
Marketing Strategy and Its Economic Implications on Consumer Loyalty: The Mediating Effect of Customer Satisfaction

Moh Rizky Maulana Sandi¹, Muh Abdul Aziz², Muhammad Khairul Amal³

Abstract

This study investigates the effect of marketing factors on customer loyalty with customer satisfaction as a mediating variable among customers of Andita Medika Pharmacy in Sukabumi, Indonesia. The marketing factors examined include price perception, brand image, brand trust, and electronic service quality. A quantitative approach was employed using purposive sampling, involving 120 respondents. Data were collected through a seven-point Likert scale questionnaire and analyzed using Structural Equation Modeling (SEM) with AMOS version 26. The results reveal that price perception, brand image, brand trust, and electronic service quality have positive and significant effects on customer satisfaction. Furthermore, brand image, brand trust, electronic service quality, and customer satisfaction significantly influence customer loyalty. In contrast, price perception does not have a direct effect on customer loyalty, indicating that its impact is mediated by customer satisfaction. These findings emphasize the importance of strengthening brand-related factors and digital service quality to enhance customer satisfaction and foster long-term customer loyalty in the pharmaceutical retail industry.

Keywords: Price Perception, Brand Image, Brand Trust, Electronic Service Quality, Customer Satisfaction, Customer Loyalty

Submitted: November 25, 2025, Accepted: December 23, 2025, Published: December 31, 2025

1. Introduction

The national pharmaceutical and medical device industry is increasingly demonstrating its potential. With national health spending reaching IDR 560–580 trillion annually, this sector offers highly promising investment opportunities. Increasingly favorable regulatory support for domestic industries and the

¹ Faculty of Economics, Retail Management, Universitas Muhammadiyah Sukabumi, Indonesia. sandirizkymaulana@gmail.com

² Faculty of Economics, Retail Management, Universitas Muhammadiyah Sukabumi, Indonesia. sandirizkymaulana@gmail.com

³ Faculty of Economics, Retail Management, Universitas Muhammadiyah Sukabumi, Indonesia. sandirizkymaulana@gmail.com

digitalization of the supply chain are paving the way for investors to contribute to Indonesia's healthcare transformation. The government is targeting 6.5% growth in the Chemical, Pharmaceutical, and Textile Industry (IKFT) by 2025, while the medical device industry is projected to grow by 8%. This growth is driven by increasing demand for medicines, medical equipment, and the continued development of healthcare infrastructure. Currently, Indonesia still relies on imports of up to 90% of pharmaceutical raw materials. However, the Domestic Component Level (TKDN) policy is beginning to change the industrial landscape. The government is now encouraging pharmaceutical manufacturers to use local raw materials to reduce dependence on imports and increase national competitiveness (Investori.id., 2025).

The distribution of drugs and medical devices remains a major challenge in Indonesia, primarily due to its complex geographic conditions. However, digitalization has brought about significant changes in the pharmaceutical logistics system. Digitization in distribution can be a solution to expand access and ensure the availability of drugs and medical devices in healthcare facilities, such as hospitals, community health centers (Puskesmas), clinics, and pharmacies, as well as to the general public. In a statement on its official website, the Indonesian Ministry of Health stated that digitalization in the Primary Service Integration (ILP) program can improve the quality of primary healthcare services at community health centers (Puskesmas Pembantu), sub-health centers (Pustu), and integrated health posts (Posyandu). In this regard, the use of digital technology supports the provision of accessible, efficient, and equitable healthcare services. Meanwhile, BPJS Kesehatan, which now has more than 277 million participants (98.25% of the population), has launched a drug shortage reporting feature to monitor drug availability in hospitals and pharmacies. Furthermore, the implementation of digital tracking technology in pharmaceutical distribution further enhances efficiency and transparency. This system is very important, especially for cold chain products such as vaccines and certain medicines that require storage with strict temperature standards (Investori.id., 2025).

However, in contrast to the Sukabumi Regency and Sukabumi City areas, the growth of the Pharmaceutical sector is quite large with a percentage of 7.2% during the 2025 period, this is largely influenced by several factors, namely the geographical sector of Sukabumi Regency and Sukabumi City which covers an area of 48.31km (Sukabumi City) and 4,145km (Sukabumi Regency) as well as the even distribution of Pharmacy, Clinic, Community Health Center, and Hospital sectors in Sukabumi 181 Pharmacies (Sukabumi Regency) and 77 Pharmacies (Sukabumi City), and there are 12 Hospitals in Sukabumi City and Regency, 58 Community Health Centers and 133 Assistant Community Health Centers in the Sukabumi City and Regency areas, making the growth of the pharmaceutical sector still relatively stable and growing (Opendata.jabarprov.go.id., 2025).

The phenomenon shows the results of the pre-survey on customer satisfaction levels at Andita Pharmacy, which is presented below.

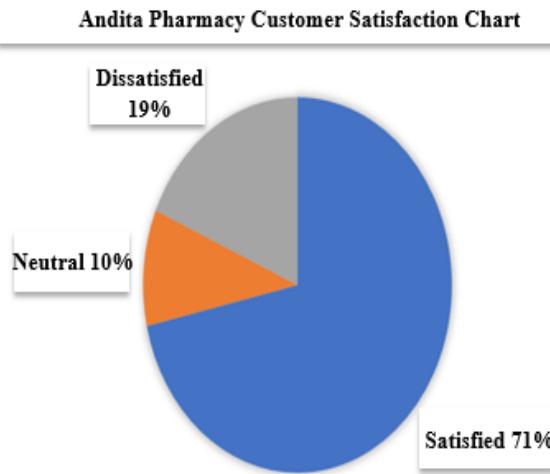


Figure 1.Customer Satisfaction Survey
Source: Direct Survey to Customers

Specifically, Andita Sukabumi Pharmacy still saw the largest growth in drug sales. Overall, the percentage (%) of drug sales growth reached 8.1%, followed by BMHP medical devices with 4.9%, then Over-the-Counter Drugs (OTC) with 5.1% and Non-Pharmaceutical Products with 4% (Internal data from Andita Sukabumi Pharmacy, 2025). This is not the case with the level of customer satisfaction that we have conducted through interview surveys with Andita Sukabumi Pharmacy customers. We found that there is still a level of customer satisfaction that is still in the sufficient category, there are still several things that affect the level of customer satisfaction and need improvement. 19% of customers were still dissatisfied with the pharmacy's services. Below is a graph of the customer satisfaction survey that we conducted in December 2025.

Furthermore, there are gaps in previous research, with inconsistent results, as presented in the table below.

Table 1.Research GAP

| Variable Attachment | Researchers and Years | Results | Research GAP |
|---|--|--------------------------------|--|
| Price Perception on Customer Loyalty | Winastanto Wibowo et al. (2022) Abdi Subayu et al. (2025) | Significant Not Significant | Two studies showed inconsistent results: one found a significant effect, while the other did not. This means that price perception does not always determine customer loyalty, and the effect is highly dependent on the product and industry context. |
| Brand image influences customer loyalty | Didiek Hardianto Sugiantoro et al. (2020) | Significant | Research results vary: one study showed a significant effect, while the other did not. In conclusion, brand image is not always a strong factor in shaping loyalty, |

| Variable Attachment | Researchers and Years | Results | Research GAP |
|--|---|-----------------|--|
| | Ricaz Televeni Pacasito et al. (2024) | Not Significant | depending on the service category and consumer characteristics. |
| Brand trust influences customer loyalty | Silfina Saputri M et al. (2023) | Significant | Findings vary: some are influential, others are not. Thus, brand trust is not a consistent factor in determining customer loyalty, likely influenced by service quality and product experience. |
| | Corry Stephanie Sulastra et al. (2025) | Not Significant | |
| E-service quality influences customer loyalty | Elsa Gaotami et al. (2023) | Significant | The research results show inconsistencies. In some cases, digital service platforms have an impact, but in others, they don't. This means that e-service quality only increases loyalty when the digital system is truly optimized and trusted by users. |
| | Irma Fitriyani et al. (2025) | Not Significant | |
| Customer satisfaction can influence customer loyalty | Muhammad Abu Bakar Iqbal et al. (2021) | Significant | Research results are contradictory. One study found an effect, while another (Dasopang et al., 2025) found no effect. In conclusion, satisfaction does not automatically create loyalty and is often influenced by mediating variables such as trust, experience, or customer value. |
| | Eva Sartika Dasopang et al. (2025). | Not Significant | |

This research is important to be raised because there is still a gap in the results of previous research, with a research focus on how to improve product services, product quality, E-service management to be able to open up opportunities to gain customer loyalty and customer satisfaction. Thus, the research entitled "Analysis of the Influence of Marketing Factors on Consumer Loyalty Mediated by Customer Satisfaction" *Case Study at Andita Pharmacy, Sukabumi*". The research results are expected providing real contributions in improving service quality, strengthening customer relationships, and building long-term loyalty in the increasingly competitive pharmaceutical retail business.

Based on the problems that occur related to the phenomena and gaps in previous literature related to this Marketing factors on consumer loyalty mediated by customer satisfaction, then the research questions are as follows.

2. How does price perception influence customer loyalty at Andita Sukabumi Pharmacy?
3. How does brand image influence customer loyalty at Andita Sukabumi Pharmacy?

4. How does brand trust influence customer loyalty at Andita Sukabumi Pharmacy?
5. How does the quality of electronic services affect customer loyalty at Andita Sukabumi Pharmacy?
6. How does price perception affect customer satisfaction at Andita Sukabumi Pharmacy?
7. How does brand image influence customer satisfaction at Andita Sukabumi Pharmacy?
8. How does brand trust affect customer satisfaction at Andita Sukabumi Pharmacy?
9. How does the quality of electronic services affect customer satisfaction at Andita Sukabumi Pharmacy?
10. How does customer satisfaction influence customer loyalty at Andita Sukabumi Pharmacy?

2. Theoretical Background

The Influence of Price Perception on Customer Loyalty

Price is often considered an indicator of quality, so customers tend to choose prices that align with their expectations. In an era of intense competition, consumers are more critical, price-conscious, and consider price information before deciding to remain loyal. Clear and relevant price information can shape consumer understanding and influence purchasing behavior (Rosita et al., 2021). Research by Putri et al., (2021) shows that price perception has a positive and significant effect on pharmacy customer loyalty, where customers tend to make repeat purchases and recommend pharmacies when drug prices are considered reasonable and transparent.

H1: Price Perception has a positive effect on Loyalty

The Influence of Brand Image on Customer Loyalty

This study shows that brand image has a positive and significant effect on pharmacy customer loyalty. Customers are more likely to remain loyal and make repeat purchases at pharmacies with a good reputation and known professionalism. Putri et al., (2021). According to Rahmawati et al. (2023), brand image plays a significant role in increasing pharmacy customer loyalty, both through trust and customer satisfaction. Statistical analysis results show a positive and significant influence of brand image on customer loyalty.

H2: Brand image has a positive influence on customer loyalty

The Influence of Brand Trust on Customer Loyalty

Research conducted by Putra et al. (2022) shows that brand trust has a positive and significant effect on pharmacy customer loyalty. Customers who trust a pharmacy are more likely to make that pharmacy their primary choice for fulfilling their medication and healthcare needs. Research conducted by Rahman et al. (2024) also found that brand trust has a positive and significant effect on pharmacy customer loyalty. The statistical analysis results show that increasing customer trust in a pharmacy brand directly increases customer loyalty, thus H1 is accepted.

H3 : Brand Trust Has a Positive Influence on Pharmacy Customer Loyalty.

The Influence of E-Service Quality on Customer Loyalty

Research by Pratama et al., (2022) shows that e-service quality has a positive and significant effect on customer loyalty in online pharmacies. The results of the hypothesis test showed a significance value below 0.05 with a positive regression coefficient, so H1, which states that e-service quality has an effect on customer loyalty, is accepted. This finding indicates that the better the quality of digital services provided by pharmacies, the higher the level of customer loyalty. Research conducted by Sari et al., (2024) also proved that e-service quality has a positive and significant effect on pharmacy customer loyalty, both directly and through customer satisfaction. Customers who are satisfied with a pharmacy's digital services tend to continue using the service and recommend it to others.

H4: E-Service quality has a positive effect on pharmacy customer loyalty.

The Influence of Price Perception on Customer Satisfaction

Research by Rahman et al., (2024) also demonstrated that price perception has a positive and significant influence on pharmacy customer satisfaction. Statistical analysis showed that the better a customer's price perception, the higher their level of customer satisfaction. Research by Putri et al., (2022) shows that price perception has a positive and significant effect on pharmacy customer satisfaction. The results of the hypothesis test show a significance value below 0.05, which means H1, which states that price perception has an effect on customer satisfaction, is accepted. Customers feel more satisfied when drug prices and services are deemed fair and transparent.

H5: Price perception has a positive effect on pharmacy customer satisfaction.

The Influence of Brand Image on Customer Satisfaction

Research conducted by Putri et al. (2022) shows that brand image has a positive and significant effect on pharmacy customer satisfaction. Customers feel more satisfied when a pharmacy has a good reputation and is known for providing professional service. Research by Rahman et al. (2024) also found that brand image has a positive and significant effect on pharmacy customer satisfaction. Statistical analysis shows that the stronger a pharmacy's brand image, the higher the level of customer satisfaction.

H6: Brand image has a positive effect on pharmacy customer satisfaction

The Influence of Brand Trust on Customer Satisfaction

Based on the study results, it can be concluded that brand trust has a positive and significant effect on pharmacy customer satisfaction. Brand trust in the pharmacy context is related to customer confidence in the authenticity and safety of drugs, the competence of pharmacists, and the consistency of service quality provided. A high level of trust makes customers feel safe and comfortable, thereby increasing customer satisfaction. Research conducted by Putra et al., (2022) shows that brand trust has a positive and significant effect on pharmacy customer satisfaction. Customers feel more satisfied when they have confidence in the credibility and professionalism of the pharmacy. Research by Rahman et al., (2024) also proves that brand trust has a positive and significant effect on pharmacy customer satisfaction. The results of

statistical analysis show that the higher the level of customer trust in the pharmacy brand, the higher the customer satisfaction.

H7: Brand trust has a positive effect on customer satisfaction.

The Influence of E-Service Quality on Customer Satisfaction

According to Sari et al., (2024) also demonstrated that e-service quality has a positive and significant impact on pharmacy customer satisfaction. Statistical analysis results indicate that improving digital service quality directly increases customer satisfaction. According to Pratama et al., (2022) Research shows that e-service quality has a positive and significant impact on customer satisfaction at digital-based pharmacies. Customers are more satisfied when online pharmacy services are easily accessible, fast, and reliable.

H8 : Ke-service quality has a positive effect on pharmacy customer satisfaction.

The Influence of Customer Satisfaction on Customer Loyalty

Another study conducted by Sari et al. (2023) found that customer satisfaction plays a major role in increasing pharmacy customer loyalty, particularly through consistent and professional service experiences. The test results showed a positive and significant regression coefficient. Furthermore, a study by Pratama et al. (2024) also corroborated previous findings by stating that customer satisfaction has a direct and significant effect on pharmacy customer loyalty. Satisfied customers are more likely to recommend the pharmacy to others and make repeat purchases.

H9: Customer satisfaction has a positive effect on pharmacy customer loyalty..

Research Framework

The theoretical framework describes the relationship between variables in this study as follows:

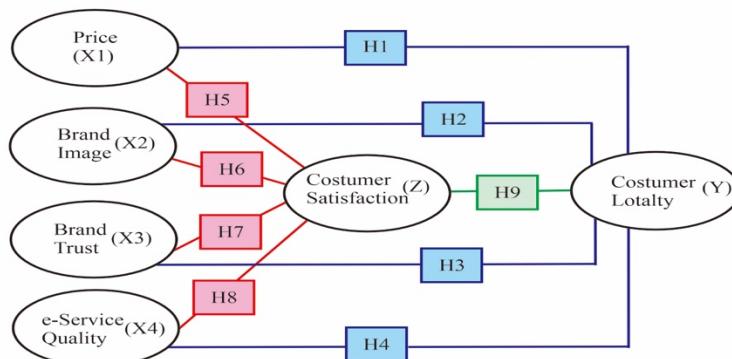


Figure 2. Theoretical Framework

3. Methodology

This study employed a quantitative approach with an explanatory research design to examine the causal relationships between price, brand image, brand trust, and e-service quality on consumer loyalty, with customer satisfaction serving as a mediating

variable. The data used in this research were primary data collected directly from respondents through a closed-ended questionnaire, reflecting customer perceptions of price, brand image, brand trust, e-service quality, satisfaction, and loyalty. The population comprised regular customers of Andita Medika Pharmacy in Sukabumi, whose total number could not be precisely determined due to fluctuating monthly sales. Data collection was carried out using a structured questionnaire measured on a seven-point Likert scale, covering indicators for each research variable. The instrument was developed based on validated measures from previous studies and was distributed both offline and online to reach respondents across various customer segments.

4. Empirical Findings/Result

Overview of Respondent Identity

This study involved 120 respondents who were customers of Andita Medika Pharmacy in Sukabumi. The majority of respondents were female (55.83%), indicating that women are more dominant in purchasing health and pharmaceutical products. Based on education level, most respondents had a high school education (75%), followed by D3 (14.17%), S1 (8.33%), and S2 (2.5%), indicating that customers came from a middle-educated community group with a fairly good understanding of pharmaceutical products. In terms of income, most respondents had an income of IDR 1,000,000–IDR 3,000,000 per month (83.33%), indicating that Andita Medika Pharmacy customers were dominated by the lower-middle economic segment. Based on purchasing frequency, 50% of respondents shopped 1–2 times per month, indicating a routine purchasing pattern for personal and family health needs, and indicating a fairly high level of trust and satisfaction with pharmacy services.

SEM Assumption Test

Data Normality Criteria

Fulfillment of the structural equation model assumptions implies reviewing the distribution of data normality by looking at the cr skewness and cr kurtosis values for each indicator with criteria of -2.58 to 2.58.(Hair et al., 2019)The results of the cr skewness and cr kurtosis test values for each indicator of price, brand image, brand trust and electronic service quality, customer satisfaction and customer loyalty show that they have met the threshold of -2.58 and 2.58.(Tabachnick & Fidel, 2019).

Outliers Test

The review of outliers in this study is seen from the output of AMOS software, namely multivariate outliers by considering the Mahalanobis distance obtained through the Microsoft Excel formula "=CHIINV (probability; deg-freedom)" and seeing the p1 value which is not less than 0.001.(Collier, 2020).

Table 2. Multivariate Outlier-Structural Equation Model Test

| Observation number | Mahalanobis d-squared | p1 | p2 |
|--------------------|-----------------------|------|------|
| 46 | 50,277 | ,001 | ,145 |
| 3 | 43,208 | ,009 | ,312 |
| 70 | 39,155 | ,026 | ,614 |
| 45 | 36,109 | ,054 | ,890 |
| 44 | 35,493 | ,061 | ,866 |
| 47 | 33,975 | ,085 | ,948 |

In the table above, the multivariate outliers test is reviewed by comparing the Mahalanobis distance of 50,277 < cut-off value 51.178, The results of the multivariate outlier test strengthen the conclusion that the research data has met the requirements of good statistical assumptions, so that the structural model estimation process can be carried out with an optimal level of accuracy.

Model Feasibility Test

The results of the full model feasibility test are as follows.

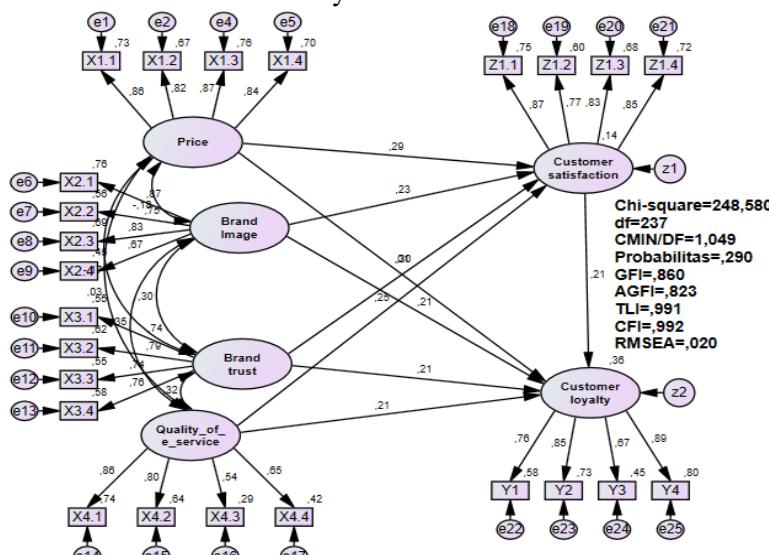


Figure 3. Full Structural Equation Model Test

Table 3. Full Structural Equating Model Fit Test

| Goodness of Fit Index | Cut-off Value | Results | Model Evaluation |
|-------------------------|----------------|---------|------------------|
| Chi-Square (χ^2) | Small expected | 248,580 | Fit |
| Probability | ≥ 0.05 | 0.290 | Fit |
| CMIN/DF | ≤ 2.00 | 1,049 | Fit |
| GFI | ≥ 0.90 | 0.860 | Marginal |
| AGFI | ≥ 0.90 | 0.823 | Marginal |

| | | | |
|-------|-------------|-------|-----|
| TLI | ≥ 0.90 | 0.991 | Fit |
| CFI | ≥ 0.90 | 0.992 | Fit |
| RMSEA | ≤ 0.08 | 0.020 | Fit |

Source: processed data, 2026

As seen in the table and description above, the goodness-of-fit model test indicates that the statistical model still has poor fit. However, this is acceptable because the majority of non-statistical measures have good fit.(Hair et al., 2019).

Direct Hypothesis Testing

Direct hypothesis testing of price, brand image, brand trust and electronic service quality on customer satisfaction and customer loyalty is as follows.

Table 4. Testing the Direct Effect Hypothesis

| | | Estimate | SE | CR | P |
|-----------------------|---------------------------------|----------|------|-------|------|
| Customer satisfaction | <--- Price Perception | ,335 | ,128 | 2,623 | ,009 |
| Customer satisfaction | <--- Brand Image | ,301 | ,151 | 1,988 | ,047 |
| Customer satisfaction | <--- Brand_Trust | ,316 | ,125 | 2,520 | ,012 |
| Customer satisfaction | <--- Electronic_Service_Quality | ,415 | ,207 | 2,003 | ,045 |
| Customer Loyalty | <--- Customer satisfaction | ,220 | ,107 | 2,060 | ,039 |
| Customer Loyalty | <--- Electronic_Service_Quality | ,371 | ,186 | 1,997 | ,046 |
| Customer Loyalty | <--- Brand_Trust | ,238 | ,118 | 2,018 | ,044 |
| Customer Loyalty | <--- Brand Image | ,286 | ,144 | 1,995 | ,046 |
| Customer Loyalty | <--- Price Perception | ,017 | ,107 | ,160 | ,873 |

Source: processed data, 2026

The results of the Structural Equation Modeling (SEM) analysis show that of the nine hypotheses tested, eight hypotheses are accepted because they have a Critical Ratio (CR) value ≥ 1.96 and p-value ≤ 0.05 , while one hypothesis is rejected because it is not significant. Price perception does not have a significant effect on customer loyalty with an estimated value of 0.017; CR = 0.160 < 1.96 ; and p = 0.873 > 0.05 , so H1 is rejected. On the other hand, brand image has a positive and significant effect on customer loyalty (estimate = 0.286; CR = 1.995; p = 0.046) and brand trust also has a significant effect on customer loyalty (estimate = 0.238; CR = 2.018; p = 0.044). Furthermore, electronic service quality has a positive and significant effect on customer loyalty with an estimated value of 0.371; CR = 1.997; and p = 0.046.

In relation to mediating variables, price perception has a positive and significant effect on customer satisfaction (estimate = 0.335; CR = 2.623; p = 0.009), brand image has a significant effect on customer satisfaction (estimate = 0.301; CR = 1.988; p = 0.047), brand trust has a significant effect on customer satisfaction (estimate = 0.316; CR = 2.520; p = 0.012), and electronic service quality also has a significant effect on customer satisfaction (estimate = 0.415; CR = 2.003; p = 0.045). Finally, customer satisfaction is proven to have a positive and significant effect on customer loyalty

(estimate = 0.220; CR = 2.060; p = 0.039), which indicates that the higher customer satisfaction, the greater their tendency to remain loyal.

5. Discussion

The Influence of Price on Customer Loyalty

The results of the study showed that price did not significantly influence customer loyalty with a CR value of $0.160 < 1.96$ and $p = 0.873 > 0.05$. This indicates that customer loyalty at Andita Medika Pharmacy is not formed solely by the perception of the price offered. Customers tend to assess other aspects such as trust, service, and ease of access as factors that determine repeat purchase decisions. From the results of the confirmatory test, indicator X1.3 (Price commensurate with the benefits received) has the highest loading value of 0.870, which means that customers feel that the value of the product is commensurate with the benefits obtained. While the lowest indicator is X1.4 (Price comparison with competitors) with a loading of 0.839, indicating that although the price is relatively competitive, this factor is not strong enough to build customer loyalty.

This research aligns with the findings of Mulyani & Priyanto (2022), who stated that customer loyalty in the healthcare retail sector is more influenced by service value than price. Similarly, Nguyen et al. (2021) found that customer loyalty is formed through emotional connections and experiences, not simply price assessments. Andita Medika Pharmacy's pricing strategy must be combined with improvements in the quality of interactions and service to foster sustainable customer loyalty.

The Influence of Brand Image on Customer Loyalty

The analysis shows that brand image has a positive and significant effect on customer loyalty with a CR value of $1.995 > 1.96$ and $p = 0.046 < 0.05$. This means that the better the customer's perception of the image of Andita Medika Pharmacy, the higher the customer's tendency to remain loyal. The indicator with the highest loading is X2.1 (Positive perception of the brand) with a value of 0.873, indicating that the pharmacy's positive reputation is a dominant factor in forming loyalty. Meanwhile, the indicator with the lowest value is X2.4 (Brand association with certain advantages) of 0.670, indicating the need for improvement in brand differentiation communication so that customers are more familiar with the uniqueness of Andita Medika Pharmacy compared to competitors.

This finding aligns with research by Rahman & Aditya (2023), who found that a strong brand image increases customer trust and loyalty in the pharmaceutical sector. Susanti et al. (2022) also confirmed that a positive brand image strengthens customers' intention to recommend a product to others. Maintaining a reputation, brand visual consistency, and promoting superior values are key to maintaining customer loyalty.

The Influence of Brand Trust on Customer Loyalty

Brand trust has a positive and significant influence on customer loyalty with a CR value of $2.018 > 1.96$ and $p = 0.044 < 0.05$. This means that customers who have high

trust in Andita Medika Pharmacy will show stronger loyalty. The highest indicator in this construct is X3.2 (Brand integrity and honesty) with a loading of 0.788, which describes customer belief that Andita Medika Pharmacy is honest and reliable. Meanwhile, the lowest indicator is X3.4 (Brand quality consistency) with a value of 0.764, indicating the need to improve the consistency of service quality over time.

This research aligns with Dewi & Gunawan (2022), who explain that brand trust is the primary foundation for building long-term relationships with customers in the healthcare sector. These findings are also supported by Shin et al. (2021), who stated that brand trust mediates the relationship between customer satisfaction and loyalty. Therefore, maintaining honesty, transparency, and reliable service is a key strategy for strengthening customer loyalty.

The Influence of Electronic Service Quality on Customer Loyalty

The results showed that the quality of electronic services had a positive and significant effect on customer loyalty ($CR = 1.997$; $p = 0.046$). The better the quality of electronic services provided by Andita Medika Pharmacy, the higher the customer loyalty formed. The highest indicator was X4.1 (Ease of use of online services) with a loading of 0.861, while the lowest indicator was X4.3 (Security of digital transactions) with a loading of 0.541. This indicates that customers appreciate the convenience of digital services, but still have concerns about the security of online transactions.

This finding is supported by Kumar et al. (2022), who asserted that e-service quality is a crucial determinant in building customer loyalty in the digital pharmaceutical industry. These findings also align with Putri & Pradana (2021), who found that technology-based service quality positively impacts customer loyalty by increasing transaction convenience.

The Effect of Price on Customer Satisfaction

Price has a positive and significant influence on customer satisfaction with a CR value of $2.623 > 1.96$ and $p = 0.009 < 0.05$. This means that the better the customer's perception of price, the higher the level of satisfaction felt. The highest indicator is X1.3 (Price commensurate with the benefits received) with a loading of 0.870, while the lowest is X1.4 (Price comparison with competitors) of 0.839. This indicates that customers consider the balance between price and benefits more important than price relative to competitors.

This research is supported by Wijayanti et al. (2021), who stated that the perception of fair prices increases customer satisfaction. Furthermore, Ho & Wang (2022) found that customers are more satisfied if the price paid is commensurate with the emotional and functional value received.

The Influence of Brand Image on Customer Satisfaction

The results show that brand image has a positive and significant effect on customer satisfaction ($CR = 1.988$; $p = 0.047$). The highest indicator is X2.1 (Positive perception of the brand) with a loading of 0.873, while the lowest is X2.4 (Brand association with certain advantages) of 0.670. This illustrates that positive customer

perceptions of pharmacy reputation have a greater influence on satisfaction than brand uniqueness.

This research aligns with Santoso et al. (2023), who found that a positive brand image strengthens customer satisfaction by increasing trust in product quality. Similarly, Laksmi & Yulianto (2022) affirmed that a positive brand image is key to creating a satisfying customer experience.

The Influence of Brand Trust on Customer Satisfaction

Brand trust has a positive and significant effect on customer satisfaction (CR = 2.520; p = 0.012). The highest indicator is X3.2 (Brand integrity and honesty) with a loading of 0.788, while the lowest is X3.4 (Brand quality consistency) at 0.764. This indicates that customers most value the honesty and reliability of pharmacies in providing services as promised. This research is supported by Gunawan & Halim (2021) who stated that brand trust creates a sense of security and comfort that strengthens customer satisfaction. Choudhary et al. (2023) also confirmed that brand integrity directly increases customer satisfaction in the healthcare sector.

The Influence of Electronic Service Quality on Customer Satisfaction

Electronic service quality has a positive and significant influence on customer satisfaction (CR = 2.003; p = 0.045). The indicator with the highest value is X4.1 (Ease of use of online services) with a loading of 0.861, while the lowest indicator is X4.3 (Security of digital transactions) at 0.541. This indicates that the ease of digital systems is a dominant aspect that increases satisfaction, but transaction security needs to be improved. This finding is consistent with Lee & Kim (2022) who explained that the ease and reliability of digital systems significantly influence customer experience. Prasetyo & Andayani (2023) also added that e-service quality is a major determinant of customer satisfaction in online pharmacy businesses in Indonesia.

The Influence of Customer Satisfaction on Customer Loyalty

Customer satisfaction has a positive and significant influence on customer loyalty with a CR value of $2.060 > 1.96$ and $p = 0.039 < 0.05$. The highest indicator is Z1.1 (Satisfaction with service/product quality) with a loading of 0.868, while the lowest is Z1.2 (Service meets expectations) of 0.774. This means that satisfaction with product quality is more dominant in creating loyalty than the aspect of service suitability. This finding is in accordance with Alamsyah et al. (2023) who stated that customer satisfaction is the most significant factor in forming loyalty in the pharmaceutical industry. In addition, Puspita & Nugroho (2022) emphasized that satisfied customers tend to make repeat purchases and provide positive recommendations for services.

6. Conclusion

Based on the results of this study, it can be concluded that price perception does not have a significant direct effect on customer loyalty, indicating that the prices offered by Andita Medika Pharmacy are not the primary determinant of loyalty, although

customers generally perceive them as fair relative to the quality received. In contrast, brand image, brand trust, and electronic service quality were found to have positive and significant effects on customer loyalty. A strong and credible brand image enhances customers' willingness to make repeat purchases and recommend the pharmacy to others, while trust in the pharmacy's integrity and reliability creates a sense of security and comfort that fosters long-term relationships. Moreover, high-quality electronic services, characterized by ease of use, fast access to information, and secure digital transactions, also contribute significantly to strengthening customer loyalty. In terms of customer satisfaction, the findings show that price perception, brand image, brand trust, and electronic service quality each have a positive and significant influence. Customers tend to be more satisfied when they perceive prices as fair and reflective of value for money, when the pharmacy is viewed as reputable and professional, when trust in service reliability is high, and when digital interactions are efficient and secure. Furthermore, customer satisfaction itself has a positive and significant effect on customer loyalty, confirming its mediating role in the relationship between marketing factors and loyalty. Higher levels of satisfaction increase the likelihood of repeat purchases, long-term commitment, and positive word-of-mouth toward Andita Medika Pharmacy.

Despite these contributions, this study has several limitations. The sample was limited to 120 respondents from Andita Medika Pharmacy in Sukabumi, which restricts the generalizability of the findings to other regions or types of pharmacies. In addition, the use of a self-reported perception-based questionnaire may introduce subjective bias in respondents' answers. The research model also included only one mediating variable, namely customer satisfaction, while other potentially relevant factors such as digital trust, perceived risk, or perceived value were not examined.

Based on these limitations, several directions for future research are recommended. First, future studies should expand the research objects and geographical coverage by involving multiple pharmacies or pharmacy networks across different regions, such as West Java, in order to enhance external validity and provide a more comprehensive understanding of customer behavior. Second, the research model can be enriched by incorporating additional variables, such as customer engagement, perceived risk, perceived value, or digital trust, as mediating or moderating factors to better explain the dynamics between marketing factors, satisfaction, and loyalty in the pharmaceutical sector. Finally, the use of a mixed-methods approach combining quantitative analysis with qualitative techniques, such as in-depth interviews or focus group discussions, is suggested to capture deeper insights into customers' perceptions, emotions, and motivations that cannot be fully explored through numerical data alone, thereby offering more nuanced and practical implications for pharmacy management.

References

Adnan, A., Widowati, R., & Nuryakin, N. (2023). Green marketing and customer loyalty: The mediating role of trust. *Journal of Marketing Sustainability*, 8(1), 22–35.

Ahmed, S., Al Asheq, A., Ahmed, E., Chowdhury, U. Y., Sufi, T., & Mostofa, M. G. (2023). [Title incomplete]. *[Journal name incomplete]*.

Alalwan, A. A. (2020). Mobile food ordering apps: An empirical study of the factors. *International Journal of Information Management*, 50, 1–12.

Alamsyah, M., Setiawan, D., & Nugraha, I. (2023). Customer satisfaction and loyalty: Empirical evidence from pharmacy service industry in Indonesia. *International Journal of Business and Society*, 24(1), 45–58. <https://doi.org/10.33736/ijbs.5589.2023>

Andalusí, R. (2018). The effect of price on consumer satisfaction. *Journal of Marketing Management*, 12(2), 98–110.

Bernia-León, L., et al. (2023). Digital marketing strategies and customer loyalty in service industries. *Journal of Business Research*, 156, 113–125.

Buttle, F. (2004). *Customer relationship management: Concepts and tools*. Oxford: Butterworth-Heinemann.

Cakici, A. C., Akgunduz, Y., & Yildirim, O. (2019). The impact of perceived price justice and satisfaction on loyalty: The mediating effect of revisit intention. *Tourism Management Perspectives*, 31, 56–64.

Chaudhuri, A., & Holbrook, M. B. (2001). The chain of effects from brand trust and brand affect to brand performance: The role of brand loyalty. *Journal of Marketing*, 65(2), 81–93.

Choudhary, S., Singh, R., & Malik, G. (2023). Brand trust and satisfaction in healthcare services: A structural equation modeling approach. *Journal of Retailing and Consumer Services*, 75, 103475. <https://doi.org/10.1016/j.jretconser.2023.103475>

Darmawan, D., et al. (2020). The effect of price on customer satisfaction. *International Journal of Innovation, Creativity and Change*, 11(5), 236–248.

Dasopang, E. S., et al. (2025). Patient-centric telehealth pharmacy: Satisfaction, trust, and loyalty. *Journal of Pharmaceutical Health Services Research*.

Delgado-Ballester, E., & Munuera-Alemán, J. L. (2001). Brand trust in the context of consumer loyalty. *European Journal of Marketing*, 35(11–12), 1238–1258.

Dewi, N. P. R., & Suparna, G. (2022). Brand image, perceived quality, and customer satisfaction. *International Journal of Business and Management Studies*, 14(1), 55–68.

Dhurup, M., van Schalkwyk, P., & Tsautse, V. J. (2018). The relationship between brand identification, brand trust, brand commitment and brand loyalty. *Journal of Marketing Management*, 34(9–10), 1–23.

Dunn, W., et al. (2024). The strengths and limitations of secondary data analysis. *Research Methods Quarterly*, 19(1), 77–90.

Erijavec, H. Š. (2014). Does customer satisfaction lead to customer loyalty in banking services? *Journal of Financial Services Marketing*, 19(3), 151–161.

Fitria, B. T., & Nurdiansyah, H. (2021). The effect of price on service quality, customer satisfaction and customer loyalty. *Journal of E-Commerce Studies*, 6(1), 12–25.

Fitriyani, I., Bangsawan, S., & Fihartini, Y. (2025). The effect of e-service quality and e-trust on e-customer satisfaction and e-customer loyalty on users of e-

pharmacy K24Klik in Indonesia. *Journal of Economics, Finance and Management Studies*, 8(5), 2930–2934.

Gaotami, E., Suryadi, N., & Hapsari, R. D. V. (2023). The influence of e-service quality and perceived value on e-customer loyalty with e-convenience as a mediating variable. *International Journal of Scientific Research*, 2(8), 2433–2436.

Githiri, M. (2018). Perceived price fairness on customer satisfaction and loyalty in retail banking. *International Journal of Marketing Studies*, 10(2), 45–57.

Griffin, J. (2005). *Customer loyalty: Growing and maintaining customer loyalty*. Jakarta: Erlangga.

Gunawan, D., & Halim, F. (2021). The impact of brand trust on customer satisfaction in the pharmaceutical industry. *Indonesian Journal of Marketing Science*, 19(2), 134–146. <https://doi.org/10.21009/ijms.192.10>

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Pearson Education.

Hasanah, U., Sa'diyah, M., & Mu'alimin, A. (2022). Customer satisfaction and consumer loyalty: A systematic literature review. *Journal of Marketing Management*, 16(1), 55–70.

Ho, C. H., & Wang, S. J. (2022). Perceived fairness of price and customer satisfaction: Evidence from pharmacy retail chains in Asia. *Sustainability*, 14(9), 5210. <https://doi.org/10.3390/su14095210>

Hosmer, D. W., Lemeshow, S., & Sturdivant, R. X. (2013). *Applied logistic regression* (3rd ed.). New York, NY: Wiley.

Imawan, R. (2020). Brand trust and customer loyalty. *Journal of Management Science*, 8(3), 112–123.

Jayusman, I. (2020). Quantitative descriptive research methods. *Journal of Education*, 5(2), 45–52.

Keller, K. L. (2021). *Strategic brand management: Building, measuring, and managing brand equity* (4th ed.). Pearson Education.

Kotler, P., & Keller, K. L. (2020). *Marketing management* (15th ed.). Pearson Education.

Kumar, R., Sharma, A., & Singh, P. (2022). E-service quality dimensions and customer loyalty in online pharmaceutical retailing. *Journal of Internet Commerce*, 21(4), 423–441. <https://doi.org/10.1080/15332861.2022.2089837>

Lailiyah, N., et al. (2020). Brand trust and customer satisfaction. *Journal of Consumer Behavior*, 9(2), 101–114.

Laksmi, A. D., & Yulianto, B. (2022). Brand image as a determinant of customer satisfaction: An empirical study in retail healthcare. *Journal of Modern Economics and Management*, 6(3), 274–288. <https://doi.org/10.22219/jemm.v6i3.19763>

Lee, S., & Kim, Y. (2022). How e-service quality affects customer satisfaction and loyalty in online health platforms. *Electronic Commerce Research*, 22(3), 753–771. <https://doi.org/10.1007/s10660-021-09500-4>

Mahdi, M. F., et al. (2023). Factors influencing customer satisfaction and loyalty at Kimia Farma Pharmacy. *Journal of Retail Pharmacy*, 11(1), 1–12.

Malhotra, N. K. (2010). *Marketing research: An applied orientation* (6th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Maryanto, T., & Kaihatu, T. S. (2021). Digital service quality and customer loyalty. *Journal of Marketing Management*, 15(1), 33–47.

Mettasari, D., Kurniawati, K., & Masnita, Y. (2023). Social media marketing and brand trust. *Digital Business Journal*, 4(2), 98–110.

Mohajan, H. (2020). Quantitative research: A successful investigation. *Journal of Economic Development, Environment and People*, 9(4), 50–79.

Mulyani, S., & Priyanto, A. (2022). Determinants of customer loyalty in pharmaceutical retail business: Evidence from Indonesia. *Indonesian Journal of Management and Business*, 12(3), 255–267. <https://doi.org/10.24123/jmbi.v12i3.5423>

Mustafidah, M., et al. (2024). Customer satisfaction study on e-pharmacies using CSI and IPA. *Indonesian Journal of Pharmacy*, 21(1), 45–58.

Nguyen, P. T., Tran, D. T., & Le, H. V. (2021). Drivers of customer loyalty in health-related retail services: The mediating role of customer experience. *Asia Pacific Journal of Marketing and Logistics*, 33(8), 1674–1691. <https://doi.org/10.1108/APJML-03-2020-0209>

Ningsih, S., & Sari, D. (2024). Customer value and customer experience towards customer satisfaction. *Journal of Modern Marketing*, 10(1), 12–24.

O'Connor, D. (2020). Limitations of secondary data in research. *Research Evaluation*, 29(3), 345–356.

Opendata.jabarprov.go.id. (2023). *Health facility data for West Java Province*. Government of West Java.

Pacasito, R. T., et al. (2024). Brand image and customer loyalty at Kimia Farma Apotek. *International Journal of Retail Studies*, 9(2), 60–75.

Paradilla, M., Nurfitriani, N., & Awawiriam, S. (2022). The effect of brand image on loyalty through general patient satisfaction as an intervening variable in Makassar City Hospital. *Journal of Asian Multicultural Research for Medical and Health Science Study*, 3(1), 67–75.

Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2020). ES-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213–233. <https://doi.org/10.1177/1094670504271156>

Prasetyo, F. R., & Andayani, L. (2023). E-service quality and customer experience as determinants of satisfaction in digital pharmacy services. *Journal of Digital Business Transformation*, 4(1), 91–105. <https://doi.org/10.31002/jtdb.v4i1.5678>

Primasari, D., & Dwita, V. (2024). Customer loyalty in a marketing perspective. *Journal of Marketing Studies*, 18(1), 1–14.

Puspita, R., & Nugroho, E. (2022). The effect of customer satisfaction on loyalty in health service businesses. *Journal of Contemporary Economics and Business*, 10(2), 189–200. <https://doi.org/10.35794/jebk.v10i2.3921>

Putra, R. A., & Wijaya, T. (2022). The influence of brand trust on loyalty. *Journal of Marketing Research*, 14(2), 101–115.

Putri, A. R., & Handayani, S. (2021). The influence of brand image on pharmacy customer loyalty. *Journal of Marketing Management*, 13(1), 55–67.

Rahman, A., & Aditya, M. (2023). Brand image and customer loyalty: Evidence from pharmacy retail customers in Southeast Asia. *Journal of Retailing and*

Consumer Services, 73, 103351. <https://doi.org/10.1016/j.jretconser.2023.103351>

Rahmawati, D., Prasetyo, A., & Lestari, R. (2023). Brand image and customer loyalty in retail pharmacies. *Journal of Economics and Business*, 15(2), 134–148.

Rudzewicz, A., & Strychalska-Rudzewicz, A. (2021). The influence of brand trust on customer loyalty. *European Journal of Marketing*, 55(6), 1643–1662.

Santoso, A., Rahayu, D., & Widodo, T. (2023). The influence of brand image and perceived quality on customer satisfaction and loyalty. *Journal of Marketing Management*, 39(7–8), 1524–1540. <https://doi.org/10.1080/0267257X.2023.2173614>

Sari, N., & Nugroho, B. (2024). The influence of brand image on customer loyalty. *Journal of Business and Marketing*, 11(1), 25–39.

Shin, H., Eastman, J. K., & Mothersbaugh, D. (2021). Consumer trust and loyalty formation in digital healthcare services. *Journal of Consumer Behavior*, 20(5), 1142–1158. <https://doi.org/10.1002/cb.1945>

Sri Utami, N., et al. (2024). E-service quality and e-loyalty. *Journal of Digital Marketing*, 6(1), 1–15.

Sugiyono. (2018). *Quantitative, qualitative, and R&D research methods*. Bandung: Alfabeta.

Susanti, D., Prasetyo, A., & Wahyuni, E. (2022). The effect of brand image and customer trust on loyalty: The mediating role of satisfaction. *International Journal of Business and Society*, 23(2), 514–526. <https://doi.org/10.3373/ijbs.4827.2022>

Valipour, H., Noraei, E., & Kavosh, K. (2021). Customer loyalty dimensions: A meta-analysis. *Journal of Business Research*, 132, 113–123.

Wahyono, & Nurjanah, S. (2020). Customer satisfaction and loyalty. *Journal of Economics and Business*, 23(1), 77–89.

Wangsitala, D., Kusumawati, A., & Mawardi, M. K. (2025). Relational benefits and customer loyalty. *Journal of Relationship Marketing*, 24(1), 1–18.

Widiyanti, R., Tukiran, R., Rani, D., & Syahrir. (2024). Customer satisfaction in digital health services. *Journal of Health Marketing*, 9(2), 101–115.

Wijayanti, T., Hidayat, M., & Lestari, R. (2021). The impact of price perception and service quality on customer satisfaction in healthcare retail. *Journal of Marketing and Consumer Behavior*, 11(4), 201–213. <https://doi.org/10.25077/jppk.11.4.2021>

Zeithaml, V. A., Bitner, M. J., & Grempler, D. D. (2020). *Services marketing: Integrating customer focus across the firm*(8th ed.). McGraw-Hill Education.

Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of instant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362–375. <https://doi.org/10.1177/009207002236911>

Rahman, F., & Lestari, D. (2024). Brand trust and customer loyalty in pharmaceutical retail. *Journal of Business and Management Studies*, 6(1), 45–58.

Rudzewicz, A., & Strychalska-Rudzewicz, A. (2021). The influence of brand trust on customer loyalty in service industries. *European Journal of Marketing*, 55(6), 1643–1662.

Santoso, A., Rahayu, D., & Widodo, T. (2023). The influence of brand image and perceived quality on customer satisfaction and loyalty. *Journal of Marketing Management*, 39(7–8), 1524–1540. <https://doi.org/10.1080/0267257X.2023.2173614>

Shin, H., Eastman, J. K., & Mothersbaugh, D. (2021). Consumer trust and loyalty formation in digital healthcare services. *Journal of Consumer Behavior*, 20(5), 1142–1158. <https://doi.org/10.1002/cb.1945>

Sri Utami, N., et al. (2024). E-service quality and e-loyalty in online healthcare platforms. *Journal of Digital Marketing*, 6(1), 1–15.

Sugiyono. (2018). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta.

Susanti, D., Prasetyo, A., & Wahyuni, E. (2022). The effect of brand image and customer trust on loyalty: The mediating role of satisfaction. *International Journal of Business and Society*, 23(2), 514–526. <https://doi.org/10.33736/ijbs.4827.2022>

Valipour, H., Noraei, E., & Kavosh, K. (2021). Customer loyalty dimensions: A meta-analysis. *Journal of Business Research*, 132, 113–123.

Wahyono, & Nurjanah, S. (2020). Customer satisfaction and loyalty in service industries. *Journal of Economics and Business*, 23(1), 77–89.

Wangsitala, D., Kusumawati, A., & Mawardi, M. K. (2025). Relational benefits and customer loyalty in healthcare services. *Journal of Relationship Marketing*, 24(1), 1–18.

Widiyanti, R., Tukiran, R., Rani, D., & Syahrir. (2024). Customer satisfaction in digital health services. *International Journal of Health Marketing*, 9(2), 101–115.

Wijayanti, T., Hidayat, M., & Lestari, R. (2021). The impact of price perception and service quality on customer satisfaction in healthcare retail. *Journal of Marketing and Consumer Behavior*, 11(4), 201–213. <https://doi.org/10.25077/jppk.11.4.2021>

Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2020). *Services marketing: Integrating customer focus across the firm*(8th ed.). New York, NY: McGraw-Hill Education.

Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of instant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362–375. <https://doi.org/10.1177/009207002236911>