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Customer service in building loyalty for an e-commerce company

Servicio al cliente en la fidelización de una empresa de comercio electrónico

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Charles Augusto Ortiz Briceño
https://orcid.org/0000-0002-1711-9206
caortizo@ucvvirtual.edu.pe
Universidad César Vallejo. Lima, Peru

Wilmer Alberto Pachau Torres
https://orcid.org/0000-0003-0485-804X
Wpachauto@ucvvirtual.edu.pe
Universidad César Vallejo. Lima, Peru

Keith Martin Caspito Barboza
https://orcid.org/0009-0005-3756-252X
kcaspito@ucvvirtual.edu.pe
Universidad César Vallejo. Lima, Peru

Juan Edilberto Peñares Dolorier
https://orcid.org/0000-0001-5440-7736
C23864@utp.edu.pe
Universidad Tecnológica del Perú. Lima, Peru

Abstract

This study aimed to determine the relationship between CSM and customer loyalty in an e-commerce company in Lima, based on the theoretical framework of total quality management and relationship marketing. The research was applied and quantitative, with a non-experimental, cross-sectional, and descriptive-correlational design. The population consisted of 200 customers, from which a sample of 132 consumers was selected using probabilistic sampling. Data collection was carried out using a Likert-type questionnaire validated by expert judgment, with acceptable reliability (Cronbach's Alpha: CSM 0.790 and Loyalty 0.810). Data were analyzed using SPSS version 25 software, employing Pearson's correlation coefficient, justified by the normal distribution of the data. The results revealed a significant and very high positive correlation between CSM and loyalty, with a coefficient of r=0.850 ($p<0.05$), validating the central hypothesis. When analyzing the dimensions, service personalization showed the highest predictive weight (r=0.760), confirming its essential role in the loyalty of this niche. In contrast, post-service follow-up presented the lowest correlation (r=0.668) and the poorest perceived quality. It is concluded that CSM is a direct and significant driver of loyalty. As a main practical implication, the adoption of a CRM tool is recommended to automate and optimize follow-up and personalization.

Keywords: customer service management, loyalty, e-commerce.

Resumen

Este estudio tiene como objetivo determinar la relación que existe entre la gestión del servicio al cliente (GSC) y la fidelización en una empresa de comercio electrónico en Lima, basándose en el marco teórico de la calidad total y el marketing relacional. La investigación es de tipo aplicada y enfoque cuantitativo, con un diseño no experimental, transversal y descriptivo correlacional. La población está conformada por 200 clientes, de la cual se seleccionó una muestra de 132 consumidores mediante muestreo probabilístico. La recolección de datos se realizó a través de un cuestionario tipo Likert validado por juicio de expertos y cuya fiabilidad fue aceptable (Alfa de Cronbach: GSC 0.790 y Fidelización 0.810). Los datos fueron analizados mediante el software SPSS versión 25, utilizando el coeficiente de correlación de Pearson, justificado por la distribución normal de los datos. Los resultados revelan una correlación positiva y significativa de magnitud muy alta entre la GSC y la fidelización, con

un coeficiente de r=0.850 (p<0.05), validando la hipótesis central. Al analizar las dimensiones, la personalización del servicio muestra el mayor peso predictivo (r=0.760), confirmando su rol esencial en la lealtad de este nicho. En contraste, el seguimiento post-servicio presenta la correlación más baja (r=0.668) y la percepción de calidad más deficiente. Se concluye que la GSC es un motor directo y significativo de la fidelización. Como principal implicación práctica, se recomienda la adopción de una herramienta CRM para automatizar y optimizar el seguimiento y la personalización.

Palabras clave: gestión del servicio al cliente, fidelización, e-commerce.

Introduction

Customer loyalty in e-commerce is closely tied to repeat purchasing behavior, which is a key metric in the transition from sporadic sales to recurring revenue. For customers to place repeated orders with an online retailer, they must have positive experiences across all touchpoints, particularly in their interactions with customer service, understood as the support provided before, during, and after a purchase. Post-sale support, in fact, ranks among the primary factors that prompt consumers to recommend a company to others.

According to Vebrianti et al. (2025), e-commerce has reshaped the global business landscape, functioning as a catalyst for innovation and the development of digital infrastructures. Likewise, Jridi et al. (2025) point out that, in this rapidly digitizing environment, customer service management (CSM) has become a critical competitive factor, gradually shifting the focus from customer acquisition to retention, that ensures long-term economic sustainability and reduces the operational costs associated with attracting new consumers. Agustí et al. (2025) note that in today's hypercompetitive digital marketplace, mere transactions no longer guarantee business survival; rather, the key lies in customer loyalty, which serves as a direct indicator of long-term profitability.

The theoretical literature generally supports a direct correlation between perceived service quality and customer loyalty. Polat et al. (2026) assert that total quality management (TQM) theory holds that efficient internal service processes (such as staff training, response speed, and standardization) are foundational pillars for building enduring customer relationships. Zhu et al. (2025) observe that the current landscape is characterized by market fragmentation and the emergence of specialized niches that demand superior levels of attention.

The segment of digital gaming products exemplifies this specialization. Alzaydi (2024) contends that these consumers are particularly sensitive to support quality, requiring highly specialized technical assistance, near-instantaneous response times, and personalized solutions for problems that are often complex and specific to software or compatibility issues. For Simetgo et al. (2025), inefficiencies in CSM within this niche not only undermine satisfaction but also generate high customer churn and rapid dissemination of negative experiences — a particularly damaging dynamic in Peru's digital ecosystem, where post-sale and return-related distrust have historically been high.

In the Peruvian context, despite the continued expansion of e-commerce, significant challenges remain regarding consumer trust and after-sales service quality. Rodrigues and Patah (2025) argue that customer service management becomes the critical differentiator that transforms an occasional purchase into sustained loyalty. Authors such as Rajagukguk et al. (2024) have demonstrated that perceived service quality, through dimensions such as personalization, response time, and follow-up, is directly correlated with repurchase intention and emotional loyalty. The present study reflects persistent post-sale service challenges, evidenced by a high e-commerce return rate (20%) and a marked churn tendency (60% of customers with a poor experience do not return), underscoring the urgency of effective CSM strategies.

Despite the relevance of the gaming sector and the challenges inherent in digital customer care, a gap remains in the literature regarding the specific, quantifiable relationship between the management of customer service policies and loyalty levels within this niche in Lima. Accordingly, this research contributes empirical evidence in a specific geographic and sectoral context, offering practical implications for optimizing business strategies.

Given the foregoing, the general objective is to determine the relationship between customer service management and customer loyalty in an e-commerce company selling digital gaming products. To that end, the

following specific objectives were established: to determine the relationship between (a) staff training, (b) response time, (c) service personalization, and (d) post-service follow-up and customer loyalty at the company under study.

Methodology

The methodology adopted a quantitative, applied approach, seeking to generate precise knowledge oriented toward concrete solutions within the field of study. The design was non-experimental and cross-sectional, as the variables were not manipulated and data collection occurred at a single point in time during 2024.

The scope was descriptive-correlational, with the purpose of characterizing the variables and establishing the relationship between customer service management and loyalty. The population consisted of 200 customers, from which a representative sample of 132 clients was obtained through simple random probabilistic sampling.

The data collection technique was the survey, using a Likert-type questionnaire to measure both variables, which was validated through expert judgment. Instrument reliability, or internal consistency, was verified using Cronbach's alpha coefficient, yielding values of 0.790 for customer service management and 0.810 for loyalty.

Data analysis was conducted using SPSS version 25, applying descriptive statistics; for inferential analysis, Pearson's correlation coefficient was used, justified by Kolmogorov–Smirnov test results confirming a normal data distribution (sig. > 0.05). Finally, the research adhered to ethical principles of welfare, non-maleficence, justice, and autonomy, ensuring participant confidentiality and informed consent.

Results and discussion

The results obtained characterize the level of customer service management and its relationship with loyalty in the e-commerce company analyzed. Descriptive analysis first revealed that most customers perceived both constructs at a medium level, indicating moderate organizational performance in these areas. Correlational analyses further confirmed a positive, significant, and very strong association between customer service management and loyalty, thereby providing empirical support for the stated hypothesis. These findings offer a robust foundation for understanding interaction dynamics between customers and the company, and enable identification of the dimensions exerting the greatest influence on consumer loyalty within the context of digital gaming product e-commerce.

Table 1

Descriptive analysis of variables

	Customer Service		Loyalty	
	Frequency	Percentage	Frequency	Percentage
Low	30	22.37%	29	21.97%
Medium	80	60.61%	67	50.76%
High	22	16.67%	36	27.27%
Total	132	100.00%	132	100.00%

Note. Descriptive results for the customer service management and loyalty variables, SPSS version 25.

The table presents descriptive values for the customer service management variable, applied to 132 company clients. The data show that 60.61% of participants (80 individuals) perceived a medium level regarding the variable analyzed, while 16.67% placed it at a high level. Regarding loyalty, findings indicate that 27.27% of respondents perceived a high level, whereas 50.76% reported a medium level, and 21.97% perceived a low level. These results reflect that the predominant loyalty level within the customer portfolio is moderate, representing a strategic opportunity to develop actions that strengthen commitment within this majority segment and elevate it toward even greater fidelity.

Table 2

Descriptive analysis of customer service management dimensions

	Staff Training		Response Time		Service Personalization		Post-Service Follow-up	
	f	%	f	%	f	%	f	%
Low	28	21.21%	30	22.73%	29	21.97%	33	25.00%
Medium	80	60.61%	74	56.06%	67	50.76%	74	56.06%

High	24	18.18%	28	21.21%	36	27.27%	25	18.94%
Total	132	100.00%	132	100.00%	132	100.00%	132	100.00%

Note. Descriptive results for customer service management dimensions, SPSS version 25.

The table illustrates that the predominant perception across all four service dimensions analyzed was the medium level, with staff training registering the highest percentage in this category (60.61%). Nevertheless, examining the extremes reveals the principal strengths and weaknesses: service personalization emerged as the relative area of strength, obtaining the highest percentage of high ratings (27.27%) among all dimensions. In contrast, post-service follow-up was perceived as the greatest weakness, displaying the largest proportion of low-level responses (25.00%). Regarding response time and staff training, although more than half of respondents considered them functional, in both cases negative evaluations matched or exceeded positive ones, suggesting significant room for improvement and indicating that these are not perceived as points of excellence.

Table 3

Correlation between customer service management and loyalty

	Loyalty
Customer service management	Coefficient: 0.850** Sig.: 0.000 N: 132

Note. Pearson correlation for the general hypothesis, SPSS version 25.

The table displays a very strong correlation between customer service management and loyalty, with a Pearson coefficient of 0.850 (sig. < 0.05), allowing the null hypothesis to be rejected and the alternative hypothesis to be accepted, indicating the existence of a positive, significant, and very high-magnitude relationship between both variables in the e-commerce company studied.

Table 4

Correlation between customer service management dimensions and loyalty

	Staff Training	**Response Time**	**Service Personalization**	**Post-Service Follow-up**
Loyalty	Coefficient: 0.706** Sig.: 0.000 N: 132	Coefficient: 0.682** Sig.: 0.000 N: 132	Coefficient: 0.760** Sig.: 0.000 N: 132	Coefficient: 0.668** Sig.: 0.000 N: 132

Note. Pearson correlation for specific hypotheses, SPSS version 25.

Statistical analysis confirms a positive and significant relationship between all four service dimensions (Staff Training, Response Time, Service Personalization, and Post-Service Follow-up) and customer loyalty. In all cases (sig. < 0.05), the existence of a direct relationship was validated, demonstrating that improving any of these areas favorably impacts customer loyalty. The dimension with the strongest association was Service Personalization, with a coefficient of 0.760 (moderate-to-high correlation), followed by Staff Training (0.706). Response Time (0.682) and Post-Service Follow-up (0.668) also showed significant positive correlations, albeit slightly lower.

The general objective of this study was to determine the relationship between customer service management (CSM) and loyalty, yielding a Pearson correlation coefficient of 0.850 (sig < 0.05). This result, which validates the central research hypothesis, indicates a positive and very strong correlation between both variables, confirming that CSM strategies serve as a direct and significant predictor of consumer loyalty.

This finding aligns robustly with previous international and national studies, such as those of Rahmasari et al. (2024) (r = 0.803) and García et al. (2025), who likewise found a strong association between service quality and loyalty. Theoretically, this relationship is explained through total quality management (TQM) theory, which posits that continuous improvement and attention to customer expectations are essential for organizational quality and, consequently, for fostering loyalty. However, descriptive analysis revealed that customer perceptions of both variables clustered at a medium level (60.61% for CSM and 50.76% for loyalty), indicating that while service management exerts influence, substantial room for strategic improvement remains.

When examining specific dimensions, service personalization emerged as the most strongly correlated with loyalty (r = 0.760), a result consistent with relationship marketing theory, wherein adapting service to individual

preferences becomes a driver of engagement (Tran, 2024). This is supported by Kdv et al. (2025), who identified customer satisfaction (directly influenced by personalization) as the most potent predictor of loyalty in e-commerce.

Staff training, meanwhile, exhibited a moderately high correlation (r = 0.706), coinciding with Bhat and Gupta (2025), who highlighted quality management, including training, as an essential factor for loyalty in SMEs. In contrast, Response Time (r = 0.682) and, particularly, Post-Service Follow-up (r = 0.668) presented the lowest correlations, with follow-up emerging as the area of greatest perceived operational weakness (25.00% low perception).

This deficiency is critical, as the success of service strategies is measured by the efficiency of these processes, as demonstrated by Weinstein (2024), who found that implementing an organized system such as CRM increased loyalty in 74% of the companies studied.

Despite the robustness of the results, this investigation has three principal limitations associated with its design. Its cross-sectional nature captures the relationship between variables only at a single point in time (2024), precluding observation of long-term evolution or causality. The study focused on a single e-commerce company in Lima, restricting the direct generalizability of findings to other regions or the broader digital gaming e-commerce sector.

Data collection relied on self-report questionnaires (Likert-type), making customer perceptions susceptible to subjective biases or social desirability, although ethical measures were taken to minimize this effect through informed consent and confidentiality guarantees.

In sum, this study makes a fundamental contribution by quantifying and validating the strong correlation between customer service management and loyalty specifically within Lima's digital gaming product niche. The relevance of this finding lies in demonstrating that, for this technically demanding sector, service personalization constitutes the primary driver of loyalty, beyond mere response speed.

The central contribution to the field is the recommendation of a managerial intervention based on CRM technology, which not only addresses the weakness in post-service follow-up but also lays the groundwork for sustained growth by transforming CSM into a measurable and sustainable competitive advantage.

Conclusions

The study concludes that a positive, significant, and very strong relationship exists ($r = 0.850$, $p < 0.05$) between customer service management (CSM) and loyalty, thereby empirically validating the principles of CSM within the digital gaming product niche and highlighting its essential role in business sustainability and growth. In terms of applied value and contribution to knowledge, service personalization (r = 0.760) and staff training (r = 0.706) were determined to be the dimensions with the greatest impact on loyalty, demanding strategic attention.

As the principal practical implication, implementing a Customer Relationship Management (CRM) system is required to optimize customer care and address the perceived weakness in post-service follow-up (r = 0.668), transforming it into a driver of repurchase. Finally, the research provides a methodological foundation for future lines of study to adopt longitudinal or comparative designs to validate causality and generalize these findings to the broader e-gaming industry.

Regarding practical implications and applied value, service personalization was shown to be the dimension with the greatest impact on loyalty (r = 0.760). As a key practical implication, priority investment in processes and technology that enable adaptation of attention to the individual technical needs of gaming customers is required. Specifically, the implementation of a CRM system is recommended to automate post-service follow-up (the dimension with the lowest perception), thereby transforming this operational weakness into a measurable competitive advantage.

As suggestions for future research, subsequent investigations should adopt a longitudinal design to determine whether the observed high correlation translates into a causal relationship over the long term (i.e., whether improvements in CSM effectively increase retention rates). Additionally, comparative studies contrasting these results with the gaming sector in other Latin American regions are recommended, thereby broadening the generalizability and methodological value of the research.

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