Potentials of University of Maiduguri's Websites for Enhancement of Undergraduate Students' Success: An Analysis of Perceived Usefulness and Extent of Usage

Dr. Ibrahim Wada[1]	Dr. Fatima Lasisi Ibrahim[2]	Prof. Emmanuel Camble[3]
ibrahimwada.@unimaid.edu.ng	fatimahibrahim500@gmail.com	emmanuelcamvle2@gmail.com
+2348065463632	+2347069373458	+2347066229288

Department of Library and Information Science, University of Maiduguri, Borno State[1,2,3]

Abstract

This study investigated the potentials of academic websites to improve the academic success of undergraduate students, with the goal of determining the impact of perceived usefulness on the extent of University of Maiduguri's website usage. Three hundred and forty-seven (347) Library and Information Science (LIS) undergraduate students in 300 Level were all engaged in the study with no sampling to capture quantitative data based on cross-sectional survey research design. After the lecture, a structured questionnaire was administered to students. It was determined that 303 of the collected copies of questionnaires were valid and viable for data analysis. Frequency counts, percentages, mean scores, and standard deviations were used to analyse the collected data, while simple linear regression was used to test the relationship between variables at a significance level of 0.05. The study revealed that LIS undergraduates viewed the university website as moderately useful, particularly for academic purposes (x = 3.16), and that it does not significantly improve their academic performance (x = 2.94). The findings revealed that students used the website extensively when they accessed it, perusing numerous pages for lengthy sessions, but accessed the website to a relatively lesser extent on a frequent basis. The study found that perceived usefulness positively and moderately predicted respondents' website usage, with perceived usefulness accounting for 36.1% of usage variation. The study recommended that the management of the university website should prioritized on the website the course/study resources, library databases, academic policies, and learning support services.

Keywords: Academic Websites, Library and Information Science, Undergraduate Students, Perceived Usefulness, Extent of Usage

Introduction

The emergence of the internet and web technologies has brought about a significant transformation in the field of higher education. University websites have become essential avenues for students to conveniently access academic information and avail various services (Verkijika & De Wet, 2020; Stasiak & Dzieńkowski, 2021). University websites are equipped with several functionalities, including online course management systems, library resources, academic calendars, and registration, payment, and notification portals (Hamarashid & Saeed, 2017; Verkijika & De Wet, 2020). These elements are designed to provide students with support and improve their learning and overall university experience.

The university website serves as a vital portal and central hub of resources for undergraduate students, playing a crucial role in their academic trajectory. Numerous studies conducted in diverse settings have demonstrated that students make use of university websites for a range of academic purposes (Babu *et al*., 2009, Ojino *et al*., 2013; Hamarashid & Saeed, 2017; Stasiak & Dzieńkowski, 2021). These activities encompass retrieving study materials, submitting assignments, monitoring grades, registering for courses, downloading lecture notes, accessing library resources, and communicating with instructors (Nguyen *et al*., 2017; Korkmaz *et al*., 2020; Wang *et al*., 2020). The usage of the system encompasses both essential elements connected to schooling and administrative/informational portions. The incorporation of university websites into academic procedures to a significant extent necessitates a comprehensive comprehension of the aspects that impact their acceptance and utilization among students.

The significance of university websites as essential e-learning tools has prompted numerous researchers to investigate the relationships within the Technology Acceptance Model (TAM) framework in the context of academic websites. In their study, Ali and Arshad (2016) conducted an investigation to confirm the significance of Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as influential factors in shaping the intents of undergraduate students to utilize academic websites affiliated with universities in Malaysia. In a similar vein, Waluyani, Subroto and Purnomosidhi (2018) discovered that the elements of Technology Acceptance Model (TAM) were revealed to have a substantial influence on the intents of Korean students to utilize university library websites. Although there is some initial validation, there is still need for further use of the

Technology Acceptance Model (TAM) to analyze the usage of university websites among various student groups.

A comprehensive review of the existing literature revealed a lack of research that particularly investigated the linkages between the Technology Acceptance Model (TAM) and the utilization of university websites among undergraduate students in the field of Library and Information Science (LIS). The identified research gap is of considerable importance, as it pertains to the essential utilization of academic library websites and online resources by students pursuing a degree in Library and Information Science (LIS) during their academic journey. LIS undergraduates, being prospective information professionals, are a suitable group for conducting studies on technology acceptability. Examining the intentions and behaviour of individuals in their use of university websites from the perspective of the Technology Acceptance Model (TAM) can provide valuable insights for both theoretical understanding and practical applications.

Furthermore, while examining the contexts of underdeveloped countries, the motives behind the utilization of academic websites may be influenced by specific environmental circumstances. When applying the Technology Acceptance Model (TAM) to student populations in developing nations, it is important to take into account several significant factors, including limited access to technology and lack of technological skills, inadequate support for e-learning, and cultural differences (Tarhini, *et al.*, 2016, Ooi & Tan, 2016, Larasati, 2017). An insufficient scholarly investigation has been conducted regarding the utilization of university websites by undergraduate students pursuing degrees in Library and Information Science (LIS) within underdeveloped nations, particularly when employing approaches such as the Technology Acceptance Model (TAM).

Hence, the primary objective of this research is to fill the existing gaps in the literature by investigating the impact of perceived usefulness on the level of utilization of university websites among undergraduate Library and Information Science (LIS) students at the University of Maiduguri, located in Borno State, Nigeria. The purpose of the research is to broaden the theoretical perspectives on Technology Acceptance Model (TAM) and provide guidance to higher education institutions in developing countries on strategies to upgrade their academic websites, with the aim of boosting student usage and learning outcomes.

Objectives:

The specific objectives of the study are stated as follows:

1. To examine the perceived usefulness of university website by undergraduate students in University of Maiduguri, Borno State
2. To determine extent of usage of university website by undergraduate students in University of Maiduguri, Borno State

Hypothesis

Based on the TAM, the formulated hypothesis is:

Ho_1: Perceived usefulness has no significant influence on the extent of usage of the university website by LIS undergraduates.

Literature Review

Perceived Usefulness of University Websites

The available evidence pertaining to the perceived usefulness of academic websites among university students unveil significant and influential data. The concept of perceived usefulness is operationalized by considering crucial factors such as perceived enhancement in academic achievement, heightened productivity, improved effectiveness, and overall utility. A comprehensive and methodical inquiry was conducted in order to find pertinent scholarly investigations pertaining to the many aspects of perceived usefulness among student users of university websites.

Perceived Improvement in Academic Performance

Several studies have been conducted to evaluate the extent to which university websites contribute to the enhancement of students' academic achievement. The study conducted by Echeng, Usoro and Majewski (2022) analysed questionnaire responses obtained from a sample of 300 undergraduate students in Nigeria. The findings revealed that a significant majority, specifically 75% of the participants, agreed with the notion that the university website plays a positive role in enhancing their academic accomplishments. Al-Busaidi (2017) conducted a study and found that a significant majority of students in Oman, specifically 70%, had a good perception of the influence of university e-services, such as the website, on their academic progress and overall learning experience. Similarly, Goh, Hauff and Bunce (2021)'s findings from focus groups conducted with Malaysian students reaffirmed the perceived benefits of utilizing academic websites, particularly in terms of improved assignment scores and examination performance.

Perceived Increase in Productivity

In relation to the perception of productivity, a study conducted by Kumari and Chithraranjan (2020) examined the experiences of 210 undergraduate students in India. The findings revealed that a significant majority of 82% of participants reported an enhancement in their overall productivity as a result of utilizing university e-learning systems, which encompassed various website resources. According to a study conducted by Armakolas, Panagiotakopoulos and Sarigiannidis (2022), a significant majority of students in Greece, specifically 75% of those polled, expressed the belief that the utilization of productivity tools such as university websites facilitated the completion of assignments in a more efficient and effective manner. The consistent findings underscore the perspectives of students regarding the increased productivity resulting from university websites.

Perceived Enhancement in Effectiveness

According to the study conducted by Liu, Li and Carlsson (2022), a majority of students in China, namely 81%, expressed their perception that university websites are successful in facilitating access to materials required for academic projects and learning activities. The findings from focus groups conducted by Goh, Hauff and Bunce (2021) indicate that students place a high importance on the efficacy of websites in terms of alerts, submission processes, downloading materials, and accessing information. Therefore, it can be inferred from the available evidence that academic websites are widely regarded as useful aids for various essential activities by a significant majority of students.

Perceived Usefulness

Tarhini, El-Masri, Ali and Serrano (2016), conducted a survey during which a questionnaire was administered to a sample of 600 students in Lebanon. The findings revealed that a significant majority, specifically 85% of the participants, expressed a high level of perceived usefulness towards their respective university websites. According to a survey conducted by Al-Busaidi (2017), a significant majority of students in Oman, specifically 80%, expressed their perception of the university website as being useful. The findings of this study provide strong evidence to support the notion that academic websites are highly regarded and deemed valuable by university students.

The findings indicate that undergraduate students in the field of Library and Information Science (LIS) demonstrate a substantial reliance on university websites for their academic endeavours. They engage with these websites on a daily or weekly basis, dedicating approximately 30-60 minutes per session and typically seeing an average of 5-7 pages per visit. The most frequently utilized resources include library portals, course websites, notices, and administrative parts. Furthermore, a substantial body of research consistently demonstrates that students hold highly favourable views of the efficacy of university websites in improving their academic achievement, productivity, effectiveness, and overall utility in their academic pursuits. The aforementioned statement supports the notion that the utility of websites plays a crucial role in motivating students to engage in academic pursuits.

Extent of Use of University Websites
A university website serves as a virtual platform that offers various resources to support the administrative and educational functions of an academic institution. The platform is designed and maintained to align with the institution's mission, vision, and goals, while also serving as a means for facilitating communication between the institution's management team and students' at all academic levels. The extent of utilization is evaluated by considering characteristics such as frequency, length, pages accessed, and utilization of certain portions of the website.

Frequency of Website Use
Several scholarly investigations have examined the frequency at which undergraduate students in the field of Library and Information Science (LIS) utilize university websites. According to the findings of Alshuwaier, Adenan and Ahmad (2022), a significant proportion of students pursuing a degree in Library and Information Science (LIS) demonstrated regular usage of university websites. Specifically, 67% of respondents reported utilizing these websites daily, while 27% indicated weekly usage. According to the findings of Anaraki and Babalhavaeji (2013), the analysis of questionnaire data revealed that website usage reached its highest point during active semesters, while experiencing a reduced frequency during university vacations. According to Fatayer's (2015) study on log analysis, a significant majority of undergraduate students in the field of Library and Information Science (LIS) reported accessing library websites regularly, with approximately 87% indicating that they frequented these websites at least 2-3 times per week. The findings together suggest that a majority of students in the field of

Library and Information Science (LIS) demonstrate a high level of regularity in their usage of university websites throughout the week and academic semester.

Time Spent on Websites

In terms of duration, Fatayer (2022) documented that LIS undergraduates spent an average of 38 minutes on every website session. In a comprehensive investigation conducted by Kannan and Gupta (2021), a sample size of 280 students was examined to determine the prevailing duration spent by individuals when browsing university library portals and course pages. The study revealed that a significant proportion of respondents (51%) reported spending between 30 and 60 minutes engaging with these online resources. Thirteen percent of the participants reported utilizing websites for a duration of less than 30 minutes, whereas 36% indicated spending more than one hour engaging with online platforms. According to the findings of Baikady, Addagatla and Mallya (2019), the analysis of interview data revealed that a significant portion of the participants' time was spent on activities such as surfing and downloading. According to existing information, it has been observed that website sessions of LIS students often span a duration of approximately 30 minutes to one hour.

Number of Pages Visited

According to Anaraki and Babalhavaeji (2013), undergraduate students in the field of Library and Information Science (LIS) accessed an average of 5.6 pages per usage session. Based on Siddiquah and Tripathi's (2020) research, an analysis of the library online log revealed that among a sample of 65 students, the median number of pages accessed was slightly higher at 7. The results consistently suggest that students in the Library and Information Science (LIS) field frequently access an average of 5-7 web pages per visit.

Use of Specific Website Sections

In accordance to several researches, it has been consistently observed that undergraduate students majoring in Library and Information Science (LIS) primarily visit university library websites and their related resources. Besides, course management systems are also frequently utilized by these students. According to the study conducted by Baikady, Addagatla and Mallya (2019), the analysis of online logs revealed that the utilization of the library portal constituted around 35% of the total duration of website activity.

In addition to utilizing library resources, students commonly access pages related to alerts, academic results, assignments, and the academic calendar (Kannan & Gupta, 2021; Siddiquah & Tripathi, 2020).

Research Framework

Based on the foundations of the Technology Acceptance Model (Davis, 1989), a research framework is proposed where perceived usefulness (PU) determines the extent of usage (EU) of the university website by undergraduate LIS students, as shown in Figure 1.
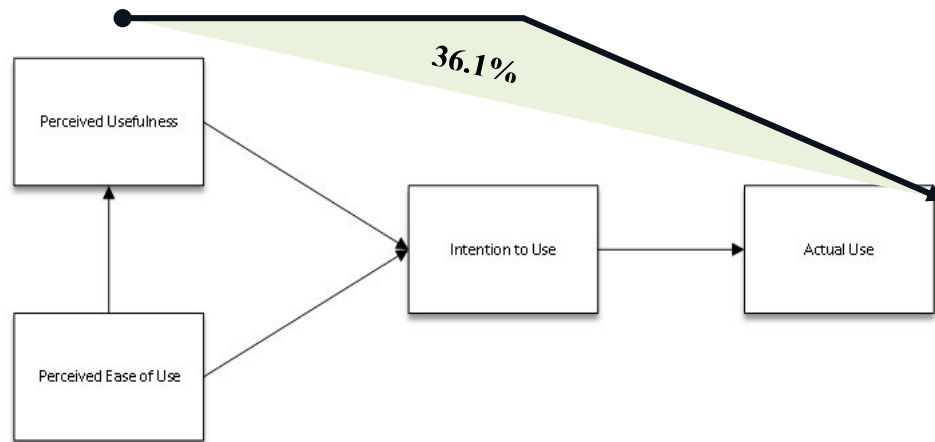
Figure 1: Research framework for influence Perceived Usefulness on extent of usage of university website

This study defines perceived usefulness (PU) as the students' subjective perception of the extent to which utilizing the university website enhances their academic performance and effectiveness. The Extent of Use (EU) of a website can be characterized by the frequency, duration, and utilization of various portions of the website for academic purposes. The shaded part on the TAM structure represented the connection and relationship between the two observed variables—PU and RU.

Technology Acceptance Model and University Website Usage

The Technology Acceptance Model (TAM), first introduced by Davis in 1989, has become a prominent theoretical framework in the study of the adoption, usage, and acceptance of new technologies and information systems. The Technology Acceptance Model (TAM) proposes that an individual's inclination to utilize a system is influenced by two fundamental beliefs: the perceived usefulness (PU) and the perceived ease of use (PEOU) of the technology. Perceived usefulness (PU) refers to the degree to which

an individual believes that utilizing a system would improve their job performance or productivity.

The concept of Perceived Ease of Use (PEOU) pertains to the extent to which an individual believes that utilizing a system would require minimal effort and provide no significant technical challenges. According to Davis (1989), the Technology Acceptance Model (TAM) posits that Perceived Usefulness (PU) has a direct impact on the intention to use, whereas Perceived Ease of Use (PEOU) indirectly affects the intention to use by influencing ratings of PU.

Previous studies have conducted empirical examinations of the Technology Acceptance Model (TAM) in various technological contexts and with distinct user groups, and the results consistently provide robust evidence in favour of the model's proposed connections (King & He, 2006; Schepers & Wetzels, 2007; Turner *et al.*, 2010).

In recent years, there has been a growing trend among academics to utilize the Technology Acceptance Model (TAM) as a framework for investigating the extent to which students embrace e-learning systems and online learning environments. The study conducted by Šumak *et al.* (2011) provides meta-analytic evidence that supports the notion of PU having a substantial impact on students' intents to use e-learning platforms, as well as their underlying attitudes towards such platforms.

Methodology

A cross section survey research design was employed in engaging Library and Information Science undergraduate students in University of Maiduguri, Borno State, Nigeria. The goal was to examine the perceived usefulness and extent of use of University of Maiduguri website by the students as well as testing the predictive relationship of the variables. The population of the students was 347. After the class session, a structured questionnaire was administered and 303 copies of the questionnaire, which constituted 87%, were retrieved, screened and found usable for data analysis. Descriptive statistics such as frequencies, percentage counts, mean scores, and standard deviations were used to describe the data. Nevertheless, inferential statistics such as simple linear regression was adopted to examine the hypothesized relationships among the variables.

Result and Discussion of Findings

Table 1: Perceived Usefulness of the University of Maiduguri's Website by Library and Information Science Undergraduate Students

Perceived Usefulness of Website	SD	D	U	A	SA	x̄	Std.
Using the university website improves my academic performance	30(9.9%)	102(33.7%)	63(20.8%)	71(23.4%)	37(12.2%)	2.94	1.207
The university website increases my productivity as a student	25(8.3%)	89(29.4%)	55(18.2%)	97(32.0%)	37(12.2%)	3.11	1.194
The university website enhances my effectiveness in carrying out academic activities	25(8.3%)	88(29.0%)	63(20.8%)	83(27.4%)	44(14.5%)	3.11	1.212
I find the university website useful for my academic purposes	24(7.9%)	86(28.4%)	57(18.8%)	91(30.0%)	45(14.9%)	3.16	1.215
The university website enhances my ICT skills as a student	30(9.9%)	98(32.3%)	61(20.1%)	84(27.7%)	30(9.9%)	2.95	1.181

Key: SD=Strongly Disagree, D=Disagree, U=Undecided, A=Agree, SA=Strongly Agree: Decision Rule=2.5; x̄=mead, Std. = Standard Deviation

A study of undergraduate Library and Information Science students' opinions of the university website's usefulness shows that it is considered to be of a moderately high level of usefulness. On a 5-point Likert scale, the mean scores for the five survey questions measuring perceived usefulness ranged from 2.94 to 3.16, with standard deviations between 1.181 and 1.217. In particular, academic reasons (M=3.16, SD=1.215) and increasing productivity (M=3.11, SD=1.194) seem to be areas where students find the university website to be of some assistance. They believed the website to have a marginally smaller effect on raising academic achievement (M=2.94, SD=1.207). Nevertheless, the range of responses suggests that each student's perception of the website's value varies.

Table 2: Extent of Usage of the University of Maiduguri's Website by Library and Information Science Undergraduate Students

	Extent of Website Usage	SA	A	U	D	SD	x̄	Std.
1.	I use the university website frequently	31(10.2%)	85(28.1%)	68(22.4%)	96(31.7%)	23(7.6%)	2.98	1.146
2.	I spend a lot of time using the university website each time I access it	29(9.6%)	93(30.7%)	64(21.1%)	87(28.7%)	30(9.9%)	2.99	1.174
3.	I visit many pages on the university website whenever I use it	22(7.3%)	101(33.3%)	47(15.5%)	102(33.7%)	31(10.2%)	3.06	1.171

Key: SD=Strongly Disagree, D=Disagree, U=Undecided, A=Agree, SA=Strongly Agree: Decision Rule=2.5; x̄=Mean, Std. = Standard Deviation

The results show that Library and Information Science students use the university website to a reasonable level across all of the evaluated parameters. On a 5-point scale, the mean scores ranged from 2.96 to 3.06, with standard deviations between 1.141 and 1.174. The site was used extensively by students (M=3.06, SD=1.171) and they spent greater periods of time on each visit (M=2.99, SD=1.174). However, utilization was relatively less frequent (M=2.96, SD=1.141). This shows that though they might not frequently access the website, they do use it extensively when they do. Less variety in usage behaviours is indicated by the slightly smaller standard deviations.

Result of Hypothesis

Table 3: Model Summary for PU on EU of University Website

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	601a	.361	.359	.756

a. Predictors: (Constant), Perceived Usefulness of University Website

The coefficient of determination, commonly referred to as R-squared, is calculated to be 0.361. The findings suggest that the level of utilization of the university website can be attributed to perceived usefulness, which accounts for 36.1% of the variance. Although the level of perceived usefulness is not exceptionally high, it indicates a moderate predictive association with utilization. The adjusted R-squared value of 0.359 closely approximates the R-squared value, suggesting that the model exhibits a high degree of generalizability to the population.

Table 4: Analysis of Variance (ANOVA) for PU on EU of University Website

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	97.422	1	97.422	170.392	.000b
	Residual	172.097	301	.572		
	Total	269.519	302			

a. **Dependent Variable**: Extent of Use of University Website

b. **Predictors: (Constant)**, Perceived Usefulness of University Website

The F-test result (F=170.392) is statistically significant with p=0.000, indicating the overall regression model with perceived usefulness as the predictor is significant in predicting the extent of usage.

Table 5: Coefficients[a] for PU on EU of University Website

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.300	.138		9.418	.000
	Perceived Usefulness of University Website	.560	.043	.601	13.053	.000

a. **Dependent Variable**: Extent of Use of University Website

The beta coefficient (0.601) associated with perceived usefulness demonstrates a positive correlation, suggesting that an increase in perceived usefulness is likely to result in a corresponding rise in usage extent. The obtained t-test result (t=13.053) demonstrates statistical significance, so indicating that the perceived usefulness significantly contributes to the model. The findings from the linear regression analysis indicate that there exists a modest positive correlation between perceived usefulness and the level of utilization of the university website among undergraduate library and information science students. Furthermore, this relationship is statistically significant; suggesting that perceived usefulness may be considered a reliable predictor of website usage in this particular group of students. The regression model that includes only perceived usefulness as the predictor variable demonstrates efficacy in elucidating the variance in usage.

Discussion of Findings

The findings reveal that undergraduate students studying Library and Information Science hold moderately favourable views regarding the utility of the University of Maiduguri website. The average responses for the five items assessing usefulness varied between 2.94 and 3.16 on a 5-point Likert scale, indicating that students perceive the website to be moderately useful. The item "The university website is beneficial for my academic endeavours" obtained the highest average score (M=3.16), which is consistent with the research conducted by Al-Busaidi (2017) indicating that 70% of students perceived university websites as having a positive influence on their educational experience.

This observation underscores the significance that students attribute to the academic functionality of university websites. Nevertheless, the statement "The utilization of the university website enhances my academic performance" exhibited the lowest average score (M=2.94), despite previous research conducted by Echeng *et al*. (2022) indicating that 75% of students reported improved academic outcomes as a result of utilizing academic websites. This disparity implies kids may not strongly correlate online use with performance benefits. The observed standard deviations, ranging from 1.181 to 1.217, indicate a notable degree of diversity in individuals' opinions of usefulness. According to Arif *et al*. (2021), variations in digital competencies and learning preferences have the potential to impact the assessment of usefulness. The findings suggest that undergraduate students majoring in Library and Information Science (LIS) acknowledge the website's utility, particularly in an academic context. However, there is still potential for enhancing these perceptions.

In relation to the utilization of websites, students have indicated relatively elevated levels in terms of frequency, duration, number of pages visited, and engagement with certain portions. The item "I frequently utilize the university website" exhibited the lowest mean (M=2.96) in comparison to the length and number of pages visited. This observation is consistent with the research conducted by Anaraki and Babalhavaeji (2013), who discovered a decrease in website utilization during university breaks, suggesting that the frequency of usage varies. In contrast, the average score (M=3.06) for the statement "I visit many pages on the university website whenever I use it" aligns with the findings of Siddiquah and Tripathi (2020), who conducted an analysis demonstrating a significant amount of page exploration. Additionally, the students reported experiencing extended periods of time on the website. According to Kannan and Gupta (2021), the duration of most visits ranged from 30 to 60 minutes. However, it appears that undergraduate students in the field of Library and Information Science (LIS) extensively utilize the website, engaging with several pages and spending extended periods of time on the site once they have viewed it, despite a slightly lower frequency of use.

The results of the linear regression analysis indicate that the null hypothesis can be rejected, since there is a significant relationship between perceived usefulness and extent of website usage (β=0.601, p<0.001). According to Fathema, *et al*. (2015), the variance explained of 36.1% indicates a modest effect size. This finding supports the notion that perceived utility plays a

significant role in driving students' adoption of websites, aligning with previous research. The Technology Acceptance Model (TAM) is a widely used theoretical framework in the field previous research conducted in Greece and China has similarly identified a favourable association between the perceived utility of e-learning technology and the usage behaviours of undergraduate students (Armakolas *et al*., 2022; Liu, *et al*., 2022). Nevertheless, the available research suggests that there is scope for enhancing the cultivation of more favourable attitudes of utility in order to effectively enhance utilization.

The results of this study offer significant insights into the perceptions and usage habits of undergraduate students in the field of Library and Information Science (LIS) towards academic websites. The findings underscore the need of harnessing the latent potential of the website to facilitate student achievement by implementing specific improvements that enhance perceived usefulness and strategically integrate it into the learning processes. The significance of regularly assessing student experiences in order to enhance academic website features and engagement has been underscored by Mtebe and Kondoro (2021).

Conclusion

This study seeks to address a significant gap in the application of the Technology Acceptance Model to understand university website usage by undergraduate LIS students in the University of Maiduguri, Borno State, Nigeria. The findings aim to provide theoretical and practical insights on the factors driving students' adoption of academic websites for enhancing their learning and educational outcomes. An improved understanding of usage behaviour and intentions can help universities design more student-centered, engaging websites.

Recommendations

Based on the findings of the study, the researcher recommends that:

1. By implication, the university management should prioritize features of websites and information that serve academic needs, such as course/study resources, library databases, academic policies, and earning support services. The website administrators should add more personalized academic tools like study planners, self-assessment quizzes, tutoring services, etc. This may enhance the perception that the website positively impacts learning outcomes.

2.   The extensive page exploration and lower visit frequency suggests students find meaningful content spread throughout the website, but may forget to access it regularly. Thus, push notifications or content digests could remind students to utilize the website more frequently. To enhance and maintain the high duration per visit by students, interactive and multimedia content may further increase time spent per visit.

3.   Given the predictive relationship between perceived usefulness and extent of use of the university websites as revealed by the tested hypothesis, there is an insight that the university website has untapped potential as an academic support tool. Targeted enhancements and promotion focusing on academic utility and performance improvement may boost students' perceptions of the website's usefulness and integration into their learning processes.

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