

Variables to Assess Consumers towards E-Commerce

Subjects: Behavioral Sciences

Contributor: Elizabeth Emperatriz García-Salirrosas, Rafael Fernando Rondon-Eusebio, Dany Yudet Millones-Liza, Jesús Fernando Bejarano-Auqui

Changes in consumer behavior are driven by tastes and preferences that change over time as their socioeconomic conditions change. Evaluating online purchases in the retail sector requires considering various criteria. Researchers Kumar and Anjaly developed a scale to measure the experience of customers after the purchase, they validated an instrument made up of 35 items grouped into six dimensions: (a) delivery; (b) return and exchange; (c) customer support; (d) feel good; (e) benefits; and (f) product in hand, demonstrating that the customer experience during the online purchase process is multidimensional and that they prioritize the quality and speed of the service received.

Keywords: consumer attitude ; E-commerce ; retail ; online shopping ; scale

1. Introduction

The arrival of the COVID-19 pandemic interrupted face-to-face activities around the world, making technology the main channel of interaction in different human activities. The technology has been adopted by various organizations in all commercial environments, telecommuting, and education and has also been adopted in everyday activities such as online shopping ^{[1][2]}. Embracing these digital channels requires an evolution towards multi-channel and omni-channel retail business models, where physical and digital channels (phygital experience) are integrated and managed simultaneously ^[3]. In this way, retailers are challenged to find the perfect balance between offering seamless shopping experiences and efficiently managing their channel offer with the resources they have to satisfy the online customer ^[4]. This fact constituted an opportunity for people to become involved with technology, making use of the Internet as the primary means for commercial transactions and online purchases ^{[1][5]}.

The increase in online purchases was very notorious in the retail sector, which is made up of the different commercial premises that sell directly to the public in a retail manner. In the Peruvian case, the retail sector is considered to be large department chains, supermarkets, and commercial stores that sell products to large numbers of customers ^{[6][7]}. Sales in this sector fell by 49.87% during the month of May 2020, with the clothing, footwear, electrical appliances, and household items businesses being the most affected ^[8]. Despite this, the pandemic generated an opportunity in online sales at the end of 2020, increasing by 250% in the retail sector ^[7].

In addition, it is important to highlight that online purchases are forms of consumption that are carried out through digital media and virtual stores that, due to the ease of access, navigation, and other benefits, capture the attention of the consumer and influence their purchase decision. ^[9]. This precedent has allowed other studies that report that a key piece to attracting the attention of a user is to develop an attractive website, which contains a good distribution of its contents and allows easy navigation ^{[10][11][12]}, representing these attributes, quality, and a satisfactory shopping experience ^{[13][14]}.

From these characteristics, the usability of the web stands out, determined by the need to have a friendly design that promotes the use of electronic commerce for all age groups of consumers and that also have attributes that favor their visibility ^[15], thus knowing the user's experience regarding the electronic sales platform they use ^[16]. Another characteristic of the website is the feasibility and usability that promotes customer satisfaction for online purchases ^{[17][18]}, based on this idea, it is stated that the impact of the usability of websites is a determinant for satisfaction of the user and a response to the demand for quality of care in this virtual environment ^[17].

Another important aspect to take into account in online purchases is the concern for perceived risk and security when carrying out a commercial transaction since, as explained in the Perceived Risk Theory, in all commercial exchanges, buyers tend to avoid risks and prefer them over the benefits of any purchasing activity, including online purchases ^{[4][19][20][21][22]}. For this reason, it is highlighted that electronic insecurity has become a factor that decreases the intention to purchase online and avoids that consumers highlight the great benefits of electronic service; however, with the arrival of

the pandemic, online sales were in high demand, due to the obligation of consumers to buy without the need to have contact, thus avoiding the spread of COVID-19 and creating a new purchasing behavior for the consumer [23][24][25].

Consumers represent a very large economic group within any economy; every company needs to acquire a solid customer base in order to survive in the market [26], and the arrival of the pandemic became a great challenge for traditional businesses. The new consumption trend caused the innovation of the markets, within them the adoption of electronic businesses [27]. In this context, it is necessary to know the attitudes of the consumer towards these new platforms and it is precisely the new platforms that require the presentation of a virtual store that adequately responds to the doubts and needs of the customers [4][28].

Regarding the instruments that evaluate the attitudes of customers towards online purchases, there are studies that develop scales focused on consumer satisfaction in online purchases through the usability of the web and the perceived risk in the purchase intention [28][29][30]. In addition, other instrumental studies focus on the consumer's shopping experience to assess aesthetics, the purchase process, convenience, product selection, price offerings, and level of service [28]. Other authors refer to the fact that good web architecture is not enough to provide a good online shopping experience [31][32], revealing that detailed product information, privacy and security, customer service and ease of Navigation are attributes that stand out in the perception and attitude of consumers when making a purchase, thus generating a positive experience, these factors being those that increase the possibility of making a purchase [33].

One of the most addressed issues regarding the consumer is their satisfaction; for this reason, the studies by Parasuraman, Zeithaml, and Malhotra stand out, who proposed two scales (ES-Qual and E- RecS-Qual) to measure the perception of online service quality and recovery from problems experienced by customers. Through the following dimensions: (a) efficiency; (b) fulfillment; (c) system availability; (d) privacy; (e) responsiveness; (f) compensation; and (g) contact [34]. Likewise, a study carried out in Peru proposes an instrument called USAWEB, made up of ten items, which seeks to measure the consumer's shopping experience through the usability of the online store website [28]. Additionally, another instrumental study focused on online MiPymes is called PERVAINCONSA, which aimed to measure consumer purchasing behavior online through four variables: (a) perception of value; (b) purchase intention; (c) trust; and (d) satisfaction, demonstrating in its results an important psychometric evidence for the Latin American context [35].

Based on this background, an instrument is presented below that is made up of five variables: web design, perceived risk, customer service, security, and satisfaction, the same ones that are specified in the following paragraphs:

2. Web Design

Studies indicate the existence of three important elements must be considered when developing a website: (a) visual design; (b) navigation design; and (c) the design of the information. Regarding the visual design of the website, it is related to aesthetics, which includes colors, font types, images, design and shapes; which positively impact customer trust and reduce the perceived risk [36]. Regarding the navigation design, it refers to the structure that the website has to help customers navigate easily and in a friendly way through the different sections of the website [37]. Additionally, the design of the information basically refers to the way in which the information published on the website is organized [38]. It is in this way that platforms focused on electronic commerce play a fundamental role in improving the quality of customer service through websites; that is, the design and quality of the websites can increase or decrease the purchase intentions of consumers [39].

3. Perceived Risk

It is the uncertainty and unpredictable consequences that customers experience at the beginning of a purchase process [23]. In addition, the perceived risks involve: (a) financial risk; (b) product risk; (c) security risk; (d) time hazard; (e) social risk; and (f) psychological risk [40]. However, the risks consumers may encounter most when shopping online include financial risks and product risks [20][24]. Financial risk refers to the loss of money from a client for various reasons associated with the purchase of a product, while product risk refers to the loss incurred when a product or service does not comply with what is offered [41]. Other authors analyzed various sources of perceived risks online, such as the recording of personal data, the security of financial transactions, and product performance [22][42].

4. Customer Service

It is the action that leads to a communication between the representative of a company and the client. Various researchers have studied the types of customer service based on the forms of communication [43], others have classified it

into pre-sale, sale, and post-sale customer service ^[44]. Regardless of the type of service, it is important that there must be a good quality of customer service, since the subjective evaluation made by consumers regarding the interaction processes of the service will depend on it ^[39]; In this way, the interaction process is also understood as the existing communication between the company and the client, but with the support of electronic commerce platforms where clients can perceive the quality of service online ^[45].

5. Security

It is the perception that the client presents in relation to privacy, the action of generating trust in the consumer ^[46]. In addition, it refers to the protection of a good, a characteristic desired by the consumer when making a purchase or transaction through the web. One of the ways to provide security to consumers is that the company can be aware of the importance of security in information systems, not violate security policies, and adequately manage the risks that can be caused by the use of a system ^[47]. Additionally, providing security also allows users to make effective decisions regarding the purchase of a product and/or the acquisition of a service ^[48].

6. Satisfaction

Customer satisfaction is considered the backbone of any company, and its relevance can generate success in companies ^[49]. In addition, it is the positive attitude of an individual toward an innovative service that manages to promote customer repurchase behavior ^[50], being one of the determinants of satisfaction, the quality of the perceived service ^[51], and one of its measured rewards ^[52].

References

1. Garcia-Salirrosas, E.E. Satisfaction of University Students in Virtual Education in a COVID-19 Scenario. In Proceedings of the 2020 3rd International Conference on Education Technology Management, London, UK, 17–19 December 2020; Volume PartF16898, pp. 41–47.
2. Millones-Liza, D.Y.; García-Salirrosas, E.E. Analysis of the Loyalty and Intention to Return of the University Student: Challenges of Educational Management in a Crisis Context. In Proceedings of the 2021 12th International Conference on E-business, Management and Economics, Beijing, China, 17–19 July 2021; pp. 802–807.
3. Pangarkar, A.; Arora, V.; Shukla, Y. Exploring Phygital Omnichannel Luxury Retailing for Immersive Customer Experience: The Role of Rapport and Social Engagement. *J. Retail. Consum. Serv.* 2022, 68, 103001.
4. Garcia-Salirrosas, E.; Rondon-Eusebio, R. Influence of Retail E-Commerce Website Design on Perceived Risk in Online Purchases. In Proceedings of the 2022 7th International Conference on Business and Industrial Research (ICBIR), Bangkok, Thailand, 19–20 May 2022; IEEE: Bangkok, Thailand, 2022; pp. 732–737.
5. Alharthey, B. The Role of Online Trust in Forming Online Shopping Intentions. *Int. J. Online Mark.* 2019, 10, 32–57.
6. Peru Retail ¿Qué Es Retail? Available online: <https://www.peru-retail.com/retailtv/definicion-de-retail/> (accessed on 15 October 2022).
7. Capece Reporte Oficial de La Industria Ecommerce En Peru. Cámara Peru. Comer. Electrónico. 2021, pp. 1–100. Available online: <https://www.capece.org.pe/wp-content/uploads/2021/03/Observatorio-Ecommerce-Peru-2020-2021.pdf> (accessed on 15 October 2022).
8. Instituto Nacional de Estadística e Informática Comercio Al Por Menor Retrocedió En –49.87%. Available online: <https://www.inei.gob.pe/prensa/noticias/sector-comercio-se-redujo-4956-en-mayo-de-este-ano-12327/> (accessed on 15 December 2022).
9. Jiang, L.A.; Yang, Z.; Jun, M. Measuring Consumer Perceptions of Online Shopping Convenience. *J. Serv. Manag.* 2013, 24, 191–214.
10. Ahn, T.; Ryu, S.; Han, I. The Impact of Web Quality and Playfulness on User Acceptance of Online Retailing. *Inf. Manag.* 2007, 44, 263–275.
11. Chang, H.H.; Chen, S.W. Consumer Perception of Interface Quality, Security, and Loyalty in Electronic Commerce. *Inf. Manag.* 2009, 46, 411–417.
12. Reyes, J.; Berdugo, M.; Machuca, L. Evaluación de Usabilidad de Un Sistema de Administración de Cursos Basado En La Plataforma Lingweb. *Rev. Chil. Ing.* 2016, 24, 435–444.
13. Chen, Q.; Clifford, S.J.; Wells, W.D. Attitude Toward The Site II: New Information. *J. Advert. Res.* 2002, 42, 33–45.

14. Baty, J.B.; Lee, R.M. InterShop: Enhancing the Vendor/Customer Dialectic in Electronic Shopping. *J. Manag. Inf. Syst.* 1995, 11, 9–31.
15. Osman, R.; Hwang, F. E-Commerce Design by Older Adults: The Selection and Placement of Web Objects on Shopping Sites. *Front. Comput. Sci.* 2021, 3, 631241.
16. Lewis, J.; Sauro, J. Item Benchmarks for the System Usability Scale. *J. Usability Stud.* 2018, 13, 158–167.
17. Shi, M.; Yuan, H. Impact of E-Commerce Website Usability on User Satisfaction. *J. Adv. Comput. Intell. Inform.* 2019, 23, 91–96.
18. Hasan, L.; Morris, A. Usability Problem Areas on Key International and Key Arab E-Commerce Websites. *J. Internet Commer.* 2017, 16, 80–103.
19. Ha, H.Y.; Pan, H. The Evolution of Perceived Security: The Temporal Role of SNS Information Perceptions. *Internet Res.* 2018, 28, 1055–1078.
20. Bhatnagar, A.; Misra, S.; Rao, H.R. On Risk, Convenience, and Internet Shopping Behavior: Why Some Consumers Are Online Shoppers While Others Are Not. *Commun. ACM* 2000, 43, 98–105.
21. Dong, D.; Malik, H.A.; Liu, Y.; Elashkar, E.E.; Shoukry, A.M.; Khader, J.A. Battling for Consumer's Positive Purchase Intention: A Comparative Study Between Two Psychological Techniques to Achieve Success and Sustainability for Digital Entrepreneurships. *Front. Psychol.* 2021, 12, 665194.
22. Silva, J.; Pinho, J.C.; Soares, A.; Sá, E. Antecedents of Online Purchase Intention and Behaviour: Uncovering Unobserved Heterogeneity. *J. Bus. Econ. Manag.* 2019, 20, 131–148.
23. Meskaran, F.; Ismail, Z.; Shanmugam, B. Online Purchase Intention: Effects of Trust and Security Perception. *Aust. J. Basic Appl. Sci.* 2013, 7, 307–315.
24. Wang, S. Study on the Application of Computer Security Technology in E-Commerce. *J. Phys. Conf. Ser.* 2021, 1915, 042044.
25. Sudaryanto, S.; Subagio, A. Does COVID-19 Affect Online Experience towards Repurchase Intention? An Empirical Study in Indonesia. *J. Asian Financ. Econ. Bus.* 2021, 8, 1013–1023.
26. Makanyeza, C.; Sivotwa, T.D.; Jaiyeoba, O. The Effect of Consumer Rights Awareness on Attitude and Purchase Intention in the Hotel Industry: Moderating Role of Demographic Characteristics. *Cogent Bus. Manag.* 2021, 8, 1898301.
27. Won, J.; Kim, B.Y. The Effect of Consumer Motivations on Purchase Intention of Online Fashion-Sharing Platform. *J. Asian Financ. Econ. Bus.* 2020, 7, 197–207.
28. García-Salirrosas, E.E.; Millones-Liza, D.Y. USAWEB: An Usability Metrics to Measure the Online Store Consumer's Purchase Experience. In *Proceedings of the 2022 6th International Conference on E-Commerce, E-Business and E-Government (ICEEG 2022)*, Plymouth, UK, 27–29 April 2022; ACM: New York, NY, USA, 2022; pp. 184–188.
29. Pereira, A.; Cabacos, C.; Paredes, P.; Soares, T.; Araujo, A.; Sousa, R.; Macedo, A. Portuguese Version of the COVID-19 Perceived Risk Scale—Psychometric Study. *Eur. Psychiatry* 2021, 64, 825.
30. Ellinger, A.E.; Lynch, D.F. B-to-B e-Commerce: A Content Analytical Assessment of Motor Carrier Websites. *J. Bus. Logist.* 2003, 24, 199–220.
31. Watchravesringkan, K.; Shim, S. Information Search and Shopping Intentions through Internet for Apparel Products. *Cloth. Text. Res. J.* 2003, 21, 1–7.
32. Kim, J.; Lennon, S. Information Available on a Web Site: Effects on Consumer's Shopping Outcomes. *J. Fash. Mark. Manag.* 2010, 14, 247–262.
33. Dua, P.; Uddin, S.M.F. Impact of Perceived Website Cues on Purchase Experience and E-Purchase Intention of Online Apparel Buyers. *Int. J. Electron. Bus.* 2022, 17, 204–222.
34. Parasuraman, A.; Zeithaml, V.A.; Malhotra, A. E-S-QUAL a Multiple-Item Scale for Assessing Electronic Service Quality. *J. Serv. Res.* 2005, 7, 213–233.
35. García-Salirrosas, E.E.; Acevedo-Duque, Á. PERVAINCONSA Scale to Measure the Consumer Behavior of Online Stores of MSMEs Engaged in the Sale of Clothing. *Sustainability* 2022, 14, 2638.
36. Cyr, D. Modeling Web Site Design across Cultures: Relationships to Trust, Satisfaction, and E-Loyalty. *J. Manag. Inf. Syst.* 2008, 24, 47–72.
37. De Wulf, K.; Schillewaert, N.; Muylle, S.; Rangarajan, D. The Role of Pleasure in Web Site Success. *Inf. Manag.* 2006, 43, 434–446.

38. Ganguly, B.; Dash, S.B.; Cyr, D.; Head, M. The Effects of Website Design on Purchase Intention in Online Shopping: The Mediating Role of Trust and the Moderating Role of Culture. *Int. J. Electron. Bus.* 2010, 8, 302–330.
39. Kumar, G.; Kumar, K. Factors Influencing Online Shopping Behavior of Customers: An Empirical Study. *Commonw. J. Commer. Manag. Res.* 2015, 2, 39–50.
40. Kamalul Ariffin, S.; Mohan, T.; Goh, Y.N. Influence of Consumers' Perceived Risk on Consumers' Online Purchase Intention. *J. Res. Interact. Mark.* 2018, 12, 309–327.
41. Horton, R.L. The Structure of Perceived Risk: Some Further Progress. *J. Acad. Mark. Sci.* 1976, 4, 694–706.
42. Barbosa, B.; Mahdavi, M.; Oliveira, Z.; Chkoniya, V. Buying Perfume in the Digital Age: A Study on e-Shoppers' Perceptions and Typologies. *Asian J. Bus. Account.* 2021, 14, 1–32.
43. Verhagen, T.; Van, W. The Influence of Online Store Beliefs on Consumer Online Impulse Buying: A Model and Empirical Application. *Inf. Manag.* 2011, 48, 320–327.
44. Claro, D.; Ramos, C. Sales Intrafirm Networks and the Performance Impact of Sales Cross-Functional Collaboration with Marketing and Customer Service. *J. Pers. Sell. Sales Manag.* 2018, 38, 172–190.
45. Ding, Y.; Liu, Y. The Influence of High-Performance Work Systems on the Innovation Performance of Knowledge Workers. *Sustainability* 2022, 14, 15014.
46. Moon, Y.; Armstrong, D. Service Quality Factors Affecting Customer Attitudes in Online-to-Offline Commerce; Springer: Berlin/Heidelberg, Germany, 2020; Volume 18, ISBN 0123456789.
47. Alyami, A.; Sammon, D.; Neville, K.; Mahony, C. Exploring IS Security Themes: A Literature Analysis. *J. Decis. Syst.* 2020, 29, 425–437.
48. Siponen, M. A Conceptual Foundation for Organizational Information Security Awareness. *Inf. Manag. Comput. Secur.* 2020, 8, 31–41.
49. Blair, A.; Key, T.M.; Wilson, M. Crowdsourcing to Manage Service Gaps in Service Networks. *J. Bus. Ind. Mark.* 2019, 34, 1497–1505.
50. Peng, Y.; Li, J. The Effect of Customer Education on Service Innovation Satisfaction: The Mediating Role of Customer Participation. *J. Hosp. Tour. Manag.* 2021, 47, 326–334.
51. Jung-Wan, L. Online Support Service Quality, Online Learning Acceptance, and Student Satisfaction. *Internet High. Educ.* 2010, 13, 277–283.
52. Sarkar, J. No The Mediating Role of Needs Satisfaction on the Relationship between Total Rewards Satisfaction and Retention: A Proposed Model. *Organ. Psicol.* 2021, 11, 153–167.

Retrieved from <https://encyclopedia.pub/entry/history/show/122840>