

The Effect of Product Quality and Price Perception on the Decision to Remain Subscribed to Indihome Provider in Sidoarjo with Purchase Decision as A Mediating Variable

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Abstract. The rapid growth of the internet industry in Indonesia has intensified competition among Internet Service Providers (ISPs). This study investigates the effect of product quality and price perception on the decision to remain subscribed to IndiHome provider in Sidoarjo, with purchase decision as a mediating variable. A quantitative approach was employed using Partial Least Square - Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0. Data were collected from 100 respondents via purposive sampling among active or former IndiHome subscribers in Sidoarjo. Results indicate that product quality ($\beta=0.399$, $p=0.001$) and price perception ($\beta=0.410$, $p=0.000$) each positively and significantly affect purchase decision. Purchase decision strongly influences the decision to remain subscribed ($\beta=0.542$, $p=0.000$). Partial mediation was confirmed for both paths: product quality through purchase decision (indirect effect=0.216, $p=0.002$) and price perception through purchase decision (indirect effect=0.222, $p=0.002$). The model explains 51.6% of purchase decision variance and 48.1% of subscription retention variance. These findings suggest that PT. Telkom Indonesia should prioritize service quality consistency and competitive pricing strategies to reduce customer churn.

Keywords: Product Quality, Price Perception, Purchase Decision, Subscription Retention, PLS-SEM

1. Introduction

The rapid development of information technology has transformed internet access into a primary necessity in Indonesia. Based on Internet World Stats data, Indonesia ranks third largest in Asia with 212.35 million internet users, representing 76.5% of the total population (Top Brand Award, 2026). This creates a vast and competitive market for Internet Service Providers (ISPs).

PT. Telekomunikasi Indonesia (Telkom) through its product IndiHome (Indonesia Digital Home) has operated since 2015 as a fiber-optic based internet provider offering bundled packages of internet, fixed telephony, and cable TV (UseeTV). However, the Top Brand Index data reveals a successive decline in IndiHome's index from 33.80% (2022) to 22.60% (2026), while competitor First Media rose significantly from 16.30% to 25.10% during the same period (Widodo & Santoso, 2023).

This phenomenon indicates significant customer churn, raising the urgency to investigate factors influencing customers' decisions to remain subscribed to IndiHome. According to Kotler and Armstrong (2023), product quality is a product's capacity to perform its functions optimally, encompassing reliability, durability, and performance. In the ISP context, product quality includes connection speed, network stability, and service conformity to the promised specifications.

In addition to product quality, price perception plays a crucial role. Monroe (2023) defines price perception as consumers' subjective assessment of price fairness relative to benefits received. Comparative data shows that IndiHome charges up to IDR 945,000/month for a maximum speed of 100 Mbps, while First Media offers up to 300 Mbps at comparable prices (Arifin & Setiyawan, 2023).

This study introduces purchase decision as a mediating variable between product quality/price perception and subscription retention. Prasetyo and Wulandari (2024) argue that the initial subscription decision forms customer expectations, and the consistency between these expectations and actual experience determines whether customers choose to remain subscribed or switch to another provider. Based on this phenomenon, this study aims to examine the title: "The Effect of Product Quality and Price Perception on the Decision to Remain Subscribed to IndiHome Provider in Sidoarjo with Purchase Decision as a Mediating Variable."

2. Literature Review

Product Quality

According to Kotler and Armstrong (2023), product quality is a product's capacity to perform its functions optimally, encompassing performance, reliability, durability, and precision. In the internet service context, product quality covers connection speed, network stability, service conformance to promised

specifications, and additional features. Tjiptono (2023) identifies five dimensions: (1) Performance - basic operational characteristics; (2) Durability - service reliability and consistency; (3) Conformance to Specification - adherence to promised service parameters; (4) Features - additional services enhancing the core product; (5) Reliability - probability of satisfactory service performance over a given period.

Price Perception

Monroe (2023) defines price perception as consumers' subjective assessment of a product or service's price fairness compared to the value and benefits received. Price perception is not merely a nominal figure, but rather a cognitive and emotional evaluation of the value obtained for money spent. Kotler and Keller (2023) emphasize that positive price perception drives consumers toward purchase and loyalty. Indicators include: (1) Price affordability; (2) Price-quality congruence; (3) Price-benefit congruence; (4) Competitive pricing relative to rivals.

Purchase Decision (Mediating Variable)

Kotler and Keller (2023) define purchase decision as an integrative process where consumers evaluate alternatives and select the product or service that best meets their needs. In this study, purchase decision serves as a mediating variable bridging consumers' evaluation of product quality and price perception with long-term subscription retention behavior. Indicators follow Thompson et al. (2023): (1) Need fit; (2) Perceived product benefit; (3) Decision accuracy; (4) Repeat purchase.

Subscription Retention Decision

Subscription retention represents a form of consumer loyalty behavior reflecting ongoing post-purchase evaluation. Ariyanti and Nugroho (2024) define customer retention as consumers' active decision to continue their subscription relationship with a service provider, influenced by consistent quality and perceived value throughout the subscription period. Indicators include: (1) Intention to continue subscription; (2) Reluctance to switch to competitors; (3) Willingness to recommend; (4) Overall satisfaction.

Hypotheses Development

H1: Product Quality positively affects Purchase Decision for IndiHome Provider in Sidoarjo (Fuadi, 2023; Kotler & Armstrong, 2023).

H2: Price Perception positively affects Purchase Decision for IndiHome Provider in Sidoarjo (Monroe, 2023; Arifin & Setiyawan, 2023).

H3: Purchase Decision positively affects the Decision to Remain Subscribed to IndiHome in Sidoarjo (Prasetyo & Wulandari, 2024; Indra & Rahayu, 2024).

H4: Purchase Decision mediates the effect of Product Quality on the Decision to Remain Subscribed to IndiHome in Sidoarjo (Ghozali, 2023; Nurhayati, 2023).

H5: Purchase Decision mediates the effect of Price Perception on the Decision to Remain Subscribed to IndiHome in Sidoarjo (Widodo & Santoso, 2023; Prasetyo & Wulandari, 2024).

3. Research Method

This study employs a quantitative approach using Partial Least Square - Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0. PLS-SEM was chosen because: (1) it simultaneously analyzes mediation models; (2) it does not require normal distribution assumptions; (3) it is suitable for moderate samples; and (4) it can analyze reflective constructs (Hair et al., 2023).

The population comprises all active or former IndiHome subscribers residing in Sidoarjo Regency during the 2022–2026 period. A non-probability sampling method with purposive sampling technique was applied (Sugiyono, 2023). Sampling criteria included: (1) active or former IndiHome subscribers for at least 6 months; (2) residing in Sidoarjo; (3) aged 17–55 years. Based on Ferdinand's (2023) guideline of 5–10 observations per indicator, with 17 indicators total (5+4+4+4), a minimum sample of 85 respondents was required. For PLS-SEM mediation analysis, the sample was set at 100 respondents (Hair et al., 2023).

Primary data were collected through a questionnaire distributed via Google Form using a 5-point Likert scale. Secondary data were obtained from Top Brand Award data, PT. Telkom reports, and relevant academic literature.

Table 1. Operational Variable Definition

Var.	Variable	Reference	Indicators	Scale
X1	Product Quality	Tjiptono (2023)	Performance (X1.1), Durability (X1.2), Conformance to Specification (X1.3), Features (X1.4), Reliability (X1.5)	Likert 1–5
X2	Price Perception	Kotler & Armstrong (2023)	Price Affordability (X2.1), Price-Quality Congruence (X2.2), Price-Benefit Congruence (X2.3), Competitive Pricing (X2.4)	Likert 1–5
Z	Purchase Decision (Mediator)	Thompson et al. (2023)	Need Fit (Z1), Product Benefit (Z2), Decision Accuracy (Z3), Repeat Purchase (Z4)	Likert 1–5
Y	Subscription Retention	Prasetyo & Wulandari (2024)	Intention to Continue (Y1), No Switching (Y2), Recommendation (Y3), Overall Satisfaction (Y4)	Likert 1–5

Source: Developed by researcher (2026)

Measurement model evaluation (outer model) employed convergent validity (outer loading > 0.7; AVE > 0.5), discriminant validity (cross loadings), and reliability (Composite Reliability > 0.7; Cronbach Alpha > 0.6). Structural model evaluation (inner model) included R-Square, path coefficients (β), and bootstrapping with 5,000 subsamples for mediation testing (Hair et al., 2023; Ghozali, 2023).

4. Results and Discussion

4.1 Results

Respondents were predominantly aged 17–24 years (49%), followed by 25–34 years (29%), 35–44 years (15%), and 45–55 years (7%). Occupationally, students/undergraduates dominated (49%), followed by private sector employees (19%), civil servants (16%), entrepreneurs (11%), and others (5%). These demographics indicate that IndiHome users in Sidoarjo are largely from the younger generation with high digital activity needs.

Descriptive statistics revealed that Product Quality (X1) indicators yielded means ranging from 4.02–4.17 (high category), with X1.4 (Features) scoring highest (mean=4.17) and X1.3 (Conformance to Specification) lowest (mean=4.02). Price Perception (X2) indicators ranged from 4.05–4.12 (high category), with X2.2 (Price-Quality Congruence) highest (mean=4.12). Purchase Decision (Z) indicators ranged from 3.66–3.80 (fairly high), while Subscription Retention (Y) indicators ranged from 3.65–3.77 (fairly high). The lower mean values of Z and Y compared to X1 and X2 indicate a gap between product/price perception and actual subscription commitment.

Table 2. Outer Loadings and Reliability Assessment

Variable	AVE	CR	Cronbach α	Loading Range	Status
Product Quality (X1)	0.742	0.935	0.917	0.832–0.919	Valid & Reliable
Price Perception (X2)	0.791	0.938	0.912	0.847–0.916	Valid & Reliable
Purchase Decision (Z)	0.803	0.942	0.920	0.845–0.923	Valid & Reliable
Subscription Retention (Y)	0.789	0.938	0.910	0.851–0.918	Valid & Reliable

Source: SmartPLS 4.0 Output, processed 2026

All four constructs met the validity and reliability thresholds: AVE > 0.5 (range: 0.742–0.803), Composite Reliability > 0.7 (range: 0.935–0.942), and Cronbach Alpha > 0.6 (range: 0.910–0.920). Discriminant validity was confirmed through cross loadings, where each indicator loaded highest on its own construct (Hair et al., 2023).

Table 3. Structural Model Results – Path Coefficients and Mediation Effects

H	Path	Coeff. (β)	T-Stat	P-Value	R ²	Decision
H1	Product Quality → Purchase Decision	0.399	3.561	0.001	0.516 (Z)	Accepted
H2	Price Perception → Purchase Decision	0.410	3.691	0.000	0.516 (Z)	Accepted
H3	Purchase Decision → Subscription Retention	0.542	5.531	0.000	0.481 (Y)	Accepted
H4	X1 → Z → Y (Indirect)	IE=0.216	3.188	0.002	-	Accepted (Partial)

H	Path	Coeff. (β)	T-Stat	P-Value	R ²	Decision
H5	X2 → Z → Y (Indirect)	IE=0.222	3.083	0.002	-	Accepted (Partial)

Source: SmartPLS 4.0 Output – Bootstrapping 5,000 subsamples, processed 2026

4.2 Discussion

H1 – Effect of Product Quality on Purchase Decision. Product Quality (X1) positively and significantly affects Purchase Decision (Z) with $\beta=0.399$, $T=3.561$, and $p=0.001 < 0.05$. This means that the better the product quality perceived by IndiHome customers in terms of connection speed, stability, and service conformance, the stronger their decision to subscribe. This finding is consistent with Kotler and Armstrong (2023), who assert that product quality is a primary determinant of consumer purchase decisions. Fuadi (2023) and Nurhayati (2023) similarly confirmed the positive effect of product quality on purchase decisions in the Indonesian ISP context. The mean value of X1.4 (Features, mean=4.17) indicates that bundled services such as UseeTV remain appealing to consumers, supporting the subscription decision.

H2 – Effect of Price Perception on Purchase Decision. Price Perception (X2) positively and significantly affects Purchase Decision (Z) with $\beta=0.410$, $T=3.691$, and $p=0.000 < 0.05$. The slightly higher coefficient of X2 compared to X1 indicates that price perception is marginally more dominant in shaping IndiHome purchase decisions in Sidoarjo. This aligns with Monroe (2023), who emphasizes that favorable price perception – where consumers judge the price paid as commensurate with benefits received – directly drives purchase decisions. Despite IndiHome's higher price point compared to Biznet at equivalent speeds, respondents' mean score for price-quality congruence (X2.2=4.12) indicates sufficient perceived value (Arifin & Setiyawan, 2023).

H3 – Effect of Purchase Decision on Subscription Retention. Purchase Decision (Z) most strongly predicts Subscription Retention (Y) with $\beta=0.542$, $T=5.531$, and $p=0.000 < 0.05$ – the strongest path in the model. This demonstrates that the quality of the initial subscription decision is highly determinative of long-term retention. Prasetyo and Wulandari (2024) explain that purchase decisions based on thorough evaluation create psychological commitment that drives consistent subscription behavior. Customers who subscribed to IndiHome with strong conviction tend to maintain their subscription despite competitive alternatives (Ariyanti & Nugroho, 2024).

H4 & H5 – Mediating Role of Purchase Decision. Purchase Decision partially mediates the effect of Product Quality on Subscription Retention (indirect effect=0.216, $T=3.188$, $p=0.002$) and the effect of Price Perception on Subscription Retention (indirect effect=0.222, $T=3.083$, $p=0.002$). Partial mediation occurs because the direct effects of X1→Y ($\beta=0.216$, $p=0.039$) and X2→Y ($\beta=0.221$, $p=0.040$) remain significant even when Z is included. This means both product quality and price perception influence subscription retention both directly and through the formation of purchase decision (Ghozali, 2023; Hair et al., 2023).

These findings conceptually explain the IndiHome TBI decline: while product quality and price perceptions remain positive (mean >4.00), the purchase decision process does not fully translate into long-term subscription loyalty (mean Y=3.65–3.77 < mean X=4.00–4.17). This gap is consistent with Widodo and Santoso (2023), who found that the discrepancy between pre-subscription expectations and actual service experience was the primary trigger for customer switching from IndiHome to First Media in East Java.

5. Conclusion

This study demonstrates that both product quality and price perception positively and significantly affect purchase decision among IndiHome subscribers in Sidoarjo, with price perception ($\beta=0.410$) marginally more influential than product quality ($\beta=0.399$). Purchase decision, in turn, is the strongest predictor of subscription retention ($\beta=0.542$), and it partially mediates both pathways. The PLS-SEM model explains 51.6% of purchase decision variance and 48.1% of subscription retention variance, indicating substantial explanatory power (Hair et al., 2023).

These results carry important managerial implications. PT. Telkom Indonesia should invest in network infrastructure to ensure that actual service speeds consistently match subscribed packages, as specification conformance recorded the lowest mean among product quality indicators (X1.3=4.02). Additionally, competitive pricing strategies – such as speed upgrade promotions or renewal discount programs – would strengthen perceived value and reduce churn. The finding that purchase decision most strongly predicts retention suggests that the customer onboarding process must establish accurate, realistic expectations to build long-term commitment.

Future research is encouraged to incorporate additional variables such as service quality, brand image, or customer satisfaction as mediators or moderators. Expanding the geographic scope to all of East Java or employing longitudinal designs would enhance generalizability and provide deeper insight into the dynamic competitive landscape of the Indonesian ISP market.

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