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Framework to Build up a Business Model for Content Creation Using Information Technology

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ABSTRACT

Present research project has proposed framework for the content creation by use of IT technology. The framework for content creation using technology would utilize tools such as learning management systems, online enabled classrooms, management information systems and e-learning. In the Gulf, increasing online learning platforms will bring alignment, productivity, value, remote accessibility, plasticity, and access to information with simplicity and ease of studying especially in the current global crisis that has been occasioned by COVID-19. The framework to facilitate online learning would enable working people, students with family commitments and mobile people such as refugees' access quality education. Coming up with the framework has been based on the systematic literature review results.

KEY WORDS: FRAMEWORK; GULF; CONTENT-CREATION; INFORMATION TECHNOLOGY; LEARNER.

INTRODUCTION

Technology has transformed almost every aspect of life in the current times. The impact of Information and Communication Technology (ICT) in the age of globalization and in the information age is apparent in learning institutions especially in the higher education institutions such as universities (Alzahrani, 2017). Particularly, the use of platforms for content creation as enabled by the access to internet and availability of digital gadgets especially for the youthful population has improved learning and information sharing approaches. In the developed world, ICT has greatly changed how classroom learning and also how teaching is conducted. Additionally, it has facilitated diverse programs such as distance learning and enabled greater access to learning materials especially through digitized libraries (Duangekanong and Vate-U-Lan, 2019).

In the Gulf region however, online platforms have not been fully used by universities to create and provide content since face to face learning is the favored learning method (Salloum et. al, 2019). A framework to build a business model for content creation and sharing would necessitate access to a digital platform that would utilize technology to ensure that end users be they faculty members or student's access relevant information (Al Tamimi, 2017). This is useful in the current crisis brought about by COVID-19, which has resulted in governments requesting citizens to practice social distancing and also limit their interaction by staying at home to avoid transmission of the virus (Alandijany et al., 2020).

Many institutions of higher learning have modernized their business model from the traditional brick and mortar to a business model of bricks and clicks. This has resulted in these institutions developing online platforms to provide courses to their students and content for faculties to facilitate their teaching (Bayne and Jandric, 2017).

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For example in the UK, it is estimated that ninety five percent of higher learning institutions have adopted the online learning business model and that online courses have increased access to learning content for student as one in three student now takes at least one course online during their college life resulting in reduced student fees by sixty five percent (Allen and Seaman, 2017). Jin and Cortazzi (2017) believe that technology is the solution to most of the challenges in the academic field in this era of globalization especially in the Gulf region.

A framework for content creation using technology would utilize tools such as learning management systems, online enabled classrooms, management information systems and e-learning. Integrating these ICT platforms has been found to be useful to support universities in the system of content creation (Rodrigues et al., 2019), to support students acquire critical career and soft skills and also assist in bridging the distance between the lecturers, students and institution's management (Alzahrani, 2017; Al-Kindi and Al-Suqri, 2017). The framework is to facilitate online learning would enable working people, students with family commitments and mobile people such as refugees' access quality education (Rostron, 2018). In the Gulf, increasing online learning platforms will bring alignment, productivity, value, remote accessibility, plasticity, and access to information with simplicity and ease of studying especially in the current global crisis that has been occasioned by COVID-19 (Alandijany et al., 2020).

Research Problem: Content creation business models in the United Kingdom and other developed countries in the world are based on implementation of evolving technologies and innovative and up to date techniques in education (Bayne and Jandric, 2017). There are many technologies that encourage interaction between students, faculty members or among students themselves (Yulisman, 2017). Studies carried out agree that online learning and teaching contribute to various benefits but require resolving barriers to development, uptake, advancement of new skills and learning approaches, and increasing commitment to the stakeholders. Online learning offers many benefits and appeals to the upcoming generation of youthful students (Al-Kindi and Al-Suqri, 2017). Institutions of higher learning in the Gulf have embraced a number of technologically enabled content sharing practices such as the use of YouTube for instructive videos and content sharing, audio-visual lectures, delivery of instant feedback to learners, online transmission of assignments and ensuring assignments are automatically graded (Shah, 2017).

However, the adoption in the Gulf of these business models by universities that utilize online content creation and sharing has been slow in uptake (Salloum et al., 2019). Most universities that have adopted these modes of content sharing have been motivated by international collaborations (Salehi-Isfahani et. al, 2018). As a result, these models have adopted a lot of the practices from universities in the developed countries such as the United Kingdom. There is also a high population of youthful population getting into universities who are tech-savvy and who would benefit most from the online learning platforms. Faculty readiness has been seen to be a major barrier to development of this business model that uses technology for content creation and provision (Salloum et al., 2019).

Due to the adoption of western frameworks in some of the institutions that have adopted digital content sharing in the Gulf, there is need for a framework that develops business models that take into account the uniqueness of the Gulf region (Al-Tamimi, 2017). Additionally, there is need to capture a larger audience such as the youthful population and other remote persons such as caregivers who are committed to their families but who would like to pursue and education (Rostron, 2018). In the current COVID-19 crisis that has seen governments in the Gulf region call for increased social distancing and other self-isolation measures (Alandijany et al., 2020), there is need for the higher learning institutions to develop a framework for digital platforms to facilitate continued remote classroom learning and knowledge sharing in institutions of higher learning (Assaad et. al. 2020).

To realize this, the present study efficiently responds to two research questions: What are the current studies about IT and content creation considering the Gulf viewpoint? What framework, founded on IT and content creation, can be applied to build a business model? Significance of the Study : This research on a framework to build up a business model for content creation using IT technology significant since there are few research projects that focus on similar frameworks especially with a focus on the Gulf region. Previously, researchers have shown that higher learning institutions that have developed a business model that utilizes technology to create and share content are more efficient and effective in academic activities (Al Tamimi, 2017). The current research will be insightful to higher learning institutions based in the Gulf. Further to this, this study is significant, as it will reduce the gap that currently exists in the current body of study due to lack of research on comparable matters.

Limitation of the Study: The methodology used in this research project forms an important part of the limitations. A systematic literature review (SLR) was applied in this research (Xiao & Watson, 2019). The SLR provided convenient and impartial outlines of previous studies about research topic and has assisted in overcoming the inapplicability of collecting primary data in the current COVID-19 crisis in the Gulf region (Boelens et al., 2017). Nonetheless, the disadvantage of depending on the systematic literature review methodology is that the investigator did not realize the advantages of gathering primary data such as control over the research process (Xiao & Watson, 2019), or access to the most relevant data in the prevailing crisis of COVID-19 as would have been facilitated by primary research process.

Operational Definition: The operational definition used in the current study is succinct, comprehensive and a

clear description of the method employed in the study. To have a strong research project, it is essential towards the collection of the most relevant data. The operational definition is particularly important, as the researcher has to make decisions whether data obtained is useful or impractical to reduce potential ambiguity as well as misperception. For instance, the process to obtain data would not be effective if the definition of timely and applicable data is omitted from the research (Hibberd, 2019).

To ensure effective data collection, the investigator applied a constant approach in finding and gathering the data required in the study. This involved defining how data would be gathered to eliminate the likelihood of unreliable and flawed data. By ensuring that the operational definition was comprehensive, the researcher was able to eliminate any inconsistency in data gathering for the study (Hibberd, 2019). Below is a list of operational definitions used in the study.

Characteristic of interest: Framework to build up a business model for content creation using it technology Measuring instrument: Data collected by the researcher from current technical sources that are online and from sources in the physical library.

Test method: The investigator gathered and evaluated data from a minimum of 30 scientific sources. The investigator also relied on current sources of data that were printed after 2017. Decision criteria: Thoroughly and sequentially evaluating the data obtained from various diverse sources. Recent data published after the year 2017 was relied on for the current study by the investigator. Data from unpublished sources such as manuscripts or data from material published prior to the year 2017 was excluded in the study. Previous Studies: Today the organizations in Gulf, irrespective of sectors that such organizations are operating from, have faced various emerging issues such as new technologies, new ways of doing business and most recently, a disruptor has been the Covid-19 pandemic (Alandijany et al, 2020). At same time, this has generated business challenges and opportunities for the Gulf businesses (Ebrahim et al., 2020).

As such, in light of changes in the environment and disruptions, the focus of such organizations on new business models offers an approach to surmounting the challenges and taking advantage of new opportunities, and in turn, this influences the marketing and business structures (Woertz, 2020). In that sense, a number of studies have pointed out changes offered by the information technology (IT) positively reflect on the businesses' performance, making it possible to achieve competitive advantages via innovation, and subsequently, be distinct with respect to the competition (Alandijany et al., 2020). As such, in light of market disruptors like recent Covid-19 pandemic, organizational transformation can benefit from being agile in response to some new technologies, offering development of some new ways for creating market value via innovation process, that expands capabilities of the organization and consequently result to generation of some novel business models (Salloum et al., 2019).

Nonetheless, aside from possibility of innovating in offering its products and its services, the entity needs to show concern with adequacy of its business models with respect to new upcoming technologies (Woertz, 2020). The reason for this is that recognizing threats or possibilities from such new technologies that have been introduced on market for existing business model can enable the entity reacts through realigning its services or products, logical forms, skills, processes and network relationships. This is because essence of the business model permits the organization to react, and deliver better value for its users (Farhan et al., 2019).

However, not all organizations have understood the need for adapting their current business models to the emerging changes and disruptions in the market. This is especially so in the case of educational institutions, which are more comfortable with tried and tested business models that have always worked for them over the years rather than attempting to try out an untested business model (Al Tamimi, 2017). In such instances, authors like Shah (2017) have pointed out that the competition amongst the learning institutions would not only happen through the courses offered, but would also happen via having business models that are innovative, as the innovation of the business model has a high potential of strongly impacting a market and competition (Woertz, 2020), and could make it possible for the learning institution to set up some competitive advantages. In that context, disruptive business model arises at the stage whereby the emerging innovations and technologies have become highly critical, needing new forms of organizational structure to services and products offered, emphasizing proposal of unique value to market concerned, replacing current business models (Yulisman, 2017).

In light of the recent disruptions to the higher education, review of the existing studies to understand the state of the art has presented the perspective that today, there has some little research seeking to present business models that assist in setting up systems which collect all content that higher education requires, for dealing with the emerging situations today, and using information technology (IT) in the process (Bukamal & Mirza, 2017; Engin & McKeown, 2017). Despite the prevailing perception in the Gulf region, the online platforms have no negative impact on education excellence but have assisted universities advance skills of their members (faculty and students) (Al-Kindi and Al-Suqri, 2017).

In the Gulf, increasing online learning platforms will bring alignment, productivity, value, remote accessibility, plasticity, and access to information with simplicity and ease of studying especially in the current global crisis that has been occasioned by COVID-19 9Al Tamimi, 2017). Many institutions of higher learning have modernized their business model from the traditional brick and

mortar to a business model of bricks and clicks. This has resulted in these institutions developing online platforms to provide courses to their students and content for faculties to facilitate their teaching (Bayne and Jandric, 2017).As such, bearing in mind that state of the art on the business models that assist in setting up systems that collect all content that higher education requires is just emerging and therefore lacks theoretical foundation to support it.

MATERIAL AND METHODS

Study Methodology: A systematic literature review (SLR) was applied in this research (Xiao &tWatson, 2019). The SLR provided impartial outlines of previous studies about research topic. As a first step in the SLR, the researcher came up with an initial inclusion and elimination criteria following discussions with an acquaintance. Studies associated with frameworks to build up a business model for content creation using IT technology were aggregated, reviewed and evaluated while using pre-specified and homogenous procedures. The reviewed studies met a given criteria of being about IT technologies and also about the frameworks that support the creation of business models for content creation. This method was beneficial as it assisted in narrowing down on the relevance of the sources in with regards to the study. For instance, frameworks that build a business model for content creation that was not IT based was not considered in the SLR. The researcher used particular keywords and relied on various databases to collect the information needed in the research (Xiao & Watson, 2019).

The keywords used were Information Technology; Frameworks; Business Model; Content Creation, and their synonyms. This formed the criteria for inclusion. Another criteria relied on was linked to the time period whereby only the studies carried out post 2015 were considered. This study considered the literature of nearly sixty online sources to determine their relevance on IT and based on business model for content creation. Scrutiny of the abstracts resulted in the elimination of the studies, which did not include the findings and their corresponding methodology in the examined abstracts. As a result, about twenty seven sources were considered not appropriate for the current study (Fisch & Block, 2018).

Following the initial assessment of the inclusion and exclusion criteria, the evaluation of the entire content of the studies that met the inclusion criteria ensued. Characterization of the findings in the studies was analyzed and presented in a summarized form in order to contribute to the research questions presented in this study. Patterns identified in the studies evaluated were presented in a qualitative narration (Xiao & Watson, 2019). The findings arrived at by the researcher were found to be reliable since the researcher relied on studies that has strong methodologies (quality), were recent and relevant. Owing the number of studies screened by the researcher end to end, a great level of depth and credibility was achieved throughout the process. From a focus on sensitivity of the abstract in the initial screening, the researcher focused on specificity of the entire studies with an emphasis on methodologies applied in order to ensure that the findings would be reliable as well as of good quality (Fisch & Block, 2018). Analysis of the full text led to further exclusion of studies from the SLR due to factors such as grammatical errors as well weak methodologies applied in studies.

The university's library database was the primary source of the online studies considered in the systematic literature review. Reliance on online sources as opposed to other search options such as physically going through the library the periodicals was convenient as well as expeditious. The online searches in contrast to physical ones allowed the investigator access to a wide array of current studies (Snyder, 2019). Process applied to arrive at conclusion: To ensure adequacy of findings, the researcher covered the studies precisely and thoroughly. Comparisons and contradictions of the findings in the studies reviewed were identified and evaluated in order to detect bias and to minimize the chance of perpetuating the partiality in the current study. Summaries of pertinent data from the relevant studied were input in worksheets, which were about twenty five in number.

Subsequent to the summaries being categorized appropriately, further reading by the researcher resulted in patterns being identified. Patterns in the research that were frequent were coded. The codes were categorized broadly into groups hereafter referred to as findings/ results. These results were incorporated into the current study to support the research question on the frameworks to build up a business model for content creation using IT technology (Fisch & Block, 2018). Conclusions were drawn from the findings through critically analysis and through associating and providing converging views to these findings. Research ethics was adhered to ensure impartiality of the conclusions. This was achieved through ensuring participants in the prior primary research stayed anonymous and through the researcher relying on a thorough methodology which had clarity on procedures applied to reach the conclusions presented (Snyder, 2019).

RESULTS AND DISCUSSION

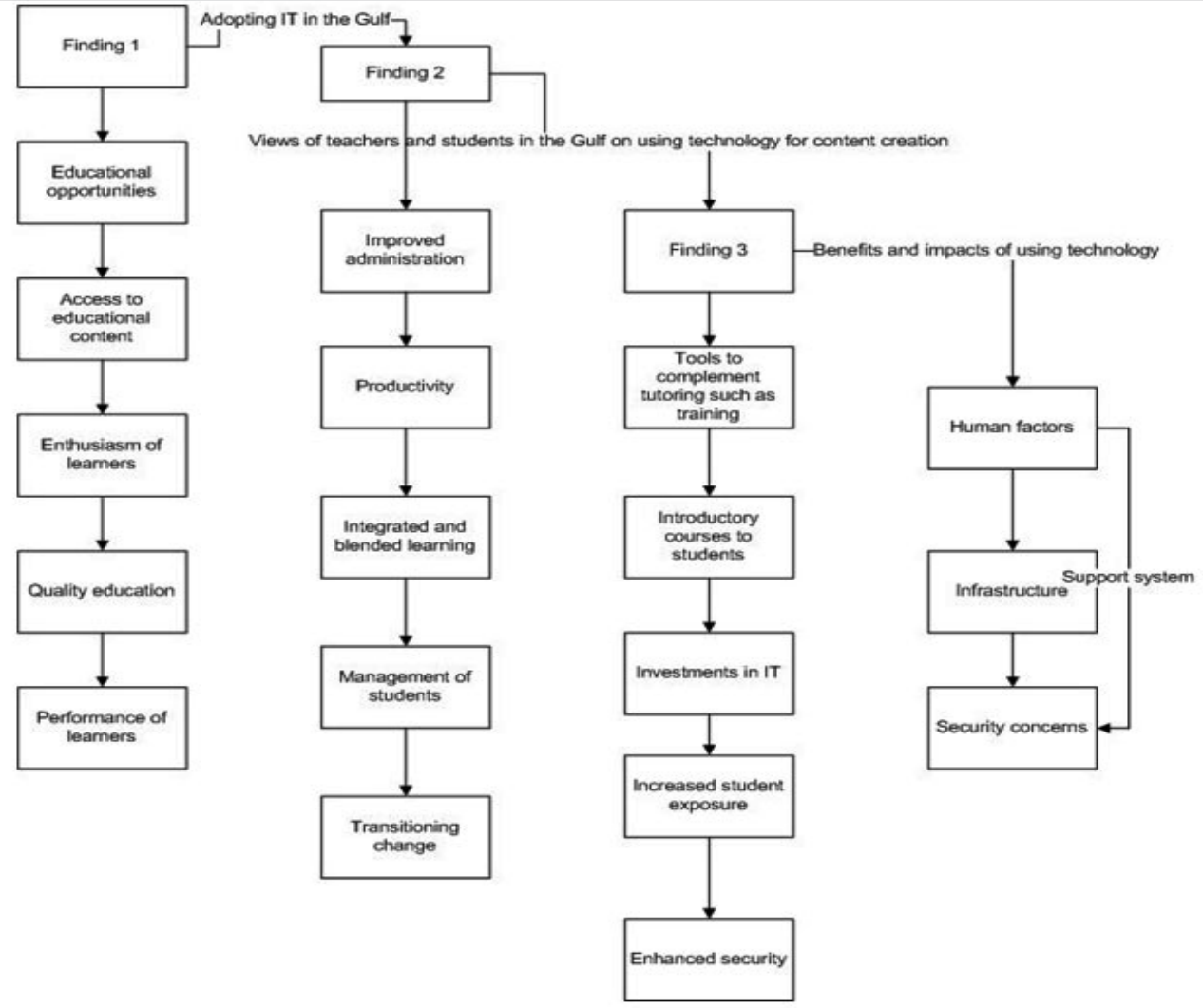
Adoption of IT technologies for building a model that can be used by higher education institutions for academic purposes in light of the changes in their environment, such as the Covid-19 pandemic, is important for improving the learning outcomes of the Gulf learning institutions, as well as improving the learning engagement and experiences of the Gulf students using IT technologies. The systematic review of the literature revealed a number of findings:

Theme 1: IT technologies, especially those relying on Web 2.0 and Internet of Things (IOT) can improve easy access to the educational content by the student, delivering some quality education, enhancing the learning opportunities as well as motivating the Gulf

learners to learn. This can enhance the learning even in the midst of the Covid-19 crisis. IT technologies in the Gulf higher learning institutions, and the content that is enabled, can be observed to be supportive 9Alajmi & Rorissa, 2018; Baadel; et al., 2017). However, the IT technology only serves as a complementary tool for facilitating administration processes and quality education. It is hard to replace traditional approach to learning, which is the face to face approach. Review of studies has demonstrated importance of the physical contact, in much the same way that complementary IT technologies helps the higher learning institution overcome some of the challenges brought about by the Covid-19 crisis (Yulisman, 2017; Shah, 2017; Farhan et al., 2019).

Theme 2: There could be negative outcomes with respect to using IT technologies for the content in Gulf higher education. In the western countries, the best practices revolve around security and privacy of data (Nouby & Alkhazali, 2017; Alajmi et al., 2018). In the Gulf, these have to be addressed or otherwise this could hinder successful implementation of the planned framework. Other issues revolve around investments in IT, and concerns over inadequate student exposure as well as restrictions based on university policy. Such concerns can potentially act as hindrance against successfully adopting IT technologies for content creation in Gulf learning institutions (Frahan et al., 2019; Al-Kindi and Al-Suqri, 2017).

Theme 3: Another observation from the systematic literature review is that in many of the developed western countries, educators have opportunities of attending training, seminars and workshops in a structured way, where they use the IT technologies for instructing the learners (Toufaily et al., 2018; David et al., 2017). Moreover, the learners do not lag behind, but rather have introductory courses where they are trained on using such technologies. This is an issue that can as well be replicated in Gulf countries (Al Tamimi, 2017; Alzahrani, 2017).



Source: Author's own

Recommendations: A framework is recommended, which consolidates the outcomes of the systematic literature review. The framework further advances better and wider consolidation of the systematic literature review findings, and enhances exactness of the trustworthiness and inferences. The framework is demonstrated in figure 1 below:

The framework for content creation using technology would utilize tools such as learning management systems, online enabled classrooms, management information systems and e-learning. Integrating these ICT platforms has been found to be useful to support universities in the system of content creation, to support students acquire critical career and soft skills and also assist in bridging the distance between the lecturers, students and institution's management. The use of platforms for content creation as enabled by the access to internet and availability of digital gadgets especially for the youthful population has improved learning and information sharing approaches.

In the developed world, ICT has greatly changed how classroom learning and also how teaching is conducted. Coming up with the framework has been based on the systematic literature review results. However it is noteworthy that such a framework cannot act as framework that is 'one size fits all' in Gulf; rather the framework offers guidance to adopting IT technologies for learning in Gulf, and for overcoming the challenges brought about by Covid-19. Moreover, the framework is largely hypothetical in nature and lacks empirical backing, despite contributing top state of art.

REFERENCES

Al Tamimi, S. A. (2017). Reshaping higher education in the Gulf States: Study abroad trends and student experiences. Gulf Affairs, 10-13.

Alajmi, M. A., & Rorissa, A. (2018). E-environments in the Gulf Cooperation Council States: An analysis of the literature. IFLA journal, 44(1), 56-73.

Alajmi, Q. A., Kamaludin, A., Arshah, R. A., & Al-Sharafi, M. A. (2018). The effectiveness of cloud-based E-learning towards quality of academic services: an Omanis' expert view. E-learning, 9(4), 111-117.

Alandijany, T. A., Faizo, A. A., & Azhar, E. I. (2020). Coronavirus disease of 2019 (COVID-19) in the Gulf Cooperation Council (GCC) countries: Current status and management practices. Journal of Infection and Public Health, 13(6), pp. 839-842.

Al-Kindi, S. S. & Al-Suqri, M. N. (2017). Mobilizing learning: Using moodle and online tools via smartphones. International Journal of Knowledge Content Development & Technology, 7(3), 67-86.

Allen, I. E. & Seaman, J. (2017). Digital Compass Learning: Distance Education Enrollment Report 2017. Babson Park, Massachussets: Babson Survey Research Group.

Alzahrani, M. G. (2017). The Developments of ICT and the Need for Blended Learning in Saudi Arabia. Journal of Education and Practice, 8(9), 79-87.

Assaad, R., Krafft, C., & Salehi-Isfahani, D. (2018). Does the type of higher education affect labor market outcomes? Evidence from Egypt and Jordan. Higher Education, 75(6), 945-995.

Baadel, S., Majeed, A., & Kabene, S. (2017, January). Technology adoption and diffusion in the Gulf: Some challenges. In Proceedings of the 8th International Conference on E-Education, E-Business, E-Management and E-Learning (pp. 16-18).

Bayne, S. & Jandric, P. (2017). From anthropocentric humanism to critical posthumanism in digital education. Knowledge Cultures, 5(2), 197.

Boelens, R., De Wever, B., & Voet, M. (2017). Four key challenges to the design of blended learning: A systematic literature review. Educational Research Review, 22, 1-18.

Bukamal, H., & Mirza, C. (2017). The mismatch between higher education and labor market needs: A Bahrain case study. Gulf Affairs, 14-16.

David, S. A., Taleb, H., Scatolini, S. S., Al-Qallaf, A., Al-Shammari, H. S., & George, M. A. (2017). An exploration into student learning mobility in higher education among the Arabian Gulf Cooperation Council countries. International Journal of Educational Development, 55, 41-48.

Duangekanong, D. & Vate-U-Lan, P. (2019). Development of an ELearning Model to Facilitate Internal Communication. Nida Development Journal, 59(1), 145.

Ebrahim, S. H., Ahmed, Q. A., Gozzer, E., Schlagenhauf, P., & Memish, Z. A. (2020). Covid-19 and community mitigation strategies in a pandemic. BMJ, 368.

Engin, M., & McKeown, K. (2017). Motivation of Emirati males and females to study at higher education in the United Arab Emirates. Journal of Further and Higher Education, 41(5), 678-691.

Farhan, M. K., Talib, H. A. & Mohammed, M. S. (2019). Key Factors for Defining the Conceptual Framework for Quality Assurance in E-Learning. Journal of Information Technology Management, 11(3), 16-28.

Fisch, C., & Block, J. (2018). Six tips for your (systematic) literature review in business and management research. Management Review Quarterly, 68,103–106.

Hibberd, F. J. (2019). What is Scientific Definition?. Journal of Mind & Behavior, 40(1).

Nouby, A., & Alkhazali, T. (2017). The effect of designing a blended learning environment on achievement and deep learning of graduate students at the Arabian Gulf University. Open Journal of Social Sciences, 5(10), 248-260.

Rodrigues, H., Almeida, F., Figueiredo, V. & Lopes, S. L. (2019). Tracking e-learning through published papers: A systematic review. Computers & Education, 136, 87-98.

Rostron, M. (2018). Rethinking Critical Thinking in a Non-Western Educational Context. Western Higher Education in Global Contexts, 113.

Salloum, S. A., Al-Emran, M., Shaalan, K., & Tarhini, A. (2019). Factors affecting the E-learning acceptance: A case study from UAE. Education and Information Technologies, 24(1), 509-530.

Shah, I. A. (2017). Teaching-Learning Challenges of Higher Education in the Gulf Cooperation Council Countries. Afro Asian Journal of Social Sciences, 8(1), 1-18.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. Journal of Business Research, 104, 333-339.

Toufaily, E., Zalan, T. and Lee, D., 2018. What do learners value in online education? An emerging market perspective. e-Journal of Business Education and Scholarship of Teaching, 12(2), pp.24-39.

Woertz, E. (2020). Wither the self-sufficiency illusion? Food security in Arab Gulf States and the impact of COVID-19. Food Security, 1-4.

Xiao, Y. & Watson, M. (2019). Guidance on conducting a systematic literature review. Journal of Planning Education and Research, 39(1), 93-112.

Yulisman, H. (2017). Perceptions of education lecturers in the implementation of mobile learning. International E-Journal of Advances in Education, 3(9), 518-524.