

The Effect of Product Quality on Purchase Decisions through Price Fairness as a Mediating Variable Among Customers of Coffee Shop X in Bandung

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Abstract

Increasing competition in the coffee industry, particularly among micro, small, and medium-sized enterprises (MSMEs), has intensified the price-quality paradox, in which products offered at relatively low prices are often perceived as lower in quality despite their actual excellence. This study addresses this gap by examining the mediating role of price fairness in the relationship between product quality and purchase decisions at Coffee Shop X, an organic-coffee MSME in Bandung. Guided by the Stimulus-Organism-Response (S-O-R) framework, data were collected from 369 consumers and analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS). The measurement model demonstrated satisfactory validity and reliability. Product quality explained 52.7% of the variance in price fairness ($R^2 = 0.527$), while product quality and price fairness jointly explained 53.1% of the variance in purchase decisions ($R^2 = 0.531$), indicating moderate explanatory power. Product quality significantly influenced price fairness ($\beta = 0.729$; $p < 0.001$) and purchase decisions ($\beta = 0.309$; $p = 0.004$), whereas price fairness significantly influenced purchase decisions ($\beta = 0.473$; $p < 0.001$) and complementarily partially mediated the relationship between product quality and purchase decisions (indirect effect = 0.345; $p < 0.001$; VAF = 52.8%). The findings extend the S-O-R framework by establishing price fairness as a key psychological mechanism linking product quality to purchase decisions under conditions of price-quality ambiguity.

Keywords: product quality, price fairness, purchase decision, price-quality paradox, SEM-PLS

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INTRODUCTION

Indonesia is one of the major players in the global coffee landscape. According to data from the Ministry of Agriculture and the International Coffee Organization, Indonesia is the world's fourth-largest coffee producer after Brazil, Vietnam, and Colombia, with production reaching approximately 774,000 metric tons in 2022 (BPS, 2023). Domestic per-capita consumption nearly doubled from 1.0 kg/year in 2013 to 1.8 kg/year in 2023 (AEKI, 2025), reflecting a shift in the national coffee industry from exporting raw materials toward developing value-added products, and the rise of a "third wave" era marked by growing appreciation for specialty coffee and story-driven coffee shops, with the market projected to grow at a CAGR of 11% through 2030 (Redseer Strategy Consultants, 2025).

Competition among coffee MSMEs is intensifying, particularly in Bandung, which has an estimated 600 active coffee shops. This requires every business owner to build a measurable unique selling point-ranging from product quality and concept to appropriate pricing-as a minimum requirement for survival (Purwanto, 2025), making consumer perceptions of quality and price fairness a strategic variable that cannot be ignored (Simbolon & Husda, 2025).

Coffee Shop X is one such organic-coffee MSME in Bandung, using Grade 1 coffee beans with a cupping score of at least 85 according to the Specialty Coffee Association's classification, yet pricing its products at only Rp10,000-Rp20,000-far below similar competitors. This gap between premium-quality claims and unusually low prices is precisely the condition under which consumers are most likely to question whether the price genuinely reflects the value delivered.

The Price-Quality Paradox as the Core Research Problem

A preliminary survey of 23 active Coffee Shop X customers illustrates this problem directly. On one hand, 95.7% of respondents agreed that Coffee Shop X's prices were more affordable than competitors' (mean = 4.30); on the other hand, 87.0% stated that these low prices actually raised doubts about product quality (mean = 4.22). This is a price-quality paradox in the classical sense described by cue-utilization research: rather than being read as a bargain, an unusually low price is read as a negative quality signal (Senali et al., 2024). The same pattern appeared for the specific quality claims at stake-65.2% of respondents were skeptical of the organic and Grade-1 claims (means of 2.61 and 2.35), and 60.9% felt the flavor did not reflect premium quality (mean = 2.30)-and it carried through to behavior: 60.9% of respondents said their confidence in quality was not yet strong enough to drive a purchase, and 87.0% agreed that quality doubts could reduce their desire to buy. This paradox, rather than the broader industry narrative, is treated in this study as the central research problem: it is the mechanism by which an objectively strong product can still under-perform commercially because price is being used as an inferential cue for quality.

Coffee Shop X's internal sales record for January-June 2026 shows considerable month-to-month fluctuation-from Rp50,256,050 in January to Rp39,031,550 in February (a 22.3% decline), a rebound to Rp65,519,850 in March, and a further decline to Rp51,573,300 in June, for a six-month total of Rp328,409,800. These fluctuations are consistent with, though not direct proof of, the consumer uncertainty identified in the preliminary survey, since sales can equally be shaped by seasonality, promotions, competition, operating days, distribution, or macroeconomic conditions that lie outside this study's scope. The sales data are therefore presented here as contextual motivation for the research problem rather than as empirical evidence that the fluctuations were caused by quality or price-fairness perceptions.

The relationship between product quality, price fairness, and purchasing decisions has been studied across a range of Indonesian coffee brands, including Fore Coffee (Ica & Sari, 2024), Kopi Kenangan (Widayat & Yuniarsih, 2022), and various coffee shops more broadly (Amellinda et al., 2023). These studies, however, are not fully consistent in how they position price fairness: some treat it as an antecedent of purchase decisions alongside product quality (Astanto et al., 2024), while others model it as a direct, independent predictor of purchase decisions without testing whether it channels the effect of quality (Maulidina et al., 2025). None of them tests price fairness as the mechanism that explains how product quality is translated into a purchase decision, and research on organic-coffee MSMEs built around a single local subject remains limited (Simbolon & Husda, 2025; Wuryan & Wahid, 2025).

Explaining this mechanism requires more than invoking marketing management as a general discipline; it requires a theory of how an external stimulus (quality) produces an internal evaluative state (fairness) that in turn drives behavior (purchase). This study adopts a Stimulus-Organism-Response (S-O-R) framework combined with price-quality inference/cue-utilization theory and equity (distributive-justice) reasoning to build that explanation, detailed in the next section.

Building on this problem framing, this study offers a two-fold novelty. Theoretically, it repositions price fairness as a mediating psychological mechanism-rather than a stand-alone independent or dependent variable-explaining how the price-quality paradox is resolved (or not) in consumers' minds before it manifests as a purchase decision. Contextually, it tests this mechanism in an underexplored setting: a single organic-coffee MSME operating under an unusually pronounced price-quality gap. Accordingly, this study aims to determine the levels of perceived product quality, price fairness, and purchase decisions among consumers of Coffee Shop X, and to test the effect of product quality on price fairness, the effect of price fairness on purchase decisions, the direct effect of product quality on purchase decisions, and the mediating role of price fairness in the relationship between product quality and purchase decisions.

THEORETICAL REVIEW AND HYPOTHESIS DEVELOPMENT

This study anchors its reasoning in a Stimulus-Organism-Response (S-O-R) framework (Mehrabian & Russell, 1974), in which an external stimulus evokes an internal organismic evaluation that subsequently produces a behavioral response. Here, product quality is conceptualized as the external stimulus; price fairness represents the organism's internal cognitive-affective evaluation of that stimulus; and the purchase decision constitutes the behavioral response. This S-O-R sequence is given explicit causal content through two complementary mechanisms. First, price-quality inference/cue-utilization theory (Olson, 1977; Rao & Monroe, 1989) explains why consumers use observable quality cues to judge whether a given price is justified, and why an unusually low price-as at Coffee Shop X-can be read as a negative quality signal rather than a bargain. Second, equity or distributive-justice reasoning (Adams, 1965; Xia et al., 2004) explains why a favorable ratio between price paid and benefits received is experienced as "fair," and how that fairness judgment then motivates or inhibits purchase behavior. Together, these two mechanisms specify the causal pathway from quality perception to fairness judgment to purchase decision that the broader discipline of marketing management (Kotler & Keller, 2016) describes only at the level of value creation and delivery, and that this study narrows to a testable, sequential mechanism. Consumer behavior theory (Priansa, 2017; Schiffman & Wisenblit, 2019) supplies the individual-level lens through which this S-O-R sequence is examined.

Product Quality

Product quality is defined as a product's ability to satisfy consumer needs and desires through its inherent characteristics, relative to consumer expectations, and serves as a central element in the creation of value and consumer satisfaction (Kotler & Armstrong, 2021). It is also understood as consumers' subjective perception of a product's overall superiority relative to competing products, shaped not only by physical attributes but also by consumption experience, promotion, and brand reputation (Schiffman & Wisenblit, 2019). Empirical research indicates that product quality is a key determinant of purchase decisions, particularly for value-added products (Astanto et al., 2024).

Product quality is measured across five dimensions according to Garvin (1987): (1) performance, the product's ability to deliver benefits in accordance with its intended function; (2) features, additional attributes that provide added value; (3) reliability, the product's ability to consistently maintain its quality; (4) conformance, the product's compliance with established standards or specifications; and (5) aesthetics, the visual and sensory characteristics that make the product appealing. For organic coffee, quality is assessed not only through sensory attributes such as taste, aroma, and brew consistency, but also through environmentally friendly and chemical-free production processes. Wuryan and Wahid (2025) demonstrated that product quality positively influences consumers' purchase decisions at coffee shops.

Price Fairness

Price fairness refers to consumers' perception of the extent to which a product's price is reasonable, fair, and acceptable in a transaction; this perception is formed through consumers' subjective evaluation of the alignment between the price paid and the benefits received (Kim & Moon, 2025; Xia et al., 2004). Read through equity theory (Adams, 1965), this is fundamentally a comparison between what a consumer gives up-monetary cost, effort, time, or risk-and the value received, benchmarked against a reference standard such as competitors' prices or the consumer's own expectations (Monroe, 2003; Asadi et al., 2014, as cited in Valentino & Ekawati, 2025). Perceived price fairness therefore reflects consumers' assessment of both the outcome of a transaction and the process used to reach it (Parry et al., 2021, as cited in Bernarto et al., 2022).

According to Indira and Santoso (2020), Gumussoy and Koseoglu (2016), and Herrmann et al. (2007), price fairness is measured across five dimensions: reasonable/fair pricing, pricing accuracy, the appropriateness of pricing policies, ethical pricing, and customer acceptance of prices. Consumers tend to be more willing to purchase products whose prices are perceived as fair and commensurate with quality (Astanto et al., 2024). Kaatz et al. (2019) note that price fairness influences satisfaction and repurchase intent, particularly for premium-priced products, while Maulidina et al. (2025) found that price fairness significantly influences purchasing decisions.

Purchase Decision

A purchase decision is the process of selecting a product from among alternatives to satisfy consumers' needs and wants, representing the outcome of consumers' rational evaluation of perceived value (Kotler & Keller, 2016)-in S-O-R terms, the behavioral response to the stimulus-organism sequence described above. This process results from the interaction between cognitive and affective processes shaped by consumer perceptions (Schiffman & Wisenblit, 2019).

Because every respondent in this study had previously purchased and consumed Coffee Shop X's products, and the sample profile shows a large share of repeat customers

(41.7% purchasing 3-5 times per month), it is necessary to clarify precisely what the purchase-decision construct captures here. This study adapts four of the five purchase-decision dimensions from Al-Faatihah et al. (2023)-product choice, brand choice, channel choice, and purchase quantity-whose indicators ask respondents to report choices they actually make or have made when buying Coffee Shop X's products (e.g., which product, which outlet or channel, how much). These indicators describe realized or currently made purchase choices, not a forward-looking willingness to repurchase, brand loyalty, or repurchase intention, which would instead require items about anticipated future behavior or attitudinal commitment (cf. Kaatz et al., 2019, on repurchase intent as a distinct construct). Because the measured content is choice-based rather than intention-based, the construct is retained in this study as "Purchase Decision" rather than relabeled as "Repurchase Intention" or "Repeat Purchase Decision," consistent with the principle that the construct label should follow the content of the indicators rather than the repeat-buying profile of the sample alone.

The fifth dimension in Al-Faatihah et al. (2023), purchase timing, was not adapted. This exclusion is justified on conceptual grounds rather than mere product availability. Purchase timing is most diagnostic for durable or infrequently purchased goods, where consumers face a discrete, deliberate decision about when to buy (Kotler & Keller, 2016); ready-to-drink coffee, by contrast, is a low-involvement, habitually and frequently purchased product whose timing is triggered by situational need rather than a distinct evaluative decision, so that a timing dimension would be expected to add little discriminant content to the construct in this context. A further, practical justification is that the timing-related item content substantially overlaps with the purchase-quantity/frequency indicators already retained, which would risk indicator redundancy rather than genuine dimensional breadth. Future studies could nonetheless re-test the timing dimension empirically-for example through a pilot content-validity check-before excluding it on conceptual grounds alone.

Hypothesis Development

Product quality is a key determinant in the consumer purchase-decision process. High-quality products provide functional and emotional benefits that meet consumer expectations, thereby increasing the likelihood of purchase (Kotler & Armstrong, 2021). Astanto et al. (2024) found that product quality is a dominant driver of purchase decisions, and Wuryan and Wahid (2025) reported a similar finding among coffee shop consumers.

H1: Product quality has a positive effect on the purchase decisions of consumers at Coffee Shop X.

Cue-utilization theory holds that consumers rely on available intrinsic cues (e.g., taste, aroma) and extrinsic cues (e.g., price, packaging) to infer unobservable quality and to judge whether a price is commensurate with the value delivered (Olson, 1977; Rao & Monroe, 1989). When intrinsic quality cues are judged to be strong, consumers are more likely to interpret even an unusually low price as a fair reflection of value rather than as a sign of inferior quality; when quality cues are weak or ambiguous, the same low price instead intensifies doubt-precisely the price-quality paradox observed in Coffee Shop X's preliminary survey. Astanto et al. (2024) similarly note that a mismatch between quality and price can produce perceptions of unfairness.

H2: Product quality has a positive effect on price fairness among consumers at Coffee Shop X.

Equity theory (Adams, 1965) and distributive-justice reasoning applied to pricing (Xia et al., 2004) suggest that consumers compare the price paid against the benefits received and judge the outcome as fair when this ratio matches a relevant reference standard. This fairness

judgment functions as the internal “organism” state in the S-O-R sequence: it either reinforces or undermines consumers' confidence in a transaction and, in doing so, shapes the purchase decision as the resulting behavioral “response.” Astanto et al. (2024) show that consumers are more likely to purchase when prices are perceived as fair, and Indriani and Prawoto (2024) find that fair-pricing perceptions increase purchase decisions at coffee shops.

H3: Price fairness has a positive effect on consumers' purchasing decisions at Coffee Shop X.

Integrating these two mechanisms yields the mediation logic tested in this study. Product quality (stimulus) does not translate into a purchase decision (response) solely through its direct functional benefits; it does so importantly by first passing through consumers' price-quality inference process, which determines whether the price is judged fair (organism), and that fairness judgment then determines the strength of the purchase decision. In other words, good product quality reduces the price-quality inference problem, increases the perceived fairness of the price, and thereby increases consumers' confidence in the transaction. Comparable mediating roles for price fairness have been documented in other contexts, such as its mediation between green product quality and the decision to purchase electric vehicles (Xu et al., 2025), and its full mediation between cost transparency and purchase intention for Fairtrade products (Casteran, 2024).

H4: Price fairness mediates the effect of product quality on consumers' purchase decisions at Coffee Shop X.

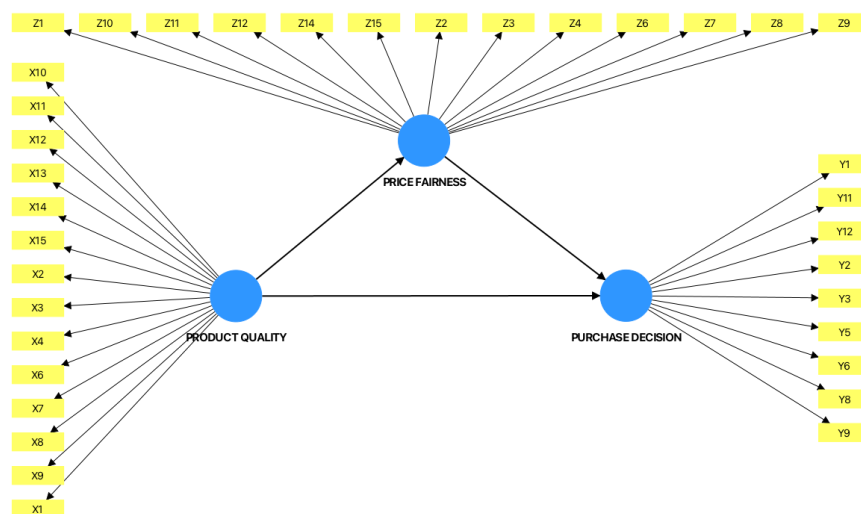


Figure 1
Conceptual Framework

RESEARCH METHODS

This study employs a quantitative approach with a cross-sectional design to objectively and measurably test the influence of product quality and price fairness on purchase decisions based on empirical data (Sugiyono, 2022). The approach is descriptive and confirmatory: descriptive in illustrating consumers' perceptions of the three research variables, and confirmatory in testing the formulated hypotheses (Sugiyono, 2022). The research object is Coffee Shop X, an organic-coffee MSME in Bandung, and the research subjects are consumers who have purchased and consumed its products; as clarified above, the purchase-

decision items accordingly capture realized purchase choices rather than future repurchase intention.

The research population consists of all Coffee Shop X consumers, whose exact number is unknown; a non-probability purposive-sampling technique was therefore employed. Screening used a filter question at the start of the questionnaire, and respondents were retained only if they met all of the following criteria: (1) aged 17 years or older, consistent with the legal age of consent for independent survey participation in Indonesia; (2) had purchased and personally consumed at least one Coffee Shop X product on at least two separate occasions, so that responses reflect an actual, repeated consumption experience rather than a single incidental transaction; and (3) had their most recent purchase and consumption experience within the three months preceding data collection, to bound the recall period and reduce the risk of memory decay or recall bias in reporting perceptions of quality, price fairness, and purchase choices. Respondents who did not meet all three criteria were automatically excluded by the Google Forms skip logic before proceeding to the main questionnaire.

Sample size was determined using a statistical-power-oriented approach appropriate for PLS-SEM, rather than relying on a single heuristic. As a preliminary benchmark, the indicators-times-ten rule was applied using the 14 measurement dimensions summarized in Table 1 (five for Product Quality, five for Price Fairness, and four for Purchase Decision) multiplied by a factor of 20, suggesting a minimum of 280 respondents (Chaniago et al., 2023). This was then cross-checked against Cohen's (1992) statistical power tables as adapted for PLS-SEM by Hair et al. (2018): for the most complex construct in the model (Purchase Decision, with two predictor arrows from Product Quality and Price Fairness), achieving 80% power at a 5% significance level to detect a minimum R^2 of 0.10 requires a minimum sample of approximately 147 respondents. This was further cross-validated using the inverse-square-root method (Kock & Hadaya, 2018): assuming a conservative minimum anticipated path coefficient of 0.10, the required minimum sample at 80% power and 5% significance is approximately 618 respondents, whereas using the smallest structural path coefficient actually estimated in this study ($\beta = 0.309$ for H1), the corresponding minimum requirement is approximately 65 respondents. Taken together, these benchmarks indicate that the achieved sample of 369 respondents provides adequate statistical power to detect the hypothesized effects, and exceeds the minimum thresholds under all three approaches except the most conservative inverse-square-root estimate for very small (0.10) anticipated effects, which none of the hypothesized paths in this study's final model approached.

Operational Definitions and Measurement

Table 1 summarizes the operational definition, dimensions, number of items, and measurement source for each construct, together with the scale-adaptation procedure used to translate and contextualize the original items for Coffee Shop X's organic-coffee setting.

Construct	Operational Definition	Dimensions	Items (initial → final)	Measurement Source
Product Quality	Consumers' perceived ability of Coffee Shop X's products to satisfy needs and expectations through their inherent	Performance; Features; Reliability; Conformance; Aesthetics	15 → 14	Garvin (1987)

	characteristics (Kotler & Armstrong, 2021)			
Price Fairness	Consumers' subjective evaluation of whether Coffee Shop X's price is reasonable, fair, and acceptable relative to the benefits received (Xia et al., 2004; Kim & Moon, 2025)	Reasonable/fair pricing; Pricing accuracy; Appropriateness of pricing policy; Ethical pricing; Customer acceptance of price	15 → 13	Indira & Santoso (2020); Gumussoy & Koseoglu (2016); Herrmann et al. (2007)
Purchase Decision	Consumers' realized choices when purchasing Coffee Shop X's products, reflecting the behavioral outcome of their evaluation of quality and price fairness (Kotler & Keller, 2016)	Product choice; Brand choice; Channel choice; Purchase quantity (Purchase timing excluded; see justification above)	12 → 9	Al-Faatihah et al. (2023)

Table 1. Operational Definitions and Measurement

Data were collected via an online questionnaire using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) distributed through Google Forms, supplemented by observation as supporting data to understand the field context (Sugiyono, 2022). Data were analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) with SmartPLS 4, a method suited to testing causal relationships among reflective latent constructs, that does not require normally distributed data, and that is appropriate for moderate sample sizes (Hair et al., 2018; Ghazali, 2023). The analysis proceeded in two stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model)

Measurement Model Evaluation (Outer Model)

The outer model was evaluated using convergent-validity tests (outer loadings ≥ 0.70 and Average Variance Extracted/AVE ≥ 0.50), discriminant-validity tests (Fornell-Larcker criterion and Heterotrait-Monotrait Ratio/HTMT < 0.90), and construct-reliability tests (Cronbach's Alpha and Composite Reliability ≥ 0.70) (Hair et al., 2018; Henseler et al., 2015; Ghazali, 2023).

Evaluation of the Structural Model (Inner Model)

The inner model was evaluated using: the coefficient of determination (R^2), with categories of 0.75 (strong), 0.50 (moderate), and 0.25 (weak); effect size (f^2), with categories of 0.02 (small), 0.15 (medium), and 0.35 (large); inner Variance Inflation Factor (VIF) to assess structural collinearity among predictor constructs, with values below 3.3 (and ideally below 3.0) indicating no problematic collinearity (Hair et al., 2018); predictive relevance (Q^2) obtained via the blindfolding procedure, with $Q^2 > 0$ indicating that the model has predictive relevance for a given endogenous construct (Hair et al., 2018; Ghazali, 2023); and path-significance tests via bootstrapping, with hypotheses accepted when $t > 1.96$ and $p < 0.05$ at a 5% significance level. Mediation type was determined by the significance and sign of direct and

indirect effects (Zhao et al., 2010; Hair et al., 2018); VAF is reported as a supplementary magnitude indicator only.

Common Method Bias (CMB) was addressed both procedurally and statistically. Procedurally, respondent anonymity was assured, the product-quality, price-fairness, and purchase-decision item blocks were separated and presented in different sections of the questionnaire, and several items were reverse-worded to reduce consistency motifs (Podsakoff et al., 2003). Statistically, Harman's Single-Factor Test was conducted as an initial, exploratory diagnostic (Podsakoff et al., 2003; Kock, 2021); because this test is a limited diagnostic for a single cross-sectional, self-reported survey, it was supplemented with a full collinearity assessment using inner and outer VIF values, following Kock's (2015) approach, in which VIF values below 3.3 for all constructs are treated as evidence that CMB is unlikely to be a serious concern in the structural model.

RESULTS AND DISCUSSION

Respondent Characteristics

The study involved 369 respondents who were customers of Coffee Shop X. By gender, there were 207 male respondents (56.1%) and 162 female respondents (43.9%). By age, the 20-27 group was largest at 189 respondents (51.2%), followed by 28-34 at 84 respondents (22.8%), under 20 at 65 respondents (17.6%), and over 35 at 31 respondents (8.4%). By occupation, students were the largest group at 123 respondents (33.3%), followed by private-sector employees at 114 (30.9%), civil servants at 79 (21.4%), entrepreneurs at 46 (12.5%), and others at 7 (1.9%). The majority of respondents purchased 3-5 times per month (41.7%), indicating that most were repeat customers-consistent with the clarification above that the purchase-decision items in this study capture realized purchase choices made by an already-engaged customer base, rather than first-time adoption decisions.

Common Method Bias: Harman's Single-Factor Test

Harman's single-factor test showed that the first unrotated factor explained 47.1% of the total variance, below the recommended 50% threshold, indicating that common method bias is unlikely to be a concern (Podsakoff et al., 2003). This finding was further supported by the full-collinearity VIF assessment (Kock, 2015), where all VIF values were below 3.3, confirming the absence of substantial common method bias. Therefore, the subsequent measurement and structural model results can be interpreted with confidence.

Component	Eigenvalue	Variance Proportion	Cumulative Variance
1	16.949	47.1%	47.1%
2	2.415	6.7%	53.8%
3	1.889	5.2%	59.0%
4	0.863	2.4%	61.4%
5	0.839	2.3%	63.8%

Table 2. Harman's Single-Factor Test

Source: SmartPLS 4 (2026) data analysis results

Evaluation of the Measurement Model (Outer Model)

The initial measurement model identified six indicators (X5, Z5, Z13, Y4, Y7, and Y10) with outer loadings below the recommended threshold of 0.70. Following Hair et al. (2018), indicators with loadings between 0.40 and 0.70 were not removed automatically. Instead, each

indicator was evaluated based on its contribution to Composite Reliability (CR) and Average Variance Extracted (AVE), as well as its conceptual relevance to the construct. Indicators were removed only when their elimination improved the measurement properties without compromising content validity.

After purification, all remaining indicators exceeded 0.70: 0.745-0.819 for Product Quality, 0.718-0.797 for Price Fairness, and 0.714-0.823 for Purchase Decision, meeting the convergent-validity criterion.

Construct	Cronbach's Alpha	rho_A	rho_C	AVE	Interpretation
Product Quality	0,949	0,950	0,955	0,604	Meets the criteria
Price Fairness	0,937	0,938	0,945	0,571	Meets the criteria
Purchase Decision	0,912	0,914	0,928	0,588	Meets the criteria

Table 3. Convergent Validity and Construct Reliability

Source: SmartPLS 4 (2026) data analysis results

All AVE values exceed 0.50 (0.571-0.604), indicating each construct explains more than 50% of the variance in its indicators and satisfies convergent validity. Cronbach's Alpha (0.912-0.949) and Composite Reliability/rho_C (0.928-0.955) are all well above 0.70, indicating strong construct reliability.

Collinearity Statistics (VIF)

Indicator-level VIF was also examined as part of the outer model assessment. All 36 retained indicators were examined as part of a full-collinearity assessment (Kock, 2015). VIF values ranged from 1.763 to 2.810, well below the conservative threshold of 3.3 (and the more lenient threshold of 5), indicating that neither vertical nor lateral collinearity-and, by extension, common method bias assessed through the full-collinearity approach-is a serious concern in this model, corroborating the Harman's single-factor test result reported above.

Product Quality Indicator	VIF	Price Fairness Indicator	VIF	Purchase Decision Indicator	VIF
X1	2.197	Z1	2.520	Y1	2.500
X2	2.810	Z2	2.528	Y2	2.196
X3	2.378	Z3	2.108	Y3	2.047
X4	2.293	Z4	2.204	Y5	2.228
X6	2.258	Z6	2.104	Y6	1.763
X7	2.501	Z7	2.098	Y8	2.073
X8	2.169	Z8	2.136	Y9	1.892
X9	2.440	Z9	2.321	Y11	2.339
X10	2.115	Z10	1.941	Y12	1.789
X11	2.154	Z11	2.100		
X12	2.558	Z12	2.301		
X13	2.327	Z14	1.962		
X14	2.674	Z15	2.423		
X15	2.408				

Table 4. Indicator-Level Collinearity Statistics (Outer VIF)

Source: SmartPLS 4 (2026) data analysis results

Discriminant validity was assessed using the Fornell-Larcker criterion and HTMT, reported in Tables 5 and 6.

Construct	Purchase Decision	Product Quality	Price Fairness
Purchase Decision	0.767	-	-
Product Quality	0.649	0.777	-
Price Fairness	0.699	0.726	0.756

Table 5. Fornell-Larcker Criterion (diagonal = $\sqrt{\text{AVE}}$; off-diagonal = inter-construct correlations)

Source: SmartPLS 4 (2026) data analysis results

The $\sqrt{\text{AVE}}$ values on the diagonal (0.756-0.777) exceed the inter-construct correlations off the diagonal in every row and column, satisfying the Fornell-Larcker criterion.

Construct	Purchase Decision	Product Quality	Price Fairness
Purchase Decision	-	-	-
Product Quality	0.695	-	-
Price Fairness	0.753	0.767	-

Table 6. Heterotrait-Monotrait Ratio (HTMT) Matrix

Source: SmartPLS 4 (2026) data analysis results

All HTMT values (0.695-0.767) are below the 0.90 threshold (Henseler et al., 2015); together with the Fornell-Larcker results above, discriminant validity is met, and the three constructs are empirically distinct.

Descriptive Analysis

All three variables obtained mean scores above 4.00 on a 1-5 scale, corresponding to the “good” category on the Sekaran and Bougie (2016) scale. Price Fairness had the highest mean score (4.120, SD = 0.942), followed by Purchase Decision (4.061, SD = 0.979) and Product Quality (4.042, SD = 1.010). Standard deviations smaller than the means for all three variables indicate relatively homogeneous perceptions, suggesting that, at the aggregate level, consumers hold positive perceptions of product quality, price fairness, and purchase decisions at Coffee Shop X-even though the preliminary survey showed that specific quality claims (organic, Grade 1) remained a source of skepticism for a majority of pre-survey respondents. This reflects the difference in scope: the descriptive means summarize the full sample, whereas the preliminary survey targeted skepticism about specific quality claims among a smaller pre-study group.

Evaluation of Structural Models (Inner Models)

Endogenous Variable	R-square	R-square Adjusted	Interpretation
Purchase Decision	0,531	0,528	Moderate
Price Fairness	0,527	0,526	Moderate

Table 7. R-Square Values

Source: SmartPLS 4 data analysis results (2026)

The R^2 for Purchase Decision (0.531) indicates that 53.1% of its variation is explained jointly by Product Quality and Price Fairness, while the R^2 for Price Fairness (0.527) indicates that 52.7% of its variation is explained by Product Quality alone. Both fall into the moderate category (Ghozali, 2023).

Relationship Between Variables	f-square	Interpretation
Product Quality → Purchase Decision	0,091	Small
Product Quality → Price Fairness	1,114	Large
Price Fairness → Purchase Decision	0,232	Medium

Table 8. F-Square Values (Effect Size)

Source: SmartPLS 4 data analysis results (2026)

Collinearity Statistics (Inner VIF)

Structural (inner) collinearity was assessed by examining the Variance Inflation Factor (VIF) of each predictor construct against its corresponding endogenous construct, in addition to the indicator-level (outer) VIF reported above. As shown in Table 9, the VIF for Product Quality as the sole predictor of Price Fairness is 1.000, since Price Fairness has only one predictor construct and no structural collinearity is possible in that case. For Purchase Decision, which is jointly predicted by Product Quality and Price Fairness, both predictors show a VIF of 2.114. All inner VIF values fall well below the conservative threshold of 3.3 (and the more lenient threshold of 5), indicating that structural collinearity among the predictor constructs is not a concern and that the path coefficients reported below (Table 11) can be interpreted without a collinearity caveat.

Relationship	Inner VIF	Interpretation
Product Quality → Purchase Decision	2.114	No collinearity concern
Product Quality → Price Fairness	1.000	No collinearity concern
Price Fairness → Purchase Decision	2.114	No collinearity concern

Table 9. Inner Model Collinearity Statistics (VIF)

Source: SmartPLS 4 (2026) data analysis results

Predictive Relevance ($Q^2_{predict}$)

The PLSpredict assessment, following the procedure recommended by Shmueli et al. (2019), indicates that the model has satisfactory out-of-sample predictive capability. Specifically, the $Q^2_{predict}$ values of 0.518 for Price Fairness and 0.407 for Purchase Decision are both positive, demonstrating that the model has predictive relevance for the endogenous constructs. In addition, the RMSE values (0.703 and 0.783) and MAE values (0.423 and 0.477) suggest relatively low prediction errors. Therefore, the proposed model exhibits acceptable predictive accuracy and can adequately predict variations in both Price Fairness and Purchase Decision.

	$Q^2_{predict}$	RMSE	MAE
Price Fairness	0.518	0.703	0.423

Purchase Decision	0.407	0.783	0.477
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Table 10. PLSpredict $Q^2_{predict}$ and RMSE Benchmarking

Source: SmartPLS 4 data analysis results (2026)

Hypothesis Testing

Hypothesis	Relationship	Path Coefficient (O)	T-statistics	P-values	Decision
H1	Product Quality → Purchase Decision	0,309	2,891	0,004	Accepted
H2	Product Quality → Price Fairness	0,729	15,961	<0,001	Accepted
H3	Price Fairness → Purchase Decision	0,473	4,673	<0,001	Accepted
H4	Product Quality → Price Fairness → Purchase Decision (Indirect Effect)	0,345	4,378	<0,001	Accepted

Table 11. Summary of Hypothesis Testing Results (Bootstrapping)

Source: SmartPLS 4 (2026) data analysis results

All direct relationships are positive and statistically significant. The mediation test (H4) shows an indirect effect of 0.345 with a 95% confidence interval of 0.188-0.495 that does not cross zero, confirming that the mediating effect is significant. Because both the indirect effect (0.345) and the direct effect of Product Quality on Purchase Decision (0.309) are significant and positive, the result is classified as complementary partial mediation. VAF = 52.8% indicates that price fairness accounts for just over half of the magnitude of Product Quality's total effect on Purchase Decision, while the direct pathway remains substantively meaningful on its own. The total effect of Product Quality on Purchase Decision is 0.654 ($t = 11.190$; $p < 0.001$), the sum of the significant direct and indirect effects reported above.

Discussion

The Effect of Product Quality on Purchase Decisions

Product quality had a positive and significant effect on purchase decisions ($\beta = 0.309$; $t = 2.891$; $p = 0.004$), consistent with cue-utilization reasoning that stronger quality cues reduce consumer uncertainty and increase purchase confidence. The f^2 of 0.091 (small) indicates this direct pathway is not the dominant explanation on its own; consumers weigh other considerations, notably price fairness, alongside quality when deciding to purchase.

The Effect of Product Quality on Price Fairness

Product quality had a positive and highly significant effect on price fairness ($\beta = 0.729$; $t = 15.961$; $p < 0.001$), the strongest path in the model ($f^2 = 1.114$, large). This is consistent with the cue-utilization mechanism proposed in H2: price fairness is judged not from the nominal price alone but from the ratio between price and perceived benefit, so that stronger quality cues make even a low price easier to interpret as fair rather than suspicious-directly addressing the price-quality paradox that motivated this study. Practically, businesses need to consistently maintain and clearly signal product quality, since quality perceptions directly shape how a given price is received.

The Effect of Price Fairness on Purchase Decisions

Price fairness had a positive and significant effect on purchase decisions ($\beta = 0.473$; $t = 4.673$; $p < 0.001$; $f^2 = 0.232$, medium), consistent with equity-theory reasoning that consumers evaluate the appropriateness of price relative to benefit received as part of their purchase evaluation, alongside product quality itself.

The Mediating Role of Price Fairness

Price fairness complementarily and partially mediated the effect of product quality on purchase decisions, based on the significant, same-signed direct (0.309) and indirect (0.345) effects reported above. That the indirect effect is numerically larger than the direct effect indicates that, of the two channels, the channel running through price fairness carries relatively more of product quality's total effect on purchase decisions than the direct channel does-not that price fairness amplifies or moderates the effect of quality, since mediation and moderation are distinct mechanisms and the present design tests only the former.

This finding is best understood in relation to the price-quality paradox identified in the introduction: at Coffee Shop X, a low price does not automatically register as a fair price. Consistent with cue-utilization/price-quality inference reasoning (Olson, 1977; Rao & Monroe, 1989), consumers appear to use their perceived product quality as the cognitive evidence needed to decide whether the unusually low price is credible and appropriate, or instead a signal of inferior quality. When quality cues are convincing, the low price is more readily reinterpreted as good value rather than as suspicious, and this reinterpretation-the price-fairness judgment-is what equity theory (Adams, 1965; Xia et al., 2004) suggests then shapes the purchase decision, since it is the perceived ratio of price to benefit, not the price in isolation, that consumers weigh when deciding whether a transaction is worth entering. The comparatively larger indirect path therefore suggests that, for Coffee Shop X specifically, the price-quality paradox is resolved (or left unresolved) primarily through this fairness-inference step: quality perceptions that fail to translate into a fairness judgment appear to carry less weight in the purchase decision than quality perceptions that do. Price fairness thus operates as the mechanism through which the paradox is cognitively settled, before it manifests behaviorally as a purchase decision, underscoring the practical importance of managing how consumers interpret the price-quality relationship, and not only the quality itself.

CONCLUSION

This study set out to explain a price-quality paradox at Coffee Shop X-an organic-coffee MSME whose premium-quality claims coexist with unusually low prices-by testing price fairness as the mediating mechanism linking product quality to purchase decisions. Using an S-O-R framework combined with price-quality inference and equity reasoning, the study finds that product quality has a positive and significant effect on both price fairness and purchase decisions; price fairness has a positive and significant effect on purchase decisions; and price fairness complementarily and partially mediates the effect of product quality on purchase decisions (VAF = 52.8%), with the indirect effect exceeding the direct effect. In other words, the better the product quality perceived by consumers, the more fairly they judge Coffee Shop X's price, and the more this fairness judgment-more than quality perception alone-drives the purchase decision. As clarified in the theoretical review, this purchase-decision construct reflects consumers' realized product, brand, channel, and quantity choices rather than a forward-looking repurchase intention, which remains an important direction for future research given the repeat-customer composition of the sample.

Theoretically, this study contributes by repositioning price fairness as a psychological mediating mechanism-rather than treating it merely as an independent or dependent variable,

as much prior literature has done-that explains how a price-quality paradox is resolved (or not) before it manifests as a purchase decision, within a single organic-coffee MSME setting. Practically, Coffee Shop X should maintain consistent product quality through routine evaluation of raw materials, standardized recipes, and barista training; communicate product value and quality clearly through social media and promotional materials so that quality cues are unambiguous; align pricing strategy with the quality provided so that the price is read as a signal of value rather than of inferior quality; and periodically re-evaluate consumer perceptions of quality and price to ensure the two remain aligned as the business scales, since loyalty-program initiatives were not tested in this model and are therefore not included as a direct implication of the mediation findings.

This study has several limitations. The model explains approximately 53.1% of the variation in purchase decisions, indicating that other variables outside the model also play a role. The internal sales-fluctuation data are used only as contextual motivation and were not empirically tested as an outcome of quality or fairness perceptions. Future research is recommended to include additional variables such as service quality, brand image, customer experience, or customer satisfaction; to test a parallel repurchase-intention construct given the repeat-customer composition of this sample; to expand the scope to other coffee shops or comparative studies across establishments; and to test other mediating variables, such as perceived value, to deepen understanding of the mechanisms driving purchase decisions in the coffee shop industry.

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