INVESTIGATING THE INFLUENCE OF COMPUTER LITERACY ON SPORT MANAGERS’ EFFICIENCY IN TEHRAN PROVINCE

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Abstract

The main objective of the present study was to evaluate effect of computer literacy on sport managers’ efficiency in Tehran province. A descriptive survey was used as methodology. Statistical population included all sport managers (including formal, contractual, and semi-formal) who were 709 people in Tehran. Sample size was calculated as 250 people using Cochran formula. Sampling was carried out by stratified randomized method (in two classes as 63 females and 187 males). Data were collected by an author-synthesized
questionnaire that included 47 questions with Likert 5-point scale (reliability coefficient as $\alpha= 0.73$). Data were analyzed using both descriptive (mean frequency distribution, standard deviation and mean deviation error) and inferential statistics (one sample t-test). Results indicated that computer literacy has effect on ability of role clarity, organizational support, motivation, validity, evaluation and environmental proportion of sport managers in Tehran.

**Keywords:** Learning, efficiency, role clarity, organizational support, environmental proportion

### 1. INTRODUCTION

All countries are currently seeking for achieving improvement in the field of efficiency meaning that they get able to obtain higher level of national production by lower consumption of resources because there is a direct relation between per capita income and efficiency index. Trying to improve the efficiency means to try to create better life for people. Improved economic and social life needs a comprehensive attempt for enhancing permanent efficiency for survival of life and growth and development. Global improvement in information technology (IT) and communication has resulted in wide extension of learning opportunities and accessing to educational and scientific resources; and the situation can’t be realized via traditional markets and methods. Application of IT in education that is IT-based education not only facilitates education and enhanced efficiency of employees, but also causes revolution in conventional education methodologies (Revile, 2000).

Computer literacy is an extension of traditional literacy which requires one’s ability in performing the basic task using computer. These tasks include such as application of software package, library software, information banks on CD, continued data bases and net information on internet. By computer literacy, one can decode, evaluate, analyze and generate printed and electronic media (Siamian and Shahrabi, 2004).

The relation between IT and human resource (employees) efficiency is a mutual relation; meaning that without presence of skillful human resource familiar with computer methods, literature and literacy and possessing practical skills, real development and efficiency and knowledge-based national sustainability won't be achieved. On the other hand, IT is an effective tool for education and enhanced efficiency of human resources (Duvailer, 2009, pp13).

As the base of management pyramid, executive managers have the largest contribution in performing sport goals and programs. Skills are used as the basic and general criterion for proficiency improvement in management. The most conspicuous and the best criterion for rewarding the managers and their promotion is their technical performance (Koontz et al, 1993). By improvement in the field of communication and information systems especially internet as a fast and accessible tool and regarding establishment of international and technical standards of sport facilities, the necessity for application of this information by managers and planners of sport and building affairs has become more important.

**Computer literacy:** computer literacy means the ability of using computer by the person for ordinary and professional daily tasks without others’ help (Moeinpour, 2006).

**Human resource efficiency:** human resource efficiency means real output rate (work hours) of organization’s employees (Abtahi, 2003).

Nikpour et al (2012) investigated the relation between employees’ information literacy and organizational efficiency in public organizations of Kerman. This was a correlation descriptive study performed as a survey. The studied population included employees of public organizations of Kerman. Sampling was done by regular stratified method and 322 people were selected as the sample. Descriptive and inferential statistics were used for data analysis and data were collected by information literacy and organizational effectiveness questionnaires. Results indicated that there is significant relation between employees’ information literacy and its indices including recognition of information demand, information location, information evaluation, effective use of information and organizational effectiveness. Allameh et al (2010) evaluated the role of IT and communication on efficiency of managers and employees of Isfahan Foolad Mobarake Complex. Population included all managers and employees working in sections related to IT and communication in Foolad Mobarake Complex during 2009-2010 interval. Sample was selected by simple randomized sampling method. Data were collected by author-synthesized questionnaire with Cronbach’s alpha as 0.75. Results indicated that efficiency of Foolad Mobarake Complex employees is affected by information and
communication technology, system information technology, management information, internet, official automation and intranet. Moreover, demographic variables as education level and job title of internet dimension have influence on employees’ efficiency. William Berry (2007) investigated effectiveness of electronic education on improvement of employees’ performance in six large European companies. Results showed that the educations were effective suggesting planning for improved performance; but this effect depended on continued professional competence in the organization. Aitken and Tabakov (2005) investigated electronic education methods on employees’ performance in Net Up Company and found out that employees’ feedback to education was suitable and resulted in improvement of their job performance.

**METHODOLOGY**

The investigation was conducted as a descriptive survey. Studied population included all sport managers (including top managers of sport organizations of province and states and managers of sections and also stadium managers) totally including 709 people in Tehran province. Sample size was determined by Cochran formula \( n = 250 \). Sample was adopted by stratified randomized sampling so that sport managers were divided in to two classes as women \( (n = 63) \) and men \( (n = 187) \). Data were collected by two methods: library study or document method, and author-synthesized questionnaire. Data collection tool was an author-synthesized questionnaire with 47 questions and Likert 5-point scale. The face and content validity of the questionnaire was approved by advisor and supervisor professors and experts of this field and the questionnaire was corrected according to their comments. In a preliminary plan for determining reliability, 30 questionnaires were submitted to respondents and after data collection, data were analyzed using SPSS software and reliability coefficient was calculated as \( \alpha = 0.73 \), suggesting high reliability of the questionnaire. Data were analyzed by descriptive statistics (mean frequency distribution, standard deviation and mean deviation error) and inferential statistics (one sample t-test) using SPSS software.

**RESULTS**

Since in all variables, \( p \)-value was higher than 0.05, it can be concluded that ability, role clarity, organizational support, motivation, validity, proportion and environment are normal. Therefore, one sample t-test was used for hypothesis test.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Expected mean</th>
<th>Calculated t</th>
<th>Degree of freedom</th>
<th>Table t</th>
<th>Significance level</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis 1</td>
<td>4.28</td>
<td>0.42</td>
<td>3</td>
<td>157.382</td>
<td>249</td>
<td>1.65</td>
<td>0.001</td>
<td>Approved</td>
</tr>
<tr>
<td>Hypothesis 2</td>
<td>3.43</td>
<td>0.73</td>
<td>3</td>
<td>72.813</td>
<td>249</td>
<td>1.65</td>
<td>0.001</td>
<td>Approved</td>
</tr>
<tr>
<td>Hypothesis 3</td>
<td>3.70</td>
<td>0.75</td>
<td>3</td>
<td>77.120</td>
<td>249</td>
<td>1.65</td>
<td>0.001</td>
<td>Approved</td>
</tr>
<tr>
<td>Hypothesis 4</td>
<td>3.99</td>
<td>0.59</td>
<td>3</td>
<td>105.636</td>
<td>249</td>
<td>1.65</td>
<td>0.001</td>
<td>Approved</td>
</tr>
<tr>
<td>Hypothesis 5</td>
<td>3.52</td>
<td>0.66</td>
<td>3</td>
<td>83.107</td>
<td>249</td>
<td>1.65</td>
<td>0.001</td>
<td>Approved</td>
</tr>
<tr>
<td>Hypothesis 6</td>
<td>3.72</td>
<td>0.78</td>
<td>3</td>
<td>74.486</td>
<td>249</td>
<td>1.65</td>
<td>0.001</td>
<td>Approved</td>
</tr>
<tr>
<td>Hypothesis 7</td>
<td>3.62</td>
<td>0.79</td>
<td>3</td>
<td>71.213</td>
<td>249</td>
<td>1.65</td>
<td>0.001</td>
<td>Approved</td>
</tr>
</tbody>
</table>

Results of table 1 show that calculated mean is higher than Likert expected mean (3). Calculated t value in one sample t-test was higher than t value of table. Moreover, significance level was lower than error value \( (\alpha = 0.01) \). Thus, the difference between calculated mean and expected mean was significant \( (p < 0.01) \). Thus null hypothesis is rejected and alternative hypothesis is accepted.

Calculated t value in one sample t-test was higher than t value of table and significance level was lower than error value \( (\alpha = 0.01) \). Thus, it can be concluded that computer literacy has influence on Tehran sport.
managers’ ability. Calculated t value in one sample t-test was higher than t value of table and significance level was lower than error value (α=0.01). Thus, it can be concluded that computer literacy has influence on Tehran sport managers’ role clarity.

Calculated t value in one sample t-test was higher than t value of table and significance level was lower than error value (α=0.01). Thus, it can be concluded that computer literacy has influence on Tehran sport managers’ organizational support.

Calculated t value in one sample t-test was higher than t value of table and significance level was lower than error value (α=0.01). Thus, it can be concluded that computer literacy has influence on Tehran sport managers’ motivation.

Calculated t value in one sample t-test was higher than t value of table and significance level was lower than error value (α=0.01). Thus, it can be concluded that computer literacy has influence on Tehran sport managers’ validity.

Calculated t value in one sample t-test was higher than t value of table and significance level was lower than error value (α=0.01). Thus, it can be concluded that computer literacy has influence on Tehran sport managers’ environmental proportion.

The results of hypothesis 1 indicated that computer literacy has effect on managers’ ability; meaning that managers who can use computer and electronic education package, educational CD, internet and online education, have been able to update organizational knowledge and promote their scientific abilities and others’ work experiences and their own working abilities. This result is in agreement with those reported by Jabbarzaseh (2002), Graham (2006) and Miltado (2001).

The results of hypothesis 2 indicated that computer literacy has effect on managers’ role clarity; meaning that work with computer in home or workplace and also distant education using computer are effective in managers’ awareness on their authority, identification of work priorities, job expectation together with accurate and special policies on managers’ duties. This is in accordance with the results reported by Afsheh et al (2012) and Graham (2006).

The results of hypothesis 3 indicated that computer literacy has effect on managers’ organizational support; meaning that computer use ability in sport managers, by creating appropriate work conditions, enhances welfare facilities and favorable education, salary satisfaction, increased monetary and non-monetary rewards and lack of discrimination among the employees by organization. This is in agreement with the results reported by Kawousi et al (2009) and Afsheh et al (2012).

The results of hypothesis 4 indicated that computer literacy has effect on managers’ motivation; meaning that by means of information obtained by computer and distant education (internet), the employees have been able to gain dynamism and internal mobility which is manifested in their improved efficiency. Moreover, this situation has attracted employees’ attention to their own job and spending more energy in application of knowledge and achieved abilities toward organizational objectives. This agrees with the results reported by Rezayi (2009) and Miltado (2001).

The results of hypothesis 5 indicated that computer literacy has effect on managers’ validity; meaning that the managers’ ability to use electronic (computer) facilities results in accurate decision making in facing with different problems and adopting better choices under hard condition because the managers are familiar with creative decision making methods via computer literacy. This finding is in accordance with those reported by Hadavand et al (2012), Afsheh et al (2012) and Holland (2003).

The results of hypothesis 5 indicated that computer literacy has effect on managers’ evaluation; meaning that the literacy for working with computer and receiving online information had promoted managers’ evaluation of their own organizational behaviors, the tasks they perform and also evaluation of employees’ performance and proposing suitable approaches that enhances organizational efficiency and effectiveness. Since managers’ computer literacy and finding the factors affecting their performance have critical importance for providing better services to athletes, it can be said that good managers provide athletes’ satisfaction and promote sport status in the province. This productivity enhances the motivation and the cycle is repeated. Managers’ performance has critical role in enhancement of organizational performance. Thus, investment on
human resources promotes achieving strategic goals of the organization. This result is in agreement with those reported by Hadavand et al (2012) and Reinolds (1999).

The results of hypothesis 7 showed that computer literacy has influence on managers' environment literacy; that is the ability of using electronic (computer) facilities enhances organization's awareness about environmental key factors such as competition, market status change, public rules and changes in policies of primary material owners that are out of managers' authority and power. This is in accordance with the results reported by Rezayi (2009), Sapatini (2005) and timer (2000).

**DISCUSSION AND CONCLUSION**

Results obtained in this study indicated that computer literacy is effective on sport managers' efficiency in Tehran province. Since the most important factor in reduction or increase of organizational efficiency is human resource, accurate and appropriate and continual use of human capital increases employees' efficiency. The ability to apply electronic tools along with motivating the employees and ease of application, cost-effectiveness and accessibility, enhances managers' efficiency and effectiveness in providing services for athletes and promotes achieving organizational goals. Moreover, electronic learning has equipped the efficient human force with updated science and, by providing new services, enhanced their creativity and employees evaluation about organizational behavior that can promote the decisions toward organizational goals. The results of our study are in accordance with those reported by Hadavand et al (2012), Afsheh et al (2012), Kawoosi et al (2009), Berry (2007), Sapatini (2005) and Holland (2003).

**REFERENCE LIST**


