



The Influence of Customer Relationship Management Organizational Practices and Customer Relationship Management Technological Practices on Veterinary Clinic Performance Mediated by Customer Retention (Study on Veterinary Clinics in Malang)

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Abstract

This study aims to analyze the effect of Customer Relationship Management (CRM) practices on organizational and technological dimensions on veterinary clinic performance, considering customer retention as a mediating variable. The study was conducted at a pet clinic in Malang City using a quantitative approach and hypothesis testing through the Partial Least Square (PLS) method. The results showed that Organizational CRM practices had a positive and significant effect on clinic performance and customer retention, while Technology CRM practices had a significant effect on customer retention but were not significant on clinic performance directly. Customer retention proved to be a partial mediator in the relationship between Organizational CRM and clinic performance, as well as a full mediator in the relationship between Technology CRM and clinic performance. These findings emphasize the importance of focusing on organizational management and CRM technology integration that supports customer retention to improve veterinary clinic performance. This study provides theoretical and practical contributions related to CRM implementation in the context of increasingly competitive animal health services.

Keywords: *CRM Organizational Practices; CRM Technological Practices; Customer Retention; Pet Clinic Performance*

Introduction

The COVID-19 pandemic, which began in 2020, caused unprecedented changes in human behavior and disrupted numerous economic sectors worldwide. Among the most affected was the pet care industry, which experienced a significant surge in demand as lockdowns and stay-at-home advisories prompted people to adopt pets as companions during periods of isolation (Republika, 2020). This trend not only increased pet ownership rates but also transformed the way individuals relate to their pets. The

concept of "pet ownership" evolved into "pet parenting," where pets are regarded as family members, requiring dedicated care and emotional attention (PET Indonesia, 2023). This shift reflects a broader societal change in attitudes towards pets, elevating their status in households globally.

Accompanying this transformation is the rapid growth of the pet economy, a sector driven by consumer demand for premium pet products and specialized services that enhance pet welfare. The global pet care market, valued at USD 18 billion in 2023, is projected to more than double to USD 39 billion by 2033, emphasizing its immense potential for economic growth (Future Marketing Insight, 2023). In Indonesia, this trend is equally pronounced. A study conducted by Landx (2022) revealed that 72% of Indonesians currently own pets, predominantly cats and dogs. Furthermore, the data highlighted that over 15% of pet owners maintain more than two types of pets within a single household. These statistics underscore the growing importance of pet care services, such as health checkups, vaccinations, grooming, and behavioral consultations, to meet the needs of this expanding market (Landx, 2022).

One of the most significant impacts of this trend can be observed in the veterinary services sector. Veterinary clinics, which play a critical role in ensuring pet health and welfare, are becoming increasingly essential in urban and rural areas alike. For instance, in Malang—a city known as an educational hub and cultural center—over 150 veterinary clinics have emerged to cater to rising consumer demand (Sumber Data Diolah, 2024). These clinics are not only meeting the basic needs of pet health but are also striving to provide personalized, high-quality services that align with evolving customer expectations. The competition in the veterinary industry has intensified, requiring clinics to innovate and enhance their operational performance to remain competitive.

Customer Relationship Management (CRM) has emerged as a pivotal tool in addressing these challenges. CRM encompasses organizational and technological practices designed to build and maintain long-term, mutually beneficial relationships with customers. In the context of veterinary clinics, CRM enables businesses to gather, analyze, and utilize customer data to tailor services that meet specific client preferences and create a superior customer experience (Sigala & Connolly, 2004; Ferrell, Hartline, & Hochstein, 2022). Effective CRM implementation not only improves service quality but also contributes to customer retention and business growth by fostering loyalty and satisfaction (Hoyer et al., 2023). However, the adoption of CRM is not without challenges. It is often perceived narrowly as an IT initiative, leading to high rates of implementation failure (Dubey & Sangle, 2019). A successful CRM strategy requires a comprehensive approach that integrates both organizational practices and advanced technological systems.

Empirical research has demonstrated the potential of CRM to enhance business performance in various industries. For example, studies by Lebdaoui and Chetioui (2020) and Sukaatmadja et al. (2017) have shown that CRM organizational and technological practices significantly influence business outcomes. These practices include customer-focused strategies, top management support, employee training, and interdepartmental collaboration. From a technological perspective, CRM involves customer data processing, system integration, supplier support, and ease of technology use (Al-Dmour et al., 2019; Dubey & Sangle, 2019). Despite these insights, research on CRM within the pet care industry, particularly in veterinary clinics, remains limited.

In Indonesia, the growing emphasis on pet care has created opportunities and challenges for veterinary clinics. While the demand for high-quality services is increasing, many clinics face pressure to innovate and improve their operational efficiency to meet customer expectations. This situation highlights the importance of understanding how CRM practices can influence clinic performance, particularly in a post-pandemic environment where customer preferences and behaviors continue to evolve.

This study aims to fill the research gap by investigating the impact of CRM organizational and technological practices on the performance of veterinary clinics in Malang, with customer retention

serving as a mediating variable. Customer retention, which reflects the ability of a business to maintain its customer base, is a key metric for assessing service quality and operational success (Kotler, Armstrong, & Balasubramanian, 2023). Effective CRM practices that foster customer loyalty and satisfaction are essential for sustaining long-term business growth. Furthermore, the study explores the mechanisms through which CRM contributes to enhanced clinic performance, providing practical insights for industry stakeholders.

This research is particularly timely as the pet economy continues to expand, and veterinary clinics face increasing competition. By examining the interplay between CRM practices and clinic performance, this study seeks to provide a comprehensive understanding of how veterinary clinics can leverage CRM to achieve sustainable growth and meet the complex needs of modern pet owners.

Theoretical Framework and Hypothesis

Customer Relationship Management (CRM)

Customer Relationship Management (CRM) is a widely recognized business strategy aimed at developing and maintaining long-term, profitable relationships with customers. It is defined as the process of acquiring, retaining, and satisfying customers by delivering superior value through effective management of customer information (Kotler, Armstrong, & Balasubramanian, 2023). In this study, CRM is categorized into two main dimensions: organizational practices and technological practices, both of which play a crucial role in improving customer relationships and overall organizational performance.

Organizational practices in CRM include customer orientation, top management support, employee training, and interdepartmental collaboration. These practices emphasize creating a customer-centric culture within the organization to enhance service delivery and build stronger relationships with customers (Rafiki et al., 2019). Such practices are essential for retaining customers and ensuring long-term loyalty, as they focus on understanding customer needs and delivering personalized services that exceed expectations.

Technological practices in CRM focus on the use of digital tools and systems to streamline operations and enhance customer experiences. These practices include customer data processing, system integration, and ensuring the ease of use of technology. By leveraging advanced technologies, businesses can collect, analyze, and utilize customer data to provide tailored solutions and improve service efficiency (Dubey & Sangle, 2019). The integration of technology in CRM not only helps businesses to understand customer preferences but also enables them to predict trends and make informed decisions that align with customer expectations.

Customer Retention

Customer retention serves as a mediator in the relationship between CRM practices and organizational performance. It refers to the ability of a business to maintain its existing customer base by fostering long-term loyalty and satisfaction. High retention rates are associated with reduced costs of customer acquisition, increased revenue from repeat purchases, and positive word-of-mouth referrals (Hoyer et al., 2023). Effective CRM practices contribute to improved retention by ensuring that customers feel valued and supported, which in turn enhances overall business performance.

Performance

Organizational performance is the ultimate outcome variable in this study and is measured through financial and non-financial indicators. Financial indicators include revenue growth, profitability,

and return on investment, while non-financial indicators encompass customer satisfaction, service quality, and market share (Dess, McNamara, & Eisner, 2023; Venkatraman & Ramanujam, 1986). The implementation of effective CRM practices is expected to positively influence these performance metrics by driving customer satisfaction, loyalty, and operational efficiency.

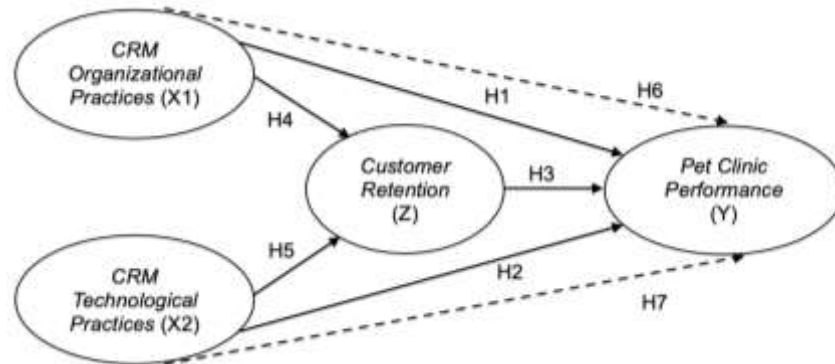


Figure 1. Conceptual Framework
Source: Developed for thesis study, 2024

- H1: CRM Organizational Practices have a positive and significant effect on Pet Clinic Performance.
- H2: CRM Technological Practices have a positive and significant effect on Pet Clinic Performance.
- H3: Customer Retention has a positive and significant effect on Pet Clinic Performance.
- H4: CRM Organizational Practices have a positive and significant effect on Customer Retention.
- H5: CRM Technological Practices have a positive and significant effect on Customer Retention.
- H6: Customer Retention mediates the relationship between CRM Organizational Practices and Pet Clinic Performance.
- H7: Customer Retention mediates the relationship between CRM Technological Practices and Pet Clinic Performance.

Research Method

Research Approach

This research investigates the impact of CRM organizational practices and CRM technological practices on pet clinic performance, mediated by customer satisfaction. A positivist approach is adopted, utilizing quantitative methods as the primary framework. The data collected is quantified and analyzed statistically to establish relationships between variables. This explanatory research design, as described by Creswell and Creswell (2023), seeks to reveal the degree and direction of influence among independent variables (CRM organizational and technological practices), the mediating variable (customer satisfaction), and the dependent variable (clinic performance).

The study was conducted in Malang City, Indonesia, chosen due to its diverse pet clinic landscape, high demand for pet care, and active stakeholder participation in animal welfare. Malang's demographic diversity and regional relevance further justified its selection. The population comprises all 52 registered pet clinics in the city, and the study adopts a census sampling approach, ensuring all clinics

are included. This method eliminates sampling bias and provides comprehensive representation, aligning with recommendations by Creswell and Creswell (2023) and Malhotra (2020). The inclusion criteria for clinics involve operational longevity (minimum three years), CRM adoption, proper licensing, and specific infrastructure standards.

Primary data is collected through questionnaires, interviews, and direct observations, while secondary data includes financial reports and business documents. The questionnaires, structured with a Likert scale (1 = strongly disagree to 5 = strongly agree), measure perceptions of CRM practices, customer satisfaction, and clinic performance. The study ensures instrument validity through r-value testing and reliability using Cronbach's Alpha, with values above 0.6 considered acceptable (Ghozali, 2021).

Data analysis employs Partial Least Squares - Structural Equation Modeling (PLS-SEM) via SmartPLS 3, which is suitable for examining complex relationships and predictive modeling. Descriptive statistics summarize the sample's characteristics, while inferential analysis evaluates measurement and structural models. Outer model assessments test reliability and validity, while inner model evaluations examine R-squared values and path coefficients. Hypothesis testing utilizes bootstrapping for significance testing at a 95% confidence level, supported by descriptive insights from SPSS 22.

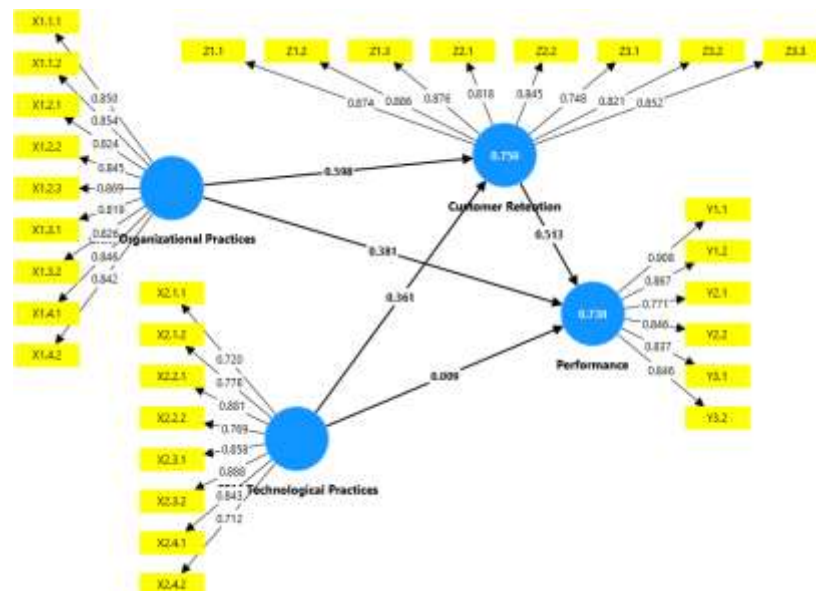
Data Analysis and Discussion

Data Processing Technique using Partial Least Square Structural Equation Modeling (PLS-SEM)

PLS-SEM was employed to analyze the relationships between variables in this study. This method is advantageous for examining complex structural models and predictive relationships. The analysis was conducted using SmartPLS software, which allows simultaneous evaluation of measurement models (outer models) and structural models (inner models). The method involves bootstrapping to test significance levels and minimizes data normality issues.

Evaluation of the Outer Model (Measurement Model)

The outer model assessment focuses on verifying the reliability and validity of constructs. This involves three main tests: convergent validity, discriminant validity, and composite reliability.



Outer Loadings (Mean, STDEV, T-Values)

	<i>Original sample (O)</i>	<i>T statistics ((O/STDEV)</i>	<i>P values</i>	Keterangan
X1.1.1 <- CRM Organizational Practices	0.850	16.614	0.000	Valid
X1.1.2 <- CRM Organizational Practices	0.854	28.150	0.000	Valid
X1.2.1 <- CRM Organizational Practices	0.824	13.440	0.000	Valid
X1.2.2 <- CRM Organizational Practices	0.845	23.388	0.000	Valid
X1.2.3 <- CRM Organizational Practices	0.869	22.037	0.000	Valid
X1.3.1 <- CRM Organizational Practices	0.819	17.522	0.000	Valid
X1.3.2 <- CRM Organizational Practices	0.826	15.740	0.000	Valid
X1.4.1 <- CRM Organizational Practices	0.846	19.320	0.000	Valid
X1.4.2 <- CRM Organizational Practices	0.842	14.289	0.000	Valid
X2.1.1 <- CRM Technological Practices	0.720	7.765	0.000	Valid
X2.1.2 <- CRM Technological Practices	0.778	10.943	0.000	Valid
X2.2.1 <- CRM Technological Practices	0.881	25.294	0.000	Valid
X2.2.2 <- CRM Technological Practices	0.769	9.817	0.000	Valid
X2.3.1 <- CRM Technological Practices	0.858	22.258	0.000	Valid
X2.3.2 <- CRM Technological Practices	0.888	29.148	0.000	Valid
X2.4.1 <- CRM Technological Practices	0.843	20.122	0.000	Valid
X2.4.2 <- CRM Technological Practices	0.712	10.583	0.000	Valid
Y1.1 <- Performance	0.908	33.043	0.000	Valid
Y1.2 <- Performance	0.867	19.665	0.000	Valid
Y2.1 <- Performance	0.771	9.893	0.000	Valid
Y2.2 <- Performance	0.846	17.252	0.000	Valid
Y3.1 <- Performance	0.837	20.682	0.000	Valid
Y3.2 <- Performance	0.846	25.527	0.000	Valid
Z1.1 <- Customer Retention	0.874	27.045	0.000	Valid
Z1.2 <- Customer Retention	0.886	31.696	0.000	Valid
Z1.3 <- Customer Retention	0.876	24.858	0.000	Valid
Z2.1 <- Customer Retention	0.818	18.042	0.000	Valid
Z2.2 <- Customer Retention	0.845	17.678	0.000	Valid
Z3.1 <- Customer Retention	0.748	9.348	0.000	Valid
Z3.2 <- Customer Retention	0.821	14.658	0.000	Valid
Z3.3 <- Customer Retention	0.852	26.466	0.000	Valid

Discriminant Validity

Discriminant validity ensures that constructs are distinct from one another. In this study, discriminant validity was assessed through cross-loading values and the Fornell-Larcker criterion. Each indicator's outer loading was higher for its own construct compared to others, confirming discriminant validity. The Fornell-Larcker test further showed that the square root of the AVE for each construct was greater than the correlation between constructs, satisfying this criterion.

Discriminant Validity (Cross Loading)

	<i>CRM Organizational Practices</i>	<i>CRM Technological Practices</i>	<i>Customer Retention</i>	<i>Performance</i>
<i>X1.1.1</i>	0.850	0.533	0.698	0.698
<i>X1.1.2</i>	0.854	0.597	0.728	0.778
<i>X1.2.1</i>	0.824	0.445	0.701	0.616
<i>X1.2.2</i>	0.845	0.553	0.764	0.648
<i>X1.2.3</i>	0.869	0.570	0.673	0.694
<i>X1.3.1</i>	0.819	0.479	0.660	0.683
<i>X1.3.2</i>	0.826	0.500	0.690	0.771
<i>X1.4.1</i>	0.846	0.438	0.627	0.567
<i>X1.4.2</i>	0.842	0.451	0.627	0.606
<i>X2.1.1</i>	0.509	0.720	0.520	0.430
<i>X2.1.2</i>	0.447	0.778	0.494	0.414
<i>X2.2.1</i>	0.479	0.881	0.628	0.546
<i>X2.2.2</i>	0.385	0.769	0.482	0.397
<i>X2.3.1</i>	0.538	0.858	0.631	0.516
<i>X2.3.2</i>	0.592	0.888	0.692	0.549
<i>X2.4.1</i>	0.520	0.843	0.673	0.530
<i>X2.4.2</i>	0.426	0.712	0.507	0.535
<i>Y1.1</i>	0.759	0.567	0.830	0.908
<i>Y1.2</i>	0.664	0.456	0.686	0.867
<i>Y2.1</i>	0.554	0.343	0.538	0.771
<i>Y2.2</i>	0.753	0.569	0.728	0.846
<i>Y3.1</i>	0.680	0.612	0.734	0.837
<i>Y3.2</i>	0.649	0.516	0.658	0.846
<i>Z1.1</i>	0.694	0.688	0.874	0.702
<i>Z1.2</i>	0.620	0.605	0.856	0.731
<i>Z1.3</i>	0.733	0.641	0.876	0.670
<i>Z2.1</i>	0.793	0.546	0.818	0.733
<i>Z2.2</i>	0.749	0.665	0.845	0.692
<i>Z3.1</i>	0.606	0.540	0.748	0.693
<i>Z3.2</i>	0.640	0.570	0.821	0.716
<i>Z3.3</i>	0.638	0.604	0.852	0.641

Discriminant Validity (Fornell Larcker)

	(AVE)	<i>CRM Organizational Practices</i>	<i>CRM Technological Practices</i>	<i>Customer Retention</i>	<i>Performance</i>
<i>CRM Organizational Practices</i>	0.709	0.842			
<i>CRM Technological Practices</i>	0.654	0.606	0.809		
<i>Customer Retention</i>	0.707	0.817	0.724	0.841	
<i>Performance</i>	0.717	0.805	0.611	0.830	0.847

Composite Reliability, Average Variance Extracted (AVE), and Cronbach Alpha

Composite reliability and Cronbach’s alpha were used to measure the internal consistency of constructs. All constructs had composite reliability and Cronbach’s alpha values exceeding 0.7, indicating high reliability. The AVE values, which measure convergent validity, were all above the 0.5 threshold, demonstrating adequate construct validity.

Reliability

	Cronbach's alpha	Composite reliability	Keterangan
CRM Organizational Practices	0.949	0.956	Reliabel
CRM Technological Practices	0.923	0.938	Reliabel
Customer Retention	0.940	0.951	Reliabel
Performance	0.921	0.938	Reliabel

Goodness of Fit (GoF)

The goodness-of-fit index evaluates the overall fit of the model. The standardized root mean square residual (SRMR) was 0.076, below the recommended threshold of 0.08, indicating a good fit. The GoF value was calculated as 0.720, suggesting a strong ability of the model to explain the observed data.

Goodness of Fit (GoF)

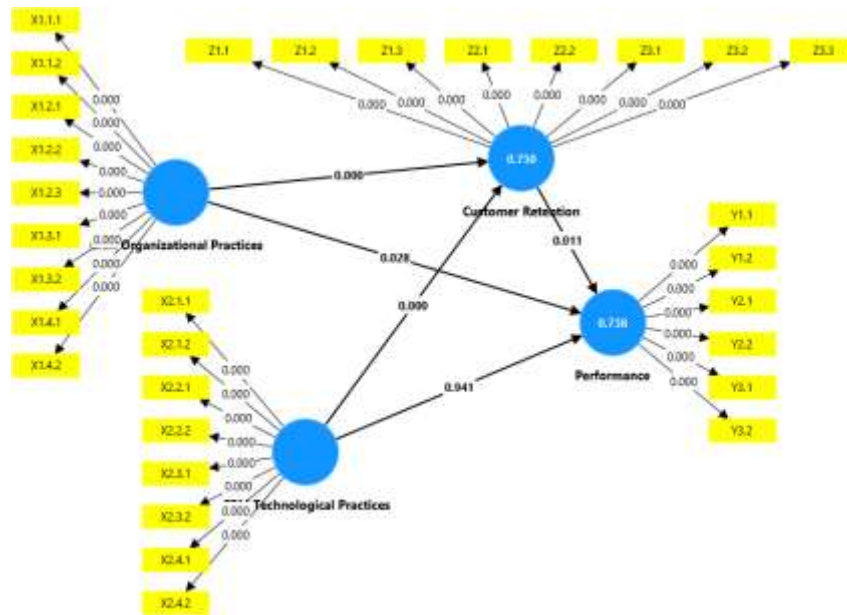
	Saturated model	Estimated model
SRMR	0.076	0.076
NFI	0.651	0.651

Goodness of Fit (GoF) Index

	Average Variance Extracted (AVE)	R Square
<i>CRM Organizational Practices</i>	0.709	
<i>CRM Technological Practices</i>	0.654	
<i>Customer Retention</i>	0.707	0.750
<i>Performance</i>	0.717	0.738
Mean	0.697	0.744
AVE x R²	0.518	
GoF= $\sqrt{AVE \times R^2}$	0.720	

Testing the Structural Model (Inner Model)

The structural model was assessed by examining R-square values, path coefficients, and predictive relevance.



R-Square

The R-square values for customer retention (0.750) and clinic performance (0.738) indicate that 75% of the variance in customer retention and 73.8% of the variance in clinic performance are explained by the predictor variables.

Path Coefficients: Path coefficients were evaluated using t-statistics and p-values to test the significance of hypothesized relationships.

R-Square

Variabel	R-square	R-square adjusted
Customer Retention	0.750	0.739
Performance	0.738	0.721

Predictive Relevance

Predictive relevance (Q²) was calculated using the blindfolding technique. The Q² value of 0.9344 indicates that 93.44% of the variance in endogenous variables is explained by the model, confirming its strong predictive ability.

$$Q^2 = 1 - (1 - R^2) (1 - R^2)$$

$$Q^2 = 1 - (1 - 0.750) \times (1 - 0.738)$$

$$= 0.9344$$

Hypothesis Testing

The study tested seven hypotheses, with the following results:

CRM Organizational Practices → Performance: Significant positive effect ($\beta = 0.381, p = 0.028$).

CRM Technological Practices → Performance: Non-significant ($\beta = 0.009$, $p = 0.941$).

Customer Retention → Performance: Significant positive effect ($\beta = 0.513$, $p = 0.011$).

CRM Organizational Practices → Customer Retention: Significant positive effect ($\beta = 0.598$, $p < 0.001$).

CRM Technological Practices → Customer Retention: Significant positive effect ($\beta = 0.361$, $p < 0.001$).

Direct Effect

	Original Sample (O)	T statistics (O/STDEV)	P values	Info
CRM Organizational Practices -> Performance	0.381	2.192	0.028	Significant
CRM Technological Practices -> Performance	0.009	0.074	0.941	Not Significant
Customer Retention -> Performance	0.513	2.560	0.011	Significant
CRM Organizational Practices -> Customer Retention	0.598	7.112	0.000	Significant
CRM Technological Practices -> Customer Retention	0.361	3.902	0.000	Significant

Indirect Effect Testing

Mediation analysis using Sobel testing revealed the following:

CRM Organizational Practices → Customer Retention → Performance: Significant mediation effect ($\beta = 0.307$, $p = 0.022$).

CRM Technological Practices → Customer Retention → Performance: Significant mediation effect ($\beta = 0.185$, $p = 0.036$).

These results confirm the crucial role of customer retention in mediating the effects of CRM practices on clinic performance.

Indirect Effect

	Original sample (O)	T statistics (O/STDEV)	P values
<i>CRM Organizational Practices -> Customer Retention -> Performance</i>	0.307	2.296	0.022
<i>CRM Technological Practices -> Customer Retention -> Performance</i>	0.185	2.095	0.036

Discussion

The Impact of CRM Organizational Practices on Pet Clinic Performance

This study confirms that CRM organizational practices significantly influence pet clinic performance. Aligning with theories by Ferrell, Hartline, and Hochstein (2022), the findings highlight that a holistic approach to CRM fosters long-term customer relationships and enhances service quality. Effective organizational practices, such as managerial support and routine customer feedback, lead to improved operational efficiency and customer satisfaction. Consistent with Rafiki et al. (2019), the results show that prioritizing customer needs through strategic CRM practices strengthens loyalty and positively impacts business performance.

The Impact of CRM Technological Practices on Pet Clinic Performance

Interestingly, CRM technological practices did not show a direct, significant impact on pet clinic performance. While tools like digital customer databases and automated communication improve operational efficiency, they require deeper integration with business strategies to deliver measurable results. This aligns with studies by Rafiki et al. (2019) and Chatterjee et al. (2021), which suggest that technology serves as a facilitator rather than a driver of performance. The lack of direct impact suggests a need for better alignment between CRM technology and clinic objectives.

The Impact of Customer Satisfaction on Pet Clinic Performance

Customer satisfaction is a critical factor that significantly influences pet clinic performance. Consistent with Hoyer et al. (2023), the findings emphasize that satisfied customers are more likely to remain loyal, make repeat visits, and recommend services to others. Quality medical care, empathetic staff interactions, and aftercare support were found to be primary contributors to satisfaction. These factors collectively strengthen customer relationships, ultimately boosting clinic revenues and improving market positioning.

The Impact of CRM Organizational Practices on Customer Retention

CRM organizational practices play a vital role in enhancing customer retention. The findings indicate that customer retention increases when clinics adopt strategies that emphasize consistent, high-quality interactions and address customer concerns effectively. Kotler, Armstrong, and Balasubramanian (2023) argue that long-term trust-building is the cornerstone of retention. Supporting this, the study reveals that routine feedback mechanisms and managerial support for customer-oriented policies drive loyalty and reduce customer churn.

The Impact of CRM Technological Practices on Customer Retention

CRM technological practices positively influence customer retention by enabling personalized and efficient communication. Tools such as automated reminders and online reservation systems enhance customer convenience and engagement. These results align with findings by Dubey and Sangle (2019), which highlight the role of technology in strengthening customer relationships. While the study found no direct impact on performance, the indirect benefits through increased retention underline the strategic importance of CRM technology.

The Mediating Role of Customer Retention Between CRM Organizational Practices and Pet Clinic Performance

Customer retention mediates the relationship between CRM organizational practices and clinic performance. Organizational practices that emphasize customer satisfaction naturally lead to higher

retention rates, which, in turn, positively affect business outcomes. The results align with Ullah et al. (2020), suggesting that retention stabilizes revenue streams, builds customer trust, and enhances financial performance. Clinics that prioritize consistent customer engagement and feedback systems are more likely to achieve sustainable growth.

The Mediating Role of Customer Retention Between CRM Technological Practices and Pet Clinic Performance

Customer retention also mediates the relationship between CRM technological practices and clinic performance. While technology alone may not directly impact performance, it plays a crucial role in enhancing retention by personalizing customer experiences and addressing their needs more effectively. These findings echo the work of Lebdaoui and Chetioui (2020), emphasizing that retention strengthens the link between CRM technology and performance. With proper integration, technology can support clinics in maintaining long-term relationships with their clients, thereby fostering loyalty and driving growth.

Conclusion

This study investigates the influence of CRM Organizational Practices and CRM Technological Practices on the performance of pet clinics, with customer satisfaction and customer retention as mediating variables. The findings offer several important insights into how these factors interrelate and impact business outcomes in the context of pet clinics in Malang, Indonesia.

First, CRM Organizational Practices were found to have a significant positive influence on pet clinic performance. This highlights the importance of structured organizational efforts, such as managerial support and routine customer feedback, in driving superior performance outcomes. Additionally, CRM Organizational Practices significantly contribute to customer retention by fostering consistent and valuable customer experiences.

Second, CRM Technological Practices did not have a direct significant effect on pet clinic performance. However, their indirect effect through customer retention underscores the critical role of integrating technology with broader strategic efforts. Technology, when leveraged effectively for personalized communication and proactive customer engagement, contributes to retaining customers, which in turn improves clinic performance.

Third, customer satisfaction emerged as a vital driver of pet clinic performance. Satisfied customers are more likely to remain loyal, recommend services, and utilize additional offerings, leading to increased revenue and stronger reputations. Effective communication and high-quality medical services play essential roles in achieving customer satisfaction.

Fourth, customer retention acts as a key mediator between CRM practices (both organizational and technological) and clinic performance. Retaining loyal customers not only stabilizes income but also reduces operational costs associated with acquiring new customers. This study emphasizes the value of building long-term relationships with customers through personalized services and attentive responses to their needs.

Finally, the study contributes to the understanding that while technology alone may not directly enhance business performance, its alignment with customer-centric organizational practices can significantly strengthen customer retention and satisfaction. By integrating CRM strategies holistically, pet clinics can ensure sustainable growth and competitiveness in an increasingly dynamic market.

The findings suggest that pet clinics should prioritize investments in CRM Organizational Practices, such as customer feedback mechanisms and staff training, to enhance customer retention and satisfaction. Furthermore, while technological tools are essential, their effectiveness depends on strategic integration into daily operations and personalized service delivery. By leveraging both organizational and technological CRM dimensions, pet clinics can build stronger customer relationships and achieve sustained business success.

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