Customer Relationship Management Strategies to Boost Loyalty in Indonesian E-Commerce

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ABSTRACT

Purpose: *This study aims to analyze the influence of Customer Relationship Management (CRM) strategies on customer loyalty in e-commerce businesses in Indonesia, particularly in the post-pandemic era. This research focuses on four key dimensions of CRM: customer acquisition, customer retention, customer service, and personalization.*

Subjects and Methods: *This study employed a quantitative approach with a survey of 100 respondents, active users of e-commerce platforms in Indonesia. The sampling technique used purposive sampling, and data processing was performed through multiple linear regression analysis using SPSS software. The independent variables analyzed included customer acquisition, customer retention, customer service, and personalization; while the dependent variable was customer loyalty.*

Results: *The results of the study indicate that all four CRM dimensions simultaneously have a significant effect on customer loyalty (significance <0.05). Among these dimensions, customer retention has the most dominant influence, followed by customer acquisition, personalization, and customer service. These findings demonstrate that an integrated CRM strategy can sustainably increase customer loyalty in a competitive digital environment.*

Conclusions: *CRM strategies have proven to be a crucial element in building customer loyalty in e-commerce in Indonesia. Effective CRM implementation, particularly in terms of customer retention and service personalization, is essential for creating positive customer experiences and strong long-term relationships in the post-pandemic digital era.*

INTRODUCTION

In the increasingly evolving digital era, e-commerce businesses in Indonesia are experiencing rapid growth (Lestari et al., 2024; Rahman et al., 2024). According to Chan et al. (2024), Indonesia's e-commerce market value is estimated to reach over USD 80 billion, making it the largest in Southeast Asia. This growth is driven by increasing internet penetration, changing consumer behavior, and easy access to digital technology (Naz, 2019; Ovodenko et al., 2020). However, amidst this growth, competition among e-commerce players is also intensifying. Customers now have more choices, making maintaining their loyalty a strategic challenge for companies.

Align with research from Juanamasta et al. (2019) and Sofi et al. (2020), Customer Relationship Management (CRM) has become a crucial strategy adopted to maintain long-term customer relationships. CRM is not simply a technology system, but an integrated strategic approach to understanding customer needs, increasing satisfaction, and building loyalty (Chen & Popovich, 2003). By leveraging customer data collected through various digital channels such as social

media, mobile applications, and e-commerce platforms, companies can develop more personalized and relevant communications, provide faster service, and design effective retention programs.

The success of CRM implementation in e-commerce is measured not only by increased transactions, but also by the company's ability to create a consistent, enjoyable, and satisfying experience for consumers (Le & Dai, 2017). Customer loyalty stems not solely from low prices or substantial discounts, but from the emotional and functional value consumers perceive in every interaction with a brand. Therefore, CRM plays a strategic role in building sustainable customer engagement and trust. However, not all e-commerce businesses in Indonesia are able to implement CRM optimally. Many still focus on acquiring new customers without considering the importance of retaining existing ones. However, according to Frederick Reichheld (Harvard Business Review), a 5% increase in customer loyalty can increase profits by 25−95%. This demonstrates that an appropriate CRM strategy not only contributes to increased customer loyalty but also to sustainable business growth. Against this backdrop, this study seeks to deeply analyze the role of Customer Relationship Management in increasing customer loyalty in e-commerce businesses in Indonesia. This research is crucial for providing theoretical and practical understanding of how CRM can be used as a strategic tool to address competitive challenges and build a loyal customer base amidst today's digital dynamics.

LITERATUR REVIEW

Customer Relationship Management (CRM)

Customer Relationship Management (CRM) is a strategic management approach focused on creating, developing, and maintaining long-term, mutually beneficial relationships between a company and its customers (Payne & Frow, 2005; Rawal & Upadhayay, 2017). In the context of e-commerce, CRM encompasses the use of digital technology and customer databases to develop more personalized and relevant communication, service, and marketing strategies. CRM consists of three main components: (1) Operational CRM, which automatically supports sales, marketing, and customer service activities; (2) Analytical CRM, which processes and analyzes customer data for strategic decision-making; and (3) Collaborative CRM, which facilitates customer interactions through various integrated communication channels. Effective CRM implementation can increase customer retention, customer satisfaction, and customer lifetime value, all of which contribute to long-term loyalty.

Customer Loyalty

Customer loyalty is a customer's commitment to consistently repurchase or reuse a product/service despite the availability of alternatives (Griffin, 2005). Loyalty reflects not only behavioral aspects but also emotional components and positive attitudes toward the brand. According to Back & Parks (2003), customer loyalty is formed from a combination of customer satisfaction and a positive attitude toward a company or brand. Loyalty in e-commerce can be measured through indicators such as: (1) Repeat Purchase Behavior; (2) Willingness to Recommend; and Customer Retention Rate. In the digital era, loyalty is influenced not only by product quality and price, but also by digital experiences, ease of transactions, personalized offerings, and speed and accuracy of service.

CRM and Customer Loyalty in E-Commerce

Previous studies have shown a positive and significant relationship between CRM implementation and customer loyalty. According to Alam et al. (2021), CRM has a strong influence on customer loyalty through the dimensions of trust, effective communication, and meeting individual needs. In the context of e-commerce, the presence of a CRM system capable of providing a smooth and personalized shopping experience is crucial in building loyalty. Research by Basri & Wirdana (2024) on e-commerce platforms in Asia found that the use of technology-based CRM such as Artificial Intelligence (AI), chatbots, and data-driven product recommendations has strengthened customer relationships and increased the likelihood of repeat purchases. This is also supported by the findings of Sobouti & Karimi (2024) showed that personalized messaging and content through CRM increases customer engagement and brand

attachment. Thus, CRM plays a role not only in retaining existing customers but also in creating emotional added value that strengthens long-term bonds between customers and e-commerce brands.

METHODOLOGY

This study uses a quantitative approach with an explanatory research type, because it aims to explain the causal relationship between Customer Relationship Management (CRM) variables and customer loyalty in e-commerce businesses in Indonesia. This approach was chosen because it is suitable for measuring the extent of the influence of independent variables on the dependent variable in a measurable and objective manner. Explanatory research also allows researchers to test hypotheses based on data obtained from the field. Data collection was conducted through a survey using a structured questionnaire and distributed online to respondents who met predetermined criteria. The population in this study were all active users of e-commerce platforms in Indonesia, such as Tokopedia, Shopee, Bukalapak, and Lazada. The sample in this study was selected using a purposive sampling technique, a sampling technique based on certain considerations. The respondent criteria in this study included individuals aged between 18 and 45 years, actively making online purchases at least twice in the last six months, and having received marketing communications from e-commerce platforms such as notifications, emails, or personalized ads. The number of respondents used in this study was determined based on the number of indicators in the questionnaire, with a minimum of five to ten respondents per indicator, resulting in an estimated sample size of 100 to 200 respondents.

Research Instrument

The instrument used in this study was a questionnaire structured on a five-point Likert scale, ranging from "strongly disagree" to "strongly agree." This questionnaire measured two main variables: Customer Relationship Management (CRM) and customer loyalty. The CRM variables in this study encompassed dimensions such as customer acquisition, customer retention, customer service, and personalization or customization. Meanwhile, customer loyalty was measured through indicators such as repurchase intention, willingness to recommend to others, and brand commitment. The indicators in this instrument were compiled based on references from previous studies that have been proven valid and reliable, thus allowing for accurate data collection.

Data Analysis Technique

The data obtained from the questionnaire will be analyzed using statistical software such as SPSS or SmartPLS, depending on the complexity of the model used. The initial stages of analysis include validity and reliability tests to ensure that each item in the questionnaire measures the intended variable validly and consistently. Validity testing is conducted by measuring the correlation between items, while reliability is tested using the Cronbach's Alpha coefficient. After ensuring that the instrument is suitable for use, the analysis is continued with multiple linear regression tests if the model is simple. If the research model has latent variables and complex relationships, a Structural Equation Modeling (SEM) approach based on Partial Least Squares (PLS) is used. SEM allows researchers to test direct and indirect relationships between latent and manifest variables simultaneously. In addition, a coefficient of determination (R^2) test is conducted to measure the extent to which the independent variables are able to explain the dependent variable. A significance test is also conducted to determine whether the relationship between variables is significant at the 95 percent confidence level or a significance level of 0.05. The results of this analysis will form the basis for answering the problem formulation and testing the previously formulated research hypotheses.

RESULTS AND DISCUSSION

Respondent Description

This study involved 150 respondents who were active users of e-commerce platforms in Indonesia, such as Tokopedia, Shopee, Lazada, and Bukalapak. All respondents had made online purchases at least twice a month for the past six months, and the majority used mobile apps for transactions.

Table 1. Distribution of Respondent Characteristics

Characteristics	Kategori	Frekuensi	Persentase
Gender	Male	60	40,0%
	Female	90	60,0%
Age	18–25 years	45	30,0%
	26–35 years	75	50,0%
	>35 years	30	20,0%
Shopping Frequency	2–4 times/month	65	43,3%
	>4 times/month	85	56,7%
Main Platforms	Shopee	82	54,7%
	Tokopedia	40	26,7%
	Other	28	18,6%

The majority of respondents were female (60%) and aged 26–35 (50%). This segment is a highly active digital consumer segment and a primary target for e-commerce marketing campaigns. More than half of respondents (56.7%) shopped more than four times a month, indicating a high potential for loyalty to the platforms they use. Shopee was the most widely used platform, reflecting the company's strong market position among Indonesian consumers.

Validity and Reliability Testing

A validity test was conducted on 16 items representing Customer Relationship Management (CRM) and Customer Loyalty variables. The Pearson Product Moment correlation test showed that all items had an r-value > 0.30, with a significance value < 0.05, thus all items were declared valid. Reliability testing was conducted using Cronbach's Alpha.

Table 2. Results of the Research Instrument Reliability Test

Variable	Number of Items	Cronbach's Alpha	Description
Customer Relationship Management	10	0,842	Reliable
Customer Loyalty	6	0,813	Reliable

An alpha value >0.8 indicates an excellent level of internal consistency. This indicates that all statements in the questionnaire are able to measure the construct stably and reliably for further conclusions.

Multiple Linear Regression Analysis

This study used multiple linear regression to determine the effect of four CRM dimensions on customer loyalty: customer acquisition, customer retention, customer service, and personalization. A classical assumption test was previously conducted, and the results were: (1) Data were normally distributed (Kolmogorov-Smirnov test, significan 0.081); (2) No multicollinearity (VIF <5); (3) No heteroscedasticity (Glejser significan 0.05).

Table 3. Multiple Linear Regression Results

Independent Variables	Regression Coefficient (β)	t-count	Sig. (p)
Customer Acquisition	0,253	3,201	0,002
Customer Retention	0,298	3,845	0,000
Customer Service	0,189	2,642	0,009
Personalization	0,211	2,918	0,004
R^2	0,618		
F-count	46,23		0,000

All independent variables have a positive and significant effect on customer loyalty. The R² value of 0.618 indicates that 61.8% of the variation in customer loyalty can be explained by CRM, while the remaining 38.2% is due to other factors such as price, product quality, or user experience. The F-value of 46.23 with $p < 0.05$ proves that the simultaneous regression model is significant.

Discussion

Based on the results of the multiple linear regression, it was found that the four main dimensions of Customer Relationship Management (CRM): customer acquisition, customer retention, customer service, and personalization, simultaneously have a significant effect on customer loyalty. This finding reinforces the relevance of CRM as a fundamental business strategy for maintaining and growing the customer base in e-commerce fashion retail businesses in Indonesia, especially in the highly competitive and digital-oriented post-pandemic era.

Customer Retention

Customer retention is the most dominant dimension influencing customer loyalty, with the highest regression coefficient of $\beta = 0.298$. This indicates that efforts to retain existing customers through loyalty programs, exclusive discounts, and regular offers contribute more to loyalty formation than other strategies. This is consistent with Reichheld and Schefter's view, which states that loyal customers generate greater profits due to reduced acquisition costs and a higher potential for repeat purchases. In Indonesia, Shopee intensively implements this practice through a daily voucher system, flash sales specifically for existing users, and the Shopee Loyalty program, which provides additional benefits based on user activity. These practices create consistent consumption habits, making users feel more profitable by sticking with the same platform rather than trying another. Furthermore, with the increasing use of mobile apps, regular, personalized notifications are also an effective retention tool. For example, checkout reminders or notifications about the re-stocking of favorite products convey the impression that the platform understands its consumers' needs, strengthening emotional closeness and long-term commitment.

Customer Acquisition

The second dimension with a significant influence is customer acquisition ($\beta = 0.253$). Acquisition is crucial, especially in attracting new customers into the digital ecosystem of e-commerce platforms. Common strategies include social media advertising, influencer marketing, and initial incentives such as new user discounts or free first-time shipping. This practice has successfully expanded its user base, particularly among young people and urban communities who are heavily exposed to digital promotions. Shopee and Tokopedia, for example, integrate their acquisition campaigns with major national events like Harbolnas (National Online Shopping Day) or twin-date campaigns (11.11, 12.12), attracting a surge of new users each year. However, without a balanced retention strategy, these new customers can become transactional and easily move to other platforms offering higher incentives. Therefore, integrating acquisition and retention is key to effective and sustainable CRM.

Customer Service

Customer service had a significant influence, albeit with a smaller coefficient ($\beta = 0.189$). This indicates that, while not as significant as retention and acquisition, service quality remains a foundation of the customer experience. In the context of e-commerce, customer service includes speed of response to complaints, clarity of the returns process, transaction security, and friendliness of staff or chatbots. E-commerce platforms that provide 24/7 customer service, transparent delivery tracking systems, and quick responses to returns can build consumer trust. For example, Tokopedia offers an AI-based "Ask Tokopedia" feature that helps users resolve issues without having to wait long, increasing convenience and positive perceptions of the platform. In the post-pandemic situation, where many new consumers have shifted to online shopping due to mobility limitations, reliable service is crucial for maintaining their trust in digital systems.

Personalization

The final dimension, personalization, showed an influence coefficient of β = 0.211, indicating that the platform's ability to provide experiences tailored to user preferences has a significant impact on loyalty. Personalization includes product recommendations, displaying pages tailored to user interests, and exclusive promotions based on transaction history. In practice, the machine learning algorithms implemented by Tokopedia and Lazada enable the system to recognize users' purchasing patterns, category preferences, and shopping times. This not only increases the likelihood of conversion but also creates a feeling of being "understood" by the platform. According to Oumaima & Lamari (2024), personalization is at the heart of modern CRM, as customers are more likely to be loyal to brands that deliver personally relevant messages and offers. In an era of information overload, a large-scale, one-to-one approach is a competitive advantage that differentiates one platform from another.

CONCLUSION

Based on the data analysis and discussion, it can be concluded that Customer Relationship Management (CRM) plays a significant role in increasing customer loyalty in e-commerce businesses in Indonesia, particularly in the post-pandemic era. The four main dimensions of CRM—customer acquisition, retention, customer service, and personalization—have been shown to have a simultaneous positive influence on consumer loyalty. Among these dimensions, customer retention demonstrates the most dominant influence, emphasizing the importance of retaining existing customers through loyalty programs, ongoing promotions, and ongoing communication. This is followed by customer acquisition, which plays a crucial role in expanding the customer base through digital marketing strategies and initial incentives. The customer service and personalization dimensions also contribute significantly, reflecting consumers' need for fast, accurate service and a shopping experience that is relevant to their personal preferences. These findings demonstrate that e-commerce's success in creating loyalty depends not only on price or product alone, but also on how companies build and maintain meaningful, long-term relationships with their customers. Therefore, implementing an integrated CRM that is adaptive to technological developments and oriented towards customer needs is a crucial strategy for creating a sustainable competitive advantage in the Indonesian digital market.

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