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How important it is to use e-learning management systems in building smart university in Kuwait

Dr. Ahmad Alfailakawi

College of Basic Education – The Public authority for applied education and training - Kuwait

Abstract

The study aimed to investigate the importance of using e-learning management systems in the construction of smart universities in Kuwait, The results showed the importance of using e-learning management systems in building aa smart university in Kuwait to an average degree, and the averages ranged from (2.46to4.37) Between (The mathematical average of the instrument as a whole Associate Professor, Associate Professor αNot ىα (3.33). On the other hand, the differences came in favor of both associate professors and assistant professor, and the results showed statistically significant differences (= 0.05) between less than five years and more than15 years α and the differences came Between in favor of less than five (= 0.05) years.

Keyword: e-learning, management systems, building smart university

Introduction

Smart Systems become the hallmark of this era and its late test productions, as it is present in most of the facilities and systems that are used, such as smart buildings, smart cities, smart device and smart web... In view of the great changes that these regimes have brought in every area of society and in the way its members think, we can call the age we live in intelligent.

The development of smart university concepts began only a few years ago, although there has been clear progress in this area, the concepts and principles of this new trend have not yet been fully clarified. This can be attributed to the obvious modernity of the concept, and many types of systems, including the basic electronic learning management systems, technologies, and smart devices available to students, learners, faculty and academic institutions(Uskov., Karri., Uskov., Heinemann & Rachakonda, 2018).

The smart concept has been expanded from devices and small businesses to large intelligent environments and spaces that represent the entire community and cities and all their institutions, including smart universities. Smart University is a highly efficient and effective educational institution, using smart technology in the infrastructure of its systems with the aim of making the educational process more dynamic and effective, providing rich, interactive and constantly changing learning environments, enabling individuals' abilities and behaviors and encouraging them to interact and collaborate, and to increase participation and communication between students and teachers in a framework that makes them involved and responsible in the development and upgrading of the educational process, and aims To go from a consumer of knowledge to a producer and to transform the whole community into a knowledge society, contributing to the promotion of learning goals in the 21st century: learning how to learn, learning how to be, learning to live together, this is a goal todevelop education within the framework of sustainable development, and the road map is the framework of education 2030 globally and international organizations(UNESCO, 2020.).

Many universities worldwide have sought to switch to smart universities to compete locally, regionally and globally, so they have begun to

provide the requirements and components of smart universities (Al-Ramidi and Talhi, 2018).

To build a smart university, the management of e-learning systems, which form the basis of smart university, must be used to manage, follow and evaluate training, continuing education, dissemination of courses and educational content, and help to manage online learning activities, i.e., remotely, to manage education and follow-up students and monitor the efficiency of the educational process, provide all the necessary tools to complete educational processes through the educational platform, provide tools for evaluating students, distribute duties, tests and surveys, receive answers and comments, and provide feedback, and help the student to browse the content. Scientific in various ways, as well as issuing follow-up reports all updates without administrative burden (Ben Rehan, 2019; Hawat, 2007).

The e-learning system is a technical requirement for a smart university, requiring technical specifications, technology and management competencies. Just as smart university needs a sophisticated smart hardware infrastructure, it needs advanced intelligent software infrastructure, the most important of which are: systems management systems, management systems and educational content design, network database systems, intelligent educational software, virtual laboratory software, and other smart software systems and software. In addition to its need for digital culture, which is the basic skills required by learners, teachers and support members in the ever-changing learning and digital environment, for a smart university that must be managed in a smart way (Bakro, 2017; Al-Khamash, 2013).

Therefore, the importance of keeping up with the contemporary and the continuous development of technology and its innovations, smart university is the best choice for an ever-evolving education, and because of the scarcity of smart universities in the Arab world, the researcher will investigate the importance of using e-learning management systems in the construction of smart university in Kuwait, in light of future visions and the need of the labor market for qualified individuals who have the initiative, creativity and innovation, and be able to freely choose the profession of the future, make a decision by itself, and deal with communication and information technology.

Theoretical framework

What e-learning management systems are and are important

E-learning is a comprehensive system that relies on multi-device electronic learning, which includes study content, accompanying activities that are prepared, designed and produced in the form of an electronic program in the light of established standards and specific educational purposes, focusing primarily on positive interaction with the learner (Al-Hadfi, 2007).

E-learning is intended for computer learning and its various software, whether on closed networks, shared networks or the Internet. E-learning has become the most common form of flexible learning, which is flexible, open and remote, including information, communication, education and training, and e-learning is not just a means of e-training, but is used for Many others, such as knowledge management, performance management, virtual office setting and other activities, e-learning is based on technology, organizational culture, leadership and change management, and e-learning cannot succeed without commitment, senior management, implementers and training, as it complements traditional training(Galagan, 2001).

Al-Sofiani (2008:7) defined e-learning as "the best way to deliver educational content to a subject in a way that aims to create a rich, partly or comprehensively multi-source, multi-source learning environment for teachers, computer networks, multiple media, and the Internet to access learning and learning sources in the shortest, least effort and greater benefit without restricting a particular place or time."

E-learning contributes to the provision of diverse and documented scientific materials through the electronic library, provides multiple media for information presentation, answer recording, education evaluation, presentation of reports and research through media and presentations in the lecture hall, accurately and quickly, stores

information, diversity and exchanges with others, provides the freedom to choose the subjects desired by the learner and the university professor, deepens e-learning the link between theory and application, and allows to simulate reality with high accuracy (Ibrahim, 2010).

In order to teach e-learning, there must be e-learning systems management to facilitate the learning process of the student, faculty and administrators Paulesen (2002: 5-6) has been defined as "a term given to a range of applications that regulate, and provide online e-learning services or local networks for students, teachers and administrators, including access control, delivery of learning content, communication tools, and organization of user groups."

E-learning systems have been defined as "learning and learning management software, in terms of presentation of courses, interactions, exercises, exercises, test results, electronic duties... "Etc. (Clarey, 2007: 23).

Khalifa (2013:4) defined e-learning management systems as "systems that act as a support and booster for the educational process so that the teacher places educational materials such as lectures, exams and sources on the system site, and there are discussion rooms, a portfolio of student work and other electronic services supported by the subject. Learning management systems are programs that help store and manage course content electronically and facilitate the management of the learning process."

Garout and Peterson(Garrote & Pettersson, 2007: 327)defined it as "software that integrates teaching, evaluation, and course management functions".".

E-learning management systems are designed to help teachers use the Internet for education as global practices in intelligent learning, communicate with learners in an easy way without the need for deep knowledge of programming methods, and provide learners with different and multiple scientific materials that can be obtained from one place, and these systems provide a self-learning environment that enables The learner interacts positively with the scientific subject, where it is used to communicate with students and how to achieve the educational, cognitive and performance goals required of the student, and perhaps even further in terms of technological communication with the student and motivate him to engage in the advanced society and get out of the tradition to keep up with the information renaissance(VanLehn, 2011).

Sharma& Vatta, 2013, stressed that learning management systems play a major role in education, as they are popular as a convenient way to provide and manage education and train remote learners, and can serve as a learning management system for different educational bodies.

Al-Owaini (2016) noted that smart learning complements e-learning systems, expands the field of teaching and learning, where different educational tools are used in the educational process to improve the quality of education, e-learning has been integrated into education in terms of multimedia use in the learning and learning process, e-learning management systems for content management and everything related to learning. Smart education at smart universities has benefited from the e-learning system, expanded the learning process, made it more interactive and realistic, and it contributes to the development of student intelligence, and to the formation of a scientific base for long periods of life, as well as enhances the role of the teacher and contributes to the development of his performance.

Sung(Sung, 2015)notes that changes in the educational model, advances in smart devices and technologies have led to the emergence of smart learning as a complement to e-learning, smart learning is intelligent and personal self-learning to meet the diverse needs of learners, to improve communication and thinking, and to solve problems by integrating a new type of e-learning technology with modern smart devices.

Benefits of e-learning management systems

Khalifa (2013) noted the benefits of education management systems in the following:

1. It is easier for the teacher and student to communicate at any time and at any time.
2. The possibility of using the medium at any time and place.

3. Support and complete traditional education.
4. Teaching complete materials - or providing timely training.
5. Educating increasing numbers of students in crowded classes.

E-learning management systems are concerned with the administrative aspect, and is considered one of the most important components of e-learning and learning, it is an integrated system responsible for the management of the e-learning process, and this system includes many components and tools, such as: (admission and registration, e-courses, virtual classes/direct learning, e-learning, e-duties, e-mail, e-discussion forums, e-follow-up)(Epignosis, 2014; McIntosh, 2014).).

Smart University

Countries seek to join the leadership in applying the latest practices in the software engineering industry, by pushing and supporting the transformation of the digital society by integrating and employing information technology in various sectors to transform universities into smart universities in accordance with international standards and practices, and the smart university contributes effectively to building a knowledge society by developing the outcomes of university education, and raising the efficiency of the educational and administrative process at the university.

Smart University is based on key themes including smart learning, smart evaluation, smart classrooms, smart support, smart processes, and smart campus, and includes a good number of capabilities and competencies that define the practical framework, and determine the structure, operation and governance of the frameworks for work within the smart-university. To develop a model foumart-university must be among the global practices and applications of institutional structuring, the most important of which is TOGAF and the standard standards for design and structuring, as well as reliance on cobit system for the management and governance of information systems to link university strategies with proposed development axes.

Thus, the smart university concept includes many elements such as smart education, smart e-learning, and smart education, which include software and hardware systems, and smart technology as a resource for improving education and vocational training(Uskov., Howlett & Jain, 2016).

It is important for universities not only to be educational centres, but also to be the basis for the success of all institutions in society, to build on comprehensive knowledge, to implement smart INFORMATION technology solutions within the university, and to provide highly efficient and market-friendly literacy services, all of which lead them to a kind of smart university (Al-Owaini, 2016).

We will define smart university, which is a modern terminology, UNESCO (2020:1) has comprehensively defined the concept of smart university as "a highly efficient and effective educational institution that uses smart technology in the infrastructure of its systems to make the educational process more dynamic and effective. A consumer of knowledge to be productive and transforming the whole community into a knowledge society, contributing to the promotion of learning goals in the 21st century: learning how to know, learning how to do, learning how to be, and learning to live together."

Note, a range of smart solutions have been adopted in the university environment, and intelligent tools and systems have been introduced that have affected the performance of teachers and students, and contributed to the increase in performance significantly, moving from the process of learning to a dynamic learning process enjoyable, including smart computer blackboard, smart learning systems, which provide asmart interactive environment, smart books, smart tablets, smart education management systems, and otherdevices and technologies that rely on network and smart web services (Bakru, 2017)..

All of Liu. Dong, 2014: 3214) Thesmart university is integrated as "an inevitable trend and an advanced pattern of digital university, the campus scheme consists of having a network

everywhere, integrating innovation and the Internet into scientific research, a transparent management, administrative efficiency and a rich, colorful and comfortable campus culture, and studied for everything related to campus life, and has three dominant characteristics: It provides a comprehensive and integrated intelligent environment, an integrated information service program for teachers and students, personalized and personalized services, communication and real collaboration by integrating computer-based information into university services and services, providing a common exchange interface, joint proposals between the university and beyond through the use of a smart sensory environment, and an integrated services program for shared information."

It is defined(Harrison., Eckman., Hamilton., Hartswick., alagnanam., Paraszczak & Williams, 2010:6)as "infrastructure integration: the physical and social aspect, business, enterprise and information technology, in order to increase efficiency and efficiency."

Al-Owaini (2016:33) defines it as "a highly efficient and effective university, using the latest developments in ICT technologies and offering a range of services available through the Internet, providing rich, interactive and constantly changing learning environments, by empowering individuals' abilities and behaviours and encouraging interaction and collaboration, increasing collaboration between students and teachers, increasing collaboration in the framework that makes them involved and responsible for developing and raising the educational process, and achieving the common goal of learning better."

AbedElmonem, 2019:13,defined it as "an educational institution thatprovides an interactive digital learning environment that uses smart systems technology between systems, thus allowing faculty to promote the goals of the 21st century, making them involved and responsible in developing and improving the quality of university education."

The ingredients of the smart university and its components

Owoc & Marciniak, 2013)noted that in order for a university to be smart, it must be managed in a smart way, which means that when developing universities, it must include five basic elements, which are the overall concept of smart university, and these elements must be seen as a whole: (smart people, smart buildings, smart environment, smart governance and management, intelligent network of knowledge).

According to Bakro (2017), the smart university is based on a number of basic elements that are separated asfollows:

1- The intelligent Campus S-Campus consists of:

- Smart physical infrastructure including smart and modern smart building facilities and buildings.

- IT hardware smart technology infrastructure includes (advanced wired and wireless network infrastructure, laptops and tablets, cameras and sensors, storage devices, smart blackboards, displays, surveillance systems, communication systems,etc.).

IT software smart software infrastructure includes (learning systems management systems, enterprise management systems, control and control systems, security and protection systems, social networking systems, smart electronic library, interactive website, web pages, etc.).

2- Smart, efficient and trained intelligent human frameworks.

3- Educational Environment Smart: Includes a range of software, intelligent interactive educational systems, smart ebooks, educational materials and elements, and more.

4- Clear smart strategyand educational plans, strategies and objectives.

5- Smart Management System: Uses integrated management programs for education and organizationsystems.

Noted both(Uskov., Bakken., Karri., Uskov., Heinemann & Rachakonda, 2018) That

conceptual modeling of smart universities as a system based on intelligence levels as a result of basic learning developments, where the term is used Widely intelligent by educational bodies in many ways, such as smart system, smart classrooms, smart faculty, smart education, smart software and hardware systems, smart technology, smart curriculum, smart technologies, campus services, and other distinctive components.

Vinan-Ludena., Jacome-Galarza., Montoya., Leon & Ramirez, 2020)believe that it allows the use of web services for smart university engineering to automatically manage and share all necessary information, which serves as the basis for obtaining the key characteristics of smart university: adaptation, sensing, inference, self-learning, expectation, self-regulation, as well as generating new business and research ideas.

The smart university concept requires universities to provide students with appropriate software/hardware systems and assistive technologies to help them succeed in technological learning environments such as: smart classrooms, laboratories, smart libraries and smart campus(Bakken., Varidiaridi, & Uskov, 2019).).

(Uskov, Bakken, Gayke, Jose, Uskova & Devaguptapu, 2019)referred to the smart features of a smart university with some components as follows:

- Smart software and hardware systems: smart learning analytics systems, web lecture systems, one-to-one collaborative voice/visual communication systems, many communication systems, interactive panels, panoramic video cameras, automated controllers and engines, etc.

- Smart technologies: IoT technologies, cloud computing technology, web lecture technology, smart agent technology, augmented and virtual reality technology, sensors, etc.

- Intelligent education: collaborative learning, crowdsourcing-based learning, serious gaming, cub-based learning, robotic-based intelligent learning, etc.

- Stakeholders: students (local, online), lifelong learners, students with disabilities, professional staff, etc.

Accordingly, the main features of smart university are: 1. adaptation, which is the ability to modify teaching/learning strategies, administrative workflows, safety, technology and other characteristics. 2. Sensor, which deals with the ability to use different sensors/controllers automatically to understand the functioning of the university or its infrastructure or the well-being of its components. 3. Inference; 4. Self-learning, which is the ability to acquire, acquire, configure, configure or modify new knowledge late. 5.Forecast; 6. Self-regulation; Vinan- Ludena, etal., 2020).

Ben Qayed (2017) referred to the university's smart components: digital library, e-learning, e-learning management systems, e-bag system, video conferencing. The smart university has a smart software infrastructure that includes learning systems management systems, enterprise management systems, monitoring and control systems, social networking systems, a smart electronic library, an interactive website, pages on communication sites, etc. In addition to intelligent learning environments, it includes a range of intelligent interactive software and learning systems, smart ebooks, educational materials and elements, and more, as well as a smart management system. All of this comes within smart sustainable development, which are dimensions to achieve, such as the smart economy, the intelligent society, and the smart environment.

The benefits and objectives of smart university

The most important benefits of smart university are to organize communication and cooperation in the field of education between all elements of the educational process among themselves and with educational services from anywhere and at any time, to enrich the education process and the research environment, and to solve the problems and obstacles of traditional learning systems through technical empowerment. On the other hand, working to build a new human being is the most important goal of the smart university, a

different and non-traditional human being in the way he learns and. treats, characterized by intellectual and behavioral flexibility, mastered various skills and many, capable of self-learning, loves to renew and search for information himself and a producer of knowledge, has the spirit of initiative, innovation and creativity (Bakro, 2017).

The most important goals of smart university are (Ng., Azarmi., Leida., Saffre., Afzal & Yoo, 2010):)

1- Create a model for effective education and a drive towards collaborative education..

2- Achieving excellence and competitiveness in the midst of intense competition in highereducation.

3- Raising the value of higher education and improving the overall quality ofeducation.

4- Maximizing students' ability to teach andlearn.

5- Make individuals able to take on leadership roles in the outsideworld.

6- Moving from knowledge acquisition to employment to address realproblems.

7- Provide good educational opportunities without anyrestrictions.

8- Enabling the educational and administrative team to have a new set of educational and administrativecapabilities.

9- Providing multi-faceted methodological solutions to meet the needs of students andemployees.

10- Increase productivity and reduce operatingcosts.

Smart University Features

Al-Owaini (2016) noted that smart university has five basic characteristics:

– Mobility Education: The ability of the elements of the educational process to access scientific content, from anywhere and at any time through mobile devices.

– IndividualEducation: To make individual education personal, build individual education cards and organize communication and cooperation in education among all stakeholders.

Morze., Glazubova & Grinchenko, 2013)added to individual education, which he described as the orientation socialorientation;

– Accessibility: Easy access to educational and administrative information and services such as learning systems, scientific databases, sources of information, online resources, etc.

– TechnologicalEffectiveness: Technological effectiveness provides the viability of the university's IT infrastructure, through cloud technologies, and virtual izations, based on the principles of flexibility, simplicity, stereotype, scalability and others.

– Openness: Openness in the smart university system means that it provides open repositories of educational materials and resources to form e-learning courses, provide training for students in all disciplines, and free access to sources and scientific research.

Several studies have indicated (Al-Owaini, 2016; Coccoli. Guercio., Paolo & Stanganelli, 2014; Abbasi, 2008; Bueno-Delgado, 2012)to the university's smart features, in which smart technologies must be available, the most important of which are: (*social network sites; where the new generation can benefit from learning management systems, especially for independent learning, *cloud computing, *design of technological programs that promote learning activities, *collaborative learning model, *RFID RFID wireless radio frequency technology, *NFC).

The importance of e-learning management systems in building smart university

Smart University is a scientific revolution in the acquisition and management of knowledge, in the production and method of receiving interactive information, and an effective tool in changing the movement of contemporarylife. The first smart universities in the Arab countries were Hamdan Bin Mohammed Smart University, the first Arab

university with a smart environment, working to provide high quality programs through the e-learning environment, supporting the pursuit of lifelong learning, and the World University of Renewal in Turkey was able to be a smart educational institution, with its latest technology in the infrastructure of its systems, and with its intelligent interactive environment that enabled it to occupy a high position among intelligent people (Bakro, 2017)..

Noted both(Uskov., Bakken., Pandey Singh., Yalamanchili & Penumatsa, 2016) Smart Education creates unique and unprecedented opportunities for academic organizations and training in terms of high standards and innovative methods, including, learning and education strategies - smart education, unique high-tech services for local students on campus and students remotely/online, and sets of innovative smart classrooms with local/remote interaction between Students, faculty and local/remote collaboration among students, design and develop rich web-based multimedia learning content with interactive presentations, video lectures, interactive online quizzes and tests, and an immediate assessment of knowledge. Much of that is in a traditional university with face-to-face classes and educational activities.

According to Bekarro (2017). The use of smart technology and the management of e-learning systems and the transformation into a smart university has become an effective choice and tool of the smart age that we live in, to prepare the intellectual and scientific leaders capable of working in the society of knowledge economy and meet its requirements, and that competition today is not in the smart model, but in the smartest, and therefore more efficient, more effective and more quality, and this is the hope that all universities will turn into smart universities and take away from them their traditional dress that is no longer suited to the era of intelligence welive.

(Buckman.) male the smart university is one of its most important characteristics to complete the physical infrastructure, which requires Operations represented by automation, control, e-learning management systems, and smart systems for the industry and building the next generation, they address all issues of intelligence and sustainability through the use of computers, and smart technologies to achieve optimal configurations of the overall level of comfort and energy consumption..

Al Khamash (2013) stressed that the smart university is focused on making classrooms and scientific laboratories a suitable environment for learning and stimulating it, where smart classrooms rely on computers, technological and technical devices, and equipping the halls with a website for students, while the website of faculty members is qualified with multimedia, and faculty members can view lessons and courses through e-learning management systems through a website.

For a smart university, change in the working environment and physical and intangible infrastructure was a must of its contemporary nature. Simonenko & Retivykh, 2003)noted that innovation in teaching within the learning science framework is a teaching novelty, a gradual and purposeful change to introduce new points into the learning environment (work environment) that improve sissy features, as well as the educational environment as a whole; ideas, processes, means, methods, forms, techniques, educational systems, media programmes, etc.

Khairova & Toktarova, 2016)explains that the effective use of information services, electronic systems, teaching techniques and e-learning resources for the new generation in the learning process are strategic tasks to move to e-learning and socio-economic efficiency factors to implement the education development program. In a smart learning environment, educational resources take on a renewed meaning, and their main functions are access to and provision of electronic educational content, tools for organizing information and cognitive interaction of participants in the educational process, i.e., integration with different e-learning systems and services.

Lee & Lehto, 2013shows that the impact of network hardware availability changes theway people interact about the development of certain types of knowledge.

Personal To ktarova & Panturova, 2015 learning is directed to discovering, taking into account and developing students' individual abilities,

mastering their thinking and perception, and achieving a high level of awareness and knowledge.

Sharma& Vatta, 2013,stressedthat learning management systems play a major role in education, as they are popular as a convenient way to provide and manage education and train remote learners and can serve as a learning management system for different educational bodies.

Many studies have indicated that there is an impact on teaching using the three electronic classrooms (interactive, collaborative and complementary), because of the important role that e-learning management systems provide and the use of e-classrooms rather than traditional classrooms in education. The system offers great opportunities for students to communicate with the course outside the lecture hall anywhere, anytime, and the use of teaching software has played an important role in the completion of duties, and positive attitudes among teachers and students towards e-learning (Ghribi, 2008; Al Mutairi, 2008; Al-Shasnaq and Bani Doumi, 2010; Ben Rihan, 2019).

Indicated(Aleven, etal., 2003)That through these smart systems the Smart University provides intelligent interactive learning environments, which are environments of interactive learning, and this environment provides a working environment to support learners, help them learn skills and concepts, use smart learning systems in wide areas, and have different educational tasks they help To acquire complex skills, give them a great deal of knowledge and work to spread them, and provide a great deal of interaction between the learner and the system, as well as answer all the questions and inquiries of the learner, provide him with various assistance, alert him to his mistakes, and characterized by simplicity and lack of complexity.

Smart University has a new impact on higher education that we know as a result of the new practices referred to byClayton & Eyring, 2011,where students in particular areincreasingly involved in accessing information, developing knowledge across online learning systems platforms and websites.

Theincreasing use ofeducational technologies and learning systems at all levels of education is taking on some of the most profound changes in higher education.

Garrido & Onaindia, 2013,believes that to develop a smart system at smartuniversity, educational systems aim to achieve the intended learning outcomes with appropriate learning processes and mechanisms for the learning process and the needs of the learner, and to develop intelligent systems that must choose applications used to create and maintain online learning topics to manage e-learning systems such as Moodle Moodlesystems, Web Learn, Web CTsystems, and other systems management.

Kwok, 2015)concluded that the development ofa smart campus must have key elements: network infrastructures, computers, learning systems and process management, and qualified people (human intelligence), which is an important component of the infrastructure, as systems and information rely on human intelligence in extracting knowledge, they need to support and train continuously for the development of the smart campus.

Al-Owaini (2016) noted that smart universities are interested in developing the infrastructure of e-learning systems in all sectors of the university, integrating educational and administrative systems directly related to the educational process, providing classrooms with the necessary technologies, training faculty members in these techniques, building a portal for e-learning, and taking into account the long-term economic aspect when choosing the technologies and solutions used to preserve the environment.

He mentioned (Bakro, 2017; Bueno-Delgado, 2012; Cata, 2015 Ng., et al., 2010;) To the importance of the transformation of universities from traditional universities to smart universities and the many benefits they will bring at the level of e-management, faculty, students, and society as well as at the level of buildings and equipment, the benefits of smart university b (retaining distinguished faculty and students, expanding university activities without the need to expand buildings and construction, increasing efficiency and productivity, enriching education, learning,

learning and scientific research, allowing for education, cooperative teaching and scientific research without limits, Supportcommunication between faculty, students and management, support administrative capacity within the university, solve all problems of traditional education through expanded use of information technology, reduced costs and operating costs, create new sources of income, create new sources of income, smart partnership with the community, build an ideal social environment, increase creativity and innovation, improve the quality of education, support researchers in various fields, facilitate access to necessary information and knowledge, and create a technological environment that facilitates the work of faculty, students and management.

Previous studies

Study of Hong, Redzon and Quick. (Hong., Ridzuan & Kuek, 2003)aimed to investigate the success of technology and theonline learning and learning environment in shaping positive attitudes among students towards using the Internet to learn at a university in Malaysia. The LMS results of the study indicated that students have positive attitudes towards using the Internet as an educational tool, and that the learning environment supports the use of the Internet for learning.

Al-Ankari Study (2008) aimed to identify the development of the Saudi higher education system in light of some technological innovations to meet the challenges, as well as to determine the requirements for its development. The researcher used the analytical descriptive method. The results showed that Saudi higher education faces many challenges such as increasing the number of students, globalization and lack of resources in addition to the expansion of the kingdom, and the results showed the importance of employing technological innovations such as: (e-learning and management systems, distance education, mobile education, internet, digital library) to reduce the challenges facing Saudi society. It showed the transition from reliance on conservation and indoctrination in education to creativity and innovation, knowledge production and the use of technology in education.

Jamal & Shanaah Study, 2011, aimed to investigate the role of LMS learning management systems in educational environments: an exploratory case study from the point of view of students and teachers. The study indicated that students and teachers were satisfied with the use of Blackboard in organizing course materials, although most teachers did not encourage interactive activities and Blackboard discussions, but students expressed the need for such activities to help them build new meanings.

Obadara Study(Obadara, 2014)aimed to identify the impact of the LMS on the academic performance of students at lagos University in Tegeria. .

The Coccoli etal study (Coccoli, etal., 2014)aimed to identify the current situation in European universities, learn about their development experiences towards the intelligent age, and to build a model that takes into account the local and external needs of institutions and individuals, and is based on a common vision of (teachers, students, management, institution, citizens, industries, etc.). The study found that smart university uses the technology and electronic systems available to improve its performance, and improve the quality of its graduates its main task is to prepare young people by developing plans that provide them with multiple skills to be competitive in the labor market, and that there is a great need to adopt the design of the smart university model because of its clear impact In improving the performance of universities and reducing costs, as demonstrated by the California experience, which reduced its expenses by 36%, and the California experience.

Al-Owaini Study (2016) aimed to reach a proposed strategy to transform the Palestinian University towards smart university in light of the requirements of the knowledge economy. The researcher used the analytical descriptive approach and the structural approach. The study sample consisted of (166) deans, deputy deans and heads of departments in Palestinian universities in Gaza governorates. The researcher used the resolution, the focus group. The results showed

the availability of the requirements of the transition towards smart university in light of the requirements of the knowledge economy in the light of the requirements of the transition to smart university, the years of service, excluding specialization and variable management position, and the variable of the scientific rank, which showed no differences, and the researcher developed a proposed strategy for the transformation of Palestinian universities towards smart university in light of the requirements of the knowledge economy.

Al-Rumaidi and Talhi Study (2018) aim to assess the availability of the components and requirements of smart universities at Sadat City University in Egypt, in addition to developing a proposed plan for improvement in the future. To achieve the goal of the study, the researchers designed a survey form and distributed it to a sample of (350) faculty members at Sadat City University. The analysis of 284 valid forms was relied upon usingSPSS V.25. The study found that some of the requirements and components of smart universities at Sadat City University are reasonably provided such as smart people, smart management, and smart learning environments, but there are no smart buildings.

AbedElmonem's study, 2019,aimed to assess the degree ofownership of faculty at Al-Aqsa University for 21st century skills to propose a framework for transforming Al-Aqsa University into a smart university in light of 21st century skills. Technological literacy (87%), creativity and innovation (64%), citizenship, digital responsibility (86.3%), designof 21st century digital assessment tool areas (85.3%), and communication and collaboration (72.7%).

The current study was characterized by the fact that it may be the first of its kind, according to the researcher's knowledge, through the researcher's knowledge of the theoretical literature and previous studies did not find relevant studies, so he conducted the study and therefore, investigating the importance of using e-learning management systems in the construction of smart university in Kuwait. This distinguishes them from previous studies, and the current study differed in terms of the objective, sample and method used.

The problem of study and its questions

Through the work of the researcher as a faculty member in one of the universities in Kuwait, and familiar with the educational reality in universities, and the lack of a smart university in Kuwait to date, and what it needs to be smart components and components, and its output sits in line with the requirements of the labor market, despite the availability of physical and technical capabilities in universities, but it is not at the required level and hoped, as well as the introduction of e-learning in the courses, but it lacks its employment optimally, which helps to develop the educational process and improve the quality of education and outputs and improve the quality of universities to compete with universities. There are no clear strategies in Kuwait that help them to fully transition to the use of technology in all its facilities, processes, e-learning and distance learning, to optimize recruitment and production of knowledge to form a knowledge society, to move from traditional education to education based on e-learning management systems with all its tools, programs and applications, as well as the components and components of smart university based on technology and its innovations to build a smart city (smart) achieve scoring goals in Kuwait with the best global practices and possible frameworks for self-education. And distance learning. Accordingly, the researcher considered the importance of using e-learning management systems in building smart university in Kuwait from the point of view of the faculty members at the university, and according to the researcher's science, the study may be the first of its kind. Accordingly, the study seeks to answer the main question: "How important is it to use e-learning management systems to build a smart university in Kuwait from the point of view of the faculty members? ".

The main question is:

- Are there statistically significant differences at the level of (≤ 0.05) between the importance of using e-learning management systems in the construction of smart university in Kuwait due to

variables (gender, scientific rank, years of experience)?α

Study objectives

The current study aims to identify how important e-learning management systems are in building smart university in Kuwait. And measured with variables (gender, scientific rank, years of experience).

The importance of study

The importance of the study lies as follows:

1- To investigate the importance of using e-learning management systems in building smart university in Kuwait from the point of view of faculty members in the Faculty of Education.

2- The study may help researchers highlight the importance of e-learning management systems in building smart university and the need to generalize them in universities to facilitate students' learning easily and with high flexibility, and to turn universities in Kuwait into smart universities, and then generalize theexperience.

3- It may help the learner to learn and enhance his abilities and raise his level of achievement through learning and practice through e-learning management systems, which will contribute to facilitating the process of teaching and learning, and benefit ing from the services and features and components of the smart university in the event of transformation.

4- Decision makers, university curriculum developers and technology experts may be instrumental in transforming the university into a smart university that operates through intelligent systems, intelligent software, intelligent management systems, intelligent campuses and smart technologies, and the development of educational programs and university electronic courses that help students develop and acquire learning skills and recognize the importance of e-learning management systems in the learning process and as a basis for buildismart-universityity.

Study terms

- E-Learning Systems Management: "An integrated system responsible for managing the electronic learning process through the Internet, this system includes admission and registration, course registration, course management, duties, follow-up of student learning, supervision of communication tools, and the management of tests and final certification" (Salem, 2004: 301).

- SmartUniversity: "An educational institution that provides an interactive digital learning environment that uses smart systems technology between systems, thus allowing faculty members to promote 21st century goals, making them involved and responsible for the development and advancement of the quality of university education" (AbedElmonem, 2019:13).).

Study limits

1- Objectivity: The study was limited to investigating the importance of using e-learning management systems in the construction of smart university.

2- Location:Faculty of Basic Education, Department of Education Technology at the General Authority for Applied Education and Training, Kuwait.

3- Human:A sample of faculty members in the Faculty of Basic Education.

4- Time:First semester 2022/2021./2021.

5- The study is defined by its tools used and the sincerity and consistency of these tools.

Method and procedures

Curriculum

The study adopted the descriptive survey method, which is concerned with presenting the measured phenomenon as it is, as this approach is appropriate for the objectives and purposes of the current research and its variables.

Study Community

The study community is made up of all the faculty members of the Faculty of Basic Education in the General Authority for Applied Education and Training of higher education in Kuwait for the academic year 2022/2021, which number 2022(680) members and members, including (416) members and (264) faculty members.

Study sample

The sample of the study consisted of (246) members and faculty members of the Faculty of Basic Education, randomly selected for the first academic year2022/2021.

Table(1))

Iterations and percentages by study variables

	Categories	Iteration	Percentage
gender	Male	148	60.2%
	Female	98	39.8%
Scientific rank	Professor	12	4.9%
	Associate Professor	26	10.6%
	Assistant Professor	208	84.6%
Years of experience	Less than five years	140	56.9%
	5-10 years	70	28.5%
	10-15 years	24	9.8%
	More than 15 years	12	4.9%
	Total	246	100.0

Study tool

The researcher prepared a questionnaire to measure the importance of using e-learning management systems in the construction of smart university in Kuwait, after reviewing previous research and studies such as the study: How important it is to use e-learning management systems to build a smart university.

First and second part)Abed Elmonem, 2019;Al-Ramidi and Talhi, 2018; Al-Owaini, 2016; Coccoli, Etal., 2014; Obadara, 2014; Jamal & Shanaah, 2011; Hong., Ridzuan & Kuek, 2003

Believe the tool.

The researcher made sure of the sincerity of the tool to measure the apparent honesty by presenting it to a number of arbitrators specialized in research methods and education technology in order to make sure to measure the appropriateness and affiliation of the paragraphs, the clarity of the phrase and the integrity of its formulation, and make proposals for modification or addition or deletion, the arbitrators have made the observations and appropriate opinion, and have been introduced and made formal adjustments in the drafting, and output of the questionnaire in its final form.

The stability of the tool

To ensure the stability of the study tool, thetest-retestmethod was verified by applying thescale, and reapplied two weeks later to a group outside the study sample of (30) faculty members, and then the Pearson correlation coefficient was calculated between their estimates twice.

The stability factor was also calculated in the internal consistency manner by the Kronbach Alpha equation, and table 2 shows the coefficient of internal consistency according to the Kronbach Alpha equation and the stability of the replay, and these values were considered appropriate for the purposes of this study.

Table (2)

Kronbach Alpha Internal Consistency Coefficient and Replay Stability

Domain	Replay stability	Internal consistency
College degree	0.91	0.93

Procedures for the implementation of the study

To achieve the objectives of the study, the following steps and procedures were followed:

– Identify a random sample of the entire community for faculty members in the Faculty of Basic Education.

– Prepare the study tool and present it to the arbitrators to take advantage of their observations and take them.

– The researcher distributed the questionnaire to a survey sample of the faculty in the general body of applied education and training outside the sample of the study, and after extracting honesty and stability the questionnaire was distributed to the sample.

– The researcher unloaded the surveys and performed statistical analysis using appropriate statistical treatments to present and discuss the results and make recommendations.

Statistical treatment

In the light of the study's questions, the researcher used the appropriate statistical treatments through analysis on the SPSSprogram, theresearcher has used mathematical averages and standard deviations, the coefficient of internal consistency kronbach alpha and the stability of replays and repetitions, in addition to analyzing the four-way contrast to show the variables of the study, and the use of the Chevy method of dimensional comparisons of the effect of variables.

- View and discuss the results

Question 1: "How important is it touse e-learning management systems to build a smart university in Kuwait from the point of view of faculty members at the Faculty of Basic Education? ".

To answer this question, mathematical averages and standard deviations were extracted for the importance of using e-learning management systems in the building of smart university in Kuwait from the point of view of faculty members of the Faculty of Basic Education, and the table below illustrates this.

Table (3)

Arithmetic averages and standard deviations of the importance of using e-learning management systems in the construction of smart university in Kuwait from the point of view of faculty members in the Faculty of Basic Education ranked downwardly according to the mathematical averages

Rank	Number	Paragraphs	Average arithmetic	Standard deviation	Level
1	4	E-learning management systems contribute to the building of smart university through support and follow-up learning.	4.37	1.286	High
2	18	E-learning management systems are the most important element of learning in the university's smart system.	4.18	.783	High
3	25	E-learning management systems are a convenient way to provide and manage education, training learners and all remote learning bodies at smartuniversity.	4.07	.660	High
4	28	E-learning management systems contribute to the management of an integrated digital electronic environment.	3.89	.564	High
5	13	E-learning management systems increase creativity, innovation and research.	3.85	.815	High
6	22	E-learning management systems can manage effective learning through the media and tools available as an alternative to traditional education.	3.85	.979	High
7	33	E-learning management systems are an essential component of the physical infrastructure needed to build a smart university.	3.83	.793	High
8	11	E-learning management systems run the student website in scientific classrooms and laboratories.	3.75	.486	High
9	20	E-learning management systems make it easy to present lessons and courses to faculty members through a website.	3.73	1.140	High
10	1	E-learning management systems follow the learning environment and improve the features of separate parts and components.	3.61	1.081	Average
11	10	E-learning management systems provide access to courses and tools for organizing information and cognitive interaction to participate in the educational process.	3.55	.785	Average
12	24	E-learning management systems contribute to students' self-reliance and development.	3.40	1.048	Average
13	34	E-learning management systems contribute to self-regulation in a smart learning environment.	3.39	1.023	Average
14	9	E-learning management systems make it easier for students to access new sources of learning information.	3.33	1.137	Average

Rank	Number	Paragraphs	Average arithmetic	Standard deviation	Level
15	27	E-learning management systems provide many virtual environments in progress that contribute to how to design an electronic learning tool or a virtual chemical laboratory.	3.29	.834	Average
16	21	E-learning management systems take into account the student's personal orientation when providing content in the electronic environment.	3.28	.831	Average
17	3	E-learning management systems contribute to a high level of awareness and knowledge.	3.26	.682	Average
18	16	E-learning management systems provide the conditions for the allocation of a high-tech learning environment that allows students to study, taking into account their skills and abilities.	3.25	.794	Average
18	30	E-learning management systems contribute to the management of smart university systems as a key feature of the system.	3.25	.948	Average
20	17	E-learning management systems influence teaching using three electronic classes (interactive, collaborative, and complementary) rather than traditional classrooms in education.	3.22	.766	Average
20	19	The system management system provides great opportunities for students to obtain the course course outside the lecture hall anywhere and anytime.	3.22	.912	Average
22	8	E-learning management systems play an important role by using teaching software to complete assignments, and positive attitudes among teachers and students towards e-learning.	3.19	.890	Average
23	15	Smart University provides intelligent interactive learning environments, interactive learning environments, and learning environments to support learners.	3.18	.567	Average
24	29	Smart University Systems Management helps learners learn special skills and concepts.	3.13	.763	Average
25	26	E-learning management systems gain a great deal of knowledge and work to disseminate them.	3.02	1.038	Average
26	5	E-learning management systems provide a great deal of interaction between the learner and the system.	2.95	.781	Average
27	14	The systems available at smart university answer all the questions and queries of the learner, provide him with a variety of assistance, alert him to his mistakes, and characterized by simplicity and uncomplicated.	2.93	.874	Average

Rank	Number	Paragraphs	Average arithmetic	Standard deviation	Level
28	2	Smart University Systems Management contributes to the development of knowledge across online learning systems platforms and websites.	2.87	.868	Average
28	23	Systems management in higher education brings about some of the most profound changes through the involvement of learners in mixed situations with large proportions of learning activities in digital environments.	2.87	1.008	Average
30	32	Managing learning systems and processes contributes to the development of a smart campus.	2.84	.835	Average
31	6	E-learning management systems are of great benefit to smart university at the educational level and the university as a whole.	2.83	.883	Average
32	31	The advantages and characteristics of e-learning management systems improve the quality of education at smart university.	2.78	.913	Average
33	12	E-learning management systems contribute to creating a technological environment that facilitates the work of faculty, students and management.	2.51	.902	Average
34	7	E-learning management systems are aimed at the complexity of managing learning systems and related content at e-university.	2.46	.845	Average
		College degree	3.33	.496	Average

Table 3 shows that the arithmetic averages ranged from(2.46to4.37),)where poverty؛ was number4, which states that "e-learning management systems contribute to the building of smart university through support and follow-up learning. which states that " "In the first place withan average account of(4.37),)followed in the second-place paragraph(18)and its text؛ Followed in second place by paragraph ("E-learning management systems are the most important element of learning in the smart university system.) say "With an average account of4.18,)and came in third place paragraph With an average account of (, paragraph 3)and its text "E-learning management systems are characterized as a convenient way to provide and manage education and training learners and all educational bodies remotely in smart university.. "With an average account of ؛)4.07, poverty was number and on average, my account was (77and its text "E-learning management systems are aimed at the complexity of managing learning systems and associated content at e-university." " In the last place and with an average account of(2.46).). The average arithmetic of the instrument as a whole was3.33and at an average estimate level.

The results showed that the importance of using e-learning management systems in the building of smart university in Kuwait was average, with the average arithmetic of the tool as a whole(3.33),and the paragraphsat the medium and high level, with averages ranging from (2.46to4.37).)This result is due to therealization by university faculty that e-learning management systems are part of the university's smart building system because it is a convenient way to provide and manage education and train remote learners, and can serve as a

learning management system for various educational bodies. (It is the most important element in smart university intelligent systems, because of the advantages of e-learning management systems that support the educational environment in which it is implemented, and the importance of e-learning management systems in facilitating and facilitating the process of teaching and learning at smart university, which helps to attract students and increase their motivation for learning, smart university based on all modern technologies, technologies and systems based on smart learning, innovation using new methods of education technology, technology, communications, multiple media and other environment departing from the traditional way of lecture, and Moving away from red, systems that have a key role in managing and providing educational content, tools for organizing information and cognitive interaction of participants in the educational process, i.e. integration with different e-learning systems and services, the university's intelligent environment needs to create intelligent university classification, uniqueness in education, self-reliance and organization development, creativity and critical thinking, access to new sources of learning information, in addition to providing an opportunity for interaction between students, increased knowledge and information related to courses for students, faculty, and management of virtual laboratories and environments. Many people will move to e-learning systems platforms for virtual environments,as well as increase the role of the professor to be effective, positive and active in thelearning process, and promote student-teacher collaboration and engagement through communication and distance learning. It seems that the transformation to a smart university has become an effective choice and an effective tool of the smart age that we live in, to prepare intellectual and scientific leaders capable of working ina knowledge economy society and meet itsrequirements, they are strategic tasks to move to e-learning, and the use of education management systems in the building of smart university is a key demand commensurate with the era Our intelligence, where it achieves a smart partnership with society, building an ideal social environment, increasing creativity and innovation, improving the quality of education, supporting researchers in various fields, facilitating access to the necessary information and knowledge, and creating a technological environment that facilitates the work of faculty, students and management. This finding was agreed with a study(Hong., Ridzuan & Kuek, 2003; Al-Ankari, 2008; Jamal & Shanaah, 2011; Obadara, 2014; Coccoli, etal., 2014; Al-Owaini, 2016; Al-Rumaidi and Talhi, 2018; Abed Elmonem, 2019)

Question 2: "Are there statistically significant differences at the level of (≤ 0.05) between the arithmetic averages in the importance of using e-learning management systems in the building of smart university in Kuwait from the point of view of faculty members of the Faculty of Basic Education due to variables (gender, scientific rank, years of experience)?" α.

To answer this question, mathematical averages and standard deviations have been extracted forthe importance of using e-learning management systems in the building of smart university in Kuwait from the point of view of faculty members in the Faculty of Basic Education according to و variables(gender, scientific rank, وyears ofexperience), and the table below shows this.

Table No. (4)

Arithmetic averages and standard deviations of the importance of using e-learning management systems in the construction of smart university in Kuwait from the point of view of faculty members in the Faculty of Basic Education according to the variables of gender, scientific rank, and years of experience

		Average arithmetic	Standard deviation	Number
Gender	Male	3.35	.516	148
	Female	3.29	.463	98
Scientific rank	Professor	2.74	.766	12
	Associate Professor	3.30	.631	26
	Assistant Professor	3.37	.435	208
Years of experience	Less than five years	3.41	.478	140
	5-10 years	3.29	.453	70
	10-15 years	3.18	.424	24
	More than 15 years	2.91	.771	12

Table (4) shows an apparent variation in arithmetic averages and standard deviations ofthe importance of using e-learning management systems in the building of smart university in Kuwait from the point of view of faculty members in the Faculty of Basic Education due to different categories of gender و variables, scientific rank, and years ofexperience, and to show the significance of statistical differences between mathematical averages, four-table contrast analysis was used (5). و

Table No. (5)

Analysis of the four-way variation of the impact of gender, scientific rank, and years ofexperience, on the importance of using e-learning management systems in the construction of smart university in Kuwait from the point of view of faculty members in the Faculty of Basic Education

Source of variance	Total squares	Degrees of freedom	Average squares	Value P	Statistical significance
Gender	.325	1	.325	1.482	.225
Scientific rank	2.880	2	1.440	6.563	.002
Years of experience	1.821	3	.607	2.766	.043
The error.	52.220	238	.219		
Total	60.204	245			

Table 5 showsthe following:

- The lack ofstatistically significant differences (= 0.05) due to the impact of gender, where the value of α1.482 and a statistical significance of 0.225. This result may be due to the knowledge and awareness of professors of both genders the importance of e-learning management systems in the construction of smart university, which is one of the most important elements of the smart environment, and has a key role in it.

- Theexistence of statistically significant differences (= 0.05) due to the effect of the scientific αrank, where the value of the p 6.563 and a statistical significance of 0.002, and to indicate the statistically functioned marital differences between the mathematical averages, the dimensional comparisons were used in a chevy manner as shown in table 6.

- Theexistence of statistically significant differences (= 0.05) due to the impact of years of αexperience,where thevalue of p 2.766 and a statistical significance of 0.043, and to indicate the statistically functioned marital differences between the mathematical averages, the dimensional comparisons were used in a chevy manner as shown in table (7).

Table (6)

After-effects of the scientific rank

	Average arithmetic	Professor	Associate Professor	Assistant Professor
Associate Professor	3.37	.63*	.07	
Assistant Professor	3.30	.56*		
Professor	2.74			

* Function at the indication levelα(≤0.05).

Table (6) shows that there are statistically significant differences (= 0.05) between α a professor on the one hand and an associate professor on the other, and Assistant Professor the differences came in favor of both associate professorandassistantprofessor.The result of the current study differed fromthat ofAl-Owaini, 2016.

Table (7)

After-effects of the impact of years of experience

	Average arithmetic	Less than 5 years	5-10 years	10-15 years	More than 15 years
Less than five years	3.29	.12			
5-10 years	3.41				
10-15 years	3.18	.23	.11		
More than 15 years	2.91	.50*	.38	.27	

* Function at the indication levelα(≤0.05).

Table (7) shows that there are statistically significant differences (= 0.05) between less than five years and more thanα15 years andthe differences came in favor of less than five years.It

seemed especially clear for those with less than five year gender patience, their experience in systems and advanced innovations more than the most experienced, in addition to possessing the skills of twenty-first more during their university studies and training, the requirements of smart university in people and smart management, smart learning environments, etc., and that the optimal investment of smart technical infrastructure contributes to improving the performance of the university and reducing the cost, and increasing efficiency. The result of the current Al , Owaini، 2016)study was agreed with the study(Al-Ramidi and Talhi, 2018).

Recommendations

Based on the results of the study, the researcher recommends the following:

1- The need to adopt higher education project to develop Kuwaiti universities and the transition to smart university and highlight the importance of e-learning management systems as a smart environment of smart universities.

2- Develop ing contemporary teaching competencies of faculty members and giving them 21st century skills in order to adopt the smart education project in general and the smart university in particular.

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