

Factors Affecting the e-Learning Implementation in UAE Public Sector Organizations

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Abstract: There is an increasing recognition among organizations that investment in learning and development interventions is necessary for a sustained improvement in organizational performance and excellence. E-Learning is becoming a popular delivery method across public sector organizations in the United Arab Emirates (UAE). Organizations often consider developing the skills and knowledge of their employees by using advanced technologies and approaches. The present study aims to examine factors affecting E-Learning implementation among public sector organizations in the UAE. The review shows that the use of E-Learning has spread among organizations faster than any other method, particularly within the public sector organizations of the UAE. Therefore, this research aims to shed light on the current status of E-Learning implementation in the public sector organizations in the UAE. Moreover, the study explores different E-Learning technologies and approaches that are used in organizations. It also addresses the advantages and disadvantages of using E-Learning. In addition, it examines the barriers and challenges of using E-Learning methods in organizations and offers several recommendations to develop strategies and to improve policy and practice of E-Learning.

Keywords: E-Learning, Public sector, Learning and development, Technologies, Workplace

1. Introduction

In the 21st century, the communication technology explosion has increased the use of digital devices for many reasons in the world of work and education (Kumar, Wotto and Bélanger, 2018). There is increasing recognition among organizations that investment in learning and development interventions is necessary for sustained organizational performance and excellence (Kamali, 2018). Specifically, E-Learning has seen a continued upward trend with both government and private sector continuing to invest in learning and development (Giannakos, Mikalefand Pappas, 2022). E-learning has also become a fundamental topic in most studies over the past few years (Gros and García-Peñalvo, 2023). Yet, studies have confirmed that organizations are facing many barriers and challenges in implementing the E-Learning among organizations (Ellis and Kuznia, 2014). Currently, most organizations in the public sector organizations in the UAE are focusing on E-Learning, but there are not many details about the extent to which factors are affecting the implementation of E-Learning (Qurotul Aini, et al., 2020) In the context of the UAE, and particularly in public sector organizations, this study addresses the following research question: “What factors are affecting the E-Learning implementation in the UAE public sector organizations?” The present study is a conceptual paper that aims to examine factors affecting the E-Learning implementation among public sector organizations in the UAE. The review shows that E-Learning has spread out among organizations faster than any other method, particularly within public sector organizations. Therefore, this research aims to shed light on the current status of E-Learning implementation in the public sector organizations in the UAE. Moreover, the study explores different E-Learning technologies and approaches that are used in organizations. It also addresses the advantages and disadvantages of using E-Learning. It also addresses the barriers and challenges of using E-Learning methods in organizations. Understanding the factors affecting the E-Learning implementation in the UAE public sector organizations is critically important, as the existing literature tends to focus on E-Learning methods and practices, rather than the drivers. The purpose of this study is to examine factors affecting the E-Learning implementation among public sector organizations in the UAE and also to suggest some ideas that can contribute to the solutions of these problems facing employees. Today, technology is considered to be an essential material in the future of learning and development. Thus, we find some employees who are facing difficulties in using the technology.

2. Context of the Study

Nowadays, the pace of technological change is unbelievable as the internet becomes the most popular source of information and the channel of communication (Kumar, Wotto and Bélanger, 2018). The current rapid development of information technology has received positive feedback from the community. Currently, the public sector view E-Learning as an essential instrument for obtaining skill-based organizational outcomes (Giannakos, Mikalefand Pappas, 2022). With its state-of-the-art digital infrastructure, Dubai has set the stage for rapid advances in E-Learning. The focus of this study is Dubai government organizations because recently there has been an increased emphasis on E-Learning in the public sector. Today, many organizations are aware of the importance of E-Learning and are developing plans to improve the competences of the workforce and their

professional skills (Gros and García-Peñalvo, 2023). Dubai's Government has presented its forward thinking-prowess with the launch of a 50-year plan known as The UAE Centennial 2071 Project, the year which will be the nation's 100th anniversary. The main purpose of launching this plan is to put in place a vision that extends to five decades, thereby preparing the nation for future generations. It also aims to have a clear map for long-term government work in order to make the United Arab Emirates the best country in the world. The plan consists of four aspects: economy, education, government development and community cohesion. Currently, Dubai government organizations are using a Learning Management System (LMS) which provides a learning platform that can enable interactive learning anywhere and at any time as long as the users are connected to the system via the internet (Turnbull, Chugh and Luck, 2020). As E-Learning played an increasingly critical role during the pandemic, the heavy reliance on the use of E-Learning became a challenge in public sector organizations. Successful implementation of E-Learning systems hinges upon addressing the challenges faced by the learners and the instructors. Whilst there have been many studies which have attempted to address the challenges that are faced in implementing an E-Learning system (Tarus, Gichoya and Muumbo, 2015), there have been limited studies that focused on exploring the barriers and challenges of implementing E-Learning in the context of the public sector. This study seeks to explore the factors impacting the implementation of an E-Learning system in the public sector in the UAE.

3. E-Learning Definition

The main process of E-Learning starts with learning, so it is important to understand the meaning of learning. Learning is defined as a process whereby individuals obtain new skills in order to increase their knowledge and improve their productivity and performance (Kok, 2013). The main purpose of learning is to improve the performance of employees in order that organizations can meet their goals (Kok, 2013). E-Learning is defined as an innovative way to enhance education and learning (Kok, 2013). According to Hoppe, et al. (2003), E-Learning is the learning that is supported by digital-electronic tools and media. There are different definition terminologies of E-Learning based on the field in which it is used (eg. Education, Military, etc.). Different authors have defined E-Learning, for example, the term E-Learning refers to all training activities that use electronic media or information technology where it is used to support the learning process (Effendi and Zhuang, 2005). Also, it is described as a computer-based environment having relatively open systems which permit interaction encounters with other participants and providing access to a wide range of resources (Piccoli, Ahmed, and Lves, 2001). Another author stated that E-Learning is the process of learning facilitated by mobile devices (Kearney, et al., 2012).

4. E-Learning Technologies and Approaches

There are different approaches to E-Learning and most of the discussion concerning E-Learning is focused on educational courses. Today, there are different types of E-Learning that organizations can choose from based on their specific goals and needs. The following section presents different E-Learning approaches.

4.1 Blended Learning

Blended learning is an educational approach that includes framing the teaching learning process that incorporates both traditional face-to-face classroom methods with online learning activities. It has scope for constructive learning; collaborative learning and computer assisted learning. Learners usually engage in both in-person and online activities. This method creates a flexible and personalized learning experience (Dangwal, 2017).

4.2 Microlearning

Microlearning is an educational approach that is characterized by its bite-sized and easily digestible units (Dolasinski and Reynolds, 2020). It is one of the most powerful tools for learners, enabling complex information to be broken down into brief chunks. Microlearning is appropriate for quick learning and the reinforcement of knowledge where learners need specific information or skills. This method is designed to enhance learning and performance in the most effective manner via short pieces of contents (Taylor and Hung, 2022)

4.3 Gamification

Gamification refers to the integration of game mechanics into the educational environment in order to enhance motivation, engagement and learning outcomes (Argote and Hora, 2017). Gamification can be implemented in different organizational processes and it intends to leverage the motivational power of games to make learning more effective and compelling (Bozkurt and Durak, 2018).

4.4 Social Learning

Social learning is a type of learning that occurs via social interactions and experiences where learners can develop their knowledge and skills. It emphasizes the idea that people can learn effectively by engaging with each other and sharing knowledge and experiences in order to retain information. There are different key components and features of social learning such as discussion forums, social media integration, group chats and messaging, peer review and feedback and learning communities.

4.5 Distance Learning

Distance learning is known as distance education or remote learning, often using technology where instructors and learners can interact with each other from different geographical locations (Anderson, 2008). It permits the learners to participate and engage with course materials, providing flexibility in terms of place and time. Distance learning utilizes different digital platforms, such as Learning Management Systems (LMS), video conferencing tools and online resources, offering flexible scheduling to access the course materials. Distance learning, is a form of didactic information transfer reaching dispersed listeners, using different forms of media. This form does not require direct contact between the instructor and the learners (Bradley, 2021).

4.6 Virtual Reality and Augmented Reality

Virtual reality (VR) is a technology that creates a simulated environment which allows learners to be in a computer-generated world which can be an entirely imaginary universe. The experience can be visual and auditory, and it enables humans to directly interact with a computer-generated environment. It also can create a sense of presence, making the learners feel that they are inside the virtual world. Virtual reality is used as an aid for learning and practice in different fields such as medicine, engineering, design, architecture and education and training (Abdelaziz, Alaa El Din and Senousy, 2014). Augmented Reality (AR) is a technology that deals with the combination of real world and computer-generated data (Alam, et al., 2019). It is unlike virtual reality where the learner is completely immersed in a virtual environment. Augmented Reality allows users to interact with the virtual images and can enhance the collaboration between learners and instructors, thus maximizing the learning process (Alam, et al., 2019).

4.7 E-Learning Platform

An E-Learning platform is an electronic learning platform using communication technologies to facilitate learning and teaching (Alseelawi et al., 2020). An E-Learning platform can be used to deliver training programs, online courses, webinars, video conferencing and virtual workshops. Learners can access the platform anywhere and anytime allowing them to adjust their learning based on their own schedule and pace (Aixia and Wang, 2011). One type of E-Learning platform is Learning Management System (LMS) which is a software-based platform or web-based technology that helps to automate employee training. By using LMS, learners can have the flexibility to study at their own pace and can access course materials and assignments at their convenience.

These are just numerous examples of E-Learning technologies and approaches that are you used in education and a wide range of organizations. Currently, the public sector organizations are benefiting a lot from the Learning Management System which is used to improve the learning experience and develop the employees' knowledge consistently. A well-designed LMS can help organizations to set a structured learning environment and save time and money. The field of E-Learning continues to grow with advanced technology and new approaches that are constantly being developed to improve the learning experience. The future of E-Learning looks promising as technology continues to grow at a rapid pace. It is clear that E-Learning plays a crucial role in education and professional development.

5. Advantages and Disadvantages of E-Learning

5.1 Advantages of E-Learning

There are several advantages of E-Learning. First, organizations do not have to hire instructors to develop learning materials because it can be done online (Sitnikov, et al., 2010). Also, one the biggest advantages of E-Learning is that it can have the ability to cover distances, particularly important for organizations that are spread across multiple locations. Learners and instructors do not have to attend classes physically as they can study and learn in their comfort zone or at their workplace (Ellis and Kuznia, 2014). In addition, E-Learning can also help in fulfilling the needs of some learners with special needs (Quadri, et al., 2017). Moreover, organizations can save costs because some training courses are conducted in different locations which can be far for learners to travel to, resulting in organizations paying for accommodation, transport, and meals. E-Learning will help in minimizing

the cost (Ellis and Kuznia, 2014). Additionally, there is some flexibility in completion of the training course as E-Learning is self-paced and it can be completed at the learner's pace. Also, the contents of the training course can be repeated until it is understood by the learners (Ellis and Kuznia, 2014).

5.2 Disadvantages of E-Learning

There are several disadvantages with E-Learning and some participants can be technologically challenged and are hesitant to enroll in training courses (Ellis and Kuznia, 2014). Also, some employees might not be fully equipped technologically making it hard to implement E-Learning as some learners in organizations can come from different generations and are not used to the E-Learning method (Ahmad and Tarmudi, 2012). Some employees might have some resistance to change and it is difficult to deal with them and convince them to try the E-Learning method (Ellis and Kuznia, 2014). One of the common disadvantages of E-Learning is language as some learners might face difficulty in communication as English is not their native language. Another disadvantage is that it promotes the tendency of isolation as some learners spend most of their time completing online learning and avoiding the company of others (Akhter, et al., 2021). E-Learning cannot replace traditional learning as both of them should be blended together in order to achieve better results, better service delivery and skilled employees (Sitnikov, et al., 2010).

6. Factors Affecting the E-Learning Implementation

Various studies have highlighted factors that are affecting E-learning implementation (Sitnikov, et al., 2010; Ellis and Kuznia, 2014) and each of these studies has a different explanation and perspective for each factor. Al-Balas, et al., (2020) mentioned that E-Learning requires technological skills as it is usually conducted using electronic devices. Any lack of skill will make it difficult to benefit from the advantages of E-Learning. For example, a lecturer's competencies are one of the important factors that can impact on E-Learning implementation. Another study by Ellis and Kuznia (2014) added that the lecturer and the learners might not be committed to use the E-Learning system as they do not have the motivation to do it and because they have never been involved in the process. In addition, the rapid development of the future technology might change considerably, and some instructors might not keep up with new E-Learning trends and approaches (Cheng, et al., 2011). Instructors are also one of the important factors of an E-Learning system because any lack of skills will impact significantly on the confidence of the instructor in the use of technology. Also, the interaction between the learners and instructors when using online learning is more difficult than with traditional teaching, which might be one of the factors that can impact the E-Learning implementation. Furthermore, the infrastructure and technology play a major role in E-Learning implementation. It requires a huge budget to ensure the appropriate software, hardware, internet connection and Technical Support system is available. Therefore, infrastructure and technology are considered one of the most significant factors that can impact E-Learning implementation (Quadri, et al., 2017).

7. Challenges of Using E-Learning Methods in Organizations

Implementing E-Learning methods can offer various benefits (Ellis and Kuznia, 2014). Yet, many studies have revealed that there are numerous challenges of using E-Learning methods in organizations (Sitnikov, et al., 2010; Ellis and Kuznia, 2014). According to Giannakos, Mikalefand Pappas,(2022), the E-Learning environment is relatively new, and its technologies are developing and changing rapidly. Wu et al., (2022) views the transition into E-Learning as difficult as it involves converting the physical teaching materials into E-Learning materials which can be time consuming to complete. In addition, there are three factors that determine the successful implementation of E-Learning system such as, the perception of the users, their competencies, and computer use knowledge (Lee, Hsieh and Chen, 2013). Moreover, employees should have the acceptance and motivation to learn as it is an essential key to success in any E-Learning implementation (Almaiah, Al-Khasawneh and Althunibat, 2020). According to Almaiah, Al-Khasawneh and Althunibat (2020), there are several methods that can be utilized to enrich the employees' motivation to learn, such as having a positive and energetic learning environment. Choosing the best E-Learning platform for organizations is one of the keys to making sure the trainees have a successful and positive learning experience (Chen and Tseng, 2012). Quality is another factor that has been found to impact the acceptance of E-Learning technology. The learners will be reluctant to use the E-Learning platform if its quality is poor and this will lead to them refusing to accept the platform (Chou, et al., 2012). A lot of studies (Mahmodi, 2017; Dreheeb, Basir and Fabil, 2016) agreed that the quality attributes of the system have a critical role in providing user satisfaction to keep on using the E-learning system. A lack of consideration for factors that impact user acceptance of E-Learning may also prove to be a challenge in E-Learning (Qurotul Aini, et al., 2020). As E-Learning plays a critical role in organizations, the reliance on the use

of E-Learning also becomes a challenge not only for organizations but also for employees and the lecturers (Dreheeb, Basir and Fabil, 2016). Successful implementation of E-Learning in organizations mainly depends on addressing the challenges faced by user (Tarus, Gichoya and Muumbo, 2015). Therefore, examining the challenges may guide policy makers to fulfill the needs of E-Learning users in order to effectively implement E-Learning in organizations (Qurotul Aini, et al., 2020).

8. Conclusions

This study examines factors affecting the E-Learning implementation among public sector organizations in the UAE. Despite the robust global research interest in the role of E-Learning implementation in organizations, there is not enough research looking at how different factors impact the implementation of E-Learning in organizations, especially within Dubai government organizations. Previous research has often focused on E-Learning learning in schools and universities (Salloum, et al., 2019) but has rarely examined E-Learning in the public sector.

Several studies consider the challenges faced in implementing E-Learning in universities, while there are limited studies examining the implementation in the public sector. Therefore, more studies are required as future research. Dubai government organizations have already started applying E-Learning for their employees and there are a lot of challenges in implementing the digital technology in the learning system, yet there has been no research done to highlight the challenges in the context of the public sector organizations. Most of the researchers consider the challenges faced in the education system for students not for employees. Researchers should apply a collaborative effort to study how to implement E-Learning successfully in the learning process of organizations.

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