

Building Customer Trust in e-commerce: A Study on Buyers' Adoption and Usage Intent in Rwanda

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ABSTRACT

E-commerce is gaining popularity due to its importance for both merchants and consumers, particularly in light of the COVID-19 pandemic, which restricts mass movement and gathering, as well as the high costs associated with traveling to different markets. Despite mounting evidence demonstrating the importance of internet in retails business, little is known about the potential mechanisms that increase consumer purchasing intentions when using online shopping platforms. In today's high customer sensitivity to service quality, successful entrepreneurs have recently thrived under competitive pressures. Online transactions are more difficult because buyers and sellers do not know each other, yet they must provide financial information to intermediaries. Thus, it is now clear that increasing customer trust is a viable strategy for driving e-business success today. Considering this, a new model demonstrating a potential mechanism that increases customers' trust in intermediaries and thus leads to their online purchasing intentions was developed. This innovative model connects website quality to the online purchasing intentions of the customers, using trust in intermediaries as a mediator and moderating the effect of perceived usefulness. To prove or disprove the assumptions highlighted in this study, a cross-sectional research design was used with data from 568 clients of nine domestic e-commerce platforms operating in Rwanda. To investigate the relationship between the variables hypothesized in this study, a variety of methods and tools were used. To assess the potential effect of each variable in this model, we used CFA in SEM-Amos, mean and standard deviation in SPSS, and Hayes macro process. The overall results obtained using the various techniques specified supported the current hypothesized model. We believe that the current study provided an innovative and useful mechanism as one of the potential solutions for today's merging online businesses.

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Introduction

Today, the global commercial enterprise community is hastily moving due to the growing diffusion of ICTs, more specifically the Internet, (Khan, 2016). Organizations are adopting strategies that help their businesses to survive and prosper in the market. In developing economies, information technology has played a critical role in the future development of business practices (Khan, 2016). In this context, it is common knowledge that E-commerce could convey a noteworthy advantage to businesses in developing countries by improving its market efficiency and controlling over its place in the supply chain (Khan, 2016) and would be alternative for overcoming logistical cost challenges. Customers, on the other hand, show a low level of trust when it comes to purchasing products online.

In less developed market, trust in e-commerce remain challenge, the more social proof you can provide, the less hesitant consumers will be to buy. However, with the continually emerging and evolving online marketplaces, Trust would be the key ingredient for sustainable transactions (Lee, Ahn, Song, & Ahn, 2018). To eradicate the trust deficit, Moodley, (2003); Lu & Swaminathan, (2015) & Kayikci, (2019) argued that organizations doing business online should institute trust-building since trust is now the new currency in Internet business environment. Henceforth, Trust is lifeblood of the online shopping, there is a scarcity of studies on how businesses may build customer trust in intermediaries, leading to increased online purchasing behavior. Thus, the current study shed new light on mechanism of build lasting trust in business relationship to speeds up the customer service process.

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As per the different studies, website quality and Communication Convenience are some of the mechanisms that increase the level of customer trust in intermediaries. For example, a study by Johnson & Whang, (2002) found that the web has a tremendous impact on how businesses collaborate with one another and with their customers. Helpless data accessibility and the difficulties of overseeing complex interfaces between functional organizations are for the most part dissolving on the web.

According to Gupta & Dubey, (2016) Web based business site proprietors on one side are considering how to pull in more clients and how to make the visitors to feel made sure about when dealing with the webpage, while on the opposite side how the end-users should rate the e-commerce site and what they ought to do to ensure themselves as one among the online community. However, despite this interest, the relationship between website quality and trust in intermediaries has not been dealt with in depth. Specifically, the pivotal role of website quality to trust and online purchasing intention is not yet widely understood. Hence, this paper sheds new light on the mechanism and a powerful model to establish trust in e-commerce and advance online purchasing intention in Rwanda. The current study tests a hypothetical structural model to investigate potential role of website quality in enhancing Trust in intermediary which thusly lead to an increase of online purchasing intention. The potential moderating role of perceived usefulness in the relationship between website quality and online purchasing intention is likewise clarified in the model. We believe that our research has provided an innovative solution to the establishment of e-commerce trust and has widened current understanding of e-commerce adoption approaches in Rwanda.

Literature Review

E-commerce has been defined as a beneficial tool for locating potential exchange partners and responding rapidly to changing client wants, and it more precisely refers to the purchasing and selling of things through the internet (Kähkönen et al., 2013). E-commerce is a buzzword that refers to the electronic commerce trade activities that take place between firms and their clients, such as online shopping, digital payments, and business-to-business trading. E-commerce has become increasingly essential in industries such as retail, sales automation, and payment services in today's digital age (Saleem et al., 2019). Without a doubt, e-commerce has quickly become a popular way for people all over the world to buy services and goods (Abdullah et al., 2018). In this subject of Literature reviews, we have produced a collection of the most relevant and noteworthy publications on the current study in order to present a variety of articles related to this topic. The conceptual relationship between the variables hypothesized in this study is particularly highlighted in this section.

Foundation of the study and Hypothesis development

Various research has demonstrated the association between the variables hypothesized in this study. The constructs linked with Online purchasing intention, as mentioned in the section, include website quality, trust in intermediaries, and perceived usefulness. As indicated by the many theories discussed in the various published publications, all constructs in this study appear to be connected.

Perceived website quality

Creating and building a superior customer experience can assist businesses in carving a distinct image in the eyes of their customers (Pathania & Rasool, 2017). As evidenced by various studies, the website is widely used and supports many people in obtaining what they need online. An e-commerce website allows individuals to purchase and sell physical goods, services, and digital products online rather than at a real store (M. Yang, 2012). A business can handle orders, receive payments, manage shipping and logistics, and provide customer care through an e-commerce website (Hasanov & Khalid, 2015). Thus, Customers can, of course, continue to shop online as long as they enjoy the website's offerings. In the last few decades, businesses have put a lot of investment into implementing information systems in the hopes of increasing productivity, improving competitiveness, and cutting market, administrative, and operating costs (Y. Lee & Kozar, 2006). Websites have long been used as a platform for customizing a company's products or services, as well as a unique e-commerce profit mechanism (Winnie, 2014). Various investigations have revealed that website usability has become increasingly crucial to customers and businesses as the internet commerce industry has grown (Li & Li, 2011).

As has often been the case, increased web information has the potential to result in more informed customers who are better equipped to make informed selections and are more satisfied with their purchases. A better purchase will result from more detailed product or service information. Information richness focuses on purchasing information and cuts down on search time (Salehi et al., 2012). It is therefore critical to consider the website's quality so that it can help customers as expected. In the increasingly competitive e-commerce world, understanding the impact of website quality on customer conversion and retention is important (Kuan et al., 2008). Because the web storefront is the major user interface for internet-enabled businesses, it's critical to evaluate the website's quality attributes as well as what users and customers expect from it (Kuan et al., 2008). When seen through positive qualities, the performance of a website is a major indicator of behavioral intentions (O'Cass & Carlson, 2012). Customers' impressions of website quality are based on features that meet their needs and impress them with the overall brilliance of the website (Hasanov & Khalid, 2015). The total performance of a website system is reflected in system quality, which may be measured by customer perceptions of user friendliness when buying at an online business. Furthermore, in terms of Web-based IS, system quality outlines the desired features for an online store. Customers respect attributes such as website design, accessibility comfort, ease of use, and reliability (Lin, 2007).

Trust in intermediaries

As many merchants desire to boost their online selling reputations as quick as possible, some professional scammers perceive this as an opportunity. According to Zhang et al., (2013), Since it takes little time and effort to develop a reputation by committing fraud, many dishonest vendors rely on this shortcut. As a result, they increasingly diverge from ethical business practices. They are eager

for instant success and immediate gratification. They've started marketing services to artificially increase merchant trust scores. Acceptance of e-commerce has been a hot topic among academics and businesses alike. As argued by Yang et al., (2008), it's vital to understand how consumers react to this new business model in order to push e-commerce even farther. One of the most crucial factors determining e-commerce acceptance is trust. Lack of trust, according to various research, is one of the most crucial issues determining e-commerce acceptance (Habibi & Hajati, 2015).

In the world of e-commerce, privacy is a key worry. To safeguard a customer's privacy, there are two basic paradigms: one relies on the customer's trust that the network will adhere to his privacy policy, and the other insists on the customer's anonymity (Bella et al., 2011). Thus, trust has a tremendous impact on consumer behavior and e-commerce performance, as numerous studies have shown. As per the definition by Gefen & Straub, 2004, trust is a set of expectations that leads to behavioral intentions that involve the risk of loss. Because of the lack of control over the people on whom one relies. In the context of e-commerce, trust refers to a consumer's willingness (the trustor) to supply personal and financial information to Web sites (the trustee) in exchange for goods or services, as well as obligations to follow set standards and processes (Kaplan & Nieschwietz, 2003). According to various studies, consumer trust is one of the most important predictors of E-commerce adoption, and it has a significant impact on its success (Sarkar et al., 2020). Because Internet transactions are fraught with uncertainty, several experts have stated that trust is a critical factor in determining the successful development of e-commerce (Teo & Liu, 2007).

Perceived usefulness

People now live in a network society, which allows them to access information, education, networking, and commerce from anywhere on the world (Sin et al., 2012). In another hand, Consumers' use of the Internet to make purchases is still limited. This hesitancy makes it difficult for e-commerce enterprises to survive (Zarrad & Debabi, 2012). The global economic crisis may push businesses and entrepreneurs to turn to online marketing because it is the most cost-effective approach to advertise and reach a large customer base in a short period of time. Thus, according to Lim et al., (2016); Cheema et al., (2013) perceived usefulness is defined as the degree to which customers believe an online website may bring value and efficacy to their online shopping experience. The efficacy of technological components such as the services provided by an online store to clients and the usage of modern technology to locate goods are frequently used to determine the perceived utility of a shop's website (Rehman et al., 2019). As revealed in various studies, the outcome of the shopping experience is linked to perceived usefulness. According to Yoon & Occeña, (2015); the accessibility of extensive information, quickness, and the availability of inexpensive and convenient purchases have all been noted as significant advantages of internet buying and proves its usefulness. The link between usefulness and online purchasing intention also has been revealed in the study by Koththagoda & Herath, (2018), where indicated by the findings that people's willingness to use a system/technology is heavily influenced by its perceived utility. According to numerous studies, the more reliable the system and the quality of the information, the more likely an online purchase would be successful. This is supported by the findings of Maggie Harrigan, Kim Feddema, Shasha Wang, Paul Harrigan, (2021) which show that perceived usefulness has a beneficial impact on online purchase intentions.

Despite the fact that multiple articles have been published highlighting potential drivers for e-commerce adoption in various countries, online shopping in Rwanda remains limited, with people still traveling long distances to buy or sell items in a various of markets. There is no Comprehensive literature that reveals alternative ways to enhance the adoption of e-commerce, especially in the Rwandan context. It's then vital to better understand the factors that influence consumers' decisions to buy online or not. For this reason, this study introduced a new model that provides an alternative mechanism to online purchasing intention among business communities in Rwanda. The new model introduced in this study illustrates how customers' perceptions of website quality improve their online purchasing behavior, as well as how it will boost their trust in intermediaries which lead to increased online purchase intention. This study also shows the construct of usefulness as a potential moderator in the relationship between the variables developed in the new research model. Thus, the current study generated the following hypothesis based on the diverse viewpoints expressed in the examined published articles.

H1: Perceived website quality predict Online purchasing intention among customers

H2: Customer's trust in intermediaries mediate the relationship between perceived website quality and Online purchasing intention among customers

H3: Perceived usefulness moderate the relationship between Perceived website quality and Online purchasing intention among customers

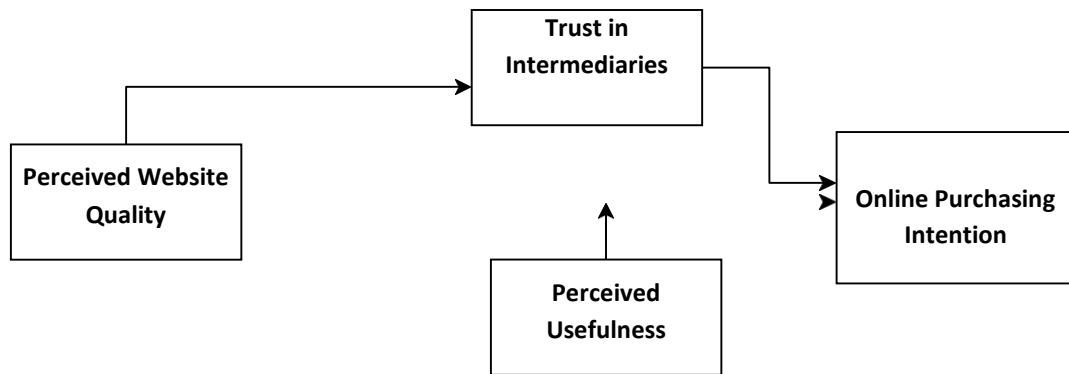


Figure 1: Research Model

Methodology

Sample and procedure of data collection

To test the hypotheses introduced in this study, a cross-sectional design was employed with a sample size of 600 clients from nine domestic e-commerce platforms recommended by Rwanda's Ministry of Trade and Industry during the COVID-19 lockdowns. The proprietors of those recommended online shopping sites were asked for permission before we began collecting data. Each selected company's sales department then provided a list of customers who had purchased various products via their online platforms in the previous two years (2020-2021).

In this exercise, we distributed our survey questionnaire in two rounds to minimize possible common method bias. 600 survey questionnaires were distributed in the first round to assess perceived website quality, trust in intermediaries and Perceived usefulness. After 6 months, a second round of 600 copies of the survey questionnaire was administered to the same respondents, asking them to rate their likelihood of making an online purchase. After a matching time-lag of data collection, a total of 568 questionnaires (95% response rate) were completed and returned for both phases. During the data screening process, 13 copies of survey questionnaire were suspected to be unreliable, for reasons such as lacking complete information or having the same score for all items. As suggested by Wieland et al., (2017);Afsar et al., (2014); those copies were dropped from data set to avoid possible bias in data analysis. Finally, all 555 copies of survey questionnaire (92.5% of the overall response rate) were completed and analyzed.

Measurement

To explore the relationship between the variables hypothesized in this study, we employed multi-item measures developed from prior studies in the literature. Apart from the respondents' overall identity, all other items were scored on a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. To measure perceived website quality, we used a Shortened measurement comprising of 10 items adopted by Kuan et al., (2008), measuring perceived system quality, perceived information quality and perceived service quality. This shortened measurement scale was also slightly adjusted to suit the context of the current study. Trust in intermediaries construct were measured using a short measure of 5 items used by Palvia, (2009);Kaplan & Nieschwietz, (2003). To measure perceived usefulness, we used 6 items adopted by (Zarrad & Debabi, 2012). To measure Online purchasing intention, we used short measure of 3 items adopted in various papers such as (Rehman et al., 2019);(Deeter-schmelz et al., 2001).

Common Method Variance

The data used in this study were collected from the same sources in terms of institutions and sample; however, it was within this context that the common method was tested to avoid its potential effects on the results.

In this regard, this study tested Common Method bias in the study using two widely used approaches. Harman's one-factor recommended by (Organ & Kovovsky, 1989) and variance inflation factor suggested by (Kock & Lynn, 2012). With possibility of measuring common method bias for data collected from the same respondents, these two approaches are gaining popularity. Thus, the findings show that the first factor explained 25.291 percent of the variance, which is less than Harman's prediction of 50% for a one-factor model. In the same vein, according to O'Brien, (2007) the variance inflation factor tested results revealed that all variables in this study were less than the recommended 3.3 VIF. Therefore, with reference of these tests, it stands to the reason that, the instruments used in this study are not biased. We are also confident that the common method bias was reduced because the time lag for data collection was likely sufficient (6 months) to reduce errors.

Reliability and validity

We used Amos version 23 to examine factor loadings of all items in the study to test the reliability of measurement scales in this study as suggested by Khalili, (2016). Items with standardized factor loadings less than 0.4 were removed from the model based on the recommendations of (Leung,Wong, Chan, 2013). According to Wieland et al., (2017), failure to remove bad items from the model may result in inadequacy in measuring latent variables. However, in accordance with (Afsar et al., 2014);we re-specified the model by removing two items with standardized factor loadings less than 0.4 measuring Perceived website quality. Following the completion of these processes, this study used Cronbach alpha (Cronbach, 1951). Composite reliability (CR) (Fornell & Larcker, 1981) and

average variance extracted (Bagozzi & Youjae, 1988) to ensure the measurement's appropriateness or meaningfulness (validity) as well as consistency or stability (reliability). As revealed in the finding, the AVE ranges from 0.48 to 0.72, while the CR ranges from 0.80 to 0.89.

The average variance extracted (AVE) should be greater than 0.5, but 0.4 can also be accepted if composite reliability is greater than 0.6; in this case, the construct's convergent validity is still adequate (Huang et al., 2013). Within the same view, this study also computed the Kaiser-Meyer-Olkin (KMO),(Anderson & West, 1998) to test the Sampling Adequacy with results showing greater than 0.60 recommended. Thus, the overall outcomes of these tests are acceptable.

Table 1: Reliability and validity

Items	Factor Loadings	α	KMO	CR	AVE
Perceived website quality					
WQ1	.77	.861	.837	.832	.480
WQ2	.81				
WQ3	.80				
WQ4	.76				
WQ5	.78				
WQ6	.74				
WQ7	.71				
WQ8	.83				
WQ9	.75				
Trust in intermediaries					
TI1	.69	.825	.822	.872	.560
TI2	.72				
TI3	.68				
TI4	.85				
TI5	.88				
Perceived usefulness					
U1	.66	.810	.840	.850	.490
U2	.79				
U3	.81				
U4	.82				
U5	.76				
Online purchasing intention					
PI1	.80	.830	.827	.890	.720
PI2	.84				
PI3	.81				

Source: Tested by researcher,2022

Findings

Procedures for Data Analysis

As recommended by Anderson & Gerbing, (1988), this study used confirmatory factor analysis (CFA) in two-step modeling approaches, measurement model and structural path, to test the validity and reliability of the constructs. Both Amos version 23 and Hayes' bootstrapping technique (Hayes, 2009) were used to perform approaches. This method was chosen because it allows us to investigate the model's direct and indirect effects (Gashema & Gao, 2018). In addition, Fairchild & MacKinnon, (2009) added that, the bootstrapping approach is an exciting technique that is valid and does not require the assumption of normality. For the assessment of measurement model, we conducted CFA for each construct in the study. To evaluate the goodness of fit, we used two widely used indices, absolute fit indices and incremental fit indices (i.e., χ^2/df , RMSEA,CFI,TLI, SRMR) as suggested by (Hu & Bentler, 1998). Within this regard, a value less than 3.00 indicates a good fit for χ^2/df as recommended by Hair et al., (2010). Hu & Bentler, (1998) on the other hand, proposed a value of at least equal to or less than 0.08 for Root Mean Square Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR). In the same vein, this study used the Tucker-Lewis Index (TLI) and the comparative-fit index (CFI) with a cut-off of 0.90 as suggested by Hair et al., (2010);Hair et al., (2012). The CFA results for the measurement model show that all constructs in the model fit well, as shown in table below. Thus, we believe that the findings highlight the accuracy of our model.

Table 2: Validity and Reliability of the constructs

Constructs	χ^2/df	SRMR	RMSEA	CFI	TLI
Perceived website quality	2.139	0.03	0.04	.95	.94
Trust in intermediaries	2.201	0.04	0.05	.93	.91
Perceived usefulness	1.982	0.01	0.03	.97	.93
Online purchasing intention	1.709	0.02	0.05	.92	.97

We also conducted CFA for our baseline model, which includes perceived website quality, trust in intermediaries, perceived usefulness, and online purchasing intention, in assessing the structural model. As suggested by Peterson et al., (2009);Hsu & Chen, (2017), we performed CFA for other two models in comparison with the hypothesized model and determine which model best fits the data. In this regard, this study compared the baseline model to other alternative models using seven widely used fit indices: X², X²/df, TLI, CFI, RMSEA, and SRMR. When compared to other alternative models, our baseline model provides an adequate fit to the data, as per the findings.

Table 3: Model comparison

Models	X ²	Δχ ²	X ² /df	TLI	CFI	SRMR	RMSEA
Baseline model	463.8	-	2.133	.94	.96	0.04	0.06
Three Factor model	471.3	7.5	2.197	.90	.92	0.05	0.06
Two Factor model	591.4	120.1	3.189	.87	.88	0.8	0.07
1 Factor model	894.1	302.7	5.891	.79	.81	0.09	0.08

The three-factor model consists of the following constructs: Perceived website quality, Trust in intermediaries and perceive. The two-factor model consists of Perceived website quality and Online purchasing intention, while on the other hand, one factor model computed was Online purchasing intention.

Hypotheses testing

Despite the fact that we first tested our hypothesis in Amos, where the CFA performed to assess the structural model suggested that our hypothesized model fit the data adequately, we also used descriptive and inferential statistical tools in SPSS version 24 to dig deeper into the hypothesized variables' correlations. As shown in the table below, the results revealed that the hypothesis structured in this study was significantly correlated with each other. As per the statistics, the results suggest that Perceived website quality predict Online purchasing intention (r=.44; p <0.01). Thus, hypothesis one (H1) is accepted. In the same vein, the findings also suggest significant relationship between Perceived website quality and Trust in intermediaries (r=.55; p <0.01) and relationship between Trust in intermediaries and Online purchasing intention (r=.49; p <0.01). Thus hypothesis two (H2) is supported. In the same findings, the relationship between Perceived usefulness and Perceived website quality (r=.55; p <0.01) as well as Online purchasing intention (r=.50; p <0.01) is significant. Thus, Hypothesis three (H3) is also supported.

Table 4: Descriptive statistics and inter-correlations

		M	SD	1	2	3	4	5	6	7	8
1	Age	3.06	0.7	1							
2	Gender	1.45	0.6	.32**	1						
3	Tenure	4.16	1.0	-.24**	-.37**	1					
4	Education	5.20	0.6	0.02	-.24**	.22**	1				
5	Purchasing intention	22.0	9.6	-0.08	-0.07	.30**	-0.05	1			
6	Website quality	27.6	11.0	-.14**	-.18**	.24**	-0.01	.44**	1		
7	Trust in intermediaries	22.4	10.6	-.10*	-.10*	.26**	.10*	.49**	.52**	1	
8	Perceived usefulness	26.1	10.7	-.15**	-.25**	0.08	-0.02	.50**	.55**	.49**	1

** . Correlation is significant at the 0.01 level (2-tailed).

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

Mediation analysis

To more thoroughly assess the mediating effects in this study, we used Hayes' Process Macro and bootstrapping techniques (Hayes, 2009). This new approach was chosen because it is effective at measuring direct and indirect effects in the structural model (Fairchild & MacKinnon, 2009). Several studies have found that this approach provides adequate and complete information for mediation and moderation analysis. In this regard, Haye's Process Macro in SPSS 24 was used to perform a bootstrapping procedure with 5000 resamples as recommended. As recommended by Hayes, (2009), we evaluated three main paths in the structural model (i.e., Path-A, X→M, BMX. Path-B, M→Y, BYM and path-c, X→Y, BYX), to determine whether mediation or non-mediation is required in the hypothesized model and Our steps proceed very much in the same way as suggested. According to the evidence from this process, website quality influences customers' online purchasing intentions through the intervention of trust in intermediaries. As shown in the table below, the results show that all paths are statistically significant.

For example, in path- A, perceived website quality predict Trust in intermediaries (β=0.486; p <0.01). In Path-C, perceived website quality predict online purchasing intention (β=0.362; p <0.01). In Path-B, Trust in intermediaries predict online purchasing intention (β=0.285; p <0.01). In Path-C', perceived website quality is lessened predicting Online purchasing intention (β=0.117; p <0.05). As per these findings, we discovered much higher values for mediation than the direct effect of IV to DV in the Haye's Process Macro results. This is evidenced by the fact that, path-A & B are both significant and also based on the fact that the relationship between website quality and online purchasing intentions (path-C') is weakened by the introduction of mediation. However, in line with

Mathieu & Taylor, (2006), the full mediation of Trust in intermediaries is supported. Hence, these findings provide strong support for the model's mediation effect.

Table 5: Path analysis of the study variables

	Paths	Predictions
1	X predict Y-path C	F (1,431) =97.9, p <0.01, R2=.179 b=.362, t (432) =9.11, p <0.01
2	X predict M-path A	F (1,431) =184.3, p <0.01, R2=.2861 b=.486, t (431) = 14.5, p <0.01
3	X and M together predict Y	F (3,432) =72.01, p <0.01, R2=.35.1
		M predict Y -path B b=.285, t (432) =7.1, p <0.01
		X no longer predict Y or is lessened predicting Y-path C.' b=.117, t (432) =2.96, p <0.05

Outcome variable

Table 6: Mediation effect Model summary

	R	R-sq	MSE	F	df1	df2	p
Model	.5340	.2881	82.8771	192.5765	1.0000	432.0000	.0000
	coeff	se	t	p	LLCI	ULCI	
Constant	-14.8350	1.1198	-13.4537		.0000	-15.1459	-11.7541
TFL	.4862	.0461	14.5117		.0000	.4152	.5561

As per Hayes, (2009), the mediation effect is significant if zero doesn't not lie in between 95% confidence intervals or If it does not contain zero, then indirect effect is significant. However, the lower and upper limits of confidence intervals in the mediation's output table do not contain zero. In this regard and in consistent with Jyoti & Bhau, (2016);Mathieu & Taylor, (2006); we can confirm the potential mediation role the model.

Moderation analysis

To examine the role of perceived usefulness in moderating the relationship between perceived website quality and online purchasing intention, we adopted a multiple regression analysis based on Haye's Process Macro (Hayes, 2009). This method is a viable and innovative option for thoroughly analyzing the potential effect of a moderator in the model (Fairchild & MacKinnon, 2009). The findings indicate that the moderating effect on the outcome variable is both significant and positive. For example, the summary results show that the moderation effect of perceived usefulness is positively significant in the relationship between perceived website quality and online purchasing intention (i.e., R=.58, R2=.4, MSE=86.6, F=188.7, p<0.001). Similarly, (Hayes, 2009) revealed that the moderating effect is significant when zero does not lie between the bias-corrected bootstrap confidence intervals (CI). Haye's Process Macro results from this study, however, show that zero does not exist in bias-corrected bootstrap confidence intervals (CI) (See the table 7).

Table 71: Model summary outcomes

Constructs	Coeff.	SE	t	LLCI/95%	ULCI/95%
Perceived website quality	.11 (ns)	.05	2.6	.024	.19
Managerial innovation	.24 (***)	.045	5.3	.16	.33
Perceived usefulness	.22 (***)	.037	5.7	.15	.35
Int.1	.014 (***)	.003	3.3	.005	.04
Int.2	-.013 (***)	.004	-3.5	-.03	-.006

***=p<0.001

ns= not significant

In the similar vein, Hayes, (2009) proposed plotting the conditional effect of the focal predictor to evaluate the potential effect of moderation in the model. Within this regard, we performed the plot showing the interaction of moderation in the relationship between independent and dependent variables in this study. As shown in the figure below, perceived usefulness significantly and positively moderates the influence of Perceived website quality on online purchasing intention, such that customers have more Online purchasing intention when they have high rather than low perceptions of usefulness in online shopping. Thus, this result has strengthened our confidence in the model developed in this study.

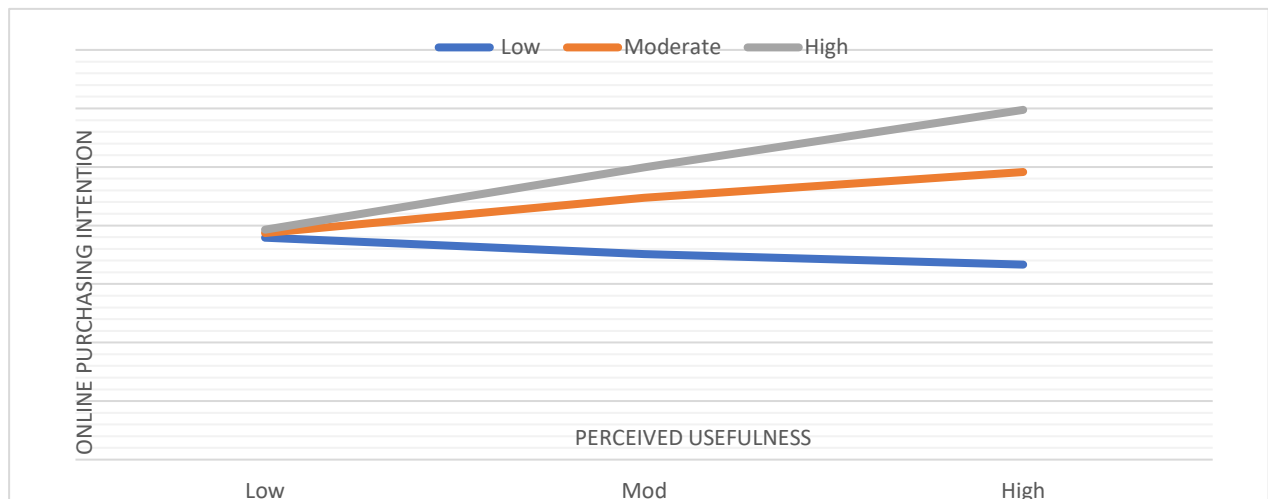


Figure 2: Plot of moderating effect

As shown in the plot, we attempted to use Hayes process macro v.3 to investigate the possible moderation effect in the model. This process, according to Mathieu & Taylor, (2006), specifies the conditions under which a given predictor is related to an outcome. As per the findings in this study, perceived usefulness moderates the relationship between perceived website quality and online purchasing intention in a positive direction. Hence, the moderation potential effect in the model is adequately supported in the findings.

Discussion and Managerial Implications

The specific goal of this study was to discover how customers' perceived website quality influences their online purchasing intentions. The current study's new mechanism looked at the role of trust in intermediaries in mediating the relationship between website quality and online purchasing intentions. In this study, a construct of perceived usefulness was also introduced as a moderating factor in the model. We adopted widely used data analysis methods such as structural equation modeling to test CFA for both measurement and structural path, bootstrapping techniques to examine mediation and moderation effects in the study, and Pearson correlation analysis to assess the mean, standard deviation, and correlation among the variables in the model to genuinely assess the relationship of the hypothesized variables. Where the findings suggest adequate fit of our hypothesized model in the data. This study, which is consistent with other studies in the literature, adds to our current understanding of the role of website quality in generating customer interest in online purchases. Interestingly, the overall results of this study's analysis revealed that the relationship between the variables hypothesized in this study is significant and adequately fits in the data. The present study has important implications for solving the issue of customer resistance when it comes to online purchasing.

Importantly, we are confident that our study findings will contribute to a better understanding of potential mechanisms that increase online purchasing intentions as an alternative choice in light of today's challenges caused by various pandemics, including COVID-19. In line with the study findings, significant attention must be paid to improving E-commerce companies' capacity and putting significant effort in terms of the quality of websites used for online shopping. In today's managerial practices, we believe that our research could be useful in developing appropriate managerial approaches, processes, and practices that promote innovation in the sales industry. Our study's findings add insight practices to a growing body of business literature (Ahmed & Elkhatib, 2019; Zhao et al., 2019; Chen et al., 2019) by shedding new light on the potentiality of website quality in broadening e-commerce performance and optimizing online sales volume. The introduction of the moderation effect of perceived usefulness in the relationship between website quality and online purchasing intentions is another strong point of the study's contribution in the literature. The approach developed in our model has the potential and can be used to strengthen sales performance by developing positive relationships between online sellers and buyers. We hope that our research will be valuable in solving the difficulty of online sales outcomes.

Conclusions

Despite the fact that e-commerce appears to be expanding in developed countries, it remains a challenge in Africa. Although it could be the best time to engage in online shopping as an alternative to physical markets threatened by the COVID-19 pandemic, customers are still resistant to online purchases. For these reasons, the purpose of this study is to investigate the potential mechanisms that would shift customers' purchasing habits toward online purchases. The current study used advanced methodological approaches to clearly demonstrate the relationship between the variables hypothesized in the study. As per the statistics, the new model developed in this study that links perceived website quality to customers' online purchasing intentions was adequately supported by the findings. This mechanism also revealed that trust in intermediaries significantly mediates the relationship between Website quality and online purchasing intention. The findings also supported the moderation effect of perceived usefulness in this model. Based on the findings of this study, we anticipate that the new model introduced will be extremely beneficial in promoting online business via the internet. It is therefore critical that the management of online businesses invest adequate resources in the development of website quality in

order to increase customer trust, thereby increasing their online purchasing intentions. As it turns out, this study is useful because it adds value to existing knowledge about ecommerce and reveals new mechanisms to strengthen online purchasing among customers.

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