Examining the Effect of Information Technology on Organizational Productivity (Case Study: Mahabad Banks)

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Abstract: Gradual development of information technology in all areas of life, particularly electronic service providing to people has resulted in establishment of expanded information banks in private and public organizations. The statistical population comprises of 169 employers working in banks across Mahabad. Sample size was determined as 108 using Cochran formula. To collect the data use was made by Mogimi and Ajio standard questionnaires. It was concluded in the study that variance analysis of egression model was significant and it could predict 41% of productivity variable at 0.001 level of significance.

Keywords: information technology, organizational productivity, Mahabad banks

Introduction

Information and communication technology is regarded nowadays as the key to development across developed countries so that these technologies led to decrease in expenses and increase in production along with increasing economic growth in developed countries. Similarly, such a development is seen in developing countries in a gradual pace. Information and communication technologies potentials in an attempt to accelerate economic development and improving living level of people have led to the fact that amazing potential is achieved in the field of knowledge and information as well as they notion that emphasis of international communities on the importance of access and development of information and communication technology caused the same result. Although the effect of information era is tangible in most of global sectors in the field of education, research, medicine, government, business, and entertainment, only 5% of global population enjoys its benefits.

Statement of the problem

Gradual development of information technology has increasingly contributed to people’s life across different communities. What is taken for granted is that productivity of work force and public welfare increase and that new occupational opportunities are established when it comes to investing on information technology. Information technology has attracted many views as a new infrastructure. Information has been considered in line with other productive factors as a valuable resource. Information is considered as important strategic factor in line with commercial practices development, globalization, and rapid changes in organizational contexts so that information is regarded as a competitive tool in relation to environmental problems and challenges. Despite the fact that information and communication technology has not been substituted for human force, its power in assisting employers and managers is not ignorable in line with making true decisions using exact information.

Review of literature

International studies

Osta Oghlu and Bilghan (2011) examined the effects of information technology on foreign commerce of Turkey. They concluded in their study that one can establish a relationship between investment for information technology and productivity as well as economic.

Khaje Dangolani (2011) investigated the effect of information technology on productivity. Findings of the study indicated that information technology could economize the time and money. Also, information technology was reported to reduce the expenses and could facilitate network transactions.

Examining the effect of developing information and communication technology on productivity of workforce was done by Makioliot et al. (2014). It was manifested that indexes of information and communication technology development could be divided by four groups: information and communication technology infrastructure, application, preparation, production and commerce of information and communication technology.

Roivo et al. (2013) explored the human resource system planning of commercial companies and productivity of user. Results of the study indicated that executive leaders prioritize their application experience and dynamic considering optimum way in case of Microsoft.
Birz and Zand (2006) examined the effect of activated information technology of interrelations on productivity of companies. The results showed that characteristics of activated information technology had an effect on productivity.

Local studies

Mogimi and Hsoeinzade (1392) presented in their study that information technology can be contributive to productivity though tracking, communication, flexibility, automation, flexibility, risk analysis, coordinating and monitoring of process.

Mahmodzade (1388) examined the effects of information and communication technology on total productivity of productive factors in Iran, results manifested that capital of ICT and non-ICT had a positive effect on productivity.

Moradi et al. (1391) drew their attention on investigating the effect of information and communication technology on economic development of Islamic countries. The results posited that ICT capital had the most impact on economic growth.

Eslami and Feii (1386) attempted to study the development of productivity model indicating on information technology. Analysis results showed that measured productivity of organizations, which organized strategy-infrastructure of IT using strategy-infrastructure of organizations, training human resources and integrated information system, was higher compare to other organizations.

Determining and developing compatible samples of information technology management for public organizations was studied by Hasanzade et al. 91388). The results indicated that components of compatible sample of information technology management in public organizations are as IT architecture, IT strategic planning and alignment of IT investments, IT risks, providing value and monitoring IT.

Materials and methods

The aim of the present study is to investigate the effect of information technology on organizational productivity in Mahabad banks. The study follows a descriptive-survey design. The statistical population comprises of 169 employers working in banks across Mahabad. Sample size was determined as 108 using Cochran formula. To collect the data use was made by Mogimi and Ajio standard questionnaires. To determine the validity of questionnaires, they were distributed among three professors of universities who confirmed the suitability of questionnaires. To calculate the reliability of the questionnaire, 30 people were piloted. Later, the questionnaires were collected from the piloted population.

Data analysis

Hypothesis: Information technology has an effect on organizational productivity in Mahabad banks

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Coefficient</th>
<th>Tendency</th>
<th>Level of significance</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>0.643</td>
<td>positive</td>
<td>0.000</td>
<td>108</td>
</tr>
</tbody>
</table>

Scattering diagram

Figure 1
Information technology
To study the effect of independent variable on dependent variable, regression was used.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean of squares</th>
<th>F</th>
<th>Sig</th>
<th>R</th>
<th>Square R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>16696.646</td>
<td>1</td>
<td>16696.646</td>
<td>74.722</td>
<td>0.001</td>
<td>0.64</td>
<td>0.41</td>
</tr>
<tr>
<td>Remaining</td>
<td>23685.604</td>
<td>106</td>
<td>223.449</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40382.250</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the table and level of significance, null hypothesis is rejected, this means that variance analysis of regression model is significant at 0.001 level of significance and can predict 41% of variance pertinent to assumed variable.

Suggestions
It is suggested that official changes are made through employing new information technologies in line with organizational productivity in Mahabad banks.

Investment and employing systematic hardware are suggested in order to increase organizational productivity. Using communication networks is suggested in order to increase organizational productivity in Mahabad banks. Using internet banking services is suggested in order to increase organizational productivity in Mahabad banks. Using delivered electronic services is suggested in order to increase organizational productivity in Mahabad banks.

References


Mahmodzade, M (2009). The effects of information and communication technologies on total productivity of productive factors in Iran. Executive Leadership Journal, 9, (2).


