THE FUTURE OF DIGITAL EDUCATION IN SAUDI ARABIA: A REVIEW OF STUDENT'S PERFORMANCES

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Abstract

Saudi Arabia community has developed over the years due to its strong infrastructure. One of the most important aspects of the community is the educational sector. Hence, considering the development and digitalization of the modern world, the country also progresses in trying to stabilize and fully integrate these developments into its society. This study analyses some researches that have valuable reports on the e-learning development in the Saudi society and the possible future of the integration. Many researchers have reported on how lucrative and important e learning is to the educational sector. Saudi Arabia, hoping to establish fully integrated e-learning services in the country by 2030. The traditional education system is most recognized in the country and while e learning may offer religious, academic, and social advantages, the traditional system remains the most patronized.

Keywords: e-learning, traditional education, distance learning

الملخص

تطور المجتمع السعودي على مر السنين بسبب بنيته التحتية القوية. يعد قطاع التعليم من أهم جوانب المجتمع. ومن ثم، بالنظر إلى تطور العالم الحديث ورقمنته، نجد أن المملكة العربية السعودية تواصل في تحقيق الاستقرار ودمج هذه التطورات بشكل كامل في مجتمعها. تحلل هذه الدراسة بعض الأبحاث التي لها تقارير قيمة حول تطوير التعليم الإلكتروني في المجتمع السعودي. أفاد العديد من الباحثين عن مدى أهمية التعلم الإلكتروني في القطاع التعليمي. لذلك تأمل المملكة العربية السعودية بإنشاء خدمات تعلم إلكتروني متكاملة في البلاد بحلول عام ٢٠٣٠. يعتبر نظام التعليم التقليدي هو النظام السائد في المملكة العربية السعودية، وبينما قد يوفر التعلم الإلكتروني مزايا أكاديمية واجتماعية، يظل النظام التقليدي هو الأكثر حظوة ورعاية من قبل المسؤولين في البلد.

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Introduction

Saudi Arabia is regarded as the country with the highest digitalization in the educational sector (Unnisa, 2014). This is due to the focus given to the subject by the government of the country. There lie several improvements and opportunities in the implementation of e-learning into the educational system. Most developed countries including the US and the UK have long adopted this method of classroom teachings. Gone are the days when synchrony is required to teach. Following improvements in global technology, the internet has become one of the most sourced means of acquiring knowledge. The internet provides individuals with the option of learning with freedom, there is not a time or stress limitation. This improvement has been well utilized by most western countries to improve learning and extend it beyond classroom sessions.

The Kingdom of Saudi Arabia has risen in the middle-east as the country with the highest rate of technological implementation in the educational sector. The number of colleges and institutions in the country has increased on a high scale (Abedalla *et al*., 2014). Notwithstanding, the recent pandemic has transformed the global perception of Education

and its availability. Lack of contact, which is necessary for on-ground or traditional education system has changed the need for a more convenient and easily accessed form of distance learning. Synchronous or traditional means of learning are deeply rooted in the educational system (Alkhalaf *et al*., 2012), hence, the possibility of sidelining this system can be tough. However, the assumption of the computer age has brought about transformations in various sectors and education is not left out. There are increased methods of gaining access to educational data and relevant information anywhere in the world. Although there has been an increase in the flood of academic materials, several countries are yet to fully maximize the opportunity. There are online methods for gaining access to these materials, they are electronic materials and can be kept for a very long time, even as long as civilization exists. The Kingdom of Saudi Arabia currently witnesses a large number of requests for admission into the higher education level. According to Unnisa, (2014), the country has a large demand for higher education with over 50% of the whole population under the age of 20. Hence, an alternative or extra-means of providing academic insights aside from the traditional system is highly emphasized.

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The adoption of e-learning or distance learning is very important to the country's ability to successfully manage the need of the population for higher education. There are also, various academic companies and organizations that offer certification at way cheaper prices than the conventional school system, although they are more skill-centered than knowledge-centered. It is a more ideal situation if the synchronous school system can be combined with the asynchronous system of the e-learning platform. Although, there exist synchronous forms of e-learning teachings but, it is mostly recognized for its asynchronous feature.

Statement of the problem

The Kingdom of Saudi Arabia as of 2014 was reported by several researchers including Walabe, (2020) to have low student yield and response to the integration of technology into the education sector. Various researches have shown a wide margin between the choices of blackboard teaching compared with online learning. Hence, considering the Vision 2030 tag by TETCO on the mission to fully integrate distance learning into the education system (TETCO, 2018), it is necessary to evaluate the possibilities and future of this digitalization, putting in reference the unyielding attitude since the first implementation about 18years ago.

Research Objectives

This research aims to fulfill the following objectives towards both educational bodies and students. These include:

- This research aims to attest to the need for the Saudi Arabian educational bodies to intensify their efforts in digitalizing the educational sector.
- This study aims to prepare students who are adapted to the traditional learning system, the possibilities in e-learning.
- To expatiate on e-learning, its available opportunities, the possible result of its implementation in a country like the Kingdom of Saudi Arabia.
- To highlight several pieces of research and their observations concerning the Saudi Arabian system of education.
- To show the future impact of digital education on the educational fluidity, availability, and accessibility in the country.
- To explain the future of digital education in the country based on previous researches and findings
- This research will also evaluate if e-learning is enough to be a substitute or a replacement for the traditional or face-to-face learning system in the country.

Research Questions

- What could be responsible for the limitations in the experience gained from Saudi Arabia's e-learning system?
- Why is there a need for e-learning system of education in the country?
- Can the country successfully integrate the e-learning system and still maintain it in future years?
- What is the goal of e-learning education to the Saudi population and in what ways are these achieved?

Literature review

E-learning as defined by Unissa, (2014) can also be addressed as "technology-enhanced learning" or "distance learning", although, these are interchangeably used. E-learning being a short form of electronic learning is a form of learning that requires no or limited physical interaction as when compared with the traditional means of learning. Unissa, (2014) reported that e-learning can be defined as obtaining and distributing knowledge by learning through electronic or digital means. E-learning is also describe as an approach integral for the delivery of detailed, well-analyzed, student-centered, engaging, relaxed, and innovative learning conditions to any individual, anywhere, and at any time through the adoption of digital opportunities and resources (Unnisa, 2014). Researchers have laid claims on the possibilities to explore in e-learning (Alshahrani *et al*., 2017) and also disadvantages that include the loss of teacher-student interaction or a reduction.

Researches and scholarly articles have reported on the use of onlinelearning resources and its positive effects on student's achievement, confidence, and general performance (Jones *et al*., 2011). Although most students have not adapted to the use of digital resources in improving their educational experiences, the achievements recorded in students who have a proper understanding of the opportunities have improved considerably. Walabe, (2020), reported of the teacher-centric system of the Saudi Arabia educational traditional system, this is being altered by the implementation and integration of the e-learning services. However, Alshahrani *et al*., (2017) stated the essentiality of the interaction that exists between the teacher and their students, however, in asynchronous e-learning, this interaction is eliminated.

A study by Alshahrani *et al.*, (2017), has shown that there is a positive increase in the level of student's efficacy or confidence, connectedness with their lectures, and their self-reliance. The study shows that online learning can help in the improvement of student-teacher relations and respect. Although, this was one of the disadvantaged believed to exist in online learning, however, there are teleconferencing and other means of online social inclusion in learning. Therefore, the internet also provides synchronous means of increasing connectedness amidst the lecturers and their students anywhere in the world. Unissa, (2014) stated that the need for the e-learning feature in education is fuelled by three educational insufficiencies in the country. These include the rate of demand for higher education being less than the level of supply. Secondly, the country is a very large one causing several regions of the kingdom to be dispersed away from the cities and educational centers. These regions or remote areas according to TETCO, (2018) could be as far as 260km away from the city center. Thirdly, the e-learning integration helps to bridge the distance and accessibility to resources and educational facilities. Akhalaf *et al.*, (2012)

Significance of Research

Following the advances in the digital world increasing the availability of academic content and materials. Several countries in the world are yet to adopt this opportunity or make the best use of it. Saudi Arabia as a country is very interested in providing its students with sufficient educational support and quality. Having dedicated over a quarter of its annual budget to improvements of the educational sector, it

still lacks the quantity to reach certain individuals. Hence, digitalization is one of the greatest improvements in this country, which aims to achieve the highest educational integration and provide quality academic support. This study in this view aims to analyze the future of this digital integration in the Arabia country. Proper evaluation and elucidation of the key importance and the fate of digitalization in the country's education is the purpose of this study.

Research Method

This research examines several pieces of research on the scope of previous acceptance of online learning in the country. There have been several studies analyzed to examine the efficacy of the implementation of digital education in Saudi society. From the scope of lecturer-student interaction to student's self-confidence, the studies have been quite much. Following the inception and adoption of technology into Saudi society, many have wondered why the country's rate of using the e-learning feature to advance their economic, religious, and social fulfilments. Therefore, in this research, the evaluation of these researches, important information, and data regarding the cause of the lag in the country's digital transformation and the extrapolation of possible future if the tides remain constant. Authors like Al-Faleh noticed from previous researches the complacency of lecturers and teachers to digital technology even after a broader orientation and understanding of the relevance and possibilities (Al-Faleh, 2012).

Source of data

Articles and researches on the keywords 'Saudi Arabia' 'digitalization in Saudi Arabia' 'impact of e-learning on student's performance' were sourced from the internet. Online methods were used for the collation and sourcing of useful data. After thorough internet scraping, several articles were downloaded and organized, 18 articles were isolated, which were of relevance to this research and study. However, only about 10 of these articles contained data that are related to the research of interest. The validity of the research papers used was checked and confirmed, as only published articles and research works were used. Also, the information provided in the result of this research is subject to the publishing author of the fact. Alkhalaf et al., (2012) reported that several reports and studies show the effectiveness of the online system of learning compared to traditional systems. Using a questionnaire presented to 528 students, Alkhalaf et al., (2012) in their study reported that over 70% of this KSA students enjoyed their e-learning experience and believed it improved their productivity.

Results

Alshahrani *et al*., (2017) conducted a research using a total of 1,942 students in a 3-countries variable, having 346 students from Kenya, 294 students from the UK, and 948 students from the Kingdom of Saudi Arabia. The data represented below was obtained when comparing Saudi Arabia and the UK.
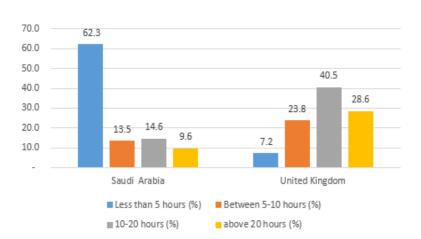
Fig.1. Comparison of internet usage for e-learning among students from Saudi Arabia and the UK.

Abeddela *et al*., (2014) in a study of 45 participants also reported a wide range of preferences for the traditional system of education despite the available initiatives.
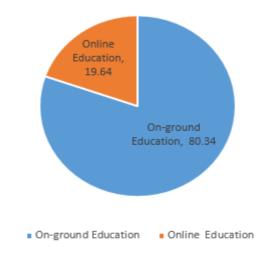

Fig.2. A chart showing student's preference between online and on-ground education systems.

Al-Juda, (2017) also compared the level of acceptability amongst higher education students of differing gender of 500 different surveys and obtained the following data showing a report based on 400 students.
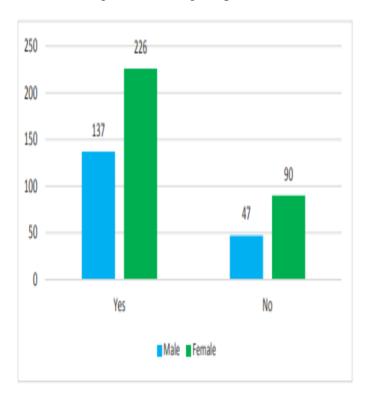

Fig.3. The different support and acceptance based on the gender regarding the integration of e-learning

Further studies from the same researcher on students in Higher education and their experiences with e-learning showed the following data.
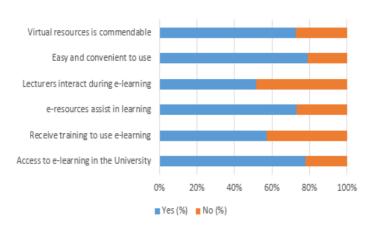
Fig.4. A report based on higher education students on the assistance and opportunity realized in the use of digital education resources.

In 2003, a study by Ali *et al*., (2003) showed that knowledge about e-learning was one of the causes of low yield in the field. A study on the choice of student's method of learning was taken and the following was obtained as answers.
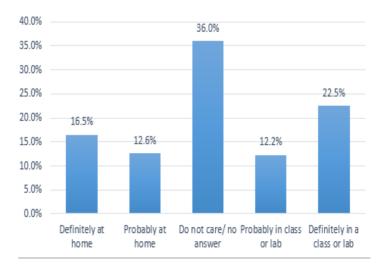
Fig.5. A survey on student's choice of method of learning in Saudi Arabia in 2003.

Discussion

The importance of e-learning to the educational society cannot be overemphasized. Most especially, in a country like Saudi Arabia, where there is an imbalance in the level of demand for higher education and the available resources to supply.

Taking a look at Fig.1. The Saudi Arabian educational system has a lot to catch up on, as many students have convictions that on-ground education is way admissible than an online scope of education. It is evident as over 60% of the questioned students do not spend up to 5hours in a month surfing the web for educational purposes. This can be assumed to either be due to less information about the technology and its usefulness in education or the discouragement enforced by their lecturers (Al-Faleh, 2012). Before there can be improvements in the educational system of the country and to truly impact the student's performance, authors like Walabe, (2020) advised that the educational system of the Arabian country be student-centric, unlike the traditional system which is teacher-centered.

Fig.2. shows the dependability of students on on-ground education. To be accurate, most people place more value on certificates earned through the traditional education system as most individuals engage in online earning either to increase their skills to earn a chance at promotion or to score a job. There was a very disturbing ratio between these two education systems which can be due to the stereotyped view of the online sector. It is only reasonable that for Saudi Arabian education sectors either public or private to provide support accurately, a balance will have

to be stricken in the understanding of online learning. The orchestration of webinars or seminars at the pre-tertiary education level could be a way of instigating a support system in the students towards e-learning. This dependency can be due to students being accustomed to the use of traditional systems in learning.

The report in Fig.3. shows female's acceptance towards the integration of online systems of learning. While this may be due to gender differences, visual experiences provided in online or distance learning is unrivaled, it provides an avenue to record, replay, and re-access certain academic materials that can aid in learning. From the graph displayed, it can be affirmed that over 70% of the female students questioned were in support of the integration compared to the less than 30% who disagreed.

Fig.4. shows the relative levels of higher education assistance and implementation of e-learning. Questions were asked from various students and the data in the figure was obtained. There is at least beyond average measures taken to ease and provide students with the best educational quality. The study observed that lecturers were not interested in providing support and technical assistance to students while using e-learning resources. It is also evident that students find it easy and admissive to adjust to the online methods of learning than the classroom sets.

Fig.5. showed a level of disinterest in e-learning in most of the population, this according to the author could be due to being unaware of the significance of the digital education system. Also, culture and religion have been assumed as one of the hindrances of e-learning but with rising number of users, having about 21.6million active as of 2015 compared with the 7.7million count in 2008, the availability of Arabic contents should attract more internet and e-learning users. From the evidence of this study, it can be inferred that e-learning in the country will be productive and more convenient in the following years, however, this must be balanced with the traditional system and also governmental funding must continue. This funding provides opportunities and access to students in the e-learning environment. Increasing internet access will provide a further boost in the student's e-learning experiences. However, these achievements are fuelled by the financially buoyant and wealthy Saudi society. Therefore, Saudi Arabia has enough tools and resources to implement the e-learning facilities and digitals, but proper awareness and digital empowerment of students may be required to improve the reliance or usage of the system. Also, e-learning provides an easy avenue for a large number of student's enrollment and this may serve as a good way for the Kingdom of Saudi Arabia to handle its demand for higher education.

Conclusion

E-learning is a digital advancement that has been welcomed by the ministry of education. However, the acceptance rate of e-learning varies based on the student's perception and access to such resources. According to Unnisa, (2014), the use of e-learning in the country has been encouraging and with continuous improvements, there is a chance of improvement. The lag in this improvement as reported by Abedalla *et al*., (2014) is because Saudi Arabian students are accustomed to the traditional mode of learning.

Online learning is not a substitute for traditional learning in all cases and is not expected to replace traditional learning. Psychology defines that individuals learn differently, while the human brain is more adaptive to visual contents, some students may prefer face to face interactions. For students who want to research beyond their classroom experiences and learn beyond what their lecturers know and for students who either 'like' computers or have no other means of achieving their academic goals, the e-learning system is cheaper, easier, and a more convenient option.

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