

Exploring the Determinants of Customer Loyalty in OTC Drugs: Evidence from PT Phapros Tbk, Banten

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Abstract: This study explores the determinants of customer loyalty in the over-the-counter (OTC) pharmaceutical industry by examining the roles of brand image, price perception, and product quality, with customer trust as a mediating variable. The research focuses on customers of PT Phapros Tbk operating in the Banten region, where competition in the OTC market is intense and consumer trust is critical due to the health-related nature of the products. A quantitative approach was employed using survey data collected from pharmacy and drugstore owners, which were analyzed using Partial Least Squares-Structural Equation Modeling (PLS-SEM). The results reveal that brand image, price perception, and product quality have significant positive effects on customer trust and customer loyalty. Furthermore, customer trust is found to significantly influence customer loyalty and to mediate the relationships between brand image, price perception, product quality, and customer loyalty. These findings indicate that customer loyalty in the OTC pharmaceutical sector is shaped not only by functional and economic considerations but also by trust-based evaluations developed through consistent and credible firm behavior. This study contributes to the literature by reinforcing trust-based loyalty models in the pharmaceutical context and offers practical implications for pharmaceutical firms seeking to strengthen long-term customer relationships through trust-oriented strategies.

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INTRODUCTION

The pharmaceutical industry plays an essential role in improving public health while simultaneously supporting national economic growth. In recent years, the over-the-counter (OTC) drug market in Indonesia has experienced rapid expansion, driven by the increasing tendency of consumers to engage in self-medication for minor ailments. This behavioral shift reflects growing consumer awareness and accessibility but also intensifies competition among pharmaceutical companies in terms of brand positioning, pricing strategies, and product quality assurance. In such a highly competitive and transparent environment, customer loyalty has become one of the most critical assets for sustaining long-term business success (Oliver, 1999). Loyal customers not only repurchase products but also recommend them to others, thereby creating a stable and cost-efficient marketing advantage.

PT Phapros Tbk, one of Indonesia's leading pharmaceutical manufacturers, faces similar challenges in maintaining customer loyalty within its OTC drug segment. Despite a strong brand reputation and extensive distribution network, several internal sales reports indicate fluctuations in purchasing frequency among retailers in Banten Province. Data from the Marketing Division of the Banten Regional Office (2022–2023) show that several OTC products—including cough syrup,

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paracetamol, and vitamin supplements experienced an average decline of 12–15 percent in monthly distribution volume over the last fiscal year. This situation suggests that some retailers have shifted to competing brands, implying that customer loyalty and trust have not yet reached an optimal level.

A preliminary survey conducted among 30 OTC drug retailers in Banten revealed that the mean value of customer loyalty (2.67) and customer trust (2.88) fell within the “moderate” category. Respondents identified three major concerns: limited promotional support, inflexible pricing and payment terms, and outdated product packaging. The lowest evaluation scores were found in price flexibility (mean 2.59) and product design (mean 2.72). These findings confirm that customer trust plays a vital mediating role between marketing attributes such as brand image, price, and product quality in shaping long-term loyalty.

From a marketing perspective, brand image represents the set of perceptions and associations that differentiate one brand from another and create favorable attitudes toward purchase (Keller, 1993). A strong brand image enhances confidence and positively influences consumer choice (Aaker, 1996). Price serves not only as a monetary indicator but also as a reflection of perceived fairness and value (Kotler, 2016a). When customers perceive that a brand’s pricing is fair, transparent, and competitive, they tend to trust the company’s integrity. Product quality, meanwhile, is the product’s ability to meet or exceed customer expectations regarding safety, reliability, and performance (Garvin, 1987). In the OTC context, quality directly affects credibility, since consumers relate a drug’s effectiveness and safety to their personal well-being.

However, even when these three factors perform well, loyalty does not automatically follow. Scholars argue that customer trust acts as a crucial psychological bridge linking marketing perceptions to loyalty (Basu, 1996; Morgan & Hunt, 1994). Trust reflects a consumer’s belief in a brand’s reliability, competence, and consistency in delivering promises. It minimizes perceived risk, fosters emotional attachment, and ultimately leads to repeat purchase and advocacy (Chaudhuri & Holbrook, 2001). In the pharmaceutical sector, where ethical standards and credibility are paramount, trust serves as both an emotional and behavioral determinant of customer retention.

According to Basu’s (1994) Trust–Loyalty Model, trust develops through consistent and credible marketing experiences involving brand image, price fairness, and product quality. These antecedents interact to generate confidence that eventually transforms into loyalty. Customers who trust a brand are more inclined to remain loyal even when confronted with competitive alternatives or minor price differences. This model is particularly relevant for PT Phapros Tbk, which operates in a market that demands high ethical standards and product reliability.

Operationally, the variables in this study are defined as follows: brand image (X_1) refers to customers’ perceptions of the reputation, reliability, and credibility of PT Phapros’s OTC products; price (X_2) denotes perceived fairness and competitiveness in relation to similar brands; product quality (X_3) represents product reliability, safety, and packaging appeal; customer trust (Z) is defined as belief in the company’s honesty, consistency, and product integrity; and customer loyalty (Y) reflects the intention to repurchase, long-term commitment, and willingness to recommend PT Phapros’s products.

Although numerous studies have examined the relationships among these variables, significant research gaps remain, particularly within Indonesia’s OTC pharmaceutical market. Most prior research has been conducted in non-pharmaceutical contexts such as aviation (Aristana et al., 2022) and the automotive sector (Santoso & Ayu, 2026), making their findings less transferable to the OTC

environment, where safety and credibility are primary concerns. Moreover, while several recent studies have investigated the influence of brand image and brand trust on loyalty (Kurniawan & Saputri, 2025), few have included product quality and price fairness within a unified model. Research by Afiftama (2024) explored brand experience and trust in the service sector but did not address product based trust formation, which is central to pharmaceuticals. In addition, price perception a crucial determinant identified in PT Phapros's pre-survey has been underrepresented in recent marketing research in Indonesia's drug industry (Ramadhani & Febrianto, 2024). Therefore, this study seeks to fill these gaps by: (1) focusing on the Indonesian OTC pharmaceutical sector through the case of PT Phapros Tbk in Banten; (2) integrating brand image, perceived price fairness, and product quality as antecedents; (3) positioning customer trust as a mediating variable; and (4) targeting OTC retailers rather than end-consumers to produce contextual and applicable insights.

The purpose of this research is to analyze the direct and indirect effects of brand image, price, and product quality on customer loyalty through customer trust. Theoretically, this study contributes to the development of trust-based loyalty models in the pharmaceutical context, while practically, it provides valuable recommendations for PT Phapros Tbk to enhance brand credibility, pricing strategies, and quality consistency in building retailer trust and loyalty.

Based on the background and research objectives, the research problems of this study are formulated to examine the relationships among brand image, price, product quality, customer trust, and customer loyalty. Specifically, this study investigates whether brand image, price, and product quality significantly influence customer trust, whether customer trust significantly affects customer loyalty, and whether customer trust serves as a mediating variable in the relationship between brand image, price, and product quality and customer loyalty.

The importance of this study is twofold. Theoretically, it strengthens Basu's (1994) framework by providing empirical validation in Indonesia's OTC pharmaceutical industry, where customer trust functions as a behavioral bridge linking marketing variables to loyalty. Practically, it offers actionable insights for PT Phapros Tbk and similar companies in formulating integrated marketing strategies that harmonize brand communication, fair pricing, and product quality control with trust-building efforts. By combining empirical company data, pre-survey insights, and relevant theories, this study provides a comprehensive understanding of the determinants of customer loyalty in OTC drugs—knowledge that is essential for maintaining competitive advantage in Indonesia's evolving pharmaceutical landscape.

RESEARCH METHOD

Research Design

This study employed a quantitative research design with an explanatory approach to examine the causal relationships among brand image, price perception, product quality, customer trust, and customer loyalty. Quantitative explanatory research is appropriate for testing theoretically derived hypotheses and assessing the magnitude and direction of relationships among variables using statistical techniques (Creswell & Creswell, 2017). A cross-sectional survey design was adopted, in which data were collected at a single point in time to capture customers' perceptions and relational evaluations of over-the-counter (OTC) pharmaceutical products (Inan & Ural, 2024).

Unit of Analysis

The study was conducted in Banten Province, Indonesia, which consists of four regencies (Tangerang, Serang, Pandeglang, and Lebak) and four cities (South Tangerang, Tangerang City, Serang City, and Cilegon City). Banten was selected due to its high prevalence of self-medication behavior and its strategic position within the OTC pharmaceutical distribution network, making it a relevant context for examining customer loyalty dynamics in OTC drug markets (Kotler, 2016b).

The unit of analysis in this study was retail customers, specifically pharmacies and drugstores that regularly purchase and resell OTC products distributed by PT Phapros Tbk during the 2021–2023 period. These retailers were selected because they function not only as buyers but also as intermediaries that influence product availability and recommendation in pharmaceutical distribution channels (Anderson & Narus, 1990).

Population and Sampling

The population comprised all pharmacies and drugstores that are active customers of PT Phapros Tbk's OTC products in Banten Province. The total population consisted of 824 pharmacies and drugstores registered as active retail customers during the 2021–2023 period. This population was selected because these entities play a central role in OTC product distribution and customer recommendation processes.

Given the geographically dispersed nature of the population, a two-stage sampling technique was applied. In the first stage, cluster sampling was used to group respondents based on administrative regions within Banten Province. In the second stage, proportional cluster sampling was applied to ensure balanced representation across all regions (Sekaran & Bougie, 2014). This approach is considered appropriate for large and dispersed populations as it improves sampling efficiency while maintaining representativeness (Hair et al., 2019).

Sample Size Determination

The sample size was determined using the guideline for Structural Equation Modeling (SEM) proposed by Hair et al. (2019), specifically the “10-times rule,” which states that the minimum sample size should be 10 times the maximum number of structural paths directed at any latent construct in the model.

In this study, the maximum number of structural paths directed at a single endogenous construct is four (brand image, price perception, product quality, and customer trust influencing customer loyalty). Therefore, the minimum sample size is calculated as follows:

$$n=10\times4=40$$

However, Hair et al. (2019) recommend that for more stable estimation and higher statistical power, PLS-SEM studies should ideally use a sample size between 200 and 400 respondents, especially when the model includes multiple latent constructs.

To ensure robustness and improve generalizability, this study used 303 respondents, which exceeds the minimum requirement and falls within the recommended range for PLS-SEM analysis. Therefore, the sample size of 303 is considered adequate and statistically appropriate for model estimation and hypothesis testing.

Data Collection Method

Primary data were collected using a structured questionnaire administered directly to retailer respondents. Survey methods are widely used in marketing research because they allow standardized measurement of perceptions, attitudes, and behavioral intentions (Naresh K, 2010). Prior to the main survey, a pre-test involving 50 respondents was conducted to refine the questionnaire and ensure clarity of measurement items.

All items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), which is appropriate for measuring latent constructs such as trust, satisfaction, and loyalty (Hair et al., 2019).

Measurement of Variables

Customer loyalty was conceptualized as a multidimensional construct consisting of behavioral and attitudinal dimensions. Based on Oliver (1999) and Griffin (2005), it was measured through repeat purchase intention, recommendation behavior, and retention against switching.

Brand image was defined as customers' overall perceptions and associations toward PT Phapros Tbk's OTC products, based on Keller (1993), including reputation, recognition, and perceived credibility.

Price perception refers to customers' subjective evaluation of price fairness and value, measured through price affordability, price-quality fit, price-benefit fit, and price competitiveness (Zeithaml, 1988; Xia et al., 2004).

Product quality reflects perceptions of safety, effectiveness, packaging quality, and performance consistency, based on Garvin's (1987) quality dimensions.

Customer trust was defined as confidence in the firm's reliability and integrity, measured through competence, integrity, and benevolence (Schoorman et al., 1996).

Data Analysis

Data were analyzed using Structural Equation Modeling (SEM), specifically Partial Least Squares (PLS-SEM), which enables simultaneous estimation of relationships among latent variables and testing of both direct and indirect effects (Hair et al., 2019). PLS-SEM is particularly suitable for mediation analysis due to its ability to estimate indirect effects more efficiently compared to traditional regression methods (Preacher & Hayes, 2008).

The analysis followed a two-step approach: evaluation of the measurement model (reliability and validity testing) and evaluation of the structural model (hypothesis testing) (Anderson & Gerbing, 1988). The mediating role of customer trust was tested using indirect effect analysis between exogenous variables and customer loyalty.

RESULTS AND DISCUSSION

Descriptive Statistics

This study involved 303 respondents, all of whom were retail customers (pharmacies and drugstores) operating in Banten Province, Indonesia. In terms of gender, the respondents were predominantly male, totaling 176 individuals (58.09%), while 127 respondents (41.91%) were female. This distribution indicates that decision-making roles in OTC retail businesses within the study context are more frequently held by male operators, although female participation remains substantial.

Regarding age, respondents ranged from 25 to 66 years old, with a mean age of 46.97 years ($SD = 6.09$) and a median age of 48 years. When classified into age groups, the majority of respondents were within the 46–55 year category, accounting for 180 respondents (59.41%), followed by those aged 36–45 years with 103 respondents (33.99%). Smaller proportions were observed among respondents aged 56 years and above (15 respondents; 4.95%) and those aged 35 years and below (5 respondents; 1.65%). This pattern suggests that most respondents are in a mature and productive phase of business management.

In terms of educational background, the largest proportion of respondents had completed senior high school (SMA), totaling 125 respondents (41.25%), followed by those holding a bachelor's degree (S1) with 112 respondents (36.96%). Respondents with a diploma (D3) accounted for 60 individuals (19.80%), while only 6 respondents (1.98%) held a master's degree (S2). This distribution indicates that OTC retail businesses in Banten are largely managed by individuals with secondary and undergraduate education levels.

Based on geographical location, the highest proportion of respondents were located in Tangerang Regency (71 respondents; 23.43%) and Tangerang City (66 respondents; 21.78%). These were followed by South Tangerang City (48 respondents; 15.84%), Serang City (38 respondents; 12.54%), Cilegon City (23 respondents; 7.59%), Pandeglang Regency (21 respondents; 6.93%), Serang Regency (20 respondents; 6.60%), and Lebak Regency (16 respondents; 5.28%). This spatial distribution confirms that the sample adequately represents major OTC retail areas across Banten Province, with a concentration in the Tangerang region.

With respect to the number of pharmacy/drugstore outlets managed, the vast majority of respondents operated a single outlet, amounting to 289 respondents (95.38%). A smaller proportion managed multiple outlets, including 9 respondents (2.97%) with two outlets, 2 respondents (0.66%) with three outlets, and one respondent each (0.33%) managing four, five, and eight outlets. This finding indicates that the sample primarily represents small- to medium-scale retail businesses.

In terms of business experience, respondents reported operating their businesses for 1 to 31 years, with a mean duration of 14.39 years ($SD = 6.54$) and a median of 15 years. Similarly, the length of subscription/partnership with the supplier ranged from 1 to 30 years, with a mean of 13.90 years ($SD = 6.22$) and a median of 15 years. These figures suggest that most respondents have maintained relatively long-term relationships with their supplier, providing a strong empirical basis for examining the effects of brand image, price perception, and product quality on customer trust and its implications for customer loyalty.

Validity Test

During the evaluation of the measurement model using Partial Least Squares Structural Equation Modeling (PLS-SEM), several indicator refinement procedures were conducted to ensure adequate convergent validity. Convergent validity was assessed by examining the outer loading values of each indicator, following the commonly accepted threshold that indicators should exhibit loading values of at least 0.70 to be considered reliable representations of their respective latent constructs. Indicators with loading values below this threshold were iteratively removed to improve the overall quality and robustness of the measurement model.

In the first stage of the outer loading assessment, a number of indicators failed to meet the minimum loading criterion and were therefore excluded from further analysis. These indicators

included Brand_Image1 and Brand_Image2 for the brand image construct; Customer_Trust10, Customer_Trust11, and Customer_Trust18 for the customer trust construct; Price7 for the price perception construct; and several indicators related to product quality, namely Product_Qual10, Product_Qual17, Product_Qual2, Product_Qual3, Product_Qual4, and Product_Qual7. The removal of these indicators was necessary to eliminate weak items that did not sufficiently capture the underlying constructs.

Following the initial refinement, a second stage of outer loading evaluation was conducted on the revised measurement model. The results indicated that additional indicators still exhibited loading values below the acceptable threshold. Consequently, Brand_Image4 from the brand image construct, as well as Product_Qual2, Product_Qual22, and Product_Qual3 from the product quality construct, were removed to further enhance construct reliability and validity.

A third and final evaluation stage was subsequently performed to confirm the adequacy of the remaining indicators. At this stage, Product_Qual4 was identified as having an insufficient outer loading and was therefore excluded from the model. After this final refinement, all retained indicators demonstrated satisfactory loading values, indicating strong convergent validity and reliable measurement of their respective latent constructs.

Overall, the three-stage indicator purification process ensured that only indicators with strong explanatory power and construct representation were retained in the final measurement model. This iterative refinement approach is consistent with best practices in PLS-SEM and strengthens the validity and reliability of the constructs used to test the proposed structural relationships in this study.

Outer Model Evaluation

In the outer model evaluation, discriminant validity was examined to confirm that each construct captures unique conceptual meaning and does not overlap excessively with other constructs in the measurement model.

Table 1. Discriminant Validity

Fornell-Larcker Criterion

	Brand Image	Customer Loyalty _	Customer Trust	Price	Product Quality
Brand Image	0,7879				
Customer Loyalty _	0,7228	0,7983			
Customer Trust	0,6250	0,8652	0,7736		
Price	0,6677	0,7173	0,6222	0,7914	
Product Quality	0,5584	0,6935	0,5943	0,4943	0,8027

Table 2. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Brand Image	0,9527	0,9566	0,9581	0,6208
Customer Loyalty _	0,9662	0,9670	0,9692	0,6372
Customer Trust	0,9579	0,9588	0,9620	0,5985
Price	0,9647	0,9661	0,9678	0,6264

Product Quality	0,9535	0,9558	0,9591	0,6443
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The evaluation of the outer measurement model was conducted to assess both discriminant validity and construct reliability and validity, ensuring that the latent variables were measured accurately and consistently. Discriminant validity was examined using the Fornell–Larcker criterion, which requires that the square root of the Average Variance Extracted (AVE) of each construct be greater than its correlations with other constructs. As shown in Table 1, all constructs satisfy this criterion. The diagonal values representing the square root of AVE for Brand Image (0.7879), Customer Loyalty (0.7983), Customer Trust (0.7736), Price (0.7914), and Product Quality (0.8027) exceed their respective inter-construct correlations, indicating that each construct is empirically distinct and captures a unique conceptual domain.

Furthermore, Table 2 presents the results of construct reliability and convergent validity. The Cronbach’s alpha values for all constructs range from 0.9527 to 0.9662, exceeding the recommended threshold of 0.70, which confirms strong internal consistency. Similarly, rho_A values (0.9558–0.9670) and composite reliability values (0.9581–0.9692) further demonstrate excellent construct reliability. Convergent validity is also established, as all AVE values exceed the minimum threshold of 0.50, ranging from 0.5985 to 0.6443. Overall, these findings confirm that the measurement model demonstrates satisfactory reliability and validity, allowing the analysis to proceed to the structural model evaluation with confidence.

Inner Model Evaluation

In the inner model evaluation, R Square and F Square was analyzed to determine the extent to which the exogenous variables explain the variance of the endogenous constructs in the structural model.

Table 3. R Square

	R Square	R Square Adjusted
Customer Loyalty _	0,8337	0,8320
Customer Trust	0,5270	0,5223

Table 4. F Square

	Brand Image	Customer Loyalty _	Customer Trust	Price	Product Quality
Brand Image			0,0659		
Customer Loyalty _					
Customer Trust		1,0052			
Price		0,2131	0,1036		
Product Quality		0,1977	0,1283		

The inner model evaluation indicates strong explanatory power of the structural model. As shown in Table 3, the R Square value for Customer Loyalty is 0.8337 (adjusted R Square = 0.8320), indicating that brand image, price, product quality, and customer trust jointly explain 83.37% of the variance in customer loyalty. This reflects a substantial level of predictive accuracy. Meanwhile, the R Square value for Customer Trust is 0.5270 (adjusted R Square = 0.5223), suggesting that brand

image, price, and product quality account for 52.70% of the variance in customer trust, which can be classified as moderate explanatory power.

Furthermore, the effect size (f^2) analysis in Table 4 shows that Customer Trust has a very large effect on Customer Loyalty ($f^2 = 1.0052$). In contrast, Price ($f^2 = 0.2131$) and Product Quality ($f^2 = 0.1977$) exhibit medium effects on customer loyalty. With respect to customer trust, Price ($f^2 = 0.1036$) and Product Quality ($f^2 = 0.1283$) demonstrate small-to-medium effects, while Brand Image shows a small effect ($f^2 = 0.0659$). Overall, these results confirm the robustness of the structural model.

Hypothesis Testing

Table 5. Hypothesis Testing

Path Coefficients					
Mean, STDEV, T-Values, P-Values					
	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Brand Image -> Customer Trust	0,2534	0,2552	0,0586	4,3258	0,0000
Customer Trust -> Customer Loyalty _	0,5759	0,5750	0,0348	16,5575	0,0000
Price -> Customer Loyalty _	0,2453	0,2467	0,0345	7,1024	0,0000
-					
Price -> Customer Trust	0,3032	0,3024	0,0579	5,2347	0,0000
Product Quality -> Customer Loyalty _	0,2300	0,2294	0,0356	6,4530	0,0000
Product Quality -> Customer Trust	0,3029	0,3026	0,0508	5,9639	0,0000

Based on Table 5, the results of hypothesis testing for each structural relationship can be explained as follows:

1. Brand image has a positive and significant effect on customer trust, as indicated by a path coefficient of 0.2534, a T-statistic of 4.3258 (greater than 1.96), and a p-value of 0.000 (less than 0.05). This finding suggests that a strong and favorable brand image enhances customers' trust in OTC products distributed by PT Phapros Tbk.
2. Customer trust exerts a positive and significant influence on customer loyalty, with a path coefficient of 0.5759, a T-statistic of 16.5575, and a p-value of 0.000. This result indicates that trust plays a critical role in fostering long-term customer loyalty in the OTC pharmaceutical sector.
3. Price has a positive and significant effect on customer loyalty, as reflected by a path coefficient of 0.2453, a T-statistic of 7.1024, and a p-value of 0.000. This finding implies that fair and competitive pricing perceptions contribute to higher levels of customer loyalty.
4. Price also shows a positive and significant effect on customer trust, with a path coefficient of 0.3032, a T-statistic of 5.2347, and a p-value of 0.000. This suggests that pricing policies perceived as reasonable and transparent strengthen customers' trust in the company.

5. Product quality has a positive and significant influence on customer loyalty, as indicated by a path coefficient of 0.2300, a T-statistic of 6.4530, and a p-value of 0.000. This result demonstrates that consistent and reliable product quality encourages customers to remain loyal.
6. Product quality also has a positive and significant effect on customer trust, with a path coefficient of 0.3029, a T-statistic of 5.9639, and a p-value of 0.000. This finding confirms that high product quality is a fundamental determinant in building customer trust toward OTC products.

Table 6. Intervening Test Results

Specific Indirect Effects
Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Brand Image -> Customer Trust -> Customer Loyalty _	0,1459	0,1471	0,0361	4,0409	0,0001
Price -> Customer Trust -> Customer Loyalty _	0,1746	0,1736	0,0337	5,1873	0,0000
Product Quality -> Customer Trust -> Customer Loyalty _	0,1744	0,1740	0,0311	5,6029	0,0000

Based on Table 6, the results of the intervening (mediation) effect analysis for each indirect relationship can be explained as follows:

1. Customer trust significantly mediates the relationship between brand image and customer loyalty, as indicated by an indirect effect coefficient of 0.1459, a T-statistic of 4.0409, and a p-value of 0.0001, confirming that a strong brand image enhances customer loyalty through the development of trust.
2. Customer trust also significantly mediates the relationship between price and customer loyalty, with an indirect effect coefficient of 0.1746, a T-statistic of 5.1873, and a p-value of 0.0000, indicating that fair and transparent pricing strengthens customer trust, which subsequently leads to higher customer loyalty.
3. Customer trust significantly mediates the relationship between product quality and customer loyalty, as reflected by an indirect effect coefficient of 0.1744, a T-statistic of 5.6029, and a p-value of 0.0000, demonstrating that consistent and reliable product quality builds customer trust and ultimately fosters customer loyalty.

Discussion

The results of this study provide a nuanced understanding of how customer loyalty toward OTC pharmaceutical products is formed through a combination of brand-related, economic, and quality-based factors, with customer trust playing a pivotal mediating role. In the context of PT Phapros Tbk, where products are closely associated with consumer health and safety, loyalty does not emerge merely from transactional satisfaction but from deeper psychological evaluations of credibility, fairness, and reliability.

The significant influence of brand image on customer trust highlights the strategic role of branding in reducing uncertainty within the OTC pharmaceutical market. Unlike fast-moving consumer goods, pharmaceutical products involve higher perceived risk, as consumers often lack the

technical expertise to evaluate product efficacy and safety directly. In such conditions, brand image functions as a symbolic cue that conveys assurance and professional legitimacy. This finding resonates strongly with Keller (1993), who conceptualizes brand image as a set of associations stored in consumer memory that guide judgment under uncertainty. When a brand is consistently associated with reliability and professionalism, customers are more inclined to trust not only the product but also the firm behind it.

The positive relationship between price perception and customer trust further emphasizes that price is interpreted beyond its monetary dimension. Customers perceive price as a moral and relational signal that reflects how a company values its customers. In the pharmaceutical context, excessively low prices may raise suspicion regarding product quality, while excessively high prices may be perceived as exploitative. This balance explains why perceived price fairness significantly enhances trust. As argued by Zeithaml (1988), value perception is rooted in the trade-off between what is given and what is received. Xia, Monroe, and Cox (2004) further reinforce this view by explaining that fair pricing strengthens relational trust by signaling ethical behavior and transparency. The findings of this study confirm that customers of PT Phapros Tbk respond positively when pricing aligns with perceived benefits and industry norms.

Product quality emerges as another fundamental driver of trust and loyalty. In pharmaceutical consumption, quality is inseparable from safety, effectiveness, and consistency. Customers may forgive minor inconveniences in other product categories, but in healthcare-related products, quality failures directly undermine trust. The strong effect of product quality on customer trust aligns with Garvin's (1987) multidimensional quality framework, which emphasizes performance consistency and conformance to standards as essential quality attributes. Moreover, Oliver's (2008) expectation–confirmation theory provides a clear explanation: when repeated consumption confirms initial expectations, trust accumulates gradually and stabilizes customer relationships over time.

Customer trust itself proves to be a decisive factor in shaping customer loyalty. The strong and significant relationship between trust and loyalty supports the foundational argument of Morgan and Hunt's (1994) Commitment–Trust Theory, which positions trust as a prerequisite for long-term relational exchange. In the OTC pharmaceutical market, trust reduces perceived vulnerability and reassures customers that the firm will act in their best interest. This reassurance encourages repeat purchases, long-term retention, and positive word-of-mouth—key indicators of loyalty. Chaudhuri and Holbrook (2001) similarly emphasize that trust strengthens both attitudinal and behavioral dimensions of loyalty, a finding that is clearly reflected in this study.

Most importantly, this research confirms the mediating role of customer trust in linking brand image, price perception, and product quality to customer loyalty. The mediation results suggest that these antecedent variables do not translate directly into loyalty unless they are internalized by customers as trustworthy signals. This insight aligns with relationship marketing perspectives that view trust as a psychological bridge between firm actions and customer responses (Basu, 1997). A strong brand image builds initial confidence, fair pricing reinforces ethical perceptions, and consistent product quality validates competence yet it is trust that transforms these perceptions into sustained loyalty.

From a contextual standpoint, these findings are particularly relevant for PT Phapros Tbk, operating in a competitive OTC market with relatively low switching barriers. Customers have numerous alternatives, but trust acts as a relational anchor that discourages switching even when

competitors offer similar products. This study also extends prior empirical research in Indonesia, which has often examined loyalty determinants in retail or service industries but has paid limited attention to the pharmaceutical sector and the integrative role of trust (Santoso, 2021; Wardani, 2023).

In summary, the findings suggest that customer loyalty in the OTC pharmaceutical industry is not the result of isolated marketing efforts, but rather the outcome of a coherent trust-building process. Firms that consistently align their brand positioning, pricing strategies, and quality assurance practices with trust-oriented values are more likely to achieve durable customer loyalty and long-term competitive advantage.

CONCLUSION

This study provides meaningful insights into the determinants of customer loyalty in the OTC pharmaceutical industry by empirically examining the roles of brand image, price perception, and product quality, with customer trust positioned as a key mediating variable. Using evidence from PT Phapros Tbk in Banten, the findings demonstrate that customer loyalty is not formed solely through functional product attributes or competitive pricing, but through a trust-based evaluation process that develops over repeated interactions.

The results indicate that brand image, price perception, and product quality each play an important role in shaping customer trust. A strong and credible brand image helps reduce uncertainty in pharmaceutical consumption, while fair and transparent pricing reinforces perceptions of integrity. Consistent product quality further strengthens customers' confidence in the firm's competence and reliability. These trust-building factors collectively contribute to higher levels of customer loyalty, reflected in repeat purchasing behavior, long-term retention, and positive recommendations. Importantly, this study confirms that customer trust acts as a crucial psychological mechanism that translates marketing attributes into sustained loyalty. Without trust, the positive effects of brand image, price, and product quality on loyalty would be significantly weaker. This finding underscores the central role of trust in industries where product risk and consumer vulnerability are high, such as the pharmaceutical sector.

From a managerial perspective, the findings suggest that pharmaceutical companies should adopt an integrated strategy that prioritizes trust alongside traditional marketing efforts. Strengthening brand credibility, ensuring price fairness, and maintaining consistent product quality must be supported by transparent communication and ethical business practices. By embedding trust into their marketing and operational strategies, firms like PT Phapros Tbk can foster long-term customer loyalty and secure sustainable competitive advantage in an increasingly competitive OTC market.

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