

# PLS-SEM for online shopping intention in the fashion sector in Ecuador

Modelo PLS-SEM para la intención de compra online en el sector moda en Ecuador

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Abstract: E-commerce in the fashion sector has increased in recent years in Latin America, especially in the wake of the pandemic, however, there are still issues in the acceptance of this shopping channel. The present research focuses on some factors that could influence purchase intention and aims to test how it is influenced by trust, perceived risks, costs and convenience. For this purpose, a questionnaire was given to 223 students from four universities in Ecuador. A PLS-SEM model was developed for the analysis of the data, in which trust in the seller has a mediating role in the relationship between the other three factors and purchase intention. Results show that this model has acceptable predictive and explanatory power. Likewise, it validates that risks, convenience and trust significantly affect intention, but not costs. In addition, trust would mediate the relationship between the other variables and online shopping intention. It is concluded that the proposed model can serve as a basis for similar studies, and, at the same time, it is considered that the results obtained can be used by business in the fashion sector that pursue to sell through e-commerce platforms for marketing strategies development.

Keywords: E-commerce, fashion, trust, convenience, shopping intention, perceived risks, PLS-SEM, costs.

Resumen: el comercio electrónico del sector de la moda ha aumentado en los últimos años en Latinoamérica, especialmente a raíz de la pandemia, sin embargo, todavía existen problemas en la aceptación de este canal de compra. La presente investigación se centra en algunos factores que podrían influir en la intención de compra y tiene como objetivos comprobar cómo en ella influyen la confianza, los riesgos percibidos, los costos y la conveniencia. Para esto, se suministró un cuestionario a 223 estudiantes de cuatro universidades del Ecuador. Para el análisis de los datos obtenidos se desarrolló un modelo PLS-SEM, en el cual la confianza en el vendedor actúa como variable mediadora en la relación entre los otros tres factores y la intención de compra. Los resultados muestran que dicho modelo tiene un aceptable poder predictivo y explicativo. Asimismo, se comprueba que los riesgos, la conveniencia y la confianza afectan significativamente a la intención de compra, pero no los costos. Además, la confianza mediaría la relación entre las tres variables y la intención de compra en línea. Se concluye que el modelo propuesto puede servir de base para estudios similares y, a su vez, se considera que los resultados obtenidos pueden ser utilizados por las empresas en el sector de la moda que quieren vender a través de plataformas de e-Commerce para el desarrollo de estrategias de marketing.

Palabras clave: comercio electrónico, confianza, conveniencia, intención de compra, moda, riesgos percibidos, PLS-SEM, costos.

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## Introduction

The first virtual stores in Latin America appeared in the 1990s, specifically in Argentina, Mexico and Brazil. Since the 2000s, the rise of the Internet and the development of secure payment systems has led e-Commerce to expand in these territories (Sanabria-Díaz et al., 2016). In turn, smartphones and the increase in sales through digital social networks promoted this Latin American e-commerce (Seville-Avilés, 2021), becoming even more popular thanks to the convenience and ease of finding products with better prices than in traditional stores (Soler-Patiño, 2016). However, there are still challenges for electronic sales, such as low credit card penetration, complex customs processes and high prices (Skypostal, 2019; Cámara peruana de comercio electrónico, 2021).

The boom of e-Commerce worldwide occurred during the pandemic because buying products in many physical stores was very complicated. Latin America was no exception and despite the low penetration of E-Commerce in the region, during COVID-19, it reached expected figures for 2030 (Boyle, 2021). Thus, although irregularly, in many countries of the region there was a total increase in e-Commerce of 37% in 2020, although it reduced again in 2022 due to the return of regular activity in physical stores and the increase in inflation (Chevalier, 2021, 2023). Argentina, Colombia and Peru are the countries that recorded the highest growth (Chevalier, 2023), but Ecuador also stands out with increases of more than 30% in e-Commerce revenues (CITEC, 2023).

The fashion sector has also developed strongly, with Brazil, Mexico, Colombia and Argentina being the predominant markets, with extensive online offers and brands both local and highly recognized worldwide (Dos Reis and Machado, 2020; Brooksworth *et al.*, 2022; Meneses, 2023). Some of the aspects that have facilitated this have been the increase in the use of smartphones and virtual social networks; platforms almost forced by fashion brands that want to reach consumers *optimally* and more widely. In this sense, e-Commerce has meant that many companies reach a large audience, sometimes to areas or countries where they do not have a *physical* store, *which has*  *led* to increased opportunities for higher income and, for consumers, greater access and product diversification. In addition, technological development and the growth of the internet have allowed the consumer to see and buy products without having to travel to physical stores, which has caused companies to rethink their marketing strategies (Rosário and Raimundo, 2021). Technological advances have allowed the improvement of interactivity and the consumer experience, which has resulted in marketing and business strategies that benefit both consumers and companies (Joshi, 2013).

There are many factors that affect the intentions and behavior of consumers in e-Commerce. These factors include technological, economic, demographic, cultural, and individual psychological factors (Venkatesh *et al.*, 2022). E-commerce companies should consider these factors when designing their marketing strategies, although not all have the same relevance. Likewise, taking into account the uncertainties and risks involved in online business, consumers pay attention to the security and usability of the website, services, convenience, prices, trust and the variety of products (Chiang *et al.*, 2018).

In this sense, this research includes three variables to be taken into account, such as perceived risks, convenience and costs, which are shown as components to be considered in the online purchase decisions of the consumer, especially in this fashion sector (Margalina and Cutipa-Limache, 2023). In addition to the general disadvantages inherent in e-Commerce, there are also aspects such as the visual and emotional nature of the products, the personal subjectivity in decision-making, the variability of sizes and adjustments, the cycles and trends in this area, the perceived values (exclusivity, quality, identity or reputation of the brand, etc.), the return processes of some garments or marketing strategies used especially in this field such as *influencers* or virtual and augmented reality tests so that consumers can visualize how they would look with these products (Escobar-Rodríguez and Bonsón-Fernández, 2017; Guercini et al., 2018; Miglani-Neha, 2022). Hence, the need to contrast these three variables of great relevance in online

shopping. In addition, trust, which represents a key determinant of consumer behavior and purchase intention in e-Commerce (Venkatesh *et al.*, 2022; Hamid and Sujood, 2023), as well as the main barrier to this type of trade in Latin America (Pena-Alcaraz, 2023).

# Risks, convenience, perceived costs and purchase intent in E-Commerce

The intention to purchase is defined as the degree of probability that the customer will buy a service or product soon and represents the most important barrier to e-Commerce development (Imtiaz *et al.*, 2019), especially in Latin America (Margalina and Cutipa-Limache, 2023). According to the theory of reasoned and planned action of Azjen (1991), its importance lies in its relevance as a determinant of consumer behavior. Among the most studied factors influencing intent are time, convenience, costs, and perceived risks (Cunningham and De Meyer-Heydrinch, 2018; Thomas *et al.*, 2018; Yu *et al.*, 2018; Mousa, 2021; Qalati *et al.*, 2021).

An e-Commerce store must take into account attributes, such as costs and perceived convenience (Cunningham and De Meyer-Heydrinch, 2018). The costs do not refer only to the price paid for the product, but also to the travel expenses incurred when buying the product in a physical store, as well as the delivery costs (Margalina and Cutipa-Limache, 2023). Consumers want online shopping channels that make it easier for them to search for products and product-related information, which represent the main dimensions of convenience. Therefore, convenience is a relevant factor in the selection of the purchase channel, especially in e-Commerce (Cunningham and De Meyer-Heydrinch, 2018; Venkatesh et al., 2022). Empirical studies show that convenience positively affects purchase intent (Cunningham and De Meyer-Heydrinch, 2018; Singh et al., 2019; Margalina and Cutipa-Limache, 2023). However, in the case of the cost effect, the results differ. Sohn and Kim (2020) found that these positively affect purchase intent, as a result of companies'

efforts to reduce costs linked to the online purchasing process. In contrast, the results of the Cunningham and Meyer-Hendrich (2018) and Margalina and Cutipa-Limache (2023) studies contradict this finding by finding no significant cost effects.

One of the most frequently applied theories to understand consumer behavior in e-Commerce is the Perceived Risk Theory (Mohseni *et al.*, 2018). This theory states that perceived risks affect consumers' purchasing decisions (Taylor, 1974). Several empirical studies have found a significant effect of perceived risks on purchase intent in e-Commerce stores (Mohseni *et al.*, 2018; Qalati *et al.*, 2019; Venkatesh *et al.*, 2022). The perceived risks become more relevant for the fashion sector, due to the greater risk that the size of the product purchased does not correspond to the required one (Iqbal *et al.*, 2019; Singh *et al.*, 2019; Margalina and Cutipa-Limache, 2023).

The results of the empirical studies point to the need to further investigate the effect of these factors on the purchase intention and, therefore, the following hypotheses are proposed:

> H<sub>1</sub>: A high level of perceived convenience positively affects the intention to buy online.

> H<sub>2</sub>: A low level of perceived costs positively affects the intention to buy online.

H<sub>3</sub>: A low level of perceived risks positively impacts the intention to buy online.

# Trust as a key determinant of purchase intent in e-Commerce

Although there is little rigorous research on this in Latin America, these place trust as a major factor in their development of e-Commerce, because despite the increase in buyers, much of the public does not trust online payments and the level of security of these websites (personal and financial data, frauds, virtual scams, etc.) (Gómez-Gómez, 2017; Suominen, 2019), which has led companies in the sector to seek to improve transparency and security in these business processes (Peña-Alcaraz, 2023).

Confidence is closely related to perceived risks (Zhu et al., 2011) and both variables would mediate and moderate the effect of shoppers' perception of online store characteristics and purchase intention (Qalati et al., 2021). Other studies also highlight the contribution of trust to the success of marketing strategies aimed at achieving a favorable purchase intention by the consumer (Manzoor et al., 2020). In addition, some researchers have demonstrated the significant relationship between seller trust and online shopping behavior (Zhao et al., 2019), so subsequent studies have included it within the theory of reasoned and planned action in the context of e-Commerce (Hamid and Sujood, 2023). Thus, trust presents as one of the key determinants of the purchase intention in e-Commerce and, therefore, the following hypotheses are proposed:

H<sub>4</sub>: A high level of trust positively affects the intention to buy online.

H<sub>5</sub>: Confidence mediates the relationship between convenience and purchase intention.

H<sub>6</sub>: Confidence mediates the relationship between costs and purchase intention.

 $H_7$ : Confidence mediates the relationship between risks and purchase intention.

Given the relevance of the subject and the scarcity of research in the Andean region with more analytical and quantitative character, this research has as main objective to contribute to theories about seller confidence and consumer behavior in the e-Commerce of the fashion sector. To this end, a model will be proposed to evaluate the contribution of convenience, costs and perceived risks to the favorable response of consumers of the fashion sector in Ecuador in terms of purchase intention. In addition, the role of trust as a vehicle that conveys the effects of these factors on the intention to buy online will be evaluated.

The results will allow companies to know better the functioning of the consumer to adapt and refine their marketing strategies in the field of increasingly booming e-commerce.

## Materials and method

To perform the analysis, a PLS-SEM structural equations model was developed using SmartPLS 4 software (Ringle *et al.*, 2022). This analysis technique was chosen due to its good results with small samples and with a non-normal distribution and behavior of the data, as well as the objective of research prediction (Margalina *et al.*, 2023). The evaluation of the structural model and the measurement model was carried out according to the recommendations of Hair *et al.* (2022); while the guidelines of Ringle *et al.* (2023) were followed for the analysis of the predictive and explanatory power of the model.

The sample is made up of 223 students from four universities in Ecuador, specifically, data have been collected from two universities in the Sierra region (Technical University of Ambato and University of the Armed Forces) and two from the Coast (State Technical University of Quevedo and Technical University of Machala). A sample of students was selected because this type of population has a higher degree of homogeneity, which reduces the effect of differences in age, education, socioeconomic level and work experience on outcomes (Schlägel and Sarstedt, 2016). In addition, the technique of non-probabilistic sampling was applied for convenience for selecting the sample. The results of the software G\*Power (Faul et al., 2009) indicate that the sample of 223 students allows to reach a statistical power of 95%, an effect size (f<sup>2</sup>) of 0.059 to a significance level of 0.05 (two tails), which is in accordance with the objectives of the study.

The data for the analysis was collected through a survey distributed online to undergraduate students in Ecuador by a teacher. It was implemented during the period April-July 2022. Responses were anonymous and without financial reward to ensure data confidentiality. For the survey, a structured questionnaire was used that contained questions for the characterization of the sample and the measurement of the five variables included in the PLS-SEM model: confidence, risks, convenience, costs and purchase intention. All items included in the questionnaire to measure the five variables had 5-point Likert response options, depending on the degree of disagreement or agreement. The items of the questionnaire were adapted by those proposed in the literature (Table 1) and focused on the online purchase of fashion products.

#### Table 1

Questionnaire items

Variable		Item	Author(s)		
	Conf1	The seller(s) is/are honest			
Trust	Conf2	I know that the seller(s) cares about consumers	Gefen <i>et al.</i> (2003)		
	Conf3	I know the seller(s) is/are opportunistic			
	Conv1	It is relatively easy			
Convenience	Conv2	It simplifies my purchases			
	Conv3	It is convenient to find information about a product	_		
	Cost1	It gives me better control of my expenses			
	Cost2	It allows me to find the best value for money when comparing products			
Costs	Cost3	It allows me to find better prices			
	Cost4	It encourages me to pay any cost for a single product	<ul> <li>Cunningham and De</li> <li>Meyer-Heydenrych</li> </ul>		
	Cost5	It means that the cost of the product is ultimately cheaper	(2018)		
	Risk1	It may result in the product being delivered without damage			
	Risk2	It results in timely delivery of purchases			
	Risk3	It leads to the product matching the description being delivered			
Risks	Risk 4	It makes me feel safe as the credit card information I provide is confidential			
	Risk5	It means that I will not suffer a significant financial loss when ma- king a transition			
Purchase intention	Intention1	I am willing to use my credit card to buy fashion products online			
	Intention2	I will most likely buy fashion products online	Ling et al. (2010)		
	Intention3	I am willing to buy fashion products online again in the future			

Regarding the characteristics of the sample, there is a higher proportion of women (74%), as well as an average age of 22.1 years. In addition, 86.1% of respondents have made online purchases. Only 6.7% frequently buy fashion products in online stores, 22% do so on an occasional basis, 51.1% rarely and 13.9% never.

of the PLS-SEM model, the measures for internal reliability, convergent validity and discriminant validity were analyzed (Table 2 and 3). The assessment of internal reliability begins with the analysis of the loads of the indicators, which must exceed the minimum value of 0.708. As can be seen in Table 2, all indicators exceed this value.

## Results

Based on the recommendations of Hair *et al.* (2022) for the evaluation of the reflective measurement model that was used for the five variables



#### Table 2

#### Reliability and validity of constructs

Construct	Indicator	Load	Cronbach's alpha	Compound relia- bility (qA)	Reliability (QC)	AVE
	Conf1	0,909**			0,927	
Trust	Conf2	0,914**	0,881	0,881		0,808
	Conf3	0,873**				
	Conv1	0,933**				
Convenience	Conv2	0,932**	0,917	0,917	0,948	0,858
	Conv3	0,913**				
	Cost1	0,866**			0,929	
	Cost2	0,845**	0,904	0,906		
Costs	Cost3	0,860**				0,722
	Cost4	0,827**				
	Cost5	0,851**				
	Risk1	0,758**		0,859	0,896	
	Risk2	0,817**				
Risks	Risk3	0,805**	0,855			0,791
	Risk4	0,789**				
	Risk5	0,808**				
	Intention1	0,792**	0,865		0,896	
Purchase intention	Intention2	0,937**		0,859		0,633
	Intention3	0,931**				

#### \*\*p<0,01

To complete the internal reliability assessment, the Cronbach Alpha and composite reliability measurements (rA and rA) are analyzed. The values exceed the threshold of 0.70 for both measures and for all constructs. For their part, the assessment of convergent validity is based on the values of the AVE, which are in all cases higher than the minimum required level of 0.50. Therefore, the measurements of the five reflective constructs have high levels in terms of internal reliability and convergent validity. It should be noted that, due to unreliability, some items for measuring convenience, costs and risks were excluded from those proposed by Cunningham and De Meyer-Heydenrych (2018).

Next, it is evaluated whether the measures of the reflective constructs show discriminating validity at the empirical level. For this purpose, the heterotrait-monotrait ratio (HTMT) was chosen as the most reliable criterion to determine the discriminant validity (Ringle *et al.*, 2023).

#### Table 3

Discriminant Validity (HTMT)

	Original sample (O)	Sample mean (M)	5.0 %	<b>95.0</b> %
Convenience ↔ Trust	0,684	0,683	0,593	0,765
Costs ↔ Trust	0,709	0,708	0,622	0,785
Costs ↔ Convenience	0,795	0,794	0,718	0,861
Trust ↔ Purchase intention	0,693	0,692	0,593	0,783

	Original sample (O)	Sample mean (M)	5.0 %	<b>95.0</b> %
Convenience ↔ Purchase intention	0,656	0,655	0,557	0,743
Costs ↔ Purchase intention	0,592	0,591	0,474	0,699
Risks ↔ Confidence	0,770	0,770	0,682	0,849
Risks ↔ Convenience	0,682	0,682	0,577	0,770
Risks ↔ Costs	0,719	0,719	0,629	0,802
Risks $\leftrightarrow$ Purchase intention	0,711	0,710	0,620	0,792

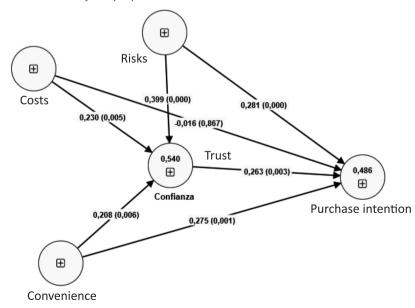
The HTMT values, which are presented in the 'Original sample (O)' column of Table 3, are below the most conservative maximum level of 0.85 (Henseler et al., 2015). In the case of the Costs and Convenience variables, it is observed that the upper limit of the confidence interval (95.0 %) exceeds this level. However, its HTMT value of 0.861 is less than the value 0.90, which represents the maximum limit for conceptually similar constructs (Hair et al., 2022). This is the case for the two variables, which represent two dimensions of online store attributes, along with costs, time and service, according to Cunningham and De Meyer Heydenrych (2018). The time and service variables were also included in the measurement instrument, but due to the lack of internal validity and discrimination were removed from the model. Therefore, the reliability and validity of the constructs are reviewed.

The next step is the evaluation of the structural model, which begins with the evaluation of the multicollinearity, explanatory power and predictive power of the proposed model. In the case of multicollinearity, none of the VIF values exceed the recommended value of 3,000 (Hair *et al.*, 2022); therefore, this problem was not identified for the proposed structural model (Figure 1).

As seen in Figure 1, the values of R2, which are inserted in the circles representing the model variables in the graph, reach values of 0.540 and 0.486, respectively. In addition, all R2 values are statistically significant. Therefore, the model has explanatory power. The SRMR value of 0.063, which is lower than the maximum level of 0.08 (Hair *et al.*, 2022) also confirms that the proposed model has explanatory power.

#### Figure 1

Path coefficients and R<sup>2</sup> values of the proposed model



103

Predictive power was evaluated with the help of techniques recommended by Ringle *et al.* (2023), PLSpredict and CVPAT. The PLSpredict method was proposed by Shmueli *et al.* (2019) and bases the predictive power analysis on the

 $Q^2$  predict, RMSE and MAE measures. The values of these measures for the dependent variable of the proposed model and Purchase intention are found in table 4.

#### Table 4

104

Indicator	Q <sup>2</sup> predict	PLS-SEM RMSE	PLS-SEM MAE	LM RMSE	LM MAE
Intention 1	0,241	0,917	0,731	0,910	0,694
Intention 2	0,404	0,728	0,562	0,745	0,569
Intention 3	0,375	0,814	0,605	0,848	0,630

#### Results PLSpredict purchase intention

The values of the  $Q^2$  predict exceed in all cases value 0, therefore, the proposed model has predictive power. The RMSE and MAE values obtained by applying PLS-SEM are higher than the results of linear regression (LM) in most cases. The only exception is observed in the Intention 1 indicator. This result shows that the model has average power to predict the variable purchase intention (Shmueli *et al.*, 2019).

The CVPAT technique or predictive ability test with cross-validation, presented by Liengaard *et al.* (2021), compares the predictive loss of PLS-SEM and LM at two levels. The results of the application of this test for the proposed model are set out in Table 5.

#### Table 5

#### CVPAT Results

	]	PLS-SEM vs. Mean Indicators (IA)				PLS-SEM vs. Linear Model (LM)			
	Loss PLS	Loss LM	Mean	Valor t	Pérdida PLS	Pérdida LM	Diferencia me- dia de pérdida	Valor t	
Trust	loss di- fference	Value t	Loss PLS	Loss LM	Mean loss di- fference	Value t	-0,043	2,904**	
Purchase intention	0,677	1,018	-0,341	4,610**	0,677	0,700	-0,025	1,143	
General	0,601	0,959	-0,358	5,471**	0,601	0,633	-0,031	2,529*	

\*\*p<0,01, \*p<0,05

In both reports generated from the application of the CVPAT procedure, PLS-SEM vs. Mean Indicator (IA) and PLS-SEM vs. Linear Model, a negative mean loss difference value is obtained. In addition, the p-value is less than 0.05 in all cases in the first report and in most cases in the second report. Therefore, the predictability of PLS-SEM is significantly higher than that of IA and LM parameters.

The significance and relevance of the structural model relationships were evaluated based on the guidelines of Hair *et al.* (2022). The significance of the *path* coefficients was determined with the help of the bootstrapping procedure, with 10,000 bootstrap samples, the Percentile bootstrap method for the confidence interval, two-tailed test at a significance level of 0.05. The relevance was determined using the *path* coefficients, the values of  $\mathbb{R}^2$  and the size of the f<sup>2</sup> effect.



	Hypothesis	Path coefficient	SD	Value t	2.5 %	97.5 %			
	Direct effects								
$H_1$	Convenience $\rightarrow$ Purchase intention	0,273	0,080	3,446**	0,135	0,400			
H <sub>2</sub>	Costs $\rightarrow$ Purchase intention	-0,016	0,098	0,168	-0,178	0,142			
$H_3$	Risks $\rightarrow$ Purchase intention	0,281	0,075	3,761**	0,156	0,403			
$H_4$	Trust $\rightarrow$ Purchase intention	0,263	0,087	3,001**	0,126	0,413			
	Specific indirect effects								
$H_5$	Convenience $\rightarrow$ Confidence $\rightarrow$ Purchase intention	0,055	0,028	1,938*	0,019	0,116			
$H_6$	Costs $\rightarrow$ Trust $\rightarrow$ Purchase intention	0,060	0,028	2,184*	0,025	0,120			
H <sub>7</sub>	Risks $\rightarrow$ Confidence $\rightarrow$ Purchase intention	0,105	0,044	2,386**	0,044	0,189			
	Tota	al effectl							
$H_5$	Convenience $\rightarrow$ Purchase intention	0,329	0,074	4,453**	0,201	0,445			
$H_6$	Costs $\rightarrow$ Purchase intention	0,044	0,093	0,474	-0,107	0,197			
H <sub>7</sub>	Risks $\rightarrow$ Purchase intention	0,385	0,071	5,431**	0,263	0,496			

#### Table 6

Results and validation of hypotheses

\*\*p<0,01, \*p<0,05

The results show that out of the two attributes of the purchase channel, only Convenience significantly affects the Purchase Intention, with a positive path coefficient of 0.273 (t = 3.446, p<0.01), a low effect f2 size of 0.062. Risks represent another variable with a positive and significant effect of 0.281 (t = 3.761; p<0.01) and the largest size of the f2 effect by a model-independent variable of 0.071. These results validate H1 and H3. Therefore, the relevance of the Convenience and Risks for the intention to buy online in the fashion sector observed in previous studies is confirmed (Iqbal *et al.*, 2019; Singh *et al.*, 2019; Margalina and Cutipa-Limache, 2023).

In contrast, Costs have a negative path coefficient of -0.016 (t = 0.168, p>0.05), but without statistical significance and without any effect, as indicated by the f2 value of 0.00. Therefore, H2 is not validated, in line with the results found in the studies of Cunningham and De Meyer-Hendrich (2018) and Margalina and Cutipa-Limache (2023).

Confidence also positively and significantly affects the purchase intention, with a path coefficient of 0.263 (t = 3.001; p<0.01) and the same size of the f2 effect as the Convenience of 0.062. Therefore, H4 is also validated. In this way, trust is revealed as a relevant factor in purchasing de-

cisions in e-Commerce, as in previous studies by Manjoor *et al.* (2020), Venkatesh *et al.* (2022) and Hamid and Sujood (2023).

However, Trust also serves as a vehicle for the indirect effects of store attributes and risks on the Purchase Intention. This is demonstrated by the results of the mediation effects analysis. Specifically, the Convenience affects positively and significantly the purchase intention through the Trust of 0.055 (t = 1.938; p<0.05). Mediation is complementary and partial because both direct and indirect effects of Convenience are significant and positive, with an effect size of the explained variance (VAF) of 20.14%. In the case of costs, the mediation is complete, because only the indirect effect has statistical significance, with a positive path coefficient of 0.060 (t = .938; p<0.05). Therefore, both hypotheses that propose the mediation of Confidence between the effects of the attributes and the purchase intention, H5 and H6, are validated. Hence, perceived costs become a relevant factor in marketing strategies in contexts of low consumer confidence, as occurs in Latin American countries (Latinobarómetro, 2023). Furthermore, these results highlight once again the important role of trust in online purchasing decisions because in addition to the direct effect on the purchase intention, they also mediate the effect of consumer perceptions on the attributes and risks of the store (Qalati *et al.*, 2021).

106

The indirect effect of the risks is even greater than that of the two attributes of the sales channel, with a positive and significant path coefficient of 0.105 (t = 2.386; p<0.05). This is also a complementary mediation because, as the H3 validation showed, the effect is also positive and significant. The BAT value of 37.36%, which is in the range of 20% to 80%, indicates partial mediation (Nitzl *et al.*, 2016). Therefore, the results demonstrate that confidence is a factor of paramount importance for the intention to buy products from the fashion sector, according to the studies conducted by Zhao *et al.* (2019), Hamid and Sujood (2023) and Margalina and Cutipa Limache (2023).

The R2 values indicate that the direct and indirect effects of the four variables of the proposed model explain 48.6 % of the variation of the purchase intention. However, it notes that Convenience, Costs and Risks account for 54% of the variance in Seller Confidence. This can be explained by the large number of factors involved in the consumer decision process in e-Commerce. These include the channels used for marketing, the popularity and familiarity of the seller's brand, as well as the services offered to assist purchase on the sales platform (Cunningham and De Meyer-Hendrich, 2018; Rosário and Raimundo, 2021).

## Conclusions

This research demonstrates the key role of trust for e-Commerce in the fashion sector of Ecuador because it has significant effects on the intention to buy. Since this last variable precedes behavior, the findings can be very useful for companies to evaluate, develop and improve their marketing strategies and, with it, improve the confidence of their consumers, such as, for example, influencing good transparency, product quality, exceptional level of customer service, respect for privacy, community participation, feedback and testimonials by consumers, clear guarantees and returns, consistent external communication, continuous innovation, loyalty programs or training staff to interact and solve customer problems. In this sense, new social media channels offer opportunities for relational marketing, which results in higher levels of trust and loyalty.

In addition, it is observed that the risks and convenience do correlate significantly with the intention to purchase. In this sense, companies can reduce risks, for example, by reporting products in detail, using high-quality images, with timely return policies, also with customer reviews and testimonials, ensuring their personal information with transparent privacy policies, adding quality tests with live chat and effective customer service or tracking orders. While they can increase convenience with strategies such as easy web browsing, simplifying purchasing processes and return policy, with flexible payment options, making fast delivery and tracking options, with loyalty, subscription and reward programs, increasing personalization and recommendations, with efficient customer service, with a quality mobile application or with fashion style guides and detailed sizes to reduce the likelihood of returns due to incorrect measures

This could be because fashion is often subjective and personal in nature, where some consumers may be willing to pay more for items they consider exclusive or high quality, regardless of the absolute cost. Thus, this perceived value would cause certain customers to be willing to invest more in garments that they consider valuable in terms of style, brand, trend or exclusivity. In addition, it is worth mentioning that some of these purchases respond to emotional issues, personal expression, social image or identification with a brand, which could exceed the consideration of costs in making purchasing decisions. In turn, the shopping experience could be a factor that overshadows costs, as buyers can appreciate more aspects such as convenience, ease of browsing on the web, customer service or the possibility of easy returns. However, the costs must be taken into account when improving trust, because, in this way, companies can increase the efficiency of their marketing campaigns.

Finally, on the last hypotheses raised, it is shown that trust acts as a mediator between the

variables risks and convenience. The important role of trust as a vehicle for channeling marketing efforts in order to obtain favorable responses from consumers in terms of purchase intention is therefore confirmed. Therefore, in addition to applying the strategies discussed above, business organizations in this sector should focus their marketing activities towards achieving positive perceptions in consumers regarding the risks, convenience and costs to improve confidence in the seller and, in this way, increase the effects on the purchase intention.

Regarding the methodology used, it has shown to be acceptable and with good results. However, it is considered that the proposed model is only a basis on which to continue working, either adding or removing other variables as improving the items that compose them. In this sense, perhaps gender, age or sociocultural characteristics would be some factors that could moderate the variables studied. Therefore, it is appropriate to continue investigating these methodological pathways and, especially, to apply them to other sectors, in other samples and in other contexts or countries.

In conclusion, the research carried out contributes to the field of study about the factors that affect the use of online commerce in emerging economies such as Ecuador. The data extracted appeal to the future marketing campaigns of companies operating electronically in Latin America to gain the trust of customers with a series of previously analyzed components. Under this framework, it is expected that subsequent research will further delve into both the various factors that affect the purchase intention and other models that increase the explanatory and predictive power found in this study. In this way, and with more longitudinal and cross-cultural research, e-commerce can be improved for both sellers and consumers.

### References

Azjen, I. (1991). The theory of planned behavior. Organizational. *Behavior and Human Decision Processes*, 50(2), 179-211. https://doi. org/10.1016/0749-5978(91)90020-T

- Boyle, T. C. (2021). *The E-Commerce boom coming in America Latina*. Lazar Fund Managers. https://bit.ly/3Oa3ZJs
- Brooksworth, F., Mogaji, E. and Bosah, G. (2022). Fashion marketing in emerging economies volume II: South American, Asian and African perspectives. En Fashion marketing in emerging economies volume II: South American, Asian and African perspectives (pp. 3-16). Springer International Publishing. https://bit.ly/3I36s4X
- Cámara Peruana de Comercio Electrónico. (2021). Reporte oficial de la industria Ecommerce en Perú. Crecimiento de Perú y Latinoamérica 2009-2019. Cámara peruana de comercio electrónico. https://bit.ly/4910boQ
- Chevalier, S. (2021, 29 de septiembre). *E-commerce in Latin America – statistics & facts*. Statista. https://bit.ly/425SdW4
- Chevalier, S. (2023, 31 de agosto). *E-commerce in Latin America – statistics & facts*. Statista. https://bit.ly/3UM1QaF
- Chiang, L-P., Lin, C. and. and Huang, C. H. (2018). Measuring the effects of online-to-offline marketing. *Contemporary Management Research*, 14(3), 167-189. https://doi.org/10.7903/ cmr.18462
- CITEC. (2023). *Mapeo de del ecosistema E-Commerce en Ecuador*. Cámara de Innovación y Tecnología Ecuatoriana. https://bit.ly/3U4VTW4
- Cunningham, N. and De Meyer-Heydenrich, C-F. (2018). Consumer perceptions of shopping channel attributes and risk factors of apparel purchase. *The Retail and Marketing Review*, 14(2), 28-42. https://bit.ly/3tWAvrx
- Dos Reis, A. D. and Machado, M. A. (2020). E-commerce in Emerging Markets: internationalization factors of Brazilian footwear in South America. *Revista Gestão & Tecnologia*, 20(1), 116-140. https://bit.ly/3S5UcVJ
- Escobar-Rodríguez, T. and Bonsón-Fernández, R. (2017). Analysing online purchase intention in Spain: fashion e-commerce. *Information Systems and e-Business Management*, 15, 599-622.
  - https://doi.org/10.1007/s10257-016-0319-6
- Faul, F., Erdfelder, E., Buchner, A. and Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1. Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160. https://doi.org/10.3758/ BRM.41.4.1149
- Gefen, D., Karahanna, E. and Straub, D. T. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly*, 27(1), 51-90.

107

https://doi.org/10.2307/30036519

- Gómez-Gómez, C. C. (2017). El comercio electrónico: incidencias y desafíos en el derecho del consumidor. *Revista científica Codex, 3*(5). https://bit.ly/3U4Wjf6
- Guercini, S., Bernal, P. M. and Prentice, C. (2018). New marketing in fashion e-commerce. *Journal of* global fashion marketing, 9(1), 1-8. https://doi. org/10.1080/20932685.2018.1407018
- Hair, J. F., Hult, G. T. M., Ringle, C. M. and Sarstedt, M. (2022). *A Primer on Partial Least Square Equation Modelling (PLS-SEM)* (3rd ed). Thousand Oaks, CA: Sage.
- Hamid, S. and Sujood, M. A. (2023). Behavioral intention to order food and beverage items using e-commerce during COVID-19: an integration of theory of planned behavior (TBP) with trust. *British Food Journal*, *125*(1), 112-131. https://doi.org/10.1108/BFJ-03-2021-0338
- Henseler, J., Ringle, C. M. and Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115-135. https://doi.org/10.1007/ s11747-014-0403-8
- Imtiaz, R., Ain Kamzi, Q., Amjad, M. and Aziz, A. (2019). The impact of social network marketing on consumer purchase intention in Pakistan: A study on female apparel. *Management Science Letters*, 9(7), 1093-1104.
- https://doi.org/10.5267/j.msl.2019.3.015
- Iqbal, W. (2019). Impact of perceived risk on customer's online purchase intention towards branded apparel. *Journal of Marketing Strategies*, 1(1), 38-62. https://doi.org/10.52633/jms.v1i1.3
- Joshi, D. J. (2013). An analysis of the existing literature on B2C E-commerce. *Indian Journal* of Marketing, 43(12), 34-46. https://doi. org/10.17010/ijom/2013/v43/i12/80512
- Latinobarómetro. (2023). https://bit.ly/423QQqM
- Liengaard, B. D., Sharma, P. N., Hult, G. T. M., Jensen, M. B., Sarstedt, M., Hair, J. F. and Ringle, C. M. (2021). Prediction: Coveted, yet forsaken? Introducing a cross-validated predictive ability test in partial least squares path modelling. *Decision Sciences*, 52(2), 362-392. https://doi. org/10.1111/deci.12445
- Ling, K. C., Chai, L. T. and Piew, T. H. (2010). The effects of shopping orientations, online trust and prior online purchase experience toward customers' online purchase intention. *International Business Research*, 3(3), 63-76. https://doi.org/10.5539/ibr.v3n3p63
- Manzoor, U., Baig, S. A., Hashim, M. and Sami, A. (2020). Impact of social media marketing on

consumer's purchase intentions: the mediating role of customer trust. *International Journal of Entrepreneurial Research*, 3(2), 41-48. https://doi.org/10.31580/ijer.v3i2.1386

- Margalina, V. M., Jiménez-Sánchez, Á. and Ehrlich, J. (2023). A Review of the Use of PLS-SEM in Neuromarketing Research. *Index.comunicación*, 13(2), 119-146.
  - https://doi.org/10.33732/ixc/13/02Arevie
- Margalina, V. M. and Cutipa-Limache, A. M. (2023).
  Similarities in factors affecting online shopping intention in Ecuador and Peru: a multigroup analysis. En L. Radomir, R. Ciornea, H. Wang, Y. Liu, C. M. Ringle, M. Sarstedt (eds.), State of the Art in Partial Least Squares Structural Equation Modeling (PLS-SEM). Springer Proceedings in Business and Economics (pp. 85-98). Springer, Cham.
- https://doi.org/10.1007/978-3-031-34589-0\_10 Meneses, V. (2023, 1 de septiembre). *Surviving the 2023 economic slowdown in LATAM: a roadmap for the lifestyle and fashion logistic sector.* Americas Market Intelligence. https://bit.ly/425SLLC
- Miglani-Neha, N. (2022). Consumer behaviour & online marketing strategies of fashion brands. *Mass Communicator: International Journal of Communication Studies*, 16(3), 38-40. http:// dx.doi.org/10.5958/0973-967X.2022.00017.5
- Mohseni, S., Jayashree, S., Rezaei, S., Kasim, A. and Okumus, F. (2018). Attracting tourists to travel companies' websites: the structural relantionship between website brand, personal value, shopping experience, perceived risks and purchase intention. *Current Issues in Tourism*, 21(6), 616-645. https://doi.org/10.1080/136 83500.2016.1200539
- Mousa, A. (2021). Intention to adopt E-Commerce: a comparative review across developed and developing economies. *The African Journal of Information Systems*, *13*(1), 113-140. https://bit.ly/3HqLLiV
- Nitzl, C., Roldán, J. L. and Cepeda, G. (2016). Mediation analysis in partial least squares path modelling. Helping researchers discuss more sophisticated models. *Industrial Management and Data Systems*, *116*(9), 1849-1864. https://doi.org/10.1108/IMDS-07-2015-0302
- Pena-Alcaraz, M. (2023, 7 de junio). *Melonn's Felipe Archila says the company hopes to win over online sellers and shoppers by improving transparency and reliability*. McKinsey & Company. https://bit.ly/491mN5y
- Qalati, S. A., Galvan-Vela, E., Wenyuan, L., Dakhan, S. A., Hong Thuy, T. T. and Merani, S. H. (2021). Effects of perceived service quality, website



quality, and reputation on purchase intention: the mediating and moderating role of trust and perceived risk in online shopping. *Cogent Business Management*, 8(1), 1869363. https:// doi.org/10.1080/23311975.2020.1869363

- Ringle, C. M., Sarstedt, M., Sinkovics, N. and Sinkovics, R. R. (2023). A perspective on using partial least squares structural equation modelling in data articles. *Data in Brief,* 48(June), 109074. https://doi.org/10.1016/j.dib.2023.109074
- Ringle, C. M., Wende, S. and Becker, J. M. (2022). SmartPLS 4. Boenningstedt: SmartPLS Gmbh,
- http://www.smartpls.com
- Rosário, A. and Raimundo, R. (2021). Consumer marketing strategy and e-commerce in the last decade: a literature review. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(7), 3003-3024. https://www.doi.org/10.3390/ jtaer16070164
- Sanabria-Díaz, V. L., Torres-Ramírez, L. A. and López-Posada, L. M. (2016). Comercio electrónico y nivel de ventas en las MiPyMEs del sector comercio, industria y servicios de Ibagué. *Revista EAN*, (80), 132-154. https://bit.ly/ 3V3MO0r
- Schlägel, C., y Sarstedt, M. (2016). Assessing the measurement invariance of the four-dimensional cultural intelligence scale across countries. A composite model approach. *European Management Journal*, 34, 633-649. https://doi. org/10.1016/j.emj.2016.06.002
- Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J.H., Ting, H. and Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: Guidelines for using PLSpredict. *European Journal of Marketing*, 53(11), 2322-2347.

https://doi.org/10.1108/EJM-02-2019-0189

- Sevilla-Avilés, O. K. (2021). El impacto del comercio electrónico en el turismo de Latinoamérica. *CIID Journal*, 2(1), 77-96.https://bit.ly/3Oa4Uto
- Singh, V., Chaudhuri, R. and Verna, S. (2019). Psychological antecedents of apparel-buying intention for young Indian online shoppers. Scale development and validation. *Journal* of Modelling in Management, 14(2), 286-311. https://doi.org/10.1108/JM2-05-2018-0059

Skypostal. (2019). International E-Commerce Issues in Latin America. How to Tackle Them. Skypostal. https://bit.ly/3T4Ljxy

109

- Sohn, J. W., y Kim, J. K. (2020). Factors that influence purchase intention in social commerce. *Technology in Society*, 63, 1-11. https://doi. org/10.1016/j.techsoc.2020.101365
- Soler-Patiño, A. (2016). ¿Hacia dónde va el comercio electrónico en Colombia? *Ploutos*, 4(1), 17-24. https://bit.ly/3IpBa8B
- Suominen, K. (2019). El comercio digital en América Latina ¿Qué desafíos enfrentan las empresas y cómo superarlos? *Comercio internacional*, (145), 1-49. https://bit.ly/48KiFXN
- Taylor, J. W. (1974). The role of risk in consumer behavior. *Journal of Marketing*, 38(2), 54-60.
- https://doi.org/10.2307/1250198
- Thomas, M. R., Kavya, V. and Monica, M. (2018). Online mechandising cues influencing the purchase intention of Generation Z Mediated by trust. *Indian Journal of Commerce and Management Studies*, 9(1), 13-23. https://bil.ly/48IFbAu
- Venkatesh, V., Speier-Pero, C. and Schuetz, S. W. (2022). Why do people shop online? a comprehensive framework of consumers' online shopping intentions and behaviors. *Information Technology & People*, 35(5), 1590-1620. https:// doi.org/10.1108/ITP-12-2020-0867
- Yu, S., Hudders, L. and Cauberghe, V. (2018). Selling luxury products online: the effect of quality label on risk perception, purchase intention and attitude toward the brand. *Journal of Electronic Commerce Research*, *19*(1), 16-35. https://bit.ly/4b6qCrK
- Zhao, J-D., Huang, J-S. and Su, S. (2019). The effects of trust on consumer continuous purchase intentions in C2C social commerce: A trust transfer perspective. *Journal of Retailing and Consumer Perspectives*, *50*, 42-49. https://doi. org/10.1016/j.jretconser.2019.04.014
- Zhu, D. S., Lee, Z. C. and O'Neal, G. S. (2011). Mr. Risk! Please trust me: website acceptance of e-vendor website in Taiwan. *Journal of Internet Banking and Commerce*, 16(3), 1-23. https:// bit.ly/48nBX4b