

Influence of perceived customer satisfaction on on-line shopping experience during the COVID-19 pandemic

Dr. Divya Malhan (Associate Professor)¹, IMSAR, MDU, Rohtak, India
Dr. Preeti (Assistant Professor)², CMK National Girls' PG College, Sirsa, India

Mohan (Research Scholar)³, IMSAR, MDU, Rohtak, India

Nisha (Research Scholar)⁴, IMSAR, MDU, Rohtak, India

³Corresponding Author: Mohan (Research Scholar), Institute of Management Studies and Research, Maharshi Dayanand University, Rohtak, India.

E. mail: mohan.rs.imsar@mdurohtak.ac.in<https://orcid.org/0000-0002-5171-0892>.

Abstract

Purpose: Customer satisfaction is always a great matter of concern for all the sellers and academicians that how the perceived satisfaction level of customers can be judged in case of online shopping. Present study is conducted in order to measure the level and to identify the most important factors which are contributing in measurement of the perceived customer satisfaction level towards online shopping experience during the COVID-19 pandemic.

Research Methodology: Both primary and secondary data are included in the study. Statistical tool (SPSS-21) is used to run a statistical technique factor-analysis to identify most important factors while one way ANOVA is used to find out the significant difference between means of these factors and independence t-test is used to find out the significant difference between the two factors.

Findings: This result showed that convenient and trust of online shopping, online shopping features and benefits, fair functioning, secure payment options, product information, positive online shopping experience and reliability of shopping were most important factors which significantly affect the perceived customers' satisfaction toward online shopping during COVID-19 pandemic and it also reveals that the demographic factors taken in the study do not show much of significant difference on satisfaction level of customers.

Key Words: Customer Satisfaction, Customer Responses, Online Shopping, COVID-19.

Introduction

Goods and services are the means through which consumers satisfy their needs and want. They are ready to spend their income on various goods and services in order to fulfill their requirements. The not only consumers buying decision is involved in consumers behavior but a rational consumer is also keen to assess the purchase decision. In all, perceived customer satisfaction is an important determinant at the purchase evaluation phase. However, everyone is familiar with the meaning of satisfaction but it is also true that the meaning satisfaction is not identical to all.

According to study conducted by Anderson, (2013), dissatisfaction is the state of mind which falls short of one's expectation out of some object. He further has elaborated that the higher the consumers are dissatisfied, there is very less probability to form a positive attitude towards the brand. It may further abandon a customer to make re-buy decision for the same product and will enhance the tendency to switch for the new brand. It will further spread as the negative word of mouth for the brand. Enrique Garcés Cano, (2014) states that perceived customer satisfaction is a comparison of expectation of the consumer with its actual service behavior regarding any product or service. This perceived hope may be related to the nature, quality and workability of the product or service. The consumer satisfaction outcome from any given object will probably create a favorable after-purchase attitude, which leads to higher chances of making re-buy decision as well as creating brand loyalty. In a nutshell the above definitions of perceived customer satisfaction describe the customer satisfaction as a result of comparing actual post-purchase experience with the estimated utility. It is basically one's belief linked to the functioning and workability of a "product or a service" and its matching with the actual experienced performance that creates favorable/unfavorable attitude towards the selected brand. As the definitions admit about the behavior of a consumer about some particular product and service, it is important to describe various elements of customer expectations, which are explained in further sections:

- **Desired Bundle of Utility:** It refers to the hope of a consumer towards the product/service to be received. It also exhibits the expected level of utility to be received by using the product or service.
- **Adequacy:** It exhibits the least level of utility that the consumers will agree to without being displeased.
- **Tolerance Zone:** The tolerance zone describes the scope to which the customers are ready to accept the deviation that falls between desired and actual bundle of utility.

Review of literature

Role of promotional activities such as sales promotion, direct marketing, advertising, public relations and publicity in the information souk as it plays a key role in shaping profitability and market accomplishment Rowley, (1998). The study employed the "multiple regression analysis" techniques & reviewed various steps in architecture of communications and awareness strategies to explore concepts such as positioning the target audience, communication channels and to assess the promotional performances. The study found the promotional activities as the vital activity for an organization as it helps in achieving the sales target along with generating revenue. Moreover, Dzyabura et al., (2019) suggested that how optimal collection on products/services enables consumers to evaluate more information because customer satisfaction can be led by grand relationship between quality and price (Bei & Chiao, 2001). Brandtner et al., (2021) elucidated that before the epidemic period, consumers expressed positive sentiments across all the major supermarket retailers in Austria, however, during the epidemic, overall negative sentiment was expressed by the consumers. Factors that shaped consumer sentiment during this period: they include the layout of the stores and spaces available for consumers, facilities, and equipment available for shopping, announcement, product availability (and unavailability), waiting time.

The most important advantage of a satisfied customer is that they spread excellent and optimistic “word of mouth” about the company and its product (Alzoubi et al., 2020) which helps in enhancing purchase behavior (Alshurideh et al., 2012). Salameh et al., (2020) had investigated, confirmed and substantiated positively that factors like perceived service value, perceived service quality, perceived service recovery and perceived price fairness are the critical success factors to customer satisfaction and customer delight.

Some dimensions such as functionality, ease in information accessibility, ease in ordering and navigating product (Reibstein, 2002) and these functional characteristics also reflect for core competency of service providers’ (Gummerus et al., 2004). Dellaert & Kahn, (1999) carried out a study on the various factors have an effect on the online business performance of customer and observed that an online consumer only waits for eight seconds if are faced with problems. (Giao, 2020) recognized trust, customer service, web design and safety these four factors as the main influencer of customer satisfaction. Based upon factor analysis, their study reported the various facets related to online business and customer interaction and found that a user-friendly web portal related to “online shopping” is more prone to be acceptable by the consumer than those which are fewer users friendly. Moreover, the amount, quality and consistency of information provided on the web portal also affect the “Online shopping” behavior of a consumer. Having accurate information affect the expected quality of websites, financial and retail structure (Brown, 2003; Kim & Lim, 2001; Waite & Harrison, 2002).

Vellido et al., (2000) believed that the studies related to online consumer behavior are still in the infancy stage and full of potential for careful analysis to determine consumer behavior. Their study further proposed a quantitative construction by using “factor analysis” to determine the underlying variables that affect the opinion and purchase intention behavior of an online consumer. The various predictive models stand upon logistic bias and neural networks were used to identify the most predictive factor dominating the propensity to buy on online mode. The results indicated that the observed dormant factors agree in common with the major marker recognized in the earlier qualitative research. An empirical study conducted by (Malhan & Mohan. et al., 2021) shows that product convenience, relative advantage, brand name and social influence has significant positive affect on purchase intention of customers.

The study conducted by Sohn & Tadisina, (2008), answered to how customer evaluate the “e-service quality” and found that six major dimensions such as “trust”, “ease of use”, “the content of website”, “Reliability”, “the speed of delivery” and “customized communication” are helpful to the customer while evaluating the quality of “e-service”. A report presented by KPMG LLP, (2016) indicated that most of online consumers (approximate 70 percent) request delivery option for next day or with-in 2–5-day delivery option. Tran, (2020) found that “security risk, financial risk, product risk and privacy risk have a significant effect on perceived customer satisfaction and behavior intention for online shopping. Consumers worry to shop online because they have concerns about using their credit cards; they fear their personal information will be used elsewhere

Kassim & Abdullah, (2010) examined the relationship between “Observed service quality”, “satisfaction”, “trust”, and “loyalty” in the electronic business platform in the multicultural environment by taking two countries i.e., Malaysian and Qatari was found that the observed service quality put a significant influence on the satisfaction of the customer”. Conversely, “the satisfaction of customer bears a significant influence on trust”.

Mosteller & Poddar, (2017) admitted that the customer's personal information frequently updates retailer's marketing efforts. They conducted a study to investigate about four factors which are associated with "consumers' social media commitment" and "online privacy protection". The results of the study revealed that however, "personal privacy infringement knowledge" and observed "secondary control of personal information" are significant antecedents, "privacy apprehension" and "trust" in "social media" websites intervene each of these correspondingly.

Lim & Ayyagari, (2018) conducted a study revealed four major components which can be considered as the "drivers for enhanced telepresence" which are "Standardization of Specification", "Sensory Descriptiveness", "Interactivity", and "Feedback Quality".

Consumers' beliefs, trust, common goal is put forward before profit motives by the organizations whether online or offline during pandemic. Pantano et al., (2020) added in their study examples of organizations like "Gucci has provided surgical masks and medical overalls to civil protection workers, Ralph Lauren has donated \$10 million to the World Health Organization, and other luxury retailers such as Armani and Ferragamo donated to Italian hospitals and charities". Burberry and Prada, among others, have even reconfigured their factories to produce medical garments, Bulgari switched production to hand sanitizers, while Ferrari and Dyson produced ventilators and other instruments for hospital patients. While previous research emphasized how to get value from the introduction of new in-store technologies to enhance consumers' experiences (Pizzi et al., 2019) (Vannucci, V., & Pantano, E. (2019)). Vakulenko et al., (2019) examined the relationship between e-retail experiences and customer satisfaction. In their study, they investigated the arbitrary role of last mile delivery experience and it resulted in, online experiences positively affect the perceived customer satisfaction.

Scope of the study

The present study covers the aspects related to determinants which influence the perceived customer satisfaction toward online shopping experience during COVID-19 pandemic.

Objectives of the study

The main objective of the research is to identify the determinants of perceived customer satisfaction level during shopping online. To meet this objective, following sub objectives have been set:

- To identify the factors that influence perceived customer satisfaction level during online shopping.
- To find out whether there is any significant difference between factors among the customers on the basis of the demographic characteristics.
-

Research hypotheses

The following hypotheses have been formulated and tested to validate the results of the study:

H₀₁: There is no significant difference between factors among the respondents on the basis of age.

H₀₂: There is no significant difference between factors among the respondents on the basis of gender.

H₀₃: There is no significant difference between factors among the respondents on the basis of occupation.

Research methodology

Sample profile and data collection: The present study is descriptive in nature and used both primary and secondary data. The primary data for perceived customer satisfaction during online shopping has been collected from 300 respondents through 38 statements, which were included in the structured questionnaires on five points Likert scale *i.e.*, “Strongly agree, Agree, Neutral, Disagree and Strongly disagree”. The respondents selected on the basis of simple random sampling.

Data analysis: The collected data has been analyzed with the help of descriptive statistical techniques like frequency distribution, mean, standard deviation. Factor analysis has been used to identify most important factors those affect the customer satisfaction during online shopping. as tools and techniques of analysis. To validate the results of the study, ANOVA and Independent sample t-test has been used. SPSS-21 is used for the data analysis.

Analysis of perceived customer satisfaction towards online shopping

The responses from the customers for the online shopping satisfaction were collected through 38 statements, which were included in the questionnaire. The extent of agreement with each of the variables is measured with the help of a 5-points Likert scale ranging from ‘strongly agree’ to ‘strongly disagree’, wherein ‘5’ stands for ‘strongly agree’ and ‘1’ stands for ‘strongly disagree’. Then the factor analysis is used to study the factors for the perceived satisfaction of customers about online shopping.

Table 1: Total variance explained.

Components	Rotation Sums of Squared Loadings		
	Eigen Values	% of Variance	Cumulative % of Variance
1	3.499	9.208	9.208
2	3.431	9.030	18.238
3	3.225	8.486	26.724
4	3.125	8.223	34.946
5	2.827	7.439	42.386
6	2.284	6.010	48.395
7	2.125	5.593	53.989

Extraction Method: Principal Component Analysis.

Table 1 show that the eigen value greater than 1.0 results in seven factors being extracted through Principal Component Analysis method, using varimax rotation. From the cumulative percentage of variance accounted for, it is found that the first seven factors account for 53.989 percent of the total variance. The variance shows a significant contribution of these seven factors for the perceived customers satisfaction towards the online shopping.

The first factor “convenient and trust of online shopping” has an eigen value of 3.499 and it explains 9.208 percent variance. The second factor “Online shopping features and benefits” has an eigen value 3.431 and explains 9.030 percent variance in the original data. The third factor is “Online shopping satisfaction and fair functioning” and fourth one is “Secure payment and easily access the information” have eigen values 3.225 and 3.125 respectively and explains 8.486 percent and 8.223 percent of the variance respectively. The fifth factor is “Product

information” has an eigen value 2.827 and explains 7.439 percent of the variance in the original data. The sixth “Experience of shopping” and seventh factor “Reliability of shopping” have eigen values 2.284 and 2.125 respectively and explain 6.010 percent and 5.593 percent of the variance respectively.

Comparison of Means: ANOVA and Independent t-test Analysis

Tables 2 to 4 shows the result of the hypothesis of the study *i.e.*, the customer perception towards determinants of online shopping does not vary across age, gender, and occupation. The factor analysis resulted in seven important factors influencing the perceived customer satisfaction toward online shopping. These factors form the basis for performing ANOVA and independent t-test.

H_{01} : There is no significant difference between factors among the respondents on the basis of age: Generally, with the passage of time, the behavior of people changes *i.e.*, customers of different age groups usually hold different viewpoints. In order to find out whether there is any significant difference between the mean scores of perceived satisfactions of customers of different age groups toward online shopping, one-way ANOVA test has been applied.

Table 2: Age-wise comparison of factors of perceived customer satisfaction about the online shopping.

Factor Name	Under 20 Yrs. (N=71)	21-30 Yrs. (N=182)	31-40 Yrs. (N=41)	41-50 Yrs. (N=6)	ANOVA	
					F	Sign.
Convenient and Trust of Online shopping (F ₁)	3.64	3.38	3.72	3.36	5.592	.001*
Online Shopping Features and Benefits (F ₂)	3.65	3.61	3.63	3.52	0.222	.881
Online Shopping Satisfaction and Fair Functioning (F ₃)	3.71	3.59	3.81	3.12	2.728	.044*
Secure Payment and Easily Access the Information (F ₄)	3.75	3.61	3.69	3.77	0.804	.492
Product Information (F ₅)	3.77	3.53	3.60	3.30	1.143	.332
Experience of Shopping (F ₆)	3.77	3.69	3.69	3.38	0.305	.822
Reliability of Shopping (F ₇)	3.77	3.54	3.61	2.92	0.796	.497

Note: *Significant at 5 percent level of significance.

Table 2 presents the mean scores, F-statistics, and level of significance of various important factors for the perceived customer satisfaction toward online shopping between the different age groups of customers. The mean values depict that the highest mean score has been obtained in case of the factor “Product information, Experience of shopping, Reliability of shopping” in three age groups *i.e.*, “under 20 years, 21-30 years and 31-40 years”. It is followed by the factor “Secure payment and Easily access the information” in the case of three age groups. It implies that in case of both the factors there is strong agreement expressed by the customers of three age

groups i.e., “under 20 years, 21-30 years and 31-40 years”. The lowest mean scores have been obtained in case of the factor “Online shopping satisfaction and fair functioning” for the respondents of the age group of “41-50 years”.

One-way ANOVA test results reflect that f-value has been found significant at 5 percent level of significance in case of convenient and trust of online shopping and satisfaction and fair functioning. Thus, the difference in mean scores has not turned out significant in case of customers of the four age groups regarding “Online shopping features and benefits, secure payment and easily access the information, product information, experience of shopping, reliability of shopping” these five factors.

H_{02} : There is no significant difference between factors among the respondents on the basis of gender.

The views of male customers can differ from that of females. Independent t-test was applied to find out whether there exists any significant difference between the mean scores of perceived customer satisfaction male and female customers towards online shopping.

Table 3: Gender-wise comparison of factors of perceived customer satisfaction about the online shopping.

Factor Name	Male (N=132)	Female (N=168)	Independent Sample t- test	
			t	Sign.
Convenient and trust of online shopping (F ₁)	3.47	3.50	0.434	0.664
Online shopping features and benefits (F ₂)	3.58	3.65	1.177	0.240
Online shopping satisfaction and fair functioning (F ₃)	3.61	3.66	0.403	0.687
Secure payment and easily access the information (F ₄)	3.63	3.68	0.570	0.569
Product information (F ₅)	3.56	3.61	0.477	0.634
Experience of shopping (F ₆)	3.62	3.77	2.154	0.032*
Reliability of shopping (F ₇)	3.59	3.59	1.271	0.205

Note: *Significant at 5 percent level of significance.

Table 3 presents the mean scores, t-statistics, and level of significance of various important factors of perceptions of male and female customer satisfaction with online shopping. The mean values depict that the highest mean scores of 3.63 have been accorded to the factor “Secure Payment and Easily Access the information” by male respondents, whereas, highest mean scores of 3.77 have been accorded to the factor “Experience of Shopping” by female respondents. The lowest mean scores of 3.47 and 3.50 have been obtained on the factor “Convenient and Trust of Online Shopping” in case of both male and female respondents respectively.

An independent t-test result shows that t-value has been found significant at 5 percent level, in case of the factor viz., “Experience of shopping”. Thus, the difference in mean scores has turned out significant in case of male and female respondents regarding the factor “Experience of shopping”. In case of each of the remaining factors namely: “Convenient and trust of online shopping, Online shopping features and benefits, Online shopping satisfaction and fair functioning, Secure payment and easily access the information, Product information and

reliability of shopping” no significant differences have been found in the mean scores of male and female respondents.

H₀₃: There is no significant difference between factors among the respondents on the basis of occupation.

Table 4: Occupation-wise comparison of factors of perceived customer satisfaction about the online shopping.

Factor Name	Businessman (N=14)	Profession (N=21)	Service Man (N=87)	Student (N=178)	ANOVA	
					F	Sign.
Convenient and trust of online shopping (F ₁)	3.58	3.83	3.50	3.43	3.446	.017*
Online shopping features and benefits (F ₂)	3.69	3.70	3.61	3.61	0.239	.869
Online shopping satisfaction and fair functioning (F ₃)	3.60	3.84	3.58	3.65	0.487	.691
Secure payment and easily access the information (F ₄)	3.71	3.75	3.61	3.67	0.141	.936
Product information (F ₅)	3.36	3.63	3.46	3.67	1.298	.275
Experience of shopping (F ₆)	3.52	3.88	3.59	3.75	0.328	.805
Reliability of shopping (F ₇)	3.64	3.76	3.44	3.65	2.028	.110

Note: *Significant at 5 percent level of significance.

Table 4 depicts the mean scores and ANOVA-test statistics of the occupation-wise respondents in which, the highest mean scores of 3.71, 3.88, 3.61 and 3.67 were obtained for the factor “Secure payment and easily access the information, Experience of shopping”, in case of Businessman, professional and serviceman, student respondents.

The lowest mean scores of 3.36 and 3.63 were obtained on the same factor “Product information” in the case of businessman and professional respondents, respectively. Thus, respondents neither agree nor disagree with this factor. Whereas, the lowest mean scores of 3.44 were obtained on the same factor “Reliability of shopping” in case of serviceman respondents, respectively.

Statistically, ANOVA results show that p-value has been found significant at 5 percent level in case of the factor “Convenient and trust of online shopping”. As a result, the difference in mean scores has turned out significant in case of occupation-wise respondents regarding this factor.

In case of each of the remaining factors namely: “Online shopping features and benefits, Online Shopping satisfaction and fair functioning, Secure payment and easily access the information, Product information, Experience of shopping and reliability of shopping” no

significant differences have been found in the mean scores of occupation-wise respondents towards satisfaction about online shopping.

Conclusion and scope for further research

In the study, we have found the significant differences for the factors which we find out after applying the factor analysis technique. In some cases, the factors are found to be significant at 5% level of significance. We have used the one-way ANOVA where we need to find out the significant difference between more than two factors and used t-test where we have to find out the significant difference between the two factors. The study reveals the mixed approach but we can say in the end that the demographic factors taken in the study do not show much of statistically significant difference. As every research is the next step for further research, it suggests that future researchers work can concentrate on studying consumer behavior for not only interstate but it can also be conducted on international level, as has been quoted by [Ahmed et al., \(2017\)](#). Future research can be done on wide contexts by analyzing the different products, shopping habits and particular websites.

REFERENCES

- Ahmed, Z., Su, L., Rafique, K., Khan, S., & Jamil, S. (2017). *A study on the factors affecting consumer buying behavior towards online shopping in Pakistan Citation*. <https://doi.org/10.18488/journal.1006/2017.7.2/1006.2.44.56>
- Alshurideh, M., Masa'deh, R. M. d. T., & Alkurdi, B. (2012). The effect of customer satisfaction upon customer retention in the Jordanian mobile market: An empirical investigation. *European Journal of Economics, Finance and Administrative Sciences*, 47(47), 69–78.
- Alzoubi, H., Alshurideh, M., Kurdi, B. Al, & Inairat, M. (2020). Do perceived service value, quality, price fairness and service recovery shape customer satisfaction and delight? A practical study in the service telecommunication context. *Uncertain Supply Chain Management*, 8(3), 579–588. <https://doi.org/10.5267/j.uscm.2020.2.005>
- Anderson, E. (2013). *Dissatisfaction : The Expectancy Perceived*. 10(1), 38–44.
- Bei, L.-T., & Chiao, Y.-C. (2001). An Integrated Model for the Effects of Perceived Product, Perceived Service Quality, and Perceived Price Fairness on Consumer Satisfaction and Loyalty. *Journal of Consumer Satisfaction*, 14, 125–140.
- Brandtner, P., Darbanian, F., Falatouri, T., & Udokwu, C. (2021). Impact of COVID-19 on the customer end of retail supply chains: A big data analysis of consumer satisfaction. In *Sustainability (Switzerland)* (Vol. 13, Issue 3, pp. 1–18). <https://doi.org/10.3390/su13031464>
- Brown, R. P. (2003). Measuring Individual Differences in the Tendency to Forgive: Construct Validity and Links with Depression. *Personality and Social Psychology Bulletin*, 29(6), 759–771. <https://doi.org/10.1177/0146167203029006008>
- Dellaert, B. G. C., & Kahn, B. E. (1999). How tolerable is delay?: Consumers' evaluations of internet web sites after waiting. *Journal of Interactive Marketing*, 13(1), 41–54. [https://doi.org/10.1002/\(SICI\)1520-6653\(199924\)13:1<41::AID-DIR4>3.0.CO;2-S](https://doi.org/10.1002/(SICI)1520-6653(199924)13:1<41::AID-DIR4>3.0.CO;2-S)
- Dzyabura, D., Jagabathula, S., & Muller, E. (2019). Accounting for discrepancies between online and offline product evaluations. *Marketing Science*, 38(1), 88–106. <https://doi.org/10.1287/mksc.2018.1124>

- Enrique Garcés Cano, J. (2014). Dialectical Model of Marketing versus Trends and Fashions^{1}. *Journal of Business and Management Sciences*, 2(3), 58–68. <https://doi.org/10.12691/jbms-2-3-1>
- Giao, H. N. K. (2020). Customer satisfaction at Tiki. vn E-commerce platform. *Journal of Asian Finance, Economics and Business*, 7(4), 173–183. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO4.173>
- Gummerus, J., Liljander, V., Pura, M., & van Riel, A. (2004). Customer loyalty to content-based Web sites: The case of an online health-care service. *Journal of Services Marketing*, 18, 175–186. <https://doi.org/10.1108/08876040410536486>
- Kassim, N., & Abdullah, N. (2010). The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings: A cross cultural analysis. *Asia Pacific Journal of Marketing and Logistics*, 22, 351–371. <https://doi.org/10.1108/13555851011062269>
- Kim, S. Y., & Lim, Y. J. (2001). Consumers' Perceived Importance of and Satisfaction with Internet Shopping. *Electronic Markets*, 11(3), 148–154. <https://doi.org/10.1080/101967801681007988>
- KPMG LLP. (2016). *Omnichannel Retail Survey 2016*. 1–20.
- Lim, J., & Ayyagari, R. (2018). Investigating the Determinants of Telepresence in the E-Commerce Setting. *Computers in Human Behavior*, 85. <https://doi.org/10.1016/j.chb.2018.04.024>
- Malhan & Mohan. et al., (2021). *An Empirical Study of Factors Affecting Purchase Intention of College Students About Smartphone Journal, Turkish Online Inquiry, Qualitative*. 12(7), 1904–1914.
- Mosteller, J., & Poddar, A. (2017). To Share and Protect: Using Regulatory Focus Theory to Examine the Privacy Paradox of Consumers' Social Media Engagement and Online Privacy Protection Behaviors. *Journal of Interactive Marketing*, 39, 27–38. <https://doi.org/10.1016/j.intmar.2017.02.003>
- Pantano, E., Pizzi, G., Scarpi, D., & Dennis, C. (2020). Competing during a pandemic? Retailers' ups and downs during the COVID-19 outbreak. *Journal of Business Research*, 116(July), 209–213. <https://doi.org/10.1016/j.jbusres.2020.05.036>
- Pizzi, G., Scarpi, D., Pichierri, M., & Vannucci, V. (2019). Virtual reality, real reactions?: Comparing consumers' perceptions and shopping orientation across physical and virtual-reality retail stores. *Computers in Human Behavior*, 96(February), 1–12. <https://doi.org/10.1016/j.chb.2019.02.008>
- Reibstein, D. (2002). What Attracts Customers to Online Stores, and What Keeps Them Coming Back? *Journal of the Academy of Marketing Science*, 30, 465–473. <https://doi.org/10.1177/009207002236918>
- Rowley, J. (1998). Promotion and marketing communications in the information marketplace. *Library Review*, 47(8), 383–387. <https://doi.org/10.1108/00242539810239543>
- Salameh, A. A., Hatamleh, A., Azim, M. S., & Kanaan, A. G. (2020). Customer oriented determinants of e-crm success factors. *Uncertain Supply Chain Management*, 8(4), 713–720. <https://doi.org/10.5267/j.uscm.2020.8.001>
- Sohn, C., & Tadisina, S. (2008). Development of e-service quality measure for internet-based financial institutions. *Total Quality Management*, 19, 903–918.

<https://doi.org/10.1080/14783360802224412>

- Tran, V. D. (2020). The relationship among product risk, perceived satisfaction and purchase intentions for online shopping. *Journal of Asian Finance, Economics and Business*, 7(6), 221–231. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO6.221>
- Vakulenko, Y., Shams, P., Hellström, D., & Hjort, K. (2019). Online retail experience and customer satisfaction: the mediating role of last mile delivery. *The International Review of Retail, Distribution and Consumer Research*, 29, 306–320. <https://doi.org/10.1080/09593969.2019.1598466>
- Vannucci, V., & Pantano, E. (2019). Digital or human touchpoints? Insights from consumer-facing in-store services. *Information University of Bristol - Explore Bristol Research*. (2019). 33, 296–310.
- Vellido, A., Lisboa, P., & Meehan, K. (2000). Quantitative Characterization and Prediction of On-Line Purchasing Behavior: A Latent Variable Approach. *International Journal of Electronic Commerce*, 4, 83–104. <https://doi.org/10.1080/10864415.2000.11518380>
- Waite, K., & Harrison, T. (2002). Consumer expectations of online information provided by bank websites. *Journal of Financial Services Marketing*, 6(4), 309–322. <https://doi.org/10.1057/palgrave.fsm.4770061>