INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES

Vol 3, Issue 9, (2013) E-ISSN: 2222-6990

The Organizational Challenges and Performance of E-Learning (Case Study: University of Isfahan, Iran)

Hadi Teimouri, PhD
Assistant Professor of Management Department, University of Isfahan, Iran
E-mail: Hadi_Teimouri@yahoo.com

Soroosh Emami
M.Sc Student in Industrial Management, Management Department, University of Isfahan, Iran
E-mail: Sorooshemami3@gmail.com

Shiva Hamidipour
M.Ac Student in Business Management, Management Department, University of Isfahan, Iran
E-mail: Shiva_hp2002@yahoo.com

DOI Link: http://dx.doi.org/10.6007/IJARBSS/v3-i9/243

Published Date: 26 September 2013

Abstract

The development of information technologies has contributed to the growth in online training as an important education method. E-learning provides trainees with education opportunities in diverse ways. It has led to a range of innovative services offering one-stop educational solutions within the e-business sector. The online training environment enables trainees to undertake customized training at any time and any place. Moreover, information technology allows both the trainers and trainees to be decoupled in terms of time, place, and space.

The major aim of this paper is to study the effect of organizational challenges on performance of E-Learning in University of Isfahan. The mentioned aim will be studied by supposing some factors such as organizational technology, strategy, culture and structure as effective organizational challenges on performance of E-Learning.

This survey is applied type in terms of purpose and is descriptive-field in terms of methodology. Historical study was used to collect data related to theoretical principles of research like books and scientific magazines and researcher self made questionnaire (with acceptable reliability of 94.5%) was applied for data collection and its analysis.

The results of this research indicate that organizational technology, strategy, culture and structure affect on performance of E-Learning in University of Isfahan.

Keywords: E-learning, Organizational Challenges, University of Isfahan

1- Introduction

Today, organizations are making great efforts to properly adjust to the changing business environment to enhance their competitiveness. In step with the development of information technology and the Internet, many businesses are replacing traditional vocational training with e-learning to better manage their workforce (Sevilla & Wells, 1988).

The development and advent of emerging technologies has greatly impacted education by motivating new learners. It has also contributed to the creation of a new instructional paradigm. Recently, three-dimensional virtual worlds, where unlimited numbers of people can interact simultaneously within network-based simulated environments, have been emerging and have become popularity. More and more educators are debating its implications for teaching and learning. According to a recent survey, the number of users of virtual worlds has exceeded more than 1.8 billion people (Kzero Corp, 2011). Gartner, Inc., a leading information technology research and advisory company, has stated that virtual worlds might be adopted mainstream for education within five to ten years (Gartner Inc, 2009).

Some researchers predict that this new media, virtual worlds, will bring major changes to the current instructional paradigm just as the Internet did in the past (Aldrich, 2009; Clarke & Dede, 2005; Zemsky & Massy, 2004). These same researchers are examining the educabilities of the emerging virtual worlds. As reflected in recent achievements, diverse research organizations such as the National Science Foundation (NSF), The New Media Consortium (NMC) and EDUCAUS have conducted several research projects associated with using virtual worlds for educational purpose. Other associations such as the AERA1, AECT2 and ISTE3 have organized a special group interested specifically in virtual worlds and they are conducting and sharing research on current issues in virtual worlds.

In spite of the prospects and consideration of the educability being given to virtual worlds, there is still a lack of empirical research about how learners progress within these environments (Jarmon, et.al, 2009; Oliver & Carr, 2009). Most researchers discuss the possibility and effectiveness of using this medium as an educational tool. However, little research focuses on how people learn within this environment and specifically how certain features relate to effective learning. Many researchers are interested in the levels of engagement with which virtual worlds provide students. However, some focus their research interests on learner variables such as attitudes, skills and stimulus level (Shen & Eder, 2009). while others are interested in teaching variables such as instructional designs and methods (Clarke & Dede, 2005; Omale, et.al, 2009; Wang & Hsu, 2009). Even though virtual worlds are media with characteristics distinct from other media, these characteristics have not drawn much attention from researchers. Thus, this study aims to study the effect of organizational challenges on performance of E-Learning in University of Isfahan.

2- Research hypotheses

Hypotheses under study in this survey that are proportional to compiled purposes are:

1-The existing challenges in the scope of organizational technology are effective on performance of E-learning system in University of Isfahan.

2-The existing challenges in the scope of organizational strategy are effective on performance of E-learning system in University of Isfahan.

3- The existing challenges in the scope of organizational culture are effective on performance of E-learning system in University of Isfahan.

4-The existing challenges in the scope of organizational structure are effective on performance of E-learning system in University of Isfahan.

3- Research methodology

This survey was conducted using descriptive-field method. Historical study such as books and scientific magazines was used to collect subjects related to theoretical principles and researcher self-made questionnaire was applied for data collection and analysis (with accepted reliability equal to 94.5%).

Statistical population of the survey included all students, employees and professors of E-learning system in University of Isfahan in which random sampling method (available) was used. It was in the way that first a pilot study was conducted by distributing questionnaires among members of the statistical population and volume of the statistical sample was determined after estimating variance of the primary sample.

SPSS software was applied to process the exploited data and summarize it. Also descriptive statistics method (frequency, mean) was used to analysis data and inferential statistics method was used to explain the collected data in order to confirm or reject research hypotheses.

4- Data analysis

4-1- Studying demographic characteristics of the statistical sample under study

Demographic characteristics of the statistical sample under study are studied in this section.

4-1-1- Studying demographic characteristics of the statistical sample based on organizational post

Characteristics of the statistical sample under study are studied in this section based on organizational post.

Table 1- studying demographic characteristics of the statistical sample under study based on organizational post

Organizational post	Frequency	Frequency percentage
Professor	16	24.2
Employee	7	10.6
Student	43	65.2
Total	66	100

According to results of the above table, 2.24% of the statistical sample under study are professors, 6.10% are employees and 2.65% are students.

4-1-2- Studying demographic characteristics of the statistical sample under study based on history of presence in E-learning system.

Characteristics of the statistical sample under study are studied in this section based on history of presence in E-learning system.

Table 2- studying demographic characteristics of the statistical sample under study based on history of presence in E-learning system.

history of presence	Frequency	Frequency percentage
Less than 1 year	35	53.0

1 to 2 years	25	37.9
3 to 4 years	3	4.5
More than 4 years	3	4.5
Total	66	100

According to results of the above table, 53.0% of the statistical sample under study have history of presence less than 1 year, 37.9 % have history of presence of 1 to 2 years, 4.5 % have history of presence of 3 to 4 years and 4.5% have history of presence more than 4 years.

4-2- Studying normality of statistical population distribution

Kolmogoroff-Smirnoff test was used to study normality of statistical population distribution in this section and obtained results of this test are illustrated in table 3.

Table 3- studying normality of statistical population distribution

Hypothesis	Kolmogoroff-Smirnoff	Sig
Hypothesis one	1.08	0.18
Hypothesis two	0.72	0.67
Hypothesis three	1.36	0.49
Hypothesis four	0.99	0.18

According to results of the above table, distribution of the scores in statistical population of this survey follows normal distribution as the calculated statistic is not significant at level p≤5%.

4-3- Studying descriptive statistics of questions supporting research hypotheses

Descriptive statistics of questions supporting research hypotheses are studied separately in this section.

4-3-1- Studying descriptive statistics of questions supporting research hypothesis one

Descriptive statistics of questions supporting research hypothesis one are studied separately in this section.

Table 4- descriptive statistics of questions supporting research hypothesis one

Question	Average	Standard deviation
Up to dating of the applied equipments and systems	4.27	0.83
Proportionality of the applied equipments and systems with users' needs	4.16	0.88
Familiarity of users with application manner of equipments and systems	4.09	0.90
High access to required equipments and systems	3.87	0.95
Easy of access to required equipments and systems	4.04	0.86
High security of the exchanged data in E-learning system	3.69	1.10
Existence of necessary beds for establishment of E-learning system (bandwidth, etc)	3.92	1.08

Proportionality of the produced educational content with students' needs	3.95	0.95

According to results of the above table, the highest impact degree on performance of E-learning system among factors regarding organizational technology is related to up to dating of the applied equipments and systems with average amount of 4.27 and the lowest impact degree is related to high security of exchanged data in E-learning system with average amount of 3.69.

4-3-2- Studying descriptive statistics of questions supporting research hypothesis two

Descriptive statistics of questions supporting research hypothesis two are studied separately in this section.

Table 5- descriptive statistics of questions supporting research hypothesis two

Question	Average	Standard deviation
Proper understanding of the audience from mission and strategies of electronic education system	3.51	0.99
Existence of clear and specific strategies in E-learning system	3.54	1.04
Coherence and coordination among strategies of different units of the university	3.59	1.09
Proportionality of strategies of E-learning system consistent with environmental changes	3.65	1.07

According to results of the above table, the highest impact degree on performance of E-learning system among the above factors regarding organizational strategy is related to proportionality of strategies of E-learning system consistent with environmental changes with average amount of 3.65 and the lowest impact degree is related to proper understanding of the audience from mission and strategies of E-learning system with average amount of 3.51.

4-3-3- Studying descriptive statistics of questions supporting research hypothesis three

Descriptive statistics of questions supporting research hypothesis three are studied separately in this section.

Table 6- descriptive statistics of questions supporting research hypothesis three

Question	Average	Standard deviation
Existence of direct and face-to-face communications among professors and students	3.43	1.09
Existence of mutual sense of cooperation among professors, students and employees	3.59	1.18
Existence of common working values among professors, students and employees	3.54	1.15
Proper attitude of the society towards E-learning system	3.37	1.22
Dominance of modern thought of educational decision-makers and policy-makers	3.74	1.02

According to results of the above table, the highest impact degree on performance of E-learning system among the factors regarding organizational culture is related to dominance of modern thought of educational decision-makers and policy-makers with average amount of 3.74 and the lowest impact degree is related to existence of direct and face-to-face

communications among professors and students with average amount of 3.43.

4-3-4-Studying descriptive statistics of questions supporting research hypothesis four

Descriptive statistics of questions supporting research hypothesis four are studied separately in this section.

Table 7- descriptive statistics of questions supporting research hypothesis four

Question	Average	Standard deviation
Granting authorities in the organization	3.30	1.06
Decreasing excessive administrative ceremonies	3.57	1.05
Existence of flexible organizational structure	3.40	0.99
Coherence and coordination among different units	3.59	1.00

According to results of the above table, the highest impact degree on performance of E-learning system among the factors regarding organizational structure is related to coherence and coordination among different units with average amount of 3.59 and the lowest impact degree is related to lack of granting authorities in the organization with average amount of 3.30.

4-4- Testing research hypotheses

Results related to testing research hypotheses are studied in this section.

4-4-1- Testing hypothesis one

Results related to testing hypothesis one are studied in this section.

Hypothesis one: The existing challenges in the scope of organizational technology are effective on performance of E-learning system in University of Isfahan

Table 8- testing hypothesis one

Research hypothesis	Test statistic	Significance level
Impact of existing challenges in the scope of organizational technology on performance of E-learning system	11.34	0.000

According to results of the above table, the existing challenges in the scope of organizational technology are effective on performance of E-learning system since the calculated test statistic is significant at significance level less than 5%.

4-4-2- Testing hypothesis two

Results related to testing hypothesis two are studied in this section.

Hypothesis two: The existing challenges in the scope of organizational strategy are effective on performance of E-learning system in University of Isfahan.

Table 9- testing hypothesis two

Research hypothesis	Test statistic	Significance level
Impact of existing challenges in the scope of organizational strategy on performance of E-learning system	5.50	0.000

According to results of the above table, the existing challenges in the scope of organizational strategy are effective on performance of E-learning system since the calculated test statistic is significant at significance level less than 5%.

4-4-3- Testing hypothesis three

Results related to testing hypothesis three are studied in this section.
Hypothesis three: The existing challenges in the scope of organizational culture are effective on performance of E-learning system in University of Isfahan.

Table 10- testing hypothesis three

Research hypothesis	Test statistic	Significance level
Impact of existing challenges in the scope of organizational culture on performance of E-learning system	4.57	0.000

According to results of the above table, the existing challenges in the scope of organizational culture are effective on performance of E-learning system since the calculated test statistic is significant at significance level less than 5%.

4-4-4- Testing hypothesis four

Results related to testing hypothesis four are studied in this section.
Hypothesis four: The existing challenges in the scope of organizational structure are effective on performance of E-learning system in University of Isfahan.

Table 11- testing hypothesis four

Research hypothesis	Test statistic	Significance level
Impact of existing challenges in the scope of organizational structure on performance of E-learning system	4.36	0.000

According to results of the above table, the existing challenges in the scope of organizational structure are effective on performance of E-learning system since the calculated test statistic is significant at significance level less than 5%.

5- Conclusion

The development of information technologies has contributed to the growth in online training as an important education method. E-learning provides trainees with education opportunities in diverse ways. It has led to a range of innovative services offering one-stop educational solutions within the e-business sector. The online training environment enables trainees to

undertake customized training at any time and any place. Moreover, information technology allows both the trainers and trainees to be decoupled in terms of time, place, and space.
The result of this survey indicates that challenges include organizational technology, strategy; culture and structure are effective on performance of E-learning system in University of Isfahan.

Corresponding Author
Hadi Teimouri, PhD, Assistant Professor of Management Department, University of Isfahan, Isfahan, Iran. Email: hadi_teimouri@yahoo.com

References

Aldrich, C. 2009. Learning online with games, simulations, and virtual worlds. San Francisco, CA: Jossey-Bass.
Clarke, J., & Dede, C. 2005. Making learning meaningful, American educational research association National Conference, Montreal.
Gartner Inc. 2009. Gartner hype cycle for education 2009. Retrieved June 3, 2011, from. http://www.gartner.com/DisplayDocument?id¼1095713.
Jarmon, L., Traphagan, T., Mayrath, M., & Trivedi, A. 2009. Virtual world teaching, experiential learning, and assessment: An interdisciplinary communication course in Second Life. Computers and Education, 53(1), 169–182.
Kzero Corp. 2011. Virtual worlds registered accounts for Q1 2011 reach 1.850bn. Retrieved June 1, 2011, from. http://www.kzero.co.uk/blog/?p¼4580.
Oliver, M., & Carr, D. 2009. Learning in virtual worlds: using communities of practice to explain how people learn from play. British Journal of Educational Technology, 40(3), 444–457.
Omale, N., Hung, W. C., Luketkehans, L., & Cook-Plagwiz, J. 2009. Learning in 3-D multiuser virtual environment: exploring the use of unique 3-D attributes for online problem-based learning. British Journal of Educational Technology, 40(3), 480–495.
Sevilla, C., & Wells, T. D. 1988. Contracting to ensure training transfer. Training & Development, 10–11.
Shen, J., & Eder, L. B. 2009. Intentions to use virtual worlds for education. Journal of Information System Education, 20(2), 225–233.
Wang, S. K., & Hsu, H. Y. 2009. Using the ADDIE Model to Design Secondlife activities for online learners. TechTrends, 53(6), 76–81.
Zemsky, R., & Massy, W. F. 2004. Thwarted innovation: What happened to e-learning and why. Learning Alliance. (A Learning Alliance Report).