Distance Learners' Attitude and Use Behaviour of Electronic Information Resources at the University of Namibia Library

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Abstract

This paper presents findings of the study to determine the predictors of electronic information resources use by distance learners at the University of Namibia (UNAM). The study addressed two research questions: What are the attitude and the behaviour of distance learners towards the usage of electronic information resources at the University of Namibia Library? What factors hinder the use of electronic information resources by distance learners? The study was underpinned by the Technology Acceptance Model (TAM). A quantitative approach and a survey design were used. The population consisted of distance learners. Simple random sampling was used to select the respondents. Survey questionnaire was used to collect data. The quantitative data collected was analysed using descriptive and inferential and content analysis respectively. Distance learners had positive attitudes towards electronic information resources. However, they did not make much use of electronic information resources subscribed to by the UNAM Library. The findings show that, instead, they tended to rely on print resources for their studies. The study showed that there is still a lot to be done by UNAM Library to increase the usage of electronic information resources for distance learners. The study has implication for institutional ICT infrastructure, skills development, awareness creation and budget decision about electronic resources. It was also expected that the outcome from the study would assist in proffering policy and practical interventions to improve access and use of the electronic information resources especially given the high cost of the resources.

Keywords: Attitude, Behaviour, Distance Learners, Electronic Information Resources, Namibia.

Introduction

The increasing growth of world population on one hand and revolution in information and communication technologies (ICT) on the other are some of the key variables driving distance learning. ICT use in distance learning has been described as a major breakthrough for learning and instruction (Katz, 2002), and the Internet has been particularly instrumental in promoting distance learning (Rehman, Hunjra, Safwan and Ahmad, 2010). Libraries across the globe are therefore leveraging ICT as an enabler in general and the Internet in particular to reach and provide users unimpeded access to library resources (Mutshewa and Rao, 2000) both on campus and to geographically dispersed locations 24/7 (Boadi and Letsolo, 2004).

The effective use of ICT in distance learning

is predicated not only on adequate equipment such as computer hardware and software, but also on human skills, access to relevant content, effective pedagogy, and digital literacy. Okello-Obura and Ikoja-Odongo (2010) in this regard pointed out that a students' positive attitude towards electronic resources is affected by the inadequacy of computing facilities and Internet connectivity. In addition, Technology Acceptance Model (TAM) focuses on individual acceptance of technology by using intention or usage as a dependent variable (Venkatesh, Morris, Davis and Davis, 2003). TAM is designed to explain an entire situation or behaviour, with the idea that it would eventually be able to predict that behaviour. The theory of TAM was first introduced by F. D. Davis in 1986 and applied in North America. This model was based on the Theory of Reasoned Action (TRA) for modelling of the acceptance of information technology (IT) by users. TRA is alleged to be a general theory of human behaviour, while TAM is more specific to information system usage (Mathieson, Peacock, and Chin, 2001). Numerous studies discovered that TAM yields consistently high explanatory variance on why users choose to utilise systems (Rondan-Cataluña, Arenas-Gaitán and Ramírez-Correa, 2015; Marakarkandy, Yajnik and Dasgupta, 2017). Based on TAM, as postulated by Davis (1989), it is believed that the perceived usefulness and perceived ease of use as variables serve as instrumental in explaining the variance in attitude towards use of technology for diverse purposes (Agarwal and Prasad, 1999); and also, the prediction of users' behavioural intention to use and accept the technology is dependent on what they hope to achieve in their set goals.

The 21st century has brought with it a greater demand for electronic information by library patrons, especially those studying in distance mode. This paradigm shift has compelled academic libraries as custodians of information to rethink ways of providing access to library information resources to the end users, especially distance learners. The reason for this change in information services delivery is because distance learners are often neither around to talk to nor visible to librarians (Liu, 2006). The importance of understanding the dynamics of learning in distance context need not be overemphasised. Distance learners by and large are adults who live in remote areas away from the campus and have

been out of the educational system for a considerable length of time. They often are constrained by time to attend face-to-face classes due to the demand of work and family. They study along with work and family commitments and may need to access library resources at all times (Unwin, Stephens and Bolton, 1998). In Namibia, though access to knowledge and information by all is a top government priority (Government of the Republic of Namibia, 2007), the challenges of delivering electronic resources to distance learners are numerous. Niskala (2008) pointed out that some of the challenges faced by tertiary level distance learners in Namibia include lack of connectivity, inadequacy of electronic resources, and unequal distribution of access facilities to tapping the learning resources (Government of the Republic of Namibia, 2007).

Statement of the Problem

During the academic year 2011, UNAM Library statistics suggested that of 3612 distance learners at the University, only 647 (17.9%) were registered with the library and the remaining 2965 (82.1%) were neither borrowing library materials nor did they have access to electronic information resources such as electronic books, electronic journal articles, newspaper, theses, dissertations, and databases (e.g. Emerald, Ebscohost, and Scopus) both on and off campus. UNAM has ten learning centres for External Studies for distance learners across the country to cater for the increasing number of its distance learners. A study by Katjihingua (2001) on the University of Namibia distance learners and offcampus library services indicated that the majority of distance learners used print materials as opposed to electronic resources. Anecdotal evidence and the researchers' personal experiences as the Distance Education Librarian at University of Namibia, between the years 2009 and 2012, revealed that a majority of distance learners made little or no use of electronic resources provided by UNAM Library despite high cost of electronic resources that the University Library was incurring. Generally, the attitudes of the learners towards electronic resources seemed lukewarm. It was not clear whether the nonuse was attributed to lack of skills, lack of connectivity and ICT facilities, lack of awareness or simply preference for print resources. Little or complete lack of empirical research to reveal or

confirm the causes meant that any policy or practical interventions to alleviate the situation would not be well informed.

Boadi and Letsolo (2004) asserted that the nonuse of electronic resources by distance learners could be attributed to a number of factors such as lack of confidence as a result of returning to study long after their initial qualification and unfamiliarity with modern information-seeking tools. The lack of use of electronic resources as attributed to Boadi and Letsolo (2004) work was significant because the UNAM Library has over the past years subscribed to various electronic resources to meet the information needs of both on-and off-campus learners. Consequently, this leads to the introduction of various platforms such as the library website, through which electronic information resources could be accessed. The non-use of the electronic resources was therefore worrisome. Papacharissi and Rubin (2000) are of the view that one requires greater understanding of the personal and social attributes that affect people using electronic resources and their related information-seeking behaviour. Katjihingua (2001), Mawindo and Hoskins (2008) seem to suggest that learners (distance or not) prefer print information resources. A study by Niskala (2008) in Namibia was limited to public libraries. A study of this nature has not been carried out at UNAM before. It can therefore be argued that there is no conclusive evidence regarding the issue of electronic information resources usage among distance learners at UNAM. This study hopes to fill the knowledge gap on electronic information resources use by distance learners in academic libraries specifically in the Namibian context.

This study, aimed at investigating some of the predictors of electronic resources use by distance learners at UNAM, especially attitudes, perceptions and usage. Therefore, the study addressed the following two research questions:

- (1) What are the attitudes and the behaviour of distance learners towards the usage of electronic information resources at the University of Namibia Library?
- (2) What factors hinder the use of electronic information resources by distance learners?

Theory and Literature Review

This section discusses the theoretical framework on which the study is anchored and the related literature on the use and the challenges of electronic information resources (EIR) by distance learners at the University of Namibia. There are several theoretical frameworks underpinning technology adoption. They include the Technology Acceptance Model (TAM); Theory of Reasoned Action (TRA); Theory of Planned Behaviour (TPB); the Decomposed Theory of Planned Behaviour (DTPB) have been employed to investigate user acceptance and usage behaviour of emerging information technologies (Venkatesh, 2000). These models have been used to explain and predict the use of technology by students and non-students (Agarwal and Prasad, 1999) in different contextual settings. However, TAM which underpins this study is particularly robust in predicting and explaining technology acceptance and use in various situations (Dillon and Morris, 1996). Distance learners' overall attitude towards using electronic information resources is shown as a function of the belief constructs of the Technology Acceptance Model. Two variables used in this study to predict the attitude and behaviour of distance learners toward the usage of electronic resources at UNAM were Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Agarwal and Prasad (1999) and Sheikhshoaei and Oloumi (2011) asserted that these two beliefs are instrumental in explaining users attitudes towards electronic resources and also help in explaining their behavioural intention to use the resources. Several studies show that experience with technology and electronic resources is a good predictor of electronic resources usages behaviour (Ma, Andersson and Streith, 2005 and Kripanont, 2007). Many of these previous researchers on electronic acceptance were done using the Technology Acceptance Model developed by Davis (1989).

Tella, Tella, Ayeni and Omoba (2007) asserted that students with high-self efficacy would be more likely to take advantage of what was around them if they were familiar and felt comfortable with electronic resources. Ren (2000) surveyed 85 students before and after library instruction and found that students' self-efficacy in electronic information searching increased after the training, and that the

increase was related to attitudes, emotional experiences, search performance and more. These findings implied that training and library instructions were important determinants of learners' attitudes towards the use of electronic information resources. Accordingly, if learners received adequate training, then their attitude was altered positively and they would therefore make better use of electronic resources because of their enhanced self-efficacy (Ren, 2000). Tang and Tseng (2013) likewise found that students with high self-efficacy made better use of electronic information and had better academic performance. With the help of computer technology and ICT infrastructure, distance learners are now able to become more productive in the learning process in order to achieve learning goals better (Ma, Andersson, and Streith, 2005). It is evident in the literature that attitudes and perceptions of distance learners towards electronic information resources play important part of access to such resources. Swain and Panda (2009) observed that users' attitudes towards information are gradually shifting from the printed documents to electronic resources. In the same vein, Christine (2007) asserted that students are increasingly turning to electronic resources available via the web to find information for completing their assignments.

Despite the increasing use of electronic resources by distance learners, a number of obstacles hampering access to such resources have been found in developing countries such as Ghana and Lesotho (Martey, 2004; and Boadi and Letsolo, 2004). These obstacles include among others: inadequate funding; inadequate electricity supply, little knowledge of searching the Internet, lack of personal interest, shortage of technical support; inadequate ICT facilities; poor Internet connectivity; low level of computer literacy, inadequate PC, lack of information about how to use electronic resources, and lack of time to acquire skills needed to use resources (Marley, 2004; Adogbeji and Akporhonor, 2005; and Dadzie, 2005). Similar findings were also reached in a study by Ray and Day (1998) on students' attitudes towards electronic resources. They also found that students lamented over time consumption and retrieval of much volumes of information with the use of electronic resources.

Boadi and Letsholo (2004) found that distance learners at the Extra-Mural Studies, Maseru, Lesotho

experienced difficulty in accessing on-campus library and information sources and services and often relied on sources from colleagues, personal collections, coworkers and family members. The literature reviewed showed that there is increasing use of electronic resources around the world. However, access was being hampered, especially in some countries, by a number of obstacles relating to ICT infrastructure, limited skills, lack of awareness and limited resources, among others that must be addressed through practical and policy interventions to enhance to electronic resources. Therefore, based on the findings from different studies in the literature, it can be ascertained that the use of EIR by distance learner would continue to be on the increase, thus the need for this study..

Methodology

This study adopted the survey approach to gather information on the use of electronic information resources by distance learners at UNAM. One motivating factor for using a survey method was because surveys measure facts, attitudes, beliefs, opinions, characteristics, past or present behaviour, and expectations and knowledge through questions. The survey approach allowed the researcher to use the TAM framework, similar to studies conducted by May (2001) and Neuman, (2003) cited in Okello-Obura and Ikoja-Odongo (2010). The target population in this study was 3,612 distance learners. Based on the model of Saunders, Lewis and Thornhill (2012) from an overall target population of 3,612, a sample size of 357 (this figure lies closer to 5,000 than it is to 2,000) was derived. This sample size gave the researcher some degree of confidence that the findings would truly be a fair representation of the population. A survey questionnaire consisting of open -and close- ended questions was used to collect data from the respondents. The reliability of the research instrument was achieved through pretesting to ensure that it was correctly worded, in order to avoid misinterpretation by respondents. Validity was attained through a careful selection of a representative sample and data analysis. To ensure that the tests for this study were valid and reliable, the questionnaire was peer reviewed and pre-tested. The researcher also ensured proper documentation of the methodology. The questions used for this study were designed with the goal of achieving a high

response rate and a deeper understanding of distance learners' preferences and circumstances that affect their choice of format regarding library electronic information resources. From the three hundred and fifty seven (357) copies of questionnaire distributed two hundred and forty three copies of the questionnaires (243) were returned, giving a response rate of 68%. Quantitative data were analysed through the use of descriptive and inferential analysis. Content analysis technique was used to analyse qualitative data collected from open ended questions. The results were categorised and presented descriptively in this paper. Respondents were asked to sign a declaration of consent form and were reminded of the researchers' as well as their own ethical responsibility.

Findings

This section presents respondents, cross-tabulation between age, gender and two research questions that were earlier stated in this paper. It also presents findings on factors hindering the use of electronic information resources by distance learners at UNAM library.

Profiles of the Respondents

Learners were asked to indicate their gender and age. The results in Table 1 below show that gender composition of respondents had majority 151 (62%) of learners who were females, while the male constituted the minority 93 (38%). This indicates that there were more female participants than male participants in this study. This could mean that women did not have equal opportunities of undertaking full-time studies like their male counterparts presumably because of their role of childbearing as well as attending to other household chores.

Table 1: Gender and age cross tabulation (N=243)

Gender	Age				Total Count/ Per Cent
	21-30 years	31-40 years	41-50 years	51-60 years	
Male	37	46	9	1	93
	15%	19%	4%	0%	38%
Female	81	61	7	2	151
	33%	25%	3%	1%	62%
Total Count/Per Cent	118	107	15	3	243
	48%	44%	7%	1%	100%

Table 1 further shows that about 118 (48%) of respondents were between age group 21-30 years and 107 (44%) were in the age group 31-40 years. The lowest results were of 15 (7%) in the age group of 41-50 years and about 1% was in age group 51-60 years. The large number of respondents (21-30 years) who participated in the study than their old counterparts (51-60 years) could suggest that the frequent users of electronic information resources provided by the UNAM Library were the younger adults between the ages of 21 and 30 years.

Research Question 1: What are the usage behaviour and the attitudes of distance learners towards electronic resources at UNAM?

Attitudes and Behaviour of Distance Learners towards the Usage of Electronic Information Resources

Respondents were asked to state the benefits derived from using electronic information resources. The results show that 126 (52%) indicated that they had remote access (24/7 access; quick access and wider

access to electronic resources). About 83 (34%) of the learners pointed out that electronic resources were good because one has links to additional information. About 78 (32%) felt there was no limit on what one is able to access; and the least, 44 (18%) of the learners noted the advantage of having multiple accesses for single sources. This result suggests that most of the learners were optimistic about using electronic resources, as they believed electronic information resources significantly enhanced their studies.

The findings in Figure 1 indicate that about 94 (39%) agreed that the Internet enhanced their ability to access the latest educational information, against four (two percent) learners who disagreed. Some users 128 (53%) disagreed and 59 (24%) strongly disagreed with the statement, "the available information on the Internet confuses me", with 36 (15%) agreeing. Most 86 (35%) of learners were in agreement with the statement, "I mainly use the Internet to communicate", while 59 (24%) disagreed with the statement. More than half of the learners 130 (53%) agreed that electronic information resources made them enjoy their studies, whereas, on the other hand, a total of 15 (Six percent) disagreed with this statement. Many learners 125 (51%) disagreed with the statement, "I feel overloaded with all the information available". About 49 (20%) agreed with the statement, while 44 (18%) disagreed with the statement. The respondents' perception on the statement, "I feel comfortable with the way I conduct information searches on the Internet" was mainly positive. More than half 127(52%) of the learners agreed that they felt comfortable, whereas 27 (11%) disagreed with the statement. The statement, "I believe that using electronic resources for studies, research and assignment would be beneficial for me" received a good response rate. Most learners 126 (52%) agreed with the statement, while 107 (44%) strongly agreed, with eight (3%) disagreeing. A total of 84 (35%) of the learners strongly agreed that it would be desirable to use electronic resources for their studies, whereas 17 (seven percent) disagreed. The respondents' perception on the statement, "Given the opportunity to choose between electronic resources and print resources, I would choose print resource" was mainly negative. A minority (90, making up 37%) of learners disagreed that they would choose print resources, 69 (28%) agreed, and 46 (19%) strongly agreed with the statement. The results suggest that the usability of electronic information resources was found to affect the attitude of users and their willingness to use them. The results of the descriptive statistics also suggest that electronic information resources were perceived as useful, and that the learners felt confident about working with computers and intended to use electronic information resources as needed. Reaction to use electronic information resources influenced actual usage of the electronic resources, which in return influenced intention to use the resources. It is expected that perceived usefulness will significantly determine usage behaviour in using electronic information resources by distance learners.

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Distance learners attitudes towards electronic information resources

Figure 1: Attitude and Behaviour of Distance Learners towards the Usage of Electronic Information Resources (N=243)

Research Question 2: What factors hinder the use of electronic information resources by distance learners?

■ Strongly disagree ■ Don't know

Impediments to the Use of Electronic Resources by Distance Learners

Missing

The objective of this research question was to determine those factors that hindered or prohibited distance learners from successfully utilising electronic information resources.

Findings revealed that less than half 107 (44%) of the learners surveyed complained about the Internet access speed, which they considered to be very slow. Eighty-three (34%) of the learners indicated that they felt overloaded with information and equally felt that they did not have enough time to search for information. Additionally, 69 (29%) noted that they did not know how to search for information. Very few, below five per cent of the respondents felt they did not benefit from the Internet. The rest of the barriers (No access to PC, 19 (7%); I lack

I don't use it

trust, 11 (4%); Internet benefits 4(1%); received a very low (below 10%) percentage. Resource factors such as time (not enough time) and money (high Internet costs) needed by learners to use electronic resources effectively had a negative effect on perceived usefulness and behavioural intention and usage.

The comments raised in the open-ended questions by respondents were categorised as follows: Internet speed, distance from the learning centres, and student support. These general comments are summarised as follows:

Internet Speed

General comments on the Internet were as follows:

"The Otjiwarngo centre is facing low Internet speed, something should be done as downloads speed is too slow."

"The learning centres Internet access is very slow."

"Yes mostly distance learners working at government offices are suffering due to poor Internet connectivity."

Distance Travelled by Students to the Centres

A general comment raised was the distance travelled to the learning centres. The learners' responses varied. For example, most of them stressed that they did not visit the centres due to work commitments and living in remote areas. Some respondents remarked "distance learners are in rural areas where there is no reliable electricity or network", "facilities in the remote area are major reasons why most students from rural areas struggle with accessing information online"; and "learning centres are far from our places, and the schools where we are teaching have no Internet connectivity."

Access to Resources

Learners also commented on issues regarding access to electronic information resources available online (the Internet). Their responses were:

"Most relevant documents online are available at a cost making it harder for us to access information."

"Electronic information resources are useful but cost and time for access is challenging." "As a distance student, we have limited time when it comes to the use of Internet."

"Most of the computers in the UNAM Library are out of order and there are few computers for students to use for typing and Internet searches".

"The use of Internet is very important to everybody; however, most of us who are doing distance studies are not having Internet access."

Discussion of Findings

The results in this study reveal that 118 (48%) respondents were between the ages of 21 and 30 years, and 15 (seven per cent were between the ages of 41 and 50 years (see results in Table 1). There were many younger participants than older ones perhaps, thus suggesting that those who frequently used electronic resources were the younger generation. This generation is generally able to "multitask, learn systems without consulting manuals, and surf the Web, however, they lack technology and information skills appropriate for academic work" (Korobili, Malliari, and Zapounidou, 2011) and are easily vulnerable to social influence (Lu et al., 2003). Abedalaziz, Jamaluddin and Leng (2013) asserted that postgraduate students had positive attitudes toward computer and Internet increase as their age decreases.

A review of the data analysed under the first research question (see Figure 1) reveals that respondents showed a positive attitude towards electronic information resources. The technology acceptance model (TAM) asserts that intention is a proper way to examine and predict a users' behaviour towards a particular technology or system (Kripanont, 2007). The theoretical justification of this study lies in the findings that respondents used electronic information resources because it is beneficial for their studies. As such, learners' intentions to use electronic information resources were examined. Respondents' attitude and perceived usefulness of electronic information resources influenced their behavioural intention to use them due to positive benefits as reflected in the results presented in Figure 1, which shows that 84 (35%) strongly agreed that it would be desirable to use electronic resources for their studies.

There are a number of factors that endear distance learners to use electronic information

resources; one being the fact that electronic resources are proving to be invaluable research tools that complement the print-based resources in a traditional library setting (Kumar and Kumar, 2008 cited in Adeniran, 2013). This is confirmed by the results which indicated that more than half 126 (52%) of the respondents would choose to use electronic resources because they had remote access (24/7 access) to electronic information resources. A range of online resources have emerged to make the learning processes of distance learners speedier and less tedious 24/7 as long as there is adequate connectivity. Liu and Luo (2011) affirmed that distance learners find electronic resources useful for various reasons such as robust searching capability, speed, convenience and completeness and can be accessed anytime from anywhere with online access. As shown in Figure 1, 90 (37%) of respondents disagreed that they would choose print resources. These findings revealed that there were a substantial number of respondents who preferred print resources and had positive attitudes towards them. Understanding factors that endeared distance learners towards electronic resources ensure users are encouraged to accept and continually use digital library services (Liu and Luo, 2011). For electronic resources to be useful, they must be accepted by the library users, particularly distance learners. The technology acceptance model posits that use is influenced by ease of use. Moreover, both ease of use and usefulness predict behaviour (Mathieson, Peacock and Chin, 2001).

One of the research questions sought to determine factors that inhibited learners from successfully utilising electronic information resources. The results show, among other factors, lack of computer skills and the lack of ICT facilities. The factor of computer skills and experience had a significantly negative effect on behavioural intentions toward electronic information resources through the factor of perceived usefulness. Okello-Obura and Odongo (2010), in their study on electronic information seeking among LIS postgraduate students at Makerere University in Uganda, found that students' positive attitude towards electronic resources was affected by inadequate computing facilities or poor Internet connection. It is evident from the findings that most learners came from under-resourced backgrounds, with lack of infrastructure and facing financial constrains to access electronic information resources. About 81 (33%) indicated that they did not have enough time to search for information. It can be assumed that the availability of resources has an impact on whether learners will use the electronic resources or not. Mathieson, Peacock and Chin (2001) also agreed saying there might be situations in which an individual wants to use an information system, but is prevented by lack of time, money and expertise. Some respondents in this study commented that most relevant documents online are available at a cost, making it harder to access electronic information resources.

About 81 (33%) of the respondents indicated that they felt overloaded with information. They were clearly faced with problems regarding quantity and quality of information got from the Internet or the databases. Students faced an abundance of information which they were unable to deal with. In consonance with these findings is a study by Adeniran (2013) who also found that factors that affected effective utilisation of electronic resources by undergraduate students included large mass of irrelevant information, the need to filter the results from search, failure to find information, and difficulties in navigating through electronic resource. In spite of all the challenges faced by distance learners, all is not lost.

Conclusion and Recommendations

On the basis of the discussions of the findings, several conclusions and recommendations are drawn. Like many related studies in literature, respondents (learners) in this study appreciated the unique features and benefits electronic information resources presented such as having 24 hours access, remote and faster access to electronic information resources. However, the respondents did not make use of electronic information resources subscribed to by the UNAM Library because of impediments such as high cost of access, poor Internet connectivity, electricity outages, lack of sufficient computers, and low levels of computer skills. Several studies cited earlier have shown that a positive attitude is an important factor that significantly contributes towards technology adoption and use by users of technology. It is therefore concluded that with all other factors being equal, that

is, adequate ICT facilities and skills, the use of electronic resources among distance learners would be enhanced. The effective use of electronic resources depends largely on a number of factors such as level of awareness, training, skills and ICT competencies of the learners. In this study, learners' attitudes clearly played a significant role in influencing their intentional behaviour towards the use of electronic resources. Other variables which could also influence learners behaviours to use electronic resources were perceived usefulness, self-efficacy, subjective norms and facilitating conditions. The findings, therefore, illustrate that those respondents who perceived electronic information resources as useful had stronger intentions to use them. Findings confirmed that the UNAM Library subscribed to a vast number of adequate electronic information resources. However, there were inadequate ICT infrastructure and facilities which hindered learners from accessing electronic information resources, especially at the learning centres.

Awareness is a powerful determinant of users' behavioural intention towards the use of electronic information resources. There was lack of awareness about the electronic information resources that were available in UNAM Library, and this created negative attitudes that impacted on the usage of the electronic resources. With regards to the perception of learners about their ICT competencies to use electronic resources, conclusion is drawn to the effect that the learners lacked such competencies to use electronic information resources effectively. Many were self-taught, and they expressed the need for training to enhance their skills in using electronic information resources. Such training, as stated by Appleton (2006), could include how to use electronic resources, as well as how to search and retrieve information resources from the Internet. The study found perceived usefulness to have a significant impact on both intention to use and actual use of electronic information resources. This study also found the overall use of the TAM in studying distance learners use of e-resources, especially with regards to behavioural attitude and behavioural intention to use the resources useful. The outcome of this study is expected to make an important contribution in the area of policy formulation, theory, practical interventions, capacity building, skills development, and infrastructure development to enhance distance

learners use of electronic resources at the University of Namibia.

The study has empirically identified factors influencing distance learners' adoption and acceptance of ICT technologies from a developing country context; Namibia being a case in point, through investigating variables such as PU, PEOU, subjective norms, and self-efficacy, perceived behavioural intention, and facilitating conditions, among others.

Given the significance of electronic information resources in academic libraries and their current usage statistics at UNAM, the following implications for policy have been identified: The study has revealed that the electronic information resources at UNAM Library were not sufficient and the library had very limited funds for acquisitions of these information resources. UNAM Library has a draft collection development policy where electronic resources are briefly discussed. The sections in the policy on electronic resources touch on the following issues: Criteria to consider when subscribing to and purchasing of electronic resources; Electronic journals; Electronic books; Electronic databases; Institutional repository; Open access; Platforms; License agreements; and Criteria for cancelling e-resources subscription. The absence of a full-fledged electronic resources collection development policy has a negative impact on the library's collection development practices. Most of the collection development practices concerning electronic resources as mentioned above are currently haphazardly done, as there are no clearly documented guidelines to guide the collection development tasks. An electronic resources collection development policy is needed to guide collection acquisition decisions and address faculty and students' needs (White and Crawford, 1997).

The effective use of electronic resources lies solely on skills training of learners. This study found that most of those competency requirements were lacking in the learners, hence the problem of very low usage of electronic resources. The study recommends the following activities to be undertaken for learners' skills development:

 A multi-pronged approach should be used to impart ICT skills and digital literacy through workshops, orientation programmes, and user

- education at UNAM main library and at the centres.
- UNAM should make provisions for the training and retraining of librarians, as well as distance learners in computer literacy.
- The UNAM Library should continuously train and orientate students throughout their academic years at university.

A wide range of electronic information resources were found available at UNAM, but these were hardly used by learners, partly because of poor ICT infrastructure. It is therefore recommended that:

- University of Namibia should invest in ICT infrastructure and power supply for the effective use of electronic resources. This would enable distance learners in rural areas to benefit from modern technology.
- More high-speed computer terminals should be installed in the various departments, departmental libraries and computer laboratories.
- Moreover, additional computers are needed in the main campus library and at the learning centres for the benefit of the learners.
- High speed Wi-Fi is also needed in the learning centres countrywide, in order to ensure and facilitate the effective access and usage of electronic information resources and Internet within the campus and at the learning centres by learners.

References

- Abedalaziz, N., Jamaluddin, S. and Leng, C. H. (2013). Measuring Attitudes toward Computer and Internet Usage among Postgraduate Students in Malaysia. *The Turkish Online Journal of Educational Technology*, 12 (2), 200-216.
- Adeniran, P. (2013). Usage of Electronic Resources by Undergraduates at the Redeemer's University, Nigeria. *International Journal of Library and Information Science*, 5 (10), 319-324.

- Adogbeji, O. B. and Akporhonor, B. A. (2005). The Impact of ICT (Internet) on Research and Studies: The Experience of Delta State University Students in Abraka, Nigeria. *Library Hi Tech News*, 22 (10), 17-21.
- Agarwal, R. and Prasad, Y. (1999). Are Individual Differences Germane to the Acceptance of New Information Technologies? *Decision Sciences*, 30 (2), 361-391.
- Appleton, L. (2006). Perceptions of Electronic Library Resources in Further Education. *The Electronic Library*, 24 (5), 619-634.
- Boadi, B. Y. and Letsolo, P. (2004). Information Needs and Information-Seeking Behaviour of Distance Learners at the Institute of Extra-Mural Studies in Lesotho. *Information Development*, 20 (3), 189-199.
- Christine, T. (2007). Studying at a Distance: A Guide for Students. Michigan: Mcgraw-Hill, 184p.
- Dadzie, P. S. (2005). Electronic Resources: Access and Usage University College. *Campus Wide Information Systems*, 22 (5), 290-297.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *Management Information Systems Quarterly*, 13 (3), 319-340.
- Dillon, A. and Morris, M. G. (1996). User Acceptance of Information Technology: Theories and Models. In M. Williams (Ed.) *Annual Review of Information Science and Technology*, 31, 3-32. Medford NJ: Information (E-Journal). [Online]. Available at: https://www.ischool.utexas.edu/~adillon/bookchapters/user%20 acceptance.htm [Accessed 15 May 2017].
- Government of the Republic of Namibia. (2007). Education and Training Sector Improvement Programme (ETSIP). Planning for a Learning Nation. Programme Document: Phase I (2006 -2011). Windhoek: Republic of Namibia. [Online]. http://planipolis.iiep.unesco.org/upload/Namibia/Namibia%20ETSIP%202007.pdf [Accessed 15 August 2014].
- Katjihingua, M. (2001). Investigation of University of Namibia Distance Learners' Off-Campus

- Library Services. Loughborough University: Department of Information Science, 108p.
- Katz, Y. J. (2002). Attitudes Affecting College Students' Preferences for Distance Learning. *Journal of Computer Assisted Learning*, 18 (1), 2-9.
- Korobili, S., Malliari, A. and Zapounidou, S. (2011). Factors that Influence Information-Seeking Behavior: The Case of Greek Graduate Students. *The Journal of Academic Librarianship*, 37 (2), 155–165.
- Kripanont, N. (2007). Examining a Technology Acceptance Model of Internet Usage by Academics within Thai Business Schools. Chulalongkorn University: Thailand School of Information Systems Faculty of Business and Law Victoria University Melbourne, 396p. [Online]. i, O. B. and Akporhonor, B. A. (2005). The Impact of ICT (Internet) on Research and Studies: The Experience of Delta State University Students in Abraka, Nigeria. Library Hi Tech News, 22 (10), 17-21.
- Liu, Z. (2006). Print Vs. Electronic Resources: A Study of User Perceptions, Preferences, and Use. *Information Proceeding and Management*, 42 (2), 583-592.
- Liu, Z. and Luo, L. (2011). A Comparative Study of Digital Library Use: Factors, Perceived Influences, and Satisfaction. *The Journal of Academic Librarianship*, 37 (3), 230-236.
- Lu, J., Yu, C. S., Liu, C. and Yao, J. E. (2003). Technology Acceptance Model for Wireless Internet. *Internet Research*, 13 (3), 206-222.
- Ma, W.W, Andersson, R. and Streith, K. O. (2005). Examining User Acceptance of Computer Technology: An Empirical Study of Student Teachers. *Journal of Computer Assisted Learning*, 21 (6), 387-395.
- Marakarkandy, B., Yajnik, N. and Dasgupta, C. (2017). Enabling Internet Banking Adoption: An Empirical Examination with an Augmented Technology Acceptance Model (TAM). *Journal of Enterprise Information Management*, 30 (2), 263-294.

- Martey, A. (2004). ICT in Distance Education in Ghana. *Library Hi Tech News*, 21 (5), 16-18.
- Mathieson, K., Peacock, E. and Chin, W. W. (2001). Extending the Technology Acceptance Model: The Influence of Perceived User Resources. *The Database for Advanced in Information System*, 32 (3), 86-112.
- Mawindo, D. and Hoskins, R. (2008). Use of Print and Electronic Resources by Students at the University of Malawi College of Medicine. *Mousaion*, 26 (1), 90-111.
- May, T. (2001). Social Research: Issues, Methods and Process. Buckingham: Open University Press, 258p.
- Mutshewa, A. and Rao, K. N. (2000). Enhancing Access through Electronic Resources: The University of Botswana Library Experience. *Library Hi Tech*, 18 (4), 315-320.
- Niskala, R. (2008). The Need and Use of Community Library Services in Namibia. University of Tampere: Department of Information Studies, 96p. [Online]. i, O. B. and Akporhonor, B. A. (2005). The Impact of ICT (Internet) on Research and Studies: The Experience of Delta State University Students in Abraka, Nigeria. Library Hi Tech News, 22 (10), 17-21.
- Okello-Obura, C. and Ikoja-Odongo, J. R. (2010). Electronic Information Seeking among LIS Postgraduate Students at Makerere University, Uganda. *Library Philosophy And Practice* (E-Journal), Article No. 1-1-2010. [Online]. i, O. B. and Akporhonor, B. A. (2005). The Impact of ICT (Internet) on Research and Studies: The Experience of Delta State University Students in Abraka, Nigeria. *Library Hi Tech News*, 22 (10), 17-21.
- Papacharissi, Z. and Rubin, A.M. (2000). Predictors of Internet Use. *Journal of Broadcasting and Electronic Media*, 44 (2), 175.
- Ray, K. and Day, J. (1998). Student Attitudes Towards Electronic Information Resources. *Information Research*, 4 (2), 1-19.

- Rehman, K. U., Hunjra, A. I., Safwan, N. and Ahmad, A. (2010). Students' Attitude towards the Uses of Internet. *International Journal of Business and Management*, 5 (6), 46-55.
- Ren, W. H. (2000). Library Instruction and College Student Self-Efficacy in Electronic Information Searching. *The Journal of Academic Librarianship*, 26 (5), 323-328.
- Rondan-Cataluña, F. R., Arenas-Gaitán, J. and Ramírez-Correa, P. E. (2015). A Comparison of the Different Versions of Popular Technology Acceptance Models: A Non-Linear Perspective. *Kybernetes*, 44 (5), 788-805.
- Sheikhshoaei, F. and Oloumi, T. (2011). Applying the Technology Acceptance Model to Iranian Engineering Faculty Libraries. *The Electronic Library*, 29 (3), 367-378.
- Swain, D. K. and Panda, K. C. (2009). Use of Electronic Resources in Business School Libraries of an Indian State. *The Electronic Library*, 27 (1), 74-85.
- Tang, Y. and Tseng, H.W. (2013). Distance Learners' Self-Efficacy and Information Literacy Skills. *The Journal of Academic Librarianship*, 39 (6), 517-521.
- Tella, A., Tella, A., Ayeni, C. O. and Omoba, R. O. (2007). Self-Efficacy and Use of Electronic Information as Predictors of Academic Performance. *Electronic Journal of Academic and Special Librarianship*, 8 (2), 1-13.
- Unwin, L., Stephens, K. and Bolton, N. (1998). The Role Library in Distance Learning: A Study of Post Graduate Students, Course Providers and Librarians in the UK. London: Bowker Saur, 256p.
- Venkatesh, V. (2000). Determinants of Perceive Ease of Use: Integrating Control, Intrinsic Motivation, and Emotion into the Technology Acceptance Model. *Information Systems Research*, 11 (4), 342-365.
- Venkatesh, V., Morris, M. G., Davis, G. B. and Davis, F. D. (2003). User Acceptance Of Information Technology: Toward a Unified View. *Management Information Systems Quarterly*, 27 (3), 425-478.

- White, G. W. and Crawford, G.A. (1997). Developing an Electronic Information Resources Collection Development Policy. *Asian Libraries*, 6 (1/2), 51-56.
- Wu, M. M. (2005). Why Print and Electronic Resources are Essential to the Academic Law Library. *Law Library Journal*, 97 (2), 233-256.

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