Factors Inducing Consumers Behavioral Intentions towards Online Shopping in Developing Countries

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Abstract

The study focused on ascertaining the correlation between the study variables. That is; to examine the relationship between perceived benefits and behavioral intentions to shop online, to find out the relationship between social factors and behavioral intentions to shop online, to determine the relationship between trust and behavioral intentions to shop online, IT innovation and consumer's behavioral intentions towards online shopping. The study also examined the predictive effect of the independent variables on the consumer's behavioral intentions towards online shopping. A cross-sectional design was employed using purposive and snowball sampling techniques in selecting participants from the four regions that make up Uganda. An online survey was conducted using the questionnaire as the main tool for data collection. The collected data was later analyzed using a copyright-licensed SPSS tool version 22. Correlation, factor analysis and regression analysis were the statistical methods used to achieve the study objectives. The findings of the study indicate that there is a significant positive association between perceived benefits, social factors, trust and IT innovation and consumers' behavioral intentions towards online shopping. The regression results proved that while other factors that are not part of this study account for 51.1%, a combination of study variables contributes a prediction of 48.9% to consumer's behavioral intentions for online shopping. Therefore, implementing the study findings would help attract additional customers to shop online which will lead to solving community challenges such as delayed deliveries and crowding which will result in the realization of e-commerce growth in Uganda.

Keywords: Perceived Benefits; Social Factors; Trust; IT Innovations; Consumers Behavioral Intention to Online Shopping; e-commerce.

1. Introduction

Globally, e-commerce is a growing trend (Qalati et al., 2021). In 2021, global ecommerce sales rose to $26.7 trillion which was significantly fueled by Covid-19. Relatedly, online shopping is a growing trend the world over. United_ Nations_ Conference_ on_ Trade_ and_ Development (2020) reported an estimated number of 2.14 billion people who bought goods and services online up from 1.66 billion global online buyers in 2016. It is however important to highlight that acceptance and usage of online shopping differs from region to region or country to country Athambawa et al (2023). In 2019 the UNCTAD B2C Netherlands demonstrated the highest readiness to engage in and benefit from e-commerce while least developed countries indicate the least readiness to engage in and benefit from e-commerce (UNCTAD, 2021; UNCTAD, 2019). The largest e-commerce companies in the world as of 2020 were

American Amazon, Chinese Alibaba, Japanese Rakuten, German Zalando and United Kingdom ASOS (Abdelrhim & Elsayed, 2020).

In an African Context, Statistics on online shopping in Africa indicate that the practice is on a rise in several countries in Africa (UNCTAD, 2021). Online shopping is considered to be important especially in countries such as South Africa, Nigeria and Kenya. A number of research studies have been conducted to explain the relevance of the concept (Pollak et al., 2022; Zhou et al., 2007; Manu and Fuad, 2022; Widyastuti et al., 2020). Mauritius was ranked as the most prepared country in Africa in the usage of online shopping systems (Jannat, Al Sammarraie and Mubuke, 2023).

In the context of Uganda, Online shopping is still in its initial stages as is the case with many LDCs (UNCTAD, 2021; Atahu, 2022). According to (Wanzu et al., 2019), businesses in Uganda have been slow in adopting e-commerce. Majority customers in Uganda still prefer moving and buying products or services physically from traditional shops, shopping malls, trading centers and stores rather than shopping online (Jannat, Al Sammarraie and Mubuke, 2023). Shopping areas including local markets, shops, shopping malls, arcades, restaurants, bars, trading centers and major towns continue to encounter massive congestion (Atahu, 2022; Nansereko, 2019; Jones & Storer, 2022). Uganda's Kampala the central business district accommodates overcrowded shops, markets, streets, arcades and big merchandise areas for instance Kikuubo where one hardly finds space, people are seen moving shoulder to shoulder while others often line up in queues (Were et al., 2022; Kimuli et al., 2022; Young, 2021; Athambawa et al., 2023). Crowding consequently results in resource wastage as productive time, energy, money are wasted in queues, movement from selling point to selling point and road traffic (Vannucci & Pantano, 2020; Khan et al., 2020; Rao & Mnyanga, 2022). Furthermore, crowded business areas pose health risks and security risks since cases of pickpocketing, shoplifting, accidents as well as disease transmission regularly occur (Alhazmi et al., 2019; Samutereko, 2021; Austria & Diaz, 2019). In Uganda, focus to curb crowding in and around vending points has been put on regulating street vending, razing stalls, reconstruction of markets by government authorities while private business owners address crowding by increasing billing counters and hiring smart agents (Were et al., 2022; Athambawa et al., 2023). Addressing customer concerns with online shopping systems and understanding determinants of online shopping in Uganda is therefore pertinent.

Although there have been several studies concerning online shopping in Uganda, such as Kashaija, (2019), Nansereko (2019) and Athambawa et al (2023), little theoretical and empirical attention has been paid to the impact of perceived benefits, social factors, trust and IT innovation towards consumers behavioral intention to shop online in Uganda. Furthermore, Jannat, Al Sammarraie and Mubuke (2023), Kagoya & Mkwizu (2022) and Ahumuza (2021) had earlier noted that the relationship between perceived benefits, social factors, trust, IT innovation and consumer's behavioral intention to shop online in Uganda has received minimum attention, and thus, calls for more research. Therefore, this research study specifically intends to;

1. Examine the relationship between perceived benefits and behavioral intentions to shop online in Uganda.

2. Find out the relationship between social factors and behavioral intentions to shop online in Uganda.

3. Determine the relationship between trust and behavioral intentions to shop online in Uganda.

4. Establish the relationship between IT innovation and consumer's behavioral intentions towards online shopping in Uganda.

The study is important in the following ways; policy makers can base on findings of the study to devise supportive measures to enhance online shopping which once realized results in revenue generation and social economic growth of the country. According to (MoICT & NG, 2021) a growth in e-commerce activities contributes to national gross domestic product (GDP). The study expands the body of prevailing knowledge in information systems by reporting on the relevance of perceived benefits, social factors, trust, IT innovation in the online shopping domain.

The rest of the paper is organized as follows. The next section is empirical literature review where hypotheses are developed, Section 2 presents the research design that was employed to realize the study objectives, Section 3 presents the research design that was employed to realize the study objectives, Section 4 presents the findings of the study while section 5 is discussion of results and finally summary, conclusion, managerial implications and future works.

2. Empirical Literature Review and Hypothesis Development

2.1 Online Shopping in Uganda

Online shopping within Uganda is still in its nascent stages as is the case with many LDCs (UNCTAD, 2020; Jannat, Al Sammarraie and Mubuke, 2023; Bhatti & Rehman, 2019). According to (Nansereko, 2019), businesses in Uganda have been slow in adopting e-commerce. Majority of customers in Uganda still prefer shopping for products or services physically from traditional shops, shopping malls, trading centers and stores rather than via the internet. This scenario is still the same even with the urban population that have had increased access to smart phones and internet services (Were et al., 2022). It is estimated that only 10.4 % of Ugandans shop online with the male gender dominating online transactions at 13.4%, while only 5.8% are female. About 2.8% male shoppers have credit cards while only 1.8% female possess credit cards World Bank Global Financial Inclusion (Global Findex, 2021; World Bank, 2020). An upsurge in online shopping was however realized in the COVID pandemic and post-COVID era (UNCTAD, 2020; Bangkit et al., 2022; Jannat, Al Sammarraie and Mubuke, 2023).

2.2 Perceived Benefits and Behavioral Intention to Shop Online

Perceived benefits refer to advantages that customers expect to get by shopping online (Mubuke et al., 2017).

Factors including perceived usefulness, perceived variety, and perceived ease of use and product attributes are customer perceived benefits obtained from shopping online (Ijaz & Rhee, 2018; Aldhmour & Sarayrah, 2016; Chang et al., 2005). Perceived benefits were also found to have a positive impact on consumer attitude to shop online (Triandewo & Sagy, 2021; Arora & Aggarwal, 2018; Xu et al., 2015). Several studies also found a relationship between attitude and intention to use (Ijaz & Rhee, 2018; Zhou et al., 2007; Davis et al., 1989).

The results of the study by Waqas, Rafiq, and Wu (2023) showed a significant correlation between consumers' intents to shop online and perceived benefits. According to Waqas, Rafiq, and Wu (2023) and Wu et al (2020), consumers are driven to shop online by the perception of benefits including cost savings, convenience, time savings, 24/7 accessibility, interactive services without physical borders, and website attractiveness.

Perceived net benefits of online shopping include ease of use, a more comprehensive selection, affordability, customer support, and enjoyment. Features of the homepage, such color and design, are also seen as advantages (Alnoor et al., 2022; Ashfaq et al., 2020; Widyastuti et al., 2020). Similar effects on consumers' purchasing behavior may be seen in virtual environments. Additionally, studies discovered a strong correlation between customers' perceptions of the benefits and their inclination to shop online (Ofori and Nimo, 2019; Al Halbusi et al., 2022; Uzir et al., 2021). Consequently, there is a relationship between the intention to shop online and perceived net benefits.

It may be argued that perceived net benefits in the study by Nuryanto, Sugandini and Winarno (2020) is a multidimensional construct that was expressed in three dimensions: product diversity, price, and convenience. Hassan et al (2020) adds that consumer's attitudes about online purchasing are positively impacted by perceived net benefits, according to the findings of the association between perceived benefits and the intention to shop online.

According Eneizan et al (2020), among other reasons for the rise in the intention to shop online are the following: a wider selection of goods and services; time savings; unique services; personal motivation; simplicity and ease of information search and assembly; price comparison feature; and perceived net benefits (free from salesperson pressure or expectations and shopping in a comfortable home setting) (Ashraf et al., 2019; Edwar et al., 2018). Abdulkadir and Naserinia (2020) examined Four main perceived benefits of online shopping that is product variety, ease/comfort of purchasing, hedonic/enjoyment, and shopping convenience. Furthermore, Waqas et al (2023) proposed three significant advantages of online purchasing behavior: cost advantages, convenience advantages, and leisure advantages. A further advantage that internet retailers provide to their customers is a greater assortment and accessibility of product choices (Bayer and Aksogan, 2020).

On this basis, the hypothesis below was assumed:

H1: Perceived benefits positively influences behavioral intentions to shop online.

2.3 Social Factors and Behavioral Intention to Shop Online

Social factors include societal aspects that influence customers to shop for instance social influence from family, friends, social groups, social status and peers (Vahdat et al., 2021; Guo, 2011; Kim et al., 2003).

Ijaz & Rhee (2018) examined and established a positive and significant relationship between social factors and attitude towards online shopping. In another study, Nkrumah et al (2018) established a positive and significant relationship between social influence and behavioral intention to shop online. According to Ansari et al (2019) opinions, advice and recommendations from individuals or groups that a customer conceives as important matter in customer decisions to shop online. Similarly, social aspects such as traditions, online social communities, social class, culture, education, values of a society, economic and political conditions influence decision to shop online. Research studies concurred that social factors have a significant role to play in customer decision to shop online (Ejdys, 2018; Uzir et al., 2021).

The intentions to shop online are significantly influenced by social variables (Giao et al., 2020). Social media significantly influences consumer views of products, brand awareness, consumer loyalty, and trust, all of which affect consumer intentions to shop online (Ashraf et al., 2016; Akhlaq and Ejaz, 2015). Furthermore, Chen and Wan-Hao (2021) states that individual characteristics like age, employment, financial status, way of life, and personality affect consumer views and purchase intentions. Hassan et al (2020) assert that consumer purchase intention is influenced by various elements in the setting of social commerce, including perceptions of security, trust, and readiness to reveal personal information for transactions. Comprehending social factors, it is vital for formulating efficient intentions of consumers to shop online.

Prior research has shown that social value is a major element influencing consumers' behavioral intentions, particularly their intentions to shop online (Chen and Wan-Hao, 2021). Additionally, Ejdys (2018) clarified that customers' intentions to shop online appear to be influenced by referents and social groups. Furthermore, social acceptance and approval are what moves people to shop online (Uzir et al., 2021; Skard & Nysveen, 2016).

Hence the hypothesis:

H2: There is a positive relationship between social factors and customer behavioral intention to shop online.

2.4 IT Innovations and Behavioral Intention to Shop Online

An innovation refers to a change or new idea made to an existing product or process (Alrowwad et al., 2020).

According to (Rogers, 2003) the five attributes of an innovation include relative advantage, compatibility, complexity, trial ability and observability. IT innovations in the online shopping scope are emerging which offer relative advantages including faster delivery, 24*7 availability, ability to feel, try on products and improve trust which is likely to attract customers to shop online (Akroush & Al-Debei, 2015; Poorangi et al., 2013; Pankratz, Hallfors, & Cho., 2002). Additionally, once observable benefits of innovations are evident, emerging technologies are less complex, compatible with the existing online shopping infrastructure, customer values, beliefs and past experiences, then customers are likely to shopping online (Poorangi et al., 2013).

Applications for social media are also categorized as mobile commerce applications. Social media apps that individuals frequently use to communicate via instant messaging, share news, images, videos, and information, as well as to foster positive relationships with others in their social surroundings (Al-Hattami, 2021; Almaqtari, 2023). Al Amin (2021) presents that on the smartphones and tablets that people use, for instance, the most popular apps are Facebook, Messenger, WhatsApp, and Twitter. Al-Halili and Hongxin (2019) state that it is clear that technological innovation and social media have a big beneficial impact on consumers' intentions to make an online shopping decisions. Basing on this, we hypothesized that:

H3: There is a positive relationship between IT innovations and customer's Behavioral intention to shop online.

2.5. Trust and Behavioral Intention to shop online.

Trust is customer willingness to rely on the vendor to act or decide in situations where the action taken or decision made makes the customer vulnerable to the vendor.
Any transaction that is successful must first be characterized by trust. Therefore, their ability to coproduce the services is largely dependent on their level of technology trust (Skard and Nysveen, 2016; Alsaad et al., 2017; Alnoor et al., 2022). However, there are a few strong theoretical foundations. For instance, studies show that technological reliability increases trustworthiness (Skard & Nysveen, 2016; Uzir et al., 2021), or that trust is defined as the degree to which customers perceive a product or service to be credible and reliable (Hammood et al., 2020; Ejdys, 2018). Furthermore, Ejdys (2018) contend that users' perceptions of a system's dependability help to build trust in it.

The concept of trust is widely used in technology adoption research, where it has been found to be a significant predictor of behavioral intention (Venkatesh et al., 2016). Studies on internet banking (Alalwan et al., 2018), e-learning (Zhou et al., 2021), and online information services (Ashfaq et al., 2020) have also been conducted. The role of trust in user decision-making has been dominated by security and trust issues when using the system; the substantial unpredictability and intangibility related to Internet use and technology accounts for the popularity of the concept of trust (Wu et al., 2020; Uzir et al., 2021; Hassan et al., 2020).

Trust positively influences online shopping intention (Masri et al., 2021; Kashaija, 2019; Nkrumah et al., 2018). Once security and customer privacy concerns are addressed, then customers are likely to shop online. According to (Constantinides, 2004) trustable and secure websites contribute to customer willingness to shop online. Trust was found to have a significant impact on customer readiness to shop online.

Since comprehension cannot be increased by face-to-face interaction in virtual networks, trust plays a critical role in Internet-based consumer behavior. According to Al Halbusi et al (2022), trust increases customers' intents to shop online and encourage greater shopping behaviors. According to Alnoor et al (2022), trust in the context of e-commerce is generally regarded as a belief state that yields to the vulnerability caused by the activities of another party without keeping an eye on or exerting control over the other party. In their research models to examine customers' intents to shop online, previous studies on e-commerce have included trust as a core variable (Uzir et al., 2021; Skard and Nysveen, 2016; Alsaad et al., 2017; Halbusi, Hassani and Mosconi, 2021).

Numerous researchers focus mostly on how consumers' intentions to shop online are influenced by their level of trust. Halbusi, Hassani and Mosconi (2021) looked into the relation between trust and customers' ongoing plans to make purchases online. Additionally, it has been shown that trust increases a person's desire to make an online purchase (Uzir et al., 2021). Furthermore, customers' inclinations to shop online are positively correlated with trust (Halbusi, Hassani and Mosconi (2021). According to Ashfaq et al., 2020), trust is thought to be a key component in influencing the success of online buying. We hence hypothesized:

H4: There is a positive relationship between trust and customer Behavioral intention to shop online.
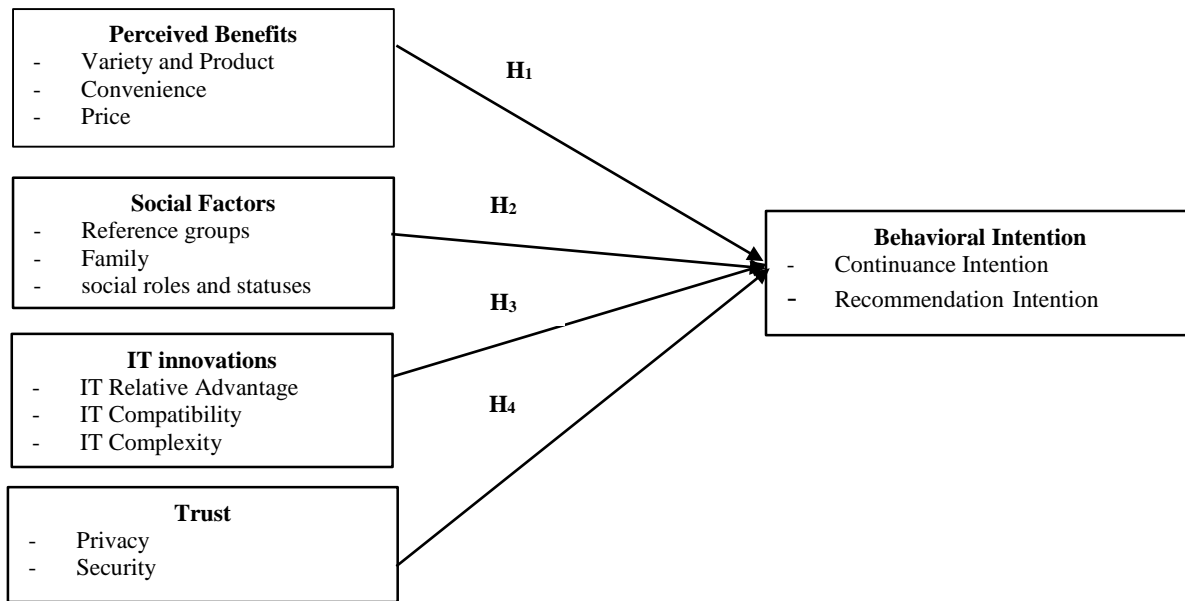

Figure 1. Adapted from theory and literature review (Ijaz and Rhee, 2018; Nkrumah et al; 2018; Jannat, Al Sammarraie and Mubuke, 2023)

From the review of the literature, figure 1 was conceptualized to illustrate the link between the study variables. Perceived benefits, social factors, IT innovations and trust are the independent variables and consumer's behavioral

intentions to online shopping is the dependent variable. The relationship between the study variable is analyzed under hypotheses H1, H2, H3 and H4.

3. Methodology

For this study, a survey research design was used. First, a pilot study was conducted, and then the major study. Before a questionnaire is used to gather data, it should be pilot-tested as suggested by Saunders et al. (2007). In this study, a pilot study was conducted to improve the questionnaire and eliminate any errors so that future respondents wouldn't encounter difficulties when completing questions and that data collection would go smoothly. According to (Cooper & Schindler, 2014), a pilot study may have 25–100 participants. Thirty questionnaires were distributed in the pilot study for the current study.

After that, a survey was carried out for the primary study, which had a sample size of 385 online customers. This investigation used a quantitative approach. This method is based on testing hypotheses; the researcher adheres to explicit criteria rather than making intelligent assumptions (Lichtman, 2013). The purpose of this study was to identify and evaluate correlations between variables.

There were 41.6 million people living in Uganda (UBOS, 2020). Only 23% of Ugandan internet users, according to World Bank, 2020 and UNCTAD, 2019, make purchases through the internet. Out of 41.6 million persons, 18.9 million used the internet in mid-2020 (UBOS, 2020; UCC, 2020; Jannat, Al Sammarraie and Mubuke, 2023). Based on the data provided, 4,347,000 people (23% of 18,900,000 internet users) make up the study population. With 4,347,000 online shoppers in Uganda, a sample size of 385 respondents were chosen using Krejcie and Morgan's standardized table (Krejcie & Morgan, 1970).

The snowball sampling approach and purposive sampling were the methods used to select the online shoppers. Purposive sampling was used to select study participants who purchased online. Purposive sampling has been used in quantitative research in a variety of studies (Sudirjo et al., 2023; Jasin, 2022; Sutrisno, 2022). The method of snowball sampling was used in addition to purposeful sampling. The snowballing strategy is used when it is difficult to determine the sample frame; as a result, additional participants are found through an informant or previous respondents referrals (Voicu & Babonea, 1997).

A questionnaire was used as a data collection technique from the respondents in the four regions of Uganda in an online survey. A standardized questionnaire with closed-ended questions on a 5-point Likert scale was used to collect the data. Questions were adapted from previous research while several others were self-developed. Google Forms links were shared on social media and the email addresses of the respondents to ensure that the researcher obtained data regarding the study topic. Data was collected from the East African country of Uganda. Online shoppers in the 4 regions namely Central region, Northern region, Eastern and Western region were included in the study. The four regions that make up Uganda as a country were considered with a purpose of enabling the researchers to get divergent views from the different regions so that the findings of the study can be applied universally in Uganda and other developing countries.

In terms of data analysis, descriptive statistics were used to analyze the demographic information, factor analysis was employed to measure the strength of the dimensions under the study variables, and regression analysis method was conducted to ascertain the predictive strength of independent variables (perceived benefits, social factors, trust and IT innovations) on to consumer's behavioral intention to online shopping.

3.1 Ethical considerations

Resnik (2015) asserts that acceptable rules for performing scientific research include research ethics. Since they are regarded as evident, most researchers frequently ignore them. However, when carrying out this kind of research, it is essential to adhere to generally recognized ethical standards. According to Walton (2016), if ethics are not followed, research involving human beings may raise delicate legal and social-cultural difficulties. The following guidelines for research ethics were followed in this study: Sources, materials, and any additional assistance for this study were properly recognized in the Acknowledgment section and throughout the research paper by correctly citing the materials that were cited in the literature.

Second, despite the fact that this study did not include human experimentation or any activity that would have required the participants to be examined in any way, it was necessary to make a statement about this issue on the research

instruments. The study's participants gave their informed consent and were allowed to discontinue participation at any moment. There was no coercion used to get participants. Additionally, there were no incentives offered to the respondents to participate, which might have influenced the responses in a biased way. Before giving the respondents any forms to fill out, the researcher or the researcher's representative(s) educated them about the goal of the study.

Finally, a confidentially statement stating that this study was only for academic purposes was added to all research instruments. All information gathered was kept private and utilized only for the purposes indicated above.

4. Findings of the study

4.1 Descriptive Statistics for the Respondents

In regards to gender, results showed that majority respondents were male (55.6%), followed by 44.2% female and 0.3% that preferred not to say. This meant that the study was gender balanced an indication that online shopping is done by all gender.

In terms of gross monthly income, majority of respondents who bought online (31.7%) were earning above 780 USD, followed by those earning below 260 USD (29.4%), respondents between 260 USD and 520 USD were (22.5%) while those gross monthly incomes between 520 USD and 780 USD were (16.4%). Results thus indicate that the population that shops online most are those who earn most highly.

It was also revealed that the central region had the highest percentage of respondents (78.6%), followed by the eastern region (9.2%), respondents from the western region were (7.5%) while those in the northern region were (4.7%). The high percentage of respondents can be attributed to the fact that the central region inhabits the capital city (Kampala) with the highest population, central administrative area where most commercial and industrial activities take place.

In regards to the type of products shopped and main reason for shopping online, results revealed that the items mostly shopped online and customer reasons for shopping online. The items that were shopped online most were electronic products (33.9%), followed by clothing and accessories (27.2%), eatables (16.7%), travel (8.1%), books and information (7.5%), while those who bought furniture were (0.3%), medical items (0.3%), body care products (0.3%), hired workers, merchants and materials (0.3%).

4.2 Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) was performed to determine correlation among observed variables by reducing them to a smaller set of variables to ease interpretation of results (Byrne, 2016; Shanthi, 2019).

4.2.1 Perceived Benefits

CFA on 15 items of perceived benefits confirmed 10 items (PBV1, PBV2, PBV3, PBV4, PBC3, PBC4, PBC5, PBC6, PBP2, PB3) and were discriminated in 3 factors as shown in figure 2 and table 1

Table 1. Perceived Benefits items in the CFA model

| Code	Items
PBV1	Online shopping provides a wider product selection.
PBV2	Online stores provide various products in each category.
PBV3	Online shopping offers access to many product brands.
PBV4	Online shopping offers access to many retailers.
PBC3	I can save the effort of visiting traditional/offline stores.
PBC4	I can shop with a greater sense of privacy at home.
PBC5	I do not get embarrassed if I don't buy
PBC6	I do not have to wait to be served.
PBP2	Online stores save my money.
PBP3	Internet shopping provides best price.

Source: Primary data (2023)
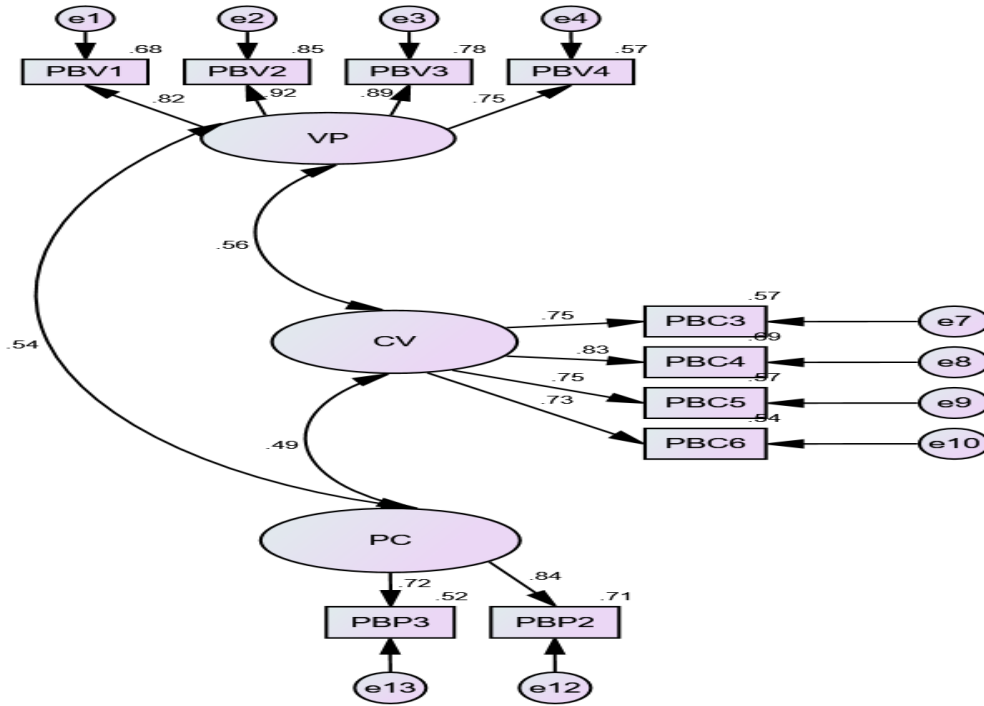
Figure 2. CFA Perceived Benefits

The measurement model for perceived benefits confirmed 10 items that significantly (P<0.001) measured perceived benefits and explaining 95.9% (GFI) of the model as shown in table 1. The probability P=0.00, GFI= 0.959, AGFI=0.929, NFI=0.959, RFI=0.943, IFI=0.974, TLI=0.964, CFI=0.974 and RMSEA=0.067 confirm that the 10 items measured perceived benefits. All the indices are above 0.9 and RMSEA less than 0.08 this is in line with (Schumacker & Lomax, 2016; Hair, 2010). However, probability was (0.000) less than 0.05 in line with (Anwar et al., 2018).

The AVEs (0.7202, 0.5901, 0.6136) were greater than 0.5 and square root of AVEs=(0.849, 0.768, 0.783) and Composite Reliability (CR)= 0.911, 0.8517, 0.7594 all greater than 0.7 in line with (Hair, 2011) an indication that 10 items converged and confirmed to be the measures of perceived benefits as shown in the convergent and discriminant validity tables.

4.2.2 Social Factors

CFA on 11 items of social factors confirmed 4 items (SO6, SO7, SO8, SO11) as shown in figure 3 and table 2

Table 2. Social Factors Items in the CFA model

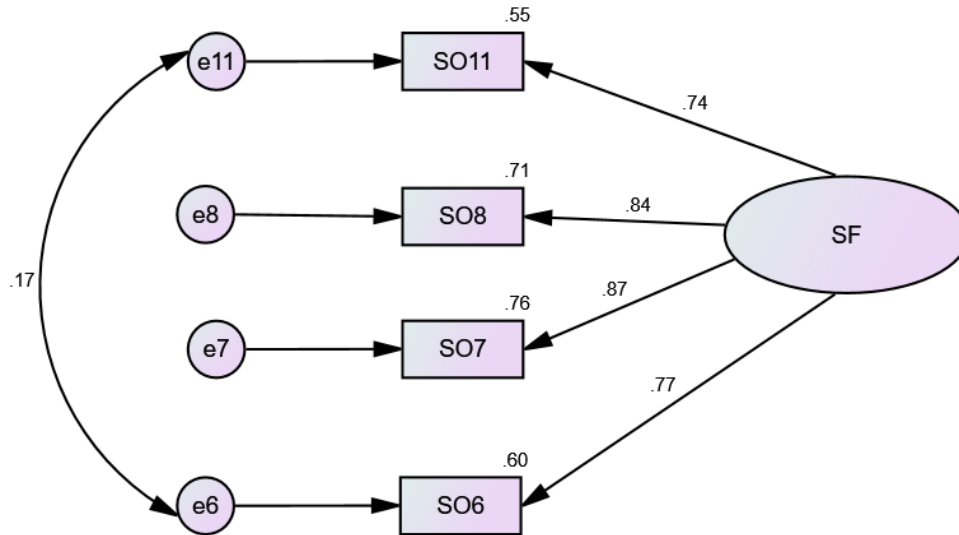| Codes	Items
SO6	People I value contribute to my decisions to shop online.
SO7	My friends' opinions matter to me in shopping online.
SO8	My family opinions matter to me in shopping online.
SO11	People whose opinions I value prefer that I shop online.

Source: Primary data (2023)

Figure 3. CFA Social Factors

The measurement model for social factors confirmed 4 items that significantly (P<0.001) measured social factors and explaining 100% (GFI) of the model as shown in table 2. The probability P=0.791, GFI= 1.000, AGFI=0.999, NFI=1.000, RFI=0.999, IFI=1.001, TLI=1.007, CFI=1.000 and RMSEA=0.000 confirm that the 4 items measured social factors. All the indices are above 0.9 and RMSEA less than 0.08, with probability greater than 0.05, these are in line with (Awang, 2012).

4.2.3 IT Innovations

CFA on 28 items of IT innovations confirmed 18 items (ITRA1, ITRA2, ITCB1, ITCB2, ITCB4, ITCB5, ITCB6, ITTR1, ITTR2, ITTR3, ITTR4, ITCX3, ITCX4, ITCX5, ITOB2, ITOB3, ITOB4, ITOB5) and were discriminated in 5 factors as shown in figure 4 and table 3.

Table 3. IT Innovations Items in the CFA model

| Code	Item
ITRA1	Information technology (IT) innovations provide greater flexibility.
ITRA2	Emerging IT Innovations enable me to transact faster.
ITCB1	IT innovations are in harmony with the existing technologies.
ITCB2	Online shopping IT innovations match my socio values.
ITCB4	IT innovations are compatible with my economic values.
ITCB5	IT innovations are easy to install.
ITCB6	IT innovations fit well with my lifestyle.
ITTR1	IT innovations require minimal investment to be tested.
ITTR2	IT innovations require minimal effort to be tested.
ITTR3	IT innovations do not require much time to be tested.
ITTR4	IT innovation is easily available to get familiar with.
ITCX3	Learning to use IT innovation will be/is easy for me.
ITCX4	I find it easy to be skillful in using online shopping innovations.
ITCX5	Ease to operate the IT innovations is important to me.
ITOB2	IT innovations are being used by others.
ITOB3	Being seen as a user of the IT innovation is good for my image.
ITOB4	People who use the IT innovations are visible in my social circle.
ITOB5	I see others using the innovation.

Source: Primary data (2023)
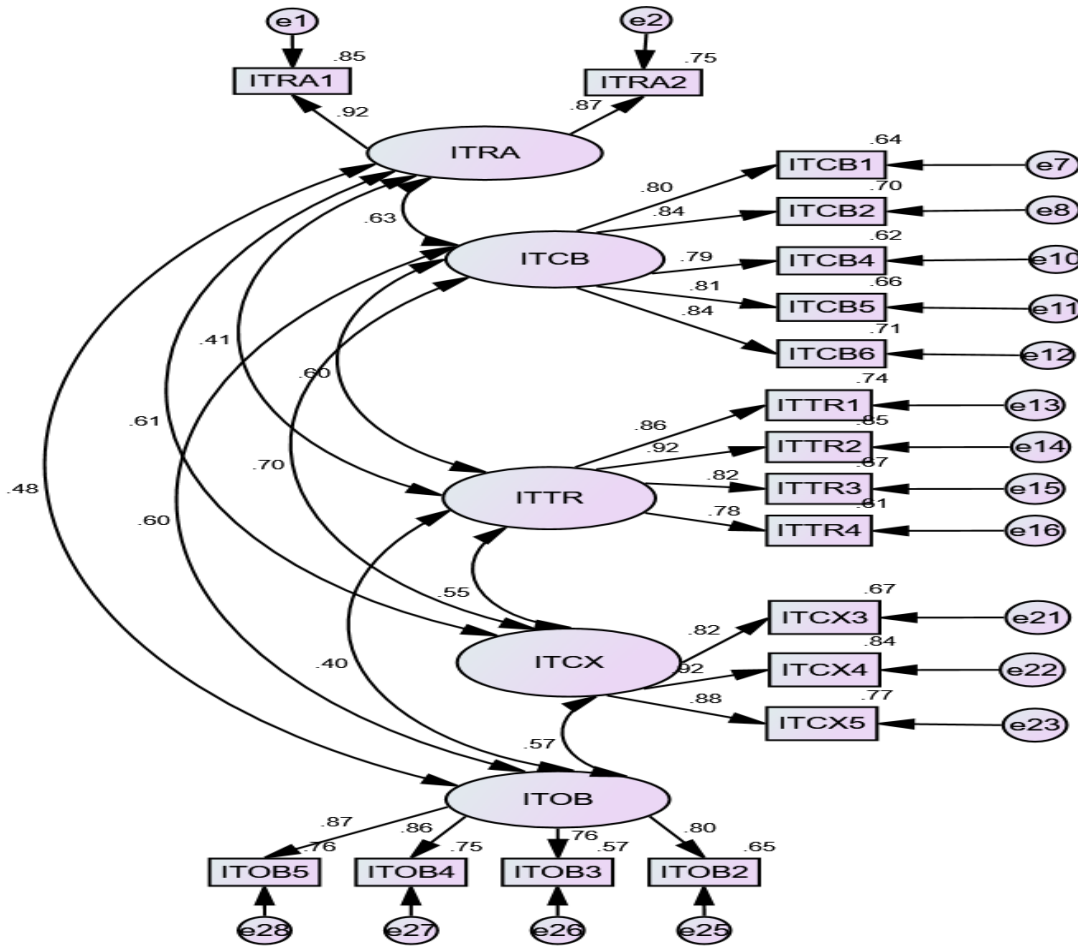
Figure Error! No text of specified style in document.**1.** CFA for IT Innovations

The measurement model for IT innovations confirmed 18 items that significantly (P<0.001) measured IT innovations and explaining 93.4% (GFI) of the model as shown in table 3. The probability P= 0.000, GFI= 0.934, AGFI=0.909, NFI=0.951, RFI=0.940, IFI=0.976, TLI=0.970, CFI=0.976and RMSEA= 0.51 confirm that the 18 items measured IT innovations. All the indices are above 0.9 and RMSEA less than 0.08 these are in line with (Byrne, 2016; West et al., 2012; Hu & Bentler, 1999). However probability was less than 0.05 supported by (Anwar et al., 2018).

4.2.4 Trust

CFA on 9 items of trust confirmed 6 items (TR4, TR5, TR6, TR7, TR8, and TR9) as shown in figure 5 and table 4.

Table 42. Trust items in the CFA model

| Code	Item
TR4	Based on my past experience, I am confident that my online store will promptly inform me if at all problems occur with any of my transactions
TR5	Based on my past experience, I am confident that my transaction through my online store will always be transparent.
TR6	Based on my past experience, I do believe that my online store always protects my best interest.
TR7	Based on my past experience, I can say that my online store is trustworthy.
TR8	I feel trust when providing personal details.
TR9	I feel trust in the shopping site efficiency.

Source: Primary data (2023)
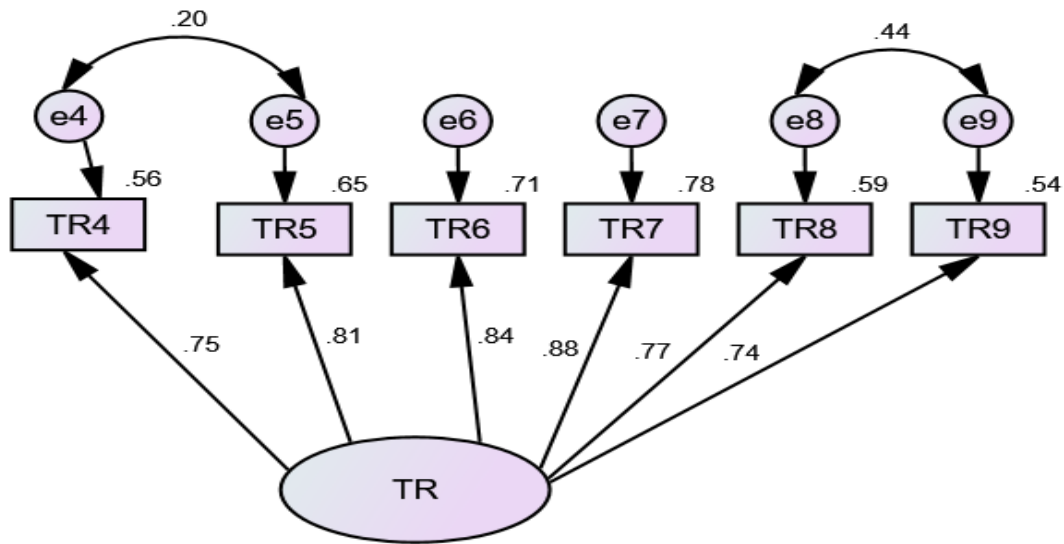
Figure5. CFA for Trust

The measurement model for trust confirmed 6 items that significantly (P<0.001) measured trust and explaining 98.7% (GFI) of the model as shown in table 4. The probability P= 0.053, GFI=0.987, AGFI=0.961, NFI=0.991, RFI=0.980, IFI=0.995, TLI=0.990, CFI=0.995 and RMSEA=0.052 confirm that the 6 items measured trust. All the indices are above 0.9 and RMSEA less than 0.08, with probability greater than 0.05, these are in line with (West et al., 2012; Awang, 2012).

4.2.5 Intention to Shop Online

The items for intention to shop online that remained after EFA were subjected to CFA. CFA on 8 items of intention to shop online confirmed 7 items (ITS2, ITS3, ITS4, ITS5, ITS6, ITS7, ITS8) as shown in figure 6 and table 5.

Table 5. Intention to Shop Items in the CFA Model

Code	Item
ITS2	I intend to shop online for goods and services in future.
ITS3	I will frequently shop online.
ITS4	I am positive towards shopping online.
ITS5	I would recommend others to use my online store.
ITS6	The probability that I will continue shopping online is high.
ITS7	I will buy through the internet if it enhances my effectiveness.
ITS8	I am very likely to shop online in the near future.

Source: Primary data (2023)

The measurement model for intention to shop online confirmed 7 items that significantly (P<0.001) measured intention to shop online and explaining 98.9% (GFI) of the model as shown in table 5. The probability P=0.194, GFI=0.989, AGFI=0.972, NFI=0.993, RFI=0.988, IFI=0.998, TLI=0.997, CFI=0.998 and RMSEA=0.031 confirm that the 7 items measured intention to shop online. All the indices are above 0.9 and RMSEA less than 0.08, with probability greater than 0.05, these are in line with (Kline, 2023; (Awang, 2012). The model demonstrates good fit by the good model fit indices.
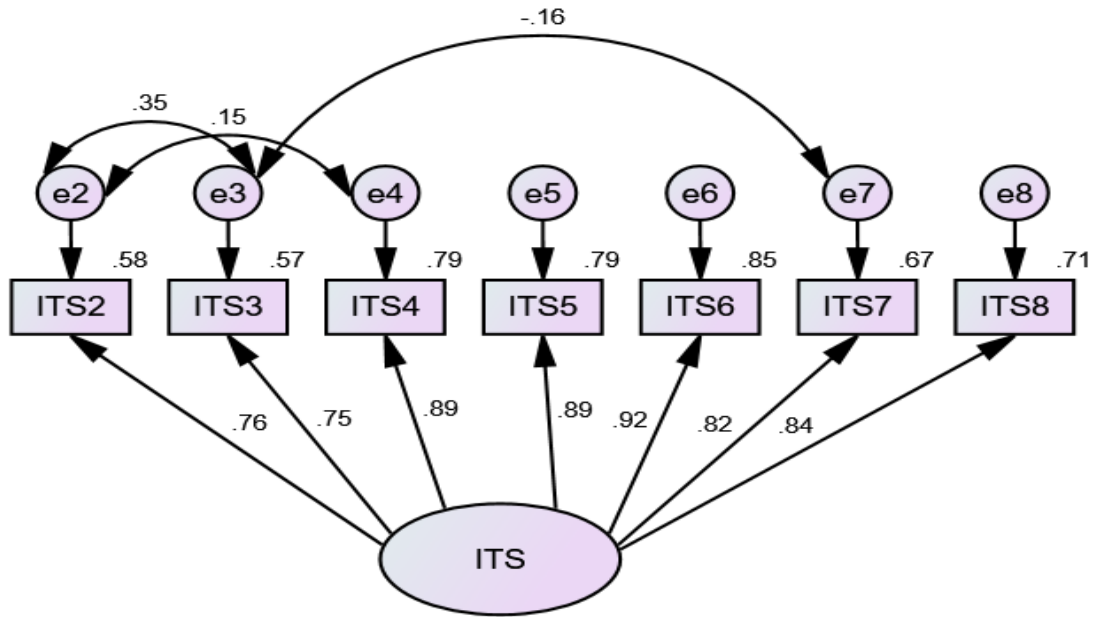
Figure 6. CFA for Intention to Shop Online

4.3 Relationships between Study Variables

Correlation and regression analysis were used to determine the magnitude and direction of the relationships and to test the hypothesized relationships respectively.

Table 6. Correlation Matrix of the Study Variables

Variables	1	2	3	4	5
Perceived Net Benefits (1)	1				
Social Factors (2)	.548**	1			
Trust (3)	.350**	.641**	1		
IT Innovations (4)	.227**	.307**	.317**	1	
Behavioral Intention to Shop Online (5)	**.451****	**195****	**.514****	**.592****	1

**. Correlation is significant at the 0.01 level (2-tailed).
Source: Primary data (2023)

4.3.1 Perceived Benefits and Behavioral Intention to Shop Online

Results in table 6 reveal that there was a positive significant relationship between Perceived Benefits and behavioral intention to shop online (r=0.451, p<0.01). Thus, H1 is supported. This result implies that perceived benefits with its components such as price, convenience, variety and product positively influences the behavioral intention to shop online. These results further imply that high levels of perceived net benefits are associated with high levels of behavioral intention to shop online. Similarly, low levels of perceived net benefits are associated with low behavioral intention to shop online. In other words, an improvement in perceived net benefits is positively associated with an improvement in the behavioral intention to shop online. On the other hand, a decline in perceived net benefits is associated with a decline in the behavioral intention to shop online.

4.3.2 Social Factors and Behavioral Intention to Shop Online

The correlational table 6 reveals that there is a positive significant relationship between social factors and intention to shop online (r=0.514, p<0.01). Hence H2 is supported. This result implies that social factors with its components such as reference groups, family, and social roles and statuses positively influence the behavioral intention to shop online. These results further imply that high levels of social factors are correlated with high levels of behavioral

intention to shop online. Similarly, low levels of social factors are associated with low levels of behavioral intention to shop online. In other words, an improvement in the social factors is positively associated with an improvement in the behavioral intention to shop online. On the other hand, a decline in social factors is associated with a decline in the behavioral intention to shop online.

4.3.3 IT Innovations and Behavioral Intention to Shop Online

The findings of that study in table 6 shows that there is a positive significant relationship between IT innovations and behavioral intention to shop online (r=0.195, p<0.01). H3 is hence supported. This result implies that IT innovations with its components such as; IT relative advantage, IT compatibility and IT complexity positively influence the behavioral intention to shop online. These results further imply that high levels of IT innovations are associated with high levels of behavioral intention to shop online. Similarly, low levels of IT innovations are associated with low levels in the behavioral intention to shop online. In other words, an improvement in the IT innovations is positively associated with an improvement in the behavioral intention to shop online. On the other hand, a decline in IT innovations is associated with a decline in the behavioral intention to shop online. Therefore, IT innovations should be strongly considered as an important tool in enhancing the behavioral intention of consumers to shop online.

4.3.4 Trust and Behavioral Intention to shop online

Further still, the correlational table 6 presents that there was a positive significant relationship between trust and behavioral intention to shop online (r=0.592, <0.01). This concurs with research hypothesis 4. This result implies that trust of usage with its components such as; privacy and security positively influences the behavioral intention to shop online. These results further imply that high levels of trust are correlated with high levels of behavioral intention to shop online similarly, low levels of trust are associated with low levels of behavioral intention to shop online. In other words, an improvement in the trust is positively associated with an improvement in the behavioral intention to shop online. On the other hand, a decline in trust is associated with a decline in the behavioral intention to shop online. Therefore, policy makers and practitioners should stalwartly consider trust as one of the key factors in enhancing consumer's behavioral intention to shop online.

4.4 Regression Analysis

The degree to which perceived benefit, social factors, trust and IT innovations can affect behavioral intention to shop online was evaluated using regression analysis. The causal relationship between the independent variables (perceived benefit, social factors, trust and IT innovations) and the dependent variable (behavioral intention to shop online) was also determined using regression analysis. In order to investigate the study objectives, the research gathered data on the underlying variables and used regression to analyze the quantitative impact of the causative variables on the variable they affect (dependent variable). The regression analysis's results are displayed in Table 7 and 8 below.

4.4.1 Regression of Intention to Shop and All Other Study Variables

Using ANOVA result F=51.467, Sig=0.000 and regression coefficients, the regression model is linear. This implies that all the variables perceived benefit, social factors, trust and IT innovations are linearly related to intention to shop online as shown in table 7 and table 8.

Table 3. ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	93.854	7	13.408	51.467	.000
	Residual	91.699	352	.261		
	Total	185.554	359			

a. Dependent Variable: Behavioral Intention to Shop Online

b. Predictors: (Constant), Perceived Benefits, Trust, Social Factors and IT innovation

Source: Primary data (2023)

4.4.2 Regression Coefficients

Table 8. A model summary for the research variables as well as the Regression Analysis Coefficients for the Global Variables

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig (P-values)
		B	Std. Error	Beta (β)		
1	(Constant)	.622	.188		.597	.945
	Perceived Benefits	-.006	.052	.167	2.319	.000
	Social Factors	.009	.028	.114	3.335	.000
	Trust	.163	.046	.175	3.578	.000
	IT Innovations (4)	.179	.070	.159	2.551	.011
R = .602						
R Square = .562						
Adjusted R Square =.489						
F Statistics = 51.467						
Sig. (F statistics) = .000						
a. Dependent Variable: Behavioral intention to shop online						

Source: Primary data (2023)

The regression results as presented in table 8 shows that behavioral intention to shop online was significantly influenced by trust (β=0.175, P<0.01), IT innovations (β=0.159, P<0.05), Perceived Benefits (β=0.167, P>0.05), social factors (β= 0.114, P>0.05) implying that trust, IT innovations, perceived benefits and social factors contributed significantly on consumer's behavioral intention to shop online. It was shown that the model predicted the behavioral intention of consumers to shop online at 48.9% (Adjusted R Square =.489). The regression table results demonstrate that trust, IT innovations, perceived benefits and social factors combined account for 48.9% of the variance in the consumer's behavioral intention to shop online, whereas other factors not covered in this study account for 51.1% of the predictors of the consumer's behavioral intention. Hence, perceived benefit, social factors, trust and IT innovations had the highest influence on the behavioral intention to shop online as its regression strength was strongly significant enough. This implies that in the order of priority and relevance, perceived benefit, social factors, trust and IT innovations greatly influenced t h e behavioral intention to shop online. Therefore, the government of Uganda should stalwartly consider perceived benefit, social factors, trust and IT innovations as the key factors in determining the enhanced behavioral intention to shop online as these factors were greatly found to be appropriate predictors of behavioral intention to shop online.

5. Discussion of the Findings

The present study indicates that there is a significant positive relationship between perceived benefits and consumer's behavioral intentions to shop online as shown in the correlational and regression tables.

Therefore, the results of this study are in agreement with the findings of Al-Hattami (2021) and Rashid et al (2022) who puts it that consumers perceived benefits positively correlates with behavioral intentions to shop online. Additionally, in the study conducted by Pollak et al (2022) and Yew and Kamarulzaman (2020) it was revealed perceived benefits is significantly and positively associated with consumer's behavioral intention to shop online. In the same breath, Bangkit et al (2022) reports that perceived benefits positively influences consumer's intentions to shop online. Bangkit et al (2022) further adds that a positive change in consumer's perception of perceived benefits leads to a positive change in consumer's behavioral intentions to shop online. The results of the study by Waqas, Rafiq, and Wu (2023) showed a significant correlation between consumers' intents to shop online and perceived benefits. According to Waqas, Rafiq, and Wu (2023) and Wu et al (2020), consumers are driven to shop online by the perception of benefits including cost savings, convenience, time savings, 24/7 accessibility, interactive services without physical borders, and website attractiveness.

The study results revealed a positive association between social factors and consumer's behavioral intentions to online shopping. This is concurs with the findings of Pandey & Parmar (2019) states social factors significantly influenced consumers behavioral intentions to online shopping behavior. In another study, it was found out that social factors positively relates with consumers behavioral intentions towards online shopping (Ijaz & Rhee, 2018). According to

(Zhou et al., 2007; Davis et al., 1989; Manu and Fuad, 2022; Widyastuti et al., 2020) social factors influenced intention to shop online. Ijaz & Rhee (2018) examined and established a positive and significant relationship between social factors towards online shopping. In another study, Nkrumah et al (2018) established a positive and significant relationship between social influence and behavioral intention to shop online. According to Ansari et al (2019) opinions, advice and recommendations from individuals or groups that a customer conceives as important matter in customer decisions to shop online. Similarly, social aspects such as traditions, online social communities, social class, culture, education, values of a society, economic and political conditions influence decision to shop online.

Interestingly, the present study shows there is a positive and significant relationship between trust and intention to shop online as presented in the correlation and regression results. This is in line with the finding of scholars like Masri et al (2021), Kashaija, (2019), Nkrumah et al., (2018). These scholars reported that trust positively correlates with consumer's behavioral intentions to conduct online shopping. Masri et al (2021) expounds that any positive change in trust leads to a positive change in customer intentions to shop online. Trust positively influences online shopping intention (Masri et al., 2021; Kashaija, 2019; Nkrumah et al., 2018). Once security and customer privacy concerns are addressed, then customers are likely to shop online. According to Uzir et al (2021) trustable and secure websites contribute to customer willingness to shop online. Trust was found to have a significant impact on customer readiness to shop online.

There is a positive relationship between IT innovations and intention to shop online. This is agreement with finding of Ahumuza (2021) who argues that e-businesses that will adopt IT innovations that provide solutions to customer concerns are likely to attract more clients to shop online. Pollak et al (2022) and Rashid et al (2022) adds that a positive change in IT innovations result in a positive change in customer intentions to shop online. Al-Halili and Hongxin (2019) state that it is clear that technological innovation and social media have a big, beneficial impact on consumers' intentions to make an online shopping decisions. Al Amin (2021) presents that on the smartphones and tablets that people use, for instance, the most popular apps are Facebook, Messenger, WhatsApp, and Twitter that impact consumer's behavioral intentions to shop online.

Conclusion

The current study set out to investigate consumer's behavioral intentions towards online shopping that was influenced by four latent variables including perceived benefits, social factors, trust and IT innovation. Consequently, four objectives and hypotheses were formulated. A conclusion is given by each objective and hypothesis as follows;

> H1 stated that there exists a positive relationship between perceived benefits and consumer's behavioral intentions towards online in Uganda. The findings revealed a positive relationship between perceived benefits and consumer's behavioral intentions towards online. Given that there was no discrepancy, the current study concludes that perceived benefits positively affects the consumer's behavioral intentions to shop online in Ugandan.

> H2 stated that there is a positive relationship between social factors and consumer's behavioral intentions to shop online in Uganda. The study findings revealed a positive significant relationship between the two variables. Therefore, this study concludes that social factors positively affects the consumer's behavioral intentions to shop online in Uganda.

> H3 stated that there is a positive relationship between trust and consumer's behavioral intentions to shop online in Uganda. However, the findings revealed that whereas a significant relationship existed between trust and consumer's behavioral intentions to shop online, it was a positive relationship. Therefore, this study concludes that trust positively affects the consumer's behavioral intentions to shop online in Uganda.

> H4 stated that there exists a positive relationship between IT innovation and consumer's behavioral intentions towards online in Uganda. The findings revealed a positive relationship between IT innovation and consumer's behavioral intentions towards online. Given that there was no inconsistency, the current study concludes that IT innovation positively affects the consumer's behavioral intentions to shop online in Ugandan.

Therefore, consumer's behavioral intentions towards online shopping in Uganda is influenced by perceived benefits, social factors, trust and IT innovation. The regression results proved that while other factors that are not part of this study account for 51.1%, a combination of perceived benefits, social factors, trust, IT innovation contributes a

prediction of 48.9% to consumer's behavioral intentions to online shopping and the remaining 51.1% is accounted for other factors that are not part of this study. The regression model was found to be dependable and suitable for this investigation.

Theoretical and Managerial Implications

Based on the findings, the following theoretical and managerial implications have been proposed to ensure an enhanced consumer behavioral intention to shop online;

It is vital that customers get informed, familiarize and embrace new upcoming technologies. Buying conveniently, effectively, fast, at the lowest cost while encountering the best customer experience is required in this advanced era. Recent technologies for instance GPS mapping platforms help customers to ease their online shopping process by securing addresses; Assistive technologies for example the Orcam, Alexa's Amazon voice AI and echo devices help the visually impaired and blind to shop online. Customers ready to embrace new technology innovations may soon find online shopping a much better option compared to physical shopping.

There is need to increase awareness levels for business operators. Business proprietors in Uganda have been slow in embracing new e-commerce emerging technologies. In this study, a positive relationship both direct and indirect was found to exist between IT innovations and consumer's intentions to shop online. There is need to realize that the world is experiencing rapid technological advancements which businesses need to keep abreast of in order to remain competitive. Latest and upcoming IT innovations in the online shopping domain including artificial intelligence, blockchain technology, voice assistants, drones, haptics and visuals can help accelerate consumer's behavioral intention to conduct online shopping since these address present-day customer concerns of ordinary online shopping systems.

Improved security and trust in e-commerce platforms. Use of technologies for instance blockchain improve security, transparency and security. Customers can be guaranteed of alternative online payment means, reduced cases of fraud cases, privacy of their personal information and no doubt about information for example the displayed reviews. Study findings further indicated that trust impacted on online shopping. E-vending platforms and individual stores in Uganda can adopt use of technologies that guarantee trust to online shoppers. Technologies for instance block chain, digital trading certificates should be incorporated in online shopping systems to confirm customers that particular online businesses are trusted, authentic and their transactions are much secure.

This study revealed that social factors impact on consumer's behavioral intentions towards online shopping. Businesses are therefore advised to strategize and target social media groups or social circles as another segment of the market as they market their businesses. The advance of social media should be fully utilized to improve customer shopping experience. Businesses can incorporate features for instance social media apps and EWOM on shopping sites that allow customers to socialize, decide the best products to purchase or even share after purchase experiences which could result in more business sales.

Limitations and Future Works

The sample employed may not be the exact representation of the entire population. Online shoppers in Uganda were approximately 4,347,000 while the sample size used was 385 in this study. Results obtained can therefore not be generalized to all online shoppers because of the small sample size used to collect data. A cross sectional study was performed in this study. However, customer reasons to shop may change over time which creates need for a longitudinal study. There could be additional factors that were not included in this study for instance demographic factors and attitude that can be tested in future studies to determine their role in predicting customer online shopping in Uganda.

Future research could also focus on examining the relationship between the same variables in another context especially in uncertain conditions for purposes of comparison of the study findings. There is also a need to examine the both moderating and mediating effect of behavioral intentions to shop online in the relationship between separate variables of perceived benefits, social factors, trust and IT innovation towards the actual online shopping.

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