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Attitudes of lecturers towards e-learning: BA ISAGO university

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Abstract

In Botswana e-learning is still in its infancy with most universities currently implementing different strategies to integrate e-learning into the teaching and learning process. A cross-sectional study was conducted to investigate whether the variables age, gender, training to use e-learning tools, e-learning experience, internet access, and computer skills were associated with the lecturer's attitudes towards e-learning. The study consisted of thirty-eight randomly selected lecturers at BA ISAGO University, Gaborone campus. The data was collected using a closed-ended questionnaire with items that seek to ascertain their attitudes towards e-learning. To test out the study hypothesis descriptive statistics, Pearson correlations and independent samples t-test were computed. The results indicated that half of the participants had positive attitudes towards e-learning. Proving that e-learning was an acceptable teaching method to be utilised at this tertiary education institution. The study further showed that age and gender were not significantly associated with the lecturers' attitudes towards e-learning. Also, the results indicated that there was no significant relationship between attitudes towards e-learning and training to use e-learning tools, e-learning experience, internet access as well as computer skills. It was therefore concluded that these variables had no impact on attitudes of lecturers towards e-learning as lecturers had become competent and confident in using computers as part of teaching methodology at BA ISAGO University. It is crucial for this university to strengthen the digital culture through training and support, and motivational strategies to build positive attitude towards e-learning.

Keywords: Attitudes, COVID-19, E-Learning, Lecturers, Tertiary education, Botswana.

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Contents

Contribution of this paper to the literature
E-learning is under-researched in Botswana, where universities have recently adopted it. This study offers unique insights into local attitudes toward e-learning, revealing potential barriers and informing policy and practice. It bridges gaps in understanding and contributes valuable data for similar contexts.

1. Introduction

Covid-19 has been classified as a pandemic that poses a current threat to humanity by the World Health Organisation (2020). The coronavirus originated in Wuhan, China and rapidly spread all over the world. The Director General of WHO in March 2020 declared Covid-19 as a pandemic along with social distancing, sanitization, washing hands with soap as ways of containing spread of the pandemic (World Health Organisation, 2020). Many global activities, including educational activities, have been forced to close due to the pandemic. The COVID-19 pandemic is having a significant impact on educational institutions (El-Sabagh & Yamani, 2020). The pandemic has thrown a wrench into almost every traditional classroom setting, in which students are gathered in one place and the lecturer presents learning materials face to face. It has become obligatory for academic institutions to embrace alternative ways to continue the teaching and learning activities.

COVID-19 has made it mandatory for all the teachers of developing countries to use online platforms for teaching and learning to support the education sector (Mulenga & Marbán, 2020). Tertiary educational institutions in Botswana, are increasingly seeking to implement innovative technology-enabled e-learning as a primary teaching method as it appeared to be a panacea for disrupted academic activities. However, the adoption of this technology as a tool for teaching and learning in Botswana's higher education institutions is still in its infancy, most universities are still having trouble integrating e-learning into the teaching and learning process.

2. Literature Review

Technology has permeated every aspect of human existence in today's modern world. According to the World Economic Forum, by 2025 technological advancements will eliminate 85 million jobs thus making it crucial for the education systems to equip learners with growing demand of information technology skills (Masterson, 2022). With the increased use of technology, the creation of technology-based classrooms for teaching and learning has become essential. Unika (2021) mentioned that technology has made teaching and learning processes easier. The learning and teaching processes at many universities and colleges around the world has changed as a result of technology (Mulenga & Marbán, 2020). With advanced information and communication technologies technology being utilized to facilitate online education, it has proved to be more practical in terms of financial and operational efficiency (Palvia et al., 2018). The Internet has become one of the most important tools for instructors to share and acquire information for teaching and learning. Almost 3 million students complete their entire higher education online (Welding, 2022). In 2020, as the coronavirus pandemic began to disrupt the educational system, e-learning became increasingly important. According to Pokhrel and Chhetri (2021) e-learning tools have played a crucial role during the pandemic, helping schools and universities facilitate student learning during the closure of universities and schools. These technologies have become indispensable for education and training processes as a result of the COVID-19 pandemic (Pokhrel & Chhetri, 2021).

Since the corona virus pandemic, e-learning has become a necessity for higher education institutions, the institutions, which had previously been reluctant to change, are now forced to embrace modern technology (Dhawan, 2020). Mulenga and Marbán (2020) claim that the COVID-19 pandemic has influenced how effectively people use digital devices, online resources, social media, and e-learning activities. E-learning has gained prominence as a result of effects of COVID-19 pandemic on the education sector (El-Sabagh & Yamani, 2020). Prior to the COVID-19 pandemic, e-learning was merely a supplement to the classroom learning process. Currently online teaching technologies are the only way in which universities can serve with teaching and learning as COVID-19 is still a threat in the world.

E-learning has been defined in a variety of ways over the years by different scholars. .According to Aparicio, Bacao, and Oliveira (2016) the term "e-learning" was coined in 1955. E-learning has been defined as the use of computer network technology to provide information and instructions to individuals, mainly through the internet (Abaidoo and Arkorful (2014). Welsh, Wanberg, Brown, and Simmering (2003) refers to e-learning as "the use of computer network technology, primarily over an intranet or through the internet, to deliver information and instruction to individuals". Tladi and Nleya (2021) define e-learning as the use of contemporary instructional technologies, especially digital and network technologies, to create, foster, deliver, and facilitate learning, anytime and anywhere. According to Hani et al. (2021) the term e-learning refers to using electronic technology to access educational resources and curriculum outside of traditional classroom settings. In simple terms, e-learning refers to any learning that is electronically enabled which commonly, includes the use of interactive artificial intelligence technology, web-based applications, and smart mobile phone technologies (Unika, 2021). It is a tool that has developed from information and communication technology and has been adopted by many universities (Unika, 2021). E-learning is an innovative form of education that improves the quality of teaching and learning in higher education (Bertea, 2009). According to Maphosa (2021) e-learning is a key component of the knowledge economy. The knowledge economy's emergence has altered the learning process by giving students access to technological tools that enable them to produce new knowledge, interact with others, collaborate, and learn at their own pace (Maphosa, 2021). In this paper, e-learning refers to any learning that is aided by information and communication technology.

Early literature on e-learning argues that e-learning initiatives bring many advantages to the education system. These include the potential to improve the effectiveness and efficiency of lecturers, it tackles time and distance limitation making it possible for students to learn at their convenience (Chinyamurindi & Shava, 2015) flexibility in terms of availability-anytime, anywhere. It enables students to access the material from anywhere at any time, self-pacing for slow or quick learners, learners take responsibility of their studies and develop self-awareness and confidence, and also develops knowledge of using latest technology and internet (Abaidoo & Arkorful, 2014).

According to Abaidoo and Arkorful (2014) through use of discussion forums, e-learning helps to break down barriers to participation, such as apprehension about speaking in front of other students. Maphosa (2021) has noted that students today prefer informal learning that is free of time and space constraints. According to Keengwe and Georgina (2013) our students are mostly digital natives who prefer autonomy and flexibility in their learning styles. According to Bose (2003) e-learning technologies benefit a variety of learner groups at the university, including those with disabilities, parenting students, and working students, to mention a few, because they allow them to access module content and study materials at times and places that are convenient to them. It is reportedly very convenient and can even be accessed in rural and remote areas (Dhawan, 2020). E-learning may encourage students to work independently, fostering the growth of students' capacity for self-learning (Bose, 2003). Dhawan (2020) argues that through increased flexibility, creativity, and student-centeredness, e-learning enhances the teaching-learning process. Due to e-learning, there are many students today who are pursuing their education in numerous universities abroad without having to leave their home country in order to study abroad full-time (Dhawan, 2020) which offers greater flexibility and less expense. It is regarded as a relatively more affordable form of education due to the lower costs of travel, lodging, and institution-based education as a whole (Dhawan, 2020). E-learning allows learners to learn whenever they want, regardless of their geographical location. Welsh et al. (2003) noted that many companies also use e-learning when they need to quickly deliver training to a large number of people and when many people need to train in less time because it is not limited by the number of instructors and classrooms. Furthermore, Hondonga, Chinengundu, and Maphosa (2021) mentioned that elearning also provide environments where teachers can collaborate with experts outside of their local area to improve the quality and relevance of their online training provision.

However, for e-learning requires a number of factors such as technical know-how, internet accessibility and also affordability to be an effective tool for teaching and learning (Hasan & Khan, 2020). In developing countries, the adoption and implementation of e-learning remains a challenge although online teaching and learning is increasingly encouraged (Hasan and Khan (2020). According to Unika (2021) the lack of computers and access to the broadband internet connections, outdated infrastructure, training costs and poor competence are significant obstacles to e-learning. Moakofhi, Leteane, Phiri, Pholele, and Sebalatlheng (2017) in their study at the Botswana University of Agriculture and Natural Resources (BIURST) found that poor infrastructure, inadequate IT support, a lack of an e-learning policy, and a lack of university management support, were among the problems that the institution faced in adopting successful e-learning. Additionally, a study conducted by Chomunorwa and Mugobo (2023) noted challenges to e-learning adoption in South African public schools, which included the lack of device access, high internet costs, teacher disinterest, and perceived ineffectiveness of e-learning as a teaching and learning tool.

Other e-learning drawbacks have been cited which limit the applicability of e-learning for effective teaching and learning. Dhawan (2020) mentioned that e-learning is very flexible that some students never find time to engage with the content provided. Also, e-learning requires a high level of self-discipline on the students such that students with low motivation or bad study habits may fall behind as it lacks direct interaction amongst students and lecturers which limits students' engagement in deep learning (Abaidoo & Arkorful, 2014). E-learning may result in a reduction in the roles played by institutions and lecturers in fostering learning, severely impacting students' values, the educational process, and their social lives (Jawad & Shalash, 2020). Abaidoo and Arkorful (2014) noted that not all academic disciplines can use the e-learning as an effective teaching tool, for instance studying pure scientific disciplines that require practical applications. Although e-learning has been seen as the best replacement of face to face classes during COVID-19, it cannot completely replace the efficiency and effectiveness of traditional classrooms for professional and practical courses (Chandwani, Singh, & Singh, 2021). Furthermore, in e-learning the instructor is not physically present to provide instant feedback or solve any student queries which the physical classroom provides (Unika (2021). Swanson et al. (2015) argues that it can also be challenging for learners to correctly interpret messages online when there aren't any facial expressions and body language. As such, some lecturers find e-learning to be ineffective teaching and learning tool to foster student engagement with content.

Several studies have shown that attitudes towards e-learning systems play a significant role in the success of e-learning teaching methodology (Krishnakumar & Rajesh, 2011; Van Raaij & Schepers, 2008; Xhaferi, Farizi, & Bahiti, 2018). According to Liaw, Huang, and Chen (2007) "no matter how advanced or capable the technology is, its effective implementation depends upon users having a positive attitude toward it." It is, therefore, very critical to understand attitudes of lecturers towards e-learning especially at institutions where it is newly or to be adopted (Xhaferi et al., 2018). Attitudes have been used by social psychologists to describe human behaviour (Kisanga & Ireson, 2016). There is a strong link between one's attitude and one's behaviour (Kisanga & Ireson, 2016). They are useful predictors of behaviour. Attitudes are positive or negative evaluations of objects, peoples, or situations that predispose us to feel and behave towards them in positive or negative ways (Fabrigar, MacDonald, & Wegener, 2005). Mun, Jackson, Park, and Probst (2006) define attitude as a person's feeling, either positive or negative, that is connected to engaging in a particular behaviour. According to. A favourable attitude towards e-learning of lecturers indicates that they are more likely to accept the e-learning system. Xhaferi et al. (2018) argues that knowledge of attitudes towards e-learning would help academic staff to adapt e-learning models and formats to meet their needs especially in the context where online learning is still at infant stage.

Lecturers play a critical role in the successful implementation of e-learning in higher education institutions. The success of incorporating technology into teaching and learning is dependent on the lecturer's personal attitude as well as lecturer digital knowledge (Xhaferi et al., 2018). Xhaferi et al. (2018) contend that it is important to understand lecturers' attitudes prior to implementing e-learning since they are the ones who utilises it. According to Ahuja, Kaur, and Panda (2019) over the past years there has been an increase in availability of e-learning tools in schools however lower usage of these tools due to negative attitudes of instructors. Furthermore, the literature indicates that lecturer attitudes towards e-learning are associated with variables such as age, gender, specialty, and experience. Bahiti, Xhaferi, and Farizi (2022) asserts that the individual characteristics of academic staff, such as gender, age, faculty, teaching experience and e-learning experience, can affect the adoption of a technology. Before introducing an e-learning system, it is also crucial to understand how characteristics of the lecturers influence attitudes towards the adoption of e-learning.

Numerous of studies show that lectures have favourable attitudes toward Information Communication Technology (Alshorman & Bawaneh, 2018; Bahiti et al., 2022; Chandwani et al., 2021; Unika, 2021; Xhaferi et al., 2018). They argued that when it comes to an e-learning system, lecturers who have positive attitude toward e-learning are more likely to embrace its integration into the teaching and learning process in higher education. Unika (2021) conducted a study to examine the shift of lecturers' attitudes towards online class in the Chennai City. There were 52 participants who responded to the questionnaire. The results showed that 35 lecturers can shift their attitudes towards the online classes while 17 lecturer preferred traditional classroom methods. This indicated that most lecturers had indicated positive attitude towards e-learning. Researchers Tena, Almenara, and Osuna (2016) examined how lecturers at six different Andalusian universities use e-learning and evaluated their satisfaction with it. A quantitative study was employed. Data was collected from 1302 lecturers using questionnaires. They discovered that university lecturers demonstrated positive attitudes towards the e-learning however found that there were significant gender differences between lecturers in two areas; male lecturers had more knowledge of the e-learning tools, while female lecturers used them more.

There has been a mix of research results in lecturers' attitudes towards e-learning as an influence of their demographic characteristics such as gender, age, faculty, academic level, access to technology and experience. A study was conducted by Alshorman and Bawaneh (2018) to identify the attitudes of university/ faculty members towards the use an online Learning Management System (LMS) in teaching and learning. The findings indicated that faculty members had positive attitudes towards using the LMS and gender was a significant factor with male lecturers in favour of using the LMS. Also, the results of this study did not demonstrate any statistically significant differences based on the faculty members' experience and the academic level. Similarly, El-Sabagh and Yamani (2020) investigated faculty members attitudes towards an online LMS at Umm Al-Qura University and they found that male and female participants' attitudes toward using the LMS were significantly different, favoring male participants. This study also revealed significant difference in the attitudes of faculty members towards using LMS depending on whether they are humanities, scientific or medical colleges. Faculty members in the scientific college were more willing to use the learning management system than those in the humanities college. Bahiti et al. (2022) carried a study with 49 lecturers at the University of Tetova to investigate the influence of lecturer's demographic factors on their attitudes towards integration of e-learning in teaching and learning. The findings of the study indicated that lecturers had positive attitudes towards e-learning and there were no statistically significant differences in the attitudes of lecturers due to gender, faculty and age. However, the results revealed statistically significant differences based on teaching experience and e-learning experience. Chandwani et al. (2021)'s study also demonstrated that teachers' attitudes about online instruction were not significantly different based on their gender, however, age, familiarity with online learning resources, and teachers' attitudes towards online instruction were significantly correlated with one another.

Furthermore, research conducted by Ekunola, Onojah, Talatu, and Bankole (2022) found no gender-based difference in lecturers' attitudes toward using virtual classrooms for instruction but a significant difference between the attitudes of less experienced and more experienced lecturers toward using virtual classrooms for instruction, favouring the less experienced lecturers. Suri and Sharma (2017) also conducted a study to identify the attitudes of university lecturers towards e-learning and the effect of demographics on attitude of lecturers. The sample consisted of 85 university lecturers in 6 major faculties. The findings of the study indicated that lecturers had positive attitudes towards e-learning. According to the findings, neither gender nor the faculty of lecturers had a significant impact on lecturers' attitudes toward computers and e-learning, but age had a significant impact. However, the results did not demonstrate any statistically significant differences based on the faculty members' experience and the academic level.

Xhaferi et al. (2018)'s study findings also demonstrated similar results. The study found that while lecturers' attitudes regarding e-learning did not differ significantly with their personal variables - gender, faculty, and age - they did differ considerably with factors related to their teaching experience and e-learning experience. Karasneh et al. (2021) observed that prior experience with online teaching was associated with more positive attitudes. Almost two thirds (66.9) of educators in the study reported having a prior experience with online learning and teaching. Karasneh et al. (2021) believed that negative attitudes towards e-learning stem from lack of technical skills leading to discomfort with utilising new technologies and dealing with technical difficulties. Ntereke, Conteh, Ramoroka, and Tlhobogang (2021) also argue that use of emerging technologies in education requires the ability of the lecturer to effectively communicate the lesson's content using the right technology, strategies, and teaching methods for student-centred learning. Therefore, in order to design and teach online, lecturers should possess the necessary knowledge and digital technology literacy. Faculty members, in the study by Lee, March, and Peters (2015) found online education to be more valuable after receiving training and using it for teaching. Alanazy (2018) and Lufungulo et al. (2021)'s studies findings also indicated that experience with online learning has a significant effect on a faculty member's attitude toward online teaching.

Although the majority of more recent studies show no statistically significant differences in lecturers' attitudes related to age (Adhya & Panda, 2022; Alshorman & Bawaneh, 2018; Bahiti et al., 2022; Xhaferi et al., 2018) earlier studies found that lecturers' age was relevant factor for lecturers with favourable attitude toward e-learning (Becker, 1999; Tuparova, Tuparov, Ivanov, Karastranova, & Peneva, 2006). Tuparova et al. (2006)'s study found that lecturers with extensive teaching experience (more than ten years) were less likely to create and implement electronic learning materials while Becker (1999) found that the majority of educators who use information technology as a teaching tool and for student product development were under 30 years old and in their first few years of teaching. Chawla and Joshi (2012)'s study also revealed that those under the age of 25 were more likely than those over the age of 25 to have a favourable perception of e-learning. Similarly, Almazova, Krylova, Rubtsova, and Odinokaya (2020) found that lecturers over the age of 55 required more training and assistance from information technology teams.

Previous research studies have also suggested a link between lecturer's attitudes toward e-learning and internet access. Internet access is one of first factor that influence lecturer's attitudes toward e-learning and their willingness to adopt it (Guessoum, 2006; Javier, 2020) Internet access is the most critical requirement for e-learning. According to Dramani, Tang, and Coffie (2022) the University's provision of internet services, as well as other online resources, make it possible for users to easily access the University's e-learning services. In Mutisya and Makokha (2016)'s study, inadequate internet connectivity was ranked as the second most serious barrier to lecturers' adoption of e-

learning in public universities after inadequate time to develop e-learning materials. 76% of 420 lecturers revealed that there were not enough hotspots and bandwidth to support users' internet access needs.

Pelgrum (2001) asserts that teachers' computer skills are a key factor in determining whether educational innovations are successful. According to Harrison and Rainer Jr (1992) research, participants with negative attitudes toward computers were less adept at using them, and as a result, they were less likely to accept and adopt new technology than those with positive attitudes. Similarly, a study carried by Krishnakumar and Rajesh (2011) on the attitude of teachers of higher education towards e-learning found that teachers who are knowledgeable with computer have favourable attitude toward e-learning than those who do not have computer knowledge.

BA ISAGO University is a private university in Botswana. BA ISAGO University first opened its doors in 2002 as a University College. It is a small university with four faculties and about 3500 students in all the three campuses, that is, Gaborone Campus, Francistown Campus, and Maun Campus. It is a traditional university where students are gathered in one place and the lecturer presents learning materials face to face. However, BA ISAGO University began implementing e-learning in 2020 as it became obligatory for academic institutions to embrace alternative ways to continue with the teaching and learning activities during COVID-19 period. There are few courses that are delivered online particularly evening part-time classes. This process is still at initial stage, with noted observation of lack infrastructural setup, unpreparedness of lecturers and students, inadequate IT support, a lack of an e-learning policy and deficiency in Information Communication Technology skills to adapt to e-learning teaching and learning environment.

Due to the COVID-19 pandemic, BA ISAGO university had to shut down institution-based activities two times in 2020, during the month of April to August and between July to August in 2021, to prevent the virus from spreading. Consequently, BA ISAGO university, like other higher education institutions, must recognize innovative change and implement virtual learning opportunities to continue teaching and learning. At present, less knowledge is available on the reality of e-learning particularly in the context of Botswana. There is a growing need to design and formulate new policies on the implementation of e-learning across the education sector more particularly at university level. However, there are few studies on e-learning (Leteane & Moakofhi, 2015; Moakofhi et al., 2017; Thurab-Nkhosi, Lee, & Gachago, 2005) especially the attitudes of lecturers regarding such learning settings in Botswana. This study, therefore, investigate e-learning attitudes of lecturers at BA ISAGO University because this has been regarded as a key aspect of teaching and learning (Liaw et al., 2007; Xhaferi et al., 2018). It also investigates various factors, such as age, gender, training to use e-learning tools, e-learning experience, internet access, and computer skills that might have an impact on their attitude. This study will be one of the few to offer empirical data relevant to Botswana.

2.1. Research Objectives

Objectives of the Study are:

1) To investigate the overall attitudes of lecturers towards e-learning.

2) To assess whether attitudes of university lecturers towards e-learning varies according to age and gender.

3) To investigate if there is any relationship between lecturer's attitudes and training to use e-learning tools, e-learning experience, internet access, and computer skills.

2.2. Study Hypothesis

Hypothesis 1: University lecturers have positive attitudes towards e-learning.

Hypothesis 2: There are no statistically significant differences in the lecturer's attitudes towards e-learning according to age and gender.

Hypothesis 3: There is a relationship between attitudes towards e-learning and training to use e-learning tools, e-learning experience, internet access, and computer skills.

3. Methodology

This study used quantitative research method to develop a questionnaire to determine lecturers' attitudes towards e-learning. Using a quantitative method ensures that the study is subjected to validity and reliability testing (Tredoux & Durrheim, 2006). Quantitative methods make up an important part of social science research. Tredoux and Durrheim (2006) argue that quantitative methods are useful because "they are efficient in communicating information, they allow modelling of real-world phenomena, and they are part of a well worked-out and powerful disciplinary language.

The study employed a cross-sectional design to investigate whether the variables age, gender, training to use e-learning tools, e-learning experience, internet access, and computer skills could predict the lecturer's attitudes towards e-learning. This method was used because it is cheap and fast to use (Mann, 2003) and it easily enabled the researcher to study the relationships between the variables.

Research permit was granted by Ministry of Tertiary Education and Research Science and Technology. The study sample consisted of 38 randomly selected lecturers from a total of 87 lecturers currently employed at BA ISAGO University, Gaborone campus. The sample consisted of 15 females and 23 males who completed the Attitudes Towards Elearning Questionnaire (ATEQ), which is a self-report questionnaire with closed-ended items on a Likert Scale to assess attitudes of the respondents. This data collection method was used so that respondents would have ample time to respond comfortably and because it allows for quick, accurate, and easy analysis of the data collected. The questionnaire consisted of three sections with the first section detailing the demographics of the participants namely gender, age category, faculty, department and academic level. The second section had items that focused on knowledge of e-learning and resources. The last section of the questionnaire included those items that measured the participants attitude where they were required to rate statements using a five-point Likert Scale from 1(strongly agree) to 5 (strongly disagree).

A questionnaire was developed with the following considerations. Firstly, the object of the study was clearly defined (Loewenthal, 2001). Items were constructed using a number of different sources including brainstorming, group discussions and existing theory (Loewenthal, 2001). The questionnaire was validated by establishing face and

content validity through the use of experts on the topic and also conducting a pilot study on the intended population. The items were also assessed for readability, complexity level, adequateness, and representativeness of the topic, as well as for language clarity and the amount of time needed to complete the questionnaire (Cohen, Manion, & Morrison, 2011). The Cronbach's Alpha of the pilot study data was calculated to assess the reliability of the questionnaire. The obtained Cronbach Alpha value was 0.846. Statistical Package for the Social Sciences (SPSS) was then used to analyse the study data. Descriptive statistics were used to summarise and describe the information gathered from the respondents.

4. Analysis and Results

To analyse the data IBM Statistical Package for the Social Sciences (SPSS) Statistics 25 was used. Descriptive statistics were used to provide an overall summary of the sample characteristics and parametric tests that is, Pearson correlation and independent samples t-test were used to test the study hypothesis.

Table 1. Descriptive statistics for demographic details.

Variable	Categories	N	%
Age	31-40yrs	23	60.5
	41-50yrs	10	26.3
	51-60yrs	4	10.5
	Missing	1	2.6
Gender	Female	15	39.5
	Male	23	60.5
Academic level	PhD	6	15.8
	Masters	32	84.2
Current position	Senior lecturer	1	2.6
	Lecturer	37	97.4
Faculty	Commerce	18	47.3
	Education	1	2.6
	Law	5	13.2
	Built environment	13	34.2
	Missing	1	2.6

Table 1 shows frequency and percentage distributions for the age, gender, academic level, current position, and faculty to illustrate the demographic characteristics of the lectures. From all the 38 participants 60.5% were aged 31 – 40 years, 26.3% were aged 41 – 50 years while 10.5% were those aged 51 – 60 years. The majority of the participants were males at 60.5%. 84.2 % of participants are masters holders while only 15.8 are PhD holders. Only one participant was a senior lecturer while all others were lecturers. Faculty of commerce had majority of participants (47.3%), followed by faculty of Built and Environment (34.2%), faculty of Law and public administration (13.2) and lastly faculty of Education (2.6%).

Hypothesis 1: University lecturers have positive attitudes towards e-learning.

Descriptive statistics were used to assess whether the lecturers generally had positive attitudes toward e-learning. For this study, total scores from the ATEQ were used to determine the proportion of participants who scored above the mean score of 60.5 to indicate those had positive attitudes whereas those who scored below the mean had negative attitudes. The percentages and frequencies from the ATEQ were then used to determine how many participants had positive and negative attitudes towards e-learning. The results indicate that 50% of the participants had positive attitudes towards e-learning.

Table 2 shows that attitudes scores for the participant on the ATEQ measure for attitudes towards e-learning.

Table 2. Descriptive statistics for the ATEQ measure.

Categories	Frequency	Percentage frequency
N	38	**100%**
Above average of 60.5	19	50%
Below average of 60.5	19	50%

Hypothesis 2: There are no statistically significant differences in the lecturer's attitudes towards e-learning according to age and gender.

To address hypothesis two, an independent samples t-test was used to test for differences in attitudes towards e-learning among participants according to age and gender respectively. Assumptions that were checked for include normality, independence, and homogeneity of variance.

Table 3. Independent samples t-test.

Variable	N	Mean	SD	T-score	p-value
Age	38	-	-	-1.288	0.206
Above 40yrs	14 (60.5%)	62.93	10.02	-	-
Below 40yrs	23 (36.8%)	58.48	10.29	-	-
Missing	1 (2.6%)	-	-	-	-

Age: Table 3 shows the results of an independent samples t-test conducted to see whether there were no differences in attitudes between participants below the ages of 40yrs and the above 40yrs of age. The attitude scores for participants below 40yrs (M = 58.48, SD = 10.29) was slightly lower than the attitude scores for those above 40yrs (M = 62.93, SD = 10.02). Consequently, the mean difference in attitudes scores between participants below the ages of 40yrs and the above 40yrs of age was not statistically significant, t (35) = -1.288, p = 0.206 therefore we accept the null hypothesis.

Table 4. Independent samples t-test.

Variable	N	Mean	SD	T-score	p-value
Gender	38	-	-	0.249	0.805
Male	23 (60.5%)	60.87	9.61	-	-
Female	15 (39.5%)	60.00	11.82	-	-

Gender: Table 4 shows the results of an independent samples t-test conducted to see whether there were no differences in attitudes between male and female. The female attitude score (M = 60.00, SD = 11.82) was slightly lower than the male attitude score (M = 60.87, SD = 9.61). However, the mean difference in attitudes scores between females and males was not statistically significant, t (36) = 0.249, p = 0.805 thereby we accept the null hypothesis.

Hypothesis 3: There is a relationship between attitudes towards e-learning and training to use e-learning tools, e-learning experience, internet access, and computer skills.

Pearson's correlation was used to assess the relationship between attitudes towards e-learning and training to use e-learning tools, e-learning experience, internet access, and computer skills. Pearson's correlation deemed appropriate as the scatterplot revealed a linear relationship, (a linear relationship is required (Laerd Statistics, 2018) between attitudes and the other variable.

Table 5. Pearson correlation coefficients.

Variable	Attitudes	Training	Experience	Internet Access	Computer skills
Attitudes	1	-	-	-	-
Training	-0.029	1	-	-	-
Experience	-0.134	-	1	-	-
Internet access	-0.080	-	-	1	-
Computer skills	0.129	-	-	-	1

Table 5 shows the results of Pearson's correlation conducted to assess the relationship between attitudes towards e-learning and training to use e-learning tools, e-learning experience, internet access, and computer skills. None of the variables showed significant relationship. The results show that there was no significant relationship between attitudes and the training to use e-learning tools, (r = -0.029, p = 0.860); e-learning experience, (r = -0.134, p = 0.421); internet access, (r = -0.080, p = 0.633), as well as computer skills, (r = 0.129, p = 0.439).

5. Discussion

The results of this study revealed that half of the participants had positive attitudes towards e-learning. The results shows that lecturers have a positive attitude towards e-learning. This could be due to the fact that technology has become part of instruction; they have been working with computers and therefore gained self-efficacy. This finding is in agreement with the earlier findings of Alanazy (2018); Suri and Sharma (2017); Ekunola et al. (2022); Falode, Usman, Ilufoye, and Awoyemi (2019) and Xhaferi et al. (2018) who found lecturers to have positive attitudes toward online learning and concluded that positive attitudes among lecturers toward e-learning suggest a higher likelihood that they will accept its integration into the teaching and learning process in higher education.

The study further showed that age and gender were not significantly associated with the lecturers' attitudes. This suggests that irrespective of age, both females and males have favourable attitudes toward elearning. This finding supports (Bahiti et al., 2022) who found that age and gender did not influence lecturers' attitude towards elearning. Furthermore, Adhya and Panda (2022) found no significant difference on the attitude of teacher educators towards technology-enabled learning based on age and gender. Additionally, Chandwani et al. (2021) and Suri and Sharma (2017)'s studies also found no gender-related differences in the attitudes of lecturers toward online teaching, however, in contrast to this study finding, found a significant correlation between the age and the attitude of teachers with respect to online teaching. In contrast to this study findings also Murthy and Srishylam (2016)'s study found that the mean scores of the teacher educators' attitudes toward elearning significantly differ depending on their gender. This study found that male teachers are more favourable to online teaching than female teachers. The majority of lecturers at this university have no experience of e-learning neither gender nor age has any impact on their attitude because both males and females are equally experiencing e-learning.

The results of this study show that there was no significant relationship between attitudes and the training to use e-learning tools. However, several studies have found that lack of training to use elearning tools is associated with negative attitudes towards elearning. Lakbala (2016)'s cross sectional survey of 30 lecturers from nursing and midwifery faculties revealed that the majority (66.7%) indicated that inadequate technological training was a barrier to the implementation of elearning. According to Karasneh et al. (2021) negative attitudes towards elearning might result from lack of comfort with unfamiliar technologies. Karasneh et al. (2021) emphasized the importance of digital competency in effective transition to e-learning. Lufungulo et al. (2021) in their qualitative study found that lecturers were hesitant to use online tools because they had little to no experience with it.

Further, results show that there was no significant relationship between attitudes and e-learning experience. This could be due to the fact that the vast majority of lecturers at this university have no prior experience with e-learning. This finding is similar to that of Abdelaziz (2015) whose study revealed that there was no substantial difference in the lecturers' attitude towards the use of elearning due to e-learning teaching experience. This is in contrast with findings of those of Alanazy (2018); Chandwani et al. (2021) and Xhaferi et al. (2018) who found a positive correlation between the attitude of faculty towards online teaching and their experience with online learning tools and concluded that positive attitudes of lecturers regarding online teaching are facilitated by their experience with the relevant online learning tools. Furthermore, Ekunola et al. (2022) found a significant difference between the attitudes of less experienced and more experienced lecturers toward using virtual classrooms for instruction, favouring the less experienced lecturers.

In-turn, there was no significant relationship between attitudes and internet access as well as computer skills. This might be because all lecturers must be computer literate in order to teach in the university, and the university has good internet access. Abdelaziz (2015) also analysed the difference in attitudes of female faculty of art and

education members at King Khali University towards using the blackboard learning management system and found no significant relationship between attitudes and computer skills. Razkane, Sayeh, and Yeou (2021)'s study revealed that one of the main challenges that they had in delivering online classrooms was lack of internet access. However, Javier (2020) found that although lecturers had a positive attitude towards elearning, internet access was limited. In Mutisya and Makokha (2016) 's study lecturers indicated that non-accessibility of Internet outside the university had impact on the adoption of e-learning.

6. Conclusion

The COVID-19 viral outbreak has created a new opportunity to consider alternative and adaptable educational content delivery methods, with e-learning emerging as one measure. It is critical to ascertain lecturers' attitudes toward e-learning in order to take the necessary steps to ensure the success and sustainability of this venture. The results of this study indicate that attitude of lecturers is positive towards using e-learning. There were no significant differences in the lecturers' attitudes towards elearning based on age and gender. Also, there was no significant relationship in their attitudes with the training to use e-learning tools, e-learning experience and internet access. All the variables do not have impact on attitudes of lecturers towards e-learning. We ascertain that this may be due to the fact that lecturers have become competent and confident in using computers as part of teaching methodology at the university.

7. Recommendations

As e-learning is still in its infancy in this university, it is imperative to strengthen the digital culture. The university should assess the skills gap for lecturers in relation to IT competency and put in place measures to upskill those who may be lacking. E-learning requires a different set of skills and knowledge from traditional teaching methods. It is essential to provide continuous training on how to use e-learning tools and techniques. Furthermore, educating lecturers on the benefits of e-learning could be critical to change negative attitudes towards it. Providing case studies, success stories, and testimonials from other universities or colleges that have successfully implemented e-learning can be useful in promoting the benefits of e-learning. Additionally, the university should also consider motivational strategies to build positive attitude towards e-learning. Providing incentives such as financial compensation or recognition for lecturers who successfully incorporate e-learning into their courses can also be effective in motivating them to embrace this technology.

It will be essential to broaden the research to other campus of this university. This study recommends a replicate of this study with a larger sample size and across all university campus to ensure generalizability of the findings. It will be also crucial to conduct a qualitative study for depth understanding which is difficult to gain from a closed question survey.

Further research on the attitudes and experiences of lecturers towards e-learning is crucial for promoting the successful adoption and integration of e-learning in higher education, particularly in the context of the COVID-19 pandemic and the increasing demand for flexible and adaptable learning opportunities.

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