Determinants of Online Repurchase Intention in Covid-19 Times: Evidence From an Emerging Economy

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Abstract: *COVID-19 has led to social isolation and a subsequent increase in online shopping has been observed. The present study is based on theory of reasoned action and focused on 371 Peruvian consumers, it seeks to evaluate the current effect of the website quality, customer satisfaction, and customer trust in online repurchases. The current study is cross-sectional and uses an online survey with 22 questions that evaluated consumers repurchase intentions. A technical SEM-PLS analysis was used. It was found that website quality had a positive influence on customer satisfaction, website quality positively influenced customer trust, customer satisfaction had a positive influence on customer trust, customer satisfaction had a positive influence on online repurchase intention, and customer trust had a positive influence on online repurchase intention. The model explained 20.6% of online repurchase intention behavior. Outcomes of the bootstrapping test were used to evaluate if path coefficients are significant. The outcomes can help companies to develop strategic plans to increase online purchasing. The novelty is based on using the partial least squares structural equation modeling (SEM-PLS) technique.*

Keywords: *Peru, COVID-19, repurchase intention, e-commerce, website quality, customer satisfaction, customer trust.*

JEL Classification: *C83, E21.*

Determinantes de la intención de recompra en línea en tiempos de COVID-19: evidencia de una economía emergente

Resumen: *Los tiempos de COVID-19 han generado aislamiento social en las personas y —también— se ha incrementado la compra online. El presente artículo basado en el estudio en 371 consumidores peruanos busca evaluar el efecto actual de la calidad del sitio web, la satisfacción del cliente y la confianza del cliente sobre la recompra en línea. Fue un estudio transversal que utilizó una encuesta en línea. Veintidós preguntas evaluaron la intención de recompra de los consumidores. Se utilizó un análisis técnico SEM-PLS. Se encontró que la calidad del sitio web tuvo una influencia positiva en la satisfacción del cliente e influyó positivamente en la confianza del cliente; asimismo, la satisfacción del cliente tuvo una influencia positiva en la confianza del cliente y en la intención de recompra en línea; y la confianza del cliente tuvo una influencia positiva en la confianza en línea y la intención de recompra. El modelo explicó el 20,6% de la intención de recompra online. Los resultados de la prueba de arranque se utilizaron para evaluar si los coeficientes de trayectoria son significativos. Los resultados pueden ayudar a las empresas a desarrollar planes estratégicos para aumentar las compras en línea. La novedad se basa en el uso de la técnica de modelado de ecuaciones estructurales de mínimos cuadrados parciales (PLS-SEM).*

Palabras clave: *Perú, COVID-19, intención de recompra, comercio electrónico, calidad del sitio web, satisfacción del cliente, confianza del cliente.*

Déterminants de l'intention de rachat en ligne en période de COVID-19: données probantes d'une économie émergente

Résumé: *Les temps de COVID-19 ont généré l'isolement social chez les gens. De même, les achats en ligne ont augmenté. Cet article basé sur une étude auprès de 371 consommateurs péruviens, cherche à évaluer l'effet actuel de la qualité du site Web, de la satisfaction de la clientèle et de la confiance des clients sur le rachat en ligne. Il s'agissait d'une étude transversale qui utilisait un sondage en ligne. Vingt-deux questions évaluaient l'intention de rachat des consommateurs. Une analyse technique SEM-PLS a été utilisée. Il a été constaté que la qualité du site Web avait une influence positive sur la satisfaction de la clientèle et avait une influence positive sur la confiance des clients; en outre, la satisfaction de la clientèle a eu une influence positive sur la confiance des clients et sur l'intention de rachat en ligne; et la confiance des clients a eu une influence positive sur la confiance en ligne et l'intention de rachat. Le modèle représentait 20,6 % de l'intention de rachat en ligne. Les résultats du test de démarrage ont été utilisés pour évaluer si les coefficients de trajectoire sont significatifs. Les résultats peuvent aider les entreprises à développer des plans stratégiques pour augmenter les achats en ligne. La nouveauté est basée sur l'utilisation de la technique de modélisation des équations structurelles des moindres carrés partiels (PLS-SEM).*

Mots clés: *Pérou, COVID-19, intention de rachat, e-commerce, qualité du site web, satisfaction du client, confiance du client.*

Determinants of Online Repurchase Intention in Covid-19 Times: Evidence From an Emerging Economy

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Introduction

Since December 2019, the world has been changed dramatically by the Coronavirus (COVID-19), an infectious disease of pandemic proportions, with approximately 128,000,000 cases and 2.8 million deaths reported worldwide as of March 31, 2021 (WHO, 2021). The health system offers various services (Alvarez-Risco et al., 2018; Enciso-Zarate et al., 2016; Lazo-Porras et al., 2020; Mejía-Acosta et al., 2016) and information alternatives to citizens (Álvarez-Risco et al., 2013; Buttenheim et al., 2018) but the COVID-19 pandemic has negatively impacted different societal actors such as health professionals (Chen et al., 2020; Rojas Román et al., 2020; Yáñez et al., 2020; Zhang et al., 2021; Zhang et al., 2020), tourism (Brouder, 2020; Carvache-Franco et al., 2021; Fotiadis et al., 2021), entrepreneurship (Acevedo-Duque et al., 2021; Afshan et al., 2021; Alvarez-Risco & Del-Aguila-Arcentales, 2021; Chafloque-Cespedes et al., 2021), education (Allen et al., 2020; Alvarez-Risco, Estrada-Merino, Anderson-Seminario, et al., 2021; Daniel, 2020; Theoret & Ming, 2020), prices (Apcho-Ccencho et al., 2021; Leiva-Martinez et al., 2021; Sharif et al., 2020), individuals (Al-Hasan et al., 2020; Alvarez-Risco et al.,

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2020; Machida et al., 2020; Quispe-Cañari et al., 2021; van Stekelenburg et al., 2021) and firms (Altig et al., 2020; Alvarez-Risco, Estrada-Merino, Rosen, et al., 2021; Duarte Alonso et al., 2020; Yan et al., 2021). In economic terms, the Peruvian economy was mainly affected by the high global unemployment rate (ILO, 2020). However, technology can be used to reactive the economy to reach a significant number of consumers.

According to Huarng and Yu (2011) and Evans (2019), the Internet is popular today and has allowed people and companies to make exchanges more efficient. Adapting to change will allow Peruvian companies to survive the COVID-19 pandemic and could lead to an increase in online repurchase intentions, as demonstrated by the analysis carried out by the Business Intelligence unit of Niubiz, which has recorded an almost 50% increase in average e-commerce consumption in Peru since March 16 to 27, 2020 to the present date.

In Peru, e-commerce has risen thanks to different initiatives, such as those developed by the Peruvian Chamber of Electronic Commerce (www.capece.org.pe), and the promotion of different forms of non-traditional electronic payment, for example, the use of applications created by banks ("Yape" or "Plin") which allows users to send and receive money from their mobile phones. Despite the increasing growth of electronic commerce, there are still some barriers for consumers, which are usually linked to security when delivering debit or credit card data and, therefore to user confidence in online transactions, regardless of the type of product (Belwal et al., 2020; Faraoni et al., 2019; Guo & Gao, 2017; Huang & Chang, 2019; Rahman et al., 2018; Sharma et al., 2019; Tandon et al., 2020; Valarezo et al., 2018; Zhu et al., 2019). According to the "Future Buy" (2018) study carried out by GfK named 39% of Peruvian consumers distrust product delivery processes, 55% are afraid important information will be misused, 22% prefer the brick-and-mortar stores, and 40% prefer to see products in person before buying them.

The current study investigates the link between the quality of websites where products or services to be purchased by the consumer are offered, regardless of the device used (laptop, desktop, mobile phone), to access the aforementioned pages online customer satisfaction, and customer trust in

online shopping and their intention to continue buying certain products or services: repurchase. Repurchase intentions are the starting point for customer loyalty (Ahmad et al., 2016; Chiu et al., 2009; Das, 2014; Savila et al., 2019; Yi & La, 2004). The customer's commitment to staying true to an online store is indicated by the intention to repurchase (Amoako et al., 2019; Chen & Chen, 2017; Chou & Chen, 2018; Pee et al., 2018; Sullivan & Kim, 2018). The literature indicates that customer satisfaction is the fundamental basis for repurchase intention (Ashfaq et al., 2019; Fang et al., 2014; Fang et al., 2011; Trivedi & Yadav, 2020; Wu & Chang, 2007). However, other authors such as Dehghan (2015) have not found a significant effect in this relationship which a mediating variable between satisfaction and repurchase intention could explain. In the present study this mediating variable is presented as trust.

All of the aforementioned occurs in normal scenarios, in which people can physically go out and purchase products and decide to repurchase online; however, the current COVID-19 pandemic changes all of these preconditions and establishes another scenario: social isolation (Banerjee & Rai, 2020; Berg-Weger & Morley, 2020; Hwang et al., 2020; Razai et al., 2020). In this circumstance, people do not have the same ease of buying products on any day or at any time, and, additionally, the supply of products is restricted to those that are most necessary (food and medicine) (Gostin & Wiley, 2020). Therefore, the need arises to identify the relationship between website quality, products ordered, consumer satisfaction, consumer confidence, and repurchase intention. The current study is carried out in Peru since the government's social isolation measures have led to increased online repurchasing.

Awareness of the relationships between these variables will allow online product and service providers to place more emphasis on the variables that generate the most significant impact. At the same time, this will lead to increased intentions on the part of consumers to allow them to repurchase their products via online channels.

I. Literature review

A. *Website quality*

There are different studies on website quality. For example, those carried out by Bai et al. (2008), Lee and Kozar (2006), Bai et al. (2008), Kim and Niehm (2009), Liang and Chen (2009), Wells et al. (2011), Wang et al. (2015) and Tandon et al. (2017). Also, the current pandemic and isolation generated an unprecedented increase in online purchasing worldwide (Gao et al., 2020). Therefore, the quality of companies' information on users becomes very important for purchasing decisions (Chen & Chang, 2018; Gao et al., 2012; Park & Kim, 2003). In addition to the usual website quality dimension, another crucial issue has become crucial for users: multiplatform access means easy access to the web from a desktop, laptop, or mobile phone (Singh & Jang, 2020). This aspect has been the most complicated to work on since, in many cases, users are middle-aged (35-55 years) and may not be accustomed to reading information on their mobile phone screens. Previous studies show the positive relationship between website quality and customer satisfaction (Ahmad et al., 2017; Kaya et al., 2019; Li et al., 2017; Solimun & Fernandes, 2018; Tandon et al., 2020). Through these studies, it is possible to see the influence that the quality of service has in predicting customer satisfaction and generating the intention for virtual repurchases. During the current COVID-19 pandemic, several companies that previously only offered in-person sales diversified to offer virtual sales (BBC, 2020), giving a visual and support offer to virtual purchase much higher than what was offered before the pandemic. This is a justifiable effort to attract new customers (with no or minimal virtual shopping experience) as well as to maintain existing current customers (Prasetyo et al., 2021).

For the authors, it is crucial to assess whether the information presented on the web at the time of offering a product or service is detailed, explaining each component in a way that is easy to understand and can even be saved to read calmly later, in the form, for example, of small online files or even short podcasts describing the benefits of the product (Rodríguez et al., 2018; Wang et al., 2019). Another element to be measured is how complete the information provided in the virtual offer is, which enables buyers to trust in

the product and thereby rule out being surprised later with "small print" on the website that was not displayed on the original offer page (Liu & Tang, 2018; Stouthuysen et al., 2018). A website should generate sufficient interest to inspire users to explore it, regardless of whether or not the they end up making a purchase at that time or not (Ventre & Kolbe, 2020).

A user can clearly evaluate how interesting a webpage is. Additionally, complementary information that may be included on a website makes the purchase a comfortable and multisensory experience rather than a merely transactional one (Kang & Namkung, 2019). There are hundreds of companies offering products on webpages, so it is necessary to understand the different innovations used on consumer websites. This is relevant because current customers will continue to buy from pages with constant innovations, whether this is in the form of new information, new promotions, interactions via crowdsourcing, or crowdfunding models with regular clients (Ma et al., 2019). Finally, and most importantly, a successful website needs to offer information that can be found in a simple, intuitive fashion regardless of whether it is being accessed through a desktop, tablet, or another device.

B. Customer Satisfaction

Customer satisfaction in the online environment can be conceptualized as the customer's evaluation after purchasing products or services from a website (Hsu, 2008; Lin et al., 2011; Shankar et al., 2003). During the pandemic, demand has been much higher due to the heightened anxiety that consumers experiences does not leave room for errors or delays in the delivery of the products that are purchased (Zhao et al., 2020). Achieving and maintaining customer satisfaction is a challenge for companies, which work to achieve a close bond that helps them understand customers' current and future needs. For this consumer-based study during the pandemic, the authors evaluated the following path: website quality → customer satisfaction → trust → repurchase intention (Liang et al., 2018).

For the current study, we have evaluated how much customers enjoy the online repurchase experience; in other words, that repurchases are made not only because a customer requires a product but also because the online

shopping experience is pleasant. This makes it possible to demonstrate the hedonistic aspect of online repurchasing (Hellier et al., 2003; Meilatinova, 2021). Likewise, convenience, which is intimately related to social isolation, is evaluated. In many cases, online shopping has become the only way to obtain specific products, which are not physically available or have been sold out on face-to-face channels (Slack et al., 2020).

There is also an evaluation of the customers' opinion of how good the online repurchase decision is; There is also an evaluation of the customers' opinion of how good the online repurchase decision is, which allows companies to obtain personal data to send advertising of the products and services they offer. (Rastogi & Mehrotra, 2017). Additionally, the fact that a company is familiar with clients' purchasing preferences and can offer preferential purchase notices as thanks for customer loyalty is taken into account (Ahani et al., 2019; Nguyen et al., 2019; Tan et al., 2018). Satisfaction is the cornerstone of knowing how a client feels that his/her needs are fully satisfied. This satisfaction can be generated via different components of online sales and can lead to customers trusting the company that offers products/services online. In other words, the expectation at the time of purchase coincides with the customer experience (Qazi et al., 2017).

C. Customer Trust

A significant percentage of customers have a low level of trust in online purchasing (Gestión, 2019). There are cases in which when a customer clicks on a link, a malicious application is installed on their phones to extract sensitive financial data. It is difficult for users to feel comfortable sending information online when these kinds of threats exist. This increased personal leads to less and less trust in providing information for purchases made online. It is difficult for users to feel comfortable sending information online when these kinds of threats exist. This increased personal information leads to less trust in providing information for online purchase which has increased very rapidly in times of COVID-19 as recently described by Alvarez-Risco et al. (2020). Mayer et al. (1995) establish that trust is the willingness of a first person to be vulnerable to a second person's actions based on the first person's

expectation and regardless of the possibility to control the other party, which shows that the concept of trust is closely related to the online arena where we talk to people every day without hearing their voices or seeing their faces and, despite this, we trust in the exchange of information.

This study evaluates whether clients believe that companies have mechanisms to take care of their clients' data. In the instance of online purchases, it is interesting to note that frequently when customers make a virtual payment the receiving company issues an explicit message indicating that the operation is safe, while others do not indicate this even when they also are offer said transactional security (Berry et al., 2020; Jin et al., 2018). Another related component is that customers want to have direct trust, expressing that they feel that the company will be honest with them. This is not only related to the risks involved in making online payments but also, for example, to trusting that the product that arrives meets the specifications of the product shown at the time of purchase and that the delivery be made at promised time (Gawor & Hoberg, 2019).

This perception of honesty is fed not only by the client's own experiences but also by their friends and family. Another element to be explored concretely is the client's security when paying, based on the payment alternatives; the best thing is that there is a link to a payment system such as SafetyPay or access to an online module certified by Visa. Customer's confidence is also measured regarding a company's ability to conduct business online. This is related to whether or not a company has a stable supply and payment system, that is, whether or not purchases can always be made without any inconvenience or doubt, which will result in the perception that the company is reliable and can also be reported by customers (Song et al., 2020).

D. Repurchase Intention

The repurchase intention in the context of online commercial transactions is a consumer's tendency to back to a website and consider purchasing products or services from the same online website or even app and his/her commitment to purchasing more in the future (Lim et al., 2019). In the

present study, the intention to purchase is evaluated as an endogenous variable, based on the theory of reasoned action (Azjen, 1980), which states that intention is considered the best factor before the behavior and is appropriate for evaluating consumers' behavior. Also, Parasuraman et al. (1994) found that willingness to revisit a webpage shows a willingness to repurchase, recommend the page, and make positive comments to friends and family. In the literature, various studies such as those published by Liao et al. (2017), (Pee et al., 2018), Sullivan and Kim (2018), Pham et al. (2018), and Rojas-Osorio (2019) have evaluated customers' online purchase intention in different commercial sectors.. Curina et al. (2020) detailed the phenomenon of brand hatred, which may be motivated by different failures (times, costs, product damage, not meeting specifications, among others). These failings generate customer complaints online, negative word of mouth offline, and the non-repurchase intention. This is very tangible since a series of complaints and messages about different types of products or services can be found on a daily basis. These range from the small to significant complaints specifically in the case of online purchases. Customer complains may take different forms, the most passive being the blog or Tweet, with more extreme cases seen in YouTube videos that can easily go viral.

The intention to continue shopping after compulsory social isolation in Peru will be evaluated and the study will also assess whether consumers intend to increase their online shopping activity. Additionally, it will also seek to measure whether consumers plan to purchase online or if they intend to return to physical stores. Another critical element to evaluate is customers' willingness to use their credit cards to purchase online since this represents the most significant risk. This indicator will enable us to see how much customers trust companies that offer products or services online. When trust is endorsed, and great confidence is achieved, happy customers will actively recommend the companies in questions to friends and family members thanks to their positive purchasing experiences, trust, and associated recommendation levels. Finally, will attempt to assess whether consumers who have been in social isolation have had a bad experience with online shopping and do not plan to buy again.

II. Research model

We determine the influence of the website's quality, mediated by customer satisfaction and customer confidence, on Peruvian consumers repurchase intentions during the COVID-19 pandemic. According to Shin et al. (2013), website quality is an essential factor for predicting online purchasing. The four constructs are shown in Figure 1.

Figure 1. *Research model*
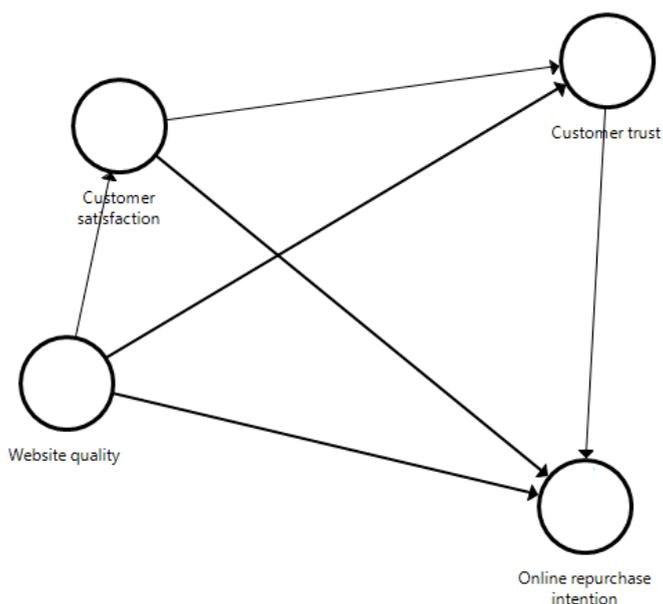
Source: Developed by authors

As described in the research model, the following hypotheses are presented:

Hypothesis

H1: Website quality has a positive effect on customer satisfaction.
H2: Customer satisfaction has a positive effect on customer trust.
H3: Website quality has a positive effect on customer trust.

H4: Customer satisfaction has a positive effect on online repurchase intention.

H5: Customer trust has a positive effect on online repurchase intention.

H6: Website quality has a positive effect on online repurchase intention.

III. Methodology

A. Instruments

The questionnaire consisted of two sections. The first part collected socio-demographic information from consumers; the second used questions based on the instruments developed by Wijaya & Farida (2018) to evaluate the factors that, according to the literature reviewed, are associated with online repurchase intention. The original items were translated and adapted linguistically. The section related to online repurchase intention and associated factors consisted of 22 items grouped into four dimensions. All the reagents are assessed through a Likert-type scale of five response options (From 1 = completely disagree to 5 = agree): Quality with five items, satisfaction with five items, trust with five items, and online repurchase with items. In the current study, the source of the scales is in accordance with the information in Table 1.

Table 1. *Variable indicators*

Variable	Item	Reference
Website Quality	The online purchasing platforms that I use give me detailed information.	Adapted from Kim and Sotel (2004)
	The online purchasing platforms that I use give me complete information.	Adapted from Wijaya & Farida (2018)
	The online purchasing platforms that I use are interesting.	
	The online purchasing platforms I use have innovative designs.	

Table 1. *Variable indicators*

Variable	Item	Reference
	Information can be easily found on online platforms	
Customer Satisfaction	I enjoy making purchases online	Adapted from Hassanein & Head (2007)
	Interaction is convenient when I use online shopping platforms.	Adapted from Wijaya & Farida (2018)
	Purchasing online is a good decision to	Adapted from Casaló et al. (2001)
	Purchasing online is enjoyable.	
	I am satisfied with the whole experience of purchasing online	
Customer trust	I believe that the companies where I am purchasing online protect their customers.	Adapted from Gefen et al. (2003)
	I consider that the companies that I purchase from online are honest when doing business	
	I feel safe when purchasing online	
	I believe that the online shopping platforms I use can do business online.	
	I am sure that the online shopping platforms that I use are reliable.	
Online repurchase intention	When the quarantine ends, I intend to continue purchasing online	Adapted from Miremadi 2011)
	When the quarantine ends, I intend to increase my online purchases	Authors
	When the quarantine ends, I intend to buy instead of traditional (physical) purchasing.	Adapted from Devaraj et al. (2002)
	When the quarantine ends, I intend to use my credit card to make online purchases	Authors

Table 1. *Variable indicators*

Variable	Item	Reference
	When the quarantine ends, I will recommend my friends/family/acquaintances make online purchases	Adapted from Miremadi (2011)
	When the quarantine ends, if my friends/family/acquaintances ask me for advice, I would recommend purchasing online	Authors
	When the quarantine ends, I will not purchase online	Authors

Source: Developed by authors

Sample

We conducted a cross-sectional online survey. The survey used in the study consisted of an online questionnaire in Google surveys sent via social media. The questionnaire was made anonymous, ensuring data confidentiality and reliability. This survey was shared in Spanish, as this is the official language in Peru. The survey was performed from May 2 to 25, 2020. Responses were collected from 371 participants. For data collection purposes consumers who agreed to participate in the study were required to respond yes/no which asked the following questions: "I have freely decided to participate in the study", "I understand that my participation is voluntary" and "I have received information about the objectives of the study". Incomplete questionnaires were rejected. The data collected was be tabulated and analyzed using the statistical programs SPSS version 26 and SmartPLS version 3.3.2 The data quality was monitored, ensuring that each response was counted only once and to discard incomplete questionnaires. The sample consisted of 371 consumers, 157 men (42.3%) and 214 women (57.7%), between 18 and 69 years of age. The average age was 32.44, with a standard deviation of 9.65 years. This data shows that most participants were young people. Also, 91.9% of respondents had completed tertiary education and 68.2% were single. This sample from the city of Lima in Peru has a 95%

confidence interval and 5.09% margin of error. The description of the sample according to sociodemographic variables is presented in Table 2.

Table 2. *Sociodemographic profile of the sample*

Variables	n	%
Age X = 32.44 SD (Standard Deviation) = 9,65		
18 to 25	84	22.7
26 to 35	190	51.2
36 to 45	65	17.5
46 to 55	19	5.1
Older than 55	13	3.5
Sex		
Male	157	42.3
Female	214	57.7
Marital status		
Single	236	63.6
Married	78	21.0
Widower	3	0.8
Divorced	17	4.6
Cohabiting	37	10.0
Income		
0 to 500 soles (0 to 150 USD)	36	9.70
501 to 1000 soles (approx. 151 to 300 USD)	33	8.89
1001 to 1500 soles (approx. 301 to 450 USD)	41	11.0
1501 to 2000 soles (approx. 451 to 600 USD)	28	7.55
2001 to 2500 soles (approx. 601 to 750 USD)	48	12.95
2501 to 3000 soles (approx. 751 to 900 USD)	49	13.21
3001 soles or more (More than 901 USD)	136	36.7
Educational level		
High School	9	2.4
Technical	36	9.7
University	254	68.5
Postgraduate	72	19.4
$N = 371$		

Source: Calculation based in 371 respondents.

B. Data analysis

Data analysis was carried out in two stages. In the first stage, each internal consistency sub-scale was evaluated using Cronbach's alpha reliability coefficient. This coefficient indicates the degree of internal consistency between the items when their values are higher than 0.707. The instrument's construct validity was also established through the factorial analysis of principal components with varimax rotation. In the second stage, the questionnaire was confirmed using partial least squares structural equation modeling (SEM-PLS). The SmartPLS statistical package version 3.3.2 (Ringle et al., 2015) was used to determine construct and discriminant validity and internal consistency through composite reliability. PLS usage offers a significant advantage: higher strength of the calculations in small samples; additionally, some statistical assumptions of the variables are not met (multicollinearity, different levels of measurement, non-normal distribution, and others).

When a PLS model is used, indicator reliability is assessed by examining each indicator's load and dimension, accepting as reliable those higher than 0.50. Another measure used to analyze the model's fit is the average extracted variance that provides the variance that a construct (dimension) obtains from its indicators on error variance. A good fit requires values higher than 50%. Finally, the discriminant validity of the questionnaire was established by applying the Fornell–Larcker criterion. This criterion indicates that the square root of variance extracted must be greater than the correlations presented with the rest of the subscales.

IV. Results

A. Validity and Reliability based on the TCT

Before determining the instrument's validity and reliability, a descriptive analysis of the items and scales was conducted through the mean, standard deviation, asymmetry, and kurtosis (see Table 3). Likewise, the absence of collinearity was corroborated with VIF values (variance inflation factors), which are less than five (5).

Table 3. *Descriptive statistics: Mean, standard deviation, asymmetry, and kurtosis of the items and scale*

Items-scales	Mean	Standard deviation	VIF	Asymmetry	Kurtosis
P1	3.77	0.767	1.727	-1.176	2.231
P2	3.79	0.716	1.796	-1.264	3.121
P3	3.81	0.639	1.594	-1.053	3.365
P4	3.55	0.715	1.331	-0.529	0.913
P5	3.81	0.719	1.287	-1.261	2.884
P6	3.86	0.745	1.575	-0.714	1.527
P7	3.75	0.735	1.177	-0.709	0.956
P8	3.98	0.721	1.649	-1.228	4.009
P9	3.71	0.768	1.778	-0.347	0.634
P10	3.78	0.740	1.666	-1.027	1.920
P11	3.60	0.831	1.761	-0.831	10.84
P12	3.66	0.743	2.139	-0.948	2.180
P13	3.55	0.807	2.142	-0.949	1.138
P14	3.84	0.616	1.563	-1.208	3.863
P15	3.70	0.732	2.462	-0.925	1.568
P16	4.16	0.839	1.821	-1.392	2.983
P17	3.55	0.976	1.830	-0.418	-0.047
P18	3.80	0.858	2.197	-0.879	1.368
P19	3.60	0.958	1.640	-0.712	0.349
P20	3.81	0.812	2.697	-0.853	1.530
P21	3.94	0.726	2.627	-0.838	2.118

Item 22 was dropped due to low value (0.345).
Source: Calculation based in 371 respondents

B. Reliability

The scales of t Website Quality, Customer Satisfaction, Customer trust, and Repurchase intention presented reliability coefficients (Cronbach's Alpha) higher than the expected minimum of (5) in exploratory analysis (see Table 4).

Table 4. *Reliability of scales: Analysis of internal consistency*

Scales	N° of items	Cronbach's Alpha	Range of relations item-scale
Website quality	5	0.754	0.643 - 0.783
Customer satisfaction	5	0.785	0.528 - 0.809
Customer trust	5	0.861	0.722 - 0.859
Online repurchase intention	6*	0.878	0.708 - 0.847

Item 22 was dropped due to low value 0.345.
Source: Calculation based in 371 respondents

C. Validation with SEM-PLS

To verify the validity of the instrument, with the partial least square's structural equation modeling (SEM-PLS) technique. Through the measurement model, the reliability analysis of each indicator, the internal consistency of each dimension (composite reliability), the analysis of the average variance extracted, and the discriminant validity were performed.

D. Compound reliability

An acceptable level of composite reliability must be greater than 0.707. The reliability coefficients composed of the different sub-scales of the instrument oscillate between 0.836 and 0.907 (See Table 5). Overall, the values obtained in the four sub-scales confirm the reliability of the questionnaire.

Table 5. *Construct validity of the items of the scales using Structural Equations of Variance using Partial Least Squares*

Scale-Items	Factorial weight	Composite reliability	Extracted variance
Website Quality			
The online purchase platforms that I use give me detailed information	0.736		
The online purchase platforms that I use give me complete information	0.752		
The online purchase platforms that I use are interesting	0.783	0.836	0.506
The online purchase platforms I use have innovative designs	0.630		
Information can be easily found on online platforms	0.643		
Customer Satisfaction			
I enjoy making purchasing online	0.738		
Interaction is convenient when I use online shopping platforms	0.528		
It is a good decision to buy online	0.794	0.853	0.542
Purchasing online is enjoyable	0.776		
I am satisfied with the whole experience of online purchasing	0.809		
Customer trust			
I believe that the companies that I buy from online protect their customers	0.768		
I consider that the companies where I buy online are honest when doing business	0.836		
I feel safe when buying online	0.826	0.901	0.646
I believe that the online shopping platforms I use can do business online	0.722		
I am sure that the online shopping platforms that I use are reliable	0.859		
Online repurchase intention (When the quarantine ends,...)			
I intend to continue buying online	0.750		
I intend to increase my purchase online	0.733		
I intend to buy instead of traditional (physical) purchase	0.831	0.907	0.621
I intend to use my credit card to purchase online	0.708		
I will recommend my friends/family/acquaintances to purchase online	0.847		
if my friends/family ask me for advice, I would recommend purchasing online	0.846		

Source: Calculation based in 371 respondents.

E. Discriminant validity using SEM-PLS

For calculating the discriminant validity of the sub-scales of the questionnaire, the Fornell-Larcker criterion (1981) was used. This criterion expressed that the square root of the varian ce extracted must be greater than the correlations presented by one sub-scale with the rest of the sub-scales (Lopez-Odar et al., 2020). Table 6 shows compliance with this criterion in all sub-scales (diagonals between parentheses), demonstrating the discriminant validity of the instrument analyzed.

Table 6. *Discriminant validity of sub-scales using the Fornell-Larcker criterion*

Scales	Customer satisfaction	Customer trust	Online repurchase intention	Website quality
Customer satisfaction	**0.736**			
Customer trust	0.639	**0.804**		
Online repurchase intention	0.435	0.379	**(0.788)**	
Website quality	0.584	0.598	0.304	**0.711**

Source: Calculation based in 371 respondents.

Bootstrapping

Finally, the Bootstrapping Technique (5000 times) is a non-parametric procedure applied to test if the path coefficients (beta) are significant. According to table 7, all values are significant (p values < 0.01).

Also, through the calculation of the size of the effect (F^2) (Table 8), it was established that Website quality has a significant direct effect on Customer satisfaction ($F^2 = 0.584$), Customer satisfaction has a significant direct effect on Customer trust ($F^2 = 0.439$), and Customer trust has a small but significant direct effect on Online repurchase intention ($F^2 = 0.163$).

Table 7. *Significance of trajectory coefficients (beta)*

Scales	Original sample	Mean sample	Standard deviation	t-statistic	p
Customer satisfaction → Customer trust	0.439	0.438	0.057	7.727	0.000
Customer satisfaction → Online repurchase intention	0.318	0.324	0.074	4.306	0.000
Customer trust → Online repurchase intention	0.163	0.160	0.066	2.459	0.014
Website quality → Customer satisfaction	0.584	0.582	0.060	9.683	0.000
Website quality → Customer trust	0.342	0.342	0.059	5.782	0.000
Website quality → Online repurchase intention	0.021	0.030	0.079	0.271	0.078

Bootstrapping technique (5000 times) using Smart PLS. p-value < 0.01.
Source: Calculation based in 371 respondents

**Table 8.** *Coefficient effect size of the coefficients (beta)*

Scales	F^2 Original sample	F^2 Mean sample	Standard deviation	t-statistic	p
Customer satisfaction → Customer trust	0.439	0.438	0.057	7.727	0.000
Customer satisfaction → Online repurchase intention	0.389	0.394	0.066	5.863	0.000
Customer trust → Online repurchase intention	0.163	0.160	0.066	2.459	0.009
Website quality → Customer satisfaction	0.584	0.582	0.060	9.683	0.000
Website quality → Customer trust	0.598	0.596	0.053	11.205	0.000
Website quality → Online Repurchase intention	0.304	0.314	0.076	4.007	0.000

Bootstrapping technique (5000 times) using Smart PLS. p-value < 0.01.
Source: Calculation based in 371 respondents.

Figure 2 show the research model tested

Figure 2. *Research model tested*
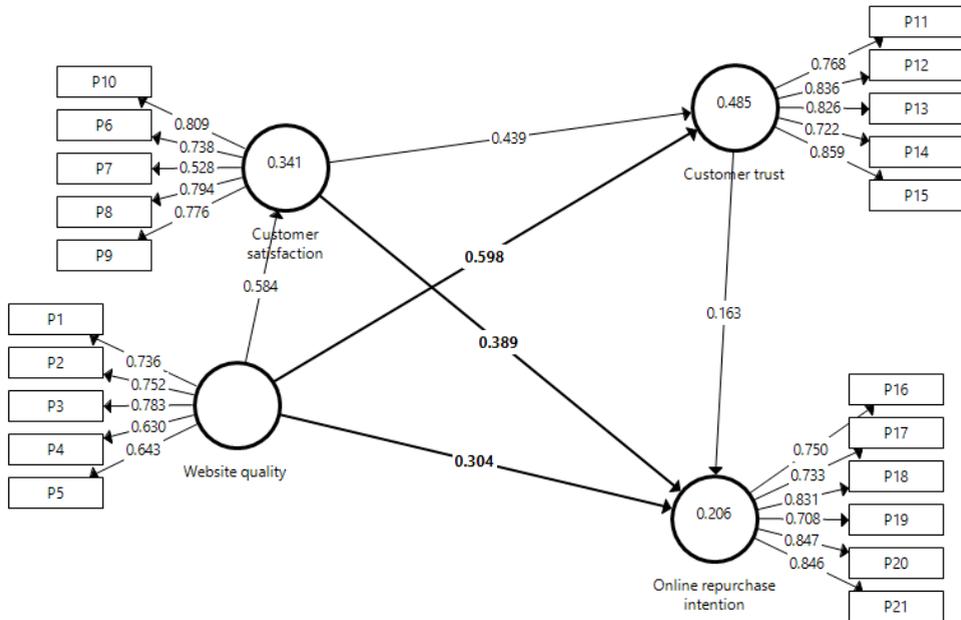
Source: Calculation based in 371 respondents.

Test of Hypothesis

H1: Website quality has a positive effect on customer satisfaction.

Website quality has a positive effect of 0.584 on customer satisfaction. Website quality explains 34.1% of customer satisfaction. The hypothesis was confirmed.

H2: Customer satisfaction has a positive effect on customer trust.

Customer satisfaction has a positive effect of 0.439 on customer trust. The hypothesis was confirmed.

H3: Website quality has a positive effect on customer trust.

Website quality has a positive effect of 0.598 on customer trust. Website quality, together with customer satisfaction, explains 48.5% of customer trust. The hypothesis was confirmed.

H4: Customer satisfaction has a positive effect on online repurchase intention.

Customer satisfaction has a positive effect of 0.389 on online repurchase intention. The hypothesis was confirmed.

H5: Customer trust has a positive effect on online repurchase intention.

Customer trust has a positive effect of 0.163 on online repurchase intention. The hypothesis was confirmed.

H6: Website quality has a positive effect on online repurchase intention.

Website quality has a positive effect of 0.304 on online repurchase intention. The hypothesis was confirmed. Also, website quality, customer trust, and customer satisfaction explain 20.6% of the online repurchase intention.

Discussion

The present study's objective was to test the model's website quality, customer satisfaction, customer trust, and repurchase intention among Lima consumers. Discriminant validity and reliability (internal consistency - Cronbach's alpha coefficient and composite reliability) were verified. The results obtained show that the questionnaire results are valid, reliable, and statistically relevant in the application. As verified in previous studies, the scales that make up the questionnaire showed reliability and validity.

It has been possible to verify the findings previously detailed by Wang et al. (2015) and Tandon et al. (2017) about website importance in customer satisfaction. As stated before, the quality of the information displayed by companies to users is crucial in purchasing decisions (Chen & Chang, 2018; Gao et al., 2012; Park & Kim, 2003). The same has already been evidenced

by Li et al. (2017) and Tandon (2020). Concerning customer satisfaction, the influence of website quality is already known (Hsu, 2008; Lin et al., 2011; Shankar et al., 2003), although for future research, it is necessary to assess which website elements are most relevant, be it the level of security, ease of use, intuitiveness when it comes to navigating among elements, etcetera. Regarding customer trust, it must be recognized that trust has been put to the test during the pandemic as, given a lack of alternatives, customers have had to initially take risks and continue buying, which differs from what GfK expressed (Gestión, 2019). Reliable information will help customers to buy more and more, which is not the sole responsibility of companies and countries' regulatory bodies, which must actively promote e-commerce and regulate for more significant and safe expansion. Finally, the study manages to show that the variables described above manage to explain repurchase intention and invites us to complete this model by including other elements that will give us a more complete understanding. During the current COVID-19 pandemic, there is an emotional factor that can change preferences and lead consumers to take more risks, but this may change after the pandemic and online shopping may decrease. It is therefore urgent to ensure that other factors that explain online repurchasing are known. Following the work of Parasuraman et al. (1994), it must be borne in mind that the virtual environment, such as that seen in these times, is an amplifying factor for complaints about and recommendations for virtual companies, whether this be communicated in private messages or, more influentially, through Twitter, Instagram or Facebook. As indicated by Pee et al. (2018) and Sullivan (2018), repurchasing is reinforced by the customer environment in different sectors.

The growth of e-commerce during this pandemic has been tremendous, and there has been a significant diversification of products and services in different global sectors. However, even though e-commerce has matured significantly and has been amplified, the most fundamental aspects remain the same: website quality determines customer perception, specifically customer satisfaction, even more than the customer's final product choice does. Therefore, website design and copy should be created by professionals. This may require significant investment of money by companies and even entrepreneurs who will see a return on their investment as website quality is

a critical aspect of online purchasing and repurchasing decisions. One aspect that has been a historical barrier for consumers has been a lack of trust in online purchases, which demonstrates the importance that consumers give to secure payment systems on business platforms (Bebber et al., 2017; Li et al., 2020; Roggeveen & Sethuraman, 2020; Zhao et al., 2017). The current increase in e-commerce is here to stay and, in a few years', companies will have to compete to capture and retain their customers. These factors described in the present investigation are fundamental to ensure such retention in the future.

Conclusions

It is essential to understand the importance of the methodology used due to the social isolation in Peru. The research had to be carried out through online surveys, which may have led to variations in the respondents' answers. Another aspect that had an impact of the study is that many people were at home working or studying remotely due to isolation, leading to more responses. These results regarding the importance of website quality must be taken into account by companies that sell products and services over the Internet. Additionally, companies must invest more in showing themselves to be increasingly innovative for customers and to be able to generate alternative offers and forms of payment, since not all consumers want to pay by credit card or even debit card, due to the mistrust. More studies carried out in other countries are required to show if similar results are found and can be taken as a reference for the implementation of specific plans for the virtual channel.

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