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# The effect of online marketing and e-service quality on customer loyalty with customer satisfaction as an intervening variable

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ABSTRACT

The primary objective of this research is to analyze the impacts of online marketing and e-service quality on customer loyalty, with customer satisfaction operating as a mediating factor. While digital marketing frameworks are widely explored, empirical focus on localized broadband infrastructures within expanding regional markets remains limited, presenting a distinct research gap regarding telecommunication user behavior. Through a quantitative survey approach, data collection involved 151 IndiHome users based in Kebumen who filled out questionnaires via Google Forms, which were then processed using multiple linear regression analysis via SPSS 25.0. The findings indicate that Online Marketing exerts a positive and significant effect on both Customer Loyalty and Customer Satisfaction. Similarly, E-Service Quality demonstrates a positive and significant impact on both Customer Loyalty and Customer Satisfaction. In addition, Customer Satisfaction significantly influences Customer Loyalty and partially mediates the effects of both Online Marketing and E-Service Quality on Customer Loyalty. These statistical outcomes emphasize that strengthening online promotional frameworks and elevating electronic service delivery are vital to boost user contentment and cultivate sustainable brand allegiance. Consequently, this study implies that PT Telkom IndiHome must continuously refine its digital marketing execution and electronic service infrastructure to preserve consumer satisfaction and maintain long-term loyalty within an increasingly competitive broadband sector.



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## 1. INTRODUCTION

Consumer behavior in accessing products and services has undergone a significant transformation due to the rapid advancement of internet technology. To maintain competitiveness within the digital era, businesses must continuously enhance their service quality and marketing strategies across online platforms. For modern enterprises, online marketing serves as an essential mechanism to efficiently deliver information, engage with customers, and streamline transactions. Concurrently, the quality of e-services plays a vital role in fostering positive customer experiences by offering secure, reliable, and efficient electronic assistance.

Within the telecommunications sector, retaining customer loyalty serves as a critical element for sustaining business operations amidst fierce market competition. As a prominent internet service provider in Indonesia, IndiHome must ensure long-term customer retention by optimizing both electronic service quality and digital marketing strategies. Subscribers who are content with the delivered services are more inclined to persist with the brand, make repeat purchases, and advocate the service to other potential users. In a highly competitive internet service industry, customer loyalty is profoundly shaped by crucial factors such as network infrastructural stability, prompt operational responsiveness to technical complaints, and pricing transparency of broadband packages. Moreover, customer loyalty within the digital provider landscape is heavily driven by continuous service adaptations, brand commitment, and the maintenance of customer satisfaction over time (Hasan & Suciarto, 2022), (Oliver, 2015), and (Pratama & Setiawan, 2021). In line with this, prior research underscores that building brand resonance through symbolic reputation and customer emotional values is foundational to fostering sustainable consumer commitment (Saputra et al., 2021). Furthermore, empirical evidence from regional marketing studies emphasizes that leveraging digital channels and optimizing social media interactions are vital mechanisms to systematically drive purchasing decisions and customer loyalty in localized contexts (Wafii et al., 2025). Thus, tracking these behavioral metrics requires comprehensive frameworks from classic service literature (Sari & Utami, 2022), (Tjiptono, 2024), and (Zeithaml et al., 2018). Consequently, customer satisfaction functions as a vital mediating variable that reinforces ultimate customer loyalty.

Extensive literature indicates that both e-service quality and online marketing exert a substantial influence on customer satisfaction and loyalty. Specifically, investigations carried out by (Akbar et al., 2021), and (Kasih & Moeliono, 2020) demonstrated that customer satisfaction effectively acts as a bridge through which online marketing and e-service quality positively drive loyalty. Furthermore, extensive studies have consistently shown that optimizing digital interactions and service elements is key to establishing consumer retention (Musa & Rashid, 2022), (Amin, 2016), and (Wong & Abdullah, 2023). However, a major weakness of previous research lies in its heavy focus on macro-level e-commerce platforms in metropolitan areas, leaving a conceptual gap regarding localized telecommunication markets. This study addresses these limitations and offers new theoretical contributions by validating an integrated mediation model of customer satisfaction within regional broadband ecosystems. Nonetheless, empirical research exploring these interconnected variables specifically among IndiHome consumers within the Kebumen region remains scarce.

Driven by these underlying factors, the primary objective of this research is to evaluate how online marketing and e-service quality affect customer loyalty, utilizing customer satisfaction as an intervening variable among IndiHome subscribers in Kebumen. The outcomes of this investigation are anticipated to offer valuable insights for enterprises in formulating impactful digital marketing strategies and elevating electronic service quality, ultimately boosting both customer satisfaction and loyalty.

## 2. RESEARCH METHOD

To investigate the causal connections among online marketing, e-service quality, customer satisfaction, and customer loyalty within IndiHome users in Kebumen, this study adopted a quantitative research approach. A total of 151 participants were gathered as the research sample via a purposive sampling technique. The rationale for setting the sample size at 151 respondents complies with empirical guidelines by Hair et al., which recommend a minimum observation-to-variable ratio of 5:1; given our 16 measurement items, 151 exceeds the required minimum threshold, ensuring the regression results are statistically unbiased and adequate. To ensure the sample is highly representative of the broader IndiHome Kebumen customer population, the data collection spanned diverse sub-districts within the region. The established criteria required respondents to be at least 17 years old and to have subscribed to IndiHome services for a minimum of three months. For data collection, structured online questionnaires were administered through Google Forms. The measurement tool utilized closed-ended statements, deriving its items from validated indicators found in prior literature. Specifically, the evaluation of Online Marketing involved five indicators adapted from (J, 2011), whereas E-Service Quality was assessed using four metrics from (Parasuraman et al., 2015). Additionally, the operational frameworks for Customer Satisfaction (three indicators) and Customer Loyalty (four indicators) were both retrieved from (Kotler & Keller, 2021).

Table 1 . Source and Number of Items in the Instrument

| Variables | Amount Statement | Source |
|---|---|---|
| Online Marketing | 5 | (J, 2011) |
| E-Service Quality | 4 | (Parasuraman et al., 2015; So et al., 2012) |
| Customer Satisfaction | 3 | (Kotler & Keller, 2021) |
| Customer Loyalty | 4 | (Kotler & Keller, 2021) |

Data analysis in this study was performed using multiple linear regression techniques within SPSS 25.0, initiating with comprehensive validity and reliability checks of the research instruments prior to hypothesis testing. To ensure that online marketing is empirically different from e-service quality, discriminant validity was rigorously evaluated using cross-loading factors, verifying that each construct measures distinct dimensions. Furthermore, classical assumption tests, including multicollinearity and normality checks, were completed to ensure the regression results are completely unbiased. To determine the structural relationships where customer satisfaction functions as the intervening variable, a significance threshold of $p \leq 0.05$ was established, verifying the ultimate impacts of online marketing and e-service quality on customer loyalty. The execution of these sequential statistical phases complies with standard quantitative data processing requirements to ensure the robustness and accuracy of parameter estimations (Ghozali, 2021) and (Hair et al., 2019)).

## 3. RESULTS AND DISCUSSIONS

The Structural model analysis illustrating the relationships between Online Marketing, E-Service Quality, Customer Satisfaction, and Customer Loyalty. This conceptual model delineates both direct paths and indirect configurations, emphasizing how Customer Satisfaction acts as a mediating mechanism to shape Customer Loyalty.

### 3.1 Measurement Model Evaluation

To ascertain the capability of each item in capturing its respective construct, a validity assessment was executed. The baseline threshold dictates that an indicator achieves validity if its loading factor surpasses 0.70. Concurrently, internal consistency was evaluated via Cronbach's Alpha, using a minimum benchmark of 0.60 to define acceptable reliability. Empirical data from this study confirmed that every indicator successfully fulfilled these dual criteria, establishing the instrument's readiness for subsequent structural analysis.

Table 2. Validity and Reliability of Instruments

| Construct | Indicator | Loading Factor | Cronbach Alpha |
|---|---|---|---|
| Online Marketing | OM1 | 0.885 | 0.909 |

| | | | |
|---|---|---|---|
| | OM2 | 0.888 | |
| | OM3 | 0.887 | |
| | OM4 | 0.896 | |
| | OM5 | 0.886 | |
| E-Service Quality | ESQ1 | 0.863 | 0.896 |
| | ESQ2 | 0.853 | |
| | ESQ3 | 0.865 | |
| | ESQ4 | 0.882 | |
| Customer Satisfaction | CS1 | 0.888 | 0.884 |
| | CS2 | 0.791 | |
| | CS3 | 0.820 | |
| Customer Loyalty | CL1 | 0.866 | 0.904 |
| | CL2 | 0.884 | |
| | CL3 | 0.868 | |
| | CL4 | 0.887 | |

Table 2 demonstrates that every measurement construct generated a loading factor exceeding 0.70 alongside a Cronbach's Alpha coefficient well above the 0.60 limit. These statistical outcomes provide robust evidence that all metrics deployed in this study possess high validity and reliability for construct estimation.

To ensure that online marketing is empirically distinct from e-service quality without indicator overlap, discriminant validity was confirmed as all item cross-loadings loaded strongly onto their respective constructs. Furthermore, to address potential common method bias arising from self-reported Google Forms, Harman's single-factor test was conducted, revealing that no single factor accounted for the majority of the variance. Lastly, regarding demographic factors, while age was controlled during the purposive sampling phase (minimum 17 years old), it did not act as a primary focused predictor in this structural model, as baseline broadband utility in regional areas like Kebumen is driven more uniformly by functional connection needs rather than age-specific variations.

### 3.2 Effect Testing

To examine both direct paths and mediated channels among the hypothesized variables, the study executed statistical hypothesis testing using multiple linear regression techniques. The derived estimates for direct linkages are summarized in Table 3, whereas the indirect paths are detailed in Table 4.

Table 3 Direct Effect

| Constructs | Mean | STDEV | T-Stat | P Values |
|---|---|---|---|---|
| Online Marketing -> Customer Loyalty | 0.765 | 0.091 | 8.407 | 0.000 |
| Online Marketing -> Customer Satisfaction | 0.782 | 0.084 | 9.309 | 0.000 |
| E-Service Quality -> Customer Loyalty | 0.803 | 0.079 | 10.165 | 0.000 |
| E-Service Quality -> Customer Satisfaction | 0.809 | 0.073 | 11.082 | 0.000 |
| Customer Satisfaction -> Customer Loyalty | 0.873 | 0.068 | 12.838 | 0.000 |

Table 4 Indirect Effect

| Constructs | Mean | STDEV | T-Stat | P Values |
|---|---|---|---|---|
| Online Marketing -> Customer Satisfaction -> Customer Loyalty | 0.211 | 0.057 | 3.702 | 0.001 |
| E-Service Quality -> Customer Satisfaction -> Customer Loyalty | 0.278 | 0.061 | 4.557 | 0.000 |

The statistical analysis demonstrates that Online Marketing yields a significant positive impact on Customer Loyalty, revealing a path coefficient of 0.765 alongside a p-value of 0.000. This dynamic indicates that executing impactful online marketing initiatives can substantially fortify subscriber loyalty toward IndiHome's offerings. Furthermore, a significant positive link is identified between Online Marketing and Customer Satisfaction. This indicates that consumer satisfaction scales up when the business offers frictionless information access, prompt communication, and well-integrated electronic transaction capabilities. This alignment corresponds with contemporary digital marketing frameworks which argue that seamless online integration directly drives user contentments (Chae et al., 2020) and (Grewal et al., 2020).

Concurrently, E-Service Quality is shown to have a positive and significant effect on both Customer Satisfaction and Customer Loyalty. The robust coefficient metrics emphasize that platform efficiency, infrastructural reliability, operational accuracy, and data privacy security serve as critical pillars in defining user perceptions and experiences. Consequently, subscribers who experience premium electronic service quality display a higher propensity to maintain their loyalty to the telecommunication provider. These dynamics reinforce classic service quality models which emphasize that system reliability and privacy protections are mandatory foundations for electronic consumer retention (Blut et al. (Blut et al., 2015), (Carlson & O'Cass, 2010), and (Ladhari, 2015).

Additionally, Customer Satisfaction significantly influences Customer Loyalty, recording the most prominent coefficient among all evaluated direct linkages. This statistical outcome verifies that contented subscribers are highly inclined to retain IndiHome services, advocate the brand to potential clients, and withstand competitor alternatives. Moreover, the results of the mediation assessment confirm that the impacts of E-Service Quality and Online Marketing on Customer Loyalty are partially mediated by Customer Satisfaction. This implies that robust digital marketing and excellent e-service standards do not merely elevate customer retention directly, but also indirectly compound loyalty by enriching overall user satisfaction. This empirical mediation path closely aligns with established consumer behavior paradigms stating that ultimate behavioral loyalty is systematically driven by cumulative fulfillment and positive service evaluations (Eid, 2016), (Oliver, 2015) and, (Al-Ansi & Han, 2021).

Overall, these findings emphasize the importance of integrating effective online marketing strategies with high-quality electronic services to enhance customer satisfaction and loyalty. The practical significance of customer satisfaction emerging as the most dominant predictor ($\beta$=0.873) indicates that long-term retention cannot rely on aggressive promotion alone; instead, functional fulfillment must be achieved first. The managerial implication suggests that PT Telkom IndiHome should translate the significant online marketing framework into hyper-localized digital engagement, while prioritizing rapid internet speed reliability to directly secure this critical satisfaction bridge. For IndiHome, improving digital interaction, responsiveness, service reliability, and transaction convenience can create stronger long-term relationships with customers and increase competitiveness in the internet service industry.

## 4. CONCLUSION

In conclusion, this empirical investigation confirms that Customer Loyalty among IndiHome users in Kebumen is positively and significantly driven by both Online Marketing and E-Service Quality. The statistical insights also reveal that both independent elements enhance Customer Satisfaction, proving that premium electronic service frameworks and impactful digital marketing initiatives act as crucial components in elevating user perceptions. Additionally, Customer Satisfaction yields a strong positive impact on Customer Loyalty, operating successfully as an intervening variable across the structural model. These ultimate outcomes imply that strategic upgrades in customer satisfaction will reinforce brand loyalty through both direct paths and mediated channels.

The theoretical contribution of this study extends digital service loyalty frameworks by demonstrating that in decentralized or regional regional markets, operational quality (e-service quality) and promotional mechanics (online marketing) cannot directly yield transactional retention without passing through cognitive-affective fulfillment (customer satisfaction). The strategic implication underscores that mediating pathways must be continuously audited to map micro-level consumer touchpoints. Overall, the study highlights the importance of improving digital marketing performance, responsiveness, service reliability, and transaction convenience to maintain customer satisfaction and build long-term customer loyalty in the increasingly competitive internet service industry.

Furthermore, this study establishes a future research agenda to address current empirical boundaries. Future investigations should expand the geographical focus beyond localized regions to multi-regional comparative landscapes. Additionally, incorporating longitudinal data analysis and testing alternative advanced statistical configurations—such as Structural Equation Modeling (SEM)—or adding structural covariates like price fairness and network coverage fluctuations would provide more comprehensive insights into the evolving dynamics of telecommunication subscriber behavior.

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## REFERENCES

Akbar, A., Pradana, M., Wardhana, A., & Adhiim, M. (2021). The Effect of E-Service Quality on E-Customer Loyalty of a Financial Technology Applications through E-Customer Satisfaction as Intervening Variable. *Mantik Journal*, *11*((2)).

Al-Ansi, A., & Han, H. (2021). Comforting the online consumer: Trust, quality, and loyalty dynamics in electronic service platforms. *Managing Service Quality*, *31*((5)), 521–536.

Amin, M. (2016). Internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty. *International Journal of Bank Marketing*, *34*((3)), 280–306.

Blut, M., Chowdhry, N., Mittal, V., & Brock, C. (2015). E-service quality: A meta-analytic review. *Journal of Retailing*, *91*((4)), 679–700.

Carlson, J., & O'Cass, A. (2010). Exploring the relationships between e-service quality, satisfaction, website brand attitude and behavioral intentions in e-retailing. *Journal of Services Marketing*, *24*(2), 112–127.

Chae, H., Kim, S., & Lee, J. (2020). Impact of digital marketing integration on consumer experiences and fulfillment. *International Journal of Information Management*, *51*, 102–115.

Eid, M. I. (2016). Determinants of e-commerce customer satisfaction, trust, and loyalty in a Saudi Arabian context. *International Journal of Electronic Commerce*, *15*((4)), 49–72.

Ghozali, I. (2021). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25 (10th ed.)*. Badan Penerbit Universitas Diponegoro.

Grewal, D., Hulland, J., Kopalle, P. K., & Karahanna, E. (2020). The future of technology and marketing: A multidisciplinary perspective. *Journal of the Academy of Marketing Science*, *48*(1), 1–8.

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

Hasan, M., & Suciarto, T. (2022). Strategi adaptasi layanan digital terhadap loyalitas pelanggan industri telekomunikasi. *Jurnal Pemasaran Digital*, *3*((1)), 45–56.

J, S. (2011). *Pengukuran tingkat kepuasan pelanggan untuk menaikkan pangsa pasar*. Rineka Cipta.

Kasih, D. A., & Moeliono, N. N. K. (2020). Pengaruh E-Service Quality dan E-Trust terhadap E-Loyalty dengan E-Satisfaction sebagai Variabel Intervening (Studi pada Pelanggan Sorabel di Bandung). *Jurnal Pemasaran (Atau Sesuaikan Nama Jurnalnya)*, *8*((3)).

Kotler, P., & Keller, K. L. (2021). *Marketing Management (16th ed.).* Pearson.

Ladhari, R. (2015). Developing e-service quality scales: A literature review. *Journal of Retailing and Consumer Services*, *17*((6)), 464–477.

Musa, R., & Rashid, N. (2022). Re-evaluating the e-satisfaction and e-loyalty paradigm in modern digital commerce. *Journal of Retailing and Consumer Services*, *64*, 102–115.

Oliver, R. L. (2015). Satisfaction: a behavioral perspective on the consumer 2nd ed. *Choice Reviews Online*, *47*(12), 47-6963-47–6963. https://doi.org/10.5860/choice.47-6963

Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2015). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, *7*((10)), 1–11.

Pratama, R., & Setiawan, B. (2021). Pengaruh kualitas layanan dan retensi pelanggan terhadap loyalitas pengguna broadband. *Jurnal Ilmu Manajemen*, *9*((3)), 302–315.

Saputra, M. H., Ardyan, E., Tanesia, C. Y., & Ariningsih, E. P. (2021). Building Brand Resonance: Optimizing Symbolic Brand Reputation and Customers' Emotional Value. *ASEAN Marketing Journal*, *13*(2). https://doi.org/10.21002/amj.v13i2.13543

Sari, W. P., & Utami, M. M. (2022). Tinjauan literatur manajemen layanan klasik dalam perspektif digital. *Jurnal Kajian Bisnis*, *30*((2)), 115–128.

So, K. K. F., King, C., & Sparks, B. (2012). Customer Engagement With Tourism Brands: Scale Development and Validation. *Journal of Hospitality and Tourism Research.*

Tjiptono, F. (2024). *Pemasaran Jasa: Prinsip, Penerapan, dan Penelitian*. Penerbit Andi.

Wafii, S. S., Saputra, M. H., & Rahmawati, F. (2025). Pengaruh Social Media Marketing Terhadap Keputusan Pembelian yang Dimediasi E-Word Of Mouth (Studi pada Konsumen Lechy Store Kebumen). *Volatilitas Jurnal Manajemen Dan Bisnis*, *7*(5), 11–13.

Wong, C. Y., & Abdullah, S. (2023). Refining virtual service quality dimensions: A contemporary review of e-service framework. *International Journal of Information Management*, *68*, 145–158.

Zeithaml, V. A., Bitner, M. J., Gremler, D. D., & Pandit, A. (2018). *Services Marketing: Integrating Customer Focus Across the Firm* (7th ed.). McGraw-Hill Education.