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Product Quality, Price, and Distribution on Consumer Satisfaction: Evidence from Indonesia

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Abstract

Purpose: This study examines the partial and simultaneous effects of product quality, price, and distribution on consumer satisfaction at UD Randu Laut, a kapok-based household product enterprise in Banjarrejo Village, East Lampung Regency, Indonesia.
Research Methodology: This study used a quantitative associative design. Data were collected from 100 consumers through Likert-scale questionnaires and analyzed using multiple linear regression with IBM SPSS Statistics 30.
Results: Product quality does not significantly affect consumer satisfaction ($\beta = -0.067$, $t = -0.565$, $p = 0.573 > 0.05$), whereas price exerts a significant positive effect ($\beta = 0.493$, $t = 4.186$, $p = 0.000$) and distribution exerts a significant negative effect ($\beta = -0.680$, $t = -2.175$, $p = 0.032$). Collectively, the three variables significantly predicted consumer satisfaction ($F = 5.217$, $p = 0.002$), explaining 14.0% of the satisfaction variance ($R^2 = 0.140$).
Conclusions: Price is the dominant satisfaction driver at UD Randu Laut, while the negative effect of distribution signals structural inefficiencies in the current distribution strategy. Product quality, which operates at a consistently acceptable level, no longer differentiates satisfaction outcomes.
Limitations: This study is limited to consumers of a single rural SME in East Lampung and only examines product quality, price, and distribution as predictors of consumer satisfaction. Therefore, the findings may not fully represent other SMEs or broader marketing contexts.
Contributions: This study contributes to marketing literature by providing empirical evidence from a rural Indonesian SME context and highlighting the dominant role of price and the negative effect of distribution on consumer satisfaction.

Keywords: *Consumer Satisfaction, Distribution, Marketing Mix, Price, Product Quality*

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1. Introduction

Consumer satisfaction is both a strategic objective and a performance benchmark for enterprises operating in competitive commodity markets. In the context of small and medium enterprises (SMEs) engaged in natural fiber-based manufacturing—a sector characterized by intense price competition, relatively undifferentiated products, and geographically dispersed consumer bases—understanding which marketing mix components shape satisfaction is essential for sustaining commercial viability (Kotler & Keller, 2016; Oliver, 1997). The classical satisfaction-confirmation theory posits that satisfaction arises from the comparison between consumer expectations and perceived product or service performance: when perceived performance meets or exceeds expectations, satisfaction results; when it falls short, dissatisfaction follows (Oliver, 1997). This theoretical lens is particularly relevant for natural fiber product enterprises, where product standardization is high and consumer expectations are well established (Purba et al., 2025; Qatawneh et al., 2025).

UD Randu Laut, a kapok-processing enterprise located in Banjarrejo Village, East Lampung Regency, Lampung Province, Indonesia, exemplifies the challenges faced by rural SMEs in commodity manufacturing. The enterprise produces kapok-based household goods—primarily pillows, mattresses, and stuffed toy filling—leveraging the distinctive properties of the natural fiber, including lightness, elasticity, thermal insulation, and breathability. These attributes confer inherent product advantages over synthetic alternatives; however, market performance depends not only on product characteristics but also on pricing strategy and distribution efficiency (Schubert et al., 2022; Varadarajan, 2023). Therefore, understanding the relative contribution of each marketing mix dimension to consumer satisfaction is a managerial imperative for UD Randu Laut and enterprises operating in analogous contexts.

The Indonesian natural fiber products market encompasses thousands of rural SMEs that collectively serve domestic and inter-island consumer demand for affordable bedding and household comfort items. Lampung Province, with its established kapok cultivation base and inter-provincial transportation infrastructure linking Sumatera to the Java–Bali consumer corridor, provides a favorable operating environment for kapok-based manufacturing enterprises (Badan Pusat Statistik Provinsi Lampung, 2022). Nevertheless, rural SMEs in this sector consistently report challenges in maintaining consumer loyalty amid increasing competition from synthetic fiber alternatives and organized retail chains with superior distribution networks.

The marketing mix framework—encompassing product, price, place (distribution), and promotion—remains the most widely applied analytical lens for diagnosing consumer satisfaction determinants in SME contexts (Kotler & Armstrong, 2018; Zeithaml et al., 2018). Each mix component has the potential to influence satisfaction through distinct mechanisms of influence. Product quality shapes satisfaction by determining whether the physical attributes of goods fulfill the functional expectations (Hidayati et al., 2024; Unterkalmsteiner & Abdeen, 2023). Price influences satisfaction through value perception: consumers evaluate whether the monetary cost incurred is proportionate to the perceived benefit (Monroe, 2003; Ramadhan & Anas, 2024). Distribution affects satisfaction by conditioning product accessibility, delivery timeliness, and geographic availability, which directly affect convenience and reliability perceptions (Salman et al., 2022; Tanjaya & Wijaya, 2019).

Prior research in Indonesian SME contexts has generally found positive and significant effects of product quality and price on satisfaction (Hidayati et al., 2024; Lestari et al., 2025; Putri & Ariyanto, 2024), while the distribution-satisfaction relationship is less consistently documented and sometimes yields counterintuitive results depending on the distribution strategy design and market conditions. At UD Randu Laut, preliminary observations suggest that distribution—despite its theoretical centrality—may be operating in ways that undermine rather than enhance consumer satisfaction, given geographic constraints, transport cost pressures, and the mismatch between distribution channels and consumer access preferences. This potential negative distribution effect, alongside the non-trivial possibility that quality may have reached a satisfaction threshold that limits its marginal discriminatory power, justifies the present investigation.

Accordingly, this study is guided by the following four research questions: (RQ1) Does product quality significantly affect consumer satisfaction at UD Randu Laut? (RQ2) Does price significantly affect consumer satisfaction (CS)? (RQ3) Does distribution significantly affect consumer satisfaction (CS)? (RQ4) Do product quality, price, and distribution jointly and significantly predict consumer satisfaction. This study contributes by providing quantitative evidence from a rural kapok-based SME context that is largely absent from the existing Indonesian marketing literature. Theoretically, it extends the marketing mix satisfaction theory to a commodity manufacturing context, where the established positive quality-satisfaction relationship may not hold uniformly. Practically, it offers evidence-based marketing-mix recommendations for UD Randu Laut and comparable rural commodity SMEs.

2. Literature Review

2.1 Marketing Management and the Marketing Mix Framework

Marketing management is defined as the art and science of selecting target markets and acquiring, retaining, and growing customers through the creation, delivery, and communication of superior customer value (Kotler & Keller, 2016, p. 5). This definition positions customer value—and by extension, customer satisfaction—as the central objective around which all marketing management activities are organized. The operational expression of marketing management is the marketing mix: a set of controllable marketing tools that a firm combines to produce the response it wants in its target market (Kotler & Armstrong, 2018).

The canonical marketing mix taxonomy—product, price, place, and promotion (4Ps)—was established by McCarthy (1964) and has since been extensively applied, critiqued and extended. For goods-producing SMEs, the 4Ps framework remains the most practically relevant analytical structure, as it captures the core controllable variables through which enterprise management influences market outcomes (Widodo & Setyawan, 2023). In the present study, three of the four mix elements—product quality, price, and distribution (place)—are examined as predictors of the marketing outcome of primary interest: consumer satisfaction (CS).

2.2 Product Quality and Consumer Satisfaction

Product quality is broadly defined as the degree to which a product fulfills the specific needs and expectations of its target consumers (Nasikah et al., 2023). Unterkalmsteiner and Abdeen (2023)'s foundational taxonomy decomposes quality into eight dimensions: performance (primary operating characteristics), features (secondary supplementary attributes), reliability (failure-free operation probability), conformance (adherence to specifications), durability (product lifespan), serviceability (maintenance ease), aesthetics (sensory appeal), and perceived quality (consumer quality inference from available cues). For physical commodity goods, such as kapok-based household products, the most salient quality dimensions are conformance, durability, and performance. Consumers primarily evaluate whether a product consistently meets specifications, retains its functional properties over time, and delivers comfortable use (Wijayanto & Purnomo, 2023).

The theoretical link between product quality and consumer satisfaction is grounded in the expectancy-disconfirmation paradigm (Oliver, 1997). Consumers form pre-purchase expectations regarding product quality and compare these with post-purchase perceptions of performance. When perceived quality meets or exceeds expectations, satisfaction results; when it falls below expectations, dissatisfaction ensues. In competitive markets where minimum quality thresholds are well-established and consistently met by major suppliers, quality may lose its marginal discriminatory power as a satisfaction driver, a phenomenon termed "quality saturation" or "quality floor effect" in the marketing literature (Zeithaml et al., 2018).

Empirical evidence from Indonesian consumer goods contexts generally supports a positive quality-satisfaction relationship: Hidayati et al. (2024) documented a significant positive quality effect on consumer satisfaction for batik products in Surakarta; Lestari et al. (2025) found similar results for noodle brand consumers in Jember; and Wijaya and Zai (2024) confirmed positive quality-satisfaction relationships for a confectionery enterprise in Bengkulu. Nevertheless, contexts in which quality is consistently maintained at a threshold level may yield non-significant quality effects, a possibility theoretically consistent with satisfaction theory and empirically observed in mature commodity markets (Widodo & Setyawan, 2023).

H_1: Product quality has a significant positive effect on consumer satisfaction at UD Randu Laut.

2.3 Price and Consumer Satisfaction

Price is defined as the monetary or non-monetary compensation exchanged to acquire ownership or use of a product or service (Ramadhan & Anas, 2024). Within the marketing mix, price occupies a unique dual role: it is simultaneously the only revenue-generating element and a primary value signal that consumers use to infer product quality and assess purchase worthiness (Monroe, 2003). Misra et al. (2022) and Sun et al. (2023) frames price as a "statement of value"—the ratio between perceived benefits and perceived costs—capturing the fundamentally perceptual nature of price evaluation.

The price-satisfaction relationship operates through two competing mechanisms. First, lower prices reduce the monetary cost component of the value ratio, potentially increasing satisfaction by improving the perceived value (Monroe, 2003). Second, in contexts where price functions as a quality signal, higher prices may paradoxically increase satisfaction by elevating quality expectations and reinforcing positive product perceptions, a "price-quality halo" effect documented across multiple consumer categories (Zeithaml et al., 2018). For kapok household products—a category where natural fiber quality is difficult to assess objectively prior to purchase—the price-quality signaling mechanism is likely to be active, potentially explaining the positive price-satisfaction relationship (Wardhani & Ully, 2021).

Consistent with this reasoning, Putri and Ariyanto (2024) documented a significant positive price effect on consumer satisfaction for a Bandung-based apparel company. Lestari et al. (2025) found comparable results for a food product context in Jember, and Gultom (2024) confirmed this pattern for a service enterprise in Medan. Nugroho et al. (2025) further demonstrated that price perceived as proportionate to product quality—the price-quality congruence dimension—is the most powerful price indicator of satisfaction in food retail contexts. These convergent findings suggest that the price-satisfaction relationship at UD Randu Laut, where kapok products are positioned as higher-quality natural alternatives to synthetic competitors, is likely to be positive.

H_2: Price has a significant positive effect on consumer satisfaction at UD Randu Laut.

2.4 Distribution and Consumer Satisfaction

Distribution, or the marketing channel through which products move from producers to consumers, is defined as the set of organizations and processes through which goods and services are made available to end users (Salman et al., 2022; Subagiyo et al., 2019). Effective distribution creates spatial and temporal utility: it ensures that products are available in the locations where consumers wish to purchase them and at the times when their purchase motivation is highest (Supardi, 2023). Distribution channel design encompasses decisions regarding channel length (number of intermediaries), channel breadth (geographic coverage density), logistics efficiency (delivery speed and reliability), and the quality of channel member relationships (Setyawati et al., 2021; Tanjaya & Wijaya, 2019).

The distribution-satisfaction relationship is theoretically positive when distribution increases product accessibility, reduces consumer search costs, and ensures reliable delivery. Subagiyo et al. (2019) demonstrated significant positive distribution effects on satisfaction in the context of Islamic banking services, while Salman et al. (2022) and Saribanon et al. (2023) confirmed comparable results for a water utility distribution enterprise. However, the distribution-satisfaction relationship can be negative when the distribution strategy generates unintended costs or inconveniences: overly extended distribution channels may create inconsistent product conditions, price variations at different retail points, or delivery delays that erode satisfaction relative to consumer expectations (Kotler & Armstrong, 2018; Mulyadi et al., 2022).

For rural SMEs operating in multi-region distribution contexts, structural distribution challenges, including transport cost escalation, limited cold-chain or quality-preservation infrastructure, and misalignment between channel partner capabilities and consumer expectations, can generate systematic satisfaction deficits. The negative distribution coefficient observed in the regression results of the present study (which will be detailed in Section 4) aligns with this theoretical prediction: when distribution expansion increases channel length and cost without proportional consumer convenience improvements, distribution becomes a satisfaction-eroding rather than a satisfaction-enhancing factor (Kotler & Armstrong, 2018).

H_3: Distribution has a significant effect on consumer satisfaction at UD Randu Laut.

2.5 Simultaneous Marketing Mix Effects on Consumer Satisfaction

Marketing mix theory posits that product, price, and distribution variables do not operate independently but interact as an integrated system of value-delivery mechanisms (Kotler & Armstrong, 2018). The simultaneous effect of multiple marketing mix elements on consumer satisfaction has been extensively studied. For example, Widodo and Setyawan (2023) found significant simultaneous effects of product quality, price, promotion, and distribution on satisfaction for a cassava product SME in the Salatiga area. Hidayati et al. (2024) confirmed joint effects for batik consumer satisfaction, and Putri and Ariyanto (2024) demonstrated that price, product quality, and promotion jointly predict satisfaction through an intervening satisfaction mechanism.

Consumer satisfaction theory (Oliver, 1997) supports the joint effect prediction: satisfaction is determined by an overall evaluation of the consumption experience, which integrates perceptions of product quality, price fairness, and distribution convenience simultaneously rather than sequentially. Consumers do not compartmentalize their evaluations of individual marketing mix elements; rather, they form holistic value judgments that aggregate across multiple experiential dimensions (Maheswara et al., 2023). This holistic evaluation implies that even when individual marketing mix elements have non-significant or negative partial effects, their combination may produce a significant joint effect on satisfaction by covering complementary dimensions of consumer value assessment (Hudaya, 2022).

H_4: Product quality, price, and distribution jointly and significantly affect consumer satisfaction at UD Randu Laut.

2.6 Conceptual Framework

Based on the theoretical review, the conceptual framework of this study posits that consumer satisfaction (Y) at UD Randu Laut is a function of product quality (X_1), price (X_2), and distribution (X_3), both independently and in combination. Product quality shapes satisfaction through expectancy-disconfirmation mechanisms and operates as a necessary but potentially insufficient satisfaction driver in contexts where quality thresholds are consistently met. Price influences satisfaction through value perception and price-quality signaling, with positive effects expected when prices are perceived to be proportionate to kapok product quality. Distribution affects satisfaction through accessibility and delivery reliability, with the direction contingent on the efficiency of the current distribution strategy. Together, these three variables create an integrated marketing mix that determines the overall consumer satisfaction level. The framework is grounded in expectancy-disconfirmation theory (Oliver, 1997), the marketing mix framework (Kotler & Armstrong, 2018).

3. Methodology

3.1 Research Design and Setting

This study employs a quantitative associative research design to examine the causal relationships among product quality, price, distribution, and consumer satisfaction. The quantitative approach was selected for its capacity to yield statistically rigorous and replicable findings that support hypothesis testing and managerial inference (Creswell & Creswell, 2018; Sugiyono, 2020). The associative design is appropriate because the research objective is to establish the direction, magnitude, and significance of relationships among pre-specified variables rather than to describe phenomena or generate a theory.

The study was conducted at UD Randu Laut, a kapok-based household goods enterprise in Banjarrejo Village, Batang Hari District, East Lampung Regency, Lampung Province, Indonesia. UD Randu Laut was selected as the research site because: (1) it represents a prototypical rural kapok-processing SME whose marketing challenges are representative of comparable enterprises across East Lampung; (2) it serves a sufficiently large and diverse consumer base to support a sample size of 100 respondents; and (3) preliminary observations suggested that the enterprise's three primary marketing mix variables—quality, price, and distribution—exhibited sufficient variation in consumer perceptions to enable meaningful statistical analysis.

3.2 Population and Sampling

The target population comprised all consumers who purchased kapok-based products from UD Randu Laut during the study period (January–June 2025). Given the difficulty in establishing a precise population frame for an enterprise serving an open and dispersed consumer base, accidental non-probability sampling was employed. Respondents were selected based on availability at the enterprise's primary sales points during the data collection period and on fulfilling the criterion of having made at least one purchase from UD Randu Laut in the preceding six months (Farkhah, 2022).

Sample size determination followed the guidelines of Hair et al. (2019) for multiple regression, which recommends a minimum of 10–20 observations per predictor variable. With three predictors, the minimum sample size was 30–60 observations. The sample size of 100 in the present study substantially exceeded this threshold, providing adequate statistical power for detecting moderate effect sizes at the 5% significance level. Accidental sampling was selected based on practical considerations, including the researcher's time and resource constraints and the absence of a comprehensive consumer registry from which probability sampling could be conducted (Farkhah, 2022).

3.3 Measurement Instruments and Operationalization

Primary data were collected using a structured self-administered questionnaire employing a five-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree). Table 1 presents the operationalization of the constructs.

Table 1. Variable Operationalization

Variable	Construct Definition	Indicators	Source
Product Quality (X_1)	Degree to which kapok products fulfill consumer functional expectations	Performance; Features; Conformance to specifications; Durability; Reliability	Nasikah et al. (2023); Hidayati et al. (2024)
Price (X_2)	Consumer perception of monetary value and price-benefit congruence	Price affordability; Price-quality congruence; Price competitiveness; Price fairness	Monroe (2003); Ramadhan and Anas (2024); Nugroho et al. (2025)
Distribution (X_3)	Efficiency and accessibility of the product delivery network	Product availability; Delivery timeliness; Geographic reach; Channel convenience; Stock reliability	Salman et al. (2022); Tanjaya and Wijaya (2019); Subagiyo et al. (2019)
Consumer Satisfaction (Y)	Overall fulfilment of consumer needs, wants, and expectations through product consumption	Expectation fulfilment; Product experience evaluation; Repurchase intention; Recommendation likelihood; Overall satisfaction rating	Oliver (1997); Gultom (2024); Peringki et al. (2024)

Source: Authors' compilation.

Content validity was established through an expert review by two academic marketing specialists and one practitioner from the East Lampung business community. A pilot test was administered to 20 consumers who were not included in the main sample to assess item comprehension and scale consistency.

Construct validity was confirmed using Pearson product-moment correlation, with all items satisfying the $r > 0.30$ threshold for the item-total correlations. Reliability was assessed using Cronbach's alpha: product quality ($\alpha = 0.821$), price ($\alpha = 0.798$), distribution ($\alpha = 0.812$), and consumer satisfaction ($\alpha = 0.839$), all exceeding the 0.60 minimum threshold (Hatmawan & Riyanto, 2020).

3.4 Data Analysis Procedure

The data analysis was conducted in two sequential stages. In the first stage, classical assumption diagnostics were conducted to validate the conditions required for multiple linear regression inference.

1. **Normality:** The Kolmogorov-Smirnov one-sample test was used to assess whether the model residuals followed a normal distribution. A significance value above 0.05 (Asymp. Sig. (2-tailed) > 0.05) confirmed normality.

2. **Homogeneity:** Levene's test was used to assess the equality of error variances across the variable groups. Significance values above 0.05 for all predictors confirmed homogeneous variance, satisfying the equal-variance assumption.

3. **Linearity:** ANOVA-based linearity tests were used to assess whether each predictor-outcome relationship was appropriately linear. Non-significant *Deviation from Linearity* F-statistics ($p > 0.05$) confirm the linear functional form.

In the second stage, multiple linear regression analysis was conducted. The model specification is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \quad (1)$$

where Y is consumer satisfaction, X_1 is product quality, X_2 is price, X_3 is distribution, α is the regression intercept, β_1, β_2, and β_3 are partial regression coefficients, and ε is the stochastic error. Partial t-tests were used to test H_1, H_2, and H_3 (significance threshold: $\alpha = 0.05$). The F-test was used to assess H_4 (simultaneous significance). The coefficient of determination (R^2) and adjusted R^2 measured the explanatory power of the model. All analyses were conducted using the IBM SPSS Statistics 30 software.

4. Results and Discussion

4.1 Results

4.1.1 Respondent Profile and Descriptive Context

A total of 100 consumers of UD Randu Laut participated in the study. The respondent sample comprised buyers of kapok pillows (48%), kapok mattresses (35%), and kapok stuffed toy filling (17%), reflecting the primary product portfolio of the enterprise. Respondents were drawn from the Banjarrejo Village area and neighboring communities within East Lampung Regency, as well as from buyers who traveled from Bandar Lampung and other provincial towns to purchase directly from the enterprise, a pattern common for SMEs that combine direct sales with inter-regional distribution partnerships.

UD Randu Laut's primary competitive advantage is the natural quality of kapok fiber—its lightness, breathability, and biodegradability—over synthetic polyester and foam alternatives. However, competition from synthetic products, which are lower-priced and more widely distributed through modern retail chains, has intensified recently. This competitive context frames the marketing mix challenges examined in this study: maintaining satisfactory quality at competitive prices while optimizing a distribution network that must serve both local and geographically distant consumer segments.

4.1.2 Descriptive Statistics

Table 2. Descriptive Statistics of Research Variables ($n = 100$)

Variable	Mean	Std. Dev.	Min	Max
Product Quality (X_1)	3.79	0.58	2.20	5.00
Price (X_2)	3.65	0.67	2.00	5.00
Distribution (X_3)	3.44	0.72	1.80	5.00
Consumer Satisfaction (Y)	3.71	0.61	2.00	5.00

Note: All variables were measured on a five-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree).

Source: Primary data.

Based on Table 2, product quality had the highest mean score (3.79), suggesting that consumers generally perceive UD Randu Laut's kapok products as meeting functional quality expectations. Distribution recorded the lowest mean score (3.44), indicating that the current distribution arrangement is the least satisfactory marketing mix element from the consumer perspective, a finding that foreshadows the negative distribution coefficient in the regression results.

4.1.3 Classical Assumption Test Results

Table 3. Classical Assumption Diagnostic Results

Test	Statistic / Result	Decision Rule	Conclusion
Normality (K-S Test)	Asymp. Sig. = 0.064	$p > 0.05$	Residuals normally distributed ✓
Homogeneity — X_1 (Levene's, based on mean)	Sig. = 0.061	$p > 0.05$	Homogeneous variance ✓
Homogeneity — X_2 (Levene's, based on mean)	Sig. = 0.181	$p > 0.05$	Homogeneous variance ✓
Homogeneity — X_3 (Levene's, based on mean)	Sig. = 0.177	$p > 0.05$	Homogeneous variance ✓
Linearity — X_1 (Deviation from Linearity)	Sig. = 0.929	$p > 0.05$	Linear relationship ✓
Linearity — X_2 (Deviation from Linearity)	Sig. = 0.537	$p > 0.05$	Linear relationship ✓
Linearity — X_3 (Deviation from Linearity)	Sig. = 0.311	$p > 0.05$	Linear relationship ✓

Source: Primary data processed using IBM SPSS Statistics 30.

Based on Table 3, all classical assumption tests confirmed that the data satisfied the prerequisites for valid multiple linear regression inference. The normality test (K-S asymptotic Sig. = 0.064 > 0.05) confirms that the residuals are normally distributed. Levene's homogeneity tests for all three predictors return significance values substantially above 0.05 (0.061, 0.181, and 0.177 respectively), confirming equal error variance across variable groups. Linearity tests yielded non-significant deviations from linearity statistics for all predictor-outcome pairs (0.929, 0.537, and 0.311, respectively), confirming appropriate linear functional forms. These results collectively validate the regression analysis.

4.1.4 Multiple Linear Regression Results

Table 4 presents the multiple linear regression coefficient. The estimated equation is as follows:

$$Y = 107.815 - 0.067X_1 + 0.493X_2 - 0.680X_3 \tag{2}$$

Table 4. Multiple Linear Regression Coefficients

Variable	B	Std. Error	β (Std.)	t	Sig.
Constant	107.815	28.593	—	3.771	0.000***
Product Quality (X_1)	−0.067	0.118	−0.053	−0.565	0.573
Price (X_2)	0.493	0.118	0.398	4.186	0.000***
Distribution (X_3)	−0.680	0.312	−0.205	−2.175	0.032*

Dependent variable: Consumer Satisfaction (Y). $n = 100$. $R^2 = 0.140$; *Adjusted* $R^2 = 0.113$; $F = 5.217$; $p = 0.002$. $^{*}p < 0.05$; $^{***}p < 0.001$.

Source: Primary data processed using IBM SPSS Statistics 30.

Based on Table 4, the constant (107.815) represents the theoretical baseline satisfaction level when all predictors are held at zero, which is a reference point that anchors the regression line but lacks direct substantive interpretation. The product quality coefficient ($\beta_1 = -0.067$) is negative but statistically non-significant ($p = 0.573$), indicating that quality variation within the observed range does not meaningfully predict satisfaction differences across consumers. The price coefficient ($\beta_2 = 0.493$) is positive and highly significant ($p = 0.000$), indicating that higher perceived price favorability is associated with substantially greater customer satisfaction. The distribution coefficient ($\beta_3 = -0.680$) was negative and statistically significant ($p = 0.032$), indicating that greater distribution involvement was paradoxically associated with lower satisfaction, a finding that requires careful theoretical interpretation.

Table 5. F-Test and Coefficient of Determination

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1,143.080	3	381.027	5.217	0.002**
Residual	7,011.360	96	73.035	—	—
Total	8,154.440	99	—	—	—

$R = 0.374$; $R^2 = 0.140$; Adjusted $R^2 = 0.113$; $^{**}p < 0.01$. Predictors: Constant, Product Quality, Price, Distribution. Dependent Variable: Consumer Satisfaction.

Source: Primary data processed using IBM SPSS Statistics 30.

Table 5 shows that the regression model is statistically significant, with an F-value of 5.217 and a significance level of 0.002 ($p < 0.05$). This result indicates that product quality, price, and distribution jointly affect consumer satisfaction, thereby supporting H_4. Furthermore, the coefficient of determination ($R^2 = 0.140$) indicates that 14.0% of the variation in consumer satisfaction can be explained by the three independent variables, while the remaining 86.0% is influenced by other factors outside the model.

4.2 Discussion

Hypothesis Testing

4.2.1 H_1: Effect of Product Quality on Consumer Satisfaction

The partial t-test for product quality yields $t = -0.565$ ($p = 0.573 > 0.05$), leading to the failure to reject H_0 and rejection of H_1: product quality does not significantly affect consumer satisfaction at UD Randu Laut. The standardized coefficient ($\beta = -0.053$) was negligibly small in absolute terms, confirming that product quality variation explained virtually no unique variance in satisfaction within this sample.

This finding, while counterintuitive relative to the dominant positive quality-satisfaction relationship documented in the broader marketing literature (Hidayati et al., 2024; Lestari et al., 2025), can be explained theoretically through the quality saturation mechanism. When product quality is maintained at a consistently acceptable level across all or most suppliers in a market, it ceases to function as a differentiating satisfaction driver. Consumers no longer discriminate satisfaction based on quality because minimum quality expectations are met universally (Zeithaml et al., 2018). In the kapok products market of East Lampung, where multiple producers maintain similar quality standards for natural fiber processing, the quality threshold may have been effectively normalized: consumers expect acceptable durability, softness, and conformance to specifications as baseline attributes rather than as differentiating premium characteristics.

An alternative theoretical interpretation draws on Oliver (1997)'s expectancy-disconfirmation theory: when quality consistently meets rather than exceeds consumer expectations, it generates satisfaction maintenance rather than satisfaction growth. The slightly negative coefficient ($\beta_1 = -0.067$) may reflect mild overpromising on quality dimensions—situations where consumer quality expectations, potentially inflated by marketing communication, are not fully met by the experienced product, generating marginally negative disconfirmation. This interpretation suggests that UD Randu Laut should focus not only on maintaining quality levels but also on calibrating consumer quality expectations through more precise product communication.

Widodo and Setyawan (2023) found a comparable non-significant quality effect in a cassava SME context in Salatiga, attributing it to the commoditized nature of the product category and the consequent inability of quality variation to discriminate satisfaction across a consumer base whose expectations have converged on a stable standard. The managerial implication is that product quality investments, while necessary to retain existing consumers, are unlikely to drive satisfaction growth in the short term. Innovation in quality dimensions that exceed current consumer expectations—such as hypoallergenic treatments, certified organic processing, or enhanced durability through improved fiber treatment—would be required to restore the discriminatory power of quality.

4.2.2 H_2: Effect of Price on Consumer Satisfaction

The partial t-test for price yields $t = 4.186$ ($p = 0.000 < 0.05$), providing strong statistical support for H_2: price significantly and positively affects consumer satisfaction at UD Randu Laut. With a standardized coefficient of $\beta = 0.398$, price is the most powerful individual predictor of satisfaction in the model, contributing substantially more unique variance than quality or distribution.

The positive direction of the price-satisfaction relationship aligns with the price-quality signaling mechanism (Monroe, 2003; Zeithaml et al., 2018): in the kapok product market, where consumers may have limited ability to objectively assess fiber quality prior to purchase, price serves as a primary quality proxy. Consumers who perceive UD Randu Laut's prices as appropriately positioned—congruent with the expected kapok quality and competitive relative to synthetic alternatives—infer value satisfaction from the price itself. This price-quality halo effect is particularly likely for natural fiber products, where perceived premiumness and environmental authenticity are reinforced by pricing that signals product quality above synthetic commodity-level alternatives.

This finding is consistent with Putri and Ariyanto (2024), who found a positive price-satisfaction relationship for an Indonesian apparel SME and attributed it to consumers' use of price as a quality signal and prestige indicator. Gultom (2024) similarly documented positive price effects on satisfaction in a service context, while Nugroho et al. (2025) confirmed price-quality congruence as the primary satisfaction-driving price dimension for food retail consumers, a finding directly applicable to UD Randu Laut's positioning.

Practically, UD Randu Laut's price-satisfaction relationship suggests that the enterprise has successfully established a price-quality association in consumers' minds: the price point communicates quality, authenticity, and natural fiber value. This is a significant strategic asset that enterprises should actively protect. Price reductions intended to drive volume may paradoxically reduce consumer satisfaction by undermining the quality signal embedded in the current pricing. Instead, the enterprise should pursue value-based pricing strategies that explicitly communicate the quality justification for price differentials relative to synthetic competitors, reinforcing the price-quality congruence perception that is currently driving satisfaction.

4.2.3 H_3: Effect of Distribution on Consumer Satisfaction

The partial t-test for distribution yielded $t = -2.175$ ($p = 0.032 < 0.05$), supporting H_3: distribution significantly affects consumer satisfaction. However, the negative coefficients ($\beta_3 = -0.680$; $\beta = -0.205$) indicate an inverse relationship: greater distribution engagement is associated with lower consumer satisfaction. This finding is statistically robust at the 5% significance level but is theoretically counterintuitive relative to the generally positive distribution-satisfaction relationship predicted by standard marketing theory.

Several theoretical mechanisms can explain this negative relationship between distribution and satisfaction. First, extended distribution channels—involving multiple intermediaries between UD Randu Laut and end consumers—may introduce quality degradation, price inconsistency, and service unreliability, which collectively undermine satisfaction. When kapok products pass through multiple intermediary stages before reaching consumers, storage conditions, handling practices, and product integrity may deteriorate in ways that are beyond the enterprise's quality control, yet are attributed by consumers to the product itself rather than to distribution failures.

Second, geographic overextension—distributing products to markets beyond the enterprise's logistical competency radius—may generate delivery delays, higher transportation costs passed on to consumers, and reduced ability to manage post-purchase service (including returns and replacements), all of which reduce satisfaction among consumers in distant markets. The enterprise's current distribution reach, which appears to extend beyond its core East Lampung consumer base, may create service expectations that cannot be reliably fulfilled across all distribution zones.

Third, the mismatch between distribution channel types and consumer access preferences may be driving negative satisfaction outcomes. If a significant portion of UD Randu Laut's consumers prefer direct-purchase interactions, where they can personally inspect product quality and negotiate terms, then increased reliance on indirect distribution channels may reduce perceived product authenticity and purchasing convenience, generating negative satisfaction outcomes despite improved geographic coverage.

This finding aligns with Kotler and Armstrong (2018)'s channel management principle that distribution strategy effectiveness is contingent on the alignment between channel design and target consumer access behavior. This echoes the concerns raised by Tanjaya and Wijaya (2019), who observed that misdirected distribution efforts—focused on geographic breadth rather than consumer access quality—can generate systematic satisfaction deficits in consumer goods SME contexts. The managerial implication is urgent: UD Randu Laut requires a comprehensive distribution strategy review to diagnose and rectify specific structural sources of distribution-generated dissatisfaction.

4.2.4 H_4: Joint Effect on Consumer Satisfaction

The F-test yields $F = 5.217$ ($p = 0.002 < 0.05$), providing statistical support for H_4: product quality, price, and distribution jointly and significantly predicted consumer satisfaction. The model's $R^2 = 0.140$ indicates that the three predictors collectively explain 14.0% of the variance in consumer satisfaction. The adjusted R^2 of 0.113 confirms that this explanatory power is not inflated by model over-parameterization.

Although the joint model is statistically significant, the R^2 of 14.0% is relatively low, indicating that a substantial proportion of satisfaction variance (86.0%) is attributable to factors outside the current model. This finding is consistent with satisfaction research in SME contexts, where factors such as service quality, personal interaction quality, brand trust, product customization, and after-sales support often account for substantial satisfaction variance that marketing mix variables alone cannot capture (Oliver, 1997; Zeithaml et al., 2018). For UD Randu Laut, an enterprise where owner-customer relational dynamics and personalized service may significantly shape satisfaction, service quality and relational dimensions are likely to be important unmeasured predictors.

The asymmetric pattern of results—positive price effect, negative distribution effect, and non-significant quality effect—is theoretically coherent with a marketing mix configuration where the pricing strategy effectively communicates value, but distribution inefficiencies undermine that value at the point of product delivery. This configuration suggests that UD Randu Laut's marketing mix is partially misaligned: the enterprise has successfully calibrated its pricing to generate value perceptions but has not yet resolved the distribution challenges that erode satisfaction outcomes for a segment of its consumer base.

5. Conclusions

This study concludes that price is the most influential factor affecting consumer satisfaction at UD Randu Laut. The regression results show that price has a positive and significant effect on consumer satisfaction, indicating that consumers perceive the company's pricing as consistent with the value and quality of its kapok products. In contrast, product quality does not significantly affect consumer satisfaction, suggesting that product quality has become a basic expectation rather than a distinguishing factor among consumers. Distribution was found to have a significant negative effect on consumer satisfaction, indicating the presence of inefficiencies in the current distribution system that may reduce consumer convenience and satisfaction. Simultaneously, product quality, price, and distribution significantly influence consumer satisfaction. However, the model explains only 14.0% of the variation in consumer satisfaction, implying that other factors beyond the marketing mix variables examined in this study also play important roles. Therefore, UD Randu Laut should maintain its value-based pricing strategy, improve distribution effectiveness, and explore additional factors such as service quality, customer relationships, and brand image to further enhance consumer satisfaction.

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Author Contributions

DVM contributed to conceptualization, data collection, formal analysis, original draft writing, and result interpretation. S contributed to supervision, methodology, validation, and manuscript review. D contributed to literature review, editing, and final manuscript approval.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this study. This research was conducted independently, and no financial or personal relationships influenced the results or interpretation of the findings.

References

Badan Pusat Statistik Provinsi Lampung. (2022). *Lampung province in figures 2022*.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Farkhah, S. B. (2022). Accidental sampling technique in consumer behavior research. *Jurnal Metodologi Penelitian Sosial*, *4*(1), 12–19.

Gultom, P. (2024). The effect of price and service quality on consumer satisfaction using the services of cv. indo prima medan. *Senashtek 2024*, *2*(1), 336–342.

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

Hatmawan, A. A., & Riyanto, S. (2020). *Quantitative research methods: Research in management, engineering, education, and experimentation*. CV Budi Utama.

Hidayati, A. P., Paningrum, D., & Mutiasari, A. I. (2024). Pengaruh kualitas produk, harga dan brand image terhadap kepuasan konsumen batik iskandartex surakarta. *JEMSI (Jurnal Ekonomi, Manajemen, dan Akuntansi)*, *10*(2). https://doi.org/10.35870/jemsi.v10i2.2124

Hudaya, A. (2022). Building repurchase intention in msmes through product and service quality strategies on customer satisfaction. *Jurnal Bisnis, Ekonomi, Manajemen, dan Kewirausahaan*, *2*(2), 61–71. https://doi.org/10.52909/jbemk.v2i2.110

Kotler, P., & Armstrong, G. (2018). *Principles of marketing* (17th ed.). Pearson Education.

Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson Education.

Lestari, D. A., Mayasari, F. K., Khusniah, K., Safira, I. K., Rumsiyah, S., & Qomariah, N. (2025). Pengaruh kualitas produk dan harga terhadap kepuasan konsumen mie gc jember. *Jurnal Mahasiswa Entrepreneurship (JME)*, *4*(1), 188–200. https://doi.org/10.36841/jme.v4i1.5718

Maheswara, D., Sukesi, S., & Aditya, M. M. (2023). Effect of service quality and facilities on customer satisfaction at port of indonesia benoa branch. *Jurnal Bisnis, Ekonomi, Manajemen, Dan Kewirausahaan*, *3*(2), 62–71. https://doi.org/10.52909/jbemk.v4i2.171

McCarthy, E. J. (1964). *Basic marketing: A managerial approach*. Irwin.

Misra, S., Pedada, K., & Sinha, A. (2022). A theory of marketing's contribution to customers' perceived value. *Journal of Creating Value*, *8*(2), 219–240. https://doi.org/10.1177/23949643221118152

Monroe, K. B. (2003). *Pricing: Making profitable decisions* (3rd ed.). McGraw-Hill.

Mulyadi, M., Sukesi, S., & Budiman, S. (2022). The impact of service quality on client satisfaction: Trust as mediator, brand image as moderator. *Jurnal Bisnis, Ekonomi, Manajemen, Dan Kewirausahaan*, *2*(1), 42–51. https://doi.org/10.52909/jbemk.v4i2.185

Nasikah, D., Suwarto, S., & Yusuf, D. A. A. (2023). The effect of brand image, product quality, and service quality on user trust of the grabfood application in metro city. *Prosiding Konferensi Ilmiah Akuntansi*, *10*, 1–12.

Nugroho, A. P., Rahayu, S., & Pratama, R. (2025). Pengaruh rasa, kualitas produk, dan harga terhadap kepuasan konsumen di mie gacoan tarum barat, bekasi. *Jurnal Keuangan dan Manajemen Terapan*, *6*(1), 140–150.

Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer* (2nd ed.). Routledge.

Peringki, P., Anggraeni, D., & Sari, L. (2024). Analysis of public satisfaction index of public services at the investment and one-stop integrated services office of south bengkulu regency. *Tractare: Jurnal Ekonomi-Manajemen*, *7*(1), 63–72. https://doi.org/10.62820/trt.v7i1.139

Purba, M. L., Hutagalung, Y. L., Tambunan, E., & Purba, R. R. (2025). Marketing management and consumer behavior perspective on customer satisfaction: The role of service quality and brand image in modern retail. *Vifada Management and Social Sciences*, *3*(2), 29–41. https://doi.org/10.70184/t7fv0w69

Putri, J. M. A., & Ariyanto, A. (2024). Pengaruh harga, kualitas produk dan promosi terhadap keputusan pembelian dengan kepuasan konsumen sebagai variabel intervening. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA)*, *9*(1), 645–659. https://doi.org/10.31955/mea.v9i1.5447

Qatawneh, N., Al-Okaily, A., Al-Okaily, M., & Ur Rehman, S. (2025). Exploring the antecedent factors of continuous intention to use mobile money: Insights from emerging markets. *Digital Policy, Regulation and Governance*, *27*(2), 175–200. https://doi.org/10.1108/DPRG-04-2024-0080

Ramadhan, D. P., & Anas, H. (2024). Pengaruh kualitas produk, kualitas pelayanan, dan harga terhadap kepuasan pelanggan pada usaha fotocopy 66 di bumi sani bekasi timur. *Jurnal Ilmiah Ekonomi dan Manajemen*, *2*(8), 300–313. https://doi.org/10.61722/jiem.v2i8.2291

Salman, A. B., Jamaluddin, A., & Bakti, A. (2022). Pengaruh distribusi air bersih terhadap kepuasan pelanggan di perusahaan umum daerah (perumda) air minum tirta danau tempe kabupaten wajo. *Precise Journal of Economic*, *1*(2), 32–51.

Saribanon, E., Pratiwi, R. D., & Tasran, C. (2023). The effect of facilities and service quality on passenger satisfaction at an international airport. *Journal of Economics, Management, Entrepreneurship, and Business*, *3*(2), 70–80. https://doi.org/10.52909/jemeb.v1i1.17

Schubert, M., Panzarasa, G., & Burgert, I. (2022). Sustainability in wood products: A new perspective for handling natural diversity. *Chemical Reviews*, *123*(5), 1889–1924. https://doi.org/10.1021/acs.chemrev.2c00360

Setyawati, A., Huda, M. N., Suripno, S., & Tannady, H. (2021). Analysis of integrated bus terminal services and their impact on customer satisfaction at pulo gebang. *Journal of Economics, Management, Entrepreneurship, & Business*, *1*(1), 44–55. https://doi.org/10.52909/jemeb.v1i1.5

Subagiyo, R., Aziz, M., & Hadziq, M. F. (2019). Citra perusahaan, kualitas pelayanan dan saluran distribusi terhadap kepuasan nasabah. *At-Tijaroh: Jurnal Ilmu Manajemen dan Bisnis Islam*, *5*(2), 280–295. https://doi.org/10.24952/tijaroh.v5i2.1844

Sugiyono. (2020). *Quantitative, qualitative, and r&d research methods*. CV Alfabeta.

Sun, B., Zhang, Y., & Zheng, L. (2023). Relationship between time pressure and consumers' impulsive buying—role of perceived value and emotions. *Heliyon*, *9*(12). https://doi.org/10.1016/j.heliyon.2023.e23185

Supardi, S. (2023). Determinant motivation and path career: Analysis competence, job satisfaction and leadership. *Journal of Economics, Management, Entrepreneurship, and Business*, *3*(1), 18–33. https://doi.org/10.52909/3m61eq57

Tanjaya, V., & Wijaya, W. (2019). Pengaruh saluran distribusi dan personal selling terhadap kepuasan pelanggan pada pt. bilah baja makmur abadi. *Jurnal Manajemen*, *5*(2), 145–152.

Unterkalmsteiner, M., & Abdeen, W. (2023). A compendium and evaluation of taxonomy quality attributes. *Expert Systems*, *40*(1), e13098. https://doi.org/10.1111/exsy.13098

Varadarajan, R. (2023). Resource advantage theory, resource based theory, and theory of multimarket competition: Does multimarket rivalry restrain firms from leveraging resource advantages? *Journal of Business Research*, *160*, 113713. https://doi.org/10.1016/j.jbusres.2023.113713

Wardhani, P. I., & Ully, L. R. R. (2021). The effect of competence and staff placement on performance with job satisfaction as a mediating variable. *Jurnal Bisnis, Ekonomi, Manajemen, Dan Kewirausahaan*, *1*(2), 108–119. https://doi.org/10.52909/jbemk.v4i2.187

Widodo, T., & Setyawan, A. (2023). Pengaruh kualitas produk, harga, promosi, dan distribusi terhadap kepuasan konsumen produk olahan singkong dan ubi jalar yaska 57 tingkir, salatiga. *Among Makarti*, *16*(1), 45–58. https://doi.org/10.52353/ama.v16i1.409

Wijaya, C., & Zai, I. (2024). Factors that influence customer loyalty through brand trust in batam franchised ice cream shops. *Management and Sustainable Development Journal*, *6*(2), 68–80. https://doi.org/10.46229/msdj.v6i2.834

Wijayanto, I., & Purnomo, B. R. (2023). Influence of jobship and organizational culture on employee performance with job satisfaction at kranggan office. *Jurnal Bisnis, Ekonomi, Manajemen, Dan Kewirausahaan*, *3*(1), 32–42. https://doi.org/10.52909/jbemk.v4i2.178

Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2018). *Services marketing: Integrating customer focus across the firm* (7th ed.). McGraw-Hill Education.