Obstacles Facing Faculty Members in the Effective Implementation of e-learning at Some Universities in Saudi Arabia

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Higher education institutions in many countries around the world are facing serious challenges from expansion, leading to a number of developments in the process of integrating information and communication technologies into university practices. In recent years, the Kingdom of Saudi Arabia (KSA) has witnessed an unprecedented growth in higher education and e-learning.

In addition, faculty members at many higher education institutions in the KSA are facing a number of obstacles in regards to the implementation of e-learning in their teaching. Hence, this paper will investigate some of the obstacles faced by some of the country's universities in different locations across the country. A quantitative data approach was used with the analysis of 375 questionnaires. Validity and reliability of the questionnaire were checked and statistical treatments such as percentages, means, frequencies, standard deviation and analysis of variance (ANOVA) were conducted. The results from the quantitative data analysis identified several obstacles facing faculty members in terms of the implementation of e-learning in their teaching at some of the institutions. This paper describes how most obstacles identified by faculty members were regarded as being at university level and involved, for example, the absence of an institutional policy for e-learning. In addition, a number of other obstacles were identified, including: lack of integration of technical support, lack of support in instructional design for e-learning and lack of adequate training in the use of e-learning techniques.

Keywords - Obstacles, E-learning, faculty members and Saudi Arabia.

I. INTRODUCTION

There has been a rapid increase in the use of information and communications technologies (ICTs) as teaching and learning tools in education. Electronic learning (e-learning) is fast becoming one of the most popular learning environments in the field of education in most universities globally, including in Saudi Arabia. The use of elearning is now becoming common and has popular approval, due to the fact that, as well as reducing classroom time it also creates a wider impact on the stakeholders. The use of e-learning in the realm of education is a paradigm shift from traditional practice, brought about by technological development, such as the Internet and digitally programmer-enabled mobile apps.

Thus, efforts and experiments regarding e-learning are currently receiving a great deal of attention globally. Elearning is a revolutionary development that cannot be ignored or rejected.

In the process of teaching and learning, it has become an alternative method in the dissemination of education and training, both directly and indirectly. As an important development, which has taken advantage of computer technologies and software, communications and information technology can potentially overcome the obstacles of space, time and risk. It can be used effectively by experienced staff members in academic institutions as a modern teaching method employing modern communication mechanisms, to support the educational process and extend and improve the quality of the education provided, enriching both learning and the development of teaching [1].

Definitions of e-learning acknowledge the challenges posed by diverse learners and instructors. Indeed, elearning extends traditional learning paradigms into new dynamic learning models through computer and Web technologies [2].

Hence, the role of the teacher has changed over the years and the evolution of information and communications technology has added new challenges for teachers today, as it is imperative for them to deal with modern technology and employ multimedia or web resources in the teaching process to help their students to achieve the desired educational outcomes.

Despite the development of preparation methods for teachers, the interest in employing multimedia in university teaching is still modest. The process of preparation and development of programs and platforms for e-learning is considered the most important requirement of the application of e-learning, and it needs a great deal of effort from experts and specialists in its design and programming [3].

The field of Higher Education in Saudi Arabia has undergone a remarkable paradigm shift in terms of its approach to learning, with the development of the infrastructure, with fully equipped buildings and new technical tools that must be accompanied by rapid parallel development in the employment of information and communication technology by its faculty members.

E-learning as a tool is useful for enhancing the quality of learning and teaching. It is an "innovative approach to education delivery via electronic forms of information that enhance the learner's knowledge, skills, or other performance" [4]. Other researchers define e-learning as using network technologies to create, enhance, deliver and facilitate the learning process, anytime and anywhere [5].

Thus, while e-learning is important and substantial today, it also appears to have a very promising future as a central part of the modern information and communication technology society.

Since faculty members have such an important influence in higher education institutions (HEIs), it is important to understand the obstacles facing them regarding the application of e-learning in their learning and teaching in order

to improve teaching. This will also help to provide information that will add to the body of knowledge regarding the successful implementation of e-learning in higher education.

Hence, this paper will investigate the obstacles faced by faculty members at some Saudi universities, considering the significant role of academic staff members in their teaching at higher academic institutions and the diversity of the use of modern techniques in the field of information and communication technology, which is, undoubtedly, a cornerstone of the basic process of learning.

This paper will attempt to answer the main research question as follows:

- What are the obstacles identified by faculty staff members in the effective implementation of e-learning in some Saudi universities?

II. LITERATURE REVIEW

Practical and theoretical progress in the field of information and communication technology (ICT) is instrumental in the progress of a number of disciplines, as well as in the personal and social development of individuals. This is also true in the case of education, where ICT can play a key role in making learning accessible to students with diverse needs, as well as in improving the creativity of both students and teachers, through the provision of different methods and teaching approaches. It can make the presentation of knowledge more interesting and more attractive, with many aspects of the school curriculum being integrated into e-learning systems. Perhaps the most important impact of the growing involvement of ICT in the educational process is as an attractive and advanced tool to encourage teacher diversity away from conventional methods of presentation, which will reflect positively on the educational environment, thereby stimulating learning.

The expansion in the presence, accessibility and content of the Internet has resulted in a growing conversion to the use of e-learning in teaching practices in higher education. Information and communications technology promises the creation of many opportunities, such as lifelong learning and flexibility in education [6]. The use of these e-learning technologies has helped to improve communication and the level of freedom with institutions outside community, with the flexibility of e-learning enabling geographical and temporal barriers to be overcome, as well as enabling users to deal with rapid changes in knowledge [7].

The Saudi Arabian government offers many opportunities for the future regarding developments in the ICT industry as a national priority and to this end it is moving ahead with digital economy developments. The strong ICT sector is growing year on year and there is significant interest from the government and enterprises to utilise the most recent technological developments surrounding cloud computing and smart technologies.

In particular, a long-term vision of the government of Saudi Arabia is “the transformation into an information society and digital economy so as to increase productivity and provide communications and information technology (IT) services for all sectors of the society in all parts of the country and build a solid information industry that becomes a major source of income” [8].

Thus, Saudi Arabia, with 13 million Internet users, had the largest Internet user population in the Arab world by the end of 2012 (http://www.internetworldstats.com/me/sa.htm). The Government of Saudi Arabia has realized the vital role of ICT in building an information-based society, characterized by the production, penetration and processing of information. The transformation of countries and their societies to an information society supports their advancement and progress, accelerates the rate of growth and development and boosts their economies. It also consolidates the continued success of sustainable economic and social development programs. Hence, the Kingdom has paid increased attention to rapidly growing and fast evolving sectors, one of which is information and communications technology (ICT). Thus, a directive was introduced to formulate and implement a National Communications and Information Technology Plan (NCITP) for the Kingdom. In response to this directive, a comprehensive ICT plan for the Kingdom was prepared. The plan consists of a long-term vision for ICT in the

Kingdom for the next twenty years plus a five-year plan that projects the vision for the first five years (Ministry of Communications and Information Technology) [9].

The Kingdom included in its first specific targets the creation of a base for e-learning in the National Centre for e-Learning and Distance Education (www.elc.edu.sa) under the supervision of the Ministry of Higher Education, which offers services to higher education institutions, which include system bridges and the Saudi Digital Library System Thesaurus for educational and other units (source: http://ideas.mcit.gov.sa).

The National Centre for e-Learning and Distance Education (NCeL) was established in 2006 by the Government of Saudi Arabia, which had recommended the adoption of e-learning and its application in higher education. The Centre comes under the umbrella of the Ministry of Higher Education, as a leader, supervisor, and supporter of e-learning at higher education level. Its aspires to provide a melting pot of Saudi universities' experiences in the field of e-learning, and to pave the way for a promising future through honest competition and widened horizons. The NCeL was established for the empowerment of creative innovation, to support the role of universities in the building of a 21st century Saudi society and a new generation of Saudi learners.

The vision and mission of the NCeL is the establishment of a holistic educational system based on the best applications and techniques of e-learning, as well as the achievement of progress and excellence in both learning and teaching according to an integrated education system depending on the use of modern information and communications technology in the field of e-learning. It seeks to become a prominent think tank and a national reference for e-learning in Saudi Arabia.

The original values of the National Centre for e-Learning and Distance Learning aim to work in accordance with the mission of the government and Islamic principles of tolerance and fairness, thus supporting the educational process in higher education institutions at all stages and in all categories and segments without restrictions of time or place. The motive of these values is to uphold the Islamic principle that urges the acquisition of knowledge, science, and proficiency, and social traditions that place science and scientists in a respected, high position of professionalism, diversity, and team spirit, with the emphasis on meeting learners' needs. This involves a spirit of partnership and integration that enhances opportunities to upgrade education and learning systems, with respect to

the reservation of intellectual, scientific, and moral rights [10]. The Ministry of Higher Education seeks to achieve its ambitious vision by means of its strategic plan, which covers the next 25 years. The Ministry is working to realize the integration of all relevant sectors in order to keep up with the latest technological developments. This begins with a desire to invest in the advancement of a new type of education based on the latest and best application of state-of-the-art technologies, and strengthening traditional education. This reality leads us to make the necessary transformation to an integrated system for the enrichment of the educational process, so as to become a prestigious "knowledge society"[10].

The government of Saudi Arabia agrees that the future of e-learning and distance education is an integrated part of the world's technological future. Therefore, the country is heading towards the future with a firm commitment to its original values, while at the same time serving as a convoy for new technology [10]. The judicious use of web 2.0 technologies in education addresses this call for students to develop 21stcentury skills.

Considering the rapid growth of technology and of the population, it seems inevitable that e-learning is going to become the main agent for education. In this study, the terms "obstacle" and "barrier" are used interchangeably. This section attempts to outline a classification of barriers to e-learning and suggests appropriate solutions. There are many factors that act as obstacles to faculty members' use of ICT, thus affecting their motivation to practise teaching with it. These barriers can be divided into two categories, internal and external, to make them more understandable.

Rogers [11] defines internal barriers as those related to teachers' attitudes and perceptions towards ICT in addition to their competency with ICT, whereas external barriers are related to the availability and accessibility of hardware and software, technical support, management support, and continuous training programmes. However, there are some barriers that may be classified as both internal and external, for instance, lack of time.

External barriers involving the use of ICT by teachers include: insufficient access to hardware and software, lack of time to prepare lessons with ICT, and inadequate technical and managerial support. According to [12], among the major barriers to integrating ICT are lack of teacher time, limited access, lack of rationale for ICT use, lack of teacher training and managerial support, need for more training programs for teachers, and lack of expertise. In several studies teachers said that a major barrier to their ICT use was 'lack of time' [13]. There are many kinds of barrier including: a) Learners - which has subdivisions such as financial problems, motivation, assessment of their progress, isolation from peers, inadequate skills and experience in distance learning, familiarity with staff and social domain. b) Teachers - which has subdivisions such as lack of adequate knowledge about the e-teaching environment and difficulty in assessing different domain progress. c) Curriculum – which includes ambiguity, quality, resources, teaching process, evaluation. d) School – which involves organisational and structural factors. Overcoming these groups of barriers requires better cooperation between curriculum developers, teachers, students' parents, social authorities, and technological specialists, as well as the preparation of virtual and actual interaction between academic staff members and society.

Regarding internal obstacles, Scrimshaw [14], offers four possible explanations for teachers not using ICT:

- Teachers view ICT as being incompatible with their wider educational beliefs.
- Obstacles associated with personal characteristics of teachers, such as lack of computer skills.
- Social obstacles, such as lack of support from colleagues.
- Obstacles in schools, such as lack of technical support.

Pelgrum [15] conducted a study focussing on the perceptions of educational practitioners (at lower secondary level) regarding obstacles that seriously impede the realisation of schools' ICT-related goals. The results obtained are from a worldwide survey among national representative samples of schools from 26 countries. The main focus of the study was on obstacles that educational practitioners perceived as major impediments to realising their school-based ICT objectives. Among the top ten obstacles were materials as well as non-material conditions. The major obstacles were: lack of computers and lack of knowledge among teachers.

Jones [16] wrote a report on the results of Becta's (the British Educational Communications and Technology Agency) online survey of 170 educational practitioners regarding their perceived barriers to the use of ICT. The report outlines a number of barriers to the uptake of ICT that are grouped into teacher level barriers and school level barriers. The teacher level barriers are related to teachers': a) personal deficiencies, such as lack of confidence and lack of competence (due to lack of time for training, lack of pedagogical training, lack of skills training, and lack of ICT focus in initial teacher training); b) resistance to change and negative attitudes; c) anxiety; d) inequalities, such as age and gender differences; and e) lack of perceptions of benefits of ICT use. School level barriers are identified as: a) lack of time scheduled by schools for teachers to use ICT, b) insufficient access to resources (due to lack of hardware, poor organisation of resources, poor quality of hardware, inappropriate hardware, lack of teachers' personal access to ICT resources); c) technical problems (fear of things going wrong, lack of technical support); and d) impact of public examinations. The Becta study indicates that there are interrelationships between each of the identified barriers to ICT use. For example, teachers' confidence is directly affected by other barriers such as personal access to ICT, availability of technical support, and the amount of training. In general, although the above studies use different terms such as material/nonmaterial obstacles, and teacher/school level internal/external barriers, the main obstacles or barriers to ICT use appear to be common across countries, and the obstacles or barriers are inter-related.

Gülbahar and Güven [17] conducted a study of the integration of ICT in the nation's schools through a Turkish government investment project. After conducting a survey of 326 teachers, they found that "although teachers are willing to use ICT resources and are aware of the existing potential" the adoption of ICT in their teaching has largely been hindered by a "lack of in-service training opportunities".

There is a recognised lack of awareness among teachers and faculty members of the kinds of techniques available and how they can be used to support the delivery of the curriculum, or overcome the obstacles preventing

the effective use of ICT. Some observers have also commented on the inability of teachers to implement and use the existing resources they have available to them as well as not saving time and effort due to insufficient training [18].

It is especially important to use the correct pedagogy when modelling the use of this technology in a classroom of pre-service teachers. Not enough lecturers learn to use technologies properly; they must learn to develop lessons and materials to teach their subjects effectively. Teacher educators should continue to learn and model new and appropriate technologies, and be aware of when, how, and why technology is used to enhance teaching and learning. Instructional technologies can improve pre-service teacher training by providing access to more and better educational resources, offering multimedia simulations of good teaching practice, catalysing teacher-to-trainee collaboration, and increasing productivity of non-instructional tasks. Teacher preparation can be enhanced by creating opportunities for teachers in training to see and experience the positive effects of technology on teaching and learning, potentially motivating them to participate in professional development programs because they see them as an opportunity to become a trainer/mentor for other teachers [19].

Therefore, the ability to recognise the barriers and obstacles to using ICT is extremely important and its implementation may not be achieved without overcoming the barriers that arise as a result of the implementation process.

The literature review has identified a range of factors as obstacles facing faculty members in implementing elearning in higher education institutions. This paper will investigate all seventeen obstacles (see Table I).

Table I. OBSTACLES CLASSIFICATION TO ADOPTING E- LEARNING IN TEACHING.

Obstacles Classification	**Obstacles included in the category**	**S.D**
University-level Obstacles. (Institutional sources).	Lack of adequate training in the use of e-learning, Lack of encouragement from heads, Increased responsibility for non-teaching administrative tasks, Weakness in networking at the university for accessing Internet services, Lack of sufficient financial support, Lack of adequate computers for e-learning exercise, Unavailability of computerized educational programs, Lack of technical support for students, Lack of support in instructional design for e-learning, The absence of an institutional policy for e-learning, Lack of technical support at the University of Technology.	7.828
Faculty-level- Obstacles. (Individual sources).	Lack of sufficient awareness regarding e-learning, No merger and integration between e-learning and the university curriculum, Individuals intimidated by the use of technology, Concern about the quality of e-courses.	3.364

Across (Individual & institutional sources).	Increased teaching load, Lack of time to develop e-courses.	1.874

In table I the obstacles are divided into three categories: The first category, the institutional sources of obstacles dimension, contains eleven items. This shows agreement of staff members regarding the obstacles relating to institutional issues, and the SD (7.828) showed a moderate level of dispersion. The second category of the obstacles: Faculty members-level Obstacles or (individual sources) consist of four items with standard deviation; SD (3.364) indicates greater homogeneity of faculty members' answers. The third category of the obstacles: across (Individual & institutional sources) has two items which represents the agreement of faculty members regarding the obstacles; and the SD (1.874) shows moderate homogeneity of staff's answers regarding the obstacles.

III. METHODOLOGY

A. Data Collection Method

The data for this study were gathered from male faculty members of four universities (KSU, ALDM, HU and ALJU) through the questionnaire. Questionnaires are a widely-used and useful instrument for collecting survey information, providing structured, often numerical data, and being comparatively straightforward to analyse [20],[21]. They allow researchers to survey a population of subjects with the aim of "establishing a broad picture of their experiences or views" and to "seek to create generalizations from its data" [22]. The data collected through the questionnaires mainly concentrated on investigating the obstacles facing faculty members at a number of Saudi universities, (see Table I).

In the study, 410 faculty members (56%) responded to the survey, and the researcher discarded 35 questionnaires that were incomplete because they had major parts of the survey missing. Consequently, 375 faculty members (52%) responded to the survey in this study.

Before constructing the questionnaire, a review of the literature indicated the most important dimensions to be covered. The questionnaire was then piloted to ensure its validity. In addition, feedback on aspects of its validity was assessed through a group of specialists (a total of 15 faculty members) in measurement, evaluation, teaching methods, curricula, and educational psychology. Their suggested amendments were incorporated in the final version. Ethical approval was obtained from Durham University.

The respondents were asked to identify and rate the strength of possible barriers from a list of 17 items. (See Table V for details).

Random sampling was the best way to obtain a representative sample of the population [23]. This allowed the researcher to make inferences about faculty members from two colleges, of four universities (KSU, ALDM, HU and ALJU). The population consisted of male faculty members from the universities. A simple random sampling

technique was employed so that all members of the faculties had an equal and independent chance of being selected (Gay et al., 2006). A simple random sample "is the most rigorous form of a probability sample" [24].

A simple random sampling technique from a list consisting of all members of the faculty was prepared and each faculty member was assigned a number from 0000 to 1099. A table of random numbers was used to select the sample. Then, the researcher chose an arbitrary number, with eyes closed, from the table. If the last four digits of the number that was chosen corresponded to a number assigned to a faculty member, then that faculty member was included in the sample. Numbers outside of the range 0000 to 1099 were ignored, and therefore, did not form part of the sample. This procedure was followed in succeeding columns until the desired number of faculty members was selected. ***B. Measurement***

The five-point scale ranged from '5' (strongly agree) to '1' (strongly disagree), with '3' as neutral.

The internal consistency was calculated by the correlation of each item with the axis to which it belongs and correlation between axes; the researcher used Cronbach's Alpha coefficient. The scale had a Cronbach-alpha coefficient of 0.87 indicating high internal consistency of the 17 items.

C. Data Analysis

A descriptive analysis of the data obtained from the questionnaire questions was carried out reporting percentages, means, frequencies, standard deviation and analysis of variance one-way ANOVA were conducted.

Dependent variables: The obstacles perceived by faculty staff members in the effective implementation of elearning in some Saudi universities.

-Independent variables:

1) Academic qualification.

2) Years of academic experience.

This paper will attempt to answer the statistical question as follows: Q. Are there any statistically significant differences in the score of factors which are perceived as obstacles to e-learning in teaching by academic staff members, in terms of the following variables?

1) Academic qualification.

2) Years of academic experience.

IV. RESULTS

To examine the attitudes of faculty members in some Saudi Arabian universities towards the obstacles to the use of e-learning in teaching, the weighted average and standard deviation (SD) of responses for each item were calculated. The items were listed in descending order according to their mean and SD values (see Table III).

Table II: SUB-SCALE GROUPS OF OBSTACLES TO ADOPTING E-LEARNING IN TEACHING.

Classification of Obstacle	N	Mean	Std. D
University-level-sources Obstacles. (Institutional sources).	375	43.03	7.83
Faculty-level- Obstacles. (Individual sources).	375	15.25	3.36
Across level (Faculty and University) Obstacles	375	7.77	1.87

Table II illustrates that faculty members cited university-level sources and obstacles (institutional sources) as the most significant in hindering their e-learning implementation in the targeted universities; M=43.03, (out of 60), SD=7.83. The second highest obstacles faced were faculty-level (individual sources); M=15.25, SD=3.364. Finally across level (individual and institutional) sources were the least cited obstacles; M=7.77, SD=1.874.

Table III shows the respondents' attitudes towards the items regarding obstacles to the use of e-learning, with the weighted average of total score of dimension (total= 3.88, SD = 1.18), which shows that the faculty members are agreed that there are obstacles to the use of e-learning. The first item has a weighted average of (4.10), which shows that faculty members are strongly agreed that. For instance "The absence of an institutional policy for elearning" had the highest mean (4.10) of the obstacles. Moreover, the respondents were agreed with a weighted average of (4.08), which shows that the "absence of merger and integration between e-learning and the university curriculum" hinder the use of e-learning. In addition, results of the third item show that the faculty members were agreed, with weighted average (4.05), that there is "Lack of technical support for students". In addition, the result of the fourth item conveys the faculty's view, with an average of (4.04), that there is "Lack of support in instructional design for e-learning". Moreover, in the fifth item the faculty members were agreed, with an average of (4.00), that "Lack of adequate training in the use of e-learning techniques an obstacle". As mentioned in Table III, four of the top five obstacles were university-level-source obstacles (institutional sources). Only the second TABLE III. PERCEIVED OBSTACLES TO E-LEARNING.

Items	N	Min	Max	Mean	SD
The absence of an institutional policy for e-learning.	375	1	5	4.10	1.090
No merger and integration between e-learning and the university curriculum.	375	1	5	4.08	1.068
Lack of integration of technical support.	375	1	5	4.05	1.046

Lack of support in instructional design for e-learning.	375	1	5	4.04	1.007
Lack of adequate training in the use of e-learning techniques.	375	1	5	4.00	1.061
Increased responsibility for non-teaching administrative tasks.	375	1	5	4.00	1.136
Unavailability of computerized educational programs.	375	1	5	3.96	1.227
Increased teaching load.	375	1	5	3.90	1.186
Lack of technical support at the university level.	375	1	5	3.89	1.199
Concern about the quality of e-courses.	375	1	5	3.88	1.15
Lack of time to develop e-courses	375	1	5	3.87	1.149
Lack of sufficient awareness of e-learning.	375	1	5	3.82	1.302
Weakness for networking at the university to access Internet services.	375	1	5	3.78	1.266
Lack of sufficient financial support.	375	1	5	3.77	1.284
Lack of motivation and encouragement from heads.	375	1	5	3.74	1.133
Lack of adequate computers for e-learning exercise.	375	1	5	3.70	1.343
Self-intimidation by the use of technology	375	1	5	3.46	1.432
Valid N (listwise)	375			3.88	1.181

item, which indicates "No merger and integration between e-learning and the university curriculum", hinders the use of e-learning as a faculty source obstacle.

Therefore, the greatest responsibility lies with universities to overcome the obstacles faced by faculty members in the implementation of e-learning.

To test the significant differences among means of perceived obstacles towards e-learning according to academic qualification groups, One-way ANOVA and F-test were used; the results are shown in Table IV and Table V.

Table IV. SIGNIFICANT DIFFERENCE AMONG PERCEIVED OBSTACLES TOWARDS E-LEARNING IN TERMS OF ACADEMIC QUALIFICATION, USING ONE-WAY ANOVA.

Academic qualification	**Mean**	**Source of Variation**	**Sum of Squares**	**df**	**Mean Square**
Bachelor	65.79	Between Groups	58.588	2	29.294
Master	66.72	Within Groups	48520.890	372	130.432
PhD	65.81	Total	48579.477	374	
Total	66.04				
F	0.225	Sig.	0.799	$\eta 2$	0.001

The results in Table IV show the average scores of obstacles perceived by faculty members according to their academic qualification, which reveals some differences between the means. Then, to test the significance of difference between these means One-Way ANOVA and F-test was conducted ($F_{2,372} = 0.225$, $p - value > 0.05$)

which shows insignificant difference between the means at 5% level of significance. Thus, the faculty members' academic qualifications do not significantly affect their perceptions regarding e-learning obstacles. In addition, the value of eta square ($\eta^2 = 0.001$) according to Cohen means the academic qualification of faculty members does not have an effect on perceiving obstacles.

Table V. SIGNIFICANT DIFFERENCE AMONG PERCEIVED OBSTACLES TOWARDS E-LEARNING IN TERMS OF YEARS OF ACADEMY EXPERINCE, USING ONE-WAY ANOVA.

Years of academy experience	**Mean**	**Source of Variation**	**Sum of Squares**	**df**	**Mean Square**
1-5	64.65	Between Groups	751.783	3	250.594
6-14	65.72	Within Groups	47827.694	371	128.916
15-24	68.46	Total	48579.477	374	
25+	66.50				
Total	66.04				
F	1.944	Sig.	0.122	η^2	0.015

The results shown in Table V indicate the score averages of perceived obstacles for faculty members according to their years of experience; there are some differences among these means. To test the significance of differences One-Way ANOVA and F-test was conducted ($F_{3,371} = 1.944$, $p - value > 0.05$) shows that there is insignificant difference between the means at level of significance 5%. Thus, the years of experience of faculty members in the field of e-learning does not significantly affect their perceived obstacles. Moreover, the value of eta squared ($\eta^2 = 0.015$) according to Cohen [21] conveys a weak effect for years of experience on perceived obstacles.

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