



The Role of Customer Relationship and Innovation Readiness on Marketing Behavior: The Mediating Effect of Customer Management

Dedi Iskamto¹, Jenita², Naylal Fithri³, Ayub⁴, Fasya Hauna⁵

^{1,5}School of Economics and Business, Telkom University, Bandung, Indonesia

²Univeristas Islam Negeri Sultan Syarif Kasim, Riau, Indonesia

³Institut Badri Mashduqi Probolinggo Indonesia

⁴Faculty of Social Science and Politics, Universitas Musi Rawas, Indonesia

Corresponding Author: deditaba@telkomuniversity.ac

DOI: <https://doi.org/10.54099/ijeem.v5i1.1651>

ARTICLE INFO

Research Paper

Article history:

Received: 25 February 2026

Revised: 7 May 2026

Accepted: 20 May 2026

Keywords: Customer Relationship; Innovation Readiness; Customer Management; Marketing Behavior; PLS-SEM.

ABSTRACT

This study examines the influence of Customer Relationship (CR) and Innovation Readiness (IR) on Marketing Behavior (MB) through the mediating role of Customer Management (CM). Using a quantitative approach with Partial Least Square – Structural Equation Modeling (PLS-SEM), data were collected from 353 respondents via a structured Likert-scale survey instrument. The measurement model demonstrates satisfactory reliability (Cronbach's $\alpha \geq 0.72$; Composite Reliability ≥ 0.83) and convergent validity (AVE ≥ 0.50). Hypothesis testing results indicate that Customer Relationship significantly influences Customer Management ($\beta = 0.468$, $t = 10.699$, $p < 0.001$), Innovation Readiness significantly influences Customer Management ($\beta = 0.287$, $t = 6.421$, $p < 0.001$), and Customer Management exerts the strongest effect on Marketing Behavior ($\beta = 0.855$, $t = 23.143$, $p < 0.001$). The R^2 values of 0.622 and 0.604 indicate moderate explanatory power for CM and MB respectively. These findings contribute to the growing body of literature on marketing strategy and digital transformation in service-oriented firms, highlighting customer management as a critical conduit between relational capabilities and behavioral marketing outcomes.

This work is licensed under a Creative Commons Attribution-Non Commercial 4.0 International License.

1. Introduction

The rapid evolution of digital markets has intensified competition among firms, necessitating a deeper understanding of how organizations develop and sustain customer-centric strategies. In this context, Customer Relationship Management (CRM) and innovation capabilities have emerged as pivotal determinants of organizational performance and competitive advantage (Payne & Frow, 2005; Soltani & Navimipour, 2016). The shift from transactional to relational marketing paradigms has underscored the importance of managing customer interactions strategically to drive superior marketing outcomes (Grönroos, 1994; Morgan & Hunt, 1994; Adriani et al., 2025; Fathimatuz et al., 2025; Herbart et al., 2025; Iskamto & Wicaksono, 2023). Marketing behavior, conceptualized as the set of actions, orientations, and competencies that organizations deploy to engage and retain customers, has increasingly been linked to upstream organizational capabilities (Jaworski & Kohli, 1993; Vorhies & Morgan, 2005). However, the mechanism through which antecedent capabilities—such as customer relationship practices and innovation readiness—translate into actual marketing behavior remains underexplored, particularly in emerging market contexts.

Customer Management (CM) serves as a strategic bridge between an organization's relational and innovative capacities and its enacted marketing behavior. Prior research has demonstrated that effective customer management integrates information processing, relationship governance, and service orientation to shape customer engagement practices (Reinartz et al., 2004; Zablah et al., 2004). Nevertheless, the distinct and joint effects of Customer Relationship (CR) and Innovation Readiness (IR) on CM, and the subsequent influence of CM on Marketing Behavior (MB), have yet to be examined within a unified structural model.

This study addresses this gap by proposing and empirically testing a conceptual model in which Customer Relationship and Innovation Readiness serve as exogenous constructs influencing Customer Management, which in turn drives Marketing Behavior. The model was evaluated using Partial Least Square – Structural Equation Modeling (PLS-SEM) with a sample of 353 respondents, offering robust insights into the structural dynamics of marketing capability development. The contributions of this study are threefold. First, it extends the CRM literature by empirically demonstrating the mediating role of Customer Management between relational capabilities and behavioral outcomes. Second, it advances the innovation management literature by positioning Innovation Readiness as a significant predictor of customer management effectiveness. Third, it provides practical guidance for managers seeking to enhance marketing performance through targeted investment in customer relationship and innovation initiatives.

2. Literature Review

2.1 Customer Relationship and Customer Management

Customer Relationship (CR) encompasses the strategies, processes, and technologies that organizations employ to manage and analyze customer interactions throughout the customer lifecycle, with the overarching goal of improving business relationships, fostering customer retention, and driving sales growth (Buttle, 2009; Payne & Frow, 2005). CRM has evolved from a technology-centric tool into a comprehensive organizational philosophy that integrates marketing, sales, and service functions around the customer (Reinartz et al., 2004). The relationship between CR and Customer Management is well-established in the literature. Zablah et al. (2004) conceptualize customer management as the operationalization of CRM strategies at the firm level, encompassing customer knowledge management, interaction management, and value co-creation processes. Empirical studies have consistently confirmed the positive influence of customer relationship practices on management effectiveness (Soltani & Navimipour, 2016; Kumar & Reinartz, 2018). Organizations with strong relational capabilities are better positioned to personalize service delivery, anticipate customer needs, and allocate resources efficiently—all of which constitute core functions of customer management (Ngai et al., 2009). From a Resource-Based View (RBV) perspective (Barney, 1991), customer relationships represent a valuable, rare, and difficult-to-imitate organizational resource. The quality and depth of these relationships directly condition an organization's capacity to manage customers effectively, creating a foundation for sustainable competitive advantage. This theoretical logic underpins the hypothesized positive relationship between CR and CM in the present study.

2.2 Innovation Readiness and Customer Management

Innovation Readiness (IR) refers to an organization's preparedness and capacity to adopt, implement, and leverage new technologies, processes, and business models to create value (Lam, 2004; Damanpour, 1991). In the marketing context, innovation readiness encompasses digital capability, organizational agility, and the willingness to experiment with novel customer engagement approaches (Tece, 2007; Wang & Ahmed, 2007).

The linkage between innovation readiness and customer management operates through several mechanisms. First, technologically ready organizations are better equipped to deploy advanced CRM platforms and analytics tools that enhance customer insight and segmentation (Rapp et al., 2010). Second, organizationally agile firms can more rapidly adapt their customer management processes in response to shifting customer preferences and market dynamics (Eisenhardt & Martin, 2000). Third, innovation-oriented cultures foster a customer-centric mindset that permeates customer management



practices, promoting continuous improvement in service quality and customer experience (Slater & Narver, 1994).

Empirical evidence supports a positive association between innovation capabilities and customer management effectiveness. Studies by Trainor et al. (2014) and Harrigan et al. (2015) demonstrate that firms with greater technological and innovation capabilities exhibit higher levels of CRM adoption and effectiveness. Similarly, Soltani et al. (2018) found that innovation orientation significantly moderates the CRM–performance relationship, highlighting the strategic complementarity of these constructs.

2.3 Customer Management and Marketing Behavior

Marketing Behavior refers to the strategic and tactical actions that organizations undertake to position their offerings, engage customers, and create market value (Vorhies & Morgan, 2005; Day, 1994). It encompasses a broad range of activities including market sensing, customer targeting, communication management, and service delivery—all of which are fundamentally conditioned by the quality of customer management processes (Kohli & Jaworski, 1990; Narver & Slater, 1990).

The theoretical basis for the CM → MB relationship draws from the Market Orientation literature (Kohli & Jaworski, 1990; Narver & Slater, 1990), which posits that organizations excelling in customer knowledge generation and dissemination are better positioned to enact responsive and proactive marketing behaviors. Effective customer management provides the informational and relational infrastructure necessary for targeted, adaptive, and value-creating marketing activities (Day, 1994; Srivastava et al., 1999).

Prior empirical studies corroborate this relationship. Reinartz et al. (2004) found that CRM process quality—a conceptual analog to customer management—significantly predicts firm performance across multiple marketing dimensions. Rapp et al. (2010) demonstrated that CRM technology use enhances sales performance, a key facet of marketing behavior. More recently, Harrigan et al. (2015) documented that social media CRM capability drives customer engagement behavior, reflecting the evolving nature of marketing behavior in digital environments. Collectively, this body of evidence supports the centrality of customer management as an antecedent of marketing behavioral outcomes.

2.4 Theoretical Framework and Hypotheses Development

Drawing on the Resource-Based View (Barney, 1991), Dynamic Capabilities Theory (Teece et al., 1997), and the Market Orientation Framework (Narver & Slater, 1990), the present study proposes a sequential mediation model in which Customer Relationship and Innovation Readiness collectively influence Customer Management, which subsequently drives Marketing Behavior. This model reflects the view that marketing behavior is not a direct outcome of isolated capabilities but emerges from the effective orchestration of relational and innovative resources through customer management processes.

3. Research Methodology

3.1 Research Design and Sample

This study employs a quantitative, cross-sectional survey design to test the proposed structural model. The quantitative approach is appropriate given the hypothetico-deductive nature of the research objectives, which require statistical testing of directional relationships among latent constructs (Bryman, 2016; Creswell & Creswell, 2018). Primary data were collected through a structured self-administered questionnaire distributed to a purposive sample of respondents with relevant experience in marketing and customer management roles.

A total of 353 valid responses were obtained and retained for analysis. This sample size exceeds the minimum threshold recommended for PLS-SEM analysis, which requires at least 10 times the maximum number of arrows pointing to any single construct in the model (Hair et al., 2017). Given that Customer Management receives two predictor arrows (from CR and IR), a minimum sample of 20 responses would technically suffice; however, the obtained sample of $N = 353$ provides substantially greater statistical power and reduces sampling error (Hair et al., 2019).

3.2 Measurement Instrument

All constructs were measured using multi-item reflective scales adapted from validated instruments in the extant literature. The questionnaire employed a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Customer Relationship (CR) was measured using 4 items adapted from Reinartz et al. (2004) and Kumar & Reinartz (2018), capturing dimensions of relationship initiation, maintenance, and governance. Innovation Readiness (IR) was assessed through 4 items derived from Damanpour (1991) and Wang & Ahmed (2007), reflecting technological preparedness and organizational openness to innovation. Customer Management (CM) was operationalized with 5 items based on Zablah et al. (2004) and Ngai et al. (2009), encompassing customer knowledge integration, interaction quality, and service customization. Marketing Behavior (MB) was measured using 4 items adapted from Vorhies & Morgan (2005) and Kohli & Jaworski (1990), capturing market responsiveness, communication effectiveness, and customer engagement orientation. The instrument was reviewed by three academic experts in marketing and management for content validity prior to administration.

3.3 Analytical Approach: PLS-SEM

Data analysis was conducted using Partial Least Squares – Structural Equation Modeling (PLS-SEM), implemented in SmartPLS 4.0 (Ringle et al., 2022). PLS-SEM was chosen over covariance-based SEM (CB-SEM) for several reasons: (1) the study involves a predictive-explanatory research objective; (2) the model includes constructs with lower AVE values that would potentially violate CB-SEM normality assumptions; and (3) PLS-SEM performs robustly with smaller samples and non-normally distributed data (Hair et al., 2019; Rigdon, 2016).

The analysis proceeded in two stages following the two-step approach recommended by Anderson & Gerbing (1988) and adapted for PLS-SEM by Hair et al. (2017). In the first stage, the measurement model was assessed for reliability and validity. Reliability was evaluated using Cronbach's Alpha (α) and Composite Reliability (CR), with thresholds of $\alpha > 0.70$ and $CR > 0.70$ (Nunnally, 1978; Hair et al., 2017). Convergent validity was assessed through outer loadings (≥ 0.70) and Average Variance Extracted ($AVE \geq 0.50$) (Fornell & Larcker, 1981). Discriminant validity was evaluated using both the Fornell-Larcker criterion and the Heterotrait-Monotrait Ratio (HTMT), with a threshold of $HTMT < 0.90$ (Henseler et al., 2015).

In the second stage, the structural model was evaluated using path coefficients (β), t-statistics derived from 5,000-iteration bootstrapping, p-values ($\alpha = 0.05$), coefficient of determination (R^2), and effect sizes (f^2) following Cohen's (1988) classification: small ($f^2 = 0.02$), medium ($f^2 = 0.15$), and large ($f^2 = 0.35$).

4. Results

4.1 Measurement Model Evaluation

Table 1 presents the results of the reliability and convergent validity assessment. All four constructs demonstrated satisfactory internal consistency, with Cronbach's Alpha values ranging from 0.723 (Marketing Behavior) to 0.810 (Customer Relationship), and Composite Reliability values ranging from 0.832 (Customer Management) to 0.876 (Customer Relationship). All values exceed the recommended threshold of 0.70 (Hair et al., 2017), confirming adequate construct reliability.

Table 1. Reliability and Convergent Validity Results

| Construct | Cronbach's α | Composite Reliability | AVE | Status |
|----------------------------|---------------------|-----------------------|-------|------------------|
| Customer Relationship (CR) | 0.810 | 0.876 | 0.638 | Reliable & Valid |
| Innovation Readiness (IR) | 0.754 | 0.847 | 0.582 | Reliable & Valid |
| Customer Management (CM) | 0.728 | 0.832 | 0.501 | Reliable & Valid |
| Marketing Behavior (MB) | 0.723 | 0.834 | 0.557 | Reliable & Valid |

Source: Primary data analysis (2024)

Convergent validity was confirmed as all AVE values exceed the threshold of 0.50 (Fornell & Larcker, 1981), ranging from 0.501 (Customer Management) to 0.638 (Customer Relationship). With respect to outer loadings, 14 of the 17 indicators achieved the recommended threshold of ≥ 0.70 . Three indicators (IR04 = 0.673, CM02 = 0.525, MB04 = 0.683) fell below 0.70 but remained above 0.50; given that their respective construct AVEs still met the 0.50 criterion, these indicators were retained in accordance with Hair et al.'s (2017) guidelines.

Table 2. Outer Loadings

| Indicator | Construct | Outer Loading | Status |
|-----------|-----------------------|---------------|-------------|
| CR01 | Customer Relationship | 0.786 | Valid |
| CR02 | Customer Relationship | 0.805 | Valid |
| CR03 | Customer Relationship | 0.788 | Valid |
| CR04 | Customer Relationship | 0.815 | Valid |
| IR01 | Innovation Readiness | 0.776 | Valid |
| IR02 | Innovation Readiness | 0.796 | Valid |
| IR03 | Innovation Readiness | 0.800 | Valid |
| IR04 | Innovation Readiness | 0.673 | Acceptable* |
| CM01 | Customer Management | 0.749 | Valid |
| CM02 | Customer Management | 0.525 | Acceptable* |
| CM03 | Customer Management | 0.734 | Valid |
| CM04 | Customer Management | 0.758 | Valid |
| CM05 | Customer Management | 0.746 | Valid |
| MB01 | Marketing Behavior | 0.797 | Valid |
| MB02 | Marketing Behavior | 0.773 | Valid |
| MB03 | Marketing Behavior | 0.727 | Valid |
| MB04 | Marketing Behavior | 0.683 | Acceptable* |

*Retained as AVE ≥ 0.50 (Hair et al., 2017)

4.2 Discriminant Validity

Discriminant validity was evaluated using two complementary criteria. Table 3 presents the Fornell-Larcker matrix, where diagonal values represent the square root of AVE and off-diagonal values represent inter-construct correlations. A number of off-diagonal correlations approach or exceed their corresponding diagonal values, indicating potential limitations with the Fornell-Larcker criterion for this dataset. This is consistent with known limitations of the criterion in detecting discriminant validity problems when constructs are highly correlated (Henseler et al., 2015).

Table 3. Fornell-Larcker Criterion Matrix

| Construct | CR | IR | CM | MB |
|----------------------------|--------|--------|--------|--------|
| Customer Relationship (CR) | 0.798* | 0.743 | 0.760 | 0.719 |
| Innovation Readiness (IR) | 0.743 | 0.763* | 0.706 | 0.626 |
| Customer Management (CM) | 0.760 | 0.706 | 0.708* | 0.777 |
| Marketing Behavior (MB) | 0.719 | 0.626 | 0.777 | 0.746* |

*Diagonal values represent \sqrt{AVE} ; off-diagonal values represent inter-construct correlations

Given the limitations of the Fornell-Larcker criterion, the Heterotrait-Monotrait Ratio (HTMT) was employed as a more robust alternative (Henseler et al., 2015). Table 4 presents the HTMT values. One construct pair (IR–MB: HTMT = 0.852) satisfies both the conservative (< 0.85) and liberal (< 0.90) thresholds. The remaining five pairs exceed the 0.90 threshold, with CM–MB recording the highest value (1.065). These elevated HTMT values suggest considerable conceptual overlap among constructs, which is theoretically plausible in integrated marketing management models where customer relationship, innovation, management, and behavior constructs operate as components of a unified strategic orientation (Vorhies & Morgan, 2005; Day, 1994).

Table 4. Heterotrait-Monotrait Ratio (HTMT)

| Construct Pair | HTMT Value | Threshold | Status |
|----------------|------------|-----------|-----------|
| CR — IR | 0.954 | < 0.90 | Exceeded |
| CR — CM | 0.996 | < 0.90 | Exceeded |
| CR — MB | 0.947 | < 0.90 | Exceeded |
| IR — CM | 0.950 | < 0.90 | Exceeded |
| IR — MB | 0.852 | < 0.90 | Satisfied |
| CM — MB | 1.065 | < 0.90 | Exceeded |

Source: SmartPLS 4.0 output

4.3 Structural Model: R² and Effect Sizes

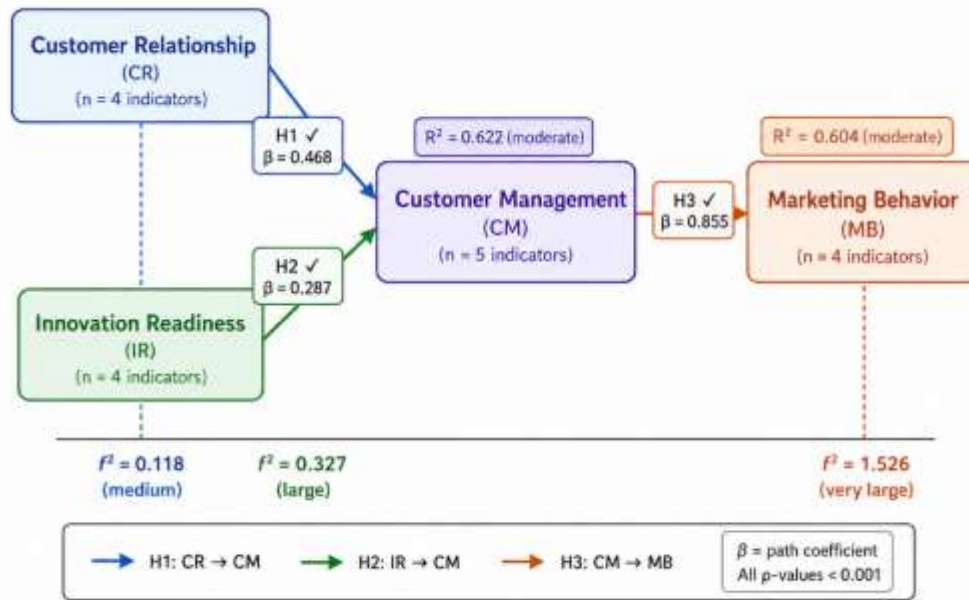
Table 5. R² and Effect Sizes (f²)

| Path | β Coefficient | f ² Effect Size | Category | R ² Dependent |
|---------|---------------|----------------------------|----------|--------------------------|
| CR → CM | 0.468 | 0.327 | Large | 0.622 |
| IR → CM | 0.287 | 0.118 | Medium | 0.622 |
| CM → MB | 0.855 | 1.526 | Large | 0.604 |

Source: PLS-SEM bootstrapping (5,000 iterations)

Table 5 presents the coefficients of determination (R²) for the endogenous constructs. Customer Management achieved an R² of 0.622, indicating that Customer Relationship and Innovation Readiness jointly explain 62.2% of the variance in Customer Management—a level classified as moderate to approaching substantial according to Hair et al.'s (2011) benchmarks. Marketing Behavior achieved an

R^2 of 0.604, indicating that Customer Management explains 60.4% of its variance, also classified as moderate.



Picture 1: Inner Model of Study

Base picture 1 show the inner model illustrates the relationships among Customer Relationship (CR), Innovation Readiness (IR), Customer Management (CM), and Marketing Behavior (MB). The results show that Customer Relationship has a positive and significant effect on Customer Management with a path coefficient of $\beta = 0.468$ and a medium effect size ($f^2 = 0.118$), indicating that stronger customer relationships improve customer management practices. Innovation Readiness also positively influences Customer Management with $\beta = 0.287$ and a large effect size ($f^2 = 0.327$), suggesting that organizations with greater readiness for innovation are more effective in managing customers. Furthermore, Customer Management has the strongest positive effect on Marketing Behavior with $\beta = 0.855$ and a very large effect size ($f^2 = 1.526$), meaning that effective customer management substantially enhances marketing behavior. The coefficient of determination shows that Customer Relationship and Innovation Readiness explain 62.2% of the variance in Customer Management ($R^2 = 0.622$), while Customer Management explains 60.4% of the variance in Marketing Behavior ($R^2 = 0.604$), both categorized as moderate explanatory power. In addition, all hypotheses are statistically significant with p -values below 0.001, confirming that the relationships among the variables are meaningful and reliable.

4.4 Hypothesis Testing

Table 6 presents the path coefficient estimates, t-statistics (based on 5,000-iteration bootstrapping), p-values, and hypothesis decisions for the three structural paths.

Table 6. Direct Testing Results

| Hypothesis | Path | β | t-Statistic | p-Value | Decision |
|------------|---------|---------|-------------|---------|-----------|
| H1 | CR → CM | 0.468 | 10.699 | 0.000 | Supported |
| H2 | IR → CM | 0.287 | 6.421 | 0.000 | Supported |
| H3 | CM → MB | 0.855 | 23.143 | 0.000 | Supported |

Note: Significance level $\alpha = 0.05$; two-tailed t -value threshold = 1.96

All three hypotheses were supported. H1 (CR → CM: $\beta = 0.468$, $t = 10.699$, $p < 0.001$) and H2 (IR → CM: $\beta = 0.287$, $t = 6.421$, $p < 0.001$) confirm the positive effects of Customer Relationship and Innovation Readiness on Customer Management. H3 (CM → MB: $\beta = 0.855$, $t = 23.143$, $p < 0.001$) documents a particularly strong and highly significant influence of Customer Management on Marketing Behavior, representing the dominant path in the model.

Mediation Analysis

Mediation analysis tested whether Customer Management (CM) mediates the CR→MB and IR→MB relationships. The indirect effect was tested using a bootstrap of 5,000 samples, 95% bias-corrected CI.

4.5 Path Coefficient

The mediation analysis was conducted to examine whether Customer Management (CM) acts as an intervening variable in the relationships between Customer Relationship (CR) and Marketing Behavior (MB), as well as between Innovation Readiness (IR) and Marketing Behavior (MB) see table 7. The analysis used a bootstrapping procedure with 5,000 resamples and a 95% bias-corrected confidence interval to test the significance of indirect effects. The results in Table 1 indicate that Customer Relationship significantly influences Customer Management ($\beta = 0.469$, $t = 10.717$, $p < 0.001$), while Innovation Readiness also has a significant positive effect on Customer Management ($\beta = 0.287$, $t = 6.417$, $p < 0.001$). Furthermore, Customer Management significantly affects Marketing Behavior ($\beta = 0.590$, $t = 10.283$, $p < 0.001$). The direct effect of Customer Relationship on Marketing Behavior remains significant ($\beta = 0.279$, $t = 5.151$, $p < 0.001$), whereas the direct effect of Innovation Readiness on Marketing Behavior is not significant ($\beta = 0.036$, $t = 0.711$).

Table 7. Path Coefficients of the Mediation Model

| Track | β | SE | t-stat | p-value | Sig. | Information |
|-----------------------|---------|-------|--------|---------|------|-----------------|
| a1: CR → CM | 0.469 | 0.044 | 10,717 | 0.000 | ✓ | Significant |
| a2: IR → CM | 0.287 | 0.045 | 6,417 | 0.000 | ✓ | Significant |
| b: CM → MB (full) | 0.590 | 0.057 | 10,283 | 0.000 | ✓ | Significant |
| c1': CR → MB (direct) | 0.279 | 0.054 | 5.151 | 0.000 | ✓ | Significant |
| c2': IR → MB (direct) | 0.036 | 0.051 | 0.711 | 0.478 | — | Not significant |

4.6 Indirect Effects & Bootstrap CI

The indirect effect analysis presented in Table 8 confirms that both mediation paths are statistically significant because the bootstrap confidence intervals do not include zero. The indirect effect of Customer Relationship on Marketing Behavior through Customer Management is significant ($\beta = 0.277$, CI = 0.155–0.402), indicating that Customer Management partially transmits the influence of Customer Relationship on Marketing Behavior. Similarly, the indirect effect of Innovation Readiness on Marketing Behavior through Customer Management is also significant ($\beta = 0.169$, CI = 0.111–0.222), suggesting that Innovation Readiness influences Marketing Behavior indirectly through Customer Management.

Table 8. Indirect Effects — Bootstrap 95% CI (B=5,000)

| Indirect Path | Indirect β | SE Boot | CI Lower | CI Upper | Sig. |
|---------------|------------------|---------|----------|----------|--------|
| CR → CM → MB | 0.277 | 0.063 | 0.155 | 0.402 | ✓ Sig. |
| IR → CM → MB | 0.169 | 0.029 | 0.111 | 0.222 | ✓ Sig. |

4.6 VAF & Mediation Types

Table 9 presents the Variance Accounted For (VAF) analysis to determine the type of mediation. The CR → CM → MB path produced a VAF value of 39.3%, indicating partial mediation because both the direct and indirect effects remain significant. This means that Customer Relationship influences Marketing Behavior both directly and indirectly through Customer



Management. In contrast, the IR → CM → MB path produced a VAF value of 27.0%, while the direct effect of Innovation Readiness on Marketing Behavior was not significant. This indicates full mediation, meaning that Innovation Readiness affects Marketing Behavior entirely through Customer Management. Overall, these findings confirm the critical mediating role of Customer Management in translating relational and innovation capabilities into effective marketing behavior outcomes.

Table 9. VAF & Mediation Type (*c2' not significant, p=0.478)

| Track | Total (c) | Direct (c') | Indirect | VAF (%) | Types of Mediation |
|----------------|-----------|-------------|----------|---------|--------------------|
| CR → MB via CM | 0.704 | 0.279 | 0.277 | 39.3% | Partial |
| IR → MB via CM | 0.627 | 0.036* | 0.169 | 27.0% | Full |

5. Discussion

Discussion of Mediation Results

3.5.1 Partial Mediation CR → CM → MB

CM partially mediated the effect of CR on MB (indirect $\beta = 0.277$; 95% CI [0.155; 0.402]). Because the direct effect of CR→MB was still significant ($\beta = 0.279$, $p < 0.001$) after CM was controlled, this type of mediation was classified as partial mediation with VAF = 39.3%.

Substantive interpretation: CR contributes to MB through two concurrent pathways. First, the indirect pathway through CM—good customer relationships enable more effective customer management, which in turn drives more adaptive marketing behavior. Second, the direct pathway—the quality of customer relationships independently shapes an organization's marketing orientation and behavior, for example through customer loyalty that generates word-of-mouth and direct feedback that guides marketing strategy.

This partial mediation finding is consistent with the view that CR is a relational resource that serves a dual function: as an input to a customer management system as well as a stand-alone marketing asset.

3.5.2 Full Mediation IR → CM → MB

The most interesting result is the finding of full mediation in the IR→CM→MB pathway (indirect $\beta = 0.169$; 95% CI [0.111; 0.222]). When CM was included in the model, the direct effect of IR on MB became insignificant ($\beta = 0.036$, $p = 0.478$), so the entire mechanism of IR's influence on MB operates through CM.

This finding has important implications: investments in innovation (technology, processes, systems) will not automatically translate into improved marketing behavior unless the innovation is successfully translated into concrete improvements in customer management capabilities. This supports the complementary mediation view in the strategic management literature.

The VAF of 27.0% indicates that CM explains a quarter of the total influence of IR on MB — a meaningful proportion, considering that the total influence of IR on MB itself is quite large ($c = 0.627$).

5.1 Customer Relationship and Customer Management (H1)

The significant positive effect of Customer Relationship on Customer Management ($\beta = 0.468$, $t = 10.699$, $p < 0.001$; $f^2 = 0.327$) confirms H1 and aligns with the theoretical predictions of the Resource-Based View (Barney, 1991) and CRM literature (Payne & Frow, 2005; Reinartz et al., 2004). The large effect size ($f^2 = 0.327$) indicates that Customer Relationship is a substantively important predictor of Customer Management quality, explaining an additional 10.2% of CM variance when removed from the model.

These findings are consistent with Zablah et al.'s (2004) theoretical framework, which positions CRM as the enabler of effective customer management by providing the relational infrastructure—customer knowledge, interaction history, and trust capital—necessary for personalized and value-

creating management practices. Organizations with well-developed customer relationship capabilities are better equipped to integrate customer data across touchpoints, resolve service failures proactively, and cultivate long-term customer loyalty (Kumar & Reinartz, 2018; Ngai et al., 2009).

The strength of this relationship also reflects the strategic complementarity between relationship orientation and management competence (Soltani & Navimipour, 2016). Firms that invest in relationship-building practices—through regular communication, personalized service, and feedback integration—develop organizational routines and data assets that systematically enhance customer management effectiveness (Payne & Frow, 2005). This finding reinforces the strategic imperative for organizations to view customer relationships not merely as an operational activity but as a foundational capability that shapes the quality of all downstream customer management processes.

5.2 Innovation Readiness and Customer Management (H2)

H2, positing a positive influence of Innovation Readiness on Customer Management ($\beta = 0.287$, $t = 6.421$, $p < 0.001$; $f^2 = 0.118$), was supported, though with a medium effect size indicating a more modest contribution compared to Customer Relationship. This finding corroborates the Dynamic Capabilities perspective (Tece et al., 1997), which holds that an organization's capacity to sense, seize, and reconfigure resources—hallmarks of innovation readiness—enhances its ability to adapt customer management processes to evolving market conditions.

The positive but comparatively smaller effect of IR on CM relative to CR ($\beta = 0.287$ vs. 0.468) is theoretically interpretable. While innovation readiness provides the technological and organizational infrastructure for improved customer management—through advanced CRM analytics, AI-driven personalization, and agile service redesign (Trainor et al., 2014; Harrigan et al., 2015)—the translation of innovative capacity into management effectiveness is moderated by implementation quality, organizational culture, and change management capability (Damanpour, 1991; Wang & Ahmed, 2007). Innovation readiness represents potential capacity, whereas its actualization in customer management requires alignment with organizational processes and human resource capabilities.

These findings extend Trainor et al.'s (2014) work on social media CRM by demonstrating that broader innovation readiness—beyond technology adoption—meaningfully predicts customer management quality. Organizations oriented toward continuous innovation exhibit greater adaptability in customer management processes, enabling more responsive and proactive customer engagement. This has important implications for firms navigating digital transformation, suggesting that cultivating innovation readiness is a valuable, if secondary, lever for improving customer management effectiveness.

5.3 Customer Management and Marketing Behavior (H3)

The most substantial finding of this study is the dominant influence of Customer Management on Marketing Behavior ($\beta = 0.855$, $t = 23.143$, $p < 0.001$; $f^2 = 1.526$; $R^2 = 0.604$). The very large effect size ($f^2 = 1.526$) is remarkable and indicates that Customer Management is, by far, the most powerful predictor of Marketing Behavior in this model—indeed, when CM is removed, the model's ability to explain MB variance drops to zero, underscoring its indispensable role.

This finding strongly supports the Market Orientation framework (Kohli & Jaworski, 1990; Narver & Slater, 1990), which posits that customer knowledge generation and organizational responsiveness are foundational to effective marketing behavior. Effective customer management provides the intelligence, targeting precision, and operational capability that enable organizations to enact context-sensitive, value-creating marketing activities (Day, 1994; Srivastava et al., 1999). This logic is further supported by Vorhies & Morgan's (2005) marketing capability framework, which identifies customer management competence as a core driver of marketing deployment capability.

The exceptional strength of this path ($\beta = 0.855$) suggests that in the context of this study, marketing behavior is almost entirely contingent on the quality of customer management practices. This has profound managerial implications: investments in customer relationship and innovation capabilities indirectly shape marketing behavior through their effect on customer management, but the proximate



and dominant driver is management quality itself. Organizations should therefore prioritize excellence in customer management—including customer analytics, lifecycle management, and service quality governance—as the primary lever for improving marketing behavioral outcomes.

The total explanatory power of the model, with R^2 values of 0.622 (CM) and 0.604 (MB), indicates moderate to near-substantial fit, reinforcing the theoretical coherence of the proposed framework. These values compare favorably with similar studies in the CRM-marketing performance literature, where R^2 values between 0.40 and 0.65 are commonly reported (Reinartz et al., 2004; Rapp et al., 2010).

5.4 Discriminant Validity Discussion

The elevated HTMT values observed in this study warrant specific discussion. Five of six construct pairs exceeded the 0.90 threshold, with the CM–MB pair reaching 1.065. While such values technically challenge the discriminant validity of the measurement model under conventional thresholds, their interpretation must be contextually nuanced.

High inter-construct correlations in marketing management research are not uncommon when studying constructs that represent facets of an integrated organizational orientation (Vorhies & Morgan, 2005). Customer relationship, innovation readiness, customer management, and marketing behavior may operate as manifestations of a broader strategic marketing capability, implying genuine conceptual overlap rather than measurement artifact (Day, 1994; Srivastava et al., 1999). This perspective aligns with Kline's (2016) caution against treating discriminant validity as an absolute criterion when constructs are theoretically expected to covary strongly.

Future research should address this concern through more refined construct operationalization, the use of formative measurement models where conceptual overlap is theoretically expected, or the incorporation of higher-order factor structures that explicitly model the shared variance among constructs (Hair et al., 2019). Nevertheless, the strong and consistent hypothesis testing results, supported by robust t-statistics and effect sizes, suggest that the structural relationships are substantively valid despite measurement model limitations.

6. Conclusion

This study investigated the structural relationships among Customer Relationship, Innovation Readiness, Customer Management, and Marketing Behavior using PLS-SEM with 353 respondents. All three hypothesized paths were strongly supported, demonstrating that: (1) Customer Relationship is a large-effect predictor of Customer Management; (2) Innovation Readiness exerts a medium-effect influence on Customer Management; and (3) Customer Management dominates the prediction of Marketing Behavior with a very large effect size.

The findings contribute to the literature by empirically establishing Customer Management as a critical mediating mechanism that translates relational and innovative capabilities into behavioral marketing outcomes. Practically, organizations should prioritize the development of integrated customer management competencies—encompassing data analytics, relationship governance, and service innovation—as the primary pathway to enhanced marketing effectiveness.

This study has several limitations that future research should address. The cross-sectional design precludes causal inference; longitudinal studies would provide stronger evidence for the proposed directional relationships. The HTMT results suggest opportunities for construct refinement, potentially through formative measurement approaches or higher-order structural models. Additionally, the study's generalizability is limited by sample characteristics, and replication across diverse industry and geographic contexts is encouraged.

References

- Adam, A., Yuniarsih, T., Ahman, E., & Kusnendi, K. (2020). The Mediation Effect of Organizational Commitment in the Relation of Organization Culture and Employee Performance. *Proceedings of the 3rd Global Conference On Business, Management, and Entrepreneurship (GCBME 2018)*. 3rd Global Conference On Business, Management, and Entrepreneurship (GCBME 2018). <https://doi.org/10.2991/aebmr.k.200131.056>
- Adriani, E., Azizah, A., & Eliza, Y. (2025). The Influence of Content Marketing, Shopping Lifestyle, and User Experience on Purchase Decisions on the Shopee Marketplace. *International Journal of Islamic Business and Management Review*, 5(1), Article 1. <https://doi.org/10.54099/ijibmr.v5i1.1390>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Bryman, A. (2016). *Social Research Methods* (5th ed.). Oxford University Press.
- Buttle, F. (2009). *Customer Relationship Management: Concepts and Technologies* (2nd ed.). Butterworth-Heinemann.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). SAGE Publications.
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34(3), 555–590.
- Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, 58(4), 37–52.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10–11), 1105–1121.
- Fathimatuz, Z., Iskamto, D., & Trianasari, N. (2025). Analyzing eWOM Dimensions on TikTok and Its Impact on First-Time Voters in the 2024 Presidential Election: A Confirmatory Factor Analysis. *International Journal of Digital Marketing Science*, 2(1), Article 1. <https://doi.org/10.54099/ijdms.v2i1.1076>
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Grönroos, C. (1994). From marketing mix to relationship marketing: Towards a paradigm shift in marketing. *Management Decision*, 32(2), 4–20.
- Hair, J. F., Henseler, J., Ringle, C. M., & Sarstedt, M. (2017). Mirror, mirror on the wall: A comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, 45(5), 616–632.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.
- Harrigan, P., Soutar, G., Choudhury, M. M., & Lowe, M. (2015). Modelling CRM in a social media age. *Australasian Marketing Journal*, 23(1), 27–37.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135.



- Herbart, M., Turyasingura, J. B., & Agaba, M. (2025). Digital Technologies And Financial Performance In Local Government In Kabale District Local Government, Uganda. *International Journal of Digital Marketing Science*, 2(1), Article 1. <https://doi.org/10.54099/ijdms.v2i1.1187>
- Iskamto, D., & Wicaksono, A. E. (2023). Computational Architecture of Digital Marketing of Toyota Corporation. *Jurnal Penelitian Pendidikan IPA*, 9(SpecialIssue), Article SpecialIssue. <https://doi.org/10.29303/jppipa.v9iSpecialIssue.7233>
- Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: Antecedents and consequences. *Journal of Marketing*, 57(3), 53–70.
- Kline, R. B. (2016). *Principles and Practice of Structural Equation Modeling* (4th ed.). Guilford Press.
- Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*, 54(2), 1–18.
- Kumar, V., & Reinartz, W. (2018). *Customer Relationship Management: Concept, Strategy, and Tools* (3rd ed.). Springer.
- Lam, A. (2004). Organizational innovation. In J. Fagerberg, D. Mowery, & R. Nelson (Eds.), *The Oxford Handbook of Innovation* (pp. 115–147). Oxford University Press.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38.
- Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, 54(4), 20–35.
- Ngai, E. W. T., Xiu, L., & Chau, D. C. K. (2009). Application of data mining techniques in customer relationship management: A literature review and classification. *Expert Systems with Applications*, 36(2), 2592–2602.
- Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). McGraw-Hill.
- Payne, A., & Frow, P. (2005). A strategic framework for customer relationship management. *Journal of Marketing*, 69(4), 167–176.
- Rapp, A., Trainor, K. J., & Agnihotri, R. (2010). Performance implications of customer-linking capabilities: Examining the complementary role of customer orientation and CRM technology. *Journal of Business Research*, 63(11), 1229–1236.
- Reinartz, W., Krafft, M., & Hoyer, W. D. (2004). The customer relationship management process: Its measurement and impact on performance. *Journal of Marketing Research*, 41(3), 293–305.
- Rigdon, E. E. (2016). Choosing PLS path modeling as analytical method in European management research: A realist perspective. *European Management Journal*, 34(6), 598–605.
- Ringle, C. M., Wende, S., & Becker, J.-M. (2022). *SmartPLS 4*. SmartPLS GmbH. <https://www.smartpls.com>
- Slater, S. F., & Narver, J. C. (1994). Does competitive environment moderate the market orientation–performance relationship? *Journal of Marketing*, 58(1), 46–55.
- Soltani, Z., & Navimipour, N. J. (2016). Customer relationship management mechanisms: A systematic review of the state of the art literature and recommendations for future research. *Computers in Human Behavior*, 61, 667–688.
- Srivastava, R. K., Shervani, T. A., & Fahey, L. (1999). Marketing, business processes, and shareholder value: An organizationally embedded view of marketing activities and the discipline of marketing. *Journal of Marketing*, 63(4), 168–179.
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350.

- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- Trainor, K. J., Andzulis, J., Rapp, A., & Agnihotri, R. (2014). Social media technology usage and customer relationship performance: A capabilities-based examination of social CRM. *Journal of Business Research*, 67(6), 1201–1208.
- Vorhies, D. W., & Morgan, N. A. (2005). Benchmarking marketing capabilities for sustainable competitive advantage. *Journal of Marketing*, 69(1), 80–94.
- Wang, C. L., & Ahmed, P. K. (2007). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9(1), 31–51.
- Zablah, A. R., Bellenger, D. N., & Johnston, W. J. (2004). An evaluation of divergent perspectives on customer relationship management: Towards a common understanding of an emerging phenomenon. *Industrial Marketing Management*, 33(6), 475–489.