From offline shopping to online shopping in Nigeria: evidence from African emerging economy

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Abstract

Purpose – The study builds on studies in online shopping. Existing studies in online shopping proved that it is an attraction to shoppers. In Nigeria’s emerging economy the increasing Internet penetration does not equate with intention to use online shopping because it is not really used by users for online shopping. Consumers are considering it unattractive because of serious concerns that border on product quality of online shops and poor know-how on e-tech. The study sought to explore factors that could mitigate challenges to successful online shopping in Nigeria’s emerging economy.

Design/methodology/approach – Online survey method was used to sample 246 respondents. Measurement items were adapted from related literature. Confirmatory factor analysis and content validity were used to check the reliability and validity. A set of fit indices were used to check the goodness of fit. Data was analysed using structural equation model.

Findings – Results indicate direct effects of consumer attitude, perceived usefulness and social influence on intention to use online shopping. Thus, consumers’ attitude of browsing online and going offline for purchases is dependent on attitude of like or dislike. Perceived ease of use, social influence and perceived usefulness had an indirect positive effect on consumer attitude to intention to use online shopping. Social influence is indicated to have a direct positive effect on perceived ease of use. Also perceived ease of use had a positive and direct effect on perceived usefulness.

Research limitations/implications – The sample size is not large enough and the use of snowball sampling limits representativeness.

Practical implications – The study indicated vital factors African emerging economies like Nigeria can use to improve consumer confidence towards intention to use online shopping and drive cashless policies. Several studies have missed the indirect effect of referents (social influence) on adoption of technology. The study proved that it can produce indirect effect as well as direct effect on intention to use online shopping.

Originality/value – Several studies have missed the indirect effect of referents (social influence) on adoption of technology. The study proved that it can produce indirect effect as well as direct effect on online shopping.

Keywords Technology adoption, E-shopping, Consumer attitude, Emerging economy, Internet technology, Online shopping

Paper type Research paper
Introduction
Technology in business is rapidly transforming the volume of online businesses (Bhatt, 2014). The Internet is contributing immensely in this transformative process by serving as a platform for transactions between parties and providing endless market capability structure (Delafrooz et al., 2010). A number of business transformations are seen in electronic trades and transactions (Liang and Lai, 2001) given that prior to the emergence of Internet transactions shopping was predominantly offline. Extant literature indicates that Internet technology can drive online shopping (Ha, 2020) particularly on faster purchases and price comparisons from multiple choices (Cuneyt and Gautam, 2004). In Nigeria there is increasing presence of businesses in online marketplace. Dealday, Konga and Jumia are examples of online stores with several offers to customers (Philips Consulting Ltd, 2016). The offers are in different product ranges, width and length (Ashish, 2014).

Customers show negative reactions to online transactions because of high rate of consumer preference to offline transactions (Gabriel et al., 2016). Consumers react differently to different technologies (Hana et al., 2012). The authors assert that the stage of technological development in a location can create this disparity. Consumer attitude is critical in affecting how and when to use a new technology (Venkatesh, 2003). The attitude of an individual comprises of beliefs, feelings and behavioural intentions which can manifest in willingness to make purchases (Bhatt, 2014). With reference to Nigeria, there is poor consumer knowledge of online benefits (Pulse Mix, 2021), concern on quality of offers (Elbeltagi, 2009), need for touch and feel, and product descriptions that are inaccurately done on retailers website (Philips Consulting Ltd, 2016). Several consumers have inappropriate technological knowledge and poor skills on information and communication technology (Ayo et al., 2011). However, the key emphasis is high percentage of Nigerians’ preference of cash payment to online payment (Abbakin, 2021a). Report by Jumia indicates that 70% Nigerians exhibit this tendency (Abbakin, 2021b). This can be explained from Nigeria’s 46% internet penetration as at 2020 (Varrella, 2021) and Nigerians’ high rate of preference to offline shopping (Philips Consulting Ltd, 2016). Though the penetration rate is below average, report by Statista on Nigeria’s online shopping indicates that out of 206 million population, Nigeria’s online buyers stood at about 76 million in 2020 (Varrella, 2021a). In addition, a survey report by Phillips Consulting Ltd in 2016 indicates that the increasing internet penetration does not equate with online shopping because it is not really used by users for online shopping. Specifically, the number of clicks and visits does not equate with purchases. The situation is seen from poor ownership of credit card put at 3.4 and 1.7% for men and women respectively; consumers’ higher preference for cash on delivery, and measly 6.3% representation of online purchases that highlights poor online shopping in Nigeria (Varella, 2021b). CBN (2019) report indicates that Nigeria’s e-payment transactions stood at total volume of 3002785796.00 and total value of 16701432185292.00. Poor contribution of internet is indicated from internet’s 3.45% total volume and 0.29% total value to Nigeria’s e-payment transactions.

Factors that impact negative reaction to technology are poor internet connection and online sales of counterfeit products (Efendioglu and Yip, 2004), high cost of internet subscription, poor knowledge of benefits of online shopping by the masses and inefficiency in delivery processes (Philips Consulting Ltd, 2016). On the other hand, individual actions involve choices to be made with attitude considered as the immediate determinant of action on choice (Ajzen and Fishbein, 1977). Following theoretical predictive capability of attitude on individual’s action, the study assesses attitude of Nigerian customers. This arises from their growing pattern of using online for information and price comparison and resorting to offline stores for purchases. The nation has been driving towards cashless policy. The researchers consider that the result of this study will provide insight into policy drive and implementation, and assist in developing strategies to promote online shopping in an emerging economy.
Theoretical underpinning and hypotheses development

Constructs from technological acceptance model (TAM) by Davis (1989) and theory of planned behaviour (TPB) by Ajzen (1991) were integrated in the proposed model. Both theories are classical theories used by researchers to explain human behaviour towards adoption of information technologies (Liebana-Cabanillas et al., 2017a, b). TAM is considered more robust and influential because of its various uses in different technological contexts (Davis, 1989). The constructs integrated in the proposed model are perceived ease of use (PEoU), perceived usefulness (PU) and attitude from TAM, and social influence from TPB. Studies on online shopping have often used the constructs of TAM and TPB to predict user behaviour (Ha, 2020). In the case of PEoU and PU, studies such as Slade et al. (2015) indicate that both variables are significant determinants in intention studies that deal with online technology. Shaikh and Karjaluoto (2015) in reviewing over 150 publications that spanned over 15 years discovered that PEoU and PU are not the only vital determinants in information technology and usage behaviour but subjective norm/social influence (SU/SI) was also a significant predictor. The constructs have widely being integrated in models that measure acceptance of m-payments (Liébana-Cabanillas et al., 2020a), m-commerce (Liébana-Cabanillas et al., 2017a, b) and mobile wallet services (Singh et al., 2020).

Perceived ease of use (PEoU)

PEoU is about ease in using a system (Davis, 1989) or effortless in use of internet for shopping (Vijayasarathy, 2004). It is considered to be essential in studies that deal with technology adoption (Moore and Benbasat, 1991). Studies have established its effect on attitude (Ha, 2020) but others show no significant effect (Ramos de Luna et al., 2016). Its importance is traceable to its dual effect on attitude and usefulness (Davis et al., 1989) which has been empirically proven in extant literature dealing with online technology (Liebana-Cabanillas et al., 2017a, b). The effect on attitude arises from can-do behaviour (self-efficacy) and will-do behaviour (instrumentality) (Davis et al., 1989). PEoU can impact usefulness through better performance when PEoU’s improvement is instrumental (Liébana-Cabanillas et al., 2014). Such links are supported in cases where there is guidance on usage of the technology, convenience of the technology and usefulness (Liébana-Cabanillas et al., 2020b). In online shopping, consumers expect it to be free from any complexities in learning and usage. Ease-of-use is supported in several internet-based studies like m-banking (Muñoz-Leiva et al., 2017) and m-payment (Liébana-Cabanillas et al., 2020a). Internet-based studies have seen it as significant predictor of perceived usefulness (Ramos de Luna et al., 2016) and intention to use (Sharma, 2017). Other studies show it is not a significant predictor of intention to use (Ooi and Tan, 2016). Therefore, the researchers propose:

H1. Perceived ease of use is positively related to consumers’ attitude towards intention to use online shopping.

H2. Perceived ease of use is positively related to perceived usefulness towards intention to use online shopping.

Perceived usefulness (PU)

PU is about individual’s perception of a new system improving his/her performance (Davis, 1989). The new system must offer better utility than what exists previously (Oloveze et al., 2021). Rogers (2003) consider it as the extent to which new innovation is better than previous one. It is central to new technology adoption in TAM (Liébana-Cabanillas et al., 2020a). In online shopping, it deals with consumer’s opportunity of having access to information which he/she can utilize to compare products and prices and make quicker purchases.
(Vijayasarathy, 2004). The factor can help consumers obtain tangible results in online settings (Liebana-Cabanillas and Alonso-Dos-Santos, 2017). Recent studies show that it is a significant predictor of intention particularly when consumers have a higher perception of usefulness (Ramos de Luna et al., 2019; Ooi and Tan, 2016). Its effect is established on consumer attitude in m-payment systems (Ramos de Luna et al., 2019). However, because all internet technologies are not the same (Ramos de Luna et al., 2019) other internet-based innovation has shown no significant result (Li et al., 2014). Therefore, the researchers propose:

**H3.** Perceived usefulness is positively related to intention to use online shopping.

**H4.** Perceived usefulness is positively related to consumer’s attitude towards intention to use online shopping.

### Social influence (SI)

Social influence as an expression of subjective norm is a measure of how much an individual feels being influenced by important people in the surroundings (Venkatesh and Bala, 2008). It represents subjective perceptions of a person concerning social pressures that influences behaviour in a given direction (George, 2004). In online shopping it deals with how consumers perceive online shopping as influenced by his/her referents (Lin, 2007). It is a key construct of TPB used in determining user intention and behaviour (Ajzen, 1991). Its integration in TAM has received empirical supports (Venkatesh et al., 2003). It is composed of belief and motivation influenced by referents (Ramos de Luna et al., 2019). Due to its nature, third parties like friends and families are considered vital in studies dealing with acceptance of new technologies (Schepers and Wetsels, 2007) because when there is a favourable result the tendency of adopting the new technology increases (Webster and Trevino, 2017). Thus the impact of referents in a person’s life can influence such person to meet up with expectations of the referents (Jiang et al., 2016). Its importance is highlighted in cases where there might be feelings of uncertainty about consequences of using a new system and the need to seek opinion of others. The importance is more pronounced when there are probabilities of poor experience and knowledge about a new innovative system (Schierz et al., 2010). It has been integrated with TAM constructs in several proposed models (Liebana-Cabanillas et al., 2017a, b; Ramos de Luna et al., 2016). Its importance is highlighted from the significant results obtained in several internet-based innovations like m-commerce (Kalinic et al., 2019) and m-payment systems (Ramos de Luna et al., 2019) where it was included. It is seen as a predictor of consumer attitude (Ramos de Luna et al., 2016; Venkatesh et al., 2003), intention to use (Ramos de Luna et al., 2016; Liebana-Cabanillas et al., 2017a, b) and ease-of-use (Ramos de Luna et al., 2019). Therefore the researchers propose:

**H5.** Social influence is positively related to perceived ease of use towards intention to use online shopping.

**H6.** Social influence is positively related to consumer’s attitude towards intention to use online shopping.

**H7.** Social influence is positively and directly related to intention to use online shopping.

### Consumer attitude (CA)

Attitude of consumers are often reflected in likes or dislikes. It can be formed overtime from experience (Liebana-Cabanillas et al., 2014) and shown in people’s feelings in contexts of favourable or unfavourable disposition (Premkumar et al., 2008). Both TAM and TPB prove that attitude is essential in intention studies and in forming behaviour. It influences consumer’s decision to adopt a product/technology (Schierz et al., 2010) and impacts
individual’s overall pattern of response to an object (Fishbein and Ajzen, 2003). It is proven to be essential in developing behaviour (Plewa et al., 2012) and be able to mitigate hindrance to technology adoption (Pavlou, 2002; Ramos de Luna et al., 2019). It is viewed as a mediating variable on intention to use a technology (Li et al., 2017). Fishbein and Ajzen (1975) consider it as a multidimensional construct that consists of cognitive, emotional and conative dimension. As a result it has been variedly used in several studies within the context of adoption of technological innovation such as m-payment systems (Ramos de Luna et al., 2016), m-banking apps (Muñoz-Leiva et al., 2017) and electromobility (Higuera-Castillo et al., 2019). Therefore, the researchers propose:

H8. Consumer attitude is positively related to intention to use online shopping.

H9. Consumer attitude mediates the relationship between social influence, perceived ease of use and intention to use online shopping. Figure 1 shows the conceptual framework of the study.

Research methodology

Data collection
Data was collected using snowball sampling technique. The questionnaire was administered from November to March 2020 at Southeast Nigeria because shopping activities and festivities are at its peak within this period in the location. 298 forms were collected at the deadline. 246 forms were used after screening out 52 irrelevant forms. The sample is considered sufficient given the threshold of 50–70% response rate (Saunders et al., 2009). From the sample of 246, 41.9% of the respondents were male, 58.1% were female. 63.4% were under 30 years, 22.4% between 31 and 40 years, 10.2% were within 41 and 50 years and 4.1% were above 50 years. On education status, 47.2% are graduates, 28.5% have secondary education, 18.3% are postgraduates and 6.5% have primary education.

Figure 1. Conceptual framework
Measurement development
The study adopted online survey method. Questionnaire was adapted from studies on
 technological innovation. It included an invitation, a guarantee to treat supplied data
 anonymously and strictly in confidence. 5-point Likert scale was used for all constructs. It
 was scaled from 1 = strongly disagree to 5 = strongly agree. Adapted items were changed to
 suit the context of the study. A dichotomous screening question “have you ever shopped
 online” was used in screening irrelevant forms.

Measurement model: validity and reliability
Sobel test in Andrew Hayes Macro Process V.2.16 was used in checking for potential
 mediation between the variables. Notably, the use of Sobel test is appropriate for large
 samples but bootstrapping is deemed a better option in the presence of raw data given the
 absence of imposition of distributional assumptions (Preacher and Leonardelli, n.d.). Content
 validity was done using 12 experts that included professors in the field. The recommendation
 of Taherdoost (2016) and Lawshe (1975) was adopted in carrying out the content validity.
 Value of 0.67 was derived from essential inputs of 10 panel experts which exceeded the
 recommended minimum value of 0.56 for 12 panel experts (Lawshe, 1975). The measurement
 scales were further subjected to composite reliability and convergent validity using SPSS
 25 and STATA 13. The values of average variance extracted and composite reliability showed
 they are within recommended minimum value of 0.5 (Fornell and Larcker, 1981) and 0.7
 (Nunnally, 1978) respectively. See Table 1.

The model is acceptable with result of different goodness-of-fit indices. At $\chi^2/df = 4.341$ it is
 within acceptable range of 2–5 (Wu and Wang, 2005). RMSEA < 0.08 (0.069) and
 SRMR < 0.08 (0.022) are within recommended values in literature (Hair et al., 2010). CFI > 0.90
 (0.988) and TLI > 0.90 (0.942) exceeded the recommended minimum threshold (Lai and Li,
 2005). In addition, the independent variables accounted for 62% explanation of the variance
 towards intention to use online shopping ($R^2 = 0.622$). Table 2 shows the results of fit indices.

Results and discussion
Hypotheses testing
The statistical significance of $p$-values guided the decision of results. See Table 3. The
 proposed H1 and H2 were from perceived ease-of-use. A positive relationship between
 perceived ease-of-use and consumers’ attitude toward intention to use online shopping was
 confirmed at ($\beta = 0.491; p \leq 0.000$). Also a positive relationship between perceived ease-of-use
 and perceived usefulness was confirmed at ($\beta = 0.236; p \leq 0.000$). This is confirmed in related
 studies (Muñoz-Leiva et al., 2017; Singh et al., 2020).

The proposed H3 and H4 which hypothesized a positive relationship between perceived
 usefulness and intention to use online shopping, and positive relationship between
 perceived usefulness and consumers attitude towards intention to use online shopping was
 confirmed ($\beta = 0.174; p \leq 0.004$) and ($\beta = 0.267; p \leq 0.000$) respectively. This is in line with
 earlier studies on technological innovations (Muñoz-Leiva et al., 2017; Liébana-Cabanillas
 et al., 2020a).

H5, H6 and H7 were from social influence variable. The hypothesized relationships were
 confirmed at ($\beta = 0.186; p \leq 0.002$) for H5 ($\beta = 0.103; p \leq 0.038$) for H6 and ($\beta = 0.106;
 p \leq 0.064$) for H7. The finding of H5 is in line with extant related studies (Ramos de Luna et al.,
 2019). H6 is confirmed in related study (Ramos de Luna et al., 2016) while H7 corroborates
 related finding (Ramos de Luna et al., 2019; Kalinic et al., 2019). The proposed H8 which
 hypothesized a positive relationship between consumer attitude and intention to use online
 shopping was confirmed ($\beta = 0.329; p \leq 0.000$). This is also established in scientific literature
Ha, 2020). H9 was tested using Sobel test from Hayes Macro process v2.16 with 5,000 bootstrap samples for bias corrected and 95% confidence level. The result produced coefficients and standard errors of the paths as well as the normal theory test for indirect effect (Sobel test). The mediating effect of consumer attitude was confirmed for perceived usefulness (Z = 4.269, se = 0.032, effect = 0.137, p ≤ 0.000) and for social influence (Z = 2.852, se = 0.043, effect = 122, p ≤ 0.005). Figure 2 shows the result of conceptual framework of the study.

**Theoretical implication**
The study sought to analyse intention to use online shopping against the persistence of offline shopping despite technological advancements and innovations. Firstly, the study confirmed a significant direct effect of consumer attitude, perceived usefulness and social influence on intention to use online shopping. Consumer attitude has greater influence when...
### Hypotheses testing and mediation

| Hypotheses                                                                 | Standardised estimates | Standard error | p-value | Conclusion |
|----------------------------------------------------------------------------|------------------------|----------------|---------|------------|
| H1: Perceived ease of use → Consumer attitude                             | 0.491                  | 0.047          | 0.000   | Supported  |
| H2: Perceived ease of use → Perceived usefulness                           | 0.236                  | 0.060          | 0.000   | Supported  |
| H3: Perceived usefulness → Intention to use online shopping                | 0.174                  | 0.061          | 0.004   | Supported  |
| H4: Perceived usefulness → Consumer attitude                               | 0.267                  | 0.050          | 0.000   | Supported  |
| H5: Social influence → Perceived ease of use                               | 0.186                  | 0.061          | 0.000   | Supported  |
| H6: Social influence → Consumer attitude                                   | 0.103                  | 0.050          | 0.038   | Supported  |
| H7: Social influence → Intention to use online shopping                    | 0.106                  | 0.057          | 0.064   | Supported  |
| H8: Consumer attitude → Intention to use online shopping                  | 0.330                  | 0.060          | 0.000   | Supported  |

### Mediating path coeff. and Std. error

| Mediator path | Coefficient | Standard error | Effect | Test statistic (Z) | Std. error | p-value |
|---------------|-------------|----------------|--------|--------------------|------------|---------|
| PU → CA       | 0.401       | 0.062          | 0.137  | 4.249              | 0.032      | 0.000   |
| PU/CA → IOS   | 0.341       | 0.060          | 0.122  | 2.822              | 0.043      | 0.005   |
| SI → CA       | 0.318       | 0.101          | 0.11   |                    |            |         |
| SI/CA → IOS   | 0.384       | 0.057          |        |                    |            |         |

**Note(s):** PU = Perceived usefulness. CA = Consumer attitude. SI = Social influence. IOS = Intention to use online shopping.

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**Figure 2.**

Result of conceptual framework

**Note(s):** *p value ≤ 0.10 **p value ≤ 0.05 ***p value ≤ 0.001
compared with other coefficient values. Attitude is paramount in liking, disliking and taking the decision towards intention to use online shopping against offline shopping.

On the other hand, perceived ease of use, perceived usefulness and social influence have indirect effect on intention to use online shopping through consumer attitude. The critical point in the behavioural model is that a set of factors directly affect intention to use online shopping and as well indirectly influence intention to use online shopping. The important ones in the model are perceived usefulness and social influence following the established paths in the model. However, the positive result of perceived ease of use shows that when consumers find it easier to shop online, they will adopt the system though it comes through their attitude.

Importantly, the results show that social influence has an indirect effect on intention to use online shopping beside its direct effect. The significance of the result indicates that referent’s actions impact individuals’ attitude towards liking or disliking a thing. In the case of intention to use online shopping, it is an indication that indirectly the referents in a consumer’s life can affect the consumers’ tendency to favour online shopping behaviour or not to favour online shopping behaviour. Particularly, as the construct is dual in nature – belief and motivation, thus attitudinal drive and motivation in adopting intention to use online shopping comes through influences of consumer’s referents.

Consumer attitude is proven to have direct empirical effect on intention to use online shopping. The higher estimate of this variable emphasized its importance compared to other variables in the model. This result consolidates findings in related area (Singh et al., 2020). It is the fundamental determinant towards intention to use online shopping. Consumers’ attitude of browsing online and going offline for purchases is dependent on attitude of like or dislike. The attitude of like or dislike is influenced by social influence, perception of usefulness and ease of use. In other words, consumer attitude to intention to use online shopping is essential to mitigate consumer’s tendencies to use online shopping for only price comparisons. In other to understand the mediating influence of consumer attitude to intention to use online shopping, social influence and perceived usefulness were examined. The result indicates that consumer attitude is a significant mediating variable between intention to use online shopping and perceived usefulness on one hand, and social influence on the other hand. However, the result offers help in understanding consumers’ inclination to browse online and buy offline. Despite the proven effects of perceived usefulness and social influence on intention to use online shopping, consumers’ attitude is an important variable that mediates intention to use online shopping. The reduction in effect sizes of both variables points directly to the intervening power of consumer attitude. Li et al. (2017) considered it as a significant mediator in study of technological innovations.

Managerial implication
Because attitude is formed over time, it substantiates the tendency of consumers to resort to offline shopping. However, seeing online shopping from aspect of being beneficial is important just as influences of referents are shown to be a determinant factor towards intention to use online shopping. With respect to perceived usefulness, the implication is that with better understanding of value and relative advantage from online shopping over offline shopping, consumers will most likely use it. In terms of social influence, consumers with social influence display such effects by acting in the direction of the influence especially when such influence are coming from trusted fellows, related field experienced individuals, family and close friends. Thus effective marketing communication strategies are required to instil consumer confidence in consumers. Also strategic policies are needed in communication (through influencers and celebrity endorsers) aspect to drive up knowledge and enhance awareness of value derivable from intention to use online shopping. This will help reduce the offline shopping and promote cashless drive a nation.
Ease of surfing and navigating the web to place orders and make payment are at the base of intention to use online shopping. When the ease of shopping is not fraught with complexities and difficulties, shoppers adopt the system to make their purchases. This is where it is vital for managers of online shops to pay attention to the number of clicks and visits against purchases. It is also vital to take cognizance of consumer reviews and ratings as they might serve as avenues for consumers to assess products and determine others’ experiences with online products.

Limitation of the study
The study used a selected sample size with online shopping profile. The size is debatable given that it is not large enough and might produce different results on a larger scale. Therefore a larger sample size is recommended. Cross-sectional approach was adopted. The results could differ with longitudinal approach. The sampling approach used non-probabilistic sampling. A probabilistic approach is suggested because it will help in having a more representative sample.

Conclusion and suggestion for future studies
The study evaluated determinants of intention to use online shopping following prevalent use of offline shopping among consumers in Nigeria. It is established that consumer attitude is fundamental in online adoption with perceived ease of use having a greater indirect effect on consumer attitude towards intention to use online shopping. Future research can focus on drivers of continued reason for browsing online and shopping offline, brands reaction to the phenomenon, demographic interactions and consumer response to specific online brands marketed by online shops.

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