



PURCHASE INTENTION AS A MEDIATOR BETWEEN TRUST AND ONLINE SHOPPING BEHAVIOUR OF STAFF OF UNIVERSITY OF MAIDUGURI, BORNO STATE

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Abstract

Online shopping behaviour is driven by motives, therefore it is vital for marketers to study and understand them so that they can adopt marketing strategies that will ultimately lead to increased sales. Studies on influencers of online shopping behaviour have been conducted with varying results that are inconsistent; indeed, an obvious need exists to provide clearer understanding. Consequently, based upon the rationale for the study, the mediating effect of purchase intention on the influence of trust on online shopping behaviour of staff of University of Maiduguri is examined. A

sample size of 450 staff of the University were selected using purposive sampling, while PLS-SEM was used for data analysis and hypotheses testing. The results reveal

KEYWORDS: Trust, Purchase Intention, Online Shopping Behaviour, Motives, Marketing Strategies.

that purchase intention acts as a full mediator on the influence of trust on online shopping behaviour and recommends online marketers to enhance trust towards online vendors/companies by building and maintaining positive image. .

INTRODUCTION

Marketing has been influenced by rapid changes in technology as it is gradually used in strategies to achieve objectives which add value to the processes of commerce. Notably, online shopping is

a process whereby consumers directly buy goods and services from a seller without an intermediary service over the internet (Sunitha & Gnanadhas, 2014). Meanwhile marketers attempt to understand the online shopping behaviours of consumers by paying close attention to their actions in the marketplace in addition to the underlying motives for their actions. These motives are the evaluative criteria (psychological, social, personal, economic, and situational factors) that leads to purchase intention which eventually leads to the final behaviour, either cognisance or dissonance (Hoyer & MacInnis, 1997). On the contrary, if marketers fail to understand the factors that influence consumers, they will fail to convince the consumers to purchase the products or will fail to meet the needs of consumers. In other words, the marketer that understands how consumers will react to different product features, prices, and promotional appeals has a better advantage over his or her competitors. Consequently, due to the nature of online shopping with regards the ambiguity, payment method, and the fact that people consider the internet as a fertile ground for fraud; may as well increase the level of lack of trust.

Therefore, online trust is essential in building and maintaining relationships with consumers since personal and financial information given could be easily retrieved. Perhaps this lack of trust may possibly deter consumers from shopping online. As a matter of fact, to predict behavioural intentions from attitudes, subjective norms, perceived behavioural control and trust is much easier than to predict actual behaviours because many situational factors could cause people not to engage in an intended behaviour. In view of that, willingness to engage in actual online shopping is a major issue to be put into focus. Furthermore, online shopping intention is an indication of a consumer's readiness to purchase products online and thus considered to be the immediate precursor of actual online shopping behaviour.

Meanwhile, studies conducted on relationship between trust and online shopping behaviour reveal significant influences on online shopping behaviour Chang and Chen (2008); Dash and Saji (2007), Chen and Barnes (2007); Ganguly (2012); Al-Jabari (2013); Jiang, Chen; and Wang (2008). But contrary to the significant findings from these studies, Kamarulzaman (2007) in his study found insignificant influence. To resolve these inconsistencies and bridge the theoretical gap, there is an apparent need for further research to provide a clearer understanding of how the predictor variable affects the outcome and what governs the relationship, hence, the need to introduce a mediator variable which may provide a premise for

understanding the phenomena. Moreover, empirical investigation on the mediating effect of purchase intention is still lacking as mentioned by Jin, Osman, AbdulManaf and Abdullah, (2015) and Al-Jabari, (2013) there is a deficiency of studies that use purchase intention as a mediator. Though Jin, *et al.* (2015) and Al-Jabari, (2013) have investigated the mediating effect of intention but they were conducted in their countries as such a paucity of evidence exists generally in Nigeria and specifically in Maiduguri.

Intention, as a mediator, can have the suitable mechanism to explain the influence of consumer evaluative criteria on online shopping behaviour and solve the inconclusive findings in previous literature by shedding more light on the extent at which purchase intention mediates the influence of subjective norm on online shopping behaviour. Therefore, this study examines the mediating effect of purchase intention on the influence of subjective norm on online shopping behaviour of staff of University of Maiduguri.

Literature Review

Trust

Trust is important because it helps consumers overcome perceptions of uncertainty and risks, it is difficult to know the motives and intentions of other people hence, trust is particularly important in online shopping because consumers engage in trust related behaviours with e-tailers like sharing personal and financial information and conducting transactions without physically seeing each other. Additionally, trust, being an indicator of perceived risk level of consumers toward online shopping has great impact on risk aversion, which in turn has major impact on online shopping behaviour.

A number of definitions of trust have been provided by authors, amongst the early definitions are those proposed by Grabner-Kraeuter (2002) who define trust from a functional viewpoint as that which reduces complexity in situations of uncertainty. Particularly, trust is important as it helps consumers overcome perceptions of uncertainty and risks; furthermore, it helps build appropriate favourable expectations of performance and other desired benefits (McKnight, Choudbury and Kaemar, 2002). Surely, trust is a complex word as people can never know the motives and intentions of other people hence, trust is important in online shopping given that consumers engage in trust related behaviours with e-tailers notably sharing personal information and conducting transactions without physically seeing each other. As such Pavlor (2003) define trust in e-commerce as

the belief that allows consumers to willingly become vulnerable to web retailers after having taken the retailers' characteristics.

Consumer's expectations of online vendors to keep their personal and payment information safe, to deliver the right products on time, and in essence to act in the best interest of the consumers, hence consumers trust is crucial for success in online retailing. However, if the online marketer is able to meet these expectations, then the consumers' trust will be reinforced, coupled with the fact that if it was a first time purchase, obviously future purchases will be made; for the most part, fears of uncertainty and risk are overcome.

The various definitions imply that trust in the online technologies and e-vendors are important to the safety of shopping online which underline the consumer's perception and beliefs on online shopping. To sum up, this study defines trust as the willingness of consumers to order and pay for goods and services using the internet.

Influence of Trust on Online Shopping Behaviour

Studies conducted on online shopping behaviour frequently cite trust as a significant factor in consumers' willingness to make transactions online especially since consumers buy products based on their level of trust on the sellers and products. As a matter of fact, Hwang (2005) tested the relationships between multi-dimensions of online trust (integrity, benevolence, and ability) and purchase intention. Similarly, Ha and Stoel (2009) found that trust played a significant role in consumers' adoption of e-shopping. Given this points, trust positively influences consumers' online purchase behaviour: Verhagen, Meents and Tan (2006); Dash and Saji (2007); Chen and Barnes (2007); Chang and Chen (2008); Jiang, Chen, and Wang (2008); Ganguly, (2012); Al-Jabari, (2013) and Gangwal and Bansal, (2016).

Interestingly, in contrast to the significant findings from these studies, Kamarulzaman (2007) who explored consumers' adoption of internet shopping in context of UK travel services reported that trust did not influence online shopping adoption. Additionally, Lim, Osman, AbdulManaf, & Abdullah (2015) also found insignificant effect of trust on online shopping of behaviour of Generation X.

For the most part, a lack of trust will therefore prevent buyers from engaging in online shopping. Understanding the effect of trust on important, notwithstanding, it is also important to know how to build trust online. It is observed that online consumers' trust will positively influence their adoption of internet to search for information and subsequently, their intention to purchase

online. Altogether, with a greater degree of trust in the online retailer, consumers will be more willing to make online purchases.

Regardless of the robust information on the influence of trust on online shopping behaviour, nonetheless there is an apparent need for more studies to be conducted which should provide more detailed views of this important construct as it is the basic and vital element for developing relationships with consumers.

Ho₁: Trust has no significant influence on online shopping behaviour of staff of University of Maiduguri.

All in all, based on the findings of Jin, *et al.* (2015), intention partially mediates the relationship between trust and online shopping behaviour. Equally, Al Jabbari, (2013) also highlight a partial mediation of intention on the relationship between trust and online shopping behaviour. However, Lim *et al.* (2015) report intention as a full mediator on the relationship between trust and online shopping behaviour.

Ho₂: Purchase intention does not mediate the influence of trust on online shopping behaviour of staff of University of Maiduguri.

Method and Materials

This study took the form of cross-sectional design which was conducted on a population of all the staff of University of Maiduguri out of which we arrived at a sample size of four hundred and fifty using Dilman's (2007) formula for sample size estimation. We used multistage sampling technique to select the sampling frame using stratified sampling (proportionate stratification) and purposive sampling techniques.

The instrument used for data collection for this study is a structured self – administered questionnaire with close ended questions and is designed in line with the objectives, questions and hypotheses of the study. The study adapted the factors influencing online shopping behaviour scale developed by Al-Jabari, (2013). However, the scale was significantly modified to fit with the Nigerian context, and also take into consideration the marketing mix variables in relation to the evaluative criteria that lead to purchase intention.

A pilot study was conducted to test the validity and reliability of the instrument before the main research to assist the researcher gain some insights into the real condition of the full-scale study. Subsequently, out of the 80 questionnaires that we administered, 70 were successfully collected which were all valid. We therefore subjected the data to reliability assessment using SPSS 24 and Warp PLS 6.0.

Specifically, SPSS was used for testing Cronbach's alpha reliability, while Warp PLS 6.0 was used for testing composite reliability of the data. The reliability results indicate that all the research items have a Cronbach's alpha coefficient value from 0.769 to 0.810. Specifically, subjective norm has 0.810, purchase intention 0.787, and online shopping behaviour has a coefficient value of 0.769. Similarly, we further tested the composite reliability Warp PLS 6.0. The results indicate that subjective norm has 0.861, purchase intention 0.855, and online shopping behaviour has a coefficient value of 0.867.

Results and Discussions

Data were analysed using PLS-SEM with the aid of software application - Smart-PLS 3.0 (Ringle, Wende & Becker, (2015). PLS-SEM is analysed and interpreted in two phases which are: assessment of measurement model where indicator item reliability, internal consistency reliability, as well as the construct, convergent and discriminant validities are examined. Assessment of structural model involves examining the significance of the path coefficients, coefficient of determination, individual variable effect size, and model of predictive relevance.

The study examines the mediating effect of purchase intention on the influence of subjective norm on online shopping behaviour of staff of University of Maiduguri and employed the internal consistency approach to determine the reliabilities of all the items of the constructs used in the study (Hair, Hult, Ringle, & Sarstedt (2017). Table 1 presents the Cronbach's alpha, composite reliability, and average variance extracted (AVE). The Cronbach's alpha coefficient and composite reliability values are all above 0.7 which are within acceptable ranges, furthermore, the values of AVE have surpassed the 0.4 threshold.

Table 1: Cronbach's Alpha, Composite Reliability and AVE

Variables	Cronbach's Alpha	Composite Reliability	AVE
Online Purchase Intention	0.814	0.864	0.536
Online Shopping Behaviour	0.769	0.897	0.500
Trust	0.802	0.840	0.512

Source: Survey Results, 2019

We tested the validity of the constructs by assessing the discriminant validity using the Fornell and Larcker, (1981) criteria. Table 1 shows the AVE values for the constructs to be from .500 to .536 which suggests acceptable values whilst Table 2 shows the square root of AVE to be greater than AVE. Additionally; the square

root of the AVE of each construct is greater than the absolute values of the standardised correlation square of the given construct. This indicates that all constructs differ from one another consequently, discriminant validity is supported.

Table 2: Latent Variables Correlations and Square Roots of Average Variance Extracted

Variables		OPI	OSB	Trust
Online Purchase Intention	Purchase	0.832		
Online Shopping Behaviour	Shopping	0.706	0.707	
Trust		0.690	0.577	0.716

Source: Survey Results, 2019

The coefficient of determination (R^2) of the endogenous variables in this study are 0.571 and 0.658 respectively for online purchase intention and online shopping behaviour which indicate moderate predictive quality (See Table 3).

Table 3: Assessment of Coefficient of Determination (R^2)

Variable	Variable Type	R Square	R Square Adjusted
Online Purchase Intention	Endogenous	0.571	0.564
Online Shopping Behaviour	Endogenous	0.658	0.651

Source: Survey Results, 2019

As reflected on Table 4, the effect sizes for online purchase intention and subjective norm are 0.716 and 0.005. The result reveals that online purchase intention has substantial effect on online shopping behaviour; however, trust has small effect.

Table 4: Assessment of the Effect Size (f^2)

Variables	f^2	Effect Size
Online Purchase Intention	0.716	Substantial
Trust	0.005	Small

Source: Survey Results, 2019

We used Stone - Geissser test to assess the Q^2 via blindfolding method and results on Table 5 show Q^2 values of 0.278 and 0.309 for online purchase intention and online shopping behaviour respectively. This shows the relevance of the variables to the problems investigated; therefore, the results provide clear support for the model's predictive relevance with regards to the endogenous constructs.

Table 5: Assessment of Predictive Relevance (Q^2)

Endogenous Variables	SSO	SSE	$Q^2 (=1-SSE/SSO)$
Online Purchase Intention	1,524.000	1,100.307	0.278
Online Shopping Behaviour	508.000	351.228	0.309

Source: Survey Results, 2019

Furthermore, we used Smart PLS 3.0 in the analysis of the data to test the hypotheses and the result of the direct effects which are presented on Table 6 reveal that Trust (T) does not significantly affect Online Shopping Behaviour (OSB) where ($\beta=0.048$, $t=1.201$, $p>0.10$) while Purchase Intention (PI) significantly affects Online Shopping Behaviour (OSB) where ($\beta=0.759$, $t=11.318$, $p<0.001$). Additionally, it reveals that Trust (T) significantly affects Purchase Intention (PI) where ($\beta=0.496$, $t=7.328$, $p<0.001$). Based on this finding, the study fails to reject the hypotheses related to direct effect which is H_{01} : Trust has no significant influence on online shopping behaviour of staff of University of Maiduguri.

Table 6: PLS Path Analysis for Direct Effects

Variables	Original Sample	Sample Mean	Std. Dev.	T Stat.	P Values	Significant
PI =>OSB	0.756	0.759	0.067	11.318	0.000***	Yes
T =>PI	0.632	0.652	0.056	11.576	0.000***	Yes
T =>OSB	0.060	0.048	0.050	1.201	0.115	No

Source: Survey Results, 2019

The result of the indirect effects as shown on Table 7 reveals significant indirect effect; therefore, signifying potential mediating effect of Purchase Intention (PI) on the influence of Trust (T) on online shopping Behaviour (OSB) where ($\beta=0.496$, $t=7.328$, $p<0.001$), consequently, the hypothesis related to indirect effect which is H_{02} : Purchase intention does not mediate the influence of trust on online shopping behaviour of staff of University of Maiduguri is rejected. However, based on Zhao, Lynch and Chen (2010) classification of mediation, H_{02} is an indirect-only mediation which corresponds with Baron and Kenny's (1986) full mediation.

Table 7: PLS Path Analysis for Indirect Effect

Variables	OS	SM	Std. Dev.	T Stat.	P Values	Significant
T =>PI=>OSB	0.477	0.496	0.065	7.328	0.000***	Yes

Source: Survey Results, 2019

Table 8: Summary of Hypotheses Testing

Hypotheses		Decision
Ho₁	Trust has no significant influence on online shopping behaviour of staff of University of Maiduguri	Supported
Ho₂	Purchase Intention does not mediate the influence of Trust on Online Shopping Behaviour of staff of University of Maiduguri	Not Supported

Source: Survey Results, 2019

Discussions

The amount of variance explained by the exogenous variables on their endogenous variables which indicates their predictive power are 0.571 and 0.658 respectively for purchase intention and online shopping behaviour. This shows that the exogenous variables for this study explain 57% and 65% of the problems of purchase intention and online shopping behaviour consequently, the rest are left for future research. With regards to effect size, purchase intention has the greatest effect size of 0.716 and the highest T value of 11.318 which indicates that it has substantial effect on online shopping behaviour. This suggests that online marketers should place much emphasis on influencing purchase intention of consumers.

The results from this study reveal that trust has no significant influence on online shopping behaviour but has significant influence on purchase intention which is in line with Kamarulzaman (2007) and reports insignificant effect of trust on online shopping adoption. Also, Lim *et al.* (2015) found no influence of trust on online shopping behaviour in their study. This is not in conformity with the findings of Verhagen, Meents and Tan (2006); Dash and Saji (2007); Chen and Barnes (2007); Chand and Chen (2008); Jiang *et al.*, (2008); Ganguly, (2012); Al-Jabari, (2013) and Gangwal and Bansal, (2016) who found significant influence of trust on online shopping behaviour.

Trust is viewed as crucial to online seller/customer relationship as revealed by majority of the studies conducted on online shopping implying that the more the

consumers' trust the process of online shopping, the more they will engage in it. Jiang *et al.*, (2008) affirm that knowledge is a vital factor that influences consumers' online trust. Perhaps this could be the reason for the insignificant influence of trust on the online shopping behaviour of the participants of this study who are knowledgeable on at least basic computer and internet use. As a result, they may have an idea on how to avoid being in risky positions and perhaps have also conducted some forms of transaction online through e-banking and thus comfortable with the use of internet for conducting business. Trust is a component of commitment-trust theory of relationship marketing and according to the proponents it is central to successful relationship marketing, which is built over time (Morgan and Hunt (1994). Though they place trust as a mediator in their model and confirm it causes indirect effect in relationships between variables, however, it is placed as an exogenous variable in this study.

However, the influence of trust on online shopping behaviour is fully mediated by purchase intention which is in line with the findings of Lim and Osman, (2015), while Jin *et al.*, (2015) and Al-Jabari (2013) report partial mediation. The standardised path of trust to intention ($\beta=0.496$, $t=7.328$, $p<0.001$) is statistically significant indicating that trust has significant influence on purchase intention, whilst the standardised path of trust to online shopping behaviour ($\beta=0.048$, $t=1.201$, $p>0.10$) is insignificant which shows that trust have no direct influence on online shopping behaviour.

Besides, the influence of trust on online shopping behaviour is also weak ($\beta=0.048$) and statistically insignificant ($t=1.201$, $p>0.10$) and that indicates that trust has no significant influence on online shopping behaviour, however the inclusion of purchase intention as a mediator increases the influence on online shopping behaviour ($\beta=0.496$) and is statically significant ($t=7.328$, $p<0.001$). Following mediation analysis, we conclude that purchase intention fully mediates the influence of trust on online shopping behaviour.

This implies that the effect on online shopping behaviour is not caused by trust but rather indirectly through the mediated influence of purchase intention. Purchase intention thus has the potency to cause trust to influence online shopping behaviour by acting as a full mediator, consequently if intention is not formed on the part of the consumers, then consumers will not purchase goods online whether or not they have trust in the process.

Conclusion

Online shopping behaviour of consumers remain significant to the success of online businesses thus understanding the drivers of the behaviour is paramount to online marketers to sustain being the preferred choice of consumers. Overall, the result from this study shows that purchase intention is vital in creating positive purchase decisions and in the context of mediation effect, purchase intention acts as full mediator on the influence of trust on online shopping behaviour.

Recommendations

As a result of the findings of this study, the following recommendations are proffered:

- i. Online marketers should focus on marketing strategies that positively enhance the trust of consumers which is seen to have significant influence on purchase intention. Similarly, they should build trust towards online vendors/companies by building and maintaining positive image. Notwithstanding the fact that the findings reveal the trust consumers have on the online shopping medium, online marketers should take crucial measures to sustain the trust and protect the interests of consumers.
- ii. Additionally, online marketers should continuously put in concerted efforts in a bid to determining things that will stimulate (motivators) consumers' online purchase intention. Online marketers should seek competitive advantage by offering greater product variety that will cater to a wider range of consumers' tastes and preferences, moreover, as per the finding, product variety stimulates purchase intention of the consumers.

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