Correlates of online bookstores service quality, satisfaction, and patronage intention by research students in Nigerian universities

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The study examined correlates of online bookstores service quality, satisfaction, and patronage intention among the research students in Nigerian universities. Through a survey design, the study drew on 711 research students from ten universities in the South-west, Nigeria. Three hypotheses were developed and tested. The findings revealed that online bookstores service quality and satisfaction correlate with patronage intention of online bookstores by the research students in Nigerian universities. Besides, online bookstores service quality and satisfaction significantly predicts patronage intention by the research students in Nigerian universities; and that satisfaction significantly predicts patronage intention of research students to an online bookstore than service quality. Based on the findings, the study recommended that online bookstores should improve the quality of their service so that there may be an additional increase in the level at which research students are satisfied with their services thereby improving their patronage

1 Introduction

The advancement in technology has led to tremendous improvement particularly in the way people are using technologies especially the internet. No doubt, the Internet has become the easiest and the cheapest way to reach the global network. With the internet, there are multiple facets of features that allow attractive advertising, live videos, and simplified usages thereby making the internet a good source for marketing and selling products. The Internet is now a new catalogue for product sales for retails companies. Medium such as the newspaper has lost their importance for advertising products to the internet. The increased popularity of the internet has led to the increase in usage of the platform as the medium for sale of international, domestic, and local products.

Online shopping which is part of the advancement in internet technology is increasingly gaining pace in developing countries such as Nigeria. For instance, online bookstores have emerged as a new destination that attracts millions of shoppers every day (Xu, 2017; Muruganantham & Bhakat 2013; Bharathi 2013). Traditional bookselling has changed considerably recently since there are no limitations of time and space on the internet. Customers can now browse through products and easily place their orders. The information explosion has led to an increase in the demand for customers starving for knowledge and book purchase through the internet has increased. Available books that can be purchased from the internet range from fiction to comics, from textbooks to novels. Overall, buying and selling books online is increasing.

Looking at the nature of online shopping, one will observe that customers are motivated by convenience and so are likely to shop for specific types of products and services including books, magazines, and travel (Naveed, Ahmad, Albassami & Moshfegyan 2019). Similarly, Odinaka (2018) added that the advantages to relax and carefully consider what you want from the variety of brands, and products; absence of salesperson trying to sell a product down your throat, discount offers you would not ordinarily get or know about from your local store, an opportunity of doing it right from your home or office, a smooth transaction and delivery that makes your day, saving time for other important activities and feeling good about being an active part of the trend and not just an observer are parts of the reasons why people now prefer shopping online. No doubt, today, we now have several online booksellers ranging from Amazon, Barnes & Noble, Blackwell, Book Finder, Books-A-Million.com, Abe Books, Alibris, Angus and Robertson, Book Depository, Book people, Border Books and Music, Dymocks, Powell's Books, among others.

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Currently, there are myriad of bookselling websites going by the listed names above and these have given a tough competition to the business. This vast competition poses a need to understand the book retailing business and the customers' behaviour in online bookselling websites. Patronage is one of the customer behaviours when it comes to buying and selling online. From the literature, patronage or visit is predicated on several factors. These range from the quality of service, perceived ease of payment and website navigation, customer satisfaction, product quality, store image, service environment, perceived values among others; all of which can either make or mar customer patronage of an online bookstore. However, since all these factors cannot be studied in single research, this study focuses only on two of the factors. These are online bookstores' service quality and satisfaction and to investigate how the two determine patronage intention of online bookstores among the research students in Nigerian Universities. In September 2015; an online bookstore known as Ikasuwa.com was launched in Nigeria and its patronage along with others situated outside Nigeria but accessible to the Nigerian research students is currently on the increase (Ochelle 2015).

From the extant literature, some previous studies have discovered that the quality of the services environment can impact customer satisfaction and purchase expectations (Brady Cronin & Brand 2002; Nguyem & Leblanc 2002; Lai, Griffin & Babin 2009). There are contributions to service environment quality to build a positive store image. Chen and Teng (2013) reported that service cape of service organisation significantly affects customer revisit intention to a specific organisation. The author pointed out that any organisations can use the elements of the physical environment in many ways. It can be used to recall the organisations' brand image; it can be used to strengthen the perceptual mapping of visitors as compared to its competitors and it can be used to enhance the consumers' satisfaction and purchase intentions. Su, Swanson, and Chen (2016) likewise showcase the contribution of the physical evidence of service firms in increasing the image brand and rejuvenating and verifying buyer attitude. The quality of service has been perceived as a vital factor in accomplishing proficiency and viability in operations of the business (Bansal & Taylor, 2015).

In line with this, studies have shown that service quality affects customers' post utilisation behaviour positively for instance (satisfaction) (e.g., Azad & Ahmad, 2015). Therefore, it is also expected in this study that online service quality of bookstores as well as the customers' satisfaction should be able to determine the patronage intention of online bookstores by the Nigerian research students. While previous studies have reported the relationship between attributes such as satisfaction and behaviour/patronage intention (Ali & Amin 2014; Soderlund, Berg & Ringbo 2014); some have described the impact on patronage intention. The current study attempts to examine the causality of the relationship between online bookstore service quality, satisfaction, and patronage intention. Given that customers, especially, the research students from Nigeria now patronising the online booksellers in online bookstores considering their flexibilities and other attributes earlier identified in the literature, it is important to determine the factors promoting their patronage intentions.

This study has both practical and academic implications. It is one of the pioneer studies to examine the impact of online service quality and customer satisfaction on bookstores patronage intentions among Nigerian research students thereby providing new insight in understanding this niche segment from customers (research students) perspectives. Another implication is the area of the inclusion of behavioural intention (patronage intention) and the examination of the relationship between the construct and the other two constructs of service quality and satisfaction. Furthermore, the study will help research students, book marketers and policymakers to better understand service quality and satisfaction in crafting branding strategies as a tool to enhance purchase intentions in online bookstores. This study is expected to contribute to the literature on shopping behaviour especially based on the associative relationship between store attributes, satisfaction, and patronage intention. Such information would help book retailers gain a better understanding of shoppers' retailing behaviour enabling the formulation of marketing and operational strategies that will deliver more on successful marketing relationship management, building competitive advantage and profitably enhance marketing efforts. Considering these, the study examined correlates of online service quality, satisfaction, and patronage intention among the research students in Nigerian universities.

2 Objectives of the study
The main objective of the study was to examine correlates of online service quality, satisfaction, and patronage intention among the research students in Nigerian universities. The specific objectives of the study were to:

- Establish a relationship between bookstores online service quality and patronage intention by the Nigerian research students.
- Establish a relationship between satisfaction with online bookstores and patronage intention by the Nigerian research students.
- Determine which of the bookstores' online service quality and satisfaction will best determine or predict online bookstore patronage intention by the research students in Nigerian Universities

3 Hypotheses
To achieve the objectives, three hypotheses were formulated and tested at 0.05 level of significance.

- There is no significant relationship between bookstores online service quality and patronage intention among Nigerian research students.
- There is no significant relationship between satisfaction with online bookstores and patronage intention among Nigerian research students.
- Bookstores' online service quality and satisfaction will not significantly determine/predict online bookstore patronage intention among the research students in Nigerian Universities.

4 Literature review

4.1 Online bookstores
An online bookstore is a form of e-commerce and book sales industry in one form. An online bookstore is a virtual store on the Internet where customers can browse the catalogue and select books of interest. The selected books may be collected in a shopping cart. At checkout time, the items in the shopping cart will be presented as an order (Agal 2011). The online bookstore is a shopping process where consumers directly buy goods or services from a seller in real-time, without an intermediary service, over the internet (Essay UK 2018). If an intermediary is involved, the process is called electronic commerce. An online shop, e-shop, e-store, internet shop, webshop, webstore, online store, or virtual store call up the physical analogy of buying products or services at a brick-and mortal retailer or in a shopping mall. As EssayUk (2018) emphasised, the process is called Business-to-Consumer (B2C) online shopping. On the other hand, when a business buys from another business, it is called Business-to-Business (B2B) online shopping. Notably, B2C and B2B online shopping are forms of e-commerce.

An online bookstore has many advantages, such as relatively small size, cost savings; transaction activities can be anytime, anywhere, improved service efficiency (Meng 2011) among others. So, an online bookstore in today's era of development is extremely rapid. An online bookstore system is the main function of the trading platform for the site; consumers can connect to the Internet through the computer into the online bookstore and then check the book information (Zhau & Liu 2017). Customers that need to purchase, register to land, and select their books, submit orders, and pay operation to complete the entire book ordering process, to achieve online transactions.

4.2 Online bookstores service quality and patronage
Service quality refers to the degree and direction of a discrepancy between the perceptions and expectations of consumers (Parasuraman, Zeithaml & Berry, 1988). Researchers recognize that there are different perspectives regarding service quality in different Information System (IS) contexts. Specifically, there are six main perspectives on service quality in the existing literature: namely, transcendent, societal loss, product-oriented, user-oriented, manufacturing-oriented, and value-oriented (Tan, Benbasat & Cenfetelli 2013). Regarding extant studies, Tan et al. (2013) proposed a user-oriented conception of service quality that incorporated both e-government service content and service delivery. As the public sector increasingly uses m-government to serve citizens, m-government service quality has become more and more important. Summary of quality-related constructs in the online bookstores are i. most of the studies are user-oriented and used empirical research methods; ii, the quality-related constructs of interest are information quality (INQ), system quality (SYQ), service quality (SEQ), and integration service quality (IQQ). These constructs are positively associated with intention to use; and iii, past research have not examined online service quality separately in the online bookstores' context.

Finally, only two studies point out the dimensions of service quality. For example, SEQ is a multi-dimensional construct, which can be divided into interaction quality, environment quality, INQ, SYQ, network quality, and outcome quality (Al-Hubaishi, Ahmad & Hussain 2017). Accordingly, the four dimensions of SEQ are connectivity, interactivity, authenticity, and understandability, respectively (Shareef, Dwivedi, Stamati & Williams 2014). To some extent, these categories embody the technical characteristics of online bookstores' SEQ. Prior researches have indicated that online purchase behavior is different from offline behavior (Hult, Sharma, Morgeson & Zhang 2019); more specifically, online channels are more convenient, more flexible and easier to compare products and prices, while offline channels prompt purchasers to physically check a product and to get into personal contact with a seller, as well as creating an immersive experience (Grewal, Iyer, & Levy 2004).

4.3 Online bookstores satisfaction

In this study, online bookstores' satisfaction is defined as the reaction or feeling of a research student concerning his/her experience with all aspects of an online bookstore. User satisfaction is an important variable for use in measuring the actual use. As pointed out by Delone and Mclean (2004; Wang, Law, Guillet, Hung & Fong 2015), positive experience with use will lead to greater user satisfaction, and the greater the user satisfaction, the more the increase in use. Similarly, increase satisfaction with online bookstores will likely results in increase patronage intention. Satisfaction, according to researchers (Ali, 2016; Ali and Amin 2014; Sharma 2014; Soderlund et al. 2014; Ballantine et al. 2015), is closely related to customers' future behaviour (in the current study this is measured as patronage intention). The profitability of an organization greatly depends on the positive patronage intention of its customers. Moreover, as competition intensifies with evolving retail and changing consumer demographics, retailers must work toward expanding retail patronage behaviour. Studies from the recent past have also brought out the link between satisfaction and patronage intention. Sharma (2014) found perceived service quality positively influenced customer satisfaction and patronage intentions, whereas Das (2014) felt store image (attributes) influenced attitudinal and behavioral loyalty, and purchase intentions among departmental stores shoppers. However, Soderlund et al. (2014) who examined the link between satisfaction and future intention felt the need for further research to determine whether satisfaction resulted in patronage intention. Nevertheless, the above studies have indicated a close link between satisfaction and patronage intention in a retailing context. Therefore, in this study, satisfaction is viewed as a state of mind characterized by a positive effect likely to influence patronage intention of online bookstores. Therefore, this study wanted to see if satisfaction with online bookstores will have a positive effect on patronage intention by the research students.

Some related studies are available on online bookstores and patronage. For instance, Wang and Teo (2020) drew on DeLone and McLean's (2003) updated information systems (IS) success model to develop an m-government success model that theorizes service quality as comprising online and offline service quality and further uses perceived value to measure net benefits. The finding of the study through a survey of 286 m-government users in China indicates that information quality and online service quality, but not system quality positively associated with citizens' satisfaction, which in turn positively associated with perceived value. The results also showed the relationship between online service quality and citizen was positively moderated by offline service quality, while citizen satisfaction partially mediated the relationships between information quality/online service quality (but not system quality) and perceived value. The study guided researchers and practitioners regarding the role of service quality in measuring m-government system success. The current study does not focus on m-government; however, as confirmed by Wang and Teo that service quality is a determinant of satisfaction and perceived value which is likened to patronage intention, it is assumed in this study that users will have the intention to patronise a system that they value such as online bookstores.

Naveed, Ahmad, Albassami and Moshfegyan (2019) investigated the impact of store image and service quality on customer purchase intentions in Armed forces operated canteen stores department. The study focused on two variables, namely, store image and service quality. The store service variable was further divided into three sub-variables like interaction quality, service environmental quality and outcome quality whereas the dependent variable was purchase intentions. A self-administered questionnaire was adapted from different sources for data collection. The author distributed 450 copies of a questionnaire among different respondents of the present survey and 309 were filled and returned and were found useful for data analysis. Descriptive statistics, structural equation modelling (SEM) were used for data analysis. The findings revealed that both store image and service quality had a significant and positive impact on purchase intention of the customer in Armed forces operated canteen store departments (CSD). This study is different from the current one because it addressed customer purchase intention in an Armed forces canteen store while the current study focuses on patronage intention of online bookstores by the research students.

Xu (2017) proposed a purchase intention model by adding customer satisfaction and use intention as two mediating variables. Findings from 973 online survey revealed the conceptualisation of website quality varied across three types of booking websites and highlighted the importance of website aesthetics. It was suggested that online traveling agents (OTA) website quality was assessed based on customers' experience in the information search process, while hotel website quality was evaluated with a focus on the technical adequacy. In the hospital sharing economic platform (HSEP) setting, it was noted that aesthetics was viewed as high quality. Also, it was confirmed that inter-correlation exists among website quality, customer satisfaction, and purchase intention, and mapped the customers' search-purchase relationship in an online context. The mediating effects of customer satisfaction and use intention were also detected. The study has academic and practical contributions. Given the rapid growth of sharing economy platforms, the research is one of the first studies to investigate the impact of website quality on customers' intention to purchase on the HSEPs; and provides new insights into understanding the niche segment from customers' perspectives. Just as the current study provide insights in understanding the niche segment from research students' perspective of online bookstores. Besides, the study expands website measurements' body of knowledge more accurately and explicitly by assessing measurement invariance and regressing

overall website quality against each proposed website quality dimension across three booking channels. Also, another contribution is in the inclusion of two types of behavioural intentions (use intention and purchase intention) and the examination of the relationship between these two constructs, which suggest the diminished value of the billboard effect. Lastly, the study helps hospital industry practitioners better position their websites by revealing and comparing the influential factors that determine online accommodation bookers' perceptions towards three types of booking channels.

Nair (2016) conducted a survey where a structured non-disguised questionnaire involving 346 F&G shoppers from Bengaluru was used. Hayes regression models were adapted and hypothesised relationship between the variables tested using correlation, multiple regression, and Hayes regression/path analysis. Findings revealed that satisfaction mediated the relationship between store attributes and patronage intention. Lifestyle does not act as the moderation in the relationship between store attribute and patronage-intention; and satisfaction and patronage intention.

Hasanov and Khalid (2015) presented valuable insight into customers' online purchase intentions regarding organic foods. The study focused specifically on the influence of website quality on consumers' intention to purchase organic food online from the Malaysian perspective. A quantitative method was employed drawing on 304 respondents that participated in a survey. The findings demonstrate that website quality has an indirect impact on online purchase intentions of health foods in Malaysia through the full mediation of customer satisfaction. Contrarily, demographic factors had no significant effect on online purchase intention. This study was different from the current study because it focused on online purchase intentions regarding organic foods that support body growth; the current study focuses on online bookstores where books that give knowledge and wisdom are purchased.

Maruganaham and Bhakat (2013) conducted a study on various aspects of online impulse buying viz. hedonic shopping, website quality, trust, situational factors, and variety seeking in the Indian context. With the data collected from the online survey method, the different antecedents of impulse buying have been analysed and reported based on their significance. Hedonic shopping was found to be the major factor influencing impulse buying in online bookstores. This study also discusses the managerial issues, suggestions, and implications for the future researchers. The understanding of the behaviour of online shoppers in terms of their impulsive behaviour would be helpful for the marketers and academicians. This study is different from the current one given the inclusion of impulse buying as one of its variables while the current study only focused on service quality and satisfaction in terms of how they determine or predict patronage intention of online bookstores by the research students.

In another study, Musumdar (2012) explored the event of the increase in the use of the online mediums for textbook sales. The study adopted the basics of commerce transactions and incorporated them into a model to explain the effects on different mediums of textbook sales. The theoretical approach was used in explaining the influence of advantages and disadvantages of each medium on transactions occurring through it. Two different models were designed each representing a medium. Flowchart analysis was used to describe the various processes occurring in each medium and transactions are incorporated at the point of sales in both the model. The study was concluded by explaining the theory behind the growth of online mediums compared to other mediums. This study is different from the current one. While the study used a theoretical approach to explain the influence of transactions, the current study used an empirical approach to explain the ability of each independent variables (service quality and satisfaction) to explain the purchase intention of research students in online bookstores.

Looking at the empirical analysis of the available related studies, it is clear that most of the studies on online bookstores were conducted outside of Africa. This implies that studies such as this are limited in Africa generally and Nigeria in particular. Therefore, the need to conduct a related study to get data from a population of an African country is considered necessary. Not this alone, none of the studies focused on research students to determine their patronage intention based on service quality and satisfaction with the online bookstore despite the growing population of research students patronising online bookstores. It is on this note that this current study examined online service quality and satisfaction as correlates of patronage intention by the research students from Nigerian universities.

5 Methodology

5.1 Design
The study adopted a survey method. A survey is commonly used in LIS/information system research to collect self-report data from study participants. A survey may focus on information about individuals, or it might aim to collect the opinions of the survey takers. A survey design was considered appropriate in this study because it gives room for the researcher to cover a substantial percentage of respondents (research students) in the universities that were covered in the study and to enable generalisation of the outcomes from the study. Moreover, a survey was chosen because it usually provides broad

capability which ensures a more accurate sample to gather targeted results in which to draw conclusions and make an important decision (Fincham, & Draugalis 2013; DeFranzo 2012).

5.2 Population and sample

The target population for the study comprises of research students in Nigeria Universities. This comprises of the students at the higher levels of study. They are students on master and doctoral degree programmes. The study focused on South-west universities that run the postgraduate programme. From these universities, a total of ten universities (five federal and five states) were purposively selected. From each of these universities, a sample of all the postgraduate students that were available each day the researcher visited the Postgraduate school of each university and hall of residence were involved in the study (i.e., total enumeration). The breakdown of the sample is presented in table 1. In all, a total of 762 postgraduate students that were reached represent the sample for the study.

Table 1 Sample selection

Universities	Sample	Percentage %
A	155	20.3
B	136	17.9
C	127	16.7
D	85	11.2
E	74	9.7
F	21	2.7
G	51	6.7
H	55	7.2
I	35	4.6
J	23	3.0
Total	**762**	**100.0**

Source: Author's fieldwork (2019)

5.3 The instruments for data collection

A researcher developed questionnaire was used for the collection of data in the study. The development of the questionnaire was informed by the literature review and variables in the objectives of the study. The questionnaire was divided into two sections. Section A required respondents' demographic characteristics such as age, gender, school, programme of study while section B comprised the items. The section is subdivided into three sub-sections. Each of the sub-section featured items on each of the objectives of the study. Thus, there is:

Sub-section A: The sub-section A featured items on online bookstores' service quality. Here a set of ten different statements that describe service quality were provided and respondents were asked to indicate their level of agreement or disagreement on five-point ratings (i.e., Strongly Agree, Agree, Not Sure, Disagree and Strongly Disagree. Items in this section were adapted from Brady et al. (2002), Liu (2007); Loiacono et al. (2007) and Online service quality by (Teo et al. 2009), and Naveed et al. (2019).

Sub-section B: This section featured items on satisfaction with online bookstores. There are seven items in this section and the respondents were required to indicate their level of agreement or disagreement on five-point ratings (i.e. Strongly Agree, Agree, Not Sure, Disagree and Strongly Disagree. Items in this section were adapted from Citizen Satisfaction (Chen et al. 2016; Ho & Lee (2007).

Sub-section C: This section contained items on online bookstore patronage intention by research students. There are six items in this section. Respondents were asked to indicate their level of agreement or disagreement on five-point ratings (i.e., Strongly Agree, Agree, Not Sure, Disagree and Strongly Disagree. Items in this section were adapted from Ponte et al. (2015) and Naveed et al. (2019).

5.4 Validity and reliability

The developed questionnaire was tested for validity not minding the fact that they were adapted from previously validated instruments. It was given to colleagues who research in information systems evaluation and related areas. Based on the outcomes of the validation, some items in the questionnaire were modified and reworded while others were removed and replaced by another. To achieve reliability, the instrument was administered to 30 postgraduate students in a private university that did not form part of the study. A split halves reliability method was adopted to determine the reliability of the

questionnaire. The overall reliability co-efficient through Cronbach Alpha yielded r = 0.92 while the reliability co-efficient of each of the sub-scale is as reflected in table 2.

Table 2 Reliability

S/N	Variables	No of Items	Co-efficient
1	Online Bookstores' Service Quality	10	0.95
2	Satisfaction with Online Bookstores	7	0.93
3	Patronage Intention of Online bookstores	6	0.89
	Overall	23	0.92

Source: Author's fieldwork (2019)

5.5 Procedure for data collection

The researcher with the four research assistants covered two universities each. With this exercise, a visit was made to the postgraduate school in each of the participating universities. For two days each, any postgraduate students found at the postgraduate school or college and respective postgraduate students' hall of residence in each university was administered the questionnaire. However, none was forced to take part in the filling of the questionnaire but were intimated with the purpose and what the study set to achieve. Based on the sample of the study, a total of 762 copies of the questionnaire were administered to all the postgraduate students that were available each day the researcher visited the Postgraduate school of each university and hall of residence of the universities involved in the study. Out of the 762 copies of questionnaire administered, 711 representing 93.3% were returned properly filled and good for data analysis.

5.6 Data analysis

Collected data were analysed through percentage, Mean, Standard deviation and frequency count, Pearson Correlation and Multiple Regression. The results are presented in the following section.

6 Results

Table 3 Respondents Demographic Information

Demographics	Frequency	Percent %
Gender Male	499	70.2
Female	212	29.8
Total	711	100
Age		
25-30 years	299	42.1
31-35 years	267	37.6
36-40 years	123	17.3
41 years +	22	3.0
Total	711	100.0
Postgraduate Levels		
Master	457	64.3
Doctoral	254	35.7
Total	711	100.0

Source: Author's fieldwork (2019)

Table 3 revealed the respondents' demographics information. It is shown that there were more male than female that took part in the study. Similarly, respondents ages 22-30, (42.1%) constituted the majority while those ages 41 years and above

were the least represented with just (3%). Respondents on a master programme (64.3%) were more than the respondents pursuing a doctoral degree (35.7%).

6.1 Testing of the hypotheses

6.1.1 Hypothesis 1: There is no significant relationship between bookstores online service quality and patronage intention by the Nigerian research students.

Hypothesis one was tested using Pearson Product Moment Correlation. The result obtained is presented in table 4.

Table 4 Relationship between online bookstores' service quality and patronage intention

Variables	Mean	Standard deviation	N	DF	R-cal	P-value	Remark
Online Bookstores' service Quality	25.0	3.8	711	708	1.3	.000**	Sig.
Online bookstores' Patronage Intention	27.6	2.8					

Source: Field survey (2019) **Correlation is significant at the 0.01 level (2-tailed)

Table 4 gives a summary of the test of the hypothesis which states that there is no significant relationship between online bookstores' service quality and patronage intention by the research students in Nigerian universities. The result shows that there is a correlation between online bookstores' service quality and patronage intention by the research students in the Nigerian universities. This is shown with the (r.cal. 1.3 greater than P-value =0.000, @ df = 708). This implies that there is a significant positive relationship between online bookstores' service quality and patronage intention of the research students. Hence, the null hypothesis is not accepted. This, in turn, means that the perception of the quality of service provided by the online bookstores tends to vary together with patronage intention of the research students. That is, satisfaction with online bookstores services will always predict or determine research students' patronage of online bookstores.

6.1.2 Hypothesis 2: There is no significant relationship between satisfaction with online bookstores and patronage intention by the Nigerian research students.

Hypothesis 2 was tested using Pearson Product Moment Correlation. The result obtained is presented in table 5.

Table 5 Relationship between online bookstores' satisfaction and patronage intention

Variables	Mean	Standard deviation	N	DF	R-cal	P-value	Remark
Online Bookstores' service Quality	26.2	3.6	711	708	2.3	.000**	Sig*.
Online bookstores' Patronage Intention	28.6	3.2					

Source: Field survey (2019) ** Correlation is significant at the 0.01 level (2-tailed)

Table 5 gives a summary of the test of the hypothesis which states that there is no significant relationship between online bookstores' satisfaction and patronage intention by the research students in Nigerian universities. The result shows that there is a correlation between online bookstores' satisfaction and patronage intention by the research students in the Nigerian universities. This is shown with the (r. cal. 1.3 greater than P-value =0.000, @ df = 708). This implies that there is a significant positive relationship between online bookstores' satisfaction and patronage intention of the of the research students. Hence, the null hypothesis is not accepted. This, in turn, means that the perception of satisfaction with online bookstores tends to vary together along with patronage intention. It implies satisfaction with online bookstores' services will always predict or determine students' patronage intention of online bookstores.

6.1.3 Hypothesis 3: Bookstores' online service quality and satisfaction will not significantly determine/predict online bookstore patronage intention by the research students in Nigerian Universities.

Table 6 Joint contribution of online service quality and satisfaction to the prediction online bookstore patronage intention by the research students

R	R Square	Adjusted R Square	Std. Error of the Estimate
.520	.237	.127	4.56431

Analysis of Variance

Model	Sum of Squares	DF	Mean Square	F-ratio
Regression	770.262	3	256.754	
Residual	5564.326	708	7.859	32.67
Total	6334.588	711		

Source: Field survey (2019)

Table 6 shows the joint contribution of online bookstores' service quality and satisfaction on the research students' patronage intention. It can be confirmed from the co-efficient of multiple correlation (R=.520 and a multiple R^2 of .237). This means that 23.7% of the variance is accounted for by the two predictors when taken together. The significance of the composite contribution was tested at $P< .05$. Also, the table shows that the analysis of variance (ANOVA) for the regression yielded an F-ratio of 32.67 (significant at 0.05 level). This implies that the joint contribution of the independent variables (Service quality and satisfaction) to the dependent variable was significant. Therefore, the null hypothesis is not accepted. This implies that online bookstores service quality and satisfaction significantly predict patronage intention by the research students in Nigerian universities.

Table 7 Relative Extent of prediction of each Factor on Online Bookstores' Patronage Intention

Model	B	Std. Error	Beta	T-value	P
Constant	20.858	3.909		6.876	.000
Service Quality	.280	.082	.200	4.229	.000
Satisfaction	.502	.095	.273	4.616	.000

Source: Field survey (2019) Dependent variable: Patronage Intention predictors
Predictors: service quality and satisfaction

Table 7 shows the extent to which each of the factors/variables had a significant prediction of online bookstores' patronage intention. The results reveal that satisfaction had the most significant prediction (Beta =.273; t = 4.616). Online bookstores' service quality is next with (Beta =.200; t =4.229). It can be inferred from these results that differences exist in the research student's satisfaction with online bookstores and service quality of online bookstores. This is shown by the variation in the Value of T obtained on each of the independent variables.

7 Discussion of findings

The study examined correlates of online bookstores service quality, satisfaction, and patronage intention of research students in Nigerian universities. The objectives were to establish a relationship between bookstores online service quality and patronage intention by the Nigerian research students; establish a relationship between satisfaction with online bookstores and patronage intention by the Nigerian research students and determine which of the bookstores' online service quality and satisfaction will best determine or predict online bookstore patronage intention by the research students in Nigerian Universities. Findings from the study revealed that online bookstores service quality and satisfaction correlate with patronage intention of online bookstores by the research students in Nigerian universities. Also, online bookstores service quality and satisfaction significantly predict patronage intention by the research students in Nigerian universities;

and that satisfaction significantly predicts patronage intention of research students to an online bookstore than service quality.

The result that service quality and satisfaction with online bookstore correlate with patronage intention agrees with Wang and Teo (2020) whose findings reported that online service quality, but not system quality is positively associated with citizens' satisfaction, which in turn is positively associated with perceived value. Perceived value in their study was taken as the dependent variable while patronage intention was taken as the dependent variable in the current study. Some other studies have earlier reported the relationship between service quality and patronage intentions. For instance, Naveed et al. (2019), Wu, Yeh, and Hsiao (2011), Das (2014a; 2014b) all whose findings revealed that service quality relates to and predict patronage intentions. Similarly, Hardjanti (2011) who investigated the impact of service quality along with its dimensions on purchase intentions for telecommunication services also found a significant influence of service quality on purchase intention. Furthermore, the finding by Nair (2016) which revealed that satisfaction mediated the relationship between store attributes and patronage intention lend credence to the current finding in this study.

There are shared similarities with the current study, but little differences are noticeable. For instance, most of the studies focused on online shops dealt with commodities different from online bookstores which deal with books and other reading materials. It is also noticed that some of those studies focused on canteen stores (Naveed et al. 2019) while others (e.g., Hardjanti 2011), focused on telecommunication and (Wang & Teo 2020) focused on m-government.

This study found that satisfaction relates with and predicts patronage intention of online bookstores as some studies from the literature have reported. It should be noted that satisfaction from online shopping such as online bookstores involve the reactions or feelings of the customer during their experience of shopping (Kasanov & Khalid 2015). Similarly, customer satisfaction is the level of the customers' expectations met by the product or services when customers experience these (Molla & Licker 2011; Joss 2003). Looking at the literature, this current finding support that of Billy (2008) who found that website quality has a direct effect on customer satisfaction and that customer satisfaction, in turn, influences customers' intention to purchase. Similarly, Cheng et al. (2014), Aziz and Wahid (2017; 2018) findings have also shown that consumers' purchase intention behaviours can be driven by consumers' past online purchase experience and consequently, customer satisfaction leads to online purchase intention of consumers.

8 Conclusion

The study has focused on correlates of online bookstores service quality, satisfaction, and patronage intention of research students in Nigerian universities. The study through its findings has been able to conclude that online bookstores service quality and satisfaction correlate with patronage intention of online bookstores by the research students in Nigerian universities. Besides, online bookstores service quality and satisfaction significantly predicts patronage intention by the research students in Nigerian universities; and that satisfaction significantly predicts patronage intention of research students to an online bookstore than service quality.

9 Recommendations

The focus of this has been to examine the correlates of online bookstores service quality, satisfaction, and patronage intention of research students in Nigerian universities. Based on the findings, the study made the following recommendations. Satisfaction was revealed to exert better influence and prediction on patronage intention of research students of online bookstore. Considering this, the online bookstore needs to work more on the quality of its service so that there may be an additional increase in the level at which research students are satisfied with their services when they patronise them.

10 Limitations and suggestions

This study has some limitations. For instance, the sample is limited to the research students only in the South-west Nigerian universities at the expense of other research students in Nigerian universities in the remaining five geopolitical zones of the country. The research students from these other zones are also using online bookstores; why were they not included in the study? Future research should consider looking into that aspect by extending the scope of the study to cover those zones not involved in this study.

The current study only used a questionnaire, a self-reported survey to collect data from the respondents of the study. Including other data collection instruments such as interviews would provide a holistic view of the patronage of the online bookstores' scenario among the research students in Nigerian universities and this would make the generalisation of the study findings easier and more worthwhile.

Also, this current study studied online bookstores in general. There are several online bookstores, investigation, or examination of a specific one out of them would have sufficed.

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