




Effects of Customer Service Quality in Online Retail Stores

Pedro Espírito Santo¹  and Patrícia Azinheira Cardoso²

¹ Centre of Applied Research in Management and Economics (CARME), Instituto Politécnico de Leiria, Campus 2 - Morro do Lena, Alto do Vieiro, Apt 4163, 2411-901 Leiria, Portugal
pedro.m.santo@ipleiria.pt

² Instituto Politécnico de Coimbra – ESEC, Rua Dom João III, 3030-329 Coimbra, Portugal
pmcardoso@esec.pt

Abstract. Competitiveness has intensified among online retailers, leading organizations to seek new ways to maintain competitive advantage in products and services. The quality of customer service is considered a critical aspect for organizations, due to the impacts that have on the relationship with consumers, so it is important to study the antecedents and consequences of customer service quality. Therefore, this study identified customer service customization and customer service advertising as antecedents of customer service quality. As consequences of customer service quality, this research identified satisfaction, trust and loyalty. In this sense, this research collected a sample of 176 consumers of online shops of electronic products that sought to test the research hypotheses through the methodology PLS-PM (partial least squares - path model). In this context, this study identified that the quality of customer service promotes satisfaction and confinement of individuals leading them to have loyalty to the online shop. Moreover, brands should customize the service according to customer preferences and also advertisement.

Keywords: Customer Service quality · Customization · Satisfaction · Trust · Loyalty

1 Introduction

Consumers are increasingly more mature, aware and demanding, when it comes to searching and giving up their personal information to organizations. Thus, it is created a greater competitiveness of online retail organizations in the dispute for consumers. This scenario is the result of organisations wanting to develop a product and service adapted to consumer needs, directing the organisation to a more individualised marketing in its offer, to retain and build loyalty [1, 2]. Thus, it is considered necessary to investigate service quality in retail companies and its impact on customer satisfaction and loyalty.

It is necessary to adapt the organization in receiving, storing and disseminating information from/to consumers, to adapt the offer to consumers' needs and change the organization's culture and focus, turning to the relationship with the consumer [3].

Thus, it is crucial for any organisation to continuously offer to its consumers a good customer service to increase sales, as well as to attract and retain consumers, ensuring their satisfaction, trust and loyalty [4, 5].

Currently, new ways to reach the consumer are necessary and organizations in recent years, have sought to collect more and more information about their customers and potential customers to characterize and better understand their profile or type of customer and nowadays, so that it is possible to offer a differentiating service [6, 7]. Anshari [8] consider that the new trends in marketing, allow a customization of communication to improve the customer service. The customization of the support service and communication becomes key in the relationship with the customer.

Therefore, it is important to understand the role of service quality in the business context, in order to create a greater competitiveness of organizations in winning their consumers [9]. In this sense, this study aims to seek answers about the effects of the support service quality in the relationship between consumers and organizations and in addition, analyse the customization as a determinant of the support service quality.

2 Theoretical Framework

2.1 Customer Service

Quality in customer service has become a critical service for organizations [10] and it is the consumer's subjective evaluation of the interaction quality with a website and how well the service needs have been met [11]. A consumer not only wants a high-quality product, but also high quality services. In addition, organizations are determined to provide consumers with more valuable and competitive offerings [12]. Improving the quality of a service is now possible through the evolution of collecting and analysing consumer data, such as their personal interests, experiences, and other information about their daily lives [13].

2.2 Customization of Customer Service Advertising Messages

Many organizations customize advertising messages [14] through marketing-mix actions and by collecting information about consumers [15]. The customization of advertising messages is related to the individual preferences of each consumer and [16, 17] believe that organizations can use multiple channels to convey their advertising messages, and this shows dedication to the relationship with the consumer.

Barreto et al. [3] comment that advertising messages are part of a marketing process, understood between a social process, a management of the exchange of information, of stimuli between an organization and its consumers. This process aims to promote both the organization and the consumer, the consumer being the target of all the efforts of the advertising messages by the organization.

In this sense, customization of advertising messages serves to create value for the consumer, leading the consumer to modify the perception about the company's services [18]. Thus, this study will test the following research hypothesis:

H1: Customization of advertising messages has a positive impact on customer service quality.

2.3 Customized Customer Service

Looking at the competition in a general way and through the strategic opportunities that exist in customer service, organizations are challenged to find the most effective methodology to improve their customer service, but also in delivering value that differentiates from other providers of the same service [10].

Roy, Shekhar, Lassar and Chen [19] state that customer service customization is defined by the time and effort saved by consumers: in seeking the service, during the use of the service, and post-sale of the service (if any). Customized customer service, according to Roberts, Varki and Brodie [20], is an adaptation that tends to improve the consumer's perceived relationship with the organization, leading them to speak well of it and recommend it to their friends and family and in this sense, Bordewich, Semple, and Steel [21] believe that it is important to assign a profile to each consumer, where each of them should be taken into account. This, we postulate the following:

H2: Customized customer service has a positive impact on customer service quality.

2.4 Satisfaction

Consumer satisfaction is a goal in marketing-oriented businesses, and satisfaction can arise from various perceptions and expectations [22]. Thus, any organization should aim for consumer satisfaction to survive by having their business and marketing activities directed towards it.

Consumer satisfaction is defined as feelings of pleasure or dissatisfaction, which result from comparing the performance of a purchased product under the expectations initially set [23].

Satisfaction is important to business success [24]. Therefore, satisfaction is the accumulation of a series of experiences with the product or service of a particular organisation, resulting from the consumer-organisation connection over time.

The organizations that deliver greater value to the consumer, more will satisfy them, as well as will be perceived as more reliable by them [25].

Customer service quality will facilitate consumer satisfaction [26]. Moreover, an organisation that in the long term improves the quality of the service provided in a continuous and incremental way [20], Thus, we will teste the following hypothesis:

H3: Customer service quality has positive impacts on satisfaction

2.5 Trust

Trust is about a sense of security, based on an individual consumer's behaviour when they are motivated and guided by the optimistic and encouraging actions of the organisation [7].

Agustin and Singh [27] define trust as a belief by consumers between the perceived benefits versus the cost of maintaining the relationship with the organisation.

An organization becomes reliable, when consequently it keeps its promise of value to its consumers [28], through the way the product is developed, how it is produced, how it is advertised, how it is sold, the service provided in shop and the after-sales service. In this study, we propose to study the following research hypotheses:

H4: Customer service quality has positive impacts on trust

H5: Satisfaction has positive effects on trust

2.6 Loyalty

The central role of marketing strategies is the development and maintenance of consumer loyalty, especially in markets with strong competition, unpredictable and diminishing product differentiation factors [29], focusing on developing long-term relationships with consumers, giving rise to a very robust organisations and brands [7].

Consumers have changed the way they interact with brands and organisations. Online consumer loyalty is influenced by a variety of factors, such as consumer satisfaction, trust and the level of engagement of the relationship with the organisation [1].

Thus, one determinant and outcome factor of loyalty is satisfaction. Additionally, trust is very important for loyalty, because [24] states that it establishes an important bond between the organization-consumer relationship (products and/or services provided and high involvement). In this sense, this study proposes to study the following research hypotheses:

H6: Satisfaction has a positive impact on loyalty.

H7: Trust has a positive impact on loyalty.

3 Methodology

To achieve the research objectives and evaluate the proposed model, we conducted a study in the context retail online. Therefore, to test the proposed research hypotheses throughout a theoretical framework, we chose the quantitative methodology, through a cross-sectional study, given that quantitative methodologies are based on a clearer and more objective data analysis, especially when it comes to testing research models and hypotheses. Data collection was made through an online self-completion and respondents were contacted through social networks.

Data collection was based on an online questionnaire designed for this purpose, in order to obtain a larger sample. Therefore, a questionnaire was designed through the google forms platform with items adapted from other studies. Consequently, for the customization of customer service advertising, we adapted 3 items from Shanahan et al. [21], for the customized support service, we used the 3 items from Bock, Mangus, and Folse [30]. In the measurement of customer service quality we used the 4 items from Shanahan et al. [21]. From Song, Wang and Han's [7] study we used the 5 items for trust, the 3 items for satisfaction and the 3 items for loyalty.

3.1 Sample

The sample consists on 176 customers of online specialized retail shops (electronic devices) from Portugal. The sample is composed of 56.3% female consumers, aged under 30 years old in most cases (in 61.4% of cases). The educational level of the respondents is mainly secondary school (48.9%) and university (49.4%).

4 Results

Previously, we assessed multicollinearity through the analysis of the Variance Inflation Factor (VIF) coefficient and we verified that VIF value is less than 5 and it avoid biasing the results obtained [31]. To validate and test the model proposed in this research, the software SMARTPLS version 3 was used. Therefore, the analysis through PLS estimation is divided into two steps: the analysis to the measurement model and the analysis to the structural model.

4.1 Measurement Model

The first step in the analysis through PLS is the analysis of the measurement model, which seeks to assess the ability of the items to measure the constructs, namely in terms of reliability and validity.

Table 1. Measurement model

	Items	λ	<i>t values</i>	α	ρA	CR	AVE
Customized customer service	CCS1	0,846	26,884	0,77	0,78	0,87	0,69
	CCS2	0,841	22,696				
	CCS3	0,804	16,827				
Trust	TRT1	0,796	18,646	0,88	0,88	0,91	0,67
	TRT2	0,852	19,255				
	TRT3	0,778	21,998				
	TRT4	0,795	18,053				
	TRT5	0,868	32,481				
Satisfaction	SAT1	0,744	13,927	0,73	0,78	0,84	0,64
	SAT2	0,789	20,717				
	SAT3	0,859	46,527				
Loyalty	LOY1	0,805	22,927	0,81	0,81	0,89	0,73
	LOY2	0,887	40,926				
	LOY3	0,863	27,263				
Customer Service Advertising	CSA1	0,792	11,620	0,76	0,79	0,86	0,67
	CSA2	0,875	20,667				
	CSA3	0,783	12,024				
Customer Service Quality	CSQ1	0,860	29,423	0,88	0,89	0,92	0,73
	CSQ2	0,796	18,004				
	CSQ3	0,908	43,785				
	CSQ4	0,855	28,921				

Convergent validity and reliability were analysed through the Average Variance Extracted (AVE) and Composite Reliability (CR). Thus, Table 1 shows that AVE (ranging from 0.64 to 0.73) and CR (ranging from 0.84 to 0.92) are above the threshold values (AVE > 0.5; CR > 0.7). Additionally, we analysed the reliability through the Cronbach's α and ρ_A and all values are above the recommended values ($\alpha > 0.5$; $\rho_A > 0.7$). In addition, we examined the standardized loadings (λ) and all of them are above the recommended value ($\lambda > 0.7$).

In Table 2, we present the Fornell and Larcker [32] criterion to examine discriminant validity. We found that all AVE values (on the diagonal of the table) are higher than the squared interconstruct correlation estimates. Additionally, we analyse the HTMT ratio of correlations follow the suggestion of Henseler et al. [33] and the results are in table 3.

Table 2. Discriminant Validity – Fornell and Larcker criterion

	TRT	CSA	CCS	LOY	CSQ	SAT
Trust (TRT)	0,82					
Customer Service Advertising (CSA)	0,36*	0,82				
Customized Customer Service (CCS)	0,48*	0,40*	0,83			
Loyalty (LOY)	0,68*	0,29*	0,36*	0,85		
Customer Service Quality (CSQ)	0,62*	0,30*	0,46*	0,62*	0,86	
Satisfaction (SAT)	0,76*	0,25*	0,45*	0,64*	0,56*	0,80

Table 3. Discriminant Validity –HTMT ratio

	TRT	CSA	CCS	LOY	CSQ	SAT
Trust (TRT)						
Customer Service Advertising (CSA)	0,43					
Customized customer service (CCS)	0,58	0,53				
Loyalty (LOY)	0,80	0,36	0,45			
Customer Service Quality (CSQ)	0,70	0,35	0,55	0,72		
Satisfaction (SAT)	0,90	0,32	0,60	0,78	0,65	

4.2 Structural Model

The second step is the analysis of the structural model, which aims to test the hypotheses under study by analysing the path coefficients and their significance. To obtain the statistical significance of each coefficient, the bootstrapping sampling technique was used. This technique according consists of a non-parametric procedure that creates new subsamples. In this sense, for this study it was used the bootstrapping technique with

5,000 samples, as suggested by the software, in order to estimate more consistent and also more stable results [31]. In table 4 we present the hypothesis test.

Table 4. Hypothesis Test

Hypothesis		β	<i>t values</i>	95% Confidence interval		<i>p values</i>	<i>Result</i>
				2.5%	97.5%		
H1	CSA → CSQ	0,140	1,976	0,009	0,287	0,048	Supported
H2	CCS → CSQ	0,405	4,512	0,223	0,574	0,000	Supported
H3	CSQ → SAT	0,558	11,372	0,463	0,654	0,000	Supported
H4	CSQ → TRT	0,293	3,945	0,143	0,430	0,000	Supported
H5	SAT → TRT	0,591	11,129	0,489	0,696	0,000	Supported
H6	SAT → LOY	0,297	2,740	0,078	0,503	0,006	Supported
H7	TRT → LOY	0,454	3,944	0,227	0,678	0,000	Supported

Notes: CSQ=Customer Service Quality; TRT = Trust; SAT = Satisfaction; LOY = Loyalty; CCS = Customized customer service; CSA = Customer Service Advertising.

5 Discussion and Conclusions

The results show that customer service quality is encouraged by service customisation ($\beta_{CCS \rightarrow CSQ} = 0.405$; $p < 0.01$) and also through customer service advertising ($\beta_{CSA \rightarrow CSQ} = 0.140$; $p < 0.05$). In this sense, following the literature reviewed, customization and advertising create value for the consumer and modify the consumer’s perception towards the online shop. Thus, as a practical suggestion, we suggest that online shops create options so that the consumer’s profile is customized according to his/her needs. Furthermore, it is also suggested that online shops effectively communicate their value so that it is possible to improve the quality of customer service [19, 34].

Quality customer service has valuable consequences for online shops, in particular improving satisfaction ($\beta_{CSQ \rightarrow SAT} = 0.558$; $p < 0.01$) and improving trust in the online shop ($\beta_{CSQ \rightarrow TRT} = 0.293$; $p < 0.01$). Therefore, our study suggests that strong customer service improves satisfaction [26] and facilitates trust in the online shop [28]. Thus, we consider that it is essential for online shops to focus on the quality of service to their customers. Additionally, this research considers that satisfaction is the basis of trust ($\beta_{SAT \rightarrow TRT} = 0.591$; $p < 0.01$) so online shops must focus on customer satisfaction.

Loyalty appears as a determining variable in our study and has a direct influence on satisfaction ($\beta_{SAT \rightarrow LOY} = 0.297$; $p < 0.01$) and trust ($\beta_{TRT \rightarrow LOY} = 0.454$; $p < 0.01$).

In summary, this research is based on the premise that customer service quality is central to the customer relationship for online shops to acquire loyalty. This study explores the concepts customer service advertising and personalised customer service along with customer service quality and evaluates their effects on customer loyalty and

satisfaction in online specialty retail shops. However, this study did not consider the e-marketing characteristics of online shops as antecedents, nor did it examine the consumer experience in online shops. We consider that this could provide useful information in relation to customer service quality. Furthermore, this research analysed data from a sample of mostly young online shoppers. We believe that there should be further studies with more diverse samples.

Acknowledgements. This work is financed by national funds through FCT - Fundação para a Ciência e a Tecnologia, I.P., under the project UIDB/04928/2020.

References

1. Santo PE, Marques AMA (2022) Determinants of the online purchase intention: hedonic motivations, prices, information and trust. *Baltic J Manag* 17(1):56–71. <https://doi.org/10.1108/BJM-04-2021-0140>
2. Santos S, Santo PE, Ferreira S (2021) Brands should be distinct! The contribution of ad's narrative and joy to distinctiveness. In: Martins N, Brandão D, Moreira da Silva F (eds) *Perspectives on design and digital communication II*. Springer series in design and innovation, vol 14. Springer, Cham, pp 319–332. https://doi.org/10.1007/978-3-030-75867-7_21
3. Barreto IF, Crescitelli E, Figueiredo JCB (2015) Resultados de marketing de relacionamento: Proposição de modelo por meio de mapeamento cognitivo. *Revista Brasileira de Gestao de Negocios* 17(58):1371–1389. <https://doi.org/10.7819/rbgn.v17i58.2692>
4. Augusto L, Santos S, Santo PME (2020) E-commerce: the main role of trust. *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao* 2020(E34):557–570. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85092241718&partnerID=40&md5=f857aca41f96d013055d0516c82f7e8f>
5. do Espírito Santo PM, Trigo A (2020) Influence of website design on e-trust and positive word of mouth intentions in e-commerce fashion websites. In: Themistocleous M, Papadaki M, Kamal MM (eds) *EMCIS 2020*. LNBIP, vol 402. Springer, Cham, pp 316–330. https://doi.org/10.1007/978-3-030-63396-7_21
6. Ellsworth PC (2003) Confusion, concentration, and other emotions of interest: commentary on Rozin and Cohen (2003). *Emotion* 3:81–85. <https://doi.org/10.1037/1528-3542.3.1.81>
7. Song H, Wang J, Han H (2019) Effect of image, satisfaction, trust, love, and respect on loyalty formation for name-brand coffee shops. *Int J Hosp Manag* 79:50–59 (2019). <https://doi.org/10.1016/j.ijhm.2018.12.011>
8. Anshari M, Almunawar MN, Lim SA, Al-Mudimigh A (2019) Customer relationship management and big data enabled: personalization & customization of services. *Appl Comput Inform* 15(2), 94–101. <https://doi.org/10.1016/j.aci.2018.05.004>
9. Augusto L, Santos S, Santo PE (2020) Willingness to pay a premium price for streaming services: the role of trust in services. *Smart Innov Syst Technol* 167:19–28
10. Scheidt S, Chung QB (2019) Making a case for speech analytics to improve customer service quality: vision, implementation, and evaluation. *Int J Inf Manag* 45:223–232. <https://doi.org/10.1016/j.ijinfomgt.2018.01.002>
11. Santo PE, Cardoso P (2021) 500 brand and marketing definitions: for researchers and professionals. Independently published
12. Jung AR (2017) The influence of perceived ad relevance on social media advertising: an empirical examination of a mediating role of privacy concern. *Comput Hum Behav* 70:303–309. <https://doi.org/10.1016/j.chb.2017.01.008>

13. Do Espírito Santo PM, Ferreira VHS, Marques AMA (2019) The impact of the employer's brand image on knowledge sharing. In: Proceedings of the European conference on knowledge management, ECKM, 2019, vol 1, pp 312–320. <https://doi.org/10.34190/KM.19.142>. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073380403&doi=10.34190%2fKM.19.142&partnerID=40&md5=6363c371e92c5aacc2fad83bbf2557ef>
14. Bleier A, Eisenbeiss M (2015) Personalized online advertising effectiveness: the interplay of what, when, and where. *Mark Sci* 34(5):669–688. <https://doi.org/10.1287/mksc.2015.0930>
15. Arora, N, et al: Putting one-to-one marketing to work: personalization, customization, and choice. *Mark Lett* 19(3):305. <https://doi.org/10.1007/s11002-008-9056-z>
16. Do Espírito Santo, PM, Santos S (2019) Sponsorship congruity and attitude towards advertising in music festivals: the role of trust and social media engagement. In: Multi conference on computer science and information systems, MCCSIS 2019 - Proceedings of the international conferences on ICT, society and human beings 2019, connected smart cities 2019 and web based communities and social media 2019, pp 309–316. https://doi.org/10.33965/wbc2019_2019081037. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073146436&doi=10.33965%2fwbc2019_2019081037&partnerID=40&md5=4ec2da2ed343bc00fa79c7c63c5f931c
17. Ferreira S, Santos S, Santo PE (2021) Social Media engagement through video advertising: informativeness and self brand connection as predictors. *Adv Intell Syst Comput* 1352:249–260
18. Santo PMDE, Ferreira VHS, Marques AMA (2021) How knowledge sharing mediates the effects of internal marketing on customer orientation. In: Proceedings of the European conference on knowledge management, ECKM, 2021, pp 657–665. <https://doi.org/10.34190/EKM.21.145>. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117127956&doi=10.34190%2fEKM.21.145&partnerID=40&md5=f3d7c0c4c6a4b4903563990ebc852333>
19. Roy SK, Shekhar V, Lassar WM, Chen T (2018) Customer engagement behaviors: the role of service convenience, fairness and quality. *J Retail Consum Serv* 44, 293–304. <https://doi.org/10.1016/j.jretconser.2018.07.018>
20. Roberts K, Varki S, Brodie R (2003) Measuring the quality of relationships in consumer services: an empirical study. *Eur J Mark* 37(1/2):169–196. <https://doi.org/10.1108/03090560310454037>
21. Shanahan T, Tran TP, Taylor EC (2019) Getting to know you: social media personalization as a means of enhancing brand loyalty and perceived quality. *J Retail Consum Serv* 47:57–65. <https://doi.org/10.1016/j.jretconser.2018.10.007>
22. Augusto L, Santos S, Santo PMDE (2020) Usability and sophistication of websites: a path to satisfaction in online retail. *RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao* 2020(E34):542–556. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85092249923&partnerID=40&md5=95dada791e15d752621934db89ae5484>
23. Kotler P, Keller KL (2009) *Marketing management*. Pearson Prentice Hall
24. Erciş A, Ünal S, Candan FB, Yıldırım H (2012) The effect of brand satisfaction, trust and brand commitment on loyalty and repurchase intentions. *Procedia Soc Behav Sci* 58:1395–1404. <https://doi.org/10.1016/j.sbspro.2012.09.1124>
25. Srihadi TF, Setiawan D (2015) The influence of different level of service characteristics and personal involvement towards consumer relational response behaviors. *Procedia Soc Behav Sci* 210:378–387. <https://doi.org/10.1016/j.sbspro.2015.11.385>
26. Seiders K, Voss GB, Grewal D, Godfrey AL (2005) Do satisfied customers buy more? Examining moderating influences in a retailing context. *J Mark* 69(4):26–43. <https://doi.org/10.1509/jmkg.2005.69.4.26>
27. Agustín C, Singh J (2005) Curvilinear effects of consumer loyalty determinants in relational exchanges. *J Mark Res* 42(1):96–108. <https://doi.org/10.1509/jmkr.42.1.96.56961>

28. Sahin A, Zehir C, Kitapçı H (2011) The effects of brand experiences, trust and satisfaction on building brand loyalty; an empirical research on global brands. *Procedia Soc Behav Sci* 24:1288–1301. <https://doi.org/10.1016/j.sbspro.2011.09.143>
29. Mabkhot HA, Salleh SM (2017) The influence of brand image and brand personality on brand loyalty, mediating by brand trust: an empirical study. *J Pengurusan* 50. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85031666645&partnerID=40&md5=eb14572b352d15d51eeb5b9477d4f6a8>
30. Bock DE, Mangus SM, Folse JAG (2016) The road to customer loyalty paved with service customization. *J Bus Res* 69(10):3923–3932. <https://doi.org/10.1016/j.jbusres.2016.06.002>
31. Hair JF, Black WC, Babin BJ, Anderson RE (2018) *Multivariate data analysis*. Pearson Education Limited
32. Fornell C, Larcker DF (1981) Evaluating structural equation models with unobservable variables and measurement error. *J Mark Res* 18(1):39–50. <https://doi.org/10.2307/3151312>
33. Henseler J, Ringle CM, Sarstedt M (2015) A new criterion for assessing discriminant validity in variance-based structural equation modeling. *J Acad Mark Sci* 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
34. Sivapalan A, Shankar A, Das M, Konalingam K (2022) How to enhance customer loyalty to retail stores via retail service quality practices? A moderated mediated mechanism. *Serv Mark Q* 43(4):445–465. <https://doi.org/10.1080/15332969.2021.1997504>