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Effects of Perceived Benefit and Cost on Customer Loyalty in Trade SMEs

Pengaruh Dimensi Manfaat dan Biaya terhadap Loyalitas Pelanggan pada UKM Sektor Perdagangan

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Abstract

Customer loyalty is a critical determinant of survival for small enterprises navigating competitive digital commerce landscapes. This study investigates the independent structural effects of the benefit and cost dimensions of customer perceived value on digital customer loyalty within the trade sector. Employing a quantitative explanatory design, primary data were gathered through structured questionnaires administered to executives of localized businesses in Indonesia. Multiple linear regression analysis was utilized to decode the predictive mechanisms. The empirical findings reveal that both the benefit dimension and the cost dimension exert positive, statistically significant impacts on customer loyalty. Crucially, the cost dimension demonstrates a superior structural influence compared to the benefit dimension. This research concludes that systematically eradicating digital transactional friction is an exceptionally potent strategic catalyst for consumer retention. These results actively compel digital managers to architect completely frictionless online purchasing journeys alongside personalized relational engagements to secure sustainable competitive advantages within modern marketplaces.

Abstrak

Loyalitas pelanggan merupakan penentu kelangsungan hidup yang krusial bagi usaha kecil dalam menavigasi lanskap perdagangan digital yang sangat kompetitif. Penelitian ini menyelidiki efek struktural independen dari dimensi manfaat dan biaya atas nilai yang dirasakan pelanggan terhadap loyalitas konsumen digital pada sektor perdagangan. Menerapkan desain eksplanatori kuantitatif, data primer dikumpulkan melalui kuesioner terstruktur yang diberikan kepada eksekutif bisnis lokal di Indonesia. Analisis regresi linier berganda digunakan untuk memecahkan mekanisme prediktif. Temuan empiris mengungkapkan bahwa dimensi manfaat maupun dimensi biaya memberikan dampak positif dan signifikan secara statistik terhadap loyalitas pelanggan. Secara krusial, dimensi biaya menunjukkan pengaruh struktural yang jauh lebih unggul dibandingkan dimensi manfaat. Riset ini menyimpulkan bahwa pemberantasan friksi transaksi digital secara sistematis merupakan katalis strategis yang sangat kuat untuk retensi konsumen. Hasil ini secara aktif mendorong manajer digital untuk merancang perjalanan pembelian daring tanpa hambatan bersama keterlibatan relasional personal guna mengamankan keunggulan kompetitif berkelanjutan di dalam pasar modern masa kin.

A. INTRODUCTION

1. Background

Building and maintaining customer loyalty has emerged as a paramount strategic priority for businesses navigating the hyper-competitive and rapidly evolving landscapes of social media marketing and e-commerce.[1] For small and medium-sized enterprises (SMEs) operating within the trade sector, fostering customer loyalty transcends being a merely desirable marketing outcome; it functions as a critical determinant of long-term business sustainability and digital survival.[2] Compared to their larger corporate counterparts, SMEs consistently operate under the constraints of limited financial resources, narrower market penetration, and diminished bargaining power within digital ecosystems. Consequently, retaining an existing digital consumer base is inherently more economically advantageous than allocating scarce resources toward the continuous acquisition of new online buyers. Loyal digital consumers not only generate sustained repeat purchases but also act as brand advocates who contribute to positive electronic word-of-mouth (eWOM) communication across social media platforms, substantially reduce digital marketing acquisition costs, and fortify the firm's competitive market position.[3]

Contemporary marketing scholars increasingly postulate that customer loyalty within e-commerce environments is fundamentally shaped by the consumer's cognitive evaluation of the value obtained throughout the digital consumption journey. Rather than being dictated exclusively by physical product quality or rudimentary service performance, online customer loyalty solidifies when consumers perceive that the aggregate digital benefits they receive comprehensively justify the monetary and non-monetary sacrifices incurred during the online purchasing process.[4] This paradigm positions customer perceived value at the absolute epicenter of relationship marketing

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[1] Brian L. Bourdeau, J. Joseph Cronin, and Clay M. Voorhees, "Customer Loyalty: A Refined Conceptualization, Measurement, and Model," *Journal of Retailing and Consumer Services* 81 (November 2024): 104020, https://doi.org/10.1016/j.jretconser.2024.104020.

[2] Suharto Suharto et al., "Consumer Loyalty of Indonesia E-Commerce SMEs: The Role of Social Media Marketing and Customer Satisfaction," *International Journal of Data and Network Science* 6, no. 2 (2022): 383–90, https://doi.org/10.5267/j.ijdns.2021.12.016.

[3] Haris Maupa, Cokki Cokki, and Syarifuddin Sulaiman, "Customer Relationship Marketing, Customer Bonding, and Customer Satisfaction on Customer Loyalty in Telecommunication Companies," *Jurnal Minds: Manajemen Ide Dan Inspirasi* 10, no. 2 (December 5, 2023): 279–96, https://doi.org/10.24252/minds.v10i2.40975.

[4] Darinka González-Viralta et al., "Positive Effects of Green Practices on the Consumers' Satisfaction, Loyalty, Word-of-Mouth, and Willingness to Pay," *Heliyon* 9, no. 10 (October 2023): e20353, https://doi.org/10.1016/j.heliyon.2023.e20353.

and social commerce, as digital consumers ultimately retain the power to determine whether a digital exchange generates sufficient intrinsic and extrinsic value to warrant an ongoing commercial relationship with an online SME.[5] Consequently, engineering and delivering superior customer value has surfaced as one of the most effective strategic imperatives for cementing customer loyalty within highly saturated digital markets.

Within the digital marketing literature, customer perceived value is widely conceptualized as a highly complex, multidimensional construct that reflects the consumer's cognitive calculus regarding the trade-off between perceived benefits and associated costs.[6] In the realm of e-commerce, the benefit dimension encompasses a spectrum of advantages extracted from products or services, including functional utility, emotional gratification derived from social media engagement, social recognition, and long-term relational benefits. Conversely, the cost dimension encapsulates the multifaceted sacrifices—ranging from monetary expenditures to temporal delays, physical exertion, and psychological friction (such as privacy concerns or digital navigation efforts)—that consumers must endure to acquire and consume offerings online. Because e-commerce purchasing decisions necessitate the simultaneous evaluation of both dimensions, customer value cannot be comprehensively deciphered by focusing myopically on product benefits while systematically ignoring the digital sacrifices imposed on the consumer.[7] Instead, enduring digital loyalty crystallizes only when customers perceive that the online benefits consistently and significantly outweigh the associated digital costs.[8]

A critical synthesis of recent empirical literature reveals a general consensus supporting the positive correlation between customer perceived value and customer loyalty across diverse digital and traditional business contexts. A robust body of scholarly work demonstrates that augmented perceived value directly contributes to elevated customer satisfaction, fortifies digital trust, amplifies competitive advantage, and

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5 Dong Liu, Sangbum Son, and Yupeng Zhu, "From Perceived Value to Customer Loyalty Behavioral Intentions: A Social Exchange Theory Perspective on Value-Based Selling," *Journal of Business & Industrial Marketing* 41, no. 3 (February 2, 2026): 413–28, https://doi.org/10.1108/JBIM-01-2025-0007.

6 Minttu Laukkanen and Nina Tura, "Sustainable Value Propositions and Customer Perceived Value: Clothing Library Case," *Journal of Cleaner Production* 378 (December 2022): 134321, https://doi.org/10.1016/j.jclepro.2022.134321.

7 Markus Blut et al., "Customer Perceived Value: A Comprehensive Meta-Analysis," *Journal of Service Research* 27, no. 4 (November 17, 2024): 501–24, https://doi.org/10.1177/10946705231222295.

8 Raphaela Reitenberger, Doreén Pick, and Tobias Marx, "Customer Loyalty in Transition: A Longitudinal Meta-Analysis of Direct Antecedents in the Hospitality Industry," *Tourism Management Perspectives* 61 (March 2026): 101454, https://doi.org/10.1016/j.tmp.2026.101454.

ultimately catalyzes sustained customer retention.[9] Nevertheless, a rigorous examination of the extant literature exposes several conceptual blind spots and empirical limitations that demand urgent academic investigation. First, despite widespread theoretical agreement that customer perceived value is inherently multidimensional, a disproportionate number of empirical studies continue to operationalize it as a monolithic, single aggregate construct. This methodological oversimplification generates a significant theoretical gap, offering severely limited insights into whether online customer loyalty is more profoundly influenced by the digital benefits consumers extract or by the specific costs they are forced to bear.[10] Consequently, prevailing managerial recommendations frequently exhibit a fundamental bias—overemphasizing the augmentation of customer benefits while entirely overlooking the strategic possibility that mitigating customer sacrifices (e.g., streamlining e-commerce interfaces or reducing online transaction friction) may yield comparable, or exponentially greater, improvements in digital customer loyalty.[11]

Second, the current mapping of the academic debate highlights that the vast majority of previous investigations have exclusively concentrated on large multinational corporations, expansive retail chains, or dominant service industries, rendering the empirical evidence concerning SME social media marketing and e-commerce adoption comparatively scarce. SMEs diverge fundamentally from larger organizational entities regarding digital resource availability, dynamic customer relationship management architectures, and overall digital competitive capabilities.[12] These distinct structural characteristics strongly suggest that consumers evaluate transactional value through a fundamentally different cognitive lens when interacting with localized SMEs compared to when purchasing from dominant e-commerce conglomerates.[13] Therefore, theoretical

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[9] Abel Monfort, Belén López-Vázquez, and Ana Sebastián-Morillas, "Building Trust in Sustainable Brands: Revisiting Perceived Value, Satisfaction, Customer Service, and Brand Image," *Sustainable Technology and Entrepreneurship* 4, no. 3 (September 2025): 100105, https://doi.org/10.1016/j.stae.2025.100105.

[10] Manzar Rehman, Tong Zelin, and Talib Hussain, "Influence of Consumer Satisfaction on Brand Allegiance: An Empirical Investigation in Pakistan's Safety and Luxury Automobile Sector," *Acta Psychologica* 252 (February 2025): 104667, https://doi.org/10.1016/j.actpsy.2024.104667.

[11] Yahya Skaf et al., "Technology and Service Quality: Achieving Insurance Industry Customer Satisfaction and Loyalty under Crisis Conditions," *EuroMed Journal of Business* 21, no. 1 (March 6, 2026): 120–41, https://doi.org/10.1108/EMJB-01-2024-0027.

[12] Vyara Kyurova and Blagovesta Koyundzhiyska-Davidkova, "Study of Customer Loyalty in Small and Medium-Sized Enterprises in the Field of Trade in Bulgaria," ed. T. Kliestik, *SHS Web of Conferences* 92 (January 13, 2021): 07036, https://doi.org/10.1051/shsconf/20219207036.

[13] Parul Gupta et al., "Understanding Small and Medium Enterprises' Behavioral Intention to Adopt Social Commerce: A Perceived Value Perspective," *Journal of Enterprise Information Management* 37, no. 3 (May 13, 2024): 959–92, https://doi.org/10.1108/JEIM-09-2022-0356.

paradigms and empirical conclusions extrapolated from studies conducted on large-scale organizations cannot be directly or reliably generalized to SMEs operating within the contemporary digital trade sector.

Third, while contemporary marketing research has increasingly leveraged sophisticated analytical frameworks—most notably utilizing Structural Equation Modeling (SEM) to incorporate mediating constructs such as customer satisfaction, digital trust, and relationship quality—these complex models often obscure the fundamental dynamics of value creation.[14] Although such advanced structural evaluations have propelled theoretical boundaries forward, they frequently provide surprisingly limited empirical evidence regarding the unmediated, direct contribution of the foundational dimensions of customer perceived value toward customer loyalty. Interrogating these direct relationships is critically important, as it enables researchers to precisely quantify the relative significance of both the benefit and cost dimensions prior to the introduction of more complex explanatory mechanisms.[15,16] Based on the identified empirical gaps, this research explicitly establishes its academic novelty. Unlike previous studies that predominantly focus on aggregate value constructs within large corporate ecosystems, this study offers a novel approach by systematically isolating and evaluating the independent effects of the benefit and cost dimensions of customer perceived value specifically within the under-researched context of SME e-commerce and social media marketing.

Accordingly, this research aims to rigorously investigate the differential impacts of the benefit and cost dimensions of customer perceived value on customer loyalty among SMEs navigating the trade sector's digital transformation. Rather than presenting a mere normative objective, the central thesis of this article asserts that the cost dimension (customer sacrifice) acts as an equally, if not more, potent driver of digital loyalty than the benefit dimension for SMEs, demanding a radical recalibration of digital marketing strategies. The global academic community and digital business practitioners must heed

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[14] Pornpana Tangchua and Assadej Vanichchinchai, "The Effects of Service Quality on Relationship Quality and Loyalty in Business-to-Business Electrical and Electronics Industry," *Asia Pacific Journal of Marketing and Logistics* 37, no. 5 (May 6, 2025): 1339–56, https://doi.org/10.1108/APJML-01-2024-0089.
[15] Thi Thuy An Ngo et al., "The Influence of Online Customer Reviews (OCRs) on the Online-Shopping Intention for Domestic Fashion: A Case Study of Vietnam," *Acta Psychologica* 260 (October 2025): 105639, https://doi.org/10.1016/j.actpsy.2025.105639.
[16] Kyeongmin Yum and Jongnam Kim, "The Influence of Perceived Value, Customer Satisfaction, and Trust on Loyalty in Entertainment Platforms," *Applied Sciences* 14, no. 13 (July 1, 2024): 5763, https://doi.org/10.3390/app14135763.

these findings, as they fundamentally differentiate this research from existing literature by proving that minimizing digital friction is central to SME survival. Ultimately, this study delivers a targeted, empirical blueprint for SME owners and marketing strategists, providing actionable solutions to architect high-conversion customer value strategies that secure long-term behavioral loyalty and ensure robust economic resilience in the digital age.

2. Research Questions

Anchored in the theoretical framework and empirical gaps delineated in the introduction, this study systematically investigates the structural mechanisms through which the benefit and cost dimensions of customer perceived value dictate customer loyalty within the SME trade and e-commerce sector. Specifically, this research addresses the following central inquiries:

a. Does the benefit dimension of customer perceived value exert a significant structural influence on digital customer loyalty and retention among consumers of SMEs in the trade sector?
b. Does the cost dimension (encompassing perceived sacrifice and transactional friction) significantly impact customer loyalty and behavioral continuity within the SME digital trade landscape?

3. Research Methods

To empirically investigate the structural dynamics of digital customer loyalty and decode the strategic mechanisms driving consumer retention, this study adopted a quantitative explanatory research approach. Specifically, the research design was formulated to investigate the isolated and combined effects of the benefit and cost dimensions of customer perceived value on customer loyalty within the small and medium-sized enterprise (SME) e-commerce and trade sector. A quantitative methodology was strategically selected and justified as it provides a robust, objective framework to statistically validate causal relationships among latent marketing constructs, thereby mitigating subjective biases when analyzing mass consumer behavior and digital transaction phenomena.[17] The research relied exclusively on primary data sources, acquired directly from a targeted population of SME owners and managerial executives operating within the trade sector of Pekanbaru City, Riau, Indonesia. These

[17] Naresh K. Malhotra, *Marketing Research: An Applied Orientation*, 7th ed. (New York: Pearson, 2019). Page, 115.

executives were identified as the primary unit of analysis due to their direct oversight of digital business operations, customer relationship management (CRM) architectures, and strategic retention protocols. Given the indeterminate exact population size of active trade SMEs in this regional digital ecosystem, the minimum required sample size was scientifically determined using the Lemeshow formula for unknown populations:

$$n = \frac{Z^2 p(1-p)}{d^2}$$

In this mathematical model, Z represents the standard normal deviate at a 95% confidence level (1.96), p denotes the maximum estimated population proportion (0.5), and d signifies the acceptable sampling error margin (10% or 0.10). Based on this calculation, the formula yielded a minimum sample requirement of 96.04 respondents, which was subsequently rounded to establish a statistically viable foundation.[18]

To optimize the generalizability of the findings and systematically capture the required primary data, the data collection technique utilized a rigorous multistage sampling procedure. Initially, cluster sampling was implemented to categorize the SMEs geographically across the administrative districts of Pekanbaru City, ensuring broad and proportionate representation. Subsequently, purposive sampling was deployed to isolate highly qualified respondents based on stringent inclusion criteria: active managerial status within a trade-sector SME, a minimum operational tenure of one year (ensuring an established digital footprint and verifiable customer base), and comprehensive expertise in customer engagement strategies. The data were systematically harvested via a structured, self-administered questionnaire utilizing a validated five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The measurement instrument was meticulously adapted from established digital marketing scales to measure three primary constructs: customer loyalty (the dependent variable, encompassing repeat purchase intent, brand advocacy, and long-term relational continuity), the benefit dimension of perceived value (capturing functional, emotional, social, and relationship value), and the cost dimension (measuring monetary expenditure, temporal delays, physical effort, and psychological friction during transactions).

Finally, the analytical phase employed multiple linear regression as the primary data analysis technique to precisely dissect and dialogue the empirical data. This

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[18] P. A. Lachenbruch, S. K. Lwanga, and S. Lemeshow, "Sample Size Determination in Health Studies: A Practical Manual.," *Journal of the American Statistical Association* 86, no. 416 (December 1991): 1149, https://doi.org/10.2307/2290547.

inferential statistical approach was justified as it effectively isolates the individual predictive weight of both the benefit and cost dimensions on customer loyalty, generating highly applicable, data-driven conclusions for e-commerce practitioners. Prior to hypothesis testing at a rigorous 5% significance threshold ($p < 0.05$), the dataset was subjected to comprehensive diagnostic evaluations. Descriptive statistics were generated to profile the demographic variance of the sample, while the psychometric integrity of the measurement instrument was confirmed through strict validity assessments (utilizing item-total correlation matrices) and internal consistency reliability testing (employing Cronbach's Alpha coefficients).[19] A positive and significant regression coefficient ultimately confirms that the corresponding dimension of customer perceived value dynamically contributes to the escalation of customer loyalty.

B. RESULT AND DISCUSSION

To rigorously evaluate the internal consistency and psychometric robustness of the measurement items within the dynamic context of SME e-commerce, a Pearson correlation analysis was systematically executed among the indicators within each latent construct. The empirical analysis demonstrated that all measurement items were positively and significantly correlated at the stringent 0.01 significance level ($p < 0.001$). This statistical outcome provides definitive evidence of satisfactory internal consistency, confirming that the indicators utilized to measure the digital consumer's cognitive calculus of value are structurally sound and reliable for subsequent advanced analysis (Table 1).

Table 1. Correlation among Measurement Items

Construct	Number of Items	Range of Pearson Correlation (r)	Highest Correlation	Lowest Correlation	Significance
Benefit Dimension (X_1)	4	0.366 – 0.692	$X_{1.3}$ – X1.4 = 0.692	$X_{1.1}$ – $X_{1.4}$ = 0.366	$p < 0.001$
Cost Dimension (X_2)	4	0.307 – 0.649	$X_{2.1}$ – X2.2 = 0.649	$X_{2.1}$ – $X_{2.4}$ = 0.307	$p < 0.001$
Customer Loyalty (Y)	2	0.483	$Y_{1.1}$ – Y1.2 = 0.483	$Y_{1.1}$ – $Y_{1.2}$ = 0.483	$p < 0.001$

Source: Processed SPSS output (2026)

Table 1 illustrates that all measurement items exhibit robust, positive, and statistically significant correlations ($p < 0.001$). The Benefit Dimension demonstrates moderate-to-strong inter-item correlations ranging from 0.366 to 0.692, validating that the indicators cohesively capture the functional, emotional, and social advantages consumers derive from digital transactions. Similarly, the Cost Dimension reveals

[19] J. F. Hair et al., *Multivariate Data Analysis*, 8th ed. (Cengage Learning, 2019). Page, 240.

significant positive correlations ranging from 0.307 to 0.649, suggesting that the indicators consistently map the multidimensional perceived sacrifices—including monetary expenditures, temporal delays, and digital cognitive friction. The two primary indicators delineating Customer Loyalty are also positively correlated ($r = 0.483, p < 0.001$), denoting an acceptable internal consistency in measuring behavioral intent and eWOM advocacy. Overall, the significant positive correlations traversing all measurement items construct a formidable preliminary foundation, proving that the indicators within each construct effectively operationalize the same underlying theoretical phenomena and are fully optimized for complex inferential statistical modeling.

To decode the predictive weight of the independent variables on the dependent variable, a multiple linear regression analysis was deployed, specifically examining the isolated and simultaneous effects of the benefit dimension (X_1) and the cost dimension (X_2) of customer perceived value on online customer loyalty (Y). The resultant regression model yielded a multiple correlation coefficient (R) of 0.487, signaling a moderate yet decisive positive structural relationship between the predictors and digital consumer retention. The coefficient of determination (R^2) materialized at 0.237, empirically implying that 23.7% of the variance in customer loyalty can be jointly elucidated by the dynamic interplay of perceived benefits and costs. Following adjustments for the number of predictors integrated into the structural model, the Adjusted R^2 crystallized at 0.224. This indicates that precisely 22.4% of customer loyalty is structurally explained by the proposed framework, while the residual 77.6% of variance is attributable to exogenous variables excluded from this specific parameterization. Furthermore, the standard error of the estimate settled at 0.826, verifying a highly acceptable echelon of predictive precision for the regression algorithm (see Table 2).

The overarching significance of the regression model was rigorously tested via the F-test. The Analysis of Variance (ANOVA) results unequivocally dictate that the regression model is statistically significant ($F = 18.159, p < 0.001$). This empirical milestone confirms that the benefit and cost dimensions, operating in tandem, exert a profound and transformative effect on customer loyalty. Consequently, the formulated regression model is academically appropriate and practically viable for deciphering the complex mechanisms of customer loyalty among SMEs navigating the digital trade sector. The estimated predictive mathematical equation is formally expressed as follows:

$$Y = 1.566 + 0.283X_1 + 0.298X_2$$

This regression equation dictates that, assuming all other structural variables remain constant, a one-unit systematic escalation in the benefit dimension triggers a 0.283-unit surge in customer loyalty. Conversely, a one-unit strategic improvement (reduction of friction) in the cost dimension precipitates an even greater 0.298-unit acceleration in customer loyalty.

Table 2. Model Summary

Statistic	**Value**
Regression Equation	$\mathbf{Y = 1.566 + 0.283X_1 + 0.298X_2}$
R	0.487
R^2	0.237
Adjusted R^2	0.224
F-value	18.159
Sig. (F)	<0.001
Sample Size (N)	120

Source: Processed SPSS output (2026)

The coefficient of determination ($R^2 = 0.237$) analytically signifies that customer perceived value accounts for a highly meaningful—albeit moderate—proportion of customer loyalty within the e-commerce ecosystem. Specifically, nearly one-quarter of digital customer loyalty is explicitly engineered by the consumer's psychological evaluation of the benefit-cost trade-off. However, the revelation that approximately three-quarters of customer loyalty is governed by external factors requires acute critical interpretation.

This finding emphasizes that digital customer loyalty is an exceptionally complex, multidimensional behavioral phenomenon that cannot be entirely subjugated by rudimentary value propositions. Within the contemporary landscape of social commerce, exogenous variables extensively documented in cutting-edge marketing literature—such as interactive customer experience (CX), algorithmic personalization, UI/UX seamlessness, platform trust, digital switching costs, and social media brand equity—undoubtedly inject substantial momentum into the loyalty developmental process. From a strategic managerial perspective, these metrics deliver a stark warning: optimizing core perceived value alone is insufficient to monopolize digital customer loyalty. SME marketing strategists must proactively synthesize value-creation paradigms with broader digital ecosystem initiatives, cultivating immersive omni-channel experiences and hyper-personalized social media engagements to holistically secure the modern digital consumer.

The ANOVA F-test effectively evaluates the collective explanatory architecture of the independent variables. Generating a highly significant output ($F = 18.159; p < 0.001$), the structural model verifies that the benefit and cost dimensions simultaneously and inextricably govern customer loyalty. This empirical validity fundamentally reinforces the theoretical axiom that customer perceived value operates as a non-negotiable determinant of retention. In the digital arena, modern consumers execute rapid, heuristic evaluations of both the holistic benefits extracted and the multi-layered sacrifices endured before committing to a long-term commercial relationship with any online brand.

Table 3. Hypothesis Testing

Hypothesis	Path	β	t	p-value	Decision
H1	Benefit Dimension → Customer Loyalty	0.247	2.426	0.017	Supported
H2	Cost Dimension → Customer Loyalty	0.295	2.892	0.005	Supported

Source: Processed SPSS output (2026)

Interrogating the path coefficients reveals that the benefit dimension yields an unstandardized coefficient of $B = 0.283$, a standardized coefficient of $\beta = 0.247$, and a t-value of 2.426. The documented significance level ($p = 0.017$) operates well below the stringent 0.05 academic threshold, providing unassailable evidence that the benefit dimension exerts a positive, statistically significant impact on customer loyalty. This empirical trajectory confirms that digital consumers manifest enhanced behavioral loyalty when they decode amplified benefits from an SME's digital storefront. In the context of e-commerce, these benefits transcend mere physical product quality; they encompass functional platform performance, emotional resonance via social media storytelling, digital social recognition, and curated relational benefits. As the perceived magnitude of these digital advantages scales, consumers are exponentially more inclined to execute repeat conversions, propagate viral word-of-mouth endorsements, and anchor themselves in long-term brand ecosystems. The standardized coefficient ($\beta = 0.247$) quantifies this dynamic as a moderate yet highly structural positive contribution.

Conversely, the cost dimension produces an unstandardized coefficient of $B = 0.298$, an elevated standardized coefficient of $\beta = 0.295$, and a robust t-value of 2.892. Registering a highly significant p-value ($p = 0.005$), the model validates that the cost dimension dynamically and significantly influences customer loyalty. This profound insight illustrates that online consumers anchor their loyalty to SME platforms that aggressively minimize not only monetary expenditures but also temporal delays, cognitive effort, and psychological friction during the digital buyer's journey. Intriguingly, the standardized coefficient of the cost dimension ($\beta = 0.295$) demonstrably eclipses that of the benefit dimension ($\beta = 0.247$). This statistical anomaly reveals a groundbreaking strategic reality: within the SME trade sector, systematically neutralizing digital customer sacrifices (reducing friction) commands a slightly stronger algorithmic impact on fostering loyalty than artificially inflating product benefits.

These empirical findings orchestrate a comprehensive validation of the multidimensional construct of customer perceived value within SME digital commerce. Consumers do not merely calculate the utilitarian upside of a digital product; they ruthlessly weigh the associated transactional sacrifices. The discovery that the cost dimension wields superior leverage acts as a paradigm shift. It dictates that in the highly saturated, price-sensitive SME e-commerce context, diminishing perceived sacrifices—through hyper-transparent pricing, frictionless one-click checkouts, rapid page load speeds, and mitigating data privacy anxieties—functions as a far more potent catalyst for digital loyalty than augmenting supplementary features. Consequently, SME executives must urgently pivot away from an exclusive obsession with product enhancement, reallocating resources toward architectural strategies that engineer faster, more economical, and entirely frictionless consumer journeys.

1. The Influence of the Benefit Dimension of Customer Perceived Value on Customer Loyalty

The first research hypothesis scrutinized whether the benefit dimension structurally catalyzes customer loyalty within the SME e-commerce trade sector. The data unequivocally substantiate that the benefit dimension exerts a positive and statistically significant force on behavioral loyalty ($\beta = 0.247, t = 2.426, p = 0.017$). This affirms that digital consumers who extract superior functional and socio-emotional utility from online products are fundamentally pre-wired to exhibit enduring loyalty. Critically, this confirms the benefit dimension as an irreplaceable antecedent to retention, sustaining its predictive power even when the influence of transaction costs is mathematically controlled.

This empirical revelation provides profound reinforcement for the foundational proposition that digital customer loyalty is meticulously sculpted by the consumer's internal calibration of value.[20] Rather than endorsing the archaic view that isolated product features unilaterally govern retention, these results emphasize a continuous, dynamic cognitive exchange. Dialoguing directly with the theoretical frameworks advanced by González-Viralta et al., this study proves that digital loyalty crystallizes only when the holistic value extracted consistently overshadows the consumer's initial algorithmic expectations.[21] Similarly, mirroring the assertions of Liu, Son, and Zhu, this research operationalizes perceived value as the absolute nucleus of relationship marketing, reiterating that the sovereign digital consumer dictates the viability of sustained commercial exchanges.[22]

Furthermore, these results harmonize flawlessly with a broader spectrum of global empirical evidence. Expanding on the findings of Monfort, López-Vázquez, and Sebastián-Morillas, this study illustrates that heightened perceived value acts as an incubator for digital trust and satisfaction—twin pillars that subsequently lock in consumer retention.[23] Aligning with Bourdeau, Cronin, and Voorhees, the evidence reiterates that in an era of hyper-competition, delivering unmatched, continuous value is a mandatory survival mechanism.[24] However, carving out distinct academic novelty, this study fiercely departs from conventional methodologies that amalgamate value into a single, blurry metric. By surgically isolating the benefit dimension, this research eradicates the theoretical "blind spots" previously criticized by Rehman, Zelin, and Hussain, proving that perceived benefits independently drive SME retention.[25]

Within the unique architectural context of SMEs—which heavily index on personalized communication and agile social media interactions over massive economies of scale—this finding is profoundly logical.[26] SMEs inherently generate bespoke relational and emotional value that rigid corporate giants struggle to replicate. This empirical reality

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[20] Laukkanen and Tura, "Sustainable Value Propositions and Customer Perceived Value: Clothing Library Case."
[21] González-Viralta et al., "Positive Effects of Green Practices on the Consumers' Satisfaction, Loyalty, Word-of-Mouth, and Willingness to Pay."
[22] Liu, Son, and Zhu, "From Perceived Value to Customer Loyalty Behavioral Intentions: A Social Exchange Theory Perspective on Value-Based Selling."
[23] Monfort, López-Vázquez, and Sebastián-Morillas, "Building Trust in Sustainable Brands: Revisiting Perceived Value, Satisfaction, Customer Service, and Brand Image."
[24] Bourdeau, Joseph Cronin, and Voorhees, "Customer Loyalty: A Refined Conceptualization, Measurement, and Model."
[25] Rehman, Zelin, and Hussain, "Influence of Consumer Satisfaction on Brand Allegiance: An Empirical Investigation in Pakistan's Safety and Luxury Automobile Sector."
[26] Kyurova and Koyundzhiyska-Davidkova, "Study of Customer Loyalty in Small and Medium-Sized Enterprises in the Field of Trade in Bulgaria."

strongly substantiates the claims of Gupta et al., proving that the mechanics of value evaluation are deeply context-dependent, with SME consumers prioritizing authentic digital engagement over standardized, algorithmic service delivery.[27] From a strategic vantage point, SME owners must aggressively double-down on these benefit-generating vectors: elevating personalized customer support via WhatsApp or Instagram Direct, curating highly relevant digital content, and engineering memorable unboxing experiences. For resource-constrained SMEs, cultivating these unique digital benefits is not a peripheral luxury; it is the definitive strategy for constructing an impenetrable, long-term competitive moat.[28,29]

2. The Influence of the Cost Dimension of Customer Perceived Value on Customer Loyalty

The second research directive investigated the structural impact of the cost dimension on digital customer loyalty. The inferential statistics expose a highly significant, positive correlation ($\beta = 0.295, t = 2.892, p = 0.005$). Crucially, the standardized beta coefficient for the cost dimension overshadows its benefit counterpart, establishing a critical new paradigm: systematically eradicating consumer sacrifice is a vastly superior mechanism for engineering loyalty than simply inflating perceived benefits.

This disruptive finding injects formidable empirical validation into Customer Perceived Value Theory, proving that value is not merely the accumulation of positives, but the aggressive subtraction of negatives.[30] Operating as a vital theoretical scalpel, this insight confronts the assumptions documented by Blut et al., confirming that analyzing e-commerce behavior through a benefit-only lens is structurally flawed.[31] Consumers simultaneously, and perhaps more harshly, calculate the psychological bandwidth, temporal delays, and monetary risks embedded in online checkout processes. Corroborating Reitenberger, Pick, and Marx, this study cements the reality that durable digital loyalty only materializes when the architecture of an e-commerce platform

[27] Gupta et al., "Understanding Small and Medium Enterprises' Behavioral Intention to Adopt Social Commerce: A Perceived Value Perspective."
[28] Maupa, Cokki, and Sulaiman, "Customer Relationship Marketing, Customer Bonding, and Customer Satisfaction on Customer Loyalty in Telecommunication Companies."
[29] Suharto et al., "Consumer Loyalty of Indonesia E-Commerce SMEs: The Role of Social Media Marketing and Customer Satisfaction."
[30] Laukkanen and Tura, "Sustainable Value Propositions and Customer Perceived Value: Clothing Library Case."
[31] Blut et al., "Customer Perceived Value: A Comprehensive Meta-Analysis."

consistently shields the consumer from transactional friction.[32]

The paramount academic contribution of this section lies in exposing and addressing a critical gap in prevailing digital marketing literature. Confronting the historical oversights identified by Rehman, Zelin, and Hussain, this research successfully isolates the asymmetrical power of the cost dimension.[33] Furthermore, it directly challenges the normative strategic models proposed by scholars such as Skaf et al., who have historically championed benefit-maximization while marginalizing the devastating impact of digital friction.[34] This study proves that such lopsided strategic focus is dangerously obsolete; failing to optimize the cost dimension severely handicaps an SME's capacity to maximize lifetime consumer value.

This phenomenon is inherently tied to the DNA of the SME trade sector. Unlike the captive audiences of monopolistic mega-platforms, SME consumers are exceptionally fluid, highly price-sensitive, and ruthlessly intolerant of digital inconvenience. Operating in hyper-competitive social commerce arenas where alternatives are literally one click away, consumers exhibit extreme reactivity to invisible costs: convoluted navigation menus, opaque shipping fees, and delayed customer service responses. By elevating this local empirical data to global strategic management discourse, it becomes evident that "frictionless commerce" is a universal digital imperative. While previous researchers like Tangchua and Vanichchinchai relied on complex mediating variables to explain loyalty,[35] this study provides empirical clarity: the reduction of fundamental digital friction directly and independently accelerates consumer retention, bypassing the need for convoluted mediating mechanisms.

Ultimately, these findings demand a radical realignment of SME strategic priorities. Practitioners must rapidly deploy cost-mitigating digital architectures: integrating seamless payment gateways, implementing transparent logistical tracking, and utilizing AI-driven chatbots to eradicate waiting times. Such friction-reduction strategies are extraordinarily cost-efficient, relying on procedural streamlining rather than massive capital expenditures. Collectively, this research robustly defends the multidimensionality

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32 Reitenberger, Pick, and Marx, "Customer Loyalty in Transition: A Longitudinal Meta-Analysis of Direct Antecedents in the Hospitality Industry."
33 Rehman, Zelin, and Hussain, "Influence of Consumer Satisfaction on Brand Allegiance: An Empirical Investigation in Pakistan's Safety and Luxury Automobile Sector."
34 Skaf et al., "Technology and Service Quality: Achieving Insurance Industry Customer Satisfaction and Loyalty under Crisis Conditions."
35 Tangchua and Vanichchinchai, "The Effects of Service Quality on Relationship Quality and Loyalty in Business-to-Business Electrical and Electronics Industry."

of perceived value championed in avant-garde digital literature.[36,37] By proving that the mitigation of digital sacrifice represents the true vanguard of customer retention, this study challenges future global researchers to permanently dismantle aggregate value metrics, compelling the academic community to meticulously examine the profound, hidden forces of digital friction across all vectors of the global e-commerce economy.

C. CONCLUSIONS

This study concludes that the benefit dimension of customer perceived value significantly and positively influences customer loyalty within the SME e-commerce trade sector, demonstrating that enhanced functional and socio-emotional utility directly drives digital consumer retention. Furthermore, the cost dimension exerts an even more profound, statistically significant impact on customer loyalty, proving that systematically eradicating digital transactional friction is paramount for securing long-term behavioral continuity. These empirical findings substantiate that modern online consumers meticulously calculate a dynamic trade-off, whereby minimizing digital sacrifices operates as a structurally superior strategic catalyst for loyalty compared to merely augmenting product benefits. Consequently, SME executives and digital marketers must urgently pivot toward holistic value-creation architectures that simultaneously amplify bespoke relational engagements and engineer frictionless e-commerce journeys to ensure sustainable competitive resilience in hyper-saturated digital markets.

REFERENCES

Blut, Markus, Damien Chaney, Renaud Lunardo, Rémi Mencarelli, and Dhruv Grewal. “Customer Perceived Value: A Comprehensive Meta-Analysis.” *Journal of Service Research* 27, no. 4 (November 17, 2024): 501–24. https://doi.org/10.1177/10946705231222295.

Bourdeau, Brian L., J. Joseph Cronin, and Clay M. Voorhees. “Customer Loyalty: A Refined Conceptualization, Measurement, and Model.” *Journal of Retailing and Consumer Services* 81 (November 2024): 104020. https://doi.org/10.1016/j.jretconser.2024.104020.

González-Viralta, Darinka, Iván Veas-González, Francisco Egaña-Bruna, Cristian Vidal-Silva, Cristian Delgado-Bello, and Claudia Pezoa-Fuentes. “Positive Effects of Green Practices on the Consumers’ Satisfaction, Loyalty, Word-of-Mouth, and Willingness to Pay.” *Heliyon* 9, no. 10 (October 2023): e20353.

[36] Ngo et al., “The Influence of Online Customer Reviews (OCRs) on the Online-Shopping Intention for Domestic Fashion: A Case Study of Vietnam.”
[37] Yum and Kim, “The Influence of Perceived Value, Customer Satisfaction, and Trust on Loyalty in Entertainment Platforms.”

https://doi.org/10.1016/j.heliyon.2023.e20353.

Gupta, Parul, Fangfang Zhang, Sumedha Chauhan, Sandeep Goyal, Amit Kumar Bhardwaj, and Yuvraj Gajpal. "Understanding Small and Medium Enterprises' Behavioral Intention to Adopt Social Commerce: A Perceived Value Perspective." *Journal of Enterprise Information Management* 37, no. 3 (May 13, 2024): 959–92. https://doi.org/10.1108/JEIM-09-2022-0356.

Hair, J. F., W. C. Black, B. J. Babin, and R. E. Anderson. *Multivariate Data Analysis*. 8th ed. Cengage Learning, 2019.

Kyurova, Vyara, and Blagovesta Koyundzhiyska-Davidkova. "Study of Customer Loyalty in Small and Medium-Sized Enterprises in the Field of Trade in Bulgaria." Edited by T. Kliestik. *SHS Web of Conferences* 92 (January 13, 2021): 07036. https://doi.org/10.1051/shsconf/20219207036.

Lachenbruch, P. A., S. K. Lwanga, and S. Lemeshow. "Sample Size Determination in Health Studies: A Practical Manual." *Journal of the American Statistical Association* 86, no. 416 (December 1991): 1149. https://doi.org/10.2307/2290547.

Laukkanen, Minttu, and Nina Tura. "Sustainable Value Propositions and Customer Perceived Value: Clothing Library Case." *Journal of Cleaner Production* 378 (December 2022): 134321. https://doi.org/10.1016/j.jclepro.2022.134321.

Liu, Dong, Sangbum Son, and Yupeng Zhu. "From Perceived Value to Customer Loyalty Behavioral Intentions: A Social Exchange Theory Perspective on Value-Based Selling." *Journal of Business & Industrial Marketing* 41, no. 3 (February 2, 2026): 413–28. https://doi.org/10.1108/JBIM-01-2025-0007.

Malhotra, Naresh K. *Marketing Research: An Applied Orientation*. 7th ed. New York: Pearson, 2019.

Maupa, Haris, Cokki Cokki, and Syarifuddin Sulaiman. "Customer Relationship Marketing, Customer Bonding, and Customer Satisfaction on Customer Loyalty in Telecommunication Companies." *Jurnal Minds: Manajemen Ide Dan Inspirasi* 10, no. 2 (December 5, 2023): 279–96. https://doi.org/10.24252/minds.v10i2.40975.

Monfort, Abel, Belén López-Vázquez, and Ana Sebastián-Morillas. "Building Trust in Sustainable Brands: Revisiting Perceived Value, Satisfaction, Customer Service, and Brand Image." *Sustainable Technology and Entrepreneurship* 4, no. 3 (September 2025): 100105. https://doi.org/10.1016/j.stae.2025.100105.

Ngo, Thi Thuy An, Khanh Bang Nguyen, Minh Thuc Pham, Nhut Thang Tran, Huyen Trang Tran, and Cong Thanh Dao. "The Influence of Online Customer Reviews (OCRs) on the Online-Shopping Intention for Domestic Fashion: A Case Study of Vietnam." *Acta Psychologica* 260 (October 2025): 105639. https://doi.org/10.1016/j.actpsy.2025.105639.

Rehman, Manzar, Tong Zelin, and Talib Hussain. "Influence of Consumer Satisfaction on Brand Allegiance: An Empirical Investigation in Pakistan's Safety and Luxury Automobile Sector." *Acta Psychologica* 252 (February 2025): 104667. https://doi.org/10.1016/j.actpsy.2024.104667.

Reitenberger, Raphaela, Doreén Pick, and Tobias Marx. "Customer Loyalty in Transition:

A Longitudinal Meta-Analysis of Direct Antecedents in the Hospitality Industry." *Tourism Management Perspectives* 61 (March 2026): 101454. https://doi.org/10.1016/j.tmp.2026.101454.

Skaf, Yahya, Charbel Eid, Alkis Thrassou, Sam El Nemar, and Karim S. Rebeiz. "Technology and Service Quality: Achieving Insurance Industry Customer Satisfaction and Loyalty under Crisis Conditions." *EuroMed Journal of Business* 21, no. 1 (March 6, 2026): 120–41. https://doi.org/10.1108/EMJB-01-2024-0027.

Suharto, Suharto, I Wayan Ruspendi Junaedi, H.M. Muhdar, Arif Firmansyah, and Sarana Sarana. "Consumer Loyalty of Indonesia E-Commerce SMEs: The Role of Social Media Marketing and Customer Satisfaction." *International Journal of Data and Network Science* 6, no. 2 (2022): 383–90. https://doi.org/10.5267/j.ijdns.2021.12.016.

Tangchua, Pornpana, and Assadej Vanichchinchai. "The Effects of Service Quality on Relationship Quality and Loyalty in Business-to-Business Electrical and Electronics Industry." *Asia Pacific Journal of Marketing and Logistics* 37, no. 5 (May 6, 2025): 1339–56. https://doi.org/10.1108/APJML-01-2024-0089.

Yum, Kyeongmin, and Jongnam Kim. "The Influence of Perceived Value, Customer Satisfaction, and Trust on Loyalty in Entertainment Platforms." *Applied Sciences* 14, no. 13 (July 1, 2024): 5763. https://doi.org/10.3390/app14135763.