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Assessing the Influence of Digital Library Features on the Information-Seeking Behaviour of University Students in Ghana: A Case Study of Bolgatanga Technical University

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ABSTRACT

Despite the lack of empirical evidence regarding the factors influencing their actual use in Ghanaian colleges, digital libraries play a crucial role in supporting students' access to academic resources. A correlational method of survey research was used in collecting the necessary data through a structured questionnaire from a sample of 286 students. Multiple linear regression analysis was used to analyse the survey results after controlling for age, gender, and digital literacy. The findings indicated that content quality, perceived usefulness, perceived ease of use, and affinity were not significant predictors of digital library use among students. On the other hand, system and service quality were found to be significant predictors of digital library use among students.

INTRODUCTION

Digital libraries (DL) are described as digital resources which are compilations of electronic materials and technical structures employed for searching, creating, and using information (Mamabolo & Durodolu, 2025). Both the development of digital libraries and the behaviour of their patrons are influenced by information technologies. Nowadays, innovative solutions, including big data cloud computing, mobile Internet, and artificial intelligence, have been introduced, which have greatly influenced the progress of digital libraries (Wang, 2017).

DL provide unmatched handiness and ease of use, which in turn permits users to access resources from numerous settings at any given time. Again, they also bring a wide range of information sources that do not face the physical challenges; it facilitates independent and seamless learning experiences (Owusu-Ansah, 2020). Additionally, DL are more advantageous as compared to traditional libraries, considering the cost- effectiveness, preservation of digital information, and seamless resource sharing networks (Mamabolo & Durodolu, 2025).

The growing confidence in digital libraries in higher education has raised concerns about how such systems influence students' use of them (Owusu-Ansah, 2020). In this research, user behaviour is referred to as how frequently and in what ways students utilise online research tools, such as searching for articles, accessing e- books, or using search filters and citation tools. The characteristics of DL, such as system quality, ease of use, and information quality, can determine behavioural use of the system. Xu and Du (2019) stated that system quality, information quality, and service quality have immediate effects on customer delight and indirectly affect value and ease of use. The outcomes of their surveys highlight the role of digital library design and content in facilitating user behaviour. Similarly, Alzahrani *et al.* (2017) discovered that the quality of the information accessed by the students is a major influencer of their satisfaction, emphasising the need for relevant and reliable academic content.

Xu *et al.* (2019) also added that affinity—students' emotional connection and repetitive use of digital libraries can positively influence conduct-related results. In 2020, Saragih said that motivation is a decisive factor that affects how the system is used, suggesting that motivation and ease of access play a role in user interaction. Mohammed and Abiodun-Asanre (2023), validated the fact that DL tools refined user behaviour. However, Volovici *et al.* (2016) debated that the user behaviour of students did not necessarily change; they continued to question the actual impact of digital library use. These studies were unified to address the shortfall in assessing how digital libraries influence actual usage patterns.

Ghanaian universities (e.g. University of Ghana, Kwame Nkrumah University of Science and Technology, and the University of Cape Coast) are gradually integrating DL into academic service delivery; the advancement is unequal across the institutions. Most universities have endorsed digital platforms to make scholarly resources more accessible (Dadzie & Van Der Walt, 2015). Although these libraries were naturally designed to make resources more accessible, there is not much information about their usage among university students. Focus is mostly centred on infrastructure, system design, or institutional readiness, which omits understanding user behaviour, the reasons behind the usage of digital libraries and how often they are used. Due to increasing trust in digital transformation in tertiary education in Ghana, it has become important to assess how these tools are being utilised by students.

Earlier studies focused on users' satisfaction, perceived

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usefulness, and behavioural intention to use the systems (Xu & Du, 2019; Alzahrani *et al.,* 2019; Saragih, 2020). In most cases, these studies suggest theoretical models like TAM and UTAUT, which emphasise users' behaviour and objectives as determinants of future use. However, only a handful of these studies examine the actual use of DL, considering frequency, purpose, and engagement with system features. The few available studies (Mohammed & Abiodun-Asanre, 2023; Jabeen *et al.,* 2024) were not carried out in Ghana, which makes it extremely difficult to apply locally, as the cultural and national backgrounds are different (Alzahrani *et al.,* 2019). This divide is peculiar to studies performed in Sub-Saharan Africa and Ghana, where the DL is becoming very popular but untracked. As Ghanaian universities commit resources to digital infrastructure, it is very important to be aware of whether students use the systems, and not just how they perceive them (Alzahrani *et al.,* 2019). This study tackles that issue by focusing on the actual usage behaviour of students with the hope of offering a contribution concerning the actual usage of DL in tertiary institutions in Ghana.

LITERATURE REVIEW

Overview of Digital Library

The term "DL" can refer to anything from a digitised collection of materials found in a traditional library to a collection of digital data and services that enable users to access that data. Other names for DL include "Electronic Library," "Virtual Library," "Digital Collection," and "Digital Repository." Chavan & Naikar, (2024), describe it is an ecosystem that employs computers in a networked environment to facilitate the life cycle of data, information, and knowledge generation, storage, conservation, distribution, and usage. Digital Library, as Saini & Sharma (2015) described it, is "a well-organised arsenal of digital content or holdings in electronic form that can be accessed by a computer connected in a network through an online or offline interface." DL has a collection of digital materials, unlike other media such as print media and microform media, described by Sampathkumar (2020), which are termed conventional media. Electronic media such as visual materials, texts, music, and videos are examples of digital materials. DL has tools to manage and access media in the library. The content within a digital library may be stored locally or accessed over a network, as explained by Sampathkumar (2020). The goals of DLs were described by Chavan & Naikar (2024) as follows: to speed up the development of techniques to collect, store, and manage digital information; to encourage collaborative activities to share research resources, computing facilities, and communication networks; to encourage cost-effective information delivery; to improve communication between information creators and users; to lead in information dissemination; to solve space problems in libraries; to preserve reading materials; and to solve budgetary constraints in purchasing books and journals.

Factors Influencing How Users Interact with Digital Libraries

Information, System, and Service Quality

The three important factors that influence the users' use and satisfaction of the information system, according to the information system success theory (ISST) proposed by DeLone & McLean (1992, 2003), are System Quality, Information Quality, and Service Quality. With reference to the conventional information systems, such as Data Warehousing Software by Navarro *et al.* (2025), Social Networking Communities, Al-Rahmi *et al.* (2021), Multi-platform Services, Al-Maaitah *et al.,* (2024), and the Internet of Things, Shin, (2017), the ISST was widely applied and tested. The theory of the success of the information system has also been applied to the subject of digital libraries by researchers in recent times. For example, Chang (2013) found that the perceived value and satisfaction of users of the e-learning system in the university library were influenced by three factors related to system quality, information quality, and service quality. On the same subject matter, Zha *et al.* (2014) also applied the theory of the success of the information system to explore the influence of the quality of digital libraries on their affinity. This study established that system quality, information quality, and service quality significantly influence digital library user satisfaction, thereby contributing to the application of the Information Systems Success Model in the context of digital libraries by Xu & Du (2019).

System quality was also seen as a multi-dimensional concept that included various suggestive features such as stability, navigation, layout, appearance, technical adequacy, security, and privacy, as indicated by Samadi *et al.* (2014). The extent to which users perceived that the provided information was timely, accurate, complete, and relevant was referred to as information quality.

Such attributes, including reliability, promptness, and professionalism, that reduce the effort that consumers have to exert in retrieving information are referred to as service quality, Machdar (2016). DL attributes, including system quality, information quality, and service quality, have been shown in studies conducted by Samadi *et al.* (2014) and Chopra *et al.* (2024) that DL attributes are significant in predicting consumer behaviour in the usage of digital library services at the University of Tehran in Malaysia. Iqbal *et al.* (2022) have shown that DL system usage is significantly predicted by service quality. Based on these definitions, the stability, usability, and look-and-feel of digital library websites can be referred to as system quality in this study. Information quality relates to timely, precise, and extensive information resources provided in digital libraries, while service quality relates to reliable, prompt, and professional digital library services.

Perceived Ease of Use and Perceived Usefulness

The TAM was proposed by Davis (1989). It was proved through the above model that the perceived utility and

perceived ease of use were the main factors influencing the acceptance of the information technology by the consumer.The applications of information technology include the Internet of Things (IoT) (Kelly & Palaniappan, 2023), email and the World Wide Web (Owusu *et al.,* 2022), e-commerce (Acheampong *et al.,* 2017; Ofori & Appiah-Nimo, 2019), online games (Chauhan *et al.,* 2021), and e-learning (Koi-Akrofi *et al.,* 2023).The TAM was applied in the field of digital libraries in the present research work. "The extent to which users perceive that using the information resources or services of a digital library would increase their productivity and efficiency in their work" is the working definition of perceived usefulness.
The "extent to which users perceived that using the digital library would require little time and effort" is called perceived ease of use. The application of TAM in digital libraries has already been researched. For instance, in the research conducted by Chopra *et al.* (2024), utility was identified as one of the major factors that influenced the consumption of digital library users. Utility and usability were also identified as the major factors that influenced the consumption of digital library users in the research conducted by Jeong (2011). Recently, the research conducted by Moorthy *et al.* (2019) revealed that the utility and convenience of use influenced the tendency of undergraduates to use online library resources. We are able to comprehend the impact of utility and ease of use on digital library users based on the findings of earlier research.

DLs' Affinity

In order to determine the opinions and views people have about the media and its content, the theory of media affinity is recommended to be put out. Media affinity was defined as "people's perceptions of a medium's significance in their lives." Past research studies established that media affinity has a significant impact on media reliance and intentions to use the media in the future. However, only a small number of researchers are currently using this theory in relation to digital libraries. For example, it was established by Zha *et al.* (2014) that the best way to measure the efficacy of digital libraries is by using the concept of affinity. Affinity theory is used in this research to show how users are affected by the quality of digital libraries. The users' perception of the value of digital libraries, as well as its content, in their learning and research pursuits is referred to as DLs' affinity.

User Behaviour

User behaviour refers to the way users interact with a system, encompassing their actions, preferences, and responses when engaging with digital interfaces (Shneiderman & Plaisant, 2010). t includes how users interact with interfaces and the decisions they make. It also encompasses the underlying requirements and motivations that influence their behaviour. DeLone & McLean (2004) say that another crucial factor in the effectiveness of information systems is satisfaction. Although behavioural intention is widely recognised as a key predictor of technology use, there is ongoing debate about the extent to which it accurately reflects actual user behaviour. Moghavvemi *et al.* (2015) noted that, though intention is a major predictor of use, user behaviour is rarely directly measured by most models. They noted that external factors that are referred to as precipitating events are likely to influence the relationship between user intention and user behaviour, mainly in applied or entrepreneurial contexts. However, Meiranto *et al.* (2024) note that user behaviour is directly affected by performance expectancy, effort expectancy, and behavioural intention, thus affirming that user intention is a reliable predictor of actual use. The two studies show a disconnect between user behaviour as it is theoretically defined and as it is measured by most studies that use user intention as a proxy for actual use. This study attempts to correct that disconnect by focusing on user behaviour as an independent variable measured by students'

Conceptual Framework and Hypothesis

The conceptual framework used in this study's research framework considers how independent variables such as system quality, information quality, service quality, perceived utility, perceived ease of use, and affinity impact the dependent variable, user behaviour. These variables were derived from Affinity Theory, Technology Acceptance Model (TAM), and Information System Success Model (ISSM).
The variables derived from these models indicate that user perception and system variables impact students' actual behaviour in using digital library systems (Chopra *et al.,* 2024). Control variables such as age, gender, and digital literacy are incorporated to improve the research framework's explanatory power.

Hypothesis

H1: System Quality (SQ) has a significant positive effect on User Behaviour.

H2: Information Quality (IQ) has a significant positive effect on User Behaviour.

H3: Service Quality (SVQ) has a significant positive effect on User Behaviour.

H4: Perceived Usefulness (PU) has a significant positive effect on User Behaviour.

H5: Perceived Ease of Use (PEOU) has a significant positive effect on User Behaviour.

H6: Affinity (AFF) has a significant positive effect on User Behaviour.

The diagram in Figure 1 illustrates that six independent variables influence user behaviour, while age, gender, and digital literacy act as control variables.

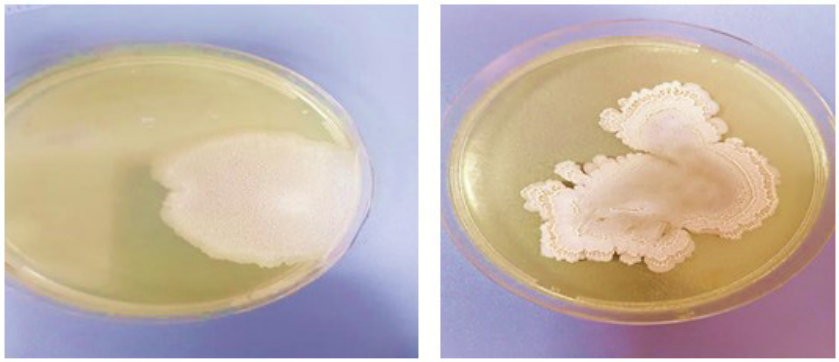

Figure 1: Conceptual framework

MATERIALS AND METHODS

Study Design

Since the purpose of the research was to evaluate the extent to which SQ, IQ, SQV, PU, PEOU, and AFF could be used as predictors of the students' DL utilisation, the research design that was most suited to the purpose was correlational research. This type of research design was important because it would offer insight into the relationship and pattern rather than implying causality (Seeram, 2019). By using the most appropriate research design and methodology, the research becomes more valid and reliable. This would also offer the advantage of being able to interpret the pattern and design that could be followed in the formulation of planning policies.

Study Area

The research was carried out at Bolgatanga Technical University, which is situated in the Upper East Region of Ghana. The university has many students who study different programs like business, engineering, and information technology. The school has a digital library, which forms part of the wider objective of improving access to online learning resources and repositories. Given that students make use of these electronic media to complement the limited physical library in the area, this study area is an important choice to examine whether the features are able to influence user behaviour.

Population, Sample and Sample Size Determination

The population consisted of a total of a thousand students. 286 students were selected to obtain data with the help of Yamin's formula, presented in 1967. After taking statistical power, effect size, and practicality into consideration, the students were randomly selected. A priori power analysis was carried out with the power rsquared procedure. This was used to establish the adequacy of the sample size. From the data, with an alpha level of 0.05, a sample size of 286, and a predicted increase in R^2 from 0.10 to 0.18, the result was 1.00. This shows that the sample size for the study is adequate to detect the hypothesized effect with a very high degree of confidence. The sampling technique used was simple random sampling. This was used in order to reduce bias and ensure that every respondent had an equal chance of being selected. According to Leavy (2017), simple random sampling is very effective in producing reliable and useful results, considering the fact that it reduces biases and ensures sample representativeness.

Data Collection Instrument

The primary data was collected using the survey method using Google Forms to carry out the questionnaire. To provide the background and context of the participants, the background of the respondents included their age and gender. Additionally, a 5-point Likert scale ranging from strongly disagree to strongly agree was used to score their view. The items capture the constructs SQ, IQ, SQV, PU, PEOU and AFF of DL.

Data Analysis Technique

In order to obtain reliable findings, a rigorous statistical analytical procedure was performed. At the beginning of the analysis, a normality test—such as the Shapiro-Wilk test and visual methods like Q-Q plots—was performed to verify that the data fit the normality assumptions required for linear regression analysis. Other analysis such as homoscedasticity and multicollinearity, were checked in order to determine the validity of the result. Also, descriptive statistics were used to compile the data, using mean were used to transform the data into continuous. The six hypotheses in the model were tested using multiple linear regression statistics in the second stage of the analysis. DL is the dependent variable, and SQ, IQ, SQV, PU, PEOU, and AFF are the independent variables. Age, gender, and digital literacy are examples of control factors that are taken into account by the regression model. The ability of multiple linear regression to ascertain the direction and strength of the relationship between a single dependent variable and multiple independent factors led to its selection.

Test for Normality

Except for IQ, none of the variables passed the Kolmogorov-Smirnov and Shapiro-Wilk tests for

normalcy statistics as shown in Table 1. The skewness values, which lie within the symmetric range of –0.5 to 0.5, vary from 0.122 to 0.144, indicating minor positive skewness (George & Mallery, 2010). Kurtosis readings show a mild leptokurtosis but stay below 1, ranging from 0.214 to 0.287. However, the researcher proceeded to do linear regression owing to the assumptions of the central limit theorem (CLT). CLT asserts that for a sample beyond 40, the sampling distribution of the mean will approximate a normal distribution regardless of the shape of the population distribution (Elliott & Woodward, 2007).

Table 1: Normality Test

Kolmogorov-Smirnova			**Shapiro-Wilk**			**Skewness**	**Kutosis**
Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**	**.144**	**.287**
SQ .090	286	.000	.958	286	.000	.136	.243
SVQ .128	286	.000	.946	286	.000	.123	.214
PU .089	286	.000	.965	286	.000	.144	.287
PEOU .085	286	.000	.962	286	.000	.136	.243
AFF .061	286	.013	.975	286	.000	.122	.214
IQ .039	286	.200*	.990	286	.043	.143	.287
DL .119	286	.000	.938	286	.000	.136	.243
DLL .071	286	.002	.990	286	.052	.123	.224

**. This is a lower bound of the true significance; a. Lilliefors Significance Correction*

Data Reliability Test

The Cronbach's Alpha coefficients for each variable are shown in Table 2. The test was used to assess the study's test scales' dependability. Coefficients between 0.8 and 0.9 are remarkable, 0.7 and 0.8 are excellent, and 0.7 is adequate for reliability, according to Kline (1998). All variables have Cronbach's alpha scores between 0.729 and 0.911, which indicate good to excellent internal consistency. This proves that the associated structures are accurately measured by the measurement items.

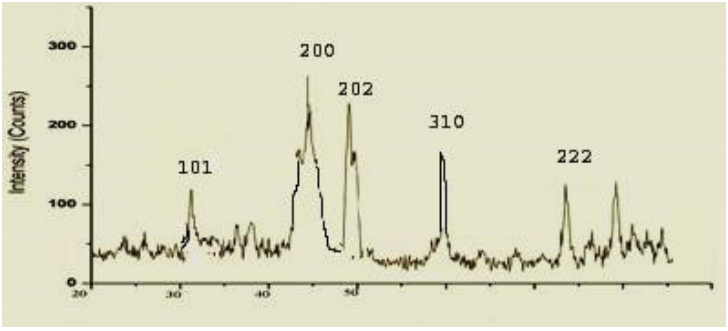

Figure 2: Graphical Representation of Reliability Scores of Study Constructs

All constructs have Cronbach's Alpha values above 0.80, which is higher than the suggested cutoff point of 0.70 for internal consistency dependability, according to the reliability analysis. This implies that the questionnaire's measuring items measure their respective constructs consistently and with good reliability. Among the constructs, Information Quality (IQ) recorded the highest reliability score, while Usage Behaviour (UB) recorded the lowest, though still within an acceptable reliability range.

Ethical Consideration

Respondents were shielded from psychological and physical damage by adhering to ethical standards. Before participating, students who did so willingly granted their permission. Additionally, they were aware of the goal of the study and were reassured that everyone was respected and that their personal information would be kept confidential. Before collecting data, the institution's research board was asked for clearance.

RESULTS AND DISCUSSION

As the statistics in Table 3 show, most students were male, representing 60.5% of the sample, whereas females represent 39.5%. The average is about 21 years old. These results demonstrate that the sample is young and slightly male-dominated. These results offer a clear starting point for understanding how students interact with the digital library and how its features may influence this interaction.

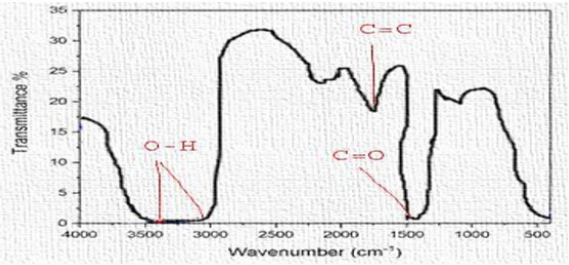

Figure 3: Gender Distribution Chart

Respondents Gender Distribution Chart

Male:60.5% Female: 39.5%

The respondents' gender breakdown is displayed in Figure 3. The findings show that 39.5% of participants were women and 60.5% of participants were men. This implies that the bulk of the study sample consisted of male pupils.

Table 2: Respondents' Background Information

Variables	Frequency	Percent
Male	173	60.5
Female	113	39.5
Age	Mean(21.32)	Std(2.093)

Assessment of Model Fitness

An array of fitness statistics for the model was performed to confirm that the data actually fits the model. It included a summary of the model, Durbin-Watson, and Analysis of variance, as presented in Table 3. The model revealed a strong relationship between SQ, IQ, SQV, PU, PEOU, and AFF and DL. The value of R was recorded as 0.814. The value of 0.662 revealed that the model explained 66.2% of the variance. The adjusted value of 0.651 revealed that the model remained stable after considering all the predictors. Moreover, the value of 1.885 revealed by the Durbin-Watson is closer to 2. It revealed an acceptable pattern in the residuals. From the values revealed by the model, it performed well and revealed that all the independent variables were able to explain the digital library.

The statistics of the age distribution of the respondents are shown in Figure 4. On average, the age of the students was 21.32 years, with a standard deviation of 2.093, as shown in the statistics. It should be noted that the age range of undergraduate university students was rather narrow.

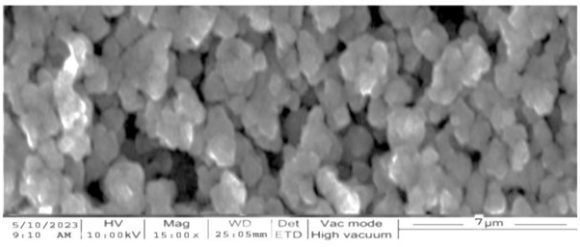

Figure 4: Age Distribution of Respondents

From the regression coefficient plot, it is evident that System Quality (SQ) has the greatest positive impact on user behaviour with a coefficient value of $\beta = 0.707$. This shows that system quality has a strong positive impact on students' engagement with the digital library. Among all these variables, system quality is the most important variable that affects digital library usage.

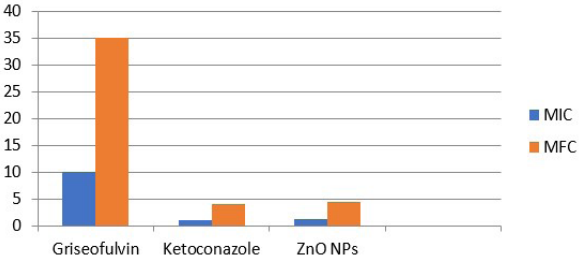

Figure 5: Regression Coefficient Plot

Furthermore, Service Quality (SVQ) has a positive effect that is statistically significant on user behaviour with a β value of 0.130. Although it is a lower value compared to system quality, it shows that services such as help from librarians, quick solutions to technical problems, and professional advice are factors that promote the use of digital library services among students.

On the other hand, Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Information Quality (IQ), and Affinity (AFF) have very small or negative regression coefficients. These results show that these variables have no significant impact on the actual use behaviours of the students. The results show that the values of the variables are very close to zero, which means that these factors have a very small impact on the extent of use of the digital library by the students.

In a general sense, it has demonstrated the importance of technical reliability and support services within digital library practice among university students. While various theoretical models, such as the Technology Acceptance Model, may emphasise the importance of perceived usefulness and ease of use, it has demonstrated that actual use is significantly affected by practical scheme function and support services.

The visual representation, as shown in Figure 5, therefore, validates the statistical findings from the regression analysis results, which indicate the effect of System Quality and Service Quality on digital library use by students at Bolgatanga Technical University.

Features of a digital library that influence user behaviour

In this study, six hypotheses were tested. Among the six hypotheses, two hypotheses were accepted at a significant level of 0.05. These two hypotheses are H1 and H3. The coefficient value and p-value for hypothesis H1, which

affirms that SQ has a significant impact on UB, are 0.0707 and 0.000, respectively. This is a strong impact, implying that differences in SQ cause significant differences in user behavior. A positive and statistically significant impact was also found for SVQ on user behavior, with a coefficient of 0.130 and a p- value of 0.033. Although the impact is small, it is statistically significant.

Table 3: Model Summary

Model	R	R Square	Adjusted R- Square	Std. Error of the Estimate	Durbin- Watson
1	.814[a]	.662	.651	1.020	1.885

a. Predictors: (Constant), AFF, SQ, IQ, AGE, DLL, gend, PU, SVQ, PEOU
b. Dependent Variable: UB

The research looked into the impact of the features of digital libraries on the user behaviour of university students in Ghana. The goal was to comprehend which parts of the system fuel student engagement with digital library platforms. There six hypothesis were framed to determine the impacts of these quality dimensions. After holding other factors constant, it was revealed that only two hypotheses resulted in a statistically significant relationship at 0.05.

Table 4: Features of a digital library that influence user behaviour

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.476	.723		-.659	.511
	gend	-.147	.127	-.042	-1.158	.248
	AGE	.037	.030	.045	1.260	.209
	DLL	-.007	.066	-.004	-.101	.920
	SQ	.728	.062	.707	11.685	.000
	SVQ	.135	.063	.130	2.141	.033
	PU	-.009	.071	-.006	-.124	.901
	PEOU	-.001	.076	-.001	-.019	.985
	IQ	-.065	.063	-.038	-1.023	.307
	AFF	.019	.075	.017	.258	.797

b. Dependent Variable: UB

The first hypothesis was centred on system quality and user behaviour. This demonstrates a strong positive relationship. The positive coefficient signifies that an enhanced system stability, navigation and layout will result in a significant rise of student engagement. This suggests that the students across the various universities in Ghana have the ability to access the information speedily and complete their projects in an efficient manner and also adopt the platform as part of their learning routine in the case of stability and ease of navigation of digital library systems. Consistent with the TAM theory, the ease of use of the system by the students suggests the basic need for system quality. It could be argued that the students notice even the smallest changes in the design of the system since it has a direct bearing on reducing their efforts and making their learning more manageable. System quality could thus be considered the gatekeeper since if it is high, the students use the system frequently, and if it is low, they use the system minimally.

This outcome is consistent with research by DeLone and McLean (1992, 2003), which emphasized the critical role that system quality plays in system utilization. The finding is also corroborate with prior studies (Chang, 2013; Zha *et al.,* 2014), revealing that optimal systems raise engagement and satisfaction. Also, Samadi et al (2014) noted that stability, technical adequacy and navigation are salient constituents of system quality. This current research affirms these understandings and offers a realistic explanation: in spheres where learners balance limited time and resources, an optimal system makes it possible for them to actualise academic objectives efficiently, which enhances their behavioural response.

The third hypothesis, which investigates service quality and its positive effect on user behaivour was also supported. From the findings, service quality enables the sustenance and stability of user behaviour instead of producing it. When service quality is increased, it results in higher engagement as it makes it easier for students to deal with challenges, comprehend platform features and deal with accessing the system. It is revealed that students will initially depend on librarians or support staff to have an effective navigation of the digital library. In the course of time, familiarity with the system sets in and the dependence on support staff declines. Yet still, the presence of dependable and professional service enhances usage.

This trend concurs with studies such as Machdar (2016) and Iqbal et al (2022), who demonstrated that high service

quality motivates consistent usage as it makes the system easier to navigate and lessens the mental effort demanded to finish tasks. The presence of adequate assistance for students enables them to expediently deal with difficulties and maintain their workflow without distractions. On a similar note, research by Chopra et al (2021), and Samadi (2014) assert that service quality is extremely significant during times when updates are being made to the system or there are glitches and access difficulties, as students tend to lose interest or get frustrated. During such times, a strong support system can help resolve the problems for the students and boost their confidence and interest in the digital library.

CONCLUSION

The study examined how digital library quality features influence students' usage behaviour in Ghanaian universities. The findings show that usage is not driven by the mere availability of multiple features, but by their priority and functionality. System stability, accessibility, and ease of navigation emerged as foundational determinants; students engage more consistently only when these basic conditions are met. Support services play a complementary role by reducing uncertainty during disruptions. This suggests a hierarchical relationship among system quality dimensions, challenging the assumption of equal influence proposed in traditional Information Systems Success models.

The study recommends that university authorities prioritise reliable, user-friendly, and stable digital library systems over the expansion of complex features. Investments should focus on system uptime, intuitive interface design, and multi-device accessibility. Additionally, strengthening user support through staff training, responsive help services, and tools such as tutorials and chatbots will enhance user experience. Policies should also address infrastructural barriers, including internet access and digital literacy. Engaging students in system design and improvement will ensure alignment with actual user needs. Overall, a strategic focus on usability, support, and infrastructure is essential for maximising digital library effectiveness and sustaining student engagement.

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