

An Empirical Investigation on the Impact of the New Electronic Educational Facilities at Kurdistan Universities as Related to E-education Management System

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Abstract—The study is conducted to examine the underlying mechanism through which electronic education influences e-teaching /e-learning. In addition, this paper aims to examine contingent factors in the relationship between electronic educational facilities and e-teaching /e-learning. A total of 161 respondents (university lecturers and staff) were selected, questionnaire was distributed and collected in two methods, manually distribution and electronically. Hypotheses were tested with Correlation's matrix, t-test, and linear Regression analysis. The result shows that electronic educational facilities have a positive relation with electronic education and e-teaching /e-learning. Moreover, the result indicates that electronic education enhances e-teaching /e-learning if electronic educational facilities are highly efficient. It means that electronic educational facilities have a positive mediator role between electronic education and e-teaching /e-learning. Our findings highlight that the electronic educational facilities bring high-quality education equivalent and higher to the studying at the campus.

Keywords— Electronic education, Electronic human resources management, IT Staff, E-Libraries, e-teaching/e-learning Management System

I. INTRODUCTION

Kurdistan Regional Government/Ministry of Higher Education represents one of the most important pillars of the development of electronic education and electronic HRM and its role in the science and knowledge industry and its dissemination. Ministry of Higher Education and new electronic education began the race quickly towards the interpretation of this type of electronic education. Thus, it led to these universities' competition in the world in

organizing training workshops and practical courses to come out with clear and specific answers about its impact on students Quality, Performance, Capability, and Value. Electronic educational websites spread out quickly. Competition for the development of e-teaching /e-learning services consequently increased. Thus, there is a need to develop e-libraries services, networks, e-teaching/e-learning management systems, and adjust them by revising educational institutions' visions. Universities started to adopt new concepts, including electronic education and e-teaching /e-learning management system.

The Ministry of Higher Education introduced electronic education in all areas. Ministry of Higher Education is considered one of the leading ministries in adopting modern systems and concepts in various fields to achieve professionals in modern electronic education and develop the education process. Consequently, new patterns of electronic education services appeared to help in the knowledge explosion and the growth of students' Quality, Performance, Capability, and Value, and being professionals in methods of electronic problem-solving at education. This revolution gradually shifts electronic education from traditional activities to Technological tools, e-libraries services, networks, IT staff, and electronic HRM activities. Thus, to benefit from the advantages of this new administrative activity in the provision of university administrative services, e-teaching/e-learning management system or so-called electronic education, the ministry of higher education must increase the work efficiency of the management at the Universities and activate the use of technology to serve the students and the staff efficiently.

A. The Aims

The aim of this research is to develop electronic educational

services by shedding light on the challenges of the current situations, evaluate e-teaching/e-learning management systems, and explain how to keep pace with the global universities requirements.

B. Statement of the problem

In light of the increasing advances in the use of modern electronic education and e-teaching/e-learning management system, the use of e-libraries services, networks, IT staff, and electronic HRM became necessary for electronic education in all sectors, including the higher education sector. Also requires a change in management methods, universities structures, and the development of electronic infrastructure to enable universities and institutions to raise their education level and achieve positive results in raising their output efficiency.

C. Significance of the Study

If electronic education has brought about radical changes in various aspects of contemporary life, higher education sector specifically must be more responsive to these dramatic changes and rapid developments. Therefore, the tertiary education sector's outputs Quality, Performance, Capability, and Value, call for a major expansion in the use of electronic education, in particular the activation of the e-teaching/e-learning management systems. The advantages that will be achieved in higher education and its output are raising the level of qualification, competence, and expertise of all its technological educational tools, e-libraries services, network, IT staff, and electronic HRM.

This study focuses on the model of the electronic educational method with regard to technological educational tools, e-libraries services, network, IT staff, and electronic HRM, and its extended uses at universities. It also focuses on the electronic educational factors that influence the efficiency of the e-teaching /e-learning management systems at the universities and their development in general. It keeps abreast of the latest scientific developments in order to serve our local universities, as well as try to circulate the various e-teaching/e-learning management systems functions that are used at all universities, in an attempt to reach a broader concept of electronic education.

D. The research has the following objectives:

1. To express power in building a relationship between electronic education e-teaching /e-learning management systems improvement such as Quality, Performance, Capability, and Value of universities.
2. E-libraries services, network, IT staff, and electronic HRM to determine the correlation between electronic education and technological educational tools.
3. To clarify the impact of the positive environment on electronic education in improving e-teaching /e-learning management systems.
4. To identify the interest of the higher education in applying electronic education; network, IT staff, and electronic HRM, and the extent of its use at universities.

The researcher will evaluate the questions below to obtain the objectives listed above:

1. Does electronic education directly impact the management system in e-teaching /e-learning quality, performance, capability, and value of universities?

2. Does electronic education and technological tool, e-libraries services, networks, IT staff, and electronic HRM theories interrelate?

3. Does the privative environment contribute to electronic education?

4. Does higher education is interested in providing electronic education and its proficient management system as their main task?

E. Research Model

Due to this pandemic Coronavirus known as (COVID-19), the whole world is shut down. So, even all the education centers schools, and universities are closed. Consequently, most of the teachers and students are imposed to using e-teaching/e-learning management System for the first time. In Kurdistan, people don't have adequate experience of using electronic education. The difficulty here is that they suffered until they could manage learning how e-teaching /e-learning must be utilized in the electronic education system. They should grow experience how to use the other educational technological tools like e-libraries services, network, IT staff, and electronic HRM or applications, that they need for prolonging the education process.

However, the rate of teaching and learning in the classroom is higher than in electronic education. But at least prolonging the education process is better than not studying at all. Teachers were doing as much as they could to transfer the knowledge to the students via online classes, but in fact, it was quite difficult for the students to receive knowledge as they did in the ordinary classroom environments. It is clear that the educational process was going on by using (Zoom) application, but lecturers have observed that during this period, the learning process was not effective as it should be, as using online courses and e-platforms was the first attempt. The universities are not well equipped to prolong the e-learning process in such a way. In addition, there is no specific website or application to be used when it's compulsory. It's obvious, recently students try to skip schools and study while they want to get a diploma. Thus, with e-education under this circumstance, students can easily skip lectures. Students can turn off their cameras and microphone on Zoom while they appear present in the attendance list; hence, lecturers can't control their students' real presence via these applications or platforms. The interaction between students and the teachers was well managed; first, the teachers were waiting for the students to join and after they joined, they greeted each other, and then they started their lesson. The teacher was notifying the students that they are going to study (the topic) and then they were going to start. The teacher shared his/her soft copy of the lecture via the screen with the students Then, the teacher began to explain the topic and later received students' questions and comments around the topic. Finally, the lecturer evaluated students' perception of the lecture by giving them activities on the screen-sharing that all the students could clearly see, and they should answer the questions.

Electronic education can be an alternative to traditional education in two ways:

Firstly, the Ministry of Higher Education should provide educational technological tools with good speed, e-libraries services, network, IT staff, electronic HRM and computers to all students. Most of the people in Kurdistan are dissatisfied with those unsatisfaction nets, as well as many people cannot afford the cost. Electronic education needs good internet and good computers, but most of the students lack those needs. The reason behind this issue is that the Ministry of Higher Education does not provide a specific and adequate budget for this, as they should reconsider this and put it at the top of their agenda. In addition, its other needs like good educational technological tools, e-libraries services, networks, IT

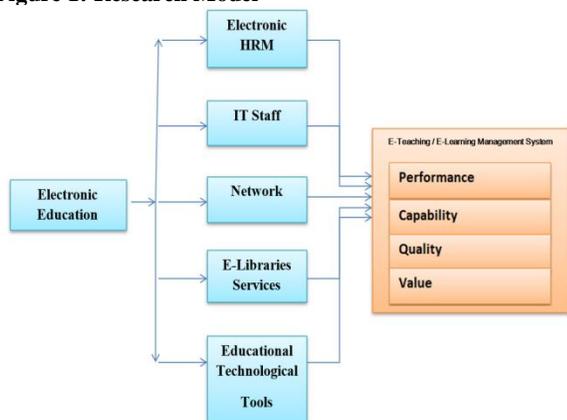
staff, and electronic HRM. Most higher education institutions and organizations need these things to obtain quality, Performance, Capability, and Value. Secondly, teachers should be convinced that electronic education is effortless than attending university, nevertheless, these have advantages and disadvantages. The advantages are; students can do their homework and their tests almost stress-free during studying or testing. Nevertheless, it saves time and money for both the teaching staff and students. It also reduces traffic jam. The disadvantage points are that the learning process in electronic education is less effective than learning in traditional classrooms because students do not feel the ordinary environment of learning, and the universities also can not be sure how the students do their homework and tests. People in Kurdistan are remarkably disagreed with electronic education, because handling education process in this pandemic time (COVID-19) is a real challenge, instead they are worried about surviving their life. Another reason for their disagreement is that many students don't have those required facilities for electronic education, and the Ministry of Higher Education will not provide those needs for students; thus, this decision will be beneficial only for some students not equally.

F. Model Explanation

The research model in the contemporaneous study represents its possessions and the actual relationship with the students. From this perspective, electronic education can play a significant role in regulatory focus on e-teaching/e-learning management system. The term e-teaching/e-learning has become the most popular term among the pioneers of electronic education.

It represents its effects and an actual relationship with the students. From this perspective, electronic education can significantly improve educational technological tools, e-libraries services, networks, IT staff, and electronic HRM, and e-teaching/e-learning management systems. Electronic education is positively related to students' positive mood, electronic HRM, and e-libraries services, and positive mood leads to educational technological tools. Some factors directly impact e-teaching/e-learning management systems, such as students' quality, performance, Capability, value, and university policies. Moreover, and e-libraries services, networks, IT staff, and electronic HRM also mediate the relationship between electronic education and e-teaching/e-learning management systems.

Figure 1: Research Model



Also, there is a positive relationship between electronic education and electronic HRM because many universities believe that focusing on e-teaching/e-learning with the use of e-libraries services, networks, IT staff, and electronic HRM will e-teaching/e-learning

management systems. A relationship model demonstrates that educational technological tools, e-libraries services, networks, IT staff, and electronic HRM will improve students' quality, performance, capability, and value, that will be demonstrated by improved universities electronic education. The research model in the contemporaneous study represents its possessions and the actual relationship with the students. From this perspective, electronic education can play a significant role in Regulatory focus on the e-teaching/e-learning management system. The term e-teaching/e-learning has become the most popular term among the pioneers of electronic education. This, in turn, works on the development of nomenclature, terminology, and jurisprudence in this type of e-teaching/e-learning.

G. Research Hypotheses

The hypotheses are developed to fulfill the objectives of this study. There are few main hypotheses that involve even sub hypotheses for this study. Note that electronic educational facility consists of (electronic HRM, E-libraries services, networks, IT staff, and educational technological tools).

H1: There is a positive relationship between electronic education and electronic educational facilities' satisfaction.

H2: The Management System provision of electronic education at universities has a statistically significant effect on e-teaching/e-learning. There is a positive relationship between electronic educational facilities and e-teaching/e-learning management systems.

H3: The Management System provision of electronic education at universities has a statistically significant effect on electronic education and electronic educational facilities.

H4: Electronic educational facilities influence the relationship between electronic education and e-teaching/e-learning. Specifically, when electronic educational facilities are high, the positive relationship between electronic education and e-teaching /e-learning management systems will be attenuated by increasing individuals' quality, performance, capability, and value. however, when electronic educational facilities are low, the positive relationship between electronic education and e-teaching/e-learning management systems will be strengthened by decreasing quality, performance, capability, and value.

II. LITERATURE REVIEW

A. Electronic Education

Electronic education is the integrated use of computer hardware, software, instruction and practice. The area of electronic education has been identified as an ongoing effort to put learners, teachers and technicians together in an effective way; (Mangal, S. and Mangal, Uma 2009), designing, using, managing technical processes and educational tools to support users in the academic sector, Robinson, Rhonda; (Molenda, and Rezabak, 2016). In addition to the experience gained through educational practice, electronic education relies on theoretical knowledge derived from various disciplines, including communication, education, psychology, sociology, artificial intelligence and computer science. It covers many fields, including theory, computer-oriented training, online education and m-learning, where mobile technology is used (Mahesh, 2016).

Electronic education has been described as an ethical study and practice to facilitate learning and success by designing, using and managing acceptable technological processes and resources (Richey, 2008). It refers to the theory and practice on the design, development, use, management and assessment of learning processes and resources; (Randy et al., 2003), (Al Januszewski, and Molenda, 2007), (Lowenthal, Wilson, 2010). As such, the electronic education

method encompasses all relevant and accurate applied education studies, as well as theoretical, algorithmic or heuristic processes such as devices, processes and a procedure derived from scientific study and in a certain way it does not include inherently physical technologies. Electronic education integrates a mechanism in education that encourages a more dynamic learning environment and allows students to learn how to use technology and their specific tasks. Consequently, the intellectual and technological advancement of electronic education is defined by several distinct aspects: electronic education as the theory and application of learning methods, and as technical instruments and media, such as, vast online courses that contribute to the communication and growth and exchange of information. Typically, this is what people mean by the word tech-education and the electronic education for systems such as, tools for management of students and curricula, and curriculum knowledge management systems, and Back-office management of electronic education such as, logistics and budget control training systems and data storage learning. The University of Illinois in 1960 gave online education. Although the internet would not be developed for another 9 years, but students could use connected computer terminals for class information. The Electronic University Network for DOS and Commodore 64 computers delivered the first online course in 1986. The first electronic education (online courses), with genuine interaction, was offered through Machine Assisted Learning. MIT started offering free online classes in 2002. About 5.5 million students took at least one class online in 2009. In fact least one of 3 college students had taken an online course. Students with a Bachelor's degree of Arts, 80% at DeVry University, get 2/3 of their online requirements. In 2014, 2.85 million of the 5.8 million students who took online courses completed all their courses. Promises, (2017). Archived from the original on, (2018), (Hiltz, 1990).

In 1971, Mr. Ivan Illich wrote a book called *Deschooling Society*, where he found the learning networks to be a model for networking people. Murray Turnoff and Starr Roxanne Hiltz at the New Jersey state that electronic education made important contributions to machine learning in the 1970s and 1980s, (Hiltz, 1990). In addition to the University of Guelph's advances in Canada, (Mason and Kaye, 1989). The Council for electronic education in the UK (1989), particularly overseeing the government's computer-aided learning national development program "Educational Technology v1 Feb 2014," has promoted electronic education. (1973), and the Microelectronics electronic education Programmed, (1980–86). Crow, W. B. & Din, H. (2009). By the mid-1980s, several university libraries had access to course material. The learning interaction between the student and machine drills or micro-world simulations took place in machine-based education or computer-based learning. In the mid-1980s, digital communication and networking started in education. The new medium was launched by educational institutions providing online learning courses with knowledge from computer networking. Early e-learning systems centered on computer-based learning/training mostly reproduced autocratic teaching styles. It supposedly play the part of e-learning systems in information transfer, rather than systems later developed based on CLS, and facilitated common knowledge development. Moreover, e-learning can be unsatisfactory and frustrating if you do not build online models to avoid future mistakes in use innovations such as the internet. This paper describes and clarifies an online model education program. This model seeks to support developers of various e-learning environments to build and incorporate a specific learning situation focusing on increasing personal and group needs and atmosphere.

B. *Electronic Human Resource Management*

The e-HRM literature shows that E-HRM has three key objectives: to improve HR infrastructure, minimize costs, and increase strategic focus (Kassim, et al, 2012). Benedictine. In addition, four seemingly pressures are listed in the following, but companies can resolve these pressures by using IT. One of the pressures that should be managed most effectively is cost management in the HR department. First, HRM needs to focus on strategic issues. Second, this department needs consistency in operation and policy-making. Third, HRM should be as cost-effective as possible and be mindful of the work that is being performed. Finally, be services-oriented to workers and management (Ruel, et al, 2007).

The relation between the management of human resources, the strategy of the organization, and the results have been analyzed according to historical related human resources management and strategy studies (McEvoy and Cascio, 1989). Based on a related literature review, the role of human resources in establishing companies' competitive advantages was demonstrated. The multilevel model reveals the impact of human capital management on the organization's policy and individual variables. Human resource information analytics and systems have transformed the HR services within organizations. There is minimal research related to selecting, implementing, handling, and the difficulty of HR and its various rules. Therefore, the study was conducted in 2012 to provide a context that determines decision-making, data criteria, HR indicators, and different levels of HR operation (Stone and Dulebohn, 2013). An organization's human resources are in charge of fulfilling the organization's HR needs. Like in other business activities, procedures, policies, and practices must be enforced to ensure the organization is operating properly and plan the enterprise in such a way as to ensure nearly a smooth operation. Applying these HR policies and procedures by using E-HRM technologies enables the HR feature to meet the organization's human resources requirements and web-based networks (Ruël et al.; 2004). E-HRM provides a portal that allows managers, employees, and human resources professionals to access the information required to manage the organization's HR, extract it, or alter it, Lawler. (Marler, and Dulebohn 2005). This illustrates that the cheapest and fastest form of complex HR tasks performing is e-HRM and its self-service apps. The following statements can be found on E-HRM: The cheapest way to perform HR activities is by E-HRM. E-HRM lets managers access, evaluate, make decisions, and communicate with others, without being dependent on the knowledge and data that they need Professionals in human resources. E-HRM helps employees track and update their personal records and decide about their own situation by reducing processing times and rising data quality without relying on HR staff. E-HRM affects the productivity and performance of the HR system. By enhancing managers' and workers' skills to make smarter, timer decisions, E-HRM helps the HR program improve the enterprise's productivity and performance. It also allows the HR system to create value in new ways for the organization usage of E-HRM technologies to impact how HR operates to execute human resources approaches policies and practices. This is also aimed at improving the HR program. However, the impact of E -HRM technology on the HR system will depend on how the technology is being used. It depends on how and what supports the function of HR technology that's built and also on how it's built. This in turn, is influenced by the technology the organization is trying to achieve or, in other words, the E-HRM objectives of the organization. Thereby, the E-HRM priorities and the practical application of E-HRM technologies impact the HR system.

C. *IT staffs*

In the modern age of information technology, the obstacle for promoting connectivity and data transfer is a better share of the technological progress in a global society and the economic markets; (Davoudi, 1999). Today, every company uses computers and information systems to analyze everything everywhere. For the impressive corporate learning and the availability of knowledge at any time and wherever the manager wanted to use the expertise and abilities in the organization, to minimize their vulnerability and other aspects. IT and the internet are extremely persuasive in organizational learning, and efficient contact with the employees. (Ghorbani and Sangani, 2011). The corporation has updated information systems including the following roles for human resources. IT staff offers university-wide IT services to universities worldwide, helping them succeed in education, science, and good administration. IT Admin staff cooperates to offer IT services to all educational organizations collaborating with other divisions and academic departments.

D. Network

Within the wider educational sector, the use of network technology is increasing rapidly. The computer-based learning environment promotes higher education through the delivery of valuable resources to teachers and learners. Teachers can use multimedia for teaching purposes. Teachers do use many websites to provide credible content (Mohd, 2015). To educators and learners, online newspapers is a big improvement because they are simple and virtually free of charge. In addition, students can receive lecture notes and learn in advance or review courses for themselves from any location at any time. The network of computers and smartphones were seen as a valuable communication device (Bourgeois, 2014). Colleges and educational institutions can access necessary knowledge through successful networking facilities whenever needed. Teachers do not record information relevant to students, as all the data is already stored centrally on a server. The task of networking technology redistributes the attention of the teachers and the students in the classroom so that the less skilled participants can be more involved. (Peggy, et al, 2012).

Networking has become increasingly common in recent years as a means of social interaction and collaboration between individuals or institutions. Although social networks in physical proximity have existed for many years, modern communication technologies and rapid declines in connectivity costs have made networking much simpler over a considerably wider geographical distance. In fields such as industry, arts, and public policies, networks are created (Pratt, 2005). Professional education has always been conducted in informal collegial networks in which people with common expertise, interest, and history exchanged their acquired skills to encourage mutual learning. Social networks historically have enabled an exchange of information between peers to be versatile and cheap.

E. E-Libraries Services

Students and researchers are highly pleased with the online journals collection and both use it for academic and study purposes. The reviewers have been substantially satisfied with the results of the research carried out by Saikia and Guhain (2013) entitled (Use and satisfaction of users of library resources and services), showing that print books are the first class to meet the information needs of users. The consequences of Singh and Chand (2014), (User satisfaction with Engineering Institutions Libraries: a case study of Advanced Info technology Institute), shows that users are delighted with the traditional library sources, including the availability of textbooks, reference books, journals, magazines, newsletters, online and offline databases, online facilities, etc. Users less than fulfilled the details on the faculty websites and repositories. Synonymous words are used: "electronic library," "internet library." According to Daniel (2012), an "electronic library" is the "collection of networked digital information

and related technical and management facilities." Data and metadata in a number of ways are believed to be supported by the electronic library to support users. The e-library is a library in which items, as opposed to paper, microforms, or other media, are housed in digital formats. Only computers can be reached. The IBDC states: Digital Libraries are institutional organizations comprised of professional staff who pick, organize, access, provide, distribute, integrate and manage the content, and are responsible for the digital library operational concept. It provides certain services for a single community or group of communities based on unrestricted, cheap access. (Federal Republic, 1999 Bibliographers are challenged to identify the need for education and skills growth in the e-library environment. Parry (2008) notes that personnel training can be viewed as a way to correct shortcomings in performance, but more importantly, it is an instrument for workers to constantly upgrade their skills and enhance their performance. The digital library needs expertise in search engineering, metadata generation expertise, networking resources and bibliographic tools, interface design, and much more (Bawden et al., 2005). According to Tennant (2002), the Digital Librarian should be able to understand and analyze a variety of information technology for potential purposes and be able to know Active Server Page (ASP) of the hypertext preprocessor (PHP) (two different ways to construct dynamic pages). A variety of e-library initiatives have helped to recognize significant issues relating to the current and essential role of the e-librarian in recent years (Pinfield, 2001). Such problems include ways to procure, train, and retrain workers for E-library jobs.

Ajayi (2003) noted that "the need for a library to restructure its function and method of servicing because we live in a knowledge-based society in which universal access is required. He added that the conventional libraries for brick and mortar have to make way for libraries which are not geographically limited." Whether libraries continue to grow and promote access to information in this digital era, they must reinvent themselves. The information management librarians at the Rhodes University Library, South Africa, published an in-service training program, (Shepherd, 2010). The applicant credentials were previously considered to be appropriate for data manipulation. Those who lacked basic IT skills came as a shock. Given its daily growth, a frequent review of the website of libraries and emerging technology is important for their progress (Zarghani, 2014). Many of the current restrictions on accessing information can be overcome by offering library resources on websites using emerging technology. When information systems grow more and more, library websites need to be updated regularly and emerging technology used to enhance them. Parek and Gupta (2013), also emphasize the availability of and availability for information on the websites of librarians as well as contents such as electronic books, journals, databases, CD's, online shows and seminars, manuscripts and maps recommend the promotion of the information of web sites (Asgari & Shabani, 2012). Websites are one of the most effective tools that libraries have used to provide library resources, knowledge management, information sharing, and content popularization. The enriched content of the website depends on a collection of tools, programs, equipment, support for management, and website updates. Such features usually relate to the library's website's content awareness; the website's content awareness offers information on both quantitative and qualitative aspects. The measurement of websites by content sensitivity is one way of assessing the effectiveness of websites.

F. Educational Technological tools

One of the most convincing problems facing business schools is that teachers and graduates are not as technically sound as their company counterparties, according to the sixteenth Annual AACSB / UCLA Software Use Survey (2000) in order to ensure that students are technologically skilled or tech competitive, (Smart et al 1999)

marketing educators need to be on the cutting edge of implementation or use of technology today, e-commerce was cited as one of the newest university subjects (McGinn, 2000) At some stages in their career marketing students potentially engage in the Internet (Siegel 2000). These rapid changes led the teachers to use education technology resources more efficiently in their classrooms.

Technology resources should enhance designing education by offering clear ways of improving educational tools for technological skills about how software is used or how computers are run and for digitally designing. Nick and Doyle (2016), clarified that architectural education should be a framework for deep education that includes awareness of fundamental values, frameworks, and techniques for triumphant success. Such skills and techniques will extend to new problems in architecture and contexts other than learning (Shelby, 2016). Selwyn (2011) describes education technology as electronic information storage and recovery technologies. The ability to create a relationship between technical advancement and human values defines, in part growth. Growth. Using learning technology tools, users can better master and monitor technology, leading to increased creativity and efficiency (Ofide & Muhammad 2017). Application of the AHP approach (goal setting, benchmarking, the hierarchical arrangement of the systems, bidirectional comparable, tests for homogeneity) was introduced by Savic et al. (2011) in an e-learning analysis of the model AHP. The results, and global priorities determination data analysis and quality index recognition.

G. Performance

Overalls, performance is characterized as the interaction between actions and achievement "or it is the amount of the conduct and result achieved together,' with the tendency to highlight performance or results," due to the difficulty of it being accomplished because it is the word performance which means "accomplishing a special job under specified criteria of accuracy, exhaustive, cost and pace (Rogers, 2006), Good financial results, happy customers and staff, high individual initiative rates, competitiveness and creativity, integrated performance assessment systems, and award systems and strong leadership are described (Epstein, 2004). The idea of success comes from research on social movements, especially from the study of historically-style social movements in Europe by Charles Tilly (Tilly, 2008); (Tilly & Wood, 2009). It applies to the collective representation of a group's statements to an external body. This is related to the idea of repertoire as a collection of performances that are recognized and regarded as valid to make claims at a specific time. As Taylor (2011) states, a practice community or working group assumes an individual identity when it enters into transactions as an organization with other individuals who are not members of the party, whether individually or collectively. The event is more than an event where a message is sent; the company always seeks to monitor its converse (Robichaud, & Taylor, 2004) and binds the organization.

H. capability

The strategic usage of knowledge/know-how relates to Teece et al (1997), who claimed to be able to use and apply expertise for the strategic goals of production systems. Definition and capacity building are thus defined by future priorities or the need to develop or enhance particular competencies. These authors are also responsible for the daily procedures covering all the operations of an enterprise and enabling them to be carried out even with several product lines. Applying skill-related concepts is based on resource theory, a strategic management technique designed to recognize certain factors

that consolidate the performance differences of organizations (Bogner & Thomas, 1994), (Cool & Schendel, 1988). In related literature, various solutions to the problem can be found, ranging from the desire to be competent to an opposite view, to the analogous view.

I. Quality

Education policy is known as a program, based on its particular field of quality, relating to the advancement of education for all, (Haddad & Demsky, 2005). Education quality is a specific term and because of its dynamic existence, no one meaning defines the exact significance of quality. Terms; equity, performance, and consistency are often applied synonymously (Adams, 1993). To follow educational evolutions and their continuing development, the concept of quality should also be flexible. (Glasser, 1990). As quality is affected by different shifts, including political, cultural, and economic influences, EFA Global Monitoring Report, (Haddad & Demsky, 2005), used two educational efficiency principles: Firstly, the primary goal of all education programs is to recognize the cognitive growth of learners, Second, the role of education to promote students' values and attitudes and to promote their artistic and emotional growth, their position is highlighted.

J. Value

While technology is increasingly incorporated into education, it remains a challenge for teaching and learning. Although many schools today have access to technology, educating teachers and a favorable policy climate as ready as possible, the use of technology is still small in the classroom. Others attribute poor technical use of education to teacher pedagogy. Both scholarly and realistic literature, value development is frequently debated and is often included within organizations' mission statements (Sweeney & Soutar, 2001), like universities. However, creative disrupters such as digital channels are increasingly questioning the importance of the conventional university degree, Universities with low-cost services that are entirely online and mixed. (Barber et al. 2013), (Weise & Christensen 2014). We described e-learning as a web-based learning method for this study, using web-based communication, collaboration, multimedia, knowledge transfer, and training to facilitate students' active learning without time-space constraints, (Lee, Yoon & Lee, 2009).

Though, educators have made important contributions to the interest of our students across diverse classroom circumstances. It is an age where the past is irrelevant, the present unclear and the future confused and terrifying. Traditional principles were never so completely ignored and laws were broken as they are today (Ruhela, 1986). Young people discover a difference between teachers, professed values, and live values. You are searching for answers to the three basic questions: who am I? What am I here? Why am I here? How am I going? Where am I going? In other words, the quest separately and traditionally for their identity, a life purpose, and a meaningful human destiny. Yet this search is challenging because the perception is dynamic because of the different forces from outside and inside, hence the imbalance. It is the instructor who solves this need by giving them a sense of self-direction and clarifying their personal values. You sculpt for welcoming comfort and the potential for meaningful relationships. You need opportunities for uncompetitive, secure, and unthreatened relations. You need a guide to pursue as you look for friendship (Ruhela, 1986). Their best models are students. The role of a teacher in shaping students' character is paramount as various types of guidance are increasingly uncommon for parents. Parents come back to work late for most households, and when they find their homes bare, they turn pleasurably to other outlets before their parents return home. The

young minds may consider these outlets catastrophic, as they increase their isolation and make it unwise to spend money.

III. DATA ANALYSIS AND RESULT

In this part of the research, we analyze the data that obtained from the participants, to obtain results we used statistical tools such as descriptive statistics, Frequencies, Reliability test, Correlation's matrix, t-test, and Regression analysis. SPSS program used as statistical analysis tool. Quantitative research questions used for gathering data and the questionnaire was distributed and collected into two methods. A soft copy of the questionnaire link targeted most of the academic staff groups in the social Medias like Viber and WhatsApp, and hard copies of the questionnaire distributed and collected manually. 161 survey questionnaires were returned within 5 days, 48.4% of the respondents were women, 51.6% were men. Each question was evaluated using the Likert scale for the study and Adjective Check List (ACL) constructed by Harrison G. Gough and Alfred B. Heilbrun, Jr. To complete the ACL, and respondents select the adjectives that they believe describe themselves (or someone else). And Likert scale is as follows: (SD: strongly disagree-D: disagree-N/: neutral/undecided-A: agree and SA: strongly agree).

A. Descriptive Statistics

The statistical result shown in table (1) indicates that the variables have a different mean and standard deviation, electronic education (SD=23.80), e-teaching/e-learning (SD=10.06), and electronic educational facilities (E-HRM, IT staff, network, e-Library, and electronic education tools) has a standard deviation ranged from (5-8), (two-tailed). Besides, the variables have relatively mixed interrelations among themselves. Table (1) reports the descriptive statistics and correlation matrix.

Table (1) Discriptive Statistics and Correlations of the Variables

| | Mean | ST | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------------------------------|-------|-------|--------|--------|--------|--------|---------|--------|-------|--------|---------|----|
| E-HRM | 8.61 | 3.215 | 1 | | | | | | | | | |
| IT Staf | 8.10 | 2.574 | .225** | 1 | | | | | | | | |
| Network | 6.65 | 2.437 | .022 | .439** | 1 | | | | | | | |
| E- library | 6.97 | 2.126 | -.120 | .387** | .565** | 1 | | | | | | |
| Educational technological tools | 5.80 | 1.475 | -.058 | .353** | .387** | .383** | 1 | | | | | |
| Electronic Education | 23.80 | 6.906 | .256** | .296** | .417** | .369** | .220** | 1 | | | | |
| E-teaching / E-learning | 10.06 | 2.440 | .258** | .565** | .257** | .300** | .413** | .197** | 1 | | | |
| age classes | 2.29 | .518 | .175* | -.059 | -.104 | -.100 | -.193* | .072 | -.057 | 1 | | |
| gender | 1.48 | .501 | .244** | .166* | .088 | .044 | .068 | .010 | .090 | -.176* | 1 | |
| education level | 3.22 | .680 | -.075 | -.116 | -.115 | -.060 | -.197** | .112 | -.132 | .510** | -.338** | 1 |

Note: n=161, Electronic Human Resource Management (E-HRM),

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

B. Reliability Test Results

To confirm the reliability of the data and meet the internal consistency of the variables, we conducted Cronbach's alpha reliability coefficient test. All the values for Cronbach's Alpha tests are positive between moderate to strength force (0.75, 0.81, and 0.914). Cronbach's alpha reliability coefficient normally ranges between 0 and 1. However, there is actually no lower limit to the coefficient. The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. The size of alpha is determined by both the number of items in the scale and the mean inter-item correlations (George and Mallery 2003).

C. Cross-Tabulations

A cross-tabulation of Gender, age classes and education level are as follows:

as in the table (2) showing that the gender elements are male and female, it shows that male had the frequency of (83) out of (161) and the percentage (51.6%) and also Effective Percentage(51.6%) in any other category, females had a small amounts lower than the male and had the Frequency of (78) and the Percentage (48.4%).

For the age classes, the table also shows that the respondent's age classified in three groups (18-25 years old, 26-45 years old, and above 45 years old). The majority of the respondents aged between 26-45 years old and had the frequencies of (105) and the percentage (65.2%), the age class of 18-25 had lowest frequencies (5) and the percentage (3.1%) out of (161) respondents.

For the education level, the table shows that (12.4%) of the respondents had a bachelor's degree, (50.9 %) of the respondents had a Master's degree, (36 %) of the respondents had a doctoral degree, and (0.6 %) had an associated degree.

Table (2) Cross-Tabulation of Control Variables

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|------------------------|-----------|---------|---------------|--------------------|
| gender | | | | |
| male | 83 | 51.6 | 51.6 | 51.6 |
| female | 78 | 48.4 | 48.4 | 100.0 |
| Total | 161 | 100.0 | 100.0 | |
| age classes | | | | |
| 18-25 | 5 | 3.1 | 3.1 | 3.1 |
| 26-45 | 105 | 65.2 | 65.2 | 68.3 |
| 46-over | 51 | 31.7 | 31.7 | 100.0 |
| Total | 161 | 100.0 | 100.0 | |
| Education level | | | | |
| Associate degree | 1 | .6 | .6 | .6 |
| Bachlor | 20 | 12.4 | 12.4 | 13.0 |
| Master | 82 | 50.9 | 50.9 | 64.0 |
| Doctoral | 58 | 36.0 | 36.0 | 100.0 |
| Total | 161 | 100.0 | 100.0 | |

D. Hypotheses Test Results

1. Correlation Analysis:

We performed some data feature analysis on each variable, the mean (M), the standard deviation (SD), the correlation coefficient (r) of the main variables, and the reliability coefficient (α). The results of the analysis are shown in Table (1) and find that there is a significant correlation between electronic education and electronic HRM satisfaction (r= .256, p< 0.01). The electronic education is positively correlated with e-libraries services satisfaction (r = 0.369, p < 0.01), and is positively correlated with networks satisfaction (r = 0.417, p < 0.01). Moreover, electronic education is positively correlated with IT staff satisfaction (r = 0.296, p < 0.01), and educational technological tools satisfaction (r = 0.220, p < 0.01). Therefore, it is assumed that H1 was initially verified.

The results of the analysis also shown that there is a significant correlation between e-teaching/e-learning services and electronic HRM satisfaction (r= 0.258, p< 0.01). The e-teaching/e-learning services is positively correlated with e-libraries services satisfaction (r = 0.300, p < 0.01), and is positively correlated with networks satisfaction (r = 0.257, p < 0.01). Moreover e-teaching /e-learning services is positively correlated with IT staff satisfaction (r = 0.565, p < 0.01), and educational technological tools satisfaction (r = 0.413, p < 0.01). Therefore, it is assumed that H2 also supported totally.

statistical analysis of the correlation between electronic education and e-teaching /e-learning services shows a significant correlation between them ($r = 0.197$, $p < 0.05$).

2. Regression Analysis:

The regression analysis results of independent and dependent variables, electronic education and e-teaching/e-learning indicate that electronic education has a significant and positive effect on e-teaching /e-learning ($\beta = 0.19$, $p < 0.01$). The explanatory power of the equation is significant ($R^2 = 0.33$, $F = 43$, $p < 0.01$). Regression analysis stated that electronic educational facilities (educational technological tools, e-libraries services, networks, IT staff, and electronic HRM) had a statistically significant and positive effect on e-teaching /e-learning ($\beta = 0.560$, $p < 0.01$). The explanatory power of the equation is significant ($R^2 = 0.31$, $F = 36.88$, $p < 0.01$). Thus, H3 received supported.

3. The Mediating Effects of Electronic Educational Facilities:

As we stated that the independent variable of this study is electronic education, and the dependent variable is e-teaching /e-learning. According to this, the theoretical model is constructed. The mediating role of the variables examined according to the method of Baron and Kenny's (1986), in this method used three-step approach to examine the mediating effects as follows:

(1) Examine whether the effect of an independent variable (electronic education) on dependent variable (e-teaching/e-learning) is significant.

(2) examine whether the effect of electronic education on mediator (electronic educational facilities) is significant;

(3) If the first two tests are significantly correlated, further examine whether the impact of a electronic education on electronic education facilities and e-teaching/e-learning is significant; if the result finds that the relationship between electronic education and e-teaching/e-learning is no longer significant or significantly reduced, then this demonstrates the impact electronic educational facilities fully or partially mediating the impact of a electronic education on e-teaching /e-learning.

As shown in Table (3), first, we put the employee gender, employee age, and employee education level in model 1 (M1) as control variables. And model 2 (M 2) show the impacts of the control variables and electronic education on electronic educational facilities, Model 3 (M 3) specifies a regression equation on e-teaching/e-learning with control variables. Model 4 (M4), we added electronic education based on the control variables. Model 5 (M5) designed to test the impacts of electronic educational facilities on the e-teaching/e-learning. In Model 6 (M6), we tested electronic education with electronic educational facilities on e-teaching/e-learning. Finally, (M7-M11) added to test whether which of the five facilities (educational technological tools, e-libraries services, networks, IT staff, and electronic HRM) has stronger effects on the e-teaching/e-learning.

The stepwise regression technique used to test hypotheses including interactive effects. linear regression can produce accurate estimates of the strength of the relationships between interaction products without losing power, it is argued that linear regression is the better approach to test moderating relationships than Structural equation modeling (SEM) which requires a relatively large sample size (Goodhue et al., 2007).

Table (3). Results of hierarchical regression analyses

| Variables | Electronic Educational facilities | | | | | E-Teaching/E-Learning | | | | | |
|--|-----------------------------------|---------|-------|---------|---------|-----------------------|-------|---------|-------|-------|---------|
| | M1 | M2 | M3 | M4 | M5 | M6 | M7 | M8 | M9 | M10 | M11 |
| Control Variables | | | | | | | | | | | |
| Age classes | .054 | .046 | .014 | .880 | .159 | .490 | .290 | .001 | -.061 | -.093 | -.125 |
| Gender | .183 | .161 | .051 | .106 | .049 | .028 | .248 | .143 | .055 | .026 | .001 |
| Education level | -.133 | -.183 | -.122 | -.098 | -.058 | -.055 | -.138 | -.069 | -.065 | -.004 | -.133 |
| Electronic Educational | | 0.414** | | 0.309** | | 0.228* | | | | | |
| Electronic Educational facilities | | | | | | | | | | | |
| 1- E-HRM | | | | | 0.560** | 0.569** | | 0.200** | | | |
| 2- IT Staf | | | | | | | | 0.428** | | | |
| 3- Network | | | | | | | | | -.106 | | |
| 4- E- library | | | | | | | | | | .115 | |
| 5- Educational technological tools | | | | | | | | | | | 0.261** |
| R2 | .060 | .228 | .020 | .198 | .318 | .319 | .122 | .232 | .019 | .011 | .167 |

Notes: n=161. * $p < 0.05$; ** $p < 0.01$

The regression test results of (M4) found that the electronic education had a positive and significant impact on e-teaching /e-learning. ($b = 0.309$, $p < 0.01$), so step one of the methods received support. The results in (M2) indicate that electronic education has positive and significant effects on electronic educational facilities ($b = 0.414$, $p < 0.01$), thereby step two of the method is also supported. In model 5 (M5), electronic educational facilities have a positively significant effect on e-teaching /e-learning ($b = 0.560$, $p < 0.01$). step three of the method also supported the relationship between electronic education and e-teaching/e-learning is still significant when electronic educational facilities entered into the model ($\beta = 0.228$, $p < 0.01$, Model 6).

LIMITATIONS

This study contains a number of potential limitations.

First, although it has proved that the electronic educational facilities only partially mediate the relationship between electronic education and e-teaching/e-learning, Various other factors are responsible for mediating the relationship between them. For example, further examination of other mediating variables may provide a more comprehensive picture of the above relationship.

Second, the generalizability of the findings is limited, as the study was conducted only in Erbil city and targeted public and private universities in the city; Erbil Polytechnoc university, Salahaddin university, Chihan university, Lenabes French university, and Knowledge university. Future studies should attempt to replicate the study conclusions in other cities in the region and in the primary and secondary schools.

CONCLUSIONS

After the emergence and spread of COVID 19 rapidly in most countries in the world, the importance of electronic study appeared as an alternative to study in the campus. Universities have begun to focus on e-teaching/e-learning, and they are eager on the continuation of the education process. The most important outcome of this study was to understand the importance of implementing electronic educational in higher education in Kurdistan universities. Based on the data analysis, the result of this paper indicates that electronic education could significantly enhance e-teaching/e-learning, and electronic educational facilities (educational technological tools, e-libraries services, networks, IT staff, and electronic HRM) can play a mediating role in this process. In addition, the positive relation between electronic education and e-teaching/e-learning change according to the adjustment in the electronic educational Facilities.

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