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DOES STUDENT ONLINE LEARNING READINESS AFFECT THEIR SATISFACTION ON **DISTANCE LEARNING? A QUANTITATIVE RESEARCH METHODOLOGY**

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Abstract

The current research aimed to examine the relationship between Student's Online Learning Readiness (SOLR) constructs and their satisfaction on distance learning in the higher education institutions in the United Arab Emirates (UAE) context. Quantitative research methodology was used to answer the research question. The questionnaire was distributed among 621 students to collect the data. SPSS software was used to examine the preliminary data, while SmartPLS software was used for the measurement model and hypotheses. Statistical analysis indicated that there was a positive relationship between satisfaction on distance learning and the following constructs of Student Online Learning Readiness: 1) Technical competencies, 2) Communication competencies, 3) Social competencies with instructor. While there was no relationship between satisfaction and the following constructs of Student Online Learning Readiness: 1) Social competencies with classmates, 2) Self-directed learning. The findings extended both student e-learning readiness and satisfaction literature, and supported the applicability of western models such as the Student Online Learning Readiness model developed in the United States (Yu and Richardson, 2015) in higher education institutions in never examined contexts such as the UAE. Furthermore, the achieved result extended Yu and Richardson's (2015) model by examining the impact of self-directed learning as additional construct to overcome the limitation of the used model. Concerning contextual contribution, this research is among the first studies to examine this relationship in the UAE context, which can



help decision-makers to understand the significance of investment in student experience and the overall role of student's different competencies on achieving outputs such as their satisfaction on distance learning.

Keywords: Student Online Learning Readiness, Student Satisfaction, Distance Learning, E-Learning, Higher Education Institutions, The United Arab Emirates

INTRODUCTION

Maan and Malhotra (2024) clarified that there is a growing interest in studying student e-learning readiness. Thus, several authors (e.g. Hung, et al., 2010; Yu and Richardson, 2015; Alem et al., 2016) have developed scales for measuring 'Student Online Learning Readiness'.

According to Al-Juda, (2017) higher education institutions should be keen to sustain a competitive advantage by delivering high-quality learning services by e-learning systems, as they consider student satisfaction as one of the main elements in determining the quality of their programs (Topal, 2016). Thus, Amoush and Mizher (2023) stated that several researchers focused on identifying factors that influence higher education students' satisfaction on distance learning.

However, limited studies examined the relationship between Student Online Learning Readiness and their satisfaction on distance learning (Wu, et al., 2023).

context variations (Kuo, 2010) is among the factors that influence the relationship between student online e-learning readiness and their satisfaction on distance learning, which limits the generalizability of the existing literature and leads to mixed in results in the same studies that have been conducted in different contexts.

The United Arab Emirates (UAE) pays great attention to education since excellent education is among the four Pillars of UAE Centennial 2071. For example in 2025 The UAE Government allocated 15.3% of Union General Budget Plan for the fiscal year 2025 to public and higher education programmes (The United Arab Emirates' Government portal, 2025). Indeed 101 higher education institutions work at the UAE to deliver variety of undergraduate and postgraduate programs which some of them are owned by government while the majority are private one (The Commission of Academic Accreditation portal, 2025). After Covid 19 the UAE has executed e-learning at all higher education institutions (The United Arab Emirates' Government portal, 2025). The UAE is a regarded as regional leader in Information and Communication Technology (ICT) connectivity (e.g. Tubaishat and Lansari, 2021), Thus, in order in increase the level of e-learning readiness the UAE has provided adequate e-learning



requirements such as launching smart learning platforms, developing guidelines to manage students' behavior during e-learning and offering free home internet connection for families who lack internet (The United Arab Emirates' Government portal, 2025). In 2018 the Ministry of Education in the UAE launched its National Program for Advanced Skills, which targets both students and employees. The program comprises soft skills and technical skills to provide students and employees with adaptable skills appropriate among diverse professions and sectors. Communication is among the competencies that they must possess (The United Arab Emirates Government portal, 2024). Few studies (e.g. Moussa, 2023) investigated the relationship between student e-learning readiness and their satisfaction on distance learning, Also, limited studies examined student e-learning readiness in one of the higher education institutes (e.g. Tubaishat and Lansari, 2011) and satisfaction in another higher education institutes (e.g. Malkawi, Bawaneh and Bawa'aneh, 2020).

Therefore, this research aims to fill in these theoretical and conceptual gaps by investigating the following research question: What is the relationship between the following Student Online Learning Readiness (SOLR) constructs: 1) Technical competencies, 2) Social competencies with classmates, 3) Communication competencies, 4) Social competencies with instructor, 5) Self-directed learning, on their satisfaction on distance learning in UAE higher education institutions?

LITERATURE REVIEW

E-learning conceptualization

Al-Juda (2017: p. 325) defined e-learning is "a system which utilizes technology in the form of computers, multimedia devices, and the internet to improve the traditional classroom interactions between students and teachers". Several authors (e.g. Uddin, 2013; Bledsoe, 2013; Al-Juda (2017) mentioned that the following term; online, e-learning and distance learning are used interchangeably.

E- learning is considered as a main theme in learning literature (Alem, et al., 2016), which has been introduced in learning along with the rise in the employment of technology among both educators and students (Ramadhanu et. al 2019).

There are several advantages for student to conduct e-learning, such as having more free time (Zhu et al., (2024) and enhancing Higher Education Institutions' competitive advantage (Al-Juda, 2017).

Thus, Tubaishat and Lansari (2021) stated that readiness of entire stakeholders in a specific e-learning context is among the factors that lead to e-learning success.



Student e-learning readiness

Maan and Malhotra (2024: p. 27) defined e-Learning readiness as "the extent to which an institution and its students are prepared to implement e-Learning". Maan and Malhotra (2024) clarified that there is a strong emphasis with regards to higher education institutions' student e-learning readiness over time, since student possession of e-learning readiness is an indicator of e-learning success (Tubaishat and Lansari, 2021; Maan and Malhotra, 2024), elearning effectiveness (Cigdam and Yildirim, 2014) and crucial for student to be engaged in such context (Alem, et al., 2016).

Thus several authors developed instruments to predict constructs of online learning readiness, such as the Online Learning Readiness Scale (Hung, et al 2010), Student Online Learning Readiness (Yu and Richardson, 2015) and Student Readiness for Online Learning (Martin, Stamper and Flowers 2020). Martin, Stamper and Flowers (2020) clarified that these instruments concentrate on eliciting student e-learning readiness competencies like self-directed learning and communication competencies. However, it was noticed that the majority of these instruments were examined in specific countries such as United States (Yu and Richardson, 2015; Martin, Stamper and Flowers 2020), Canada (Alem et al., 2016), China (Hung et. al, 2010) and United States, Australia, Malaysia and Taiwan (Maan and Malhotra, 2024).

Küsel, Martin and Markic (2020), argued that cross-cultural differences in the culture of teaching and learning is among the factors that influence the student online learning readiness. Consequently, it is difficult to generalize the achieved result in other different contexts. Thus, a study conducted by Küsel, Martin and Markic (2020) showed student e-learning readiness is different between German students and United States students. Supporting this argument, Atkinson, Blankenship and Bourassa's (2012) study resulted that the college student online Learning readiness of in China is different western counterparts student.

Therefore, there is a need for further studies to examine student e-learning readiness in order to generalize the findings of Tubaishat and Lansari's (2021) study which targeted students in only one university in the UAE context and to compare to what extent the existing literature in different contexts are applicable to other countries.

Student Satisfaction on distance learning

Satisfaction on distance learning is "student's perception related to learning experiences and perceived value of a distance course" (Kuo, **2010**:p. 11).

According to Al-Juda (2017) e-learning enhances the student's degree of satisfaction, because various interactive graphics, sounds, aesthetics, texts and videos greatly attract the student. Indeed_students' e-learning satisfaction has a significant role in the assessment of e-



courses by both institution leaders and instructors (Topal, 2016); it is both a crucial indicator to examine students' online experience (Algurashi, 2018; Wu et al., 2023), learning process (Ilgaz and Gülbahar, 2015; Al-Sofi, 2021) and also related to their academic achievement (Yavuzalp and Bahcivan, 2021).

However, Kuo (2010) stated that relatively little is known about student satisfaction when participating in e- learning, including what contributes to or enhances satisfaction on distance learning. For example, a recent study conducted by Zhu et al., (2024) resulted that student satisfaction with e- learning depends on the following factors; specific design, delivery of the course, interaction among peers and interaction between instructor and student.

Also with regards to the UAE context, limited studies examined student satisfaction on distance learning (e.g. Malkawi, Bawaneh and Bawa'aneh, 2020) however, the sample of these studies were students of one of the UAE higher educational institutions.

Thus, further empirical studies are needed to examine factors related to student satisfaction in online learning which could help to fill in this gap and both improve the student elearning environment and achieve better outputs.

Student e-learning readiness and their satisfaction on distance learning

Ramadhanu, Putra, Syahputra, Arsyah and Sari (2019) mentioned that student who has a high degree of satisfaction in their learning activities, it is confident that they will also posses a high degree in e-learning. Khong (2023) elaborated that student e-learning readiness constructs facilitate their satisfaction which, in turn, influence their retention. Though Wu et al., (2023) demonstrated that there is a lack of studies that examine student e-learning readiness in addition to satisfaction on distance learning.

To fill in this gap, limited studies (e.g. Yilmaz, 2017; Yavuzalp and Bahcivan, 2021; Khong, 2023) have focused on examining which student e-learning readiness constructs are related to satisfaction on distance learning. That's why, as a direction for future research, Alem et al. (2016) recommended to examine the influence of student e-learning readiness instruments on both satisfaction on distance learning and performance.

Kuo, (2010) stated that context is among the factors that lead to differences in results of limited studies that investigate the relationship between student e-leaning readiness constructs and satisfaction on distance learning. For instance, the results of studies that examined the relationship between self-directed learning - as an e-learning readiness construct - with student satisfaction on distance learning were positive in Turkey (Yilmaz, 2017) while they were negative in Malaysia (Khong, 2023). This leads to additional studies to understand this relationship in specific context.



With regards to student e-learning readiness in the UAE context, the findings of limited studies showed that student e-learning readiness influence their satisfaction on distance learning (Moussa, 2023) and that the student is ready for this type of learning (Tubaishat and Lansari, 2021) and another few studies (e.g. Malkawi, Bawaneh and Bawa'aneh 2020) concluded that they are satisfied with distance learning. However, there is a need for additional studies to generalize the above results.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

The Student Online Learning Readiness (SOLR) model

According to Martin, Stamper and Flowers (2020) student e-learning readiness reflects their possessed competencies. Yu and Richardson (2015: p. 122) defined competencies as "individual's perception of his or her ability or capability" (Hong and Jung (2011) clarified that successful distance learners are those who possess knowledge, attitudes, experience and abilities to enable them to obtain the greatest advantages from their learning and obtain high grades.

Yu and Richardson (2015) developed their SOLR model and instrument in the United States to be examined by the following four competencies: 1) Technical competencies, 2) Social competencies with classmates, 3) Communication competencies and 4) Social competencies with instructor. The authors clarified that these competencies are positivity related to student learning outcomes or satisfaction on distance learning.

Maan and Malhotra (2024) considered SOLR among well developed and validated instrument used in this filed.Lin and Dai (2022) mentioned that SOLR have been conducted in different countries where online education is well-developed. Thus, several studies used this model to assess the relationship between SOLR and attitudes towards gaming in gamified online learning (Bovermann, Weidlich and Bastiaens, 2018)., and effect on Self-Regulated Learning (Lin and Dai, 2022).

In spite of that, limited studies (Khong, 2023) have examined the relationship between the SOLR constructs and satisfaction on distance learning.

Additionally, Yu and Richardson (2015) recommended to examine additional constructs that would influence SOLR and impact successful learning outcomes or satisfaction on distance learning. In order to fill in this gap, self-directed learning has been added as an additional construct to the current model. The justification for selecting self-directed learning is that it is considered among the main constructs that reflect student e-learning readiness (Hung, et al 2010; Cigdam and Yildirim, 2014; Martin, Stamper and Flowers, 2020).



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Hypotheses Development

Based on the literature review, It was expected that these five student e-learning readiness constructs impact positively on satisfaction on distance learning, as follows:

First, Heo (2011: p. 61) defined technical competencies as "self-efficacy in technology" (Ilgaz and Gülbahar, 2015) clarified that the student should be ready and qualified to use the Internet for learning. Khong (2023) stated that possessing technical competencies make student feels more relaxed and confident to best use these competencies to access course materials which lead to high satisfaction on distance learning.

H1: Technical competencies positively affect satisfaction on distance learning.

Second, social competencies with classmates are "skills, competencies, and the feeling of control essential for managing social situations and building and maintaining relationships with classmates" (Yu and Richardson, 2015: p. 125). Jevtić, Đorić and Milošević (2019) explained that a student is more satisfied if they have a good relationship with their peers. Supporting this argument, Algurashi (2019) demonstrated that student interaction with other learners is among the factors that represent both their satisfaction and perceived learning. H2: Social competencies with classmates positively affect satisfaction on distance learning.

Third, communication competencies are defined as "the ability to demonstrate knowledge of the socially appropriate communicative behavior in a given situation" (Myllylä and Torp, 2010: p. 24). Martin, Stamper and Flowers (2020) mentioned that communication competencies are among the basic skills that a student should possess, particularly those who receive distance education, and they are one of the important factors for the student's e-learning readiness. Khong (2023) elaborated that if the student can efficiently communicate with others during online learning, they could have optimistic learning practice, which leads to increased satisfaction level with learning.

H3: Communication competencies positively affect satisfaction on distance learning.

Fourth, according to Yu and Richardson (2015) student social competencies with instructor are defined as "skills, competencies, and the feeling of control essential for managing social situations and building and maintaining relationships with the instructor". Khong (2023) mentioned that using the social competencies while interacting online with the instructor helps the student to freely discuss activities or share issues related to their online learning progress, which supports the relationship between instructor and student and makes them more satisfied. H4: Social competencies with instructor positively affect satisfaction on distance learning.

Finally, Knowles (1975), defined self-directed learning as "a process in which individuals take the initiative in understanding their learning needs, establishing learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning



strategies, and evaluating learning outcomes". Hung et al., (2010) argued that self-directed learning is among student's online learning readiness constructs. Yilmaz (2017) explained that availability of student self-directed learning skills increases satisfaction with distance learning and motivation.

H5: Self-directed learning positively affects satisfaction on distance learning.

METHODOLOGY

Data and sample

The study employed quantitative methodology to address the research question. Data were collected through an online questionnaire sent to the students who have experienced online learning, studying at different higher education institutions in the UAE.

The sample size was 621 students from different higher education institutions who participated voluntarily and were selected randomly. The majority of respondents were female (70.5 %), most of them (87 %) were UAE Nationality. Regarding the age group, 84.4 % of the total respondents were from the age group "18-25", succeeding to that the age group 26-35 (11.3 %)0 The results for type of university indicated that the 66.3% of respondents were studying in the government education institutions Regarding the respondents' study field, the greater part of respondents that is 26.% were studding Law; while the next 19% were engineering field; while 10.3% were Business Administration students.

Instrument

The questionnaire used was divided into three main sections. First, demographic information including the following three items; gender, nationality, type of university. Second, SOLR was measured by the instrument developed by Yu and Richardson (2015) used in this study, consisting of 66 items with the following four constructs: technical competencies (6 items), social competencies with classmates (5 items), communication competencies (4 items), social competencies with instructor (5 items) and self-directed learning (4 items) developed by Hung et. al, (2010). Finally satisfaction on distance learning (5 items) developed by Kuo (2010). A five point Likert scale ranging from 1 = never to 5 = always was used for each item.

Data Analysis

SPSS (version 25) was used to examine the preliminary examination of data. The measurement model and hypotheses were tested using structural equation modelling (SEM) by performing partial least squares (PLS) approach. In order to conduct the analysis SmartPLS software (version 3.2.9) was used.



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ANALYSIS

Descriptive Statistics and Normality

The results of mean scores for all of the items across the study indicate the mean value is above average. Moreover, the results of the skewness and kurtosis reveals that the values of observed variables in the proposed models had skewness and kurtosis within the acceptable level (+2 and -2) (George and Mallery, 2010). It should be noted that the kurtosis of only one item (SCI5) was higher than (2.052) the acceptable level. These results indicate that the data was distributed normally.

Evaluating the Validity and Reliability of Measurement model

The Factor loadings were greater than 0.70 for all constructs at all points of measurement as recommended by Hair et al., (2011). The Cronbach's Alpha results are higher than 0.7 range, which exceeded the recommended levels of acceptance (Hair et. al, 2011). The values of rho_A were in the range of 0.927-0.972, which is beyond the recommended value of 0.7 (Dijkstra and Henseler, 2015). All the Composite Reliability values in this study are greater than 0.7 which is considered the minimum value that supports the reliability of the measures (Bagozzi and Yi, 1988). Results showed that the convergent validity is supported since the average variance extracted (AVE) is larger than 0.50 (Hair et al. 2011)

Discriminant validity

According to Fornell and Larcker (1981), to establish the discriminant validity, the square root of average variance extracted (AVE) of each latent variable should be higher than the any other latent construct. The results showed that no correlations were equal to or greater than the square root of the AVE, indicating there was discriminant validity; thus discriminants are deemed to be valid when the diagonal elements (square root AVE) are greater than the offdiagonal elements in the corresponding rows and columns.

In addition, the result showed that the HTMT ratios of correlation of each construct is below 0.9, which means the discriminant validity has been established based on (Henseler, Ringle and Sarstedt, 2015) suggestion.

Structural model assessment and hypotheses testing

After obtaining the sufficient quality measurement model, we proceed to assessment of the structural model. According to Hair et al. (2016), the structural model evaluation consisted of the following steps: assessment of the structural relationship in the model for multicollinearity assessment, coefficient of determination (R²), f2 effect size and Q2 predictive relevance and



estimation of path coefficients. A detailed list of the R², f², VIF and Q² are presented in Table 1 outlines the results deemed sufficient in the study.

	Table	1.1.0501	is of hypoti	10303 103111	9		
Н	Direct path	Beta	T value	P Value	f²	VIF	Result
H1	Technical Competencies -> Satisfaction on distance learning	0.343	6.360	0.000	0.166	2.462	Accepted
H2	Social Competencies with classmates -> Satisfaction on distance learning	0.095	1.540	0.124	0.094	3.598	Rejected
H3	Communication Competencies -> Satisfaction on distance learning	0.149	2.075	0.038	0.020	3.829	Accepted
H4	Social Competencies with instructor -> Satisfaction on distance learning	0.323	4.681	0.000	0.094	3.867	Accepted
H5	Self-directed learning -> Satisfaction on distance learning R ² (Satisfaction on distance lea	0.034 rning) = 0	0.609 .712	0.543	0.009	3.091	Rejected
	Q^2 (Satisfaction on distance learning) = 0.606						

Table 1. Results of hypotheses testing

RESULTS

After validating the structural model assessment, path analysis to test the study hypotheses was proceed. The consistent PLS bootstrapping resampling procedure using 5,000 subsamples and the default settings (i.e. parallel processing, no sign changes) was used to assess the path coefficients and their significance levels.

As shown in table 1, the results confirm H1 predicted a positive effect of technical competencies on satisfaction on distance learning (H1: β = 0.343, t =6.360, p< 0.000), but the positive effect of social competencies with classmates on satisfaction on distance learning (H2: β =0.095, t= 1.540, p > 0.05) is rejected. The anticipated positive relationship between communication competencies and satisfaction on distance learning (H3: β =0.149, t = 2.075, p < 0.038) is accepted. Also, the direct effect of social competencies with instructor on satisfaction on distance learning (H4: β = 0.232, t= 4.681, p > 0.00) is accepted, but the positive effect of self-directed learning on satisfaction on distance learning (H5: β = 0.034, t= 0.609, p > 0.05) is rejected.

DISCUSSION



Five hypotheses were formed to address the research question and aim of the study. Hypotheses 1, 3 and 4 were accepted, while hypotheses 2 and 5 were rejected. The results are discussed as follows;

First, technical competencies - which is among SOLR constructs - was found to be significantly related to satisfaction on distance learning. Topal (2016) argued that student technical competencies, which are related to their ability to use technology and develop activities that enhance their motivation and use it repeatedly throughout learning, has a positive relationship with satisfaction on distance learning.

It is noticeable the findings are mixed, as some showed that there was no relationship between the two variable (e.g. Yavuzalp and Bahcivan, 2021) which is consistent with prior limited studies (e.g. Kirmizi, 2015; Khong, 2023; Enyoojo et al., 2024). Results of this study have confirmed that possessing technical competencies is positively related to student satisfaction on distance learning. The findings provide a better understanding for focus of the UAE's National Program for Advanced Skills on student technical skills to achieve the goals such as satisfaction on distance learning. Moreover, this result is a message to decision makers in higher education institutions in all countries (e.g. the UAE) to include technology subjects as a general compulsory subject due to its positive impact in enhancing e-Learning readiness and satisfaction on distance learning, which could have also long-term impact and make student ready and satisfied to adopt remote working after graduation from the higher education institution.

Second, the result clarified that the student's social competencies while interacting with classmates did not lead to satisfaction on distance learning. Although prior studies (e.g. Khong, 2023; Amoush and Mizher, 2023.; Zhu et al., 2024; Tuan, 2025) showed that there was a positive relationship between the two variable, this result is aligned with those few studies (e.g. Algurashi, 2019; Wu et al., 2023) that showed that during e-learning the relationship between learner-learner interaction and satisfaction on distance learning were not significant. Wu et al., (2023) justified this result that the e-learning classes might not be designed with sufficient learner-learner interaction activities. While Algurashi (2019) mentioned another justification which is that the student may not benefit interaction such as receiving feedback from others, answering their questions. According to Tuan, (2025) the development of strategies that enhance interpersonal interaction during e- learning must be prioritized. Thus there is a need to redesign some group activities that enhance relationships between classmates which leads to satisfaction on distance learning. Moreover, this result calls for the need for further studies to identify the mediating variables that may affect the relationship between student social competencies with classmates and satisfaction on distance learning.



Third, the findings indicated that when the student employs communication competencies - as a construct of SOLR - this results in an increase in satisfaction on distance learning (Gunawardena and Duphorne, 2001) explained that when learning approaches involved a high comfort level, the student utilizes their communication competencies while participating in discussions and dealing with others which will help in increasing the level of satisfaction on distance learning. The findings are supported by some studies (e.g. Gunawardena and Duphorne, 2001; Yilmaz, 2017; Yavuzalp and Bahcivan, 2021; Khong, 2023). Although this is beyond the focus of the research, this result showed the effectiveness of adapting national level strategies to enhance student competencies such as the National Program for Advanced Skills that has been implemented in the UAE context. As communication, for example, was among the highlighted competencies in National Program for Advanced Skills required for students and employees to positively engage with the environment, this adaptation - as per the achieved result - helps to fulfil goals such as satisfaction on distance learning.

Fourth, the result reveals that while interacting online with the instructor, student uses effectively their social competencies - as one of the SOLR constructs - to get further clarifications during learning which leads to satisfaction on distance learning. Amoush and Mizher (2023), stated that interaction with instructor is among the strongest predictors of student satisfaction on distance learning. However, there was a mixed result as limited studies showed that there was no positive relationship between the variables (e.g. Wu et al., 2023). The obtained result is aligned with previous studies (e.g. Kuo, 2010; Khong, 2023; Amoush & Mizher 2023; Zhu et al., 2024; Tuan, 2025) that showed a positive relationship between both variables. Since the student values their instructor, this result encourages key decision makers to involve instructors in change management initiatives to convince the student about changes and reduce resistance to change.

Finally, self-directed learning was negatively related to student satisfaction on distance learning. Kirmizi (2015) clarified that self-directed learning is among student e-learning readiness -which represents the way they could carry out their own study plan and have a high degree of expectation from learning - that is positively related to satisfaction on distance learning. However, there is inconsistency in the existing literature; the achieved result is against those few studies (e.g Kirmizi, 2015; Yilmaz, 2017) that showed that there was positive relationship between self-directed learning and student satisfaction with distance learning. The result was supported by limited studies (e.g. Yavuzalp and Bahcivan, 2021) that showed a negative relationship between student self-directed learning and satisfaction on distance learning. Drawing on Yu and Richardson's (2015) recommendation to examine additional e-



learning readiness constructs to their suggested model, this study has filled in this gap by examining impact of self-directed learning as a SOLR construct on satisfaction with distance learning. Although the result showed there was negative impact, this study is considered among the first studies that aimed to fill in this gap.

CONCLUSION

Limited studies that investigated the relationship between student's online learning readiness and their satisfaction on distance learning in higher education institutions (Wu et al., 2023). Thus, this study aimed to fill in this gap and examine the relationship in a new context.

The research question was answered, as the finding showed better understanding the relationship between student satisfaction on distance learning and their e-learning readiness constructs,. Since the results showed that there is a positive relationship between the satisfaction on distance learning and the following SOLR constructs: technical competencies, communication competencies and social competencies with instructor; while social competencies with classmates and self-directed learning were not positively related to satisfaction on distance learning.

The findings make a theoretical contribution as follows; it has extended Yu and Richardson's (2015) model, as the authors clarified that student e-learning readiness lead to their satisfaction on distance learning. The current study had empirically investigated this relationship which helped to fill in the limitations by examining these relationship the prior existing studies Moreover, the study examined the impact of self-directed learning as an additional construct to the SOLR. Furthermore, the finding confirmed the applicability of the SOLR model which has been developed in United States in the UAE context. Third, this study answered the call of Alem et al., (2016) for further research to investigate the relationship between student's e-learning readiness constructs and satisfaction on distance learning, which helped to fill this gap in the literature.

Also, this study has contextual implications since limited prior studies (e.g. Moussa,. 2023).examined the relationship between SOLR and satisfaction on distance learning in the UAE higher education institutions. Thus, this study has helped in filling this gap and provided a better understanding for this relationship in the UAE context. Moreover, this study generalized the findings of Tubaishat and Lansari's (2011) study which showed students are ready for e-learning in one of the UAE higher education institution. Though cross-cultural differences influence student e-learning readiness (Küsel, Martin and Markic, 2020) and the variation in context (Kuo, 2010) impact the relationship between SOLR and satisfaction on



distance learning, this result showed that there are other factors that would influence this relationship. For example, the launching of government policies such as National Program for Advanced Skills and increasing the level of e-learning readiness in higher education institutions by providing students with required tools as in the UAE context (The United Arab Emirates' Government portal, 2025) is another factor that should be taken into consideration in this field. Although it is beyond the scop of this study, the achieved result empirically confirmed the definition of Maan and Malhotra's (2024) who clarified that E-learning readiness include both institution students readiness for implementing e-Learning in the UAE context, as mentioned earlier that the UAE gives priority for excellent education and provides positive environment to conduct both traditional and online learning which reflect to high degree of student e-learning readiness. So in order to obtain E-learning readiness higher education institutions should take into considerations all factors that required to fulfill the best of elearning readiness.

Finally, this study provided useful managerial implications by emphasizing one of the core policies of Ministry of Education to identify effectively the required talents and competencies to achieve the required outputs by adopting best practices and analyzing the market's needs to fill existing gaps in the market. Thus creating student competencies management and development strategies could be one of the solutions.

LIMITATIONS AND FUTURE DIRECTIONS

First, this research discussed only student readiness for e-learning, however according to Topal (2016) there are several types of e-learning readiness including the student, the teacher, and the institution readiness. Therefore, there is a need for future research to examine both teachers and educational institutions in the UAE context. Second, this study focused on student satisfaction on distance learning as an output, thus there is a need for additional studies to examine academic achievement (Yavuzalp and Bahcivan, 2021) as an output. Third, it is recommended that to extend that Yu and Richardson's (2015) model by examining other constructs such as motivation (Kirmizi, 2015) and sex (Enyoojoet al., 2024)). Finally, there is a need for additional studies in other countries to determine the extent to which the results achieved can be generalized.

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