Int. J. Nonlinear Anal. Appl.
Volume 11, Special Issue, Winter and Spring 2020, 321-337
ISSN: 2008-6822 (electronic)
http://dx.doi.org/10.22075/IJNAA.2020.4606

Smart Educational System to enhancing Students Performance through Teachers Efficiency in the United Arab Emirate

Sami Saeed Obaid Alnaqbi[a*], Siti Sarah Omar[b]

[a] *business Management Phd, Postgraduate Program Faculty of Technology Management Business, Universiti Tun Hussein Onn Malaysia* [b] *Doctor, Department of Entrepreneurship, Faculty of Technology Management Business, Universiti Tun Hussein Onn Malaysia, Universiti Tun Hussein Onn Malaysia., Malaysia*

Abstract

This research examines a conceptual framework of the smart educational system for improving instructors' efficiency and student outcomes in the UAE. The study mainly focused on the precarious framework of smart learning and key features of smart learning settings through earlier studies. There was a sample of 326 learners who were examined on the academic impact of the Smart Education System. Nevertheless, the results demonstrated that the use of the smart education system has a positive effect on teachers' efficiency and educational outcomes. The political implications of this research are that it is anticipated that smart education will steadily improve, particularly in the UAE context.

Keywords: Smart Educational System, Teachers Efficiency, Students Performance, UAE.

1. Introduction

The effectiveness of smart devices has brought about a change in the way people worldwide live. Nevertheless, numerous people often utilize devices stereotypically, and also use them only as an entertainment tool. This gave rise to the idea that society can demonstrate its benefits from information technology (Orchard et al., 2015). But on the contrary, it has turned into an important global issue to introduce state-of-the-art technology to create a new digitalized environment of education. Whenever emerging technology emerges, other problems emerge with respect to how successful learning could be encouraged.

*Corresponding Author: Sami Saeed Obaid Alnaqbi
Email address: (Sami Saeed Obaid Alnaqbi[a*], Siti Sarah Omar[b])

Received: February 2020 *Revised:* May 2020

Lately, the smart education system has been a training environment tool. In several countries, specifically, education processes with smart devices and the Smart Education System (SES) are presently of interest. Advanced IT allows for the expansion of educational scope, contents and forms of education. Digital textbooks and smart devices supplement paper books with limitless future ways of learning. For instance, SES has become an element of education. There is now an influence in the educational business in the telecommunications companies and portal corporations. Apple has revealed intentions to start a new venture on the global online education industry. Apple decided to begin a digital textbook and a strategic alliance with key publishers has been established. Also confirmed in Korea by Samsung Electronics will be offering an online education service (Kim et al. 2013).

The SMART education project has been established in South Korea with the main tasks of restructuring the school framework and developing education services (Crook, 2020). The role of technology incorporated into the classroom was demonstrated by the New York Smart School system (2014 study of the New York Smart Schools Commission). This focuses on rising academic success and training graduates for inclusion in the economy of the 21st century. Therefore, in 2011 Finland launched a smart learning initiative that offers systematic learning (SysTech). The initiative seeks to facilitate user-led and positive education approaches (Kankaanranta and Mäkelä, 2014). The goal is to support 21st century education.

The United Arab Emirates began investing in 2012 in the digital learning programme Mohammed Bin Rashid Smart Learn (MBRSLP), which is intended to mold their national schools 'modern learning experiences and society by introducing smart classes. In general, the emphasis and advances of smart education have become a recent phenomenon in the field of education. In fact, in Dubai where His Highness Sheik Mohammad bin Bin Rashid Al Maktoum, vice-president of Dubai and premier and governor, began the Dubai School Education Program in 2000, the UAE list of education priorities includes digital technology as a main priority. The first school to carry out this program, preceded subsequently by the schools of Abu Dhabi, was Mohammad Bin Rashid Al Maktoum Secondary School in an ambitious strategy to disseminate the learning to all schools around the world (Magisterium of Education, 2013). Not many Middle East countries are active in the usage of ICT in public schools (Kapiszewski, 2017) (M Asaseh, 2014).

One of the developing nations, the United Arab Emirates, has intensified their preparation and growth through information and digital technology and intelligent education programmes. Since 2000, online learning has been implemented in Dubai. The UAE Department of Education is developing a plan to provide students who feel awkward to raise their hands inside the classrooms with the possibility of sending teachers messages privately or through a classroom by using an instant messaging network to apply their questions electronically (O'Sullivan, 2016). However, on the teachers' efficiency, there are many problems that posed many threats to the educational sector in UAE, many teachers are unable or not provided with the opportunities to attend some teaching training which would enhance their skills in delivering their duties as teachers. This tremendously affects the performance of teachers as well as students in UAE Abu Dhabi Education Council (ADEC, 2015).

The significance of research is to determine the benefits of the use of Smart Education System in the success of learners and to prove that it supports the instructor productivity. Learners have not learned about particular subjects, since this study period is very essential to provide tools to resolve situations in the teaching-learning process.

2. Literature review

2.1. Smart Educational System

Several academic studies have recently started to concentrate on the value and significance of concrete practices through which students are dealing with real life concerns (Hwang et al. 2014). It is necessary to build learning experiences that incorporate both actual and virtual worlds in order to place students in a true learning setting. According (NMC, 2015). students who have smart devices will benefit from different related information from their surroundings Wearable technologies may incorporate knowledge about the venue, learning log, Social media involvement and virtual reality learning tools.

Koper (2014) suggested describing smart learning settings as physical environments that have been enhanced by the digital to promote quicker and better learning, context-aware and adaptive technologies.onther hand , Spector (2014) considered that the smart learning atmosphere promotes creative learner preparation and alternatives and should be reliable, productive, interactive, versatile, adaptive and reflective. And such environments may provide teamwork assistance, learning challenges and inspiration.

Zhu and He (2012). studayed, the theoretical framework is built on concept of smart education. This framework highlights three key elements of intelligent instruction: intelligent conditions, intelligent educational practices and intelligent learners. Smart teaching emphasizes teaching philosophy and should therefore be termed smart training, presenting intelligent pedagogy as a technical and intelligent learning setting as a technology issue and promoting education goals to support intelligent learners as a result. Smart pedagogy can strongly impact enlightening populations. Intelligent pedagogy and intelligent experiences allow the development of intelligent learners.

The pupil needs a quality education that correlates to the comprehension expectations of content and success . In this phase, a student functions. Generative education helps graduates to adapt their expertise to various circumstances flexibly (Fiorella and Mayer, 2015). Intelligence may also be extended. According studay (Albino, V., Fraccascia et al., 2015). In order to enable students to learn effectically, creatively, reliably and effectively, smart educational programs should deliver tailor-made and customized learning resources (such as context awareness, adaptive materials, shared or interactive tools, rapid assessment and real-time input, etc.). And the open machine design is needed to facilitate connectivity of through interfaces, intelligent devices and specific learning data.

Kler (2014) points out that a teacher can help to narrow down the information gap by using the smart education system in knowledge management. Via on-line in-services instruction, teachers may increase their awareness. If they will develop their abilities and accomplish an educational goal, they should be pleased. This is only feasible if teachers have the opportunity to access this knowledge through Smart Educational System.

The study of Bartels (2009) is about the infrastructure in the learning process that the number of employees and educators is too low and can impact on the performance of students. There can even be no white boards, documents, materials for writing, washrooms, teaching furniture for poor or proper inspection and responsibility in the university or organizations. So, we are able to say here: poor facilities severely degrade university education quality. Training offers full knowledge of how to deal with the related issues. Trained individuals in the relevant field can be able to achieve current and potential competence and efficiency. Teachers shall be informed of up-to - date material on the new field studies, on present affairs and educational ideas as well as expertise (Siddique 1990). However, none are involved in preparing to develop abilities efficiency. The organizations that govern university and employee performance must be established. Thus, here we can say: higher training for employees will improve the work performance of employees.

Lastly, it is important to have the abilities and the expertise to carry out, and if the individual does not have sufficient information, he is not qualified to carry out his duties. When we speak about public institutions, such trends are dramatically high even if they do not have books or a large number of other resources, both for employees and learners to establish a learning environment (Muhammad, 2002). Lower technical personnel are more rigorous to develop and decrease skills and practice experience. Learning techniques are outdated and conventional, which only contribute to the passing the examinations but not to the progress of the students. Numerous people only come to this career path to earn a living. In order to increase efficiency, the instructor's skills in teaching, controlling and coordinating with learners holds an essential role. Thus: Lower technical skills and competence leads to lower productivity. We can take that into account here: more motivation helps to learn about technical skills and to create better learners.

2.2. Teachers Efficiency

Ahmad Hambali (2015) has shown that in the smart education system, instructors based on gender do not differ substantially, but there are major variations based on a teacher's age and experience in teaching. Moreover, Juan et al. (2016) concluded that although teachers have strengthened teaching skills, structured phonetic instruction, fluency, Techniques of both vocabulary and comprehension post a training class that is online may have a positive impact both on the pre-service teacher and on the in-service teacher views. This is consistent with the results of Goh (2012), showing professors are satisfied with high but moderate levels of in-service training. The findings also suggest that the level of knowledge and experience and the teacher satisfaction are significantly positive. The research showed that the degree of expertise and satisfaction of teachers with on-site instruction provided at schools did not impact independent variables such as gender and teacher experience. However, practice with race and education demonstrates the gap between knowledge level and satisfaction level. Sugunah (2014) noticed that the abilities of Smart Educational System teachers and the management of information in schools are moderately positive. He has proposed that the CPD would focus in schools on mastering the fundamental aspects of smart education programs. The course goal will not, though, be accomplished without successful execution. And it really was important to have a well prepared approach.

2.3. Students Performance

The access to materials and exercises from portable devices is one of the challenges for e-learning. Personalized learning environments and innovative technologies need to be created that enable digital material to be customized and tailored to digital devices and thus eliminate barriers and enhance education efficiency, as mentioned elsewhere (Garcia-Cabot et al, 2015; Klašnja-Mili, et al, 2017). Methodological enhancements in education materials need to be added in order to incorporate these tools. Encompassing and simple implementation of such technology from the initial stages is necessary to reduce the digital divide throughout high education (Nikolopoulou, 2018). Adjusting the use of emerging innovations is essential in view of the variables identified in the technology adoption and technology use model. This would improve the adoption of digital platforms as a modern learning medium by students and lecturers (Sahlin, et al. 2017; Aliaño, et al. 2019). That is why the analysis of emerging approaches for digital education is of high importance for the importance of improving the students' academic performance, or help teachers encourage utilizing emerging technology tools and support teaching and learning processes.

2.4. Smart Education System to enhancing Teachers Efficiency and student's performance

In the field of decision taking, a smart education system performs a critical function, being able to detect contradictions in a system by itself, define a plan of action and take steps to regulate the environment. It is also essential in non-programmed decision-making as it supports by information supplied in search, review, assessment and decision-making and execution processes (Zareie, Navimipour, 2016). Such applications will provide their users with stored data, research templates, notifications in real-time and simulated scenarios to help their decision-making process. Smart education has a major impact on employees' success in promoting their employment, promoting contact with schoolchildren and offering a way to render teaching simple and informative (Kumar, 2013). Lee (2014) also examined variables influencing the success of students in the context of financial accounting and found that age and the behaviour of students towards accounting had a substantial impact on the performance of students. Salamone et al (2016) have documented significant correlation between student success and academic satisfaction and service provided. They also stated that improved student success is related to the presence of career development activities and internships. Regarding context factors, they have no observational results indicating a favourable impact on high school success and school efficiency.

3. Research Methodology

Different theoretical frameworks have arisen from the continued advancement of educational technologies, to analyse and to describe variables that affect the adoption, rejection or ongoing usage of modern technology as conducting theories, cognitive-information processing theories, cognitive-constructivist theories of learning. (Ajzen, 1985; Davis, 1989). Introducing and creating a Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA) focused on Ajzen and Fishbein's models, Davis (1989). (see figure 1). The TAM claims that smart education systems and teaching quality are key determinants of the success of learners.

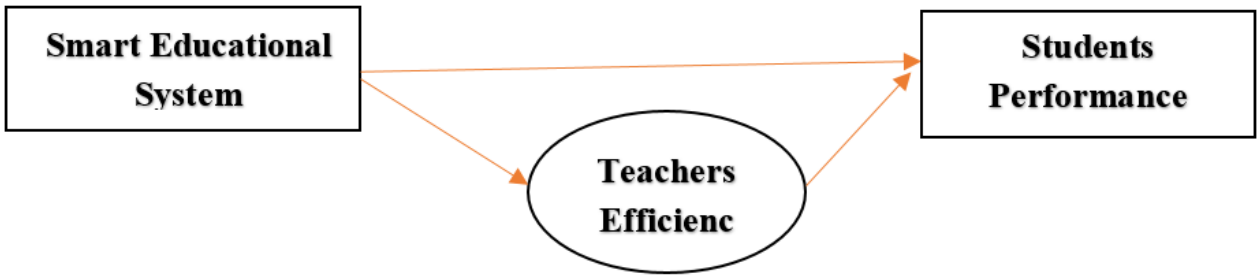

Figure 1: The research framework

This is an entirely quantitative research design. A pilot study was performed using the questionnaire. The last survey sets of questionnaires included an insight from the monkey survey of learners and teachers as regards the level of significant elements. In the identification of significant and dominant factors, the AMOS-SEM software package for simulation and modeling was utilized. The use of five (5) points Likert scale was needed to develop a questionnaire for the Research Instrument. Given the fact that the majority of questions are linked to attitudinal and presumed views of people (non observational data) normally susceptible to error, the Likert scale is suggested by the predicted data analysis (that implies structural equation modeling SEM). Purposive and systemic sampling methods were used to measure the effect of the smart education system's influences on learners' outcomes by

instructor productivity through utilizing Structural Equation modelling (SEM). The data revealed a significant P value, having gone through a range of screening stages including missing data, outliners, reliability tests, multicolinearity, CFA and the structural model that was found to be fit.

4. Data analysis procedure

4.1. Population, sample and data collection

The platform upon which respondents were chosen in this study strictly adhered to the sampling procedure discussed earlier. In systematic sampling design being one of the probability sampling methods where a sample is selected by chance not by personal judgement of the researcher (Awang, 2012) was adopted in this study to ensure objective and unbiased sampling of the respondents; it follows that 'N' represents the population while 'n' represents the sample size (380). The sample of 380 respondents are drawn systematically and equally from the population, and so 437 questionnaires were distributed, and 350 were retrieved valid for analysis, indicating that 22 were missing; and in the process of data screening 24 responses were discovered to have entailed several unengaged responses and outliers, and so they were deleted, making the total elements in the sample to be 326. The demography of the sample depicts the size and distribution in terms of gender, age, nationality, type of smart education, experience, frequently do you use the modern technologies in teaching as illustrated in Table 1 below. In view of the complexity of the suggested model of research, this sample size is fairly adequate for the analysis of the complicated path model proposed by Kline (2010), using a Structural Equation Model (SEM).

Table 1: Main Demography

Gender	**Frequency**	**Percentage**
Male	198	60.7
Female	128	39.3
Total	326	100
Age Distribution		
18-28	50	15.33
29-38	118	36.18
39-48	87	26.68
Over 50	71	21.77
Total	326	100
Educational level		
Diploma/certificate	2	0.61
Bachelor degree	27	8.28
Masters degree	232	71.16
PhD. degree	65	19.93
Total	326	100
Position		
Director	38	11.65
Professor	32	9.81
Lecturer	117	35.88
Student	139	42.63
Total	326	100

Experience		
1 to 5 years	97	29.75
6 to 10 Years	107	32.82
11 to 15	36	11.04
More than 16	86	26.38
Total	326	100

About 60.7% of the participants were males, while the rest, represented by 39.3% were females, the difference between the male and the female is much because respondents are selected on the basis of the actual employee in the universities as revealed in Arab countries the number of students, men more the women. The distribution according to age shows that about 50 of the respondents are aged from 18 to 28 years thereby constituting about 15.33% of the respondents; and about 26.68% are within the age of 39 to 48 years, and about 21.77% goes to the range of above 50 years.

4.2. Measurement model assessment

During the first phase of the measuring model assessment, the reliability and validity of the constructions and their parameters was confirmed as suggested by Hair et al. (2011). At first, the model contained 89 indicators. The indicators with low factor load were eliminated and the experiment was re-run before all factor load was higher or close to the value suggested of 0.60 during the analysis of the measurement process. In line with the Hair et al. (2013) guidelines, however.
The multivaried statistical analysis generally involves explorative factor analysis (EFA) in order to have a set of items in a manageable form from a large group pool. This is actually referred to as the statistical analysis data reduction process. The key goal is to evaluate the associations between the variables until the confirmatory factor analysis is carried out (Pallant, 2011). Awang (2012) has, however, argued that unidimensionality cannot be evaluated directly through the exploratory factor analysis. EFA is thus employed frequently for assessing a factor structure of a scale. Variances inflation factors (VIF) and tolerance were measured by multi-linearity. On the other hand, there is a multi-linearity concern if VIF values exceed 4.0 or by tolerance below 0.2. The results demonstrated that all VIF values ranged from 1.037 to 1.289 and tolerances extended from 0.77 to 0.965, which shows that the statistical analysis did not involve a problem of multicollinearity. On a measuring model covering nine structures, confirmatory factor test (CFA) was verified. But, Hair et. al. (2011) indicated that the confirmatory factor analysis (CFA), for a research model, is a more reliable method where assumptions exist regarding relatively new variables constructions, as for example in the case of the research framework.
The CFI is employed to evaluate all the frameworks of this study as unidimensional. The computed values documented in every construct were a summary of the CFI values for the total constructs in the Research Evaluation Model presented in Table 4.9. In fact, all the above values were higher than the required number 0.90, which indicated that unidimensionality was not exceeded (Hair et al. 2011; Awang, 2014). Moreover, for all work constructs, the reliability coefficients show that all components in the designs are reliable. Indeed, the average Cronbach alphas of the ten constructs are equivalent to 0.827. The findings have shown that all things in this work have good internal consistencies (global reliability) across the whole construct. Many scholars have assumed that a factor structure in EFA could be improperly adapted to the same data when tested in cross-examination with CFA (Awang, 2014). No matter how efficient and robust the statistical approach is, confirmatory factor analysis (CFA) is equivalent to the EFA (Awang 2015). (Awang 2015.) Both EFA and CFA were used in this study, and the final EFA results are summarized in Table 2. Exploratory factor analysis using SPSS

Table 2: Convergent validity and reliability

No	constructs	Items	Factor loadings	VIF	CFI	Cronbach's Alpha
1	Smart Learning Environment	Q1	.820	1.114	0.983	0.815
		Q2	.790			
		Q3	.792			
		Q4	.547			
		Q5	.663			
		Q6	.743			
		Q7	.876			
		Q8	.693			
		Q9	.895			
		Q10	.898			
2	Smart Education	Q11	.606	1.2899	0.994	0.806
		Q12	.670			
		Q13	.780			
		Q14	.753			
		Q15	.819			
3	Smart Pedagogies	Q16	.888	1.0666	0.980	0.818
		Q17	.828			
		Q18	.643			
		Q19	.949			
		Q20	.979			
		Q21	.924			
		Q22	.883	1.037	1.000	0.867
4	Knowledge Technology Use	Q23	.622			
		Q24	.693			
		Q25	.895			
		Q26	.898			
		Q27	.924			
		Q28	.924			
5	Infrastructure	Q29	.693	1.276	0.975	0.823
		Q30	.895			
		Q31	.898			
		Q32	.924			
		Q33	.883			
		Q34	.862			
6	Training	Q35	.749	1.047	1.000	0.889
		Q36	.898			
		Q37	.924			
		Q38	.924			
		Q39	.883			
		Q40	.643			
		Q41	.763			
		Q42	.788			
		Q43	.892			

7	Experience/ UAE Skills	Q44	.764	1.028	0.990	0.886
		Q45	.883			
		Q46	.820			
		Q47	.790			
		Q48	.792			
		Q49	.783			
		Q50	.892			
		Q51	.843			
		Q52	.612			
		Q53	.723			
		Q54	.843			
8	Motivation	Q55	.762	1.045	1.000	0.815
		Q56	.894			
		Q57	.843			
		Q58	.732			
		Q59	.892			
		Q60	.739			
		Q61	.731			
		Q62	.693			
		Q63	.895			
		Q64	.898			
9	Teacher Efficiency	Q65	.924	1.023	0.989	0.811
		Q66	.883			
		Q67	.693			
		Q68	.895			
		Q69	.641			
		Q70	.862			
		Q71	.749			
		Q72	.898			
10	Students' Performance	Q73	.924	1.051	1.000	0.817
		Q74	.924			
		Q75	.883			
		Q76	.758			
		Q77	.843			
		Q78	.745			

Table 3: KMO and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.847
Bartlett's Test of Sphericity	Approx.Chi-Square	7090.116
	df	276
	Sig.	.000

version 22 was conducted on all items of the effects between to identify the relationships between smart educational and teacher's efficiency and its role to increase the student performance in UAE in order to boosting assessment scales of education. Before EFA, the appropriateness of the data for factor analysis was assessed and determined to be satisfactory. Inspection of the correlation matrix shows that there were some coefficients over 0.5. In addition, the value score of Kaiser-Meyer - Olkin as shown in Table 3 is 0.847, exceeding the recommended value of 0.6 (Kaiser, 1970 mentioned in Pallant, (2011), which has achieved statistical importance and underpins the factoriness of the correlation matrix. Consequently, all constructs are confirmatively examined in the following pages.

4.3. Analysis for structural equation modeling

The next phase of the analysis model is the the whole structures of a single structural equations model, using Analysis of Momental Structure (AMOS). Once the unidimentionality, reliability and validity of research constructs have been verified. The explanation is that the causal impacts are expressed in keeping with the established assumptions for one and the other structures. In the study assessment framework, exogenous and endogenous variables were identified. The scheme was defined with the interfering variable, exogenous variables, and the endogenous variable at the later part. The link between each construct is linked to the arrow in the direction of the hypotheses, as shown in Figure 3. The model was utilized to analyze multi-directional relations in all constructs of the research.

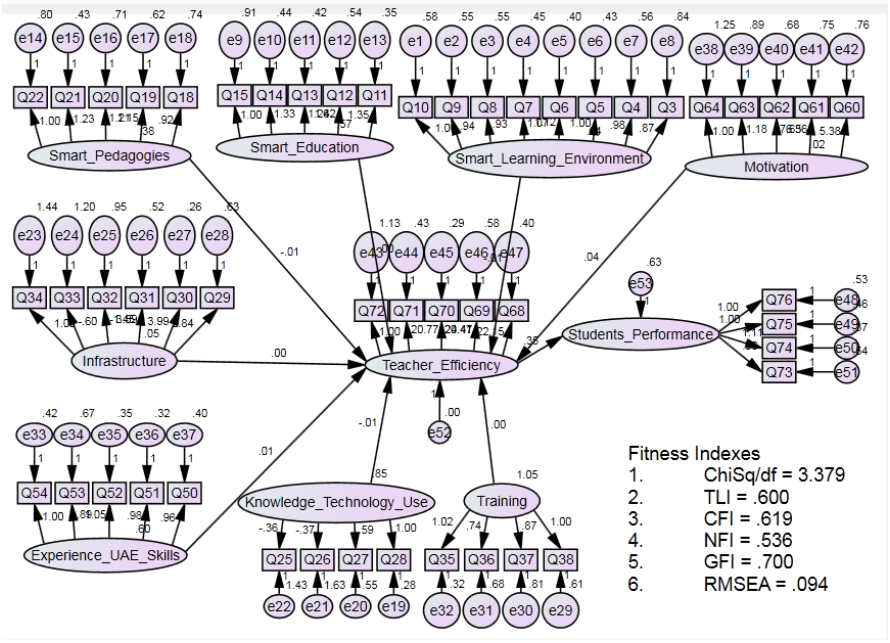

Figure 2: Initial structural measurement model for the entire research constructs and goodness-of-fitness for structural model

As seen in Table 4 and Figure 3, some fitness indexes for the structural model calculation do not meet the standard and needed levels of good fitness-indexes (Awang, 2014). The observed factor loadings for the entire constructs were above 0.5, though, fitness indexes were relatively below the recommended level. Therefore, modification indices examined in order to identify redundant items and they were correlated for the improvement of the model's goodness-of-fitness indexes.

Table 4: The Fitness Indices of structural model

Name of Index	Level of Acceptance	Index Value	Comments
Chisq/df	Chisq/df ≤ 3	3.379	The required level is not achieved
TLI	TLI $\geq 0.9 means$ satisfactory	0.600	The required level is not achieved
CFI	CFI $\geq 0.9 means$ satisfactory fit.	0.619	The required level is not achieved.
NFI	NFI $\geq 0.80 suggests\ a$ good fit	0.536	The required level is not achieved
GFI	GFI $\geq 0.80 suggests\ a$ good fit.	0.700	The required level is not achieved
RMSEA	RMSEA $\leq 0.08 mediocre$ fit	0.094	The required level is achieved
Model is not accepted			

Figure 3 shows the final measurement model after deletion all of the items that have low factor loading ($Q25 - Q26; Q33; Q34; Q64; Q72$) till achieved the accepted threshold.

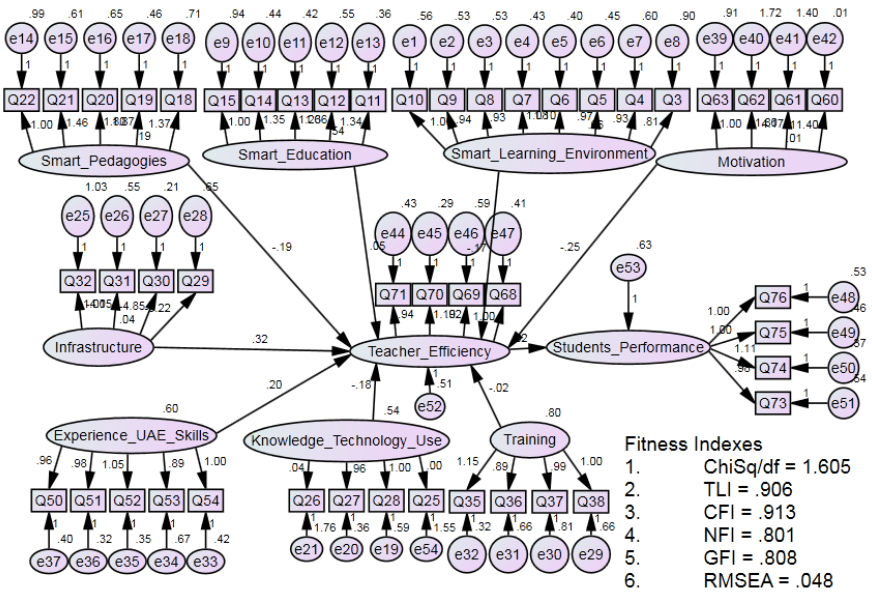

Figure 3: : final structural measurement model for the entire research constructs and goodness-of-fitness for structural model

To summarize, the consistency of the two structural assessment models is seen on the gradual increase in the fitness index before an optimal level has been reached. The final model of structural estimation

was used to evaluate the causal influence (impact) in the route map for the multiple structures. Above everything, in set acceptable fitness indexes, the fitness indexes of the construction model, reflecting how the theorized model appears to be fit with the available data, were confirmed and satisfying (Awang, 2015 and Hair et al., 2011). The standard regression weights demonstrated the approximation of the beta-coefficient that measures the influence of the major constructs. Two kinds of text output were normally generated by the structure model Analysis Moment of Structures (AMOS) which was employed in this research: standardized weights and unstandardized regression weights for path analysis. The standardized weight of regression is, nevertheless, used to describe the relationship between the whole construct in the study theoretical framework and then to test the hypotheses in the study as better and easier to interpret is advised (Awang, 2015).

4.4. Testing of research hypotheses

To test the hypothesis of this research, the structural model is adopted.

Table 5: The summary of the tested hypotheses in this research

N	The main hypothesis statement in the research		P-value	Result
1.	H1	Smart learning environment has relationship with teacher efficiency in UAE	***	Supported
2.	H2	Smart education has relationship with teacher efficiency in UAE.	.078	Not Supported
3.	H3	Smart pedagogies has relationship with teacher efficiency in UAE.	***	Supported
4.	H4	Knowledge technology use has relationship with teacher efficiency in UAE.	0.081	Not Supported
5.	H5	Infrastructure has relationship with teacher efficiency in UAE.	0.031	Supported
6.	H6	Training has relationship with teacher efficiency in UAE.	***	Supported
7.	H7	Experience/ UAE skills has relationship with teacher efficiency in UAE.	0.034	Supported
8.	H8	Motivation has relationship with teacher efficiency in UAE.	0.001	Supported
9.	H9	Teacher efficiency has relationship with students' performance in UAE.	0.342	Not Supported

Key: *** represents P-value is less than 0.001

Consequently, the structural calculation model and the hypothesis for this research are the association between the aims of this research and it can be confirmed that as it has been scintifically proven that specialized strategies improvement mechanism in effects between to identify the relationships of variables of smart educational system adopted on teacher's efficiency and student performance in UAE will be achieved by using strategies of this research, The research has given evidence that any attempt to use the technique of this analysis to douse the pressure of smart education in the UAE is considered to be a development along the right lines.

5. Discussion

An extensive literature reviews outlined smart educational system adopted on teacher's efficiency and student performance in UAE will be achieved by using strategies of this research, the study demonstrated that every active effort taken to utilize the strategy of this study to douse smart education technology tensions in UAE is thought to be the right way forward. smart education system as the major influence positively on student performance the identified items indicators were subjected to further investigation in the field by collecting data through questionnaire survey, which conformed with the research strategy and deductive reasoning approach adopted in the study.

The 'results' to test this hypothesis of the independent smart education system factors and the relationship between teachers efficiency and students performance and presents the pulled information of the results which achieved the requirements of significands including factor loading, squared multiple correlation, fitness indices, correlation coefficient, standardized beta, Average Variance Extracted (AVE), Composite Reliability (CR), modification index, direction of relationship, and significance level. Thus, this study continues with the first hypothesis about an intelligent learning setting in the UAE. The findings demonstrate that smart learning environments have a relationship with the efficiency of teachers. Nevertheless, according to the researchers, smart learning environments take account of formal and informal learning backgrounds, their cultural resources and their socio-cultural characteristics (Van Merriënboer et al., 2017). Smart learning environments not only relate to the idea of better instruction, but also highlight the necessity to adapt and personalize according to where the study takes place. Smart learning, therefore, poses significant difficulties for assessment because materials cannot be standardized, and cross-formal and informal contexts could be applied (Marsick et al., 2015). There are two major problems for the creation of smart learning environments that are regarded by current authors: I user interaction in the development and ii) incentives for users to have sufficient input. The author mentioned ten main features of intelligent learning environments in intelligent education in this study. All this makes learning environments smarter. We introduce a technological architecture in smart learning environments that relies on intelligent computing to fully comprehend the technological architecture to support key characteristics.

Furthermore, the results of Smart education showed that there is no relationship with teacher efficiency in UAE. However, this study disagrees with Kumar, (2013), which reported that Smart education system tremendously affects staff performance in making their task simple, communicate to students easily and also provide an avenue through which staff delivered their lectures in the simplest and educative way to the students.

The results of this study found that Smart pedagogies has relationship with teacher efficiency. according to Juke (2010) Smart Pedagogies is totally wrong in many countries due to lack of knowledge on how to develop it. Some countries like UAE are still battling to fix their smart pedagogies to meet the global standard but are yet to do so due to proper expert to guide in the process. Smart pedagogies may take the concept of knowledge development into consideration, which stresses expertise in knowledge production. "The learning strategy centered on knowledge pulls provides students with exposure to a variety of tacit / explicit nodes of information and allows them power to pick and integrate nodes to expand their individual knowledge networks" (Zhuhadar et al., 2017). Such skills are gradually related to the usage of emerging technologies to enable modeling, design, monitoring and social networks in a scalable way.

Furthermore, the results for the hypotheses of Knowledge technology and teacher efficiency showed that there is no relationship. This research is not in line with Ghavifekr Rosdy's (2015) report, which suggested that education structures had evolved dramatically at the end of the 20th century. It is attributable to the technology 's potential to have a constructive, simple to navigate and full learning

setting. Smart computing is an significant technology in intelligent learning environments and is the current period of creativity and development that started in 2008 (Bartels 2009). It integrates objects of hardware, software and networking components with digital sensors, smart computers, internet connectivity, big data processing, artificial intelligence and smart networks to deliver specific creative applications.

The results of the Infrastructure with teacher efficiency showed significantly effects and the hypothesis supported. Infrastructure requires all those components and considerations required to maintain an atmosphere in which an action is conducive. These can require buildings, furniture, appliances, fittings, decorations, etc. which can help to produce successful outcomes in an activity. There are very few individuals and instructors who may influence the success of the students.

Training has relationship with teacher efficiency in UAE the results for this hypothesis is supported. Training techniques through quality standards, improved inventive skills and development of learners' self-learning skills (Kapiszewski, 2017). These policy changes concentrate on enhanced preparation, accountability, improved standards and professionalism. Smart learning programmes, new codes for instructors and assessment systems, and a revision of curriculums. Similarly, the training system of the teachers is almost all the time out of order, teachers were trained based on the old equipment and sometimes they were trained with the new equipment while in their office such equipment are lacking, this equally affects the efficiency of teachers in UAE. Teachers' efficiency plays very vital role on the performance of students, whenever there are inefficient teachers, there would be underperformed students (Al-Qirim, N. 2011).

The results found that the relationship between Experience/ UAE skills with teacher efficiency in UAE is supported. This research (Smart learning: literature, 2013) shows a significant number of parents and students in public and private universities that find using smart learning devices and laptop technologies is difficult to achieve academic tasks and assignments. Burbules (2012) states that it takes more dispersed time and space knowledge to know effectively.

Motivation has relationship with teacher efficiency in UAE. The results found supported. The impetus for staff education also includes several aspects, including favorable educational opportunities, teachers' payment scales, improved potential for professional growth, equipment quality, instructional resources, sufficient length of time, simple studying methods and teaching procedures. Such aspects allow teachers to acquire different approaches and processes, such that they encounter new problems and, of course, they can tackle new courses and implement their skills in specific fields. But such considerations in our country are not possible or less known. Here, we may take this into account: more motivation leads to learning technical skills and creating better learners. In addition, the findings of this study indicate that instructor efficiency does not contribute to UAE student success. In short, in this study, all teacher efficiency elements that satisfy the appropriateness were used for the modelling of structural equations. It is a research on the impact of the smart education constructs in the United Arab Emirates on growing teacher performance.

6. Conclusion

This work discusses the smart education system to increase the productivity of learners and instructors and provide a consistent realistic platform for the United Arab Emirate educational participant and obtain a deeper insight into the learning variables and to develop their perspectives. Thus, the aim of this research is to improve and identify Teachers Efficiency as a mediator between Smart Educational System and Students Performance as a conceptual framework.

In our anticipation of Smart Learning Systems in the United Arab Emirates, smart learning settings will minimize students' cognitive weight and enable learners to concentrate on the integration of

senses and promote the building of ontology. Students should also establish and enhance their learning experiences and thus support students in their growth in the whole (affective, mental and physical) manner. Students may learn and function in smart learning environments in a versatile way and thereby encourage the growth of their learners 'individual and mutual knowledge. In fact, students should be equipped with improved personalized learning resources to boost the aspirations of learners. The potential emphasis of this work is on the integrated and interoperable learning service and interaction between smart schooling systems and other intelligent city systems. last but not least, to obtain a greater sustainable competitive advantage in the Educational contemporary market.

This research is expected to make an immense contribution to both the knowledge body and a professional circle. First and foremost, the sustainability of the smart learning is achieved through this research in that reducing or eradicating influential factors would add value to the success of the education performance in the UAE.

7. Limitations of the study

The research limitation was limited for students and lecturers in UAE public universities purposes only and was not related to discussion. In addition, the study was conducted only from the UAE region in Abu Dhabi State. The study was focused on professionals 'and participants' views rather than on concrete projects.

8. Recommendations for future research

Recommendations for the future works based on this study are as below:

i. By conducting case studies qualitatively, the results of the study can be further investigated.

ii. Factors with a wider scope like private universities could be examined in order to identify their factors. This can be done by determining the probability that each factor will occur and the extent of the impact on intelligent education of each factor.

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