**Interactivity, Usability and Aesthetic as Predictors of Undergraduates’ Preference for University Library Websites**

**Abstract**

***Purpose:*** *The study examined interactivity, usability and aesthetics as predictors of undergraduates’ preference for University Library Websites.*

***Design/methodology/approach:*** *A total of 134 final year undergraduates registered for a course on Web design and management from two departments in two different universities represent the sample for the study. A researcher designed questionnaire was used to gather data from the respondents which was analysed to test the three developed hypotheses.*

***Findings****: The results suggest that all the three factors/features correlate with preference for University library Website. The students’ perceptions and ratings of interactivity versus usability and interactivity with aesthetics were low. The three independent variables (****interactivity, usability and aesthetics****) jointly (as indicated by the R-square value) explained 51% of the variations in the preference for university library Website. Each of the features makes significant contributions to the prediction of university Website preference. All the predictors/factors exert significant contribution to the prediction of preference for university library Website.*

***Research limitations/implications:***  *Future research will consider the use of a more diverse sample of students from different disciplines or field of study. Similarly, other statistical modeling methods should be considered for the analysis of data, which would indicate the magnitude and direction of effect for various preference variables of library Websites.*

***Practical implications:*** *The results call for the improvement of the interactivity feature in order to have high correlation with usability and aesthetics and thereby increasing the preference for university library Websites by the users.*

##### *Originality/value: The study is an original idea from the author. The results of this study contribute to the state of library Websites regarding its interactivity, usability and aesthetic towards revitalizing the library in general. This knowledge will assist libraries and information-related institutions worldwide in chatting a baseline towards meeting their users’ needs through their library Websites.*

**Keywords:****Interactivity, Usability, Aesthetic, Undergraduates’ Preference for University Library Websites, Website Patronage, Website Access**

**Introduction**

Universities the world over now takes creation, development and management of Website very serious. This is because, through the Website, they showcase themselves to the whole world. On the other hand, the university library Websites now represents libraries’ virtual presentation to the whole world (Liu, 2008). Aside of the fact that University library Websites provide information about the services they render, they also make provision for access to information electronically through online catalogues, electronic databases, subjects gateways/resources, instructional materials and tutorials and other.

Information on most of the academic library Websites are tailored towards the vision and mission of the academic institutions as they now represents the gateways to information to support academic staff and students in the area of research and other academic needs. As emphasized by Liu (2008:6), most academic library Websites are inventories and access points for such information. As the massive growth of Internet resources and new searching and sharing tools such as Google, Amazon, Facebook, Linkdl, Instagram, Whatshap, YouTube, Flickr, del.icio.us, and MySpace give users more power, ease, and fun in information seeking, academic library Websites face stiff competition in the area of user preferences, because academic library Websites provide considerably higher quality and better scholarly information.

There is no doubt about the fact that some University library Websites are better than the other. This results to the issue of preference among the undergraduate users when it come to access and seeking for needed information. On this note, it has been observed on this issue of preference for library Websites that a well-conceived, designed and developed library Website should meet users’ preferences and expectations of their help towards information seeking and access to information on such Website. While much assessment has been done on preference from the content usage standpoint, there have been fewer studies examining users’ preferences for library Websites.

It should be noted however that there are factors that could determine the preference for a library Website by the users. This ranges from the way the Websites is designed in terms of aesthetic, interface, interactivity, visual appealing, and content quality, ease of use in terms of access and navigational links, usability among others. Available relevant literature have only focused on measuring library space use and preferences: charting a path toward increased engagement (Webb, Schaller and Hunley, 2008); student preferences in library Website vocabulary (Polgar, 2011) and understanding library users’ preferences and expectations of online help (Zhang, Stonebraker & Promann, 2016). The implication is that studies that focus on predictors of preference for library Websites particularly by the undergraduate users seem to have been ignored. Not these alone, limited empirical evidence is available from the context of Africa on preference for library Websites. It is against these backdrops that the present study seeks to examine interactivity, usability and aesthetic as predictors of university library Websites by undergraduate students in some selected universities in Kwara State, Nigeria. It is expected that the outcomes from the study will results to better development and improvement of the university library Websites not only in Kwara State, Nigeria but rather generally in other universities in Nigeria and Africa as a whole.

**Objectives of the Study**

The main objective of the study is to examine interactivity, usability and aesthetic as predictors of university library Websites by undergraduate students in some selected universities in Kwara State, Nigeria. The specific objectives of the study are to:

1. Establish relationship between interactivity and preference for University library Websites by the undergraduate students.
2. Determine the relationship between Usability and preference for university library website.
3. Ascertain whether or not aesthetic can determine the preference for university library website by the undergraduate students.
4. Find out the joint contribution of interactivity, usability and aesthetic to the prediction of preference for university library Websites by the undergraduate students.

**Literature Review**

**Websites Preference**

Library Website preference/access, impression and or patronage are determined and influenced by certain factors as evident from the literature on determinant factors on patronage, use, acceptance etc, of library Websites. Therefore, preference in this study is define to mean a greater liking for one alternative over another or others. That is, the preference for one Library Website over the others. It is assumed that users will prefer a library Website, if the site is able to satisfy their informational needs, if the Websites have a good navigational links that makes it to be interactive, if the Website appeal to the to the users in terms of colour, aesthetic design, etc. As there are number of studies that have explored how initial judgments or first interaction with a university library Websites are built and the factors that determine it; so also, factors that determine preference of library Websites are available (Webb, Schaller, & Hunley, 2008; Polgar, 2011; Zhang, Ilana & Promanm, 2016), to mention but just few. Factors identified by these studies that determine preference for library websites include but not limited to interactivity, aesthetic, visual appealing, accessibility/navigability, content/information quality, usability, phototypicality among others. Since all of these cannot be focused in a single study, therefore, the author limit the focus of the study to just three of the factors. These are interactivity, usability and aesthetic perception of the university library Websites. These three were chosen because it is observed from the literature that there have been limited reports or empirical evidence on any of the three from the context of information system research in Africa that focus on evaluation of university library Websites. These factors are describe it turn as follows.

**Interactivity**

As indicated by Neelotpaul (2011, p.15), interactivity is consequent on a deliberation between the Website and the users globally and over a period of time. It creates a strong connection and a satisfying type of experience on the part of the users. Lowry et al. (2006) was of the opinion that interactivity has the capability to improve Website satisfaction. Jiang et al. (2010) explained that Websites that reflects user control features can influence cognitive and affective involvement. Jiang et al. went further to say that Websites with corresponding communication usually leads to effective involvement for functional brands. Website interactivity is also a vital contributing factor of brand knowledge components namely brand awareness (Keng & Lin, 2006) and brand image (Müller & Chandon, 2004). Neelotpaul (2011) indicated that the incorporation of interactivity in brands’ Websites has helped companies in successful online branding. Theoretically, Website interactivity concept deals with the basis of engagement and attraction that can be interpreted as a natural characteristic in technology-mediated communication (TMC) and human computer interaction (HCI) (Chen & Yen, 2004). Website interactivity do not only authorizes or allow users to interact with brands and other customers but also enable them to invent their own content on user generated content sites leading to a more cooperative technique to branding. Website interactivity has become an workable way of advancing the communication value of brand Websites (de Chernatony, 2010) and has been referred to as the interaction between users, between the system and the user and between the message and the user (Lee et al., 2013; Liu & Shrum, 2002). As pointed out by Liu (2008), people generally assume interactivity to be a desirable feature but research on interactivity effects has produced ambiguous results. Some studies have shown that users can form reliable judgments base on first interaction within a tinkle of an eye and this judgment is consequent on factors such as the context or visual complexity (Touch et al., 2012). Some other studies have confirmed the positive impact of interactivity on users’ response such as attitude toward Websites (Yoo & Stout, 2001), while others have found negative effect of interactivity on Websites visit (Coyle & Thorson, 2001). All of these studies suggest that the mixed results may be partly due to the lack of uniform conception of interactivity. Holding different understanding about what interactivity is has led to the researchers’ manipulation of the construct in various ways (e.g. Liu & Shrum 2002). As observed from the literature, there have been no conclusive results about how interactivity influences Websites preference. Therefore, this study hypothesizes that:

H1 - undergraduates’ perception of interactivity will not significantly predict undergraduates’ preference for university library websites.

**Usability**

Designers and researchers have assumed that usability is the rationale behind users’ active involvement with a Website (Reinecke, Yeh, Miratrix, Mardiko et al, 2013). From the literature, usability is regarded as a key variable affecting qualityperceptions. Though very difficult to define but however some author have made some attempts. For instance, Brinck’s (2002) considered usability to include functionally correct, efficient to use, easy to learn and remember, error tolerant, and subjectively pleasing, while Oulanov and Pajarillo (2002) postulated that efficiency, helpfulness, and adaptability are usability attributes. In his usability test study, Lee (2004) adopted multiple usability criteria such as usefulness, effectiveness, satisfaction, supportiveness, and intuitiveness. Shackel (2009) described usability as a technology's capability used easily and effectively by the specified range of users, given specified training and user support. This is to fulfill the specified range of tasks, within the specified range of environmental scenarios. Usability refers to terms such as ease of use and ease of learning that implied providing users with systems requiring minimum cognitive and physical effort to accomplish users’ needs and expectations (Sindhuja & Surajith, 2009). As argued by Powell (2000), Website usability is the extent to which a site can be used by a specified group of users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use. In other words, the Website usability is a test on the successfulness of Website’s user in performing some task or finding information in the Website (Yusof et. al., 2010). As indicated by Mentes and Turan (2012), usability of the Website plays a central role in establishing a healthy communication between the university and its stakeholders. Therefore, it is assumed that healthy communication between the university library management and the stakeholders can undoubtedly contribute to the governance and management of the university library Websites in many ways. Similarly, a well managed library Website with high usability can stimulate a healthy dialogue between the university library and its users. This is because dialogue lies at the hearth of communication and plays a central role in communication (Gutierrez- Garcia, 2008).

Literature has revealed some relevant studies on usability of Websites. Mentes and Turan (2012) evaluated and explored the usability level of Namık Kemal University (NKU) Website and provide guidance to develop betterr usable Websites. The research hypotheses identified six different factors positively associated with Website usability. The results revealed that five of the six factors positively and significantly affect the Website usability perceptions of NKU members. Results also revealed that some of the demographic factors tested, such as gender and Web experience, have significant impacts on usability perceptions of individual users. Furthermore, the study also discussed the potential benefits of improved Website usability on governance and proposes ways to improve the usability of Websites. Joo, Lin and Liu (2011) developed a usability evaluation model and associated survey tool in the context of academic libraries. This study not only proposed a usability evaluation model but also a practical survey tool tailored to academic library Websites. The authors verified the reliability and validity of the usability evaluation model empirically using the survey data from actual users. Statistical analyses, such as descriptive statistics, internal consistency test, and a factor analysis, were applied to ensure both the reliability and validity of the Websites preference evaluation tool.From the document analysis and expert consultation, this study identified eighteen measurement items to survey the three constructs of the usability, effectiveness, efficiency, and learnability, in academic library Websites. The tool was then validated with regard to data distribution, reliability, and validity. The results proved the evaluation tool as effective thereby suggesting it acceptance in assessing academic library Website usability.

Hammill (2003) evaluated the usability of the Florida International University (FIU) Libraries Website based on multiple evaluation categories such as navigation, clarity of vocabulary, and visibility of the website. Using a usability test and post-hoc questionnaire, the author measured how efficiently participants use the FIU Libraries’ Website, and the extent of their satisfaction. It was suggested that not only quantitative measures of efficiency like number of clicks to complete each task that determine usability but also qualitative analysis based on users’ comments and open question. In a similar vein, Lee (2004) tested the usability of a research center library Website in Korea. A Mixed method approach involving observation and usability test in addition to heuristic evaluation and laboratory usability testing, and remote usability testing were adopted. It was discovered that there is user interface problems in the system, and also identified library Website improvement strategies. Jeng’s usability model (2006) identified four constructs and sub-attributes of usability from thorough reviews of previous representative usability models, and also suggested specific measures for each construct. From, the above, it is glaring that evaluation study of university library Websites is rare in Nigeria and Africa as a whole despite the fact that extant literature has claimed usability to be a very important factor that could lead to preference of a university library Website. It is on this note that this study hypothesises that:

H2 - undergraduates’ perception of usability will not significantly predict undergraduates’ preference for university library websites.

**Aesthetic**

Aesthetic is the science or branch of philosophy that deals with the nature of beauty, art, and taste as well as with the creation and appreciation of beauty (Brady, 2013). It is also about how things are known through senses. On this note, it is assumed that for a library Website to be effective there must be a balance between content and design. This was why Lavie and Tractinsky (2004), postulated that aesthetic generally refers to as beauty. This beauty according to them is commonly applied to things that are pleasing, either to the senses, to the imagination, or to our understanding. In the light of this, aesthetics in this study is understood to mean beautiful or pleasing appearance of a university library Website. What is beautiful therefore may be appealing and preferred. Thus, the Website must be *aesthetically* agreeable (Polgar, 2011). It has been observed that aesthetic response to products and the spontaneous emotional reaction based on visual preferences seem to heavily influence the preference for a product (Library websites) (Reinecke et al., 2016; Sonderegger & Sauer, 2010). This aesthetic response or reaction is not only consequent to judgments about the Websites, it can as well influences them in an interaction that Reinecke referred to as “halo effect”: Websites that are perceived as beautiful are also perceived as usable (Reinecke, & Bernstein, 2011) and can be trustworthy too (Lindgaard, Dudek, Sen, Sumegi, & Noonan, 2011) and based on these, users can consequently develop preference for such Websites. Since users make reliable judgments within the first 50 to 500ms (Tractinsky, Cokhavi; Kirschenbaum, & Sharfi, 2006), it is assumed in this study that by possibly employing low-level image statistics of static Website screenshots, may likely predict whether a user will like or prefer the site. On this note therefore, this study postulated that Website aesthetics will affect or determine the users’ preference for such sites. Therefore, the study hypothesises that:

H3 – undergraduates’ aesthetic perception will not significantly predict undergraduates’ preference for university library websites.

**Figure 1: The Conceptual Model of the Study**

**Methodology**

Research design

The design used to carry out this study was a survey. Perusal of some library and information science studies revealed that survey is commonly used in LIS/information system research to collect self-report data from study participants. Survey design was considered appropriate in this study because, it gives room for the researcher to cover a substantial percentage of respondents (students) in the universities/departments that were covered in the study. Survey design/method was adopted because it has been prominently used in previous related studies (Tella, 2019, Jiang et al. 2016; Voorveld et al. 2013).

**Area of the study**

Two departments from two universities in Kwara State Nigeria were involved in the study. They are: Department of Library and Information Science at the University of Ilorin; and Department of Library and Information Science, Kwara State University Malete, Ilorin. The two departments from the two universities were involved because the researcher is currently in charge of teaching the course Web Design and Management in one and an adjunct lecturer in the other. This course is a two-credit unit that enable the students to acquire the knowledge to design a stand out Website, learn about the processes involved in creating a Website, and the most cost-effective ways of maintaining and developing it, identifying what makes a successful Website, and able to recognise, discuss and critique the individual elements of a Website, planning a successful Website design/development project, among others.

**Population of the study**

The population of the study included all year 4 undergraduate students in the two departments mentioned above. Students from the year 4 of study were selected because they have completed the course on Web Design and Management assuming that they are the best respondents that understand the contents of this research and can respond to the items in the instrument for the data collection. The total enumerative method was adopted. This was due to the small size of the sample of students in the participating departments. Total enumeration or census survey is a study of every unit, everyone, or everything, in a population. It is known as a total enumeration, which means a complete count. According to Babbie (2013), if a study population is small and less in number, it may be preferable to do a census of everyone in the population, rather than a sample. A census is attractive for small population necessary for given combinations of precision, confidence levels, and variability (Kothari 2013; Creswell 2014). This approach has a high level of accuracy and provides a complete statistical coverage over space and time. In other words, the researcher sampled all the 187 undergraduates’ year 4 students from the two departments covered in the study. This represents the sample for the study (See Table 1).

**Table 1: Demographic distribution of respondents**

| **Demographics** | Frequency | Percent % |
| --- | --- | --- |
| **Gender**  Male | 63 | 47 |
| Female | 71 | 53 |
| **Total** | 134 | 100 |
| **Age** |  |  |
| 21-25 years | 118 | 88.0 |
| 26-30 years | 10 | 7.5 |
| 31-35 years | 6 | 4.5 |
| 36 years + | 0 | 0 |
| Total | 134 | 100 |
| **Institution** |  |  |
| LIS Department Uni. Of Ilorin | 73 | 54.5 |
| LIS Department, KWASU. | 61 | 45.5 |
| Total | 134 | 100.0 |

**Research instrument**

The research instrument used for data collection in the study was questionnaire whose items were adapted from various previous related studies. This was used to gather data from the respondents. It was a closed ended type divided into two sections. Section 1 focused on demographic characteristics of the respondents. Section two is sub-divided into parts I-IV each section targeted at capturing data on the predictors focused in the study: interactivity, usability and aesthetic and the criterion which is preference. The eight items on Website interactivity were adapted from 18 items measure of perceived interactivity by McMillan and Hwang (2002). The section on Usability contains five items adapted from ‘The Standardized User Experience Percentile Rank Questionnaire’ (SUPR-Q) by Jeff Sauro 2015); while the five items on aesthetic were adapted from (Thielsch Moshagen (2015) Visual Aesthetics of Websites Inventory and Song and Zinkhan (2003) features of Website design, perceptions of Website quality, and patronage behavior. The six items on Website preference which is the criterion variable were informed by the literature. The entire 24 items in the questionnaire were measured on a five-point Likert type scale (from 5, strongly agree to 1, strongly disagree).

**Validity and reliability of the instrument**

To ensure the validity of the instrument used in the study, it was given to two experts whose research areas include Web Design and Management and information systems evaluation. The comments and suggestions led to the modification of the instrument thereby authenticating its face and content validity. The reliability of the instrument used was ensured through a test-re-test reliability method of two weeks interval. The responses collected were subjected to Cronbach Alpha. The Coefficient alpha reliability for each of the sub-scale of the questionnaire are as follows: interactivity (8 items) r = 0.95, Usability (5 items) r = 0.98; Website aesthetic (5 items) r =0.87; and the criterion variable, Website preference with six items returned an r = 0.93 The overall reliability co-efficient of the whole 24 items instrument reported an r = 0.93 Cronbach alpha. This is high reliability confirmed the adequacy of the instrument for data collection in the study.

**Procedure for data collection**

Prior to the administration of the instrument, the participants in this study i.e. the students from the two different universities had examined each other’s’ Website. They were given two weeks to navigate each other’s university library Website and observe all that have been discussed in class. Thereafter, the copies of the questionnaire on Undergraduate Students’ Perception of Interactivity, Usability and Aesthetic with Preference for University Library Websites were administered. Respondents were given voluntary opportunity of participation in the study but eventually, none of them indicated intention to opt out because they found the exercise very interesting, educating and involve practical demonstration of what is learnt in class, they were all willing to associate with it. The instructions given to the respondents at the commencement of the administration made the exercise a very easy one. The exercise was carried out on two different occasions during lesson on Web design and management course (LIS 403) offered at the year 4 first semester undergraduate Bachelor’s Degree programme in LIS. The data for the Department of Library and Information Science, University of Ilorin year 4 students and those from the year 4 students in Kwara State University were captured during the first semester 2018/19 academic session. The entire population of undergraduate students in Year 4 taken LIS 403 (Web Design and Management) in the selected departments, were administered the questionnaire this amount to 134 students. All the 134 copies of the instrument were properly completed and useful for data analysis. This gives a 100% return rate.

**Method of data analysis**

Descriptive and inferential statistics including percentage, correlation and multiple regression analysis were used to analyze the data. Pearson correlation method was used to examine the relationships between the dependent variable (preference for university library Website) with the independent variables – interactivity, usability and aesthetic) while regression analysis was used to find out the contribution of the independent variables to the dependent variable. A statistical package for social sciences (SPSS) version 21.0 for Windows was used for the coding of the collected data.

**Results**

**Table 2: Descriptive and Inter-correlational Matrix among Website Preference Predictors**

|  |
| --- |
| **Factors Mean Std Dev. Lib Web Pre. Interactivity Usab. Aesthetics** |
| **Library Website Preference 23.51 16.45 1.000**  **Interactivity 18.22 10.21 .888 1.000**  **Usability 16.44 8.18 .867 .561 1.000**  **Aesthetics 16.38 8.02 .858 .502 .614 1.000** |

Table 1 reveals that relationship exists between the entire Websites preference score and the other related predictors of Preference for University Library Website. The results show that interactivity had the highest correlation with usability (r = 0.89). This is followed by usability (r = 0.87). A correlation of the third factor with Websites aesthetics reveals (r = 0.86). This suggests that all the three factors/features correlate with library preference for University library Website.

Nevertheless, the results reveal that some correlations are higher than others. Among the highest inter-correlations that are higher than 0.5 are interactivity with usability (r =0.56) and usability with aesthetics (r =61) and while interactivity with aesthetics equals (r = 0.50). These high correlations is not surprising considering the fact that the perception of the interactive nature of a Website, how usability the Website is and the aesthetics appealing of the Websites will all prompt users to have preference for a Website that possesses all the factors and features.

However, some factors had much lower inter-correlations with one another: interactivity with usability (r = 0.56) and interactivity with aesthetics (r = 0.50). The results indicate that the students’ perceptions and ratings of interactivity/usability and interactivity with aesthetics were low. This probably also explains why these features are also weakly correlated with the usability as reflected on the table 2.

**Table 3: Regression of University Library Websites Preference Related Factors**

(N = 134)

**(a) Model summary**

|  |  |
| --- | --- |
| Multiple R | .646 |
| R Square | .511 |
| Adjusted R Square | .501 |
| Std. Error of the Estimate | 4.634 |
| Log-likelihood Function Value | -1510.117 |

Table 3 presents the results of the regression of University Websites Preference on the three preference predictors-related variables/features. The regression results show an adjusted R-square value of 0.523 Table 2(a), and an F-ratio of 50.83 (Table 3(b), the latter of which is significant at 0.05 level (0.000 < 0.05). These results indicate that the three independent variables (***interactivity, usability and aesthetics***) jointly (as indicated by the R-square value) explained or predicted 51.1% of the variations in the preference for university library Website. The prediction is also significant, as indicated by the F-ratio.

**(b) ANOVA**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Sum of Squares | Df | Mean Square | F | Sig. |
| Regression | 13120.155 | 3 | 4,373.385  86.032 | 50.83 | .000 |
| Residual | 11270.271 | 131 |  |  |  |
| Total | 24,390.426 | 134 |  |  |  |

**Table 2c: Coefficients**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Unstandardized**  **Coefficients** | | **Standardized**  **Coefficients** | |  |  |
|  | **B** | **Std. Error** | **Beta** | **Std. Error** | **T** | **Sig.** |
| Preference (Constant)  Interactivity  Usability  Aesthetic | -.759  .552  .449  .437 | .877  .080  .079  .070 | .318  .244  .226 | .059  .053  .048  .043 | -.988  8.18  4.66  5.52 | .368  .000  .000  .000 |

Table 3(c) provides information on the individual contributions of each of the three features in predicting preference for university library Website. The results show, firstly, that each of the features makes significant contributions to the prediction (as indicated by the significance of the t values, which are greater than 0.05, as shown in the rightmost column of the table.

Secondly, the standardised coefficients (Beta values) which indicate relative strength of each feature in the prediction of preference for the library Website show that interactivity contributed most to the prediction of Website preference (Beta value = .318), followed in declining order of strength by usability (Beta = .244), and aesthetics (Beta = .226). These results imply that all the predictors/factors exert significant contribution to the prediction of preference for university library Website.

**Discussion of Findings**

The results suggest that all the three factors/features correlate with preference for University library Website. This is not a co-incidence following the earlier explanation that the three predictive factors are important. Years back, some studies have confirmed the positive impact of interactivity on users’ response such as attitude toward Websites (Yoo & Stout, 2001), other studies have found little or even negative effect of interactivity (Coyle and Thorson, 2001). Similarly, some other studies have indicated the significance of usability and aesthetic as they determine preference and judgment of Websites in which University library Websites are not exception. For instance, Mentes and Turan (2012) indicated that usability of the Website plays a central role in establishing a healthy communication between the university and its stakeholders. Tella (2019) has also emphasised that for a library Website to be effective, there must be a balance between content and design. The effectiveness of a Website can make the users to prefer the site over the others.

The results indicate that the students’ perceptions and ratings of interactivity/usability and interactivity with aesthetics were low. Though, the rating is low but not in term of being below average but a little above average. The result here in this study confirms Jiang et al., (2016) suggestion that Websites with reciprocal communication result in effective involvement for functional brands. Similarly, Website interactivity has been referred to as vital contributing factor of brand knowledge components namely brand awareness (Keng & Lin, 2006) and brand image (Müller & Chandon, 2004). Neelotpaul (2011) indicated that “the incorporation of interactivity in brands’ Websites has helped companies in successful online branding. However, despite been low, the factors are considered very important when judging the preference for university Websites. Notably, some studies have shown that users can form reliable judgments base on first interaction and this judgment may be consequent on factors such as the context or visual complexity (Touch et al., 2012). Similarly, some other studies have confirmed the positive impact of interactivity on users’ response such as attitude toward Websites (Yoo & Stout, 2001), other studies have found little or even negative effect of interactivity (Coyle and Thorson, 2001). All of these lend credence to the finding in this study.

The three independent variables (***interactivity, usability and aesthetics***) jointly (as indicated by the R-square value) explained or predicted the variations in the preference for university library Website. Each of the features makes significant contributions to the prediction of university Website preference. All the predictors/factors exert significant contribution to the prediction of preference for university library Website. These as well are not co-incidence. As observed from the literature, it is evident that Websites with the features expected by the users will definitely be preferred over the other. No wonder the exertion of significant contribution and prediction of the three factors of preference for university Websites demonstrated in this study.

**Conclusion**

The study has examined interactivity, usability and aesthetics as predictors of undergraduates’ preference for University Library Websites. The results suggest that all the three factors/features correlate with preference for University library Website. The students’ perceptions and ratings of interactivity versus usability and interactivity with aesthetics were low. The three independent variables (interactivity, usability and aesthetics) jointly (as indicated by the R-square value) explained 51% of the variations in the preference for university library Website. Each of the features makes significant contributions to the prediction of university Website preference. All the predictors/factors exert significant contribution to the prediction of preference for university library Website; and therefore, they are good determinants of preference for university library Websites.

**Recommendations**

Based on the findings, the study recommends that interactivity feature should be improved so as to have high correlation with usability and aesthetics. Similarly, the library Websites administrators or designer should not take it for granted that that the usability and aesthetics of the Websites are okay but rather improve on them as well since the information landscape is both dynamic and changing.

**Compliance with Ethical Standards**

This serves to disclose that there is no potential conflict of interest or whatsoever whether financial or non-financial as far as this research is concerned. The research is based on Interactivity, Usability and Aesthetic as Predictors of Undergraduates’ Preference for University Library Websites. It is a pure research efforts solely financed by the author.

The research involved human being – the undergraduates’ university students selected from two universities in Kwara State, Nigeria. They represent the participants in the study.

The informed consent of these participants (undergraduate students) was sought before administering the instrument developed for data collection in the study to them and they were assured of the confidentiality of the information they supplied. They were also assured that they retain the right to participate or not and even to opt out at any point provided they were no more interested in the research.

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