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Perceived Risk Barriers to Internet Shopping

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Abstract. In an e-commerce age, a large number of shoppers, browsing the Internet in Nigeria, still prefer to visit the traditional stores for shopping purposes despite the many benefits of Internet shopping. This paper examined the perceived risks that constitute barriers to Internet shopping for a large number of shoppers in Lagos State, Nigeria. We collected data from an online sample of 262 respondents through a questionnaire. The results of the multiple regression analysis supported all the three hypotheses of the paper, suggesting that perceived product risk, perceived time risk and perceived delivery risk negatively affected Internet shopping for our sample. We highlighted the implications of the findings for e-vendors operating in Lagos State and other states of the federation and made suggestions for future research direction.

Keywords: Barriers, e-commerce, Internet shopping, online shoppers and perceived risk.

1. Introduction

The global population of the people on the Internet has increased considerably from 361 million in 2000 to 4.25 billion in 2018 (Internet World Statistics, 2019a). In Nigeria, the Internet user growth rate is consistent with the global trend. It reached over 110 million users in March, 2019 from a paltry figure of 200,000 in December 2000 (Internet World Statistics, 2019b).

Nigeria's e-commerce is estimated to be $13 billion (N4.7 trillion) in 2018 (Jumia, 2018) and provides an opportunity for all categories of e-commerce operators in the country (Aminu, Olawore, & Odesanya, 2018). In marketing, this vast e-commerce opportunity provides a more viable alternative for consumers to do shopping and represents a huge market potential for both the traditional and online vendors.

Generally, the Internet has multiple uses, including information, communication, entertainment and commercial transactions (buying and selling). This paper focuses on the use of the Internet for shopping purposes. A recent study regards Internet shopping as the act of purchasing goods and services over the Internet rather than in-store (Aminu et al., 2018). Internet shopping requires the shoppers to actively interact with the retailers' websites (Naiyi, 2004) or retailers' mobile shopping applications as a growing number of e-tailers are developing shopping apps.

Many global Internet users are showing more preferences for Internet shopping due to its numerous benefits, which include convenience, time, savings, 24-hour availability, greater choices, lower prices, interactivity and free delivery (Dai, Forsythe, & Kwan, 2014; Doolin, Dillon, Thompson, & Corner, 2005; Zheng, Favier, Huang, & Coat, 2012). However, there are few exceptions. For example, in spite of these benefits, many Chinese shoppers

expressed concerns about certain forms of risks in Internet shopping and avoided this new shopping method (Hong & Yi, 2012). Similarly, while only few shoppers purchase online in Nigeria, many shoppers still complete their purchases in-store (Aminu et al., 2018).

The literature has cited perceived risk as one of the barriers impeding Internet shopping (Fortes & Rita, 2016; Hsu & Bayarsaikhan, 2012; Sims & Xu, 2012; Vos, Marinagic, Trivellasc, Eberhagen, Skourlasd, & Giannakopoulos, 2014; Zheng et al., 2012). Perceived risk is a feeling of uncertainty a buyer attributes to a purchase decision and/or outcomes and a feeling that the desired benefits may not be achieved (Aminu et al., 2018). Though perceived risk is multi-dimensional (Forsythe & Shi, 2003), this paper investigates three perceived risks - perceived product risk, perceived time risk and perceived delivery risk in this paper as they affect Internet shopping in Nigeria. Our previous research examined perceived financial risk and perceived privacy risk (Aminu et al., 2018).

Despite the capability of businesses to use technology to reach a large number of customers with a diverse range of products (Dillon, Buchanan, & Al-Otaibi, 2014), perceived product risk, perceived time risk and perceived delivery risk may explain the reasons the volume of Internet shopping taking place in Nigeria is insignificant. For example, Nigerian shoppers may be concerned that purchasing online will result in the purchased product not performing as they expected70(Zheng et al., 2012); or may result in losing time due to slow navigation or delays in submitting orders, finding appropriate websites and receiving products (Forsythe & Shi, 2003); or that the delivery of goods purchased online may not take place within the expected time, the goods may be damaged in transit, poorly packaged and handled (Claudia, 2012).

This paper examines the contribution of the aforementioned perceived risks to the reasons many Nigerians have not adopted Internet shopping, thus reducing the gap in online shopping behaviour literature as related to perceived risks in Nigeria. The paper provides additional insights into the understanding of online shopping behaviour of consumers in Nigeria from a risk perspective. "Understanding these barriers would help e-tailers and e-marketers to develop and implement appropriate risk reduction strategies and improve their e-marketing strategies and attract more shoppers online" (Aminu et al., 2018, pp. 161-162). The rest of the paper is organised as follows: literature review is undertaken in section two; methodology is outlined in section three; results and discussion are presented in section four; and finally, concluding remarks are made.

2. Literature Review and Development of Hypotheses

2.1 Internet shopping

Online shopping is synonymous with Internet shopping, electronic shopping and web shopping (Aminu, 2013) and we use these concepts interchangeably in this paper. Online shopping is a process of electronic commerce (e-commerce) whereby customers have a direct contact with e-vendors and purchase goods or services from an online store (Chaffey, 2009). Online shopping is the use of online stores by consumers up until the transactional stage of purchasing and logistics (Monsuwe, Dellaett, & Ruyter, 2004). Internet shopping is the act of purchasing goods and services over the Internet rather than in-store (Aminu et al., 2018).

Unlike the traditional transactions, Internet shopping is unusually associated with the extensive use of technology to complete transactions and the remote and impersonal nature of the online transactions (Naiyi, 2004). This has led to Internet shopping increasing the shoppers' experiences than in-store shopping (Forsythe & Shi, 2003). "The Internet is becoming an increasingly popular medium to facilitate information search, choice, and purchase" (Forsythe, Liu, Shannon, & Gardner, 2006, p. 56). A growing number of businesses are targeting e-commerce market and this has transformed the way shoppers are getting a product (Durmus, Ulusu, & Akgun, 2017).

In Nigeria, the positive global development in Internet transformation has manifested in the way customers are purchasing online and attracting more retailers online (Aminu, 2013). The increased access of many Nigerians to the Internet has considerably helped this transformation (Aminu, Okunowo, Salau, & Adesina, 2015; Jumia, 2017; Phillips Consulting, 2014). As much as Internet shopping has transformed the business and marketing activities in Nigeria, it may have also created perceived risks of different kinds for consumers of products of different types. Therefore, the central trust of this paper is perceived risk.

2.2 Perceived risks and Internet shopping

Generally, the concept of perceived risk has become very popular in consumer behaviour since it debuted, in almost six decades ago, by Bauer (1960) cited in Mitchell (1999). Perceived risk is universal and has a wide application in a number of product categories (Mitchell, 1999). We apply perceived risk to Internet shopping in Nigeria's context. Perceived risk referred to a feeling of uncertainty a buyer attributes to a purchase decision and/or outcomes and a feeling that the desired benefits may not be achieved (Aminu et al., 2018). According to Naiyi (2004), perceived risk, in the Internet environment, is a feeling about shoppers' pre-purchase uncertainty about the type and degree of expected loss associated with the purchase and use of a product. The author explained further that whether they are purchasing via the Internet or in-store, shoppers face some degree of risk as they prefer one brand to another and the way they purchase the brand (Naiyi, 2004). However, a study found that shoppers perceived more purchasing risk when they purchase over the Internet than from in-store (Samadi & Yaghoob-Nemadi, 2009). When viewed broadly, perceived risk can be associated with pre-purchase, during purchase and post-purchase situations.

The concept of perceived risk in the Internet shopping research came to the fore in early 1990's when residential Internet was introduced (Mitchell, 1999). Since then, research interest in perceived risk of Internet shopping has grown significantly, especially in the western world. A recent study asserted that perceived risk has become a major concern of the shoppers as they decide to purchase online (Durmus et al., 2017). In spite of the unique advantages of Internet shopping, the small number of Internet shoppers suggests that there are significant barriers to Internet adoption (Rudolph, Rosenbloom, & Wagner, 2004). Due to the risk concerns, some shoppers gather information online and use the information to make purchases in-store (Forsythe & Shi, 2003; Sims & Xu, 2012). Perceived risks are among the most critical barriers to Internet shopping in the literature (Dai, 2014; Sims & Xu, 2012). The shoppers who are contemplating purchasing over the Internet are primarily preoccupied with the risk associated with such purchases (Samadi & Yaghoob-Nejadi, 2009) and must evaluate these risks (Featherman, Miyazaki, & Sprott, 2010).

The empirical evidence of a research work in Saudi Arabia suggested that perceived risk felt by shoppers has a strong negative effect on their attitude and intention to purchase online (Almousa, 2011) and represents a barrier to Internet shopping (Vos et al., 2014).
This research is a concluding part of a paper presented at a conference at Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria in November 2018 and covers perceived product risk, perceived time risk and perceived71delivery risk.

2.2.1 Perceived product risk and Internet shopping

Perceived product risk is also known as perceived performance risk and referred to the extent that consumers feel a product will not perform as they expected71(Keating, Krizb, & Quazi, 2008; Kim, Ferrin, & Rao, 2008; Zheng et al., 2012). It is the concern about product malfunctioning or not functioning or not performing as expected (Almousa, 2011). It is extended to include fear of non-performance of websites (Swiegers, 2018). Performance risk may occur when shoppers choose wrong products due to wrong judgement, resulting from their failure to assess online product/service

quality due to their inability to touch, feel or try the product or service (Forsythe & Shi, 2003). Shoppers are unwilling to purchase over the Internet because of a high risk they feel about the quality of the product72(Samadi & Yaghoob-Nejadi, 2009). Therefore, the inability of shoppers to directly feel a product increases the product performance risk (Yu, Lee, & Damhorst, 2012) and may constitute an important barrier to the online shopping intention of a large number of shoppers purchasing in the traditional physical stores.

A preponderance of past studies have found that product performance risk deterred shoppers from purchasing online. For example, it is posited that empirical literature on perceived performance risk showed that the challenge of assessing the quality of online products was the most cited reason the Internet users were not purchasing over the Internet (Forsythe & Shi, 2003). A study in Romania found that online shoppers in the country perceived a higher performance risk for aparrel, shoes, cosmetics, perfumes and other goods because of their failure to touch, smell, and taste these products respectively (Claudia, 2012). In China, perceived performance risk ranked top of the seven dimensions of perceived risks in e-shopping for clothing in the country (Zheng et al., 2012). Similarly, Yu and colleagues found that online consumers perceived visual, tactile, and trial risks of product performance based on the evaluation of product attributes through virtual product experience in a Midwestern University in China (Yu et al., 2012).

In addition, a study in the US found that while perceived financial risk is a strong predictor of online searching and purchasing frequencies, perceived product risk impacted only the online purchasing frequency in the country (Forsythe & Shi, 2003). The results of another study in the US demonstrated that the intention of both online shoppers and non-online shoppers to purchase through the Internet was positively influenced by general attitude toward the system and negatively influenced by the risk associated with the Web. The results showed that economic and performance risks have a greater influence on e-commerce adoption in the country (Crespo, del Bosque, & Sánchez, 2009). In another research in the US, perceived product risk was found to negatively influence respondents' online purchase intentions for a non-digital product category and marginally influenced them for a digital product category in a Southeastern university in the the country (Dia et al., 2014).
Conversely, the results of Masoud (2013) found that product risk did not constitute a barrier to Internet shopping in Jordan.

Based on the foregoing, we hypothesise that:

H1: Perceived product risk has a negative effect on Internet shopping.

2.2.2 Perceived Time Risk and Internet Shopping

In all human endeavours, time is a valuable resource that most people need to manage judiciously. In particular, in a shopping situation, shoppers are concerned about time they spend when shopping, whether online or in-store. Scholars have asserted that shoppers perceive time/convenience risk when they lose time or are inconvenienced due to the challenge of faster navigation or delays in submitting orders, finding appropriate websites and receiving products (Forsythe & Shi, 2003) or when they feel that the time, convenience or effort they expend purchasing, searching for information, returning, repairing, replacing or exchanging a product via online may take long and be wasted (Dillon et al., 2014; Hanjun et al., 2004; Hong & Yi, 2012).72In addition, shoppers perceive time risk if online transactions extend over a long period of time in starting and completing (Hong & Yi, 2012).

Research indicated that a large number of Internet shoppers, exceeding 80 per cent have, at different point, abandoned e-commerce websites without getting what they want72(Silverman, Bachann, & Akharas, 2001). For this category of shoppers, the time they spent on the e-commerce websites would be considered a waste and this may deter them from going back to the Internet for shopping purposes. By extension, the negative testimony about their failed online

shopping experience may be a significant barrier that prevents other non-online shoppers from contemplating purchasing online. Shoppers' concerns about the time they spend online increase significantly in developing countries like Nigeria where Internet infrastructure is not well developed. For example, a recent study explained that online transactions fail when there are delivery errors, slow Internet connections and website navigation and extended periods of information search (Swiegers, 2018).

Empirical research showed the effect of perceived time risk on Internet shopping. One of the early studies on perceived risks in Internet shopping found that time risk, along with other risks, financial risk and privacy risk (these risks were classified as a performance-related risk in the study), was a big concern for the adoption of e-service among the students of a large university (Featherman & Pavlou, 2002). In Romania, majority of respondents reported the fear that the procedure for returning malfunctioned products to the e-tailers consumed time. They also perceived the time spent waiting for the product to be delivered to them at the designated address as a time loss (Claudia, 2012).73In Saudi Arabia, a recent survey supported the hypothesis that overall perceived risk in Internet shopping was determined by the time risk associated with it73(Almousa, 2011). Further, the perception of the Internet as a shopping medium, frequency of online visiting, frequency of purchasing, money spent, and amount of time73spent shopping online were negatively correlated with perceived risks, including time risk (Forsythe et al., 2006).73

While the empirical results of a study in Jordan proved that perceived time risk and perceived social risk did not have effect on Internet shopping (Masoud, 2013), the results of another study found that perception of time risk by the shoppers varied with the age and experience of the shoppers. The results indicated that perception of time risk was lower for older shoppers, above the age of 50 years and for the shoppers, with less online experience (Forsythe & Shi, 2003). A study in South Africa also revealed that perceived time risk did not significantly affect the purchase and repurchase intent of online shoppers for clothes and books in the country (Swiegers, 2018).

Based on the empirical evidence presented above, we state that:

H2: Perceived time risk has a negative effect on Internet shopping.

2.3 Perceived Delivery risk and Internet Shopping

While purchasing in the physical stores are not associated with a perceived delivery risk because the shoppers take immediate delivery of the purchased items right in the store and after payment, Internet shopping may be characterised by a perceived delivery risk. Research has indicated that shoppers perceive delivery risk when they fear that delivery of goods purchased online will not take place within the timeline agreed with the online vendors, the goods may be damaged in transit, poorly packaged and handled (Claudia, 2012).73Consequently, many consumers may avoid shopping online because of delivery problem and return of incorrect products (Swiegers, 2018).

The literature has also documented the evidence of the relationship between perceived delivery risk and Internet shopping in a number of countries. A study in Saudi Arabia found that delivery risk, just like other five risks investigated, negatively impacted Internet shopping among the two samples of online shoppers and non-online shoppers (Almousa, 2011). Also in China, studies found that perceived delivery risk significantly affected online consumer shopping behaviour (Zhang, Tan, & Xu, 2012) and perceived delivery risk represented one of the major risks Chinese felt when purchasing clothing items over the Internet (Zheng, 2013). Another study in Jordan showed that perceived delivery risk deterred shoppers in the country from purchasing over the Internet (Masoud, 2013). The results of a recent study in Malaysia also indicated that non-delivery risk negatively affected the online shopping attitude

and behaviour of consumers (Md Ariff, Sylvester, Zakuan, Ismail, & Ali, 2014).
The results of Javadi and his colleagues (2012) showed that delivery risk did74not negatively affect the intention of shoppers to purchase online (Javadi, Dolatabadi, Nourbakhsh, Poursaeedi & Asadollahi,742012).74Similarly, another study found that perceived delivery risk did not have a negative effect on shoppers' intention to purchase over the Internet in Malaysia (Folarin & Ogundare, 2016).

From the foregoing, we assert that:

H3: Perceived delivery risk has a negative effect on Internet shopping.

2.4 Perceived risk theory (PRT)

Studies have credited Bauer (1960) as a scholar, who first used perceived risk theory in Marketing to explain consumer behaviour (Dai et al., 2014; Forsythe & Shi, 2003; Mitchell, 1999). Several years after the pioneer work on perceived risk was published, the perceived risk concept has evolved and remained the foremost research topic in consumer behaviour (Mitchell, 1999).

Generally, the PRT explained comsumers behaviours with regards to their purchasing decision making (Pi & Sangruang, 2011), which often produces uncertain consequences (Chen, Yan, & Fan, 2015; Hong & Yi, 2012) and postulated that the possibility of risks in the buying process determines whether or not consumers will decide to buy a product (Yu, Lee, & Damhorst, 2012). The PRT asserted that a higher level of uncertainty regarding purchase consequences results in hesitation to make purchases (Forsyth & Shi, 2003). Therefore, the central trust of the PRT is existence of risk, characterised by uncertain outcomes, in every buying decision. Perceived risk theory has been widely applied in the risk literature to explain the phenomenon of perceived risk in different areas, which include information technology (Doolin et al., 2005) and Internet shopping (Forsythe & Shi, 2003). Therefore, PRT is an apt theory for this study.

Perceived risk is a consumer's belief about the potential uncertain negative outcomes from the online transaction (Kim, Ferrin, & Rao, 2008). Though Studies noted that shoppers perceived more risk when they shop online than in-store (Hsu & Bayarsaikhan, 2012; Samadi & Yaghoob-Nemadi, 2009; Zheng et al., 2012), risk permeates all purchasing situations - Internet and in-store (Naiyi, 2004).
Shopping has, for long, been risky, with consumers not sure of a purchase decision taken and the attendant outcomes of poor decisions (Bauer, 1960 cited in Dai, 2014) and increased risk associated with a purchase will lead to decreased intention to engage in purchase activities (Dai et al., 2014). In particular, Internet shopping has recently emerged as a new method of shopping and its emergence might create some problems74to consumers (Li & Huang, 2009). These problems are barriers that deter shoppers from purchasing over the Internet. In line with the two elements of risk, consequences and uncertainty (Chen et al., 2015; Hong & Yi, 2012), a recent study stated that shoppers have no confidence in Internet shopping due to the fear that the products they purchase can have some poor and uncertain consequences (Tanadi, Samadi, & Gharleghi, 2015).

In PRT, perceived risk is conceptualised as multi-dimensional and includes financial risk, product risk, psychological risk, social risk, time risk, and74privacy risk (Forsythe & Shi, 2003). Studies have found that these risks, as a complete set or a combination of some of them, negatively deter Internet shopping (Forsythe & Shi, 2003).

3. Methods

The paper employed an online survey to collect data from a sample of Internet users in Lagos State, who regularly browse the Internet but have not used the Internet to make purchases. Sampling actual Internet users makes it possible to address the challenge of access to the Internet (Doolin et al., 2005). A total number of 262 respondents participated in the survey. The main instrument of data collection was a structured questionnaire. The self-Internet-based

questionnaire, measured on a 4-point Likert scale (1, strongly disagree and 4, strongly agree), was adapted from previous studies (Dai et al., 2014; Naiyi, 2004). The questionnaire has two sections. Section one consists of bio-data of respondents and section two comprises statements about perceived risks. Perceived risk is the independent variable, measured by perceived product risk, perceived time risk and perceived delivery risk. Internet shopping is the dependent variable. There are 22 items in the scale. The questionnaire was posted on social media and to the email addresses of our phone contacts, with a comprehensive covering note explaining the purpose of and the target population for the survey. The survey lasted for 15 days.

Both descriptive and inferential analyses of data were undertaken. We analysed the respondents' bio-data using frequency counts and percentages. We ran a multiple regression analysis to test the direct effect of the three types of perceived risk, examined in the paper, on Internet shopping. The validity and reliability of the adapted instruments (Dai et al., 2014; Naiyi, 2004) were satisfactory.

4. Results and discussion

Table 1: Respondents' bio-data

Variables	Frequency	Percentage	Variables	Frequency	Percentage
Sex:			**Marital status**:		
Male	104	40.0%	Single	94	36.0%
Female	158	60.0%	Married	122	47.0%
Total	262	100.0%	Separated	27	10.0%
			Widow/Widower	19	07.0%
			Total	262	100.0%
Age:			**Occupation:**		
Below 20 years	19	07.0%	Public sector	86	33.0%
21-30 years	72	27.0%	Private sector	81	31.0%
31-40 years	116	44.0%	Self-employed	38	14.0%
41-50 years	41	16.0%	Students	57	22.0%
Above 50 years	14	06.0%	**Total**	262	100.0%
Total	262	100.0%			

Source: *SPSS Output, 2018.*

Table 1 indicates that 60 per cent of the respondents were male; while the remaining 40 per cent were married; 44 per cent of the respondents fell into the age category of 31 to 40 years; and 33 per cent were employees of the public sector in Lagos state. Though more male participants responded to our survey, a study by Forsyth and Shi (2003) found that gender did not significantly explain Internet shopping behaviour in the U.S.

Table 2: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.714[a]	.510	.495	6.83425

a. Predictors: (Constant), Summation of perceived product risk variable, summation of perceived time risk variable, summation of perceived delivery risk variable.

Source: *SPSS Output, 2018.*

The R in table 2 is the multiple correlation coefficient. It determines the quality of the prediction of the dependent variable, Internet shopping in this case. The value of R is .714 and suggests a good level of prediction. The R^2 value in the table is called the coefficient of determination and describes the amount of variance in the dependent variable that can be explained by all the independent variables combined together. Therefore, the (R^2 = 0.510) indicates that 51.0 per cent of the variance in Internet shopping (dependent variable) is explained by the three independent variables, namely, perceived product risk, perceived time risk and perceived delivery risk.

Table 3: ANOVA[b] (Goodness of fit model)						
Model		**Sum of Squares**	**DF**	**Mean Square**	**F**	**Sig.**
1	**Regression**	65243.473	5	13517.163	262.835	.000[a]
	Residual	73254.426	1392	48.825		
	Total	138497.899	1397			
Summation of perceived product risk variables, summation of perceived time risk variables, summation of perceived delivery risk variables.						
b. Dependent Variable: Summation of Internet shopping variables						

Source: *SPSS Output, 2018.*

The F-ratio in table 3 tests the extent to which the overall regression model is a good fit of the data. The results shows that at least one of the three independent variables statistically significantly explains the dependent variable, i.e. $F(5, 95) = 262.835$, $p < .0005$, indicating that the model is a good fit. This suggests a linear relationship among the variables and that there is a 95% chance that this relationship is not due to chance.

Table 4: Multiple regression results for perceived risk barriers to Internet shopping

Variables	**Standardised Beta**	**t-value**	**Sig.**	**Collinearity statistics**	
				VIF	**Tolerance**
Constant	4.473	16.804	.247		
Perceived product risk	-.548	-.419	.000	.868	1.283
Perceived time risk	-.289	-.261	.000	.764	2.421
Perceived delivery risk	-.452	-.164	.000	.821	1.396

Source: *SPSS Output, 2018.*

In testing the three hypotheses stated in the paper, we used the value of standardised beta (β) and t-test statistics level of significance (Sig.) for each of three perceived risks examined in the co-efficients table above. As a rule, where $p<.05$, we accept the hypothesis because it is statistically significant, otherwise we reject it.

H1: Perceived product risk has a negative effect on Internet shopping. The results of hypothesis 1 indicates that perceived product risk is statistically significant and has a negative effect on Internet shopping for our sample ($\beta = -.548$, $p<.05$). Therefore, hypothesis 1 is supported, suggesting that perceived product risk deters shoppers from Internet shopping.

H2: Perceived time risk has a negative effect on Internet shopping.

The results of hypothesis 2 shows that perceived time risk is also statistically significant and has a negative effect on Internet shopping for our sample ($\beta = -.289$, $p<.05$). Therefore, hypothesis 2 is corroborated, suggesting that perceived time risk discourages shoppers from Internet shopping.

H3: Perceived delivery risk has a negative effect on Internet shopping.

The results of hypothesis 3 indicates that perceived delivery risk is statistically significant and has a negative effect on Internet shopping for our sample ($\beta = -.452$, $p<.05$). Therefore, hypothesis 3 is confirmed, suggesting that perceived delivery risk constitutes a barrier to Internet shopping.

5. Discussion

In this paper, we ran a multiple regression analysis to determine whether low adoption of Internet for shopping in Lagos State can be explained by perception of certain risks - perceived product risk, perceived time risk and perceived delivery risk - by shoppers. Our model was significant ($p<.0005$), indicating that the model is a good fit. The results show that perceived product risk is the strongest barrier to Internet shopping for our sample. This result suggests that perception of product risk explains the reasons for low Internet shopping in Lagos State. This result is consistent with the results of similar studies (Claudia, 2012; Forsythe & Shi, 2003; Yu et al., 2012; Zheng et al., 2012). Admittedly, the reluctance of many shoppers to purchase via the Internet, due to their inability to

see, touch, feel and compare products, may be a strong deterrent for not engaging in online shopping. Most Nigerians are obsessed by the age long culture of visiting stores to assess a product before purchasing. This can be described as entrenched consumer behaviour. They like comparing product quality, prices, sellers' reliability and other important product attributes before purchasing. This reduces the possibility of the product failing to perform below shoppers' expectation. This is most likely to reduce cognitive dissonance (Festinger, 1957) that may be associated with Internet shopping.

Perceived delivery risk is the next significant barrier to Internet shopping, according to our multiple regression analysis. This result also explains the hesitation of most Lagos shoppers to initiate and complete commercial transactions on the Internet. The finding is corroborated by the findings of previous studies (Md Ariff et al., 2014; Almousa, 2011; Masoud, 2013; Zhang et al., 2012; Zheng, 2013). Since most shoppers prefer to take delivery of products as soon as they make payment, the failure of Internet transactions to guarantee immediate delivery heightens the concerns of shoppers and may deter them from Internet shopping. Many shoppers are concerned about non-delivery, late delivery, delivery of wrong products or return of defective products back to the online vendors. To allay this fear, leading etailers in Lagos State and Nigeria, at large, are encouraging payment for the ordered items on delivery. Unfortunately, this has not done much to motivate shoppers to engage in Internet shopping as a large number of people in Nigeria are still purchasing in-store.

Finally, the multiple regression analysis reveals that perceived time risk constitutes the least barrier to Internet shopping for our sample. This finding also suggests that perceived time risk deters Lagos shoppers from engaging in online shopping. This finding is supported by the findings of past studies (Almousa, 2011; Claudia, 2012; Featherman & Pavlou, 2002; Forsythe et al., 2006). Though, perceived time risk is not a major barrier to Internet shopping compared to other risks, according to our empirical analysis, the fear of losing time by shoppers while searching for online vendors, navigating through their websites, comparing products and prices, moving products to the cart, making payment and waiting for delivery, can be real in Nigeria and may deter a large number of shoppers from Internet shopping. Unlike in many developed and emerging markets, Internet infrastructure is not well developed in Nigeria and many developing countries, and this affects the availability and quality of Internet services in these countries. For example, Internet services may not be available for hours (and sometimes, for days) in some locations in Lagos State, the commercial and economic hub of Nigeria. Therefore, most shoppers that place premium on time may avoid Internet shopping and visit stores, especially on their way to their place of work, for their shopping. Conversely, our finding is inconsistent with the findings of Forsythe & Shi (2003), Masoud (2013) and Swiegers (2018). Forsythe and Shi found that perception of time risk was lower for older shoppers, above the age of 50 years and for the shoppers, with less online experience.

6. Conclusion and Implications

6.1 Conclusion

This paper is a concluding part of a research project that examined perceived risk barriers to Internet shopping in Lagos State. Though perceived risk has many dimensions, we examined the impediment of three perceived risks (perceived product risk, perceived time risk and perceived delivery risk) to Internet shopping in this paper, while perceived financial risk and perceived privacy risk, as they affect Internet shopping were examined in an earlier conference paper. All the three hypotheses of this paper are supported by the multiple regression model. Perceived product risk, perceived time risk and perceived delivery risk negatively affected online shopping for our sample of online respondents. Perceived product risk emerged as the greatest barrier to Internet shopping while perceived time risk is the least obstacle to Internet shopping. We conclude that perception of risks by shoppers constitutes an important barrier to the growth of Internet shopping in Lagos State. This is despite the growing number of Internet users in Nigeria.

There's no doubt that this paper has contributed to the risk and Internet shopping behaviour literature.

6.2 Implications

The results of this paper have important implications for Internet marketers.

First, the e-vendors should see the high risks associated with Internet shopping as both an opportunity and a challenge. As an opportunity, the risks provide an indication of concerns of the shoppers engaging in traditional buying behaviour. It is suggested that a reduction in perceived risk of Internet shopping might increase the amount of Internet shopping consumers engage in (Sims78& Xu, 2012).

Second, e-vendors should concentrate on stocking and selling high quality products that would satisfy the needs of shoppers most of the time. This will reduce the fears of products purchased online not meeting customer requirements and drive more online transactions.

Third, e-tailers should improve on their delivery efficiency and effectiveness to address customer concern about non-delivery, late delivery and delivery of wrong items. They should develop a policy of compensation for delivery failures; this will boost shoppers' confidence in Internet shopping.

Fourth, the National Communication Commission (NCC) and the relevant committees of both chambers of National Assembly should step up their regulatory and oversight functions on telecommunication companies to make them continuously increase investment in Internet infrastructures. This would increase the quality of Internet services and enhance customer Internet experience whenever they choose to purchase over the Internet.

Finally, e-vendors should engage in massive marketing and promotional activities to enlighten the large number of traditional shoppers about what they are doing to reduce all kinds of perceived risks discussed in this paper and elsewhere. Lee (2009) provides evidence that marketing can contribute to the mitigation of the financial, security and performance risks that characterise Internet shopping. For example, not all shoppers are aware of the e-vendors' policy of encouraging online shoppers to make payment when fully satisfied with the ordered and delivered products. Marketing can help promote this and other policies that can contribute to the reduction of perceived risks.

7. Limitations and Future Research Direction

The present paper is limited by smaller number of the sample size and selection of the sample by a convenience method of sampling. These limitations have made it impossible for the generalisation of the findings of this paper. Future researchers should consider a large sample size selected via any method of probability sampling. Future researchers should consider surveying risk barriers to Internet shopping for specific products (mobile phones, electronics, appliances, cosmetics, shoes or textiles). Finally, future research can focus on the effect of perceived risks on the frequency of Internet shopping by current shoppers, especially as they gain more online experience.

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