

CONCEPTUAL FRAMEWORK ON E-LEARNING READINESS IN SULTANATE OF OMAN

Salem Hamad Saeed Al Hasani ¹
Nor Azilah Husin ²

¹ Faculty of Business and Accountancy, Universiti Selangor, 40000 Shah Alam, Selangor, Malaysia,
(Email: lehsani01@gmail.com)

² Faculty of Business and Accountancy, Universiti Selangor, 40000 Shah Alam, Selangor, Malaysia,
(Email nor_azilah@unisel.edu.my)

Article history

Received date : 11-10-2021
Revised date : 12-10-2021
Accepted date : 31-12-2021
Published date : 31-12-2021

To cite this document:

Al Hasani, S. H., & Husin, N.A. (2021). Conceptual Framework on E-Learning Readiness in Sultanate of Oman. *Journal of Islamic, Social, Economics and Development (JISED)*, 6(42), 218 - 234.

Abstract: *Regular education in Oman faces many problems. This study aims to review the impact of environment, finance, and knowledge on the speed of use e-learning at Sultanate of Oman, as the speed of the Environment and Knowledge leads to the development of e-learning performance in the Sultanate of Oman. The Secondary Research Approach method was used by reviewing 29 articles from various sources such as websites, books, journals, and scholarly research, from January 2021 to July 2021. The results indicated that the environment and knowledge have a significant impact on the performance of e-learning readiness. The inclusion of e-learning readiness revealed the conceptual model for the effect of complementary mediation on the relationship between knowledge and e-learning readiness and the performance of the technology. This study demonstrates the importance of e-learning readiness and meeting user expectations. The results contribute significantly to both theory and practice by promoting the use of e-learning readiness.*

Keywords: *E-learning readiness, environment, finance, knowledge, attitude to use e-learning*

Introduction

E-learning programs in many Arab universities and educational institutions rely on e-learning readiness, limiting the traditional general education in all its problems. The Arab literature refers to the definition of e-learning as the process of transferring educational content through computer technology, local networks, the Internet, and multimedia, with the possibility of being active simultaneously (synchronous) or asynchronous interaction between learners and teachers. It involves computer training, online training, e-performance support, e-learning, online networks, and e-lessons. Through learning, self-learning value can be applied because among the teachers to learn and discipline the student's self-learning. This practice has made researchers, governments, and regulators control e-learning and its quality compared to traditional education (Al Hasani, & Husin, 2021). Observers view the teacher/learner ratio or the specific technical impact on student achievement. The teacher's information to learners and asks them to repeat it is primarily available and available on the Internet, and learners can easily access it even on their mobile devices. It is helpful to make sure that the student is interviewed

with the teacher if this meeting does not benefit or if the teacher is not proficient in education. The outcomes, in the end, are not appropriate for the job market. This study has exacerbated the isolation imposed by e-learning applications used in universities and educational institutions today. With the development of modern communication tools and knowledge tools around us, these applications insist on isolating students from their peers to learn, experiment, and succeed alone. Student has been studying with his peers in the classroom, but by using these technical systems, student loses it and returns on his own (Harlina et al., 2017).

Literature Review

This section looks at the writing related to the subject of e-learning readiness among teachers in Oman. In the present time and light of the accelerated knowledge and technological achievement, the computer plays a vital role in various aspects of life. The educational environment is not far and not excluded from this matter; the computer's entry into the academic environment gave it the vitality and the ability to move towards the desired goals—the use of computers in the process Educational to the evolution of applied curricula and teaching methods. In addition, education is the arrival of information and stability in the student's mind. It is the possibility of summoning the data at a time of need. This part will be presented with three components: Computer, e-learning readiness, and Self-Learning Development Skills. The interaction between the teacher and the learners in the classrooms is one of the most critical topics that attracted the attention of educators. Research has emphasized its importance in stimulating the learner's motivation and improving learning outcomes. Most e-learning readiness programs rely on the interaction between the teacher and the learner or between the learner and the computer. Since education is the combination of theoretical knowledge, practical knowledge, and subjective knowledge, traditional education relies on academic knowledge being given first, followed by empirical study, and then some studies that strengthen self-knowledge; In this way, e-learning readiness program combines all three forms of knowledge simultaneously, because it is based on learning to solve problems.

Table 1: Literature Review Matrix

Variables	Citation	Objective	Methods	Finding
DV: E-learning Readiness	Zaidi, M. F. A., & Belal, H. M. (2019). A Preliminary Study To Understand The SMEs' readiness On Iot In Malaysia. <i>International Journal of Accounting, Finance and Business (IJAFB)</i> , 4(19).	In this study, the methods are using of quantitative research	Findings highlighted that there are more influences of a preliminary study to understand the SMES readiness on IOT in Malaysia.	This study aimed to understand the SMES readiness and attitudes towards the SMES readiness on IOT in Malaysia

DV: E-learning Readiness	Adiyarta, K., Napitupulu, D., Rahim, R., Abdullah, D., & Setiawan, M. I. (2018, April). Analysis of E-learning implementation readiness based on integrated elr model. In Journal of Physics: Conference Series (Vol. 1007, No. 1, p. 012041). Allen, I. E. IOP Publishing. ((2013)). Changing course: Ten years of tracking online education in the United States. Retrieved from The Online Learning Consortium: Retrieved from http://onlinelearningconsortium.org/publications/survey/changing_course_2012	The objective of this study is to study E-learning implementati on readiness based on an integrated model.	The study adopts a quantitative method using primary data gathered through a self-administered survey questionnaire. The population for the data respondent is the students.	Findings highlighted more influences of Analysis of E-learning implementati on readiness based on an integrated model and no experience groups on Analysis of E-learning implementati on readiness.
DV: E-learning Readiness	Alomari, M. A., & Najadat, A. M. (2020). The Availability Of Computer Skills Needs For Distance Learning That Islamic Education Teachers Possessed For The Secondary Stage In Jordan When The Outbreak Of The (Covid-19) Epidemic. Multicultural Education, 6(4).	The purpose of this study was to analyze The Availability Of Computer Skills Needs For Distance Learning That Islamic Education Teachers Possessed For The Secondary Stage In Jordan When The Outbreak Of The (Covid-19) Epidemic.	In this study, The Availability Of Computer Skills Needs For Distance Learning That Islamic Education Teachers Possessed For The Secondary Stage In Jordan When The Outbreak Of The (Covid-19) Epidemic. It has three subscales, but it is used only for Online student perceptions in	This study is one of the first to explore the mediating effect of The Availability Of Computer Skills Needs For Distance Learning That Islamic Education Teachers Possessed For The Secondary Stage In Jordan. However, this study makes significant contributions by addressing The

			the current study.	Availability Of Computer Skills Needs For Distance Learning When The Outbreak Of The (Covid-19) Epidemic.
IV: Environment	Abdel-Jaber, H. (2017). Experimental analysis of students' satisfaction factors in an E-learning environment: A case study on Saudi Arabian University. <i>Journal of Information & Knowledge Management</i> , 16(02), 1750018.	Considers E-learning environment to be the actionable students' satisfaction factors that collected from Saudi Arabian University. In addition, those satisfaction factors were distributed among students.	In this research, an administered online questionnaire survey was conducted to the students' perceptions on Experimental analysis of students' satisfaction factors in an E-learning environment.	Experimental analysis of students' satisfaction factors in the E-learning environment was noted among the students' in the Saudi Arabian University, both as students' satisfaction factors.
IV: Environment	Shamizanjani, M., Naeini, S. M., & Nouri, M. (2013). Knowledge management mechanisms in an E-learning environment: A conceptual model. <i>Knowledge Management & E-learning</i> , 5(4), 468–491.	The study was to conduct Knowledge management mechanisms in the E-learning environment.	This study implemented Knowledge management mechanisms in the E-learning environment.	The findings of this research conclude that Knowledge management mechanisms in an E-learning environment in developing countries is depends on many factors

IV: Environment	Levy, D. (2018). Lessons learned from participating in a connectives massive online open course (MOOC). In Emerging Technologies for Online Learning Symposium, the Sloan Consortium, San Jose, CA.	The study was to conduct Lessons learned from participating in a connectives massive online open course	This study implemented quantitative research design to assess the Framing teacher educator engagement in an online environment	The findings of this research conclude that lessons learned from participating in a connectives massive online open course are more and good to develop the society
IV: Environment	Levy, D. (2018). Lessons learned from participating in a connectives massive online open course (MOOC). In Emerging Technologies for Online Learning Symposium, the Sloan Consortium, San Jose, CA.	The study was to conduct Lessons learned from participating in a connectives massive online open course.	This study implemented a quantitative research design to assess the Framing teacher educator engagement in an online environment.	This research concludes that lessons learned from participating in a connectives massive online open course are more and sound to develop the society.
IV: Financial	Janelli, M. (2018). E-learning, in theory, practice, and research. Educational issues, (4 (eng)).	This study examined reactions and actions involving E-learning. Gender analysis was conducted to determine if males	E-learning questionnaire s that were developed in English and piloted among 13 post-graduates were utilized to collect the data.	The finding shows the reactions and actions involving E-learning and is further supported with the analysis.
IV: Financial	Pinchuk, O. P., Sokolyuk, O. M., Burov, O. Y., and Shyshkina, M. P.,(2019) "Digital transformation of learning environment,"	The current study examined the relationship between Digital	The first method of this research is a participant this study is	Finding shows that Digital transformation with high transformatio

	aspect of cognitive activity of study.	transformation and learning environment that attempts to determine whether digital transformation and learning environment moderated this relationship simultaneously	based on data Digital transformation of the learning environment.	n were likely to engage in the learning environment, even after controlling Financial and Human Resource.
IV: Financial	Chanias, S., Myers, M. D. and Hess, T,(2019), "Digital transformation strategy making in pre-digital organizations," The case of a financial services provider, The Journal of Strategic Information Systems, 28(1), 17-33,	This study aims to study people's responsiveness to Digital transformation strategy making in pre-digital organizations.	The study adopts a quantitative method using primary data gathered through a self-administered survey questionnaire of digital transformation strategy making in pre-digital organizations.	Findings highlighted that there are more influences of Digital transformation strategy making in pre-digital organizations on the development phase, and no more groups on e-financial services provider.
IV: Financial	Herath, D., & Jayaratne, L. (2017, September). A personalized web content recommendation system for E-learners in an E-learning environment. In 2017 National Information Technology Conference (NITC) (pp. 89-95). IEEE.	This study aims to address A personalized web content recommendation system for E-learners in an E-learning environment In the 2017 National Information	This study uses surveys questionnaire s to a personalized web content recommendation system for E-learners in an E-learning environment.	One hundred thirty-one respondents (74 female and 57 male) were surveyed in 2017. This study uses surveys questionnaire s to a personalized web content

		Technology Conference.		recommendati on system for E-learners in an E-learning environment.
MV: Attitude to use E- learning	Al Hasani, S. H., & Husin N. A. (2021). A review of digital transformation of education in Oman. <i>Journal of Business Management and Accounting</i> , 11(2), 41- 59.	The purpose of this study is to a review of digital transformatio n of education in Oman and study the readiness of teacher to apply e- learning.	In this study, it uses surveys questionnaire s to benefit Online learning a review of digital transformatio n of education in Oman and attitudes towards and study the readiness of teacher to apply online learning.	The finding show that 500 respondents (250 female and 250 male) were surveyed in 2020 on online learning readiness. The research findings that attitudes towards the digital transformatio n of education in Oman is depends on many factors
MV: Attitude to use E- learning	Bautista, N. U., & Boone, W. J. (2015). Exploring the impact of TeachME™ lab virtual classroom teaching simulation on early childhood education majors' self-efficacy beliefs. <i>Journal of Science Teacher Education</i> , 26(3), 237-262.	The current study examined the Exploring the impact of Teach ME™ lab virtual classroom teaching simulation on early childhood education majors' self- efficacy beliefs and attempts to determine whether Digital transformatio n and learning	This study is based on Exploring the impact of TeachME™ lab virtual classroom teaching simulation. In addition, it measures Digital transformatio n and the Scale used to examine early childhood education majors' self- efficacy beliefs.	The finding shows that Exploring the impact of TeachME™ lab virtual classroom teaching simulation on early childhood education majors' self- efficacy beliefs were likely to engage in the learning environment, even after controlling Financial and

		environment moderated this relationship at the same time.		Human Resources.
IV: Knowledge	Cellucci, C. (2017). Rethinking knowledge: The heuristic view (Vol. 4). Springer.	The objective of this study is to develop a model to measure issues of Rethinking knowledge.	In this study, the methods use quantitative research and Structural Equation Modelling (SEM) and partial least squares (PLS).	The assessment of discriminant validity has become an extensively acknowledged requirement for analyzing latent variables' relationships.
IV: Knowledge	Shamizanjani, M., Naeini, S. M., & Nouri, M. (2013). Knowledge management mechanisms in an E-learning environment: A conceptual model. Knowledge Management & E-learning, 5(4), 468–491.	The objective of this study is to Knowledge management mechanisms in an E-learning environment.	The study adopts a quantitative method using primary data gathered through a self-administered survey questionnaire.	Findings highlighted that there are more influences of Soft Knowledge management mechanisms in the E-learning environment
IV: Knowledge	Al-araibi, A. A. M., Naz'ri bin Mahrin, M., & Yusoff, R. C. M. (2019). Technological aspect factors of E-learning readiness in higher education institutions: Delphi technique. Education and Information Technologies, 24(1), 567-590.	The current study investigated the mediating role in the relation between E-learning and the moderating role of Technological aspect factors in the direct and indirect links between E-learning	A technique used in this study is participant, measures, processes, and data analysis. Moderated mediation analysis further indicated that Technological aspect factors mediated the direct and	The direct and indirect effects of E-learning on E-learning readiness Became non-significant for high Technological aspect factors.

		and readiness in higher education institutions.	indirect relations between E-learning and E-learning readiness.	
IV: Knowledge	Bozkurt, A., Akgun-Ozbek, E., Yilmazel, S., Erdogdu, E., Ucar, H., Guler, E., & Dincer, G. D. (2015). Trends in distance education research: A content analysis of journals 2009-2013. <i>International Review of Research in Open and Distributed Learning</i> , 16(1), 330-363	The objective of this study is to develop Trends in distance education research.	In this study, the methods use quantitative research and Trends in distance education research.	The assessment of discriminant validity has become an extensively acknowledged requirement for analyzing latent variables' relationships.
IV: Knowledge	Islam, M. S., Kunifuji, S., Miura, M., & Hayama, T. (2011). Adopting knowledge management in an E-learning system: Insights and views of KM and EL research scholars. <i>Knowledge Management & E-learning: An International Journal (KM&EL)</i> , 3(3), 375-398.	The purpose of this study was to analyze the Adopting knowledge management in an E-learning system.	In this study, we adopt knowledge management in E-learning system perceptions measured with the two subscales of engagement and transactional distance outcomes.	This study is one of the first to explore Adopting knowledge management in an E-learning system.

E-learning Readiness

Yilmaz (2017) studied the effectiveness of interactive learning readiness from the viewpoint of teachers and their relation to their job satisfaction. A total of 191 teachers during the academic year 2019/2013, and the study sample consisted of (157) teachers. After excluding the exploratory model and achieving the study's objectives, the researcher used the descriptive-analytical method. Yilmaz (2017) present them to two groups of arbitrators and verifying their honesty and reliability by applying them to a survey sample of (30) individuals. The researcher used statistical packages for social studies (SPSS). The study reached several results, including the overall effectiveness of the interactive learning readiness in Algawth schools in Gaza governorates was (60%). Christensen, and Knezek (2017) Difficulties of Implementing Interactive Learning Readiness for Lower Level students. The study aimed at identifying the difficulties of implementing the interactive learning readiness for the pupils of the lower level from the view of the implementing teachers. Also, it revealed the significant differences in the degrees of appreciation of implementing teachers for the difficulties of its application in the

light of study variables. The researcher used the descriptive analytical method. The questionnaire consisted of (75) items divided into four areas. Exclude the prospective sample and by analyzing the responses of the individual model. The study reached several results, including. 30% acknowledged the existence of obstacles in E-learning such as the lack of a permanent support teacher, lack of support and adequate funding, and 10 % have difficulties in students such as the lack of using a computer with some students.

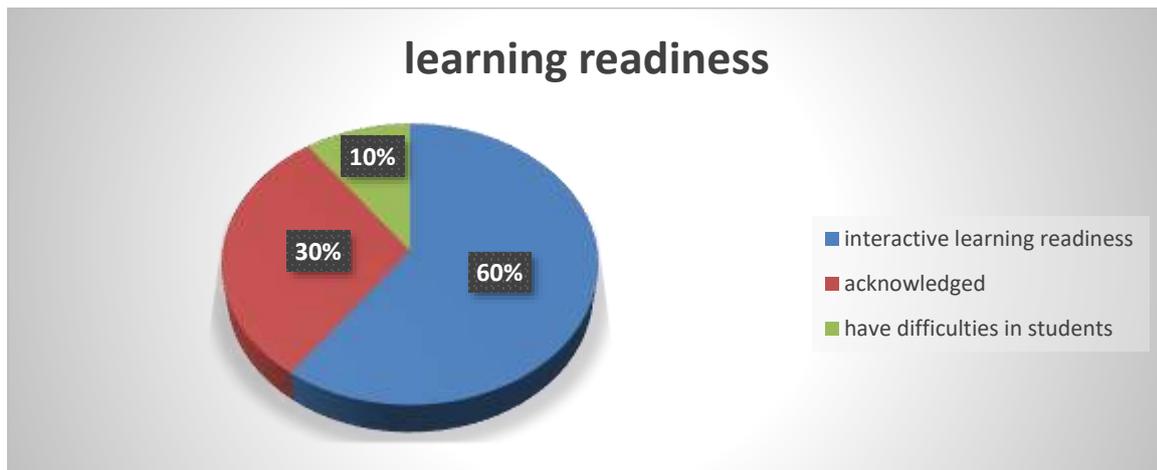


Figure1: The effectiveness of interactive learning readiness

Source adapted from (Yilmaz, 2017)

Alomari, and Najadat (2020), entitled the availability of computer skills needs for distance learning that Islamic education teachers possessed for the secondary stage in Jordan when the outbreak of the (Covid-19) epidemic. The study aimed at identifying the means of activating e-learning readiness in general secondary education for girls in Jordan from the perspective of faculty members in the light of the objectives of Islamic education and the obstacles that hinder the application of e-learning readiness in secondary education in Jordan. The questionnaire was used as a tool to collect the information in the Department of Educational Development. The study aimed to identify the impact of using a computerized educational program in teaching mathematics on the development of mathematical thinking among eighth-grade students and their attitudes towards them. The sample was divided into two groups, one experimental study of the content of engineering using a computerized educational program and the other control the traditional way. It consisted of tools of mathematical thinking test and a measure of the direction of learning readiness. The study reached several results, including. The experimental group outperformed the post-test as well as the readiness towards mathematics (Adiyarta et al., 2018). The study also found a great effectiveness of the computerized program in the development of mathematical thinking among eighth-grade students. Table 1 shows teachers technical readiness level on online teaching (Panol, et al, 2020).

Table 1: Teachers technical readiness level on online teaching

Teachers	Mean	Std. Deviation	Adjectival Rating	Interpretation
I am able to download files from the internet and upload files to the email	4.19	0.88	Ready	Ready
I am competent in using presentation such as PowerPoint	4.25	0.89	Ready	Ready
I am able to design online quizzes and use them in teaching my classes	2.67	1.35	Disagree	Developing Readiness
Composite Mean	3.63		Natural	Approaching Readiness

Table 1 appears the teachers' technical readiness. I am able to download files from the internet and upload files to the email (4.19), I am competent in using presentation such as PowerPoint (4.25). These are I am able to design online quizzes and use them in teaching my classes (2.67). Hence, the teachers' technical readiness level on online teaching can be called as drawing nearer availability with a composite mean of 3.63. More likely, teachers are ready to embrace online instruction.

Financial

According to Chanas et al. (2019), the objective of this study is to study people's responsiveness to Digital transformation strategy making in pre-digital organizations. The study adopts a quantitative method using primary data gathered through a self-administered survey questionnaire of digital transformation strategy making in pre-digital organizations. Pinchuk et al. (2019) mentioned the relationship between Digital transformation, financial and learning environment. They attempted to determine whether Digital transformation and the learning environment moderated this relationship at the same time. The first method of this research is a participant. This study is based on data from the first wave of an ongoing longitudinal study involving students from seven middle schools in Taiyuan and Changzhi, China. The second method is measured.

Digital transformation and the Scale used to examine learning environment and financial issues. Bautista and Boone (2015) examined the exploring the impact of Teach ME™ lab virtual classroom teaching simulation on early childhood education majors' self-efficacy beliefs. They attempted to determine whether Digital transformation and the learning environment moderated this relationship at the same time. This study is based on exploring the impact of Teach ME™ lab virtual classroom teaching simulation. In addition, it measures Digital transformation and the Scale used to examine early childhood education majors' self-efficacy beliefs. The lack of financial rewards for faculty members who use technology to enhance their teaching courses and the lack of faith in some professors of the usefulness of e-learning (Janelli, 2018). The most significant obstacles were the teaching load, the quality of courses, the lack of technical and technical support, and the lack of financial support for those who participate in e-learning. The results showed that the most important incentives motivating faculty members to adopt this type of education are increased salaries, financial rewards, and improved working conditions. In addition, easy access to materials related to the e-course and financial rewards (Herath, & Jayaratne, 2017).

Knowledge

Knowledge can be defined as the ongoing and systematic (or unstructured) process through which information is created, acquired, organized, and shared. This process ensures the continuous development of knowledge and its appropriate use. It supports decision-making, Problem-solving, and planning for the future in line with the objectives and strategy of the organization. To reach the advantage of distinguishing the establishment from others (Shamizanjani et al., 2013). The knowledge introduced another concept of knowledge that did not emerge from the academic community but emerged from the core of professional work. Knowledge creation occurs in business for real work, gaining experience, and sharing ideas, not information or academic certification. Companies do business upon the foundation (Blayone et al., 2018). Knowledge concepts that prevailed in the industry around the early 1990s have significantly impacted work processes within these institutions by leveraging the expertise of their employee's overtime (Al-araibi et al., 2019). The ability of businesses to gain a competitive advantage over the market depends primarily on the extent to which knowledge has been successful in achieving its objectives. The creation of fundamental knowledge (and thus learning) revolves around the transformation and interaction between the individual's tacit knowledge and explicit knowledge. The more the tacit knowledge of the learner is built up, the deeper it is to learn, and the more tacit knowledge is shared with others, the greater the benefit, and to do this, knowledge needs to be managed. Knowledge is about communicating the understanding made on information and data so that it can be used effectively to do business. Knowledge includes processes relevant to the creation, sharing, and definition (Bozkurt et al., 2015). An information management strategy that provides for illustration, design, classification, presentation, and archiving. E-learning for those who live in remote or geographically isolated areas and whose conditions do not allow them to move to regular classrooms. The connection in e-learning will be through media to transfer multiple information between teacher and learner. Knowledge and e-learning share almost the same components. Teacher and learner both use a technical structure, depend on a range of processes and interact with individuals. The purpose of delivering content is that knowledge is more dynamic because it deals with a constantly changing reality (Islam et al., 2018). Learning can be a platform for sharing knowledge by using knowledge-supporting technologies such as blogs, wikis, audio and video broadcasts, digital storytelling, desktop web applications, and educational applications.

While knowledge and e-learning share almost the same components, both use a technical structure, rely on a set of processes, deal with individuals, and deliver content. Knowledge is more dynamic because it deals with a constantly changing reality. Recently, a new e-learning model, Massive Open Online Course, has emerged to provide high-quality university education to all segments of society at low cost without spatial constraints (Cellucci, 2017). Knowledge does not guarantee that the acquisition of knowledge and the ability of the learner to do the required skill occur unless the shift between implicit and individual expertise and collective knowledge occurs. This transformation is a complex process to manage, and all we have is to provide the tools that help it happen. This transition process occurs in four overlapping phases illustrated by Figure 1, mentioned by Markopoulos et al. (2016) within the Socialization Externalization Combination Internalization (SECI) model. Internalization is concerned with the acquisition of implicit knowledge through knowledge. The formation of learning through books or communication with external sources in addition to personal experience and is related to the absorption process of knowledge distribution and dissemination and access through

research and review and exploration of data and the use of metadata data that describes the units of knowledge (Islam et al., 2018).

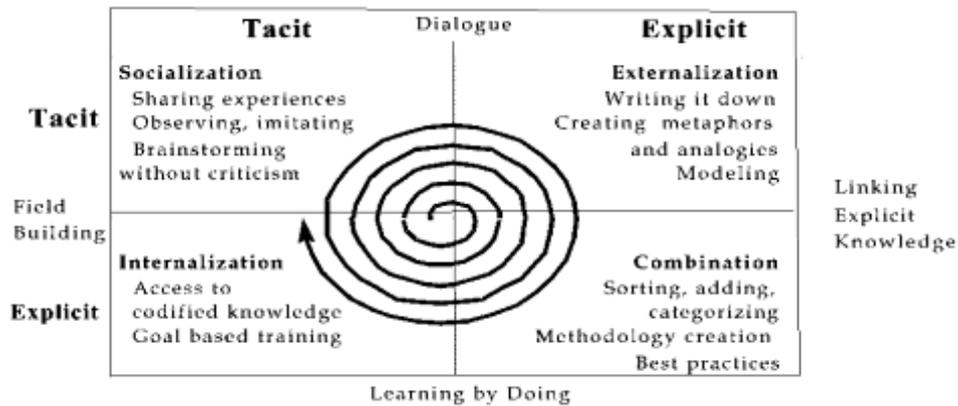


Figure 1: Knowledge management model

Source adapted from (Markopoulos et al., 2016)

Environment

According to Levy (2018), a unique learning environment is an online cloud environment that requires no effort from the learner or the teacher to process or use it. The web provides a large number of techniques that help build the personal learning environment. A new e-learning model, the Massive Open Online Course (MOOC), has recently emerged as an educational model that has been spreading over the last three years to provide high-quality university education to all segments of society at low cost without spatial restrictions or Temporal or physical. Where learning occurs in these courses because of the activities each learner chooses to undertake and the interaction within the network of participants in the study (Pinchuk et al., 2019), learners can build their own learning environment without being restricted to traditional methods or formal education. Learners can develop their own learning environment without adhering to conventional methods or formal education. As we deal with the Internet, Big Data will deal with the vast amount of information provided by online user movements and generate new knowledge (Abdel-Jaber, 2017). Big data can be defined as a massive amount of unstructured data and content that can be extracted from "unlimited" activity on the Internet; websites and web platforms provide detailed logs of visitor movements on their sites that can be explored and analyzed for different purposes as needed. These techniques enable the analysis of learners' activities through e-learning platforms (Shamizanjani et al., 2013).

Attitude to Use E-Learning

E-learning emerged in the last half of the twentieth century with the development of information technology, specifically in 1963 where the United Kingdom established the first University and was named University of air and then called the Open University after that. Benefited from radio and television in the process of education. In addition to the operation of correspondence. The University opened in 1969, the study began in 1992, and there were 25 thousand learners in different areas.

The National Council for e-learning was developed in 1982 to create and benefit from the rapid development of information technology (Tyagi et al., 2017). Caust and Vecco (2017) referred to UNESCO's 2017 report, which showed the historical development of e-learning. The

Correspondence systems appeared at the end of the nineteenth century and are found in many countries. These systems contain printed materials, audio, visual instructions. The mail is the link between the two parties to the process of education. TV and radio systems use multiple technologies such as satellite, radio, television stations to communicate and provide lectures live or recorded. Multiple message systems, which often used by different teams in open universities. It contains texts, sounds, videos, and computer mate. Internet systems where educational materials have multimedia and can be shared through individuals by the computer. It can deal with the possibility of access to electronic libraries and databases. Internet systems provide the required interaction between the student and the teacher synchronized with chat programs, video conferences, or asynchronous with e-mail or dialogue forums (Caust, & Vecco, 2017). Self-learning skills multiplied by multiple fields of knowledge, their various sources can use in this era, and their classifications differ according to different classification axes. Self-learning is an educational process that takes place in a society replete with knowledge and its techniques. These matters may constitute primary axes of self-learning as an educational process; the finding is skills related to planning for this learning and independent study, procedures for implementing learning, organizing the acquiring knowledge, and other skills related to self-evaluation. The learner must be provided with the necessary skills for self-learning, teaching him how to learn. Among these skills are Opinion sharing skills, self-evaluation skills, appreciation for cooperation, making use of the facilities available in the local environment, preparing to learn. Bautista and Boone (2015) mentioned a direct relationship between learning via the Internet and e-learning. Both used the Technology used in each other. E-learning is defined as the access to expertise, knowledge by using modern technology communication between machines.

The Conceptual Framework

The concept of e-learning is e-learning education, a learning position in which communication and communication play a key role. Also, overcome the problem of distance that separating between teacher and learner. In addition, it allows for mutual interaction between them (Al-araibi et al., 2019).

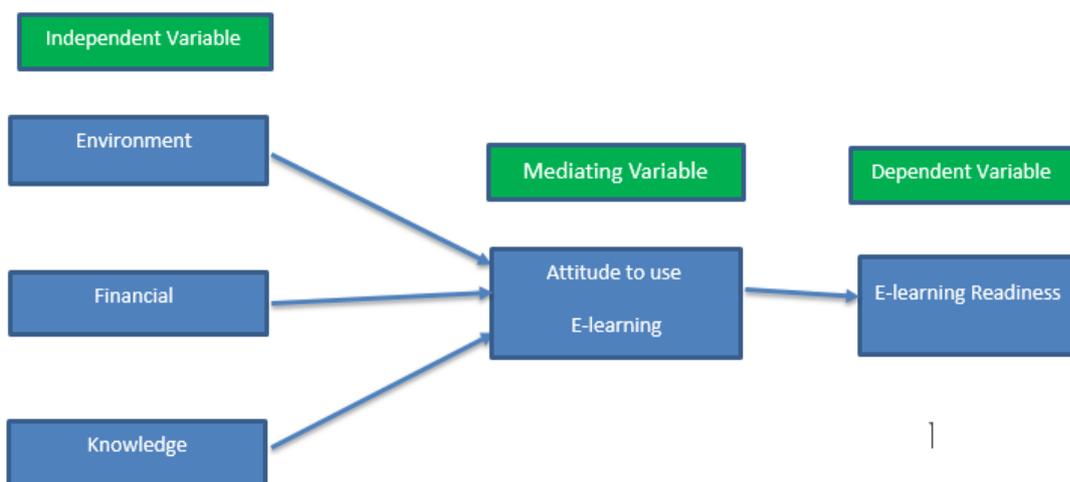


Figure 2: Conceptual Framework of the Study

Source adapted from (Pinchuk et al., 2019; Chanias, 2019; Al-araibi et al., 2019)

Conclusions

In this study, the independent variables are affecting the e-learning readiness of education in Oman. The potential and analysis of data and perceptions in the context discussed as the first part of the study of e-learning readiness. The analysis results in four proposals on the factors influencing e-learning readiness. Our goal is to develop these proposals into a testable model further and derive hypotheses about the relationships between these factors. For this purpose, we collected data on e-learning readiness in e-learning in Oman to determine our proposed theoretical framework in the study. Through a quantitative research approach, quantitative results can be supported for e-learning readiness with quantitative evidence and thus enhance preliminary results. Therefore, stakeholders in e-learning readiness decisions can help through this process by using data-driven insights to find the optimal time for e-learning readiness in organizations. The results also show great interest and applicability of data analysis in the context of enabling faster and more evidence-based decision-making. Thorough research into literature resulted in 29 studies, including magazine articles, conference papers, and doctoral theses. The study looked at definitions in the selected sample from previous studies. The study analyses previous studies and makes recommendations to provide a deeper understanding of the e-learning conversion process and give suggestions on how and how important the use of data analysis can support this process in the future. Based on these preliminary findings, future studies can use specific features to address issues related to e-learning readiness.

References

- Abdel-Jaber, H. (2017). Experimental analysis of students' satisfaction factors in E-learning environment: A case study on Saudi arabian university. *Journal of Information & Knowledge Management, 16*(02), 1750018.
- Adiyarta, K., Napitupulu, D., Rahim, R., Abdullah, D., & Setiawan, M. I. (2018, April). Analysis of E-learning implementation readiness based on integrated elr model. In *Journal of Physics: Conference Series* (Vol. 1007, No. 1, p. 012041). IOP Publishing.
- Al-araibi, A. A. M., Naz'ri bin Mahrin, M., & Yusoff, R. C. M. (2019). Technological aspect factors of E-learning readiness in higher education institutions: Delphi technique. *Education and Information Technologies, 24*(1), 567-590.
- Al Hasani, S. H., & Husin N. A. (2021). A review of digital transformation of education in Oman. *Journal of Business Management and Accounting, 11*(2), 41-59.
- Alomari, M. A., & Najadat, A. M. (2020). The Availability Of Computer Skills Needs For Distance Learning That Islamic Education Teachers Possessed For The Secondary Stage In Jordan When The Outbreak Of The (Covid-19) Epidemic. *Multicultural Education, 6*(4).
- Bautista, N. U., & Boone, W. J. (2015). Exploring the impact of TeachME™ lab virtual classroom teaching simulation on early childhood education majors' self-efficacy beliefs. *Journal of Science Teacher Education, 26*(3), 237-262.
- Blayone, T. J., Mykhailenko, O., Kavtaradze, M., Kokhan, M., & Barber, W. (2018). Profiling the digital readiness of higher education students for transformative online learning in the post-soviet nations of Georgia and Ukraine. *International Journal of Educational Technology in Higher Education, 15*(1), 37.
- Bozkurt, A., Akgun-Ozbek, E., Yilmazel, S., Erdogdu, E., Ucar, H., Guler, E., & Dincer, G. D. (2015). Trends in distance education research: A content analysis of journals 2009-2013. *International Review of Research in Open and Distributed Learning, 16*(1), 330-363
- Caust, J., & Vecco, M. (2017). Is UNESCO World Heritage recognition a blessing or burden? Evidence from developing Asian countries. *Journal of Cultural Heritage, 27*, 1-9.

- Cellucci, C. (2017). Rethinking knowledge: The heuristic view (Vol. 4). Springer.
- Chanias, S., Myers, M. D. and Hess, T, (2019), "Digital transformation strategy making in pre-digital organizations", The case of a financial services provider, *The Journal of Strategic Information Systems*, 28(1), 17-33.
- Christensen, R., & Knezek, G. (2017). Readiness for integrating mobile learning in the classroom: Challenges, preferences and possibilities. *Computers in human Behavior*, 76, 112-121.
- Harlina binti Isaac, Zubaidah Mat or & Ainee Ahmad (2017). Interactive learning based on Kahoot in 21st century teaching. *21st Century Education Handbook*. Institute of Education Aminuddin Baki, Ministry of Education Malaysia.
- Herath, D., & Jayaratne, L. (2017, September). A personalized web content recommendation system for E-learners in E-learning environment. In *2017 National Information Technology Conference (NITC)* (pp. 89-95). IEEE.
- Islam, M. S., Kunifuji, S., Miura, M., & Hayama, T. (2018). Adopting knowledge management in an E-learning system: Insights and views of KM and EL research scholars. *Knowledge Management & E-learning: An International Journal (KM&EL)*, 3(3), 375-398.
- Janelli, M. (2018). E-learning in theory, practice, and research. *Educational issues*, (4 (eng)).
- Levy, D. (2018). Lessons learned from participating in a connectives massive online open course (MOOC). In *Emerging Technologies for Online Learning Symposium*, the Sloan Consortium, San Jose, CA.
- Markopoulos, Evangelos & Kornilakis, Ioannis. (2016). *True Knowledge in Knowledge Management, A Black Hole*.
- Panol, R. F., Caballes, D. G., & Vasquez, A. G, (2020). Teachers' Readiness Level on Online Teaching: Embracing Distance Learning Modality.
- Pinchuk, O. P., Sokolyuk, O. M., Burov, O. Y., and Shyshkina, M. P, (2019) "Digital transformation of learning environment", aspect of cognitive activity of study,
- Shamizanjani, M., Naeini, S. M., & Nouri, M. (2013). Knowledge management mechanisms in E-learning environment: A conceptual model. *Knowledge Management & E-learning*, 5(4), 468–491.
- Tyagi, S., Agrawal, S., Yang, K., & Ying, H. (2017). An extended Fuzzy-AHP approach to rank the influences of socialization-externalization-combination-internalization modes on the development phase. *Applied Soft Computing*, 52, 505-518.
- Yilmaz, R. (2017). Exploring the role of E-learning readiness on student satisfaction and motivation in flipped classroom. *Computers in Human Behavior*, 70, 251-260.
- Zaidi, M. F. A., & Belal, H. M. (2019). A Preliminary Study To Understand The SMEs' readiness On Iot In Malaysia. *International Journal of Accounting, Finance and Business (IJAFB)*, 4(19).