E-SERVICE QUALITY AND TOURISTS' SATISFACTION IN TOURISM INDUSTRY: EVIDENCE FROM PORT HARCOURT, SOUTH-SOUTH NIGERIA

EKEKE, JOHN .NDUBUEZE

Department of Hospitality Management & Tourism, Faculty of Management Sciences, Universityof Port Harcourt, Choba, Rivers State, Nigeria

ANWURI PATIENCENWOKAEGO

Department of Hospitality Management & Tourism, Faculty of Management Sciences, Universityof Port Harcourt, Choba, Rivers State, Nigeria

Corresponding author. *EKEKE, JOHN .NDUBUEZE
Email: john.ekeke@uniport.edu.ng

A B S T R A C T

The study investigated the direct effect of e-service quality on tourists' satisfaction in the tourism industry with a focus on online travel trade in Port Harcourt, Rivers State, Nigeria. The descriptive survey research generated data from 138 tourists who were found within the offices of the selected travel agencies during the survey. The major instrument for data collection was a well structured questionnaire. The result of the inferential statistical analysis using SPSS showed that tourists' satisfaction towards on-line reservations is driven by e-service quality. Tourism service providers at the global scale are expected to build capabilities in online reservations in terms of security and information quality to enhance tourists' satisfaction towards their on-line services.

K E Y W O R D S

E-Service Quality. Information Quality. Security. Tourist Satisfaction.

Introduction

With the rapid growth of glabalisation of the marketplace aptly aided by multilateralism, strategies and behaviours of organisations and Information Communication Technology (ICT), organisations that are desirous of surviving the resulting global competitiveness are compelled to adopt new ICT while producing and delivering goods and services (Li &Suomi, 2009). This explains why tourism which operates within the context of the global business environment adopts digital marketing strategies (Ekeke & Etuk, 2021). Tourism service organisations consisting of hotels, travel agencies, Quick Service Restaurants (QSR), etc., do engage in on-line transactions in order to offer fast and efficient service delivery to their target market.

The quest to achieve service quality in an on-line marketing environment as a determinant of customer satisfaction (Roman, Gonzalales & Idoeta, 2013) and customer behavioural intentions (Kamal, Abdullah, Nor, Ngelambong & Buhari, 2018) and customer perceived value (Cetinsoz, 2013), operational efficiency and profitability (Zeithaml 2002; Cronin, 2003; Eissa &Nizam, 2019;Kamal, et al, 2018). It therefore becomes imperative that organisational managers endeavour to enhance e-service quality in order to achieve competitive advantage. The situation becomes compelling given as Li and Suomi (2009, p.1) noted that, "improving e-service quality to satisfy and retain customers is becoming a challenging issue".

Based on the foregoing, extant literature has a plethora of empirical and conceptual studies on dimensions and attributes of e-service quality (Yoo & Douthu 2001;Paulo, Oliveira, & Farisa, (2019);Yang & Fang, 2014). However, to the best of our knowledge, attention of scholars seems not to move to developing countries like Nigeria. This current study is aimed at closing this apparent gap in literature by studying how e-service quality influences tourist satisfaction in the tourism travel trade in a developing country where trust in business relationships seems to be elusive.

Conceptual Review
Electronic-Service Quality

Electronic service quality denoted by E-Service quality describes the electronic version of services rendered by service providers to its target audience (Saanen, Sol &Verbraeek, 1999). Reynolds (2000) describes e-service as a web-based service that is delivered to customers by service providers through the instrumentality of the internet. It is different from traditional service because it depends on interactive information flow from service providers/marketers to the target market (Li &Suomi, 2009).

With the foregoing, e-service quality could be described as the, "overall customer evaluations and judgements of e-service delivery in the virtual marketplace"(Lee & Linas as cited in Ojasalo 2010, p.134). In a manner that tends to describe the complexity associated with e-service quality conceptualisation and management, several authors have provided what they considered as the core dimensions of e-service quality. Examples include Barness and Vidgen (2002) (design, usability, trust, information, empathy); Li and Suomi (2009) (website design, fulfilment, reliability, security, personalisation, empathy and information). However, for the current study, security, and information quality are the dimensions of e-service quality chosen for the study in a tourism marketing environment.

Security: security as a dimension of e-service quality describes, "freedom from danger, risk, or doubt-including financial insecurity during the service process"(Ojasalo, 2010, p.135). It shares the same 'interest' with trust which bothers on reputation of the service provider, safe transactions,and the quest for secured users' personal information.

Information Quality: E-service as a process is information-driven as the physical contact between service employees and customers is absent. It therefore implies that "in e-service, information is vital for customer to make their decision since they cannot physically examine what they want to purchase and know about the company" (Li & Suomi, 2009, p.7). The authors equally provided dimensions of information quality to include

updated information, current and timely information, accurate and relevant information, and information that is easy to understand.

Tourist Satisfaction: Contantin (as cited in Kamal et al., 2018, p.165) defined e-satisfaction as the fulfilment an on-line user attains after comparing the holistic on-line experience and the perceived expectations. Anderson and Srinivasan (2003, p.125) defined e-satisfaction as the, "contentment of a customer with respect to his/her prior purchase experience with a given electronic commerce firm".

Customer satisfaction is described as an ambiguous and abstract concept because it varies from individual to individual , service to service and product to product(Kumbler 2011). A lot of factors ranging from physical, economic and psychological affects customer satisfaction in various market contexts. In extant literature, service quality has been confirmed as a significant determinant of customer satisfaction (Cronin & Taylor 1994; You &Donthu 2001; Zeithaml, Parasuraman&Malhotra, 2000; Parasuraman, Zeithaml& Berry, 1985).

E-Service Quality-Customers Satisfaction

Kumbhar (2011) investigated the factors influencing customer satisfaction in an e-banking environment. The two pronged study evaluated the following factors affecting customer satisfaction: service quality, brand perception and perceived value on one hand and examined the influence of service quality on brand perception, perceived value and satisfaction in e-banking environment in India. The statistical result using a Principal Component Analysis (PCA) showed that perceived value, brand perception, cost effectiveness, ease of use, convenience, problem handling, security/assurance and responses affected customer satisfaction in e-banking as it explained 48.30 percent variance.

In New Delhi, India, Firdous and Farooqi, (2017) examined the effect of internet banking service quality on customer satisfaction. Using a questionnaire, the exploratory survey generated primary data while adopting judgmental and convenience sampling techniques from a sample of 194 internet banking customers in New Delhi. The inferential statistical results revealed that the internet banking service quality dimensions (efficiency, system availability, fulfillment, privacy, contact, and responsiveness) individually had a significant effect on the customer satisfaction of internet banking customers in New Delhi.

Almotairi, Al-Meshal, and Alam, (2013) examined the relationship between online banking services and customer satisfaction in Riyadh (Saudi Arabia), while utilising the SERVQUAL model, the study sampled 100 customers (university students) of the corresponding banks who are familiar with online banking services. The objective was to determine how dimensions of service quality (tangibles, reliability, responsiveness, and empathy) relates with customer satisfaction with purposeful sampling technique. The statistical results showed that all the dimensions of service quality had significant relationship with overall customer satisfaction though with diverse significance levels. Tangibles and reliability were the most influential dimensions to enhance customers' overall probability of satisfaction when compared to the remaining dimensions(empathy and responsiveness).

In an e-travel service environment, Chaang-Iuanand and Yi-Ling,.(2007) investigated the dimensions of service quality that could enhance online customer satisfaction and loyalty intention. The study also sought to develop a reliable and valid measurement instrument for e-travel service quality. From the results five core components: information quality, security, website functionality, customer relationships and responsiveness were identified. The implication being that the dimensions of e-travel quality service scale had strong predictive capability on travellers customer satisfaction and loyalty intention in an on-line environment.

Kamal, et al (2018) investigated the effect of hotel booking websites' features on on-line users' e-satisfaction and e-loyalty and the relationship between onlineusers' e-satisfaction and e-loyalty. With primary data generated from 260 respondents through a self report questionnaire, results showed that e-satisfaction influenced e-loyalty with the implication that on-line hotel booking users are more likely to revisit and repurchase hotel

products and services especially possibly because of their hotel on-line booking experience which attains selected utilitarian and hedonic features.

In Indonesia, Paulo, Oliveira, and Farisa, (2019) sought to determine the most important dimensions of e-service quality that have impact on customer satisfaction, customer trust, and customer behaviour in an on-line shopping environment. Basically four-dimensions of e-service quality model were used. The statistical results from an on-line survey of 355 Indonesian consumers showed that three dimensions of e-service quality: website design, security/privacy and fulfilment had effect on customer behaviour, while customer service did not significantly relate to overall e-service quality. E-service quality had significant relationship with customer behaviour.

In Nigeria, Ayo, Oni, Adewoyeand Ewaoya (2016) examined the factors influencing e-banking usage by customers based on e-service quality, attitude and customer satisfaction. The study employed e-services quality variable, diffusion of innovation construct and self-efficacy to better reflect the users' views of e-banking usage. The primary data was generated from 254 e-banking customers (users) and analysed based on PLS-SEM using SmartPLS 3.0. The statistical results showed that perceived e-service quality had a very strong influence on customer satisfaction and use of e-banking, In addition the findings showed that, competence of e-service support staff, system availability, service portfolio, responsiveness and reliability, in that order, were found to be most significant in rating e-service quality.

We therefore expect that:

H1: E-Service Quality has positive and significant relationship with tourist satisfaction in on-line travel trade in Port Harcourt.

H1a: Security has significant effect on tourist satisfaction in the on-line travel trade in Port Harcourt.

H1b: Information quality has significant effect on tourist satisfaction in the on-line travel trade in Port Harcourt.

Research Methodology

Research design: The descriptive survey research design was adopted for the study. Its choice is due to the fact that the study required the collection of data based on the attitude, preference, behaviour and perception of tourists who patronise travel agencies and engage in on-line transactions.

Sample and data collection: The population of study was current tourists of selected travel agencies in the city of Port Harcourt. A sample size of 138 tourists was determined using Freund and William's formula for sample size determination from unknown population. The sample of tourists studied were those found at the offices of the travel intermediaries at the time of questionnaire administration using a judgmental sampling technique. The primary data was generated using a 9-item well-structured questionnaire with additional four demographic items. A total of 100 questionnaires retrieved were all useful and was subjected to data analysis. The multiple regression analysis was used for statistical analysis.

Measurement Instrument and Questionnaire design: The questionnaire used as the instrument for data collection was well-structured with 9 items with 3 for each variable. All the measurement items were measured on a five-point Likert-type scale anchored by: Strongly Disagree [SD](1). Disagree [D](2), Agree [A](3), Agree fairly strongly(4) and Strongly Agree [SA](5) to express the degree of agreement with the items or otherwise.The items for the two latent variables of e-service quality; security and information quality were developed for the study, while items for tourists' satisfaction were three and adapted from Oliver (1980).

Research Results
Reliability Analysis

Table 1 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.973	.976	9

A Cronbach Alpha of .976 based on standardized items as shown in Table 1 ascertained the reliability of the research instrument and the value is above the threshold value of .7 as suggested by Nunnally and Bernstein (1994). Thus the measuring instrument is internally consistent and considered useful in measuring opinions of tourists in the quest to determine the effect of e-service quality on tourists' satisfaction in the tourism industry in Nigeria.

Discriminant Validity

Table 2 Correlation Matrix

		Security	Information Quality	Tourist Satisfaction
	Security	1.000	.709	.805
Correlation	Information Quality	.709	1.000	.854
	Tourist Satisfaction	.805	.854	1.000

Discriminant validity is defined by Hair Jr, Black, Babin, and Anderson, (2010, p.126) as the "the degree to which two conceptually similar concepts are distinct". Fornell and Larker (1981) argues that discriminant validity occurs if the diagonal elements are higher than all the off-diagonal elements in their columns and rows. Based on the foregoing, the result as shown in Table 2, confirms the discriminant validity.

Sampling Adequacy

Table 3 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.712
Bartlett's Test of Sphericity	Approx. Chi-Square	229.191
	Df	3
	Sig.	.000

Exploratory Factor Analysis (EFA) was performed on 9 exploratory items of determinants of e-service quality and tourists' satisfaction for the conduct of the KMO and Bartlett's Test. The result shown in Table 3 demonstrates that Bartlett's test of sphericity is significant at $pv=.000$, while KMO measure of sampling adequacy is .712 which is far greater than 0.5 that has been suggested as a minimum level by Kasser (as cited in Wong & Musa 2010, p. 3417).

Data Analyses and hypotheses testing

To ascertain the effect of e-service quality on tourists' satisfaction, in the hypothesized relationships were subjected to statistical analysis using Multiple regression analysis.

Testing of hypotheses 1, 2 and 3

Decision Rule

If   PV < 0.05 =   Hypothesis is supported

              PV > 0.05 =   Hypothesis is not supported

Hypothesis one

Table 4 describes the summary of the simple regression analysis showing the relationship between e-service quality and tourists' satisfaction.

Table 4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.900[a]	.810	.806	.30964

a. Predictors: (Constant), Information Quality, Security

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From Table 4, the following results are shown; R= 0.900, R square = 0.810. This specifies that e-service quality has a very strong relationship with tourists' satisfaction and explains 81.0% variation in tourists' satisfaction in travel trade in Port Harcourt, Nigeria.

Table 5 ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	39.690	2	19.845	206.987	.000[b]
	Residual	9.300	97	.096		
	Total	48.990	99			

a. Dependent Variable: Tourist Satisfaction

b. Predictors: (Constant), Information Quality, Security

The outcome of analysis (ANOVA) in Table 5 shows that e-service quality had significant relationship with tourists' satisfaction to the on-line travel trade(p=0.000 < 0.05). Therefore hypothesis one (H1) is supported.

Multiple Regression Analysis for dimensions of E-Service Quality H1a and H1b

S

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.054	.222		.242	.810
	Security	.359	.056	.401	6.403	.000
	Information Quality	.629	.069	.570	9.092	.000

a. Dependent Variable: Tourist Satisfaction

Table 7 provides the multiple regression analysis for the contribution of the two dimensions of e-service quality used in the study and hypothesised as H1a and H1b respectively. The table shows that un-standardized beta (β) of security and information quality are: (β = 0.359), and (β =0.629) respectively. This specifies that information quality made the greatest contribution to the model.

The result of the regression analysis shows that both security (β = 0.359, p=0.000>0.05) and information quality (β=0.629, p=0.000 < 0.05) provided by the on-line travel trade in influencing tourists' satisfaction made significant contribution to explaining the dependent variable-travellers satisfaction.

Therefore the model can be written as:

Travellers Satisfaction = 0.359(S) +0.629(IQ) +.054.

The model suggest that by associating any of the two dimensions of e-service quality of an on-line travel trade, the empirical model can increase the level of tourists' satisfaction to revisit the travel agency for patronage when other things remain constant. Accordingly therefore, changes in information quality and security of travel trade can have the biggest influence on level of tourists' satisfaction to revisit the travel agency for patronage for online transactions.

Testing of hypotheses H1, H1a and H1b

Decision Rule

If   PV < 0.05   =   Hypothesis is supported

          PV > 0.05   =   Hypothesis is not supported

H1: The outcome of analysis show that e-service quality had significant relationship with tourists' satisfaction to the on-line travel trade in Port Harcourt (R = 0.900, p=0.000 < 0.05).

H1a: The outcome of analysis show that security had significant effect on tourists' satisfaction to the on-line travel trade in Port Harcourt (β = 0.359, p=0.000< 0.05).

H1b: The outcome of analysis show that information quality had significant effect on tourists' satisfaction to the on-line travel trade in Port Harcourt ($\beta = 0.629$, p=0.000< 0.05).

Discussion of Results

Hypothesis 1 showed a significant relationship between e-service quality and tourists' satisfaction to the on-line travel trade (R = 0.900, p=0.000 < 0.05). Therefore, H1 is supported. This finding is consistent with the findings of Chaang-Iuanand and Yi-Ling,.(2007).

Hypothesis 1a showed that security had significant effect on travellers' satisfaction to the on-line travel trade in Port Harcourt ($\beta = 0.359$, p=0.000< 0.05). Therefore, H1a is supported. This finding is consistent with the findings of Kumbhar (2011).

Hypothesis 1b showed that information quality had significant effect on tourists' satisfaction to the on-line travel trade in Port Harcourt ($\beta = 0.629$, p=0.000< 0.05). Therefore, H1b is supported. This finding is consistent with the findings of Chaang-Iuanand and Yi-Ling,.(2007).

Conclusion

The research effort examined the effect of e-service quality on tourists' satisfaction at travel trade in the tourism market segment in Port Harcourt, Rivers State. The empirical results supported the main hypothesis (H1) and the two sub hypotheses (H1a and H1b). A very important finding of the study is the fact that statistical analysis of the combined influence of security and information quality explain up to 81% variation in tourists'satisfaction to travel trade in the context of reservations. Theis expected because when technology adoption makes it easy for consumers of tourism services to process their transactions easily, without so much challenges, it becomes very easy to be satisfied. The reason may not be far-fetched, as it could be ascribed to the fact that an average traveller will like to take advantage of a fast track process of travel trade transactions that is capable of saving him cost and time.

This is in support of the customer satisfaction theory and it could be concluded that e-service quality is very important in the quest to enhance tourists' satisfaction in an e-business environment.

Recommendations

Online Travel Agencies (OTAs) and other tourism service suppliers like, transporters, hotel owners and managers should improve the quality of information provided on their websites as well as the security in line with the needs of their target markets so that customer satisfaction could be achieved.

Limitations and Future Research

The present study examined only two dimensions of e-service quality (information quality and security) out of the many dimensions of e-service quality. Future studies should investigate other dimensions of e-service quality as proposed by Parasuraman, et al (2005).

References

Almotairi, M., Al-Meshal, S.A., & Alam, A.,(2013) Online Service Quality and Customers' Satisfaction: A Case Study of the selected Commercial Banks in Riyadh (Saudi Arabia), *Pensee Journal 75 (12)*

Ayo, C.K., Oni, A.A., Adewoye, O.J., & Eweoya, I. (2016). E-banking users' behaviour: e-service quality, attitude, and customer satisfaction. *International Journal of Bank Marketing, 34*, 347-367.

Barnes, S.J. & Vidgen, R.T. (2002). An Integrative Approach to the Assessment of ECommerce Quality, *Journal of Electronic Commerce Research*, 3(3), 114-127.

Cetinsoz, B.C., (2013) The influence of E-Service quality on customer perceived value: A study on domestic tourists in Turkey. *International Journal of Science and Research,* 4(1), 1265-1277.

Chaang-Iuan H., & Yi-Ling, L.(2007) The development of an e-travel service quality scale. *Tourism Management 28, 1434–1449*

Chae, M. Kim, J, Kim, H.,& Ryu, H (2002) Information quality for wireless internet services, *Electronic Markets*, 12(1),38-46.

Ekeke, J.N& Etuk, J.S., (2021)E-Marketing and travellers' brand choice in travel trade in Port Harcourt, Rivers State. *International Journal of Academic Multidisciplinary Research* 5 (5), 82-94.

Eissa, A.M.K., & Nizzam, I., (2019). Impact of E-Service Quality dimensions on word-of-mouth and customer retention and the mediating role of customer satisfaction: Astudy of E-Commerce in Malaysia. International Journal of Accounting and Business Management. 7(1), 72-102.

Firdous, S & Farooqi, R (2017)Impact of internet banking service quality on customer satisfaction *Journal of Internet Banking and Commerce, 22, (1), 1-18.*

Fornell C., &Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Market Research, 18*(1), 39-50.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E., (2010). *Multivariate data analysis.* New Delhi: Prentice Hall.

Holloway, J.C & Taylor, N. (2006). *The Business of Tourism.* Financial Times Prentice Hall.

Kamal, S. B. M., Abdullah, D., Nor, N. M., Ngelambong, A., & Bahari, K. A. (2018). Hotel Booking Websites and their Impact on E-Satisfaction and E-Loyalty: Analysis on Utilitarian and Hedonic Features. *International Journal of Academic Research in Business and Social Sciences*, 8(15), 160–177.

Kumbhar, .M, (011) Factors affecting the customer satisfaction in e-banking: some evidence from Indian Banks. Management Research and Practice, 3(4), 1-14.

Li, H., & Suomi, R., (2009) A proposed scale for measuring e-service quality. International Journal of u-and e-Service, Science and Technology. 2(1), 1-10.

Nunnally, J. C., & Bernstein, I. H. (1994).*Psychometric theory*. 3rd ed. Sydney,Australia McGraw Hill.

Odor, B.C &Ekeke, J.N (2020)Brand experience and customers' repurchase intentions in upscale restaurants in Port Harcourt, South-South Nigeria: Mediating Role Of Customer Satisfaction. Transatlantic Journal of Multidisciplinary Research, 2 (3), 1-29. DOI: 10.5281/zenodo.4048943

Oliver R. L. (1980), A Cognitive Model of the Antecedents and Con sequences of Satisfaction Decisions", *Journal of Marketing Research, 17, November, 460- 469.*

Ojasalo, J. (2010). E-Service Quality: A Conceptual Model. *International Journal of Arts and Science, 3(4): 127-143.*

.

Pallant, J. (2005). *SPSS Survival Manual*. Buckingham: Open University Press.

Parasuraman, A, Zeithaml, V.A, & Berry, L.L (1985) A conceptual model of Service Quality and its Implications for Future Research". Journal of Marketing 49 ( ) 41 – 50.

Parasuraman, A., Valarie, A., Zeithmal, V.A., & Malhotra, A.,(2005) E-SQUAL. A multiple-item scale for assessing electronic service quality", *Journal of Service Research*, vol. 7 (3), 213-233,

Paulo, R., Oliveira,T., & Farisa, A (2019). The impact of e-service quality and customer satisfaction on customer behaviour in online shopping. *Heliyon 5, 1-13.*

Reynolds, J. (2000). T*he Complete E-commerce Book: Design, Build and Maintain s Successful Web-based Business*, New York, CMP-Books.

Saanen, Y.A., Sol, H.G & Verbraeck, A. (1999). Snapshots of e-commerce's opportunities and threats. *Electronic Markets,* 9 (3), 181-189.

Stiakakis, E.& Georgiadis, C.K.(2011)A Model to Identify the Dimensions of Mobile Service Quality. Being paper presented during the 11th International Conference on Mobile Business.

Wong, K.M & Musa, G (2011) Branding satisfaction in the Airline Industry: A Comparative Study of Malaysia Airlines and Air Asia. *African Journal of Business Management.5*(8) 3410-3423

Yang, F. (2004). Online service quality dimensions and their relationships with satisfaction: A content analysis of customer reviews of securities brokerage services. *International Journal of Service Industry Management, 15(3), 302-326.*

Yang, Z., & Fang, X., (2004) Online service quality dimensions and their relationships with satisfaction: A content analysis of customer reviews of securities brokerage services, *International Journal of Service Industry Management, 15(3), 302-326.*

Yoo, B., & Donthu, N. (2001). Developing a scale to measure the perceived quality of an Internet shopping site (SITEQUAL). *QuarterlyJournal of Electronic Commerce*, *2*(1), 31–46.

Zeithaml, V.A., Berry, L., & Parasuraman, A. (1996). The Behavioural Consequences of Service Quality. *Journal of Marketing,60*(2), 31-46. doi:10.2307/1251929

Zeithaml, V. A., Parasuraman A. & Malhotra, A. (2000) A conceptual framework for understanding e-service quality: implications for future research and managerial practice", working paper, Report No. 00-115, Marketing Science Institute, Cambridge, MA, 2000.