official automation and evaluating solutions by managers

According to table 3-6 and comparing 0.00 meaningful level with amount of 0.05 it is shown that the effect of official automation system on evaluating solutions by average of 1.93, freedom degree of 30 and correlation coefficient of 0.89 is more than zero and regarding that numbering rate among variables related to this index includes 5: completely disagree, 4: disagree, 3: no idea, 2: agree and 1: completely agree and meaningful level of 0.000 is less than 0.05 and average is less than 2, so, respondents by confidence of 99% explains much effect of official automation system on evaluating solutions by managers.

4-6 Test related to hypothesis four

Hypothesis four: Official automation system has effect on selecting the best solutions by managers.

H₀: Official automation system doesn’t have effect on selecting the best solutions by managers.

H₁: Official automation system has effect on selecting the best solutions by managers.

Table 6-4 T and correlation tests, the effect of official automation on selecting the best solutions by managers

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Number of respondents</th>
<th>Average</th>
<th>Standard deviation</th>
<th>Average standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selecting the best solution</td>
<td>31</td>
<td>1.5806</td>
<td>.41247</td>
<td>.07408</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Statistics T rate</th>
<th>Freedom degree</th>
<th>Meaningfulness level</th>
<th>Deviations average</th>
<th>95% confidence interval for deviations from average</th>
<th>Correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selecting the best solution</td>
<td>21.336</td>
<td>30</td>
<td>000.00</td>
<td>1.58065</td>
<td>1.4293 1.7319</td>
<td>0.257</td>
</tr>
</tbody>
</table>
According to table 6-4 and comparing 0/00 meaningful level with amount of 0/05 it is shown that the effect of official automation system on evaluating solutions by average of 1/58, freedom degree of 30 and correlation coefficient of 0/257 is more than zero and regarding that numbering rate among variables related to this index includes 5:completely disagree, 4:disagree, 3:no idea, 2:agree and 1: completely agree and meaningful level of 0/000 is less than 0/05 and average is less than 2, so, respondents by confidence of 95% explains much effect of official automation system on selecting solutions by managers. And regarding average of 1.58 it can be concluded that the most effect of official automation relates to selecting the best solutions by managers.

5-6 Test related to hypothesis five

Hypothesis five: Official automation system has effect on performing solutions by managers.

H0: Official automation system doesn’t have effect on performing solutions by managers.

H1: Official automation system has effect on performing solutions by managers.

Table 5-6 T and correlation tests, the effect of official automation on performing solutions by managers

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Number of respondents</th>
<th>Average</th>
<th>Standard deviation</th>
<th>Average standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performing solution</td>
<td>31</td>
<td>2.2473</td>
<td>.48662</td>
<td>.08740</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Statistics T rate</th>
<th>Freedom degree</th>
<th>Meaningfulness level</th>
<th>Deviations average</th>
<th>95% confidence interval for deviations from average</th>
<th>Correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performing solution</td>
<td>25.713</td>
<td>30</td>
<td>000.</td>
<td>2.24731</td>
<td>2.0688 - 2.4258</td>
<td>0.546</td>
</tr>
</tbody>
</table>

Curve 5-6. Correlation coefficient between official automation and performing solutions by managers

According to table 5-6 and comparing 0/00 meaningful level with amount of 0/05 it is shown that the effect of official automation system on evaluating solutions by average of 2.24, freedom degree of 30 and correlation coefficient of 0/546 is more than zero and regarding that numbering rate among variables related to this index includes 5:completely disagree, 4:disagree, 3:no idea, 2:agree and 1: completely agree and meaningful level of 0/000 is less than 0/05 and average is more than 2, so, respondents by confidence of 95% explains much effect of official automation system on performing solutions by managers.

6-6 Test related to hypothesis six

Hypothesis six: Official automation system has effect on result of performing solutions by managers.

H0: Official automation system doesn’t have effect on result of performing solutions by managers.
**H1**: Official automation system has effect on result of performing solutions by managers.

*Table 6-6.* T and correlation tests, the effect of official automation on result of performing solutions by managers

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Number of respondents</th>
<th>Average</th>
<th>Standard deviation</th>
<th>Average standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result of performing solution</td>
<td>31</td>
<td>1.7849</td>
<td>.25164</td>
<td>.04520</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Studied variable</th>
<th>Statistics T rate</th>
<th>Freedom degree</th>
<th>Meaningfulness level</th>
<th>Deviations average</th>
<th>95% confidence interval for deviations from average</th>
<th>Low limit of confidence interval</th>
<th>High limit of confidence interval</th>
<th>Correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result of performing solution</td>
<td>39.494</td>
<td>30</td>
<td>000</td>
<td>1.78495</td>
<td>1.6926</td>
<td>1.8772</td>
<td>0.346</td>
<td></td>
</tr>
</tbody>
</table>

**Curve 6-6.** Correlation coefficient between official automation and result of performing solutions by managers

According to table 6-6 and comparing 0/00 meaningful level with amount of 0/05 it is shown that the effect of official automation system on result of performing solutions by average of 1/78, freedom degree of 30 and correlation coefficient of 0/346 is more than zero and regarding that numbering rate among variables related to this index includes 5: completely disagree, 4: disagree, 3: no idea, 2: agree and 1: completely agree and meaningful level of 0/000 is less than 0/05 and average is less than 2, so, respondents by confidence of 95% explains much effect of official automation system on result of performing solutions by managers.

7. Conclusions

Results of this research show that official automation has positive effects on managers’ knowledge of problem and problem solutions, evaluating solutions, selecting the best solution, performing solution and result of performing solution by managers.

8. Research suggestions

Research suggestions for managers:

Findings of this kind of researches play effective roles to recognize the effect of official automation systems in governor’s offices and other governmental companies which have similar correlation and duties. It is worth for managers of similar companies to create and use automation systems and generally information systems in related companies by studying these researches.

Observing presented results and mentioned matters and changing conditions it should be said that official automation system in other companies can either make a short time of making decision process or
pass and use this process correctly. In other side using this system is effective to decrease transformations by cartable on line letters and sending written massages.

Regarding the effect of official automation system on managers’ making decision process, it is necessary to make an information bank by ability of updating along with this system to accelerate process of making decision.

8.1. Suggestions for future research

Findings of this research explain the effect of official automation systems on making decision process of governor’s offices’ managers. So, it is worth for researchers to select some subjects regarding diversity of related subjects to information systems that are so included and designable in most offices.

References