ONLINE LEARNING PERFORMANCE IMPACT AMONG HIGHER EDUCATION STUDENTS IN THE UNITED ARAB EMIRATES

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A thesis submitted in fulfillment of the requirements for the degree of Doctor of Philosophy

Institute of Technology Management and Entrepreneurship

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2023

DECLARATION

I declare that this thesis entitled “Online Learning Performance Impact Among Higher Education Students in The United Arab Emirates“ is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature :

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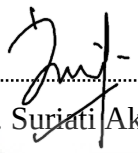
APPROVAL

I hereby declare that I have read this thesis and in my opinion this thesis is sufficient in terms of scope and quality for the award of Doctor of Philosophy.

Signature	:	
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DEDICATION

I dedicate my dissertation work to my family and friends. A special feeling of gratitude to my loving parents for their encouragement. My brothers Ali and Mohammed have never left my side and are very special.

I dedicate this work and give special thanks to my wonderful sons Abdulla and Buti for being there for me throughout the entire doctorate program. Both of you have been my best cheerleaders.

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ABSTRACT

In the United Arab Emirates, there are many issues of concern that arise from students' use of online learning in terms of its effect on learning performance. Prior to the Covid-19 pandemic, online learning was seen as the inevitable future of education, and institutions must be prepared to embrace such technology. Although the United Arab Emirates is one of the leading countries in the Arab world and the region in many indicators, their higher education and training are among the lowest in the Arab region. According to the world competitiveness report 2020, the UAE has ranked significantly well in most of the indicators among 63 countries except for training and education where it ranked 44 out of 63. This implies that the country faces great challenges in producing a workforce with a high-quality education. This research is an attempt to understand online learning in UAE in public higher education institutions by identifying the factors that influence the implementation and adoption of online learning and how it affects student performance. The model consists of six constructs namely overall quality, compatibility, actual usage, user satisfaction, cognitive absorption, and performance impact. The population of this study is the students of the three public universities in the UAE. Moreover, Analysis of the collected data is done in two stages: descriptive statistics are undertaken using SPSS V.26.0 to analyze central tendency and variation statistics. Structural equation modeling, SMART PLS 3.0 is used to test and analyze the main hypotheses and causal relationships among variables. Results found that five variables play an important role to determine the performance impact of online learning namely overall quality, compatibility, user satisfaction, actual usage, and cognitive absorption. The findings of this study can provide public higher education institutions with important insights on how to successfully design and implement online learning within public universities, and how to encourage university boards to ensure that students are more likely to utilize online learning and thereby enabling a better quality of education, wider reach of higher education, gives students more control over their daily tasks and enhances their academic performance.

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IMPAK PRESTASI PEMBELAJARAN ATAS TALIAN DALAM KALANGAN PELAJAR PENGAJIAN TINGGI DI EMIRIYAH ARAB BERSATU

ABSTRAK

Di Emiriyah Arab Bersatu, terdapat banyak isu yang membimbangkan hasil daripada penggunaan pembelajaran dalam talian oleh pelajar dari segi kesannya terhadap prestasi pembelajaran. Sebelum pandemik Covid-19, pembelajaran dalam talian dilihat sebagai masa depan pendidikan yang tidak dapat dielakkan institusi mestilah bersedia untuk menerima teknologi tersebut. Walaupun Emiriyah Arab Bersatu adalah salah satu negara terkemuka di dunia Arab dan rantau ini dalam banyak petunjuk, namun pendidikan tinggi dan latihan mereka adalah antara yang terendah. Menurut laporan daya saing dunia tahun 2020 yang dijalankan di mana UAE berkedudukan tangga yang ke 44 daripada 63 buah negara yang menyertainya. Ini memberi gambaran bahawa negara menghadapi cabaran besar dalam menghasilkan tenaga kerja dengan pendidikan berkualiti tinggi. Penyelidikan ini adalah percubaan untuk memahami pembelajaran atas talian di UAE di kalangan institusi-institusi pengajian tinggi awam menerusi pengenalpastian faktor-faktor yang akan mempengaruhi pelaksanaan dan penggunaan pembelajaran dalam talian bagaimana ia mempengaruhi prestasi pelajar. Model ini terdiri daripada 6 konstruk iaitu kualiti keseluruhan, keserasian, penggunaan sebenar, kepuasan pengguna, penyerapan kognitif, dan impak prestasi. Selain itu, analisis data yang dikumpul dilakukan dalam dua peringkat: statistik deskriptif dijalankan menggunakan SPSS 26.0 untuk menganalisis statistik kecenderungan memusat dan variasi. Pemodelan persamaan struktur, SMART PLS 3.0 digunakan untuk menguji dan menganalisis hipotesis utama dan hubungan kasual antara pembolehubah. Keputusan mendapati bahawa lima pembolehubah memainkan peranan penting untuk menentukan kesan prestasi pembelajaran atas talian iaitu kualiti keseluruhan, keserasian, kepuasan pengguna, penggunaan sebenar dan penyerapan kognitif. Penemuan kajian ini boleh menyediakan institusi-institusi pengajian tinggi awam dengan pandangan utama tentang bagaimana mereka bentuk dan melaksanakan pembelajaran atas talian dalam universiti awam dengan jayanya, dan bagaimana untuk menggalakkan lembaga universiti untuk memastikan pelajar lebih cenderung untuk menggunakan pembelajaran atas talian dan dengan itu membolehkan kualiti pendidikan yang lebih baik, jangkauan yang lebih luas. pendidikan tinggi, memberikan pelajar lebih kawalan ke atas tugas harian mereka dan meningkatkan prestasi akademik mereka.

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LIST OF SYMBOLS

R^2	-	Coefficient of Determination

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LIST OF ABBREVIATIONS

AVE	-	Average Variance Extracted
CA	-	Cognitive Absorption
CA	-	Cognitive Absorption
CMV	-	Common Method Variance
COM	-	Compatibility
CR	-	Composite Reliability
EFA	-	Exploratory Factor Analysis
GDP	-	Gross Domestic Product
HTMT	-	Heterotrait-Monotrait Ratio
INFQ	-	Information Quality
IPMA	-	Importance-Performance Map Analysis
M	-	Mean
PI	-	Performance Impact
PLS	-	Partial Least Squares
QUL	-	Overall Quality
SAT	-	User Satisfaction
SD	-	Standard Deviation
SEM-VB	-	Structural Equation Modeling-Variance Based
SERQ	-	Service Quality
SPSS	-	Statistical Package for the Social Sciences
SRMR	-	Standardized Root Mean Square Residual
SYSQ	-	System Quality
UAE	-	United Arab Emirates

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USE	-	Actual Usage
VIF	-	Variance Inflation Factor

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LIST OF PUBLICATIONS

The followings are the list of publications related to the work on this thesis:

1. Alketbi, S., Akmal, S., Hamid, R.A.Ll., 2022, Factors Influencing Online Learning Outcomes in UAE: An Extension of Delon and Mclean with Actual Usage and Cognitive Absorption as Intervening Variables, *Journal of Positive School Psychology*, 6(2), pp.3760-3774.

2. Alketbi, S., Akmal, S., Al-Shami, S.S.A. and Hamid, R.A., 2021. Conceptual framework: The role of cognitive absorption in delone and mclean success model in online learning in United Arab Emirates. *Academy of Strategic Management Journal*, 20, pp.1-9.

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CHAPTER 1

INTRODUCTION

1.1 Introductions

This chapter exhibits an overview of the entire thesis. This incorporates the background of the study, the research problem and the justification of its objectives. This chapter likewise acquaints the reader with the research objectives and questions, in addition to the scope and significance of the study, and subsequently, the definition of terms followed by the structure of the thesis.

1.2 Background of the Study

The world has been caught off guard in the COVID-19 era, where every industry is facing an existential challenge. The higher education sector is no different; schools all over the world have turned to online education to maintain the flow of instruction during lockdowns and other periods of restricted movement. Concerns about the impact of students' usage of online learning on academic achievement are widespread in the United Arab Emirates.

Online learning was anticipated as the future of education prior to the COVID-19 epidemic, and institutions needed to be ready to adopt this technology (Abeygunasekera, 2021; Mokgalo et al., 2022). It is now generally acknowledged that technology plays a crucial part in higher education institutions. Particularly in the processes of teaching and learning, as well as in the administrative and supportive facets. Due to the growing popularity

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and availability of mobile devices like laptops, smartphones, and electronic tablets as well as the internet, innovations and technology have become increasingly important.

Mobile gadgets and the internet are now increasingly considered as educational tools that are efficient in terms of use of time as well as making educational materials easily accessible for students and staff. More universities are now engaged in many forms of mobile technology such as management learning systems (MLS). The ongoing information and communication technology (ICT) revolution has not only benefited the collaboration between students and lecturers but also the educational organization performance as well (Abu-Al-Aish, 2014).

A quote said by Benjamin Franklin that "An investment in knowledge pays the best interest". Today's universities are no different to profit-seeking organizations. They strive to improve their performance and utilizing the latest technologies is one way to achieve that. Public universities alike which are considered not-for-profit organizations must achieve operating surpluses if they are to continue to serve the purpose which society sees them as fulfilling, from its different activities like teaching, research operations, and investments. In terms of teaching operations and investments, technology is seen as a means of achieving cost-effectiveness (Adam and Deon Nel, 2009).

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The Uinted Arab Emirates has established itself as an IT (information technology) sophisticated nation (Rapanta, Nickerson, and Goby, 2014). The United Arab Emirates has used new designs and has imitated the world's most developed education systems to build their own (Al Murshidi, 2017). The UAE's Vision 2021 National Agenda is to ensure that higher education institutes and schools are equipped with new technological tools and mobile devices for all teaching and learning methods, helping faculty and students to acquire the 21st-century skills (Ewen, 2015; Vision 2021, 2010).