Influence of Perceived Risk on Consumers' Online Shopping Behaviour in Nigeria

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Abstract

The Internet has become the dynamic global communication medium and is increasingly being used as an innovative and revolutionary tool for marketing and purchase of goods and services (online shopping). Previous studies have explored various factors in different online shopping contexts influencing online shopping behaviour such as demographic and cultural differences, and Internet experience, but no known study has examined the influence of perceived risks on consumers' online shopping behaviour in Nigeria. The study provides answers to three research questions and tests seven hypotheses. An online survey was conducted using an online questionnaire administered to 411 respondents. The results from the study show that six dimensions of perceived risk (financial risk, product risk, time risk, psychological risk, privacy risk, and delivery risk) have significant relationship with consumers' online shopping behaviour, while social risk does not have any significant relationship with online shopping behaviour. The study recommends that retailers should have systems in place to track customers who, postpone, or cancel their decision to buy because this might serve as an indication that certain risks are perceived. It also recommends that retailer shops must combat financial risk and privacy risk of online shopping by providing secure channels not only for monetary transactions but also for other sensitive and proprietary information consumers furnish at the time of transaction.

Keywords: Electronic shopping, Internet, Nigeria, Online shopping, Risk

Introduction

The Internet has become the dynamic global communication medium that is increasingly being used as an innovative tool for marketing and purchase of goods and services and has added a new dimension to the traditional nature of retail shopping (Zhang, 2011). The Internet era has introduced drastic changes into different sectors of the economy, ranging from education to health, aviation, agriculture, politics, and commerce. In commerce, the way or mode of transacting business has consequently changed from being mainly physical to include both physical and virtual. The traditional systems of buying and selling have also became modified to make shopping for goods and services a virtual electronic exercise, thus, birthing the concept of electronic shopping (e-shopping), otherwise known as Internet shopping or online shopping. The Internet has made online shopping not only a possibility but also a huge success, contributing to economies around the globe, including in Nigeria (Gabriel et al., 2016).

In Nigeria, the increase in online shopping has been greatly encouraged by the cashless policy introduced by the Central Bank of Nigeria (CBN). The concept of the cashless policy is to reduce the use and amount of physical cash in circulation and to increase the adoption of various electronic portals for financial transactions (Philips Consulting, 2014). According to Ejiro and Ehigiator (2015), Nigeria today is experiencing a tremendous shift to a more sophisticated structure as formal or organised retail continues to gain ascendency. The distribution chain and the organisation of outlets continue to reflect those of a rapidly-evolving economy, as standards of living improve and as the population continues to snowball. The Nigerian retail industry is one that has evolved significantly over the last decade, moving gradually from traditional to more modern systems. Nigerians are increasingly patronising convenience stores, supermarkets and online shops (Aminu, 2013). In the period 2011 to 2013, investments in the retail industry grew to over ₦202.4 billion (Philips Consulting, 2014). In early 2014, the number of online retailers in the country stood at roughly sixty, with some significantly bigger than others. A growing number of indigenous online shops are now available on the Internet. Among the most popular are Jumia, Konga, DealDey, Tafoo, Kaymu, Adibba, MallForAfrica and Payporte (Ejiro and Ehigiator, 2015). According to Philips Consulting (2014), the growing trend in telecommunication presents a huge business opportunity of which only a handful of Nigerians are taking advantage. The growing population of Nigerians on the Internet presents an appreciable target market for any business to thrive as these are people with shopping problems, needs, wants, aspirations and, most importantly, the buying power.

In online shopping, the ability to shop twenty-four hours a day, seven days per week is one of the major benefits enjoyed by consumers. Consumers do not have to leave their homes or offices to beat the closing hour of a traditional retail store. Another fundamental benefit of online shopping is that consumers are not confronted with the inconvenience of waiting in long queues after making purchases to be able to pay. Furthermore, there is no limit to the geographical boundaries that online shoppers can cross when making purchases. Lastly, consumers can make private purchases of certain products online without feeling embarrassed or ashamed. Although these benefits of online shopping help to encourage consumers to shop online, consumers still have certain concerns which can keep them away from the new shopping (Hong and Yi, 2012).

Several attributes have been identified as factors influencing consumer's behaviour in online shopping globally. Some of such factors identified by researchers include: consumer resources, service quality, subjective norms, product variety, cultural barriers, infrastructure challenge, trust, security concern, regulatory framework, specific innovativeness, subjective norms and perceived risk (Zhang, 2011; Javadi et al., 2012; Aminu, 2013; Lawan and Zanna, 2013; Pabalkar, 2014). In Nigeria, although online shopping has become popular and is thriving, these factors are impacting its pace and rate in spite of the growing population of Internet users (Aminu, 2013). As a result of this, a variety of behaviours is generated among online shoppers whose motivation to shop online may be influenced by lack of trust, the need to examine and feel the products, and the opinion of friends and family that have a negative influence (Katawetawaraks and Wang, 2011).

According to Li and Zhang (2002), online shopping behaviour (also called online buying behaviour and Internet shopping/buying behaviour) refers to the process of purchasing products or services via the Internet. It is the sum total of a consumer's attitudes, preferences, intentions, and decisions regarding the consumer's behaviour in the marketplace when purchasing a product or service on the Internet. Masoud (2013) explained that the process consists of five steps that are similar to those associated with traditional shopping behaviour. In the typical online shopping activity, when potential consumers recognize a need merchandise or service, they go to the Internet and search for need-related information. However, rather than searching actively, at times, potential consumers are attracted by information about products or services associated with the felt need. They then evaluate alternatives and choose the one that best fits their criteria for meeting the felt need. Finally, a transaction is conducted and post-sales services provided.

Dimensions of risk can be perceived at different stages of online shopping, however the magnitude differs and this can influence consumer behaviour and attitude towards online shopping. The analysis for dimensions of consumer perceived risk in online shopping is a necessary step to know the content and types of consumer perceived risks, which are considered to be one of the important factors that impact on consumer online shopping decision-making (Forsythe and Shi, 2003). Before purchasing a product, a consumer considers the various risks associated with the purchase. The different types of risk, such as financial risk, product/performance risk, psychological risk, social risk, time risk, privacy risk, and delivery risk are all referred to as perceived or anticipated risks (Javadi et al. 2012). The distribution and impersonal nature of online shopping (and in general e-commerce) leads to greater information irregularities and higher risks than the traditional shopping environment Zhou et al. (2007). It is necessary to analyse the dimensions of consumer perceived risk in online shopping as it is an important factor that impacts consumer purchase decision in online shopping and has also formed an important research theme for the online shopping risk (Zhang et al., 2012).

Perceived risk is a factor that has been well-researched by previous researchers, however, different studies have explored perceived risk factor in different online shopping contexts and did not cover all contexts. Also, different but similar results have been highlighted: Hong and Yi (2012) stated financial risk, performance risk and service risk, in that order, as the main perceived risks felt by customers during online shopping, while Masoud (2013) reveals that financial risk, product risk, delivery risk, and information security risk negatively affect online shopping behaviour but time risk and social risk have no effect on online shopping. Therefore, there is a need to validate the findings of previous research in the field of online shopping behaviour in Nigeria as there is a large gap, not only between countries but also between developed and developing countries, on how consumers perceive online shopping (Brashear et al., 2009). The researcher's aim is in-depth focus on perceived risk dimensions which have been identified by prior studies, to incorporate these dimensions of perceived risks into a research model, and identify their influence on online shopping behaviour.

Literature Review

Concept and scope of online shopping

Online shopping is a variant of electronic commerce falling in the business-to-consumers (B2C) category. Different scholars and researchers have defined online shopping, a term used interchangeably with Internet shopping, electronic shopping and web shopping. According to Sharma and Sitlani (2015), online shopping is a new channel to purchase products or services through the Internet. These goods can be procured directly from the seller. The customers involved in this kind of transaction are referred to as the e-consumer, or the e-shopper, and this transaction is defined as electronic shopping (Pabalkar, 2014). These definitions imply that online shopping requires the existence of retailers' websites through which shopping is done in a virtual environment devoid of physical contact between sellers and buyers. The ultimate main goal of online shopping is to provide a platform for shoppers to make exchange of goods and services with the retailer, therefore to attract shoppers, keep them longer, and make them return to the sites, retailers must design and promote user-friendly websites.

According to Aldrich (2011), Redifon Computers had introduced online shopping known as teleshopping and in 1981; it founded a business-to-business market for online shopping. By 1984 business-to-consumer market was initiated developing to the online shopping industry we see today. Online shopping is a form of electronic commerce where the buyer is directly online to the seller's computer usually via the Internet (Akintola et al., 2011). In general terms, online shopping is a process of a user accessing the Internet to search, select, buy, use, and dispose of goods and services, to satisfy his or her needs and wants (Ariff et al., 2014). Online shopping enables consumers to buy anything round the clock, thus making it the most flexible way of purchasing (Ariff et al., 2014; Pabalkara 2014). Business-to-consumer (B2C) online shopping refers to the process when a consumer buys from a business, in the case where a business buys from another business; the process is called business-to-business (B2B) online shopping.

Influence of internet on online shopping in Nigeria

The Internet has been a great enabling driver of online shopping; it has not only made online shopping a possibility but also a huge success contributing to economies around the globe. Akintola et al. (2011) stated that the amount of trade conducted electronically has grown extraordinarily with widespread Internet usage. The Nigerian Communication Commission (NCC), in its 2014 Year End Subscriber Network Data Report, stated that prior to 1999, teledensity stood at 0.04% (about 400,000 users) in a country with an estimated population of over 100 million people which was one of the lowest in the world as telecommunication services were expensive to acquire, difficult to obtain and expensive to use. However, there has been a significant improvement in the nation's teledensity, as total active subscriptions as at the end of December 2016, about sixteen years after full liberalization of the Nigerian telecommunication industry, stood at over 154.5 million lines (with a teledensity of over 110.38% as seen in Figure 1). Consequently, as at October 2017, the total active Internet subscription for all market segments was 94,177,986. The Global System for Mobile Communication (GSM) operators recorded 93,887,184 active Internet subscriptions indicating that the GSM operators accounted for 99.7% of total active Internet service subscriptions. The fixed wired/wireless market segment only accounted for 0.10% of total active Internet subscriptions, while Code-Division Multiple Access (CDMA) and Voice over Internet Protocol (VoIP) recorded 0.03% and 0.26% respectively. Figure 2 shows the growth of active Internet subscribers of GSM operators for 17 years (2000-2017).

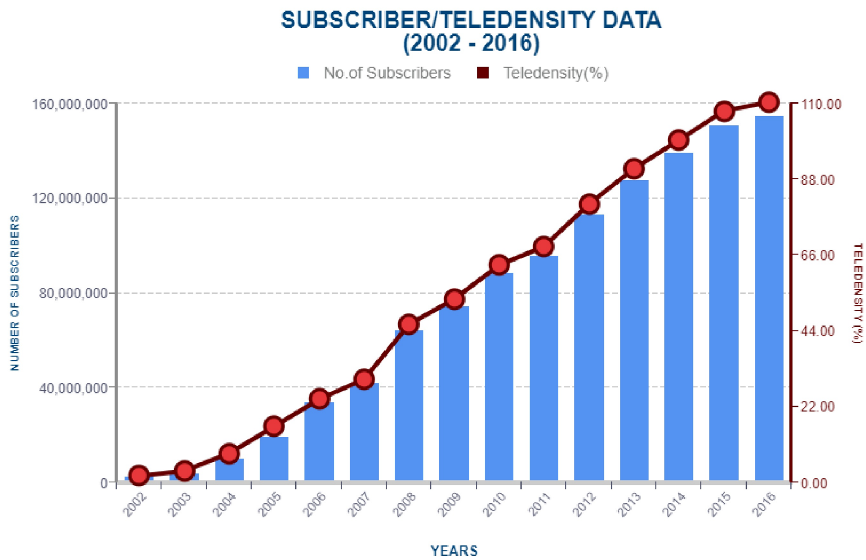

Figure 1: Subscriber/teledensity data.

Source: Nigerian Communications Commission - https://www.ncc.gov.ng

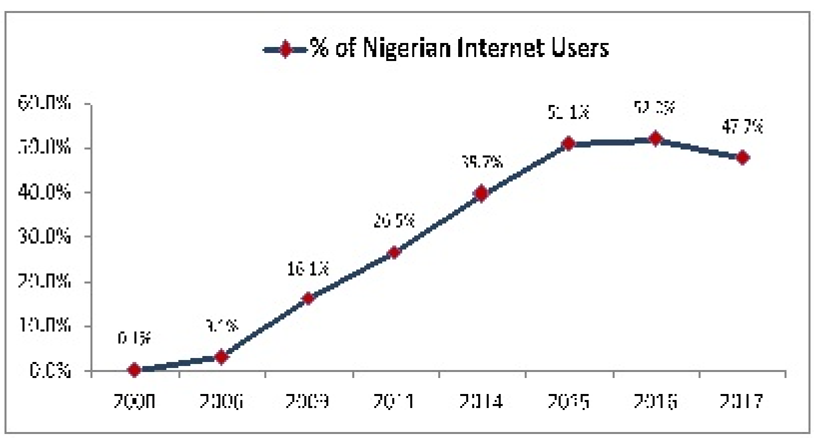

Figure 2: Growth of Nigerian Internet users.

Source: Internet World Stat (2017) - http://www.internetworldstats.com

The number of Internet users is on the increase globally; also the number of online shoppers has increased greatly over the past few years. Ayo et al. (2011) and Aminu (2013) stated that consumers in Nigeria are still inclined to traditional purchase while making online shopping an avenue to search and gather information about products and services, hence the slow growth rate of online shopping despite the rising population of Internet users in the country and the upsurge in the number of electronic retailers in the country.

The challenges militating against online shopping adoption are cultural barriers, infrastructure challenge, fraud and security concerns, perceived risks and inadequate regulatory framework (Ayo et al., 2011; Aminu, 2013; Philips Consulting, 2014; Olusoji et al., 2015; Ajayi et al., 2008; Katawetawaraks and Wang, 2011).

Consumers' online shopping behaviour

Online shopping behaviour (also called online buying behaviour and Internet shopping/buying behaviour) according to Javadi et al. (2012) refers to the process of purchasing products or services via the Internet. This process is summarised to include three phases: information searching before buying, choosing of products, and service after purchasing (Zhang et al., 2012). There have been intensive studies of online shopping behaviour in recent years. Most of them have attempted to identify factors influencing or contributing to online shopping behaviour. The researchers seem to look at different perspectives and focus on different factors in different ways. These studies have all made important contributions to understanding the dynamics of the online shopping field. For example, Zhang (2011) identified accessibility to personal computers and the Internet, knowledge of computers and Internet use, and the knowledge of how to make a purchase online as factors having strong influence on consumers' shopping behaviour. Furthermore, the society's culture, such as norms, conventions, customs, religion, festivities, class, lifestyle, and other subcultures influence how individual consumers buy and use products, and help explain how groups of consumers behave (Lawan and Zanna, 2013). According to Yoldas (2012), consumer behaviours are influenced by different factors, such as culture, social class, references, group relations, family, salary level and salary independency, age, and gender; so they show different customer behaviours (Hasslinger et al. 2007; Masoud, 2013; Pabalkara 2014).

Consumers' need recognition is mostly influenced by income and the society (opinion leaders, gate keepers, friends and family) and income level is a motivating factor for the choice of product (Lawan and Zanna 2013). Website factor positively influences consumers' choice of online shopping;

perceived risk and service quality significantly influence consumers' choice of online shopping negatively. Similarly, a negative relationship exists for the subjective norms factor (Zhang, 2011). The usual perception amongst customers in online shopping, according to Pabalkar (2014), is that it is not a secure mode of shopping. One of the ways to overcome this demerit is by assuring the customer that the website is reliable and that no private or personal information about the customer will be disclosed.

Priest, Carter and David (2003) describe the buying decision-making process as three different interlocking stages; the input stage, the process stage, and the output stage. The input stage influences the buyer's recognition of a service, the process stage of the model focuses on how buyers make decisions, while the output stage of the buyer decision making model consists of two closely related post-decision activities: purchase behaviour and post-purchase evaluation. Buyer behaviour in online shopping is similar to traditional shopping and it involves a mental process as well as physical activity. Buying behaviour and purchase decisions need to be studied thoroughly to understand, predict and analyse critical market variations. The five steps involved in the buying process include need recognition, information search, evaluation of alternatives, purchase decision and post-purchase evaluation.

Need Recognition

Need recognition is the first in the buying process as a purchase is preceded by need and is likely to occur when a consumer is faced with a problem (Lawan and Zanna, 2013).This recognition happens when there is a gap between the consumer's actual situation and the ideal and desired one. During this step, the consumer realizes that there is an unfulfilled need or want. Furthermore, need recognition occurs whenever the consumer sees a significant difference between a current state of affairs and some desired or ideal state (Solomon et al., 2006).

Information Search

Once a problem has been recognized, consumers need adequate information to resolve it. Information search is the process by which the consumer surveys his or her environment for appropriate data to make a reasonable decision (Solomon et al., 2006). Information is to know about a service, attributes of service, prices, stores and so on. Search may be categorized in four stages: pre-purchase, ongoing, internal, and external (Priest et al., 2003). The extent of a search activity depends upon the strength of the consumer's drive, the amount of information the buyer already has, the ability to obtain additional information, the importance or value given to gathering additional information, and the satisfaction buyer gets from the information search.

Evaluate Alternatives

Evaluation involves those activities undertaken by the buyer to compare alternatives carefully on the basis of certain criteria, alternative solutions to market-related problems and so on (Priest et al., 2003). After information is gathered, it is evaluated against a consumer's needs, wants, preferences, and the financial resources available for the purchase. Much of the effort that goes into a purchase decision occurs at this stage in which a choice must be made from the available alternatives (Solomon et al., 2006).

Purchase Decision

At this stage, the consumer will make a purchasing decision. The ultimate decision may be based on factors such as price or availability. Purchase decision will depend on the information and the selection made in the previous step based on the perceived value, product features and capabilities that are important to him. Other factors that also affect the consumer buying decision process include the quality of shopping experience or of the store, the availability of a promotion, a return policy or good terms and conditions for the sale (Lawan and Zanna, 2013).

Post-Purchase Evaluation

At this stage, the consumer decides whether the purchase actually satisfies his/her needs and wants. Once the product is purchased and used, the consumer will evaluate the adequacy of purchased product with his original needs (that is the needs that caused the buying behaviour), and whether the right choice has been made or not in buying this product (Solomon et al., 2006).

Perceived risk factor in online shopping

Some researchers have examined the impact of various risks associated with online shopping on online shoppers' decision-making by treating perceived risk as a one-dimensional construct (Pires et al., 2004). In contrast, others argue that perceived risk associated with online shopping is multifaceted, with one of its components (that is, uncertainty and consequences) having several sub-dimensions (product or performance, financial, social, psychological, physical or convenience) (Zhang et al., 2012). Past research has identified these sub-dimensions and provided empirical evidence of their influences on online purchase intentions and behaviours (Forsythe and Shi, 2003; Garbarino and Strahilevitz, 2004). Yet, there is little consensus regarding the impact of specific types of risk perception on online purchase intentions and behaviour. A survey of extant literature on perceived risk influence on online shopping indicates that conclusive evidence is lacking with respect to the type of risk exerting varied impact on online purchase decisions. For example, Forsythe and Shi (2003) found that while perceived financial risk is a strong predictor of online searching and purchasing frequencies, perceived product risk impacts only online purchasing frequency. While some researchers argue that privacy concerns do not significantly influence shoppers' Internet shopping intentions (Forsythe and Shi, 2003) and thus, do not serve as an important predictor of intentions to purchase online and the amount of money spent online (Bellman et al., 1999), others have found that privacy risk (as a dimension of composite risk associated with online shopping) frequently deters shoppers from shopping and spending significant amounts online (Doolin et al., 2005).

Generally, there are many types of perceived risk experienced by consumers in online shopping which have been identified by different researchers. The most established perceived risk dimensions in consumer behaviour research include financial risk, product/performance risk, psychological risk, social risk, time risk, privacy risk and delivery risk (Forsythe and Shi, 2003; Hong and Yi, 2012; Almousa, 2014). A brief description of each dimension follows.

Financial Risk

In the purchase of products, the potential monetary outlay associated with the initial purchase price as well as the subsequent maintenance cost of the product, and the potential financial loss due to fraud are important in determining the financial risk involved (Almousa, 2014). Dai et al. (2014) define financial risk as the likelihood of suffering a monetary loss from a purchase. Financial risk dimension within consumer behaviour literature focuses on perceptions by a consumer that the purchase of a product will not give the desired benefits or fulfil needs satisfactorily, leading to a waste of money or a need to replace the product (Carroll et al., 2014).

Product Risk

Product risk or performance risk is defined as the probability of the item failing to meet the performance requirements originally intended. In other words, it is the degree of uncertainty an individual perceives in purchasing a product on the Internet (Dai et al., 2014). Product risk behaviour is activated during the product evaluation and transaction stages of purchase decision making (Coker, 2009). Product risk, according to Coker (2009), plays an important role in influencing consumers' decision in online shopping.

Psychological Risk

Laczko (2014) describes psychological risk as the disappointment, frustration, and shame that can be experienced before, during and after purchasing a product. Psychological discomfort resulting from internal tension is created either consciously or subconsciously when a person assesses a purchase containing risk (Carroll et al. 2014). The psychological dimension of risk has been conceptualized in different ways leading Murray and Schlacter (as cited in Carroll et al., 2014) to conclude that services are associated with greater perceived psychological risk as compared to consumer products.

Social Risk

Social risk refers to the perception that a product purchased may result in disapproval by family or friends (Ko et al., 2004). Within consumer behaviour research, this dimension of risk has been most often conceptualized as potential feelings of embarrassment or a loss of self-esteem as a result of a purchase of a product, or failure of a product after purchase. Potential loss of status in one's social group as a result of adopting a product or service, looking foolish or untrendy makes social risk a major concern for online shoppers (Almousa, 2014).

Time Risk

Time/convenience risk refers to the loss of time and the inconvenience experienced due to difficulty in navigating the Internet and/or submitting a purchase order, finding the appropriate website, or delays in receiving products (Forsythe and Shi, 2003). It also is the potential loss of time associated with making a bad purchasing decision by wasting time researching and making the purchase, only to have to replace it if it does not perform to expectations (Almousa, 2014).

Privacy Risk

Potential loss of control over personal information such as when consumer's personal or private information is used without their knowledge or permission is referred to as privacy risk (Almousa, 2014). Brosdahl and Almousa (2013) also explained privacy risk as the potential loss of control over personal information such as the invasion of privacy or the potential of retailers to sell information about you to unknown others. Online shoppers have shown considerable concerns regarding the security of personal and credit card information they have to provide in order to complete online transactions (Dai et al., 2014).

Delivery Risk

Delivery risk is one of the biggest worries experienced when customers decide to buy products online (Ariff et al., 2014). It includes the potential loss of delivery associated with lost goods, damaged goods, or delivery to the wrong address after shopping online. Consumers fear that delivery may be delayed due to various circumstances: the delivery company may not deliver within the time frame agreed with customers, or that the goods may be damaged when handled and transported, or that the goods may not be properly packaged and handled during transportation (Masoud, 2013).

Research framework

The model which was used in this study was developed to examine the influence of perceived risks (financial risk, product risk, psychological risk, time risk, privacy risk, delivery risk and social risk) on consumer's online shopping of Nigerian consumers (see Figure 3).

Figure 3: Research Model.

Methodology

Measurement

To test the main hypothesis of this research, a multi-item scale was constructed to measure perceived risks, dimensions of perceived risks, and consumers' online shopping behaviour from Nigerian consumers' perspectives. The data collection instrument was a questionnaire. The questionnaire comprised sections on perceived risks and online shopping behaviour. The first section included a list of seven risk components used to measure the dimensions of perceived risk when purchasing a product online: financial, product, psychological, time, delivery, social, and privacy risks. The second section comprised items measuring online shopping behaviour. Responses for the first and second sections were obtained using a five-point Likert scale from "strongly disagree" (1) to "strongly agree" (5).

Instrument reliability

A pilot test was conducted in order to ascertain the internal consistency of the research instrument through a reliability test. For the reliability test, 23 respondents participated. The Cronbach's alpha score for all the items in the questionnaire was 0.867. Since any value above 0.7 is good and acceptable, the questionnaire was used for the main study. The break down of the results for each of the variables is shown in Table 1.

Table 1: Result of reliability test of research instrument

Variable	No. of Items	Cronbach's Alpha
Financial Risk	4	0.803
Product Risk	4	0.766
Time Risk	4	0.848
Psychological Risk	4	0.772
Social Risk	4	0.654
Privacy Risk	4	0.922
Delivery Risk	4	0.742
Consumer Online Behaviour	10	0.785

Sampling and data collection

In order to address the research objectives, the respondents were selected using a non-probability sampling method. Convenience and snowballing sampling procedures were used for this study as the targeted population size was indeterminate and since the topic is dealing with online consumers, an online questionnaire was used. The questionnaire was designed using Google forms and the link was sent to participants via Google, Yahoo mail, Whatsapp, BBM, and Facebook (online shop pages), and respondents could easily click on the link which would directly lead them to the questionnaire. The selection of these platforms was based on their popularity amongst Nigerians. Google, Yahoo and Facebook are ranked amongst the top 6 websites visited by Nigerians, while Whatapps and BBM are ranked as the top 2 instant messaging applications used by Nigerians (Popoola, 2015). Participants were also encouraged to share the questionnaire link amongst their immediate circles. The sample size for the research was four hundred and eleven (411), comprising the respondents who filled the online questionnaire. Gay and Airasian (2003), in their work for selecting sample size in research studies, postulated that beyond a certain population size, about 5000 or more, the population size is almost irrelevant and a sample size of 400 is adequate.

Data Analysis and Results

The study's hypotheses were tested at 0.05 level of significance, using Pearson's moment correlation to analyse the relationships between perceived risk (independent variables) and online shopping behaviour. The hypotheses and results are as follows:

$H_0$1: There is no significant relationship between financial risk and consumers' online shopping behaviour.

$H_0$2: There is no significant relationship between product risk and consumers' online shopping behaviour.

$H_0$3: There is no significant relationship between time risk and consumers' online shopping behaviour.

$H_0$4: There is no significant relationship between psychology risk and consumers' online shopping behaviour.

$H_0$5: There is no significant relationship between social risk and consumers' online shopping behaviour.

$H_0$6: There is no significant relationship between privacy risk and consumers' online shopping behaviour.

$H_0$7: There is no significant relationship between delivery risk and consumers' online shopping behaviour.

Table 2 shows the result of the analysis done to test the hypothesis using Pearson's Moment correlation. All the dimensions of perceived risks except social risk were significant at the 0.05 level. Thus, null hypotheses $H_0$1, $H_0$2, $H_0$3, $H_0$4, $H_0$6 and $H_0$7 are rejected as there is a significant relationship between financial risk, product risk, time risk, psychological risk, privacy risk and delivery risk and consumers' online shopping behaviour. However, $H_0$5 was accepted as there is no significant relationship between social risk and online shopping behaviour.

Table 2: Results of test of hypotheses (N=411)

	Correlations						
	Financial Risk	Product Risk	Time Risk	Psychological Risk	Social Risk	Privacy Risk	Delivery Risk
Pearson Correlation	.111*	.272**	.107*	.365**	-.070	.301**	.230**
Sig. (2-tailed)	0.025	0.000	0.031	0.000	0.154	0.000	0.000

*. Correlation is significant at the 0.05 level (2-tailed).

Results

Findings show that respondents' perception of financial risk impacts their behaviour towards usage of online shopping platforms. This is in line with other researchers such as Almousa (2014) and Dai et al. (2014) who stated that when consumers perceive that they might lose money on the product ordered, their decision to shop online will be affected.

Findings from the study also show that a positive relationship exists between product risk and consumers' online shopping behaviour. This relationship shows that respondents' perception that product risk is high affects their behaviour towards usage of the online shopping platforms. This result of this study supports that of Coker (2009) who reiterated that product risk behaviour is activated during product evaluation and transaction stages of purchase decision making and also plays an important role in influencing consumers' decision in online shopping.

Results from this study also show a significant relationship between time risk and consumers' online shopping behaviour which supports other studies that indicate that time risk has a significant and negative influence on consumers' online shopping behaviour (Zhang et al., 2012; Javadi et al., 2012). Interestingly, one of the benefits of online shopping is time saving and this is evident in the result of this study as 71.5% of respondents selected time saving as one of the main reason for online shopping. On the relationship that exists between psychological risk and consumers' online shopping behaviour, the study results show that mental stress associated with waiting for a product to be delivered or the feeling of disappointment when a product does not perform as expected for example will impact consumer's behaviour towards usage of online shopping platforms. This supports the finding of Laczko (2014) who described psychological risk as the disappointment, frustration, and shame that can be experienced before, during and after purchasing a product.

Findings also show that social risk, such as loss of social interaction or loss of shopping enjoyment with friends in online shopping does not affect consumer's behaviour towards usage of the online shopping platforms. This finding is in line with the finding of Masoud (2013) and Almousa (2014) that there is no effect of social risk on online shopping. Consumers who value the opinion of friends and family while shopping in physical stores can still feel the same with the use of different social platforms. Also, the availability of social media allows general acceptability of trending products and services thereby limiting the opinion of a few people. It was also discovered that privacy risk, such as lack of control over personal details provided during online shopping as well as fear that personal/financial details may be misused by retailers, can affect consumer's decision to shop online. This finding is in line with that of Brosdahl and Almousa (2013) and Dai et al. (2014) who reiterated that online shoppers have shown considerable concerns regarding the security of the personal and credit card information they have to provide in order to complete online transactions.

Finally, the study found that delivery risk has a relationship with online shopping. This corroborates the findings of Masoud (2013) that expressed fears regarding delivery, such as fear that: delivery will be delayed due to various circumstances; the delivery company will not deliver within the time frame agreed with customers; the goods may be damaged when handled and transported; or the goods will not be properly packaged and handled during transportation.

Conclusion and Recommendations

Conclusion

Online perceived risk is an important issue in e-commerce and this study shows that online shopping is still considered a risky proposition in spite of its numerous benefits as the study shows all the dimensions of perceived risk (financial risk, product risk, time risk, psychological risk, privacy risk and delivery risk) except social risk have a significant relationship with consumers' online shopping behaviour. However, the degree of relationship or influence may differ with regard to the product category as well as price. Further study is needed in this respect to provide more insight. The consequence of risk perception differs across the different dimensions. For example, product and financial risks may bring immediate consequences to consumers if the product purchased fails to perform or is priced higher than other retailers. In both scenarios, buyers will experience instant dissatisfaction and regret their purchase decision. In contrast, privacy and social risk do not necessarily bring about immediate losses or consequences to buyers and thus may not be as relevant or have a significant influence on online shopping behaviour as the former.

On delivery risk, apart from the issue of not receiving the item purchased which has an immediate consequence on the consumer, a major concern of delivery borders on security of life and properties regarding home delivery by strangers. Therefore, the degree of influence of perceived risk on consumers' online shopping behaviour is also dependent on other factors that are not included in this study. Further studies could be done on security risk and how it affects online shoppers, particularly in Nigeria.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Websites of online stores should be designed in such a way that consumers with different educational qualifications and technical know-how will be able to access and navigate with relative ease.

2. Retailers should have a system in place to track customers who alternate, postpone, or cancel their buying decision, as it is an indication that certain risk is perceived.

3. To reduce financial risk and privacy risk, online retailers have to provide a secure channel for not only monetary transactions but also for other sensitive and proprietary information consumers furnish at the time of transaction. Hidden costs such as interest rate or delivery cost should be eliminated by disclosing the total cost involved from the onset and consumers can make informed decisions based on this. This will not only build trust but also confidence in online stores.

4. Retailers can minimise product risk through reducing the impersonal nature of online shopping by presenting more thorough information about their products or services and by maximizing the effects of Internet resources such as graphics, videos, and customer interactions. For instance, virtual views of 3D images to illustrate product features, enhanced speed of presenting video or audio presentations, and more interactive consumer services by online shopping sites can allay a significant portion of consumers' product risk of online shopping.

5. Customers should use secure websites when shopping online. For instance, customers should look out for the lock symbol on the address bar as well as "https". This makes it safe for customers to enter their personal information and assures customers of the security of their personal information. Cookies that save information that can be used to contact consumers without their implicit consent should be restricted. Use of pop-up blockers to prevent unwarranted advertisements and windows from being launched, as well as phishing and malware protection software should be installed on computers used for online shopping.

6. Intending online shoppers should check for consumers' reviews of products, as well as comments, as these can aid risk management by online shoppers.

References

Ajayi, A., Aderounmu, A., Soriyan, A. A. (2008). Improving the response time of online buyers in Nigeria: The way forward. *Journal of Internet Banking and Commerce*, 13(1): 1-10.

Akintola, K.G., Akinyede, R.O., Agbonifo, C. O. (2011). Appraising Nigeria readiness for Ecommerce towards: Achieving Vision 2020. *IJRRAS*, 9(2).

Aldrich, M. (2011). Online shopping in the 1980s. *Annals of the History of Computing*, 33(4): 57-61.

Almousa, M. (2014). The influence of risk perception in online purchasing behaviour: Examination of an early-stage online market. *International Review of Management and Business Research*, 3(2): 779-787.

Aminu, S.A. (2013). Challenges militating against adoption of online shopping in retail industry in Nigeria. *Journal of Marketing Management*, 1(1): 23-33.

Ariff, M. S., Sylvester, M., Zakuan , N., Ismail, K., Ali, K.M. (2014). Consumer Perceived Risk, Attitude and Online Shopping Behaviour; Empirical Evidence from Malaysia. IOP Conference Series: Material Science and Engineering. 58 Retrieved 15 March, 2017 from https://iopscience.iop.org/article/10.1088/1757-899X/58/1/012007/meta

Ayo, C.K., Adewoye, J.O., Oni, A.A. (2011). Business-to-consumer E-commerce in Nigeria: Prospects and challenges. *African Journal of Business Management*, 5(13): 5109-5117.

Bellman, S., Lohse, G. L., Eric J. Johnson, E. J. (1999). Predictors of online buying behavior. *Communications of the ACM*, (42)12: 32-38. 10.1145/322796.322805.

Brashear, T.G., Kashyap, V., Michael, D., Musante, M.D., Donthu, N. (2009). A profile of the Internet shopper: Evidence from six countries. *Journal of Marketing Theory and Practice*, 17(3): 267-282, DOI: 10.1753/mtp1069-6679170305.

Brosdahl, D.J., Almousa, M. (2013). Risk perception and internet shopping: Comparing United States and Saudi Arabian consumers. *Journal of Management and Marketing Research*, 13(1): 1-17.

Carroll, M.S., Connaughton D. P., Spengler J. O., Byon K. K. (2014). A multidimensional model of perceived risk in spectator sport. *International Journal of Sport Management and Marketing*, 24(1): 80-95.

Coker B. (2009). Measuring Internet product purchase risk. In: *NA - Advances in Consumer Research* 36, Ann L. McGill and Sharon Shavitt, Duluth, MN (eds). Association for Consumer Research, pp.668-669.

Dai B., Forsythe S., Kwon W. S. (2014). Impact of online shopping experience on risk perceptions and online purchase intentions: Does product category matter? *Journal of Electronic Commerce Research (Internet)*, 15(1), 13. Retrieved on 17 February 2017, from http://web.csulb.edu/journals/jecr/issues/20141/Paper2.pdf

Doolin, B., Dillon, S., Thompson, F. (2005). Perceived risk, the Internet shopping experience and online purchasing behaviour: A New

Zealand perspective. *Journal of Global Information Management*,13(2): 66-88.

Ejiro, O. And Ehigiator, P. (2015). Nigeria Retail Sector Report, 2014/2015. Business Day Intelligence. Retrieved on 15 August 2017 from www.businessdayonline.com

Forsythe S., Liu C., Shannon D., Gardner L. C. (2006). Development of a scale to measure the perceived benefits and risks of online shopping. *Journal of Interactive Marketing*, 20(2), 55-75. Retrieved on 15 August, 2016 from https://doi.org/10.1002/dir.20061.

Forsythe, S.M. , Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. *Journal of Business Research,* (56): 867-875. http://dx.doi.org/10.1016/S0148-2963(01)00273-9.

Gabriel J. M. O., Ogbuigwe T. D., Ahiauzu L. U. (2016). Online shopping systems in Nigeria: Evolution, trend and prospects. *Asian Research Journal of Arts and Social Sciences*, 1(4): 1-7.

Garbarino, E. And Strahilevitz, M. (2004). Gender differences in the perceived risk of buying online and the effects of receiving a site recommendation. *Journal of Business Research*, (57): 769-775. https://doi.org/10.1016/S0148-2963(01)00273-9.

Gay, L. R., Airasian P. (2003). *Educational Research: Competencies for analysis and application* (7th ed.). Upper Saddle River, New Jersey: Pearson Education.

Hasslinger A., Hodzic S., Opazo, C. (2008). Consumer Behaviour in Online Shopping. Retrieved 15 January, 2016 from http://www.diva-portal.org/smash/get/diva2:231179/fulltext01

Hong Z., Yi L. (2012). Research on the influence of perceived risk in consumer online purchasing decision. *Physics Procedia*, 24 (2012), 1304 –1310. Retrieved on 15 August, 2016 from

https://www.sciencedirect.com/science/article/pii/S1875389212002386

Internet World Stats. (2017). Usage and Population Statistics. Retrieved on 15 August, 2016 from http://www.Internetworldstats.com/stats1.htm

Javadi M., Dolatabadi H., Nourbakhsh M., Poursaeedi A, Asadollahi A. (2012). An analysis of factors affecting on online shopping behaviour of consumers. *International Journal of Marketing Studies* 4(5), 81-98.

Retrieved on 15 May, 2016 from http://www.ccsenet.org/journal/index.php/ijms/article/view/18487/13453

Katawetawaraks C., Wang C. L. (2011). Online shopper: Influences of online shopping decision. *Asian Journal of Business Research*, 1(2), 66-74. Retrieved on 15 January, 2016 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2345198

Ko H., Jun J., Kim J. Y., Shim S. W. (2004). Cross-cultural differences in perceived risk of online shopping. *Journal of Interactive Advertising*, 4(2), 20-29. DOI:10.1080/15252019.2004.10722084

Laczko P. (2014). How Perceived Risk Influences Online Search Behaviour. Retrieved on from https://www.linkedin.com/pulse/20140606113314-184272433-how-perceived-risk-nfluences-online-search-behaviour

Lawan L.A. and Zanna R. (2013). Evaluation of socio-cultural factors influencing consumer buying behaviour of clothes in Borno State, Nigeria. *International Journal of Basic and Applied Science*, 1(3), 519-529.

Li N., Zhang P. (2002). Consumer Online Shopping Attitudes and Behaviour: An Assessment of Research. Proceedings of Eighth Americas Conference on Information Systems. Dallas, Texas. Retrieved on 13 January, 2017 from https://aisel.aisnet.org/cgi/viewcontent.cgi?article=1433&context=amcis2002

Masoud E.Y. (2013). The effect of perceived risk on online shopping in Jordan. *European Journal of Business and Management*, 5(6), 76-87.

Olusoji, J. G., Ogunkoya, A. O., Lasisi, J. O. and Elumah, L. O. (2015). Risk and trust in online shopping: Experience from Nigeria. *International Journal of African and Asian Studies*, 1(11): 71-77.

Pabalkar, V. (2014). Drivers of e-shopping behaviour. *Procedia Economics and Finance*, 11: 600 – 608. doi: 10.1016/S2212-5671(14)00225-1

Philips Consulting. (2014). A Study of Current Trends in Online Shopping in Nigeria. Online Shopping Report. Retrieved from www.philipsconsulting.net.

Pires, G., Staton, J. and Eckford, A. (2004). Influences of the perceived risk of purchasing online. *Journal of Consumer Behaviour*, 4 (2): 118-131.

Popoola, B. (2015). Ping! Seven Instant Messaging Apps for Smartphones in Nigeria. Retrieved on 18 March 2018 from http://techcabal.com/2015/06/10/ping-seven-instant-messaging-apps-for-smartphones-in-nigeria/

Priest, J., Carter, S., David, A. S. (2003). *Consumer Behaviour*. Edinburgh Business School, Heriot-Watt University, Edinburgh: United Kingdom.

Solomon, M., Bamossy, G., Askegaard, S., Hogg, S. M. (2006). *Consumer Behaviour. A European perspective* (3rd ed.). New Jersey, USA: Prentice-Hall, Inc.

Sharma, S., Sitlani, M. (2015). Perceived risk and online shopping – a factor analysis approach. *Pacific Business Review International*, 7(9): 21 -32. Retrieved on 22 March 2016 from www.pbr.co.in

Yoldas, S. (2012) A Research about Buying Behaviours of Online Customers. Master's dissertation submitted for the Masters in MSc International Management, The Business School, University of Roehampton, United Kingdom.

Zhang, J. L. H. (2011). An Empirical Analysis of Online Shopping Adoption in China. Master's thesis in Commerce and Management, Lincoln University, Canterbury, New Zealand.

Zhang, L., Tan, W., Xu, Y., Tan, G. (2012). Dimensions of consumers' perceived risk and their influences on online consumers' purchasing behaviour. *Communications in Information Science and Management Engineering*, 2(7): 8-14.

Zhou L., Dai L., Zhang D. (2007). Online shopping acceptance model; a critical survey of consumer factors in online shopping. *Journal of Electronic Commerce Research*, 8(1): 41–62.