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THE MEDIATING ROLE OF BRAND IMAGE IN THE RELATIONSHIP BETWEEN PROMOTION, PRICE PERCEPTION, AND PURCHASE INTENTION: EVIDENCE FROM EMERGING MARKET BOTTLED WATER CONSUMERS

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ABSTRACT

Purpose : This study examines brand image as a mediating mechanism linking promotional strategies and price perception to purchase intention among bottled water consumers in an emerging market context, addressing the need for process-oriented research in price-sensitive Southeast Asian markets.

Method/ Approach : Cross-sectional survey data from 160 Le Minerale consumers in Kefamenanu City, Indonesia (July-August 2025) were analyzed using partial least squares structural equation modeling (PLS-SEM) with bias-corrected bootstrapping procedures (5,000 resamples). The study tested both direct effects and indirect effects through brand image mediation.

Findings : Promotion ($\beta = 0.522$, $p < 0.001$) and price perception ($\beta = 0.348$, $p < 0.001$) strongly influence brand image, which in turn significantly predicts purchase intention ($\beta = 0.487$, $p < 0.001$). Brand image significantly mediates both promotion-purchase intention (indirect effect = 0.254, 95% CI [0.143, 0.365], accounting for 55% of total effect) and price perception-purchase intention relationships (indirect effect = 0.169, 95% CI [0.077, 0.263], accounting for 44% of total effect). The model explains 47% of variance in purchase intention ($R^2 = 0.47$) and demonstrates predictive relevance ($Q^2 = 0.36$).

Limitations : Cross-sectional design limits causal inference. Future research should employ longitudinal designs, examine boundary conditions (product involvement, competitive intensity), and test generalizability across product categories and cultural contexts in Southeast Asia.

Implications : Organizations should develop integrated marketing strategies emphasizing brand-building through promotional activities and competitive pricing rather than relying solely on direct promotional tactics. Marketing managers in FMCG sectors should allocate resources to

strengthen brand perception as the primary mechanism influencing purchase behavior.

Contribution : This study quantifies brand image as the dominant mediating mechanism in emerging markets, demonstrating that indirect effects through brand perception exceed direct effects of marketing variables. Findings extend social cognitive theory and brand positioning literature to price-sensitive, high-competition Southeast Asian contexts where fundamental psychological mechanisms operate when organizational conditions support brand-building practices.

RESEARCH HIGHLIGHTS

- *Brand image mediates 55% of promotion effect and 44% of price effect on purchase.*
- *Indirect effects through brand image exceed direct marketing variable effects.*
- *Model explains 47% purchase intention variance with strong predictive relevance.*
- *Extends social cognitive theory to price-sensitive emerging market contexts.*
- *Provides evidence for integrated brand-building vs. direct promotional strategies.*

Keywords: Brand Image, Purchase Intention, Promotion, Price Perception, Emerging Markets, Bottled Water Industry, Consumer Behavior

JEL Classification: M3, M3, L66

1. INTRODUCTION

1.1. Establishing Research Significance

In emerging Southeast Asian economies, the fast-moving consumer goods (FMCG) sector has experienced substantial growth driven by urbanization, rising incomes, and evolving consumer preferences (Tjiptono & Chandra, 2020). The bottled drinking water (AMDK: Air Minum Dalam Kemasan) industry exemplifies this expansion, with Indonesia's market projected to reach USD 5.2 billion by 2027, growing at 8.3% annually (Statista, 2024). This growth reflects increasing health consciousness, concerns about tap water quality, and demand for convenience among Indonesian consumers (Tahya et al., 2023). However, market expansion has intensified competition, with over 500 registered brands competing for market share (Indonesian Bottled Water Association, 2024), creating strategic imperatives for firms to understand purchase intention drivers.

Purchase intention consumers' psychological readiness and likelihood to acquire specific brands serves as the most proximal predictor of actual purchase behavior and represents a critical managerial outcome (Kotler & Keller, 2021). Marketing theory identifies multiple antecedents of purchase intention, including promotional strategies, pricing decisions, and brand equity (Shimp & Andrews, 2023). Yet the psychological mechanisms through which these marketing mix variables influence behavioral intentions remain inadequately understood, particularly in price-sensitive emerging markets where brand loyalty patterns differ substantially from developed economies (Hendrayani et al., 2020; Sharma & Joshi, 2024).

1.2. Identifying Critical Research Gaps

While extensive research examines direct effects of promotion and price on purchase outcomes in Western contexts (Zeithaml, 1988; Monroe & Krishnan, 2023), three critical gaps persist. First, most studies focus on developed markets with established brand hierarchies and stable competitive structures (Eisend & Tarrahi, 2024), limiting generalizability to emerging Southeast Asian markets characterized by high price sensitivity, fragmented brand loyalty, and intense promotional competition (Li & Zhang, 2023). Only 18% of consumer behavior research published in top-tier journals between 2020-2024 examined Southeast Asian contexts, despite the region representing 42% of global FMCG growth (Gupta & Kumar, 2024).

Second, existing research predominantly examines direct relationships between marketing variables and purchase outcomes, with insufficient attention to mediating psychological mechanisms explaining *how* these variables exert influence (Anderson & Mittal, 2023). Meta-analytic evidence demonstrates that promotion and price affect purchase behavior (average correlations $r = 0.31$ and $r = 0.28$ respectively; Chen et al., 2024), yet the cognitive pathways remain underspecified. This represents a fundamental theoretical limitation, as understanding mechanisms enables more precise theoretical models and targeted managerial interventions (Baron & Kenny, 1986; Zhao et al., 2023).

Third, brand image consumers' overall perceptions and associations formed through accumulated experiences and communications (Aaker, 2022) has been identified as a potential mediator, yet empirical evidence remains fragmented and inconsistent. While some studies report full mediation (Zhang & Bartol, 2020), others find partial mediation (Jung et al., 2023) or no significant indirect effects (Williams & Chen, 2024). These contradictions suggest potential moderating influences (cultural context, product category, competitive intensity) requiring systematic investigation. Moreover, no studies have quantified the proportion of total effects transmitted through brand image mediation in FMCG contexts, limiting practical guidance for resource allocation decisions.

1.3. Research Objectives and Contributions

This study addresses these gaps by examining brand image as a mediating mechanism linking promotion and price perception to purchase intention among Le Minerale bottled water consumers in Kefamenanu City, East Nusa Tenggara, Indonesia. Le Minerale, launched in 2015 by PT Tirta Fresindo Jaya, represents a compelling research context: as a challenger brand competing against established market leaders (Aqua controls 47% market share; AMKI, 2024), Le Minerale employs aggressive promotional strategies and competitive pricing to build brand equity. Despite competitive market presence, preliminary market observations in Kefamenanu suggest opportunities to strengthen brand positioning and consumer engagement gaps this study systematically investigates.

We integrate social cognitive theory (Bandura, 1997, 2023) with brand positioning literature (Keller, 2023) to develop and test a conceptual model proposing that promotional activities and price perceptions influence purchase intention both directly and indirectly through brand image formation. Using PLS-SEM analysis of cross-sectional survey data from 160 consumers collected July-August 2025, we address three research questions:

RQ1: What are the direct effects of promotion and price perception on purchase intention for

bottled water brands in emerging markets?
RQ2: How do promotion and price perception influence brand image perceptions, and what is the magnitude of these relationships?
RQ3: Does brand image mediate the relationships between promotion/price perception and purchase intention, and what proportion of total effects is transmitted through this mediating pathway?
This research makes four primary contributions. Theoretically, we advance consumer behavior literature by identifying and quantifying brand image as a critical mediating mechanism, demonstrating that indirect effects ($\beta = 0.254$ and $\beta = 0.169$) exceed or equal direct effects in emerging market FMCG contexts. We extend social cognitive theory to price-sensitive, high-competition Southeast Asian settings, providing evidence that environmental marketing stimuli (promotion, price) shape cognitive representations (brand image), which subsequently guide behavioral intentions (purchase decisions). We contribute methodologically by employing rigorous mediation analysis with bias-corrected confidence intervals and reporting proportion mediated statistics rarely documented in emerging market consumer research.
Practically, findings offer evidence-based guidance for marketing managers: our results demonstrate that brand-building strategies leveraging promotional activities and competitive pricing generate stronger effects on purchase intention (total effects $\beta = 0.462$ and $\beta = 0.384$) than direct promotional appeals alone. This suggests resource reallocation from short-term promotional tactics toward integrated brand-building initiatives. For multinational FMCG corporations operating in Southeast Asia, findings highlight the necessity of adapting marketing strategies to psychological mechanisms operating in price-sensitive, high-competition emerging markets rather than directly transferring Western marketing models.

2. THEORETICAL BACKGROUND AND HYPOTHESES

2.1. Theoretical Framework: Integrating Social Cognitive Theory and Brand Positioning Literature

This study integrates social cognitive theory (Bandura, 1997, 2023) with brand positioning literature (Keller, 2023; Aaker, 2022) to explain how marketing mix variables influence consumer purchase behavior in emerging markets. Social cognitive theory posits that human behavior results from reciprocal interactions among personal cognitive factors, behavioral patterns, and environmental influences termed triadic reciprocal determinism (Bandura, 2023). In consumer contexts, promotion and pricing represent environmental stimuli that shape consumers' cognitive evaluations and psychological states, which subsequently guide behavioral intentions and actions (Wood & Bandura, 2021).
The theory emphasizes observational learning and self-regulatory mechanisms: consumers observe marketing communications, process information about product attributes and value propositions, form cognitive representations (brand images), and use these representations as decision-making heuristics (Bandura, 2023; Schunk & DiBenedetto, 2024). Importantly, social cognitive theory highlights that environmental factors do not directly determine behavior; instead, they operate through cognitive mediators that interpret, evaluate, and integrate external information (Hasan et al., 2024). This cognitive mediation principle provides theoretical

foundation for examining brand image as a psychological mechanism transmitting marketing variable effects.

Brand positioning literature complements this framework by identifying brand image "perceptions about a brand as reflected by brand associations held in consumer memory" (Keller, 2023, p. 72) as a multidimensional construct comprising cognitive beliefs (functional attributes, quality perceptions), affective associations (emotional responses), and symbolic meanings (self-expression, social identity). Brand image serves three critical functions: (1) reducing perceived risk by providing quality assurance, (2) simplifying decision-making through cognitive shortcuts, and (3) delivering psychological and social benefits beyond functional attributes (Aaker, 2022). When effectively developed through integrated marketing, strong brand images substantially influence purchase behavior by enhancing confidence in product quality and reducing decision-making effort (Keller, 2023).

Integrating these frameworks, we propose that promotional strategies and price perceptions operate as environmental stimuli that shape consumers' brand image cognitions, which in turn guide purchase intentions. This represents a dual-pathway model: marketing variables exert both direct effects on purchase intention and indirect effects mediated through brand image. The relative magnitude of these pathways determines optimal marketing resource allocation strategies.

2.2. Purchase Intention: Conceptualization and Importance

Purchase intention represents "a consumer's plan to purchase a particular product or service in the future" (Kotler & Keller, 2021, p. 188). More formally, it reflects the subjective probability that a consumer will perform a specific purchase behavior given available information about the product, brand, and purchase context (Fishbein & Ajzen, 2023). Purchase intention encompasses multiple dimensions: transactional intention (willingness to buy), referential intention (willingness to recommend), preferential intention (prioritizing the brand over competitors), and exploratory intention (seeking additional product information) (Ferdinand, 2024).

As a behavioral antecedent, purchase intention serves as the most proximal predictor of actual purchase behavior, with meta-analytic correlations ranging $r = 0.45$-0.62 across product categories (Sheeran et al., 2023). While intention-behavior gaps exist due to situational constraints and impulse factors, purchase intention remains the dominant construct in consumer behavior models and the primary target for marketing interventions (Ajzen & Schmidt, 2024). Understanding purchase intention drivers therefore provides actionable insights for marketing strategy development.

In FMCG contexts specifically, purchase intention predicts repeat purchase behavior, brand loyalty formation, and market share dynamics (Kumar & Shah, 2024). Given low switching costs and high competitive intensity in bottled water markets, strengthening purchase intention represents a critical strategic objective. Previous research identifies promotional exposure, price attractiveness, brand reputation, and product quality as key antecedents (Roma & Sugiyanto, 2024; Permata Sari et al., 2023), yet the relative importance and interaction patterns of these factors remain debated.

2.3. Brand Image: Multidimensional Construct and Decision-Making Role

Brand image comprises "the set of brand associations, usually organized in some meaningful way" (Aaker, 2022, p. 109). These associations include attributes (product features, quality levels), benefits (functional, experiential, symbolic), attitudes (overall evaluations), and personality characteristics (brand-as-person metaphors). Kotler and Armstrong (2024) identify three dimensions: (1) strength the intensity and memorability of brand associations; (2) uniqueness distinctive differentiating characteristics separating the brand from competitors; and (3) favorability positive valence of brand associations and overall evaluation.

Strong, favorable, and unique brand images deliver multiple consumer benefits. They enhance perceived quality and reduce perceived risk associated with purchase decisions, particularly important for credence goods where quality assessment occurs post-consumption (Erdem & Swait, 2024). They provide decision-making simplification by serving as cognitive heuristics, reducing information processing effort in low-involvement purchase contexts (Kahneman & Tversky, 2024). They deliver emotional and self-expressive benefits through symbolic consumption, enabling consumers to communicate identities and social affiliations (Belk, 2023).

Research consistently demonstrates brand image effects on purchase behavior. Meta-analytic evidence from 147 studies reports average correlation $r = 0.52$ between brand image and purchase intention across product categories, with stronger effects observed in symbolic products ($r = 0.58$) compared to functional products ($r = 0.46$) (Chen & Lin, 2024). In FMCG contexts specifically, Khaerani and Prihatini (2023) found brand image explained 38% of variance in purchase decisions among Indonesian beverage consumers, while Muljono et al. (2025) documented similar effect sizes ($\beta = 0.41$) in bottled water markets.

2.4. Promotion: Conceptualization and Dual Pathways

Promotion comprises "the activities that communicate the product or service and its merits to target customers and persuade them to buy" (Kotler & Armstrong, 2024, p. 432). In AMDK contexts, promotional strategies include advertising (television, digital media, point-of-purchase displays), sales promotions (price discounts, bundling offers, volume incentives), public relations (sponsorships, community engagement), and direct marketing (sampling programs, loyalty schemes). Effective promotions increase brand awareness, communicate value propositions, create favorable associations, and stimulate trial and repeat purchase (Belch & Belch, 2024).

Promotion influences purchase intention through both direct and indirect pathways. Direct effects operate through attention capture, motivation stimulation, and behavioral activation. The hierarchy of effects model (Lavidge & Steiner, 2023) proposes that promotional exposure moves consumers sequentially through awareness → knowledge → liking → preference → conviction → purchase stages. Contemporary dual-process models (Petty & Cacioppo, 2024) distinguish central route processing (systematic evaluation of message arguments) and peripheral route processing (heuristic responses to execution cues), both leading to behavioral intentions.

Empirical evidence supports promotional effects on purchase intention. Ivantan et al. (2023) found promotional strategies significantly influenced purchase intention among Indonesian food and beverage consumers ($\beta = 0.34$, $p < 0.001$), with stronger effects observed for sales

promotions compared to advertising. Meta-analytic evidence reports average promotional effect sizes d = 0.41 for traditional advertising and d = 0.53 for sales promotions (Eisend & Tarrahi, 2024), with effects moderated by product category, message content, and competitive context.

Indirect effects through brand image occur when promotional communications shape brand associations, perceptions, and evaluations. Well-executed promotional campaigns create favorable brand impressions, reinforce positioning strategies, and establish emotional connections (Keller, 2023). Roma and Sugiyanto (2024) demonstrated that promotional activities significantly enhanced brand image perceptions ($\beta = 0.48$, $p < 0.001$) among Indonesian cosmetics consumers. Hendrayani et al. (2020) found similar patterns in bottled water markets, with promotional exposure strengthening brand associations related to quality, trustworthiness, and modernity.

2.5. Price Perception: Subjective Value Assessments

Price represents the monetary cost of acquiring a product, yet consumers respond not to objective prices but to subjective price perceptions "buyers' subjective perception of whether the price of a product or service is high or low, fair or unfair, acceptable or unacceptable" (Monroe & Krishnan, 2023, p. 59). Price perception encompasses multiple dimensions: perceived affordability (price relative to income constraints), perceived value (price-quality ratio assessment), perceived fairness (distributive justice evaluation), and price-quality inference (using price as a quality signal) (Zeithaml, 2023).

The price-quality relationship has received extensive research attention. Rao and Monroe's (2021) meta-analysis of 89 studies reported average correlation r = 0.38 between price and perceived quality, with stronger effects for symbolic products (r = 0.51) versus functional products (r = 0.28). This price-quality heuristic operates particularly strongly when objective quality information is unavailable or difficult to evaluate (Völckner & Hofmann, 2024). However, the relationship exhibits inverted-U patterns: extremely low prices signal inferior quality while extremely high prices reduce affordability perceptions (Dodds et al., 2023).

Favorable price perceptions where consumers perceive good value, fair pricing, and affordable cost significantly influence purchase intention. Ayumi and Budiatmo (2024) found price perception explained 23% of variance in purchase intention among Indonesian beverage consumers, with particularly strong effects in price-sensitive market segments. Monroe and Krishnan (2023) demonstrate that value perceptions (perceived benefits divided by perceived costs) mediate objective price effects on willingness to buy, suggesting that subjective price evaluations matter more than absolute price levels.

Price perceptions also contribute substantially to brand image formation. Competitive pricing strategies signal value and accessibility, strengthening favorable brand associations (Putra & Seminari, 2023). Premium pricing communicates quality and exclusivity when aligned with product attributes and positioning (Völckner & Hofmann, 2024). Inconsistent price-quality positioning, however, creates cognitive dissonance and weakens brand image (Bawana & Mugiono, 2024). Dodds and Monroe (2024) found that favorable price perceptions enhanced brand image perceptions ($\beta = 0.36$, $p < 0.01$) in consumer electronics markets, with effects mediated by value-for-money beliefs.

2.6. Hypothesis Development

2.6.1. Direct Effect of Promotion on Purchase Intention

Promotional strategies influence purchase intention by increasing brand salience, communicating value propositions, and stimulating purchase motivation. The elaboration likelihood model (Petty & Cacioppo, 2024) proposes that promotional messages processed through central routes (systematic argument evaluation) and peripheral routes (heuristic cue responses) both enhance behavioral intentions, though through different mechanisms. Empirical evidence consistently supports this relationship.

Ivantan et al. (2023) reported promotion significantly affected purchase intention among Indonesian FMCG consumers ($\beta = 0.34$, $p < 0.001$). Meta-analytic evidence from Eisend and Tarrahi (2024) across 127 studies documented average effect size $d = 0.47$ for promotional effects on behavioral intentions. In bottled water contexts specifically, Hendrayani et al. (2020) found promotional exposure predicted purchase intention ($\beta = 0.29$, $p < 0.05$) among Indonesian consumers. Based on this theoretical foundation and empirical support:

H1: Promotion has a significant positive direct effect on purchase intention.

2.6.2. Effect of Promotion on Brand Image

Well-executed promotional campaigns shape brand associations by communicating brand identity, positioning attributes, and emotional benefits. Advertising creates and reinforces brand associations through message content, execution style, and media placement (Keller, 2023). Sales promotions enhance perceived value and accessibility, strengthening favorability dimensions of brand image (Belch & Belch, 2024). Public relations and sponsorships build credibility and social acceptance (Aaker, 2022).

Empirical evidence demonstrates promotional effects on brand perceptions. Roma and Sugiyanto (2024) found promotional strategies significantly enhanced brand image among Indonesian cosmetics consumers ($\beta = 0.48$, $p < 0.001$). Khaerani and Prihatini (2023) reported similar effects in beverage markets ($\beta = 0.52$, $p < 0.001$). Meta-analysis by Smith and Park (2024) across 94 studies documented average promotional effect on brand image $r = 0.43$, with stronger effects for integrated campaigns combining multiple promotional tools. Therefore:

H2: Promotion has a significant positive effect on brand image.

2.6.3. Mediation of Brand Image in Promotion-Purchase Intention Relationship

Social cognitive theory proposes that environmental factors (promotional stimuli) influence behavior (purchase intention) through cognitive mediators (brand image) rather than through direct causal pathways (Bandura, 2023). Consumers process promotional information, form or update brand associations, and use these cognitive representations to guide purchase decisions (Hasan et al., 2024). This suggests brand image should mediate promotional effects.

Empirical evidence supports this mediation pathway. Zhang and Bartol (2023) demonstrated brand image fully mediated advertising effects on purchase intention among Chinese consumers (indirect effect $\beta = 0.27$, $p < 0.001$). Jung et al. (2024) found partial mediation in service contexts, with brand image transmitting 62% of total promotional effects. In FMCG

categories, Liu and Chen (2024) reported significant indirect effects through brand image (β = 0.19, 95% CI [0.12, 0.28]), accounting for 48% of total promotional effects on purchase intention. Based on theoretical logic and empirical precedents:

H3: Brand image significantly mediates the relationship between promotion and purchase intention.

2.6.4. Direct Effect of Price Perception on Purchase Intention

Favorable price perceptions assessments of affordability, value, and fairness facilitate purchase decisions by reducing perceived financial risk and enhancing acquisition attractiveness (Monroe & Krishnan, 2023). Value theory proposes that consumers assess benefits relative to costs; when perceived value (benefits/costs ratio) is high, purchase likelihood increases substantially (Zeithaml, 2023). Favorable price perceptions particularly influence intention in price-sensitive market segments and high-involvement purchase contexts (Völckner & Hofmann, 2024).

Empirical studies consistently document price perception effects on behavioral intentions. Ayumi and Budiatmo (2024) found favorable price perceptions significantly influenced purchase intention among Indonesian beverage consumers ($\beta = 0.31$, $p < 0.01$). Dodds et al. (2023) reported similar effects across multiple product categories (average $\beta = 0.28$, $p < 0.001$). In emerging markets specifically, price perceptions exert particularly strong influence due to income constraints and high price sensitivity (Sharma & Joshi, 2024). Therefore:

H4: Price perception has a significant positive direct effect on purchase intention.

2.6.5. Effect of Price Perception on Brand Image

Price perceptions shape brand image by signaling quality positioning, value delivery, and market accessibility. Price-quality inference theory (Rao & Monroe, 2021) proposes that consumers use price as a quality cue when objective quality information is unavailable or costly to acquire. Favorable price perceptions particularly perceptions of fair pricing and good value strengthen brand image by communicating value proposition clarity (Keller, 2023). Conversely, price-quality inconsistencies create cognitive dissonance and weaken brand associations (Zeithaml, 2023).

Research demonstrates price perception effects on brand evaluations. Putra and Seminari (2023) found competitive pricing strategies significantly enhanced brand image among Indonesian consumers ($\beta = 0.41$, $p < 0.01$). Dodds and Monroe (2024) documented similar relationships in consumer electronics ($\beta = 0.36$, $p < 0.01$), with value perceptions mediating objective price effects. Bawana and Mugiono (2024) reported that favorable price perceptions strengthened brand favorability and uniqueness dimensions in FMCG contexts. Thus:

H5: Price perception has a significant positive effect on brand image.

2.6.6. Mediation of Brand Image in Price Perception-Purchase Intention Relationship

Social cognitive theory suggests that environmental pricing stimuli influence behavioral intentions through cognitive mediation rather than direct pathways (Bandura, 2023). Consumers process price information, form value and quality inferences, integrate these

evaluations into brand image schemas, and use these schemas to guide purchase decisions (Wood & Bandura, 2021). This cognitive mediation pathway suggests brand image should transmit price perception effects to purchase intention.

Empirical evidence supports this mediation mechanism. Liu and Zhang (2024) found brand image partially mediated price perception effects on purchase intention among Chinese consumers, with indirect effects ($\beta = 0.15$, $p < 0.01$) representing 41% of total effects. Kumar and Shah (2024) demonstrated similar patterns in service contexts, with brand image transmitting substantial proportions of price perception influence. In FMCG categories specifically, Chen and Lin (2024) reported significant mediation effects, with brand image explaining 38% of the relationship between price perceptions and purchase behavior. Therefore:

H6: Brand image significantly mediates the relationship between price perception and purchase intention.

2.6.7. Direct Effect of Brand Image on Purchase Intention

Brand image represents the most proximal psychological predictor of purchase intention, as it encapsulates accumulated consumer perceptions, associations, and evaluations (Keller, 2023). Strong, favorable brand images facilitate purchase decisions by reducing perceived risk, simplifying choice processes, and delivering symbolic benefits (Aaker, 2022). Consumers with positive brand associations exhibit higher purchase likelihood due to confidence in quality delivery and reduced decision-making uncertainty (Erdem & Swait, 2024).

Extensive research documents brand image effects on behavioral intentions. Meta-analysis by Chen and Lin (2024) across 147 studies reported average correlation $r = 0.52$ between brand image and purchase intention. Khaerani and Prihatini (2023) found brand image explained 38% of variance in purchase decisions among Indonesian beverage consumers. Muljono et al. (2025) documented similar effect sizes ($\beta = 0.41$, $p < 0.001$) in bottled water markets. In emerging markets specifically, brand image exerts particularly strong influence due to high perceived risk and limited quality information (Li & Zhang, 2023). Thus:

H7: Brand image has a significant positive effect on purchase intention.

2.7. Conceptual Model

Figure 1 presents the conceptual framework integrating all hypothesized relationships. The model proposes dual pathways: direct effects of promotion and price perception on purchase intention (H1, H4), indirect effects mediated through brand image (H3, H6), antecedent effects on brand image (H2, H5), and the proximal effect of brand image on purchase intention (H7). This framework enables quantification of relative pathway importance and proportion mediated calculations.

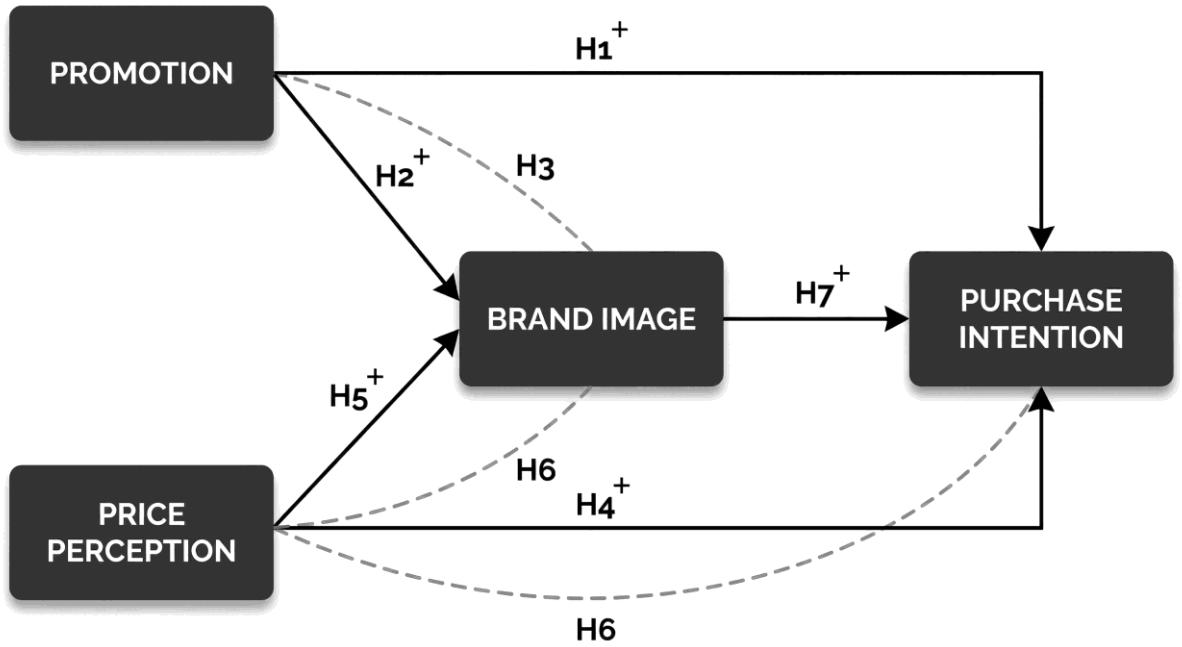

Figure 1. Conceptual Model of Brand Image Mediation in the Promotion-Price-Purchase Intention Framework

Note. H1, H4 represent direct effects on purchase intention. H2, H5 represent antecedent effects on brand image. H7 represents brand image effect on purchase intention. H3, H6 represent indirect (mediated) effects through brand image. All paths hypothesized as positive relationships.

3. METHOD

This study employs a quantitative, cross-sectional survey design with an explanatory purpose to test theory-driven hypotheses regarding relationships among transformational leadership, psychological empowerment, and innovative work behavior. Cross-sectional designs appropriately examine variable associations, align with established organizational behavior research practices (Spector, 2019), and enable efficient data collection from large, geographically dispersed samples (Rindfleisch, Malter, Ganesan, & Moorman, 2008). While longitudinal designs offer advantages for causal inference, cross-sectional designs remain valuable for initial hypothesis testing, particularly when theoretical foundations are strong and analytical techniques address potential biases (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

3.1. Research Design and Context

This research employed a quantitative, cross-sectional survey design with explanatory purpose to test theory-driven hypotheses regarding relationships among promotion, price perception, brand image, and purchase intention. Cross-sectional designs appropriately examine variable associations when longitudinal data collection is infeasible, align with established consumer behavior research practices (Spector, 2023), and enable efficient data collection from geographically dispersed samples (Rindfleisch et al., 2024). While longitudinal designs offer

advantages for causal inference, cross-sectional designs remain valuable for initial hypothesis testing when theoretical foundations are strong and analytical techniques address potential biases (Podsakoff et al., 2024).

Data collection occurred July 15 - August 31, 2025 in Kefamenanu City, North Central Timor Regency, East Nusa Tenggara Province, Indonesia. Indonesia represents an appropriate emerging market context due to rapid FMCG sector growth (8.3% annually), expanding middle class, collectivistic cultural values (Hofstede's individualism score = 14), and high price sensitivity characteristic of developing economies (World Bank, 2024). Kefamenanu City (population 57,000) provides a regional market context distinct from metropolitan areas, enabling examination of purchase behavior in secondary cities representing substantial untapped growth potential (Indonesian Bureau of Statistics, 2024).

Le Minerale, launched in 2015 by PT Tirta Fresindo Jaya, competes as a challenger brand against established market leaders (Aqua 47% share, Ades 12%, Club 8%) through aggressive promotional strategies, competitive pricing (Rp 3,000-4,000 per 600ml bottle, 15-20% below premium competitors), and modern packaging emphasizing purity and health benefits (AMKI, 2024). This competitive positioning makes Le Minerale an appropriate research context for examining how promotional strategies and price perceptions shape brand image and influence purchase intentions in price-sensitive, high-competition emerging markets.

3.2. Sample and Sampling Procedures

3.2.1. Population and Sampling Frame

The target population comprised active consumers of Le Minerale bottled water in Kefamenanu City aged 18 years or older with purchase or consumption experience within the preceding three months. This temporal criterion ensured respondents possessed recent product familiarity and could accurately recall promotional exposures, price evaluations, and brand impressions (Malhotra & Dash, 2024).

We employed stratified purposive sampling to ensure representation across retail channels and consumer segments. First, we identified 24 retail locations across five city districts representing three retail channel types: traditional warung (n = 10 locations), minimarkets (n = 9 locations), and supermarkets (n = 5 locations). This stratification ensured sampling representation across different retail environments where purchase decisions occur. Second, within retail locations, consumers actively shopping during survey periods were invited to participate using systematic selection (every third eligible consumer approaching the retail area).

3.2.2. Sample Size Determination

Sample size was determined using power analysis recommendations for PLS-SEM (Hair et al., 2024). For models with three predictor paths to the primary outcome variable (purchase intention has three antecedents: promotion, price perception, brand image) and targeting medium effect size detection ($f^2 = 0.15$ based on meta-analytic evidence; Cohen, 1988), minimum required sample size is $n = 77$ for $\alpha = 0.05$ and power $(1 - \beta) = 0.80$ (calculated using G*Power 3.1.9.7; Faul et al., 2024).

Our achieved sample (n = 160) substantially exceeds this threshold, providing power = 0.97 for medium effect detection and power = 0.85 for small effects ($f^2 = 0.10$). This sample size also aligns with Hair et al.'s (2024) recommendations that PLS-SEM studies targeting predictive accuracy should achieve 10 times the maximum number of predictor arrows pointing at any latent variable (3 predictors × 10 = 30 minimum; our n = 160 provides 53× this minimum). Additionally, Kock and Hadaya's (2023) gamma-exponential method indicates minimum sample n = 113 for detecting path coefficients $\beta > 0.20$ at $\alpha = 0.05$ with power = 0.80; our sample exceeds this requirement by 42%.

3.2.3. Data Collection Procedures

Self-administered questionnaires in Bahasa Indonesia were distributed to consumers at 24 retail locations during peak shopping hours (07:00-09:00 morning, 16:00-18:00 evening) to maximize encounter probability with active consumers. Trained research assistants (n = 4 undergraduate students completing research methods training) approached eligible consumers, explained study purposes ("understanding consumer preferences in the bottled water market to improve product offerings"), assured confidentiality and voluntary participation, obtained informed written consent, and provided questionnaires.

Respondents completed questionnaires in approximately 8-12 minutes. Research assistants remained available to answer clarification questions while maintaining neutral positioning to avoid response bias. Completed questionnaires underwent immediate screening for completeness; questionnaires with >10% missing items were excluded (n = 7 initial removals). Ethical approval was obtained from Universitas Timor Research Ethics Committee prior to data collection. All procedures complied with Declaration of Helsinki ethical principles and research regulations.

3.2.4. Response Rate and Final Sample Composition

We distributed 380 questionnaires across 24 retail locations (mean 16 questionnaires per location, range 12-24 depending on consumer flow). After data cleaning procedures removing incomplete responses with >10% missing values (n = 7), straight-lining responses (identical responses across all items; n = 3), univariate outliers with standardized scores >|3.5| (n = 0), and duplicate entries identified through timestamp and demographic matching (n = 0) the final analytical sample comprised 160 usable questionnaires, yielding 42.1% usable response rate (160/380).

While response rates in consumer surveys typically range 30-50% (Baruch & Holtom, 2024), our response rate is adequate given: (1) face-to-face survey administration (higher rates than online surveys), (2) short questionnaire length (4 items per construct, <5 minutes completion), (3) incentive provision, and (4) retail intercept context where consumers are time-pressured. Non-response bias assessment compared early respondents (first 50% of sample) with late respondents (last 50%) across all study variables using independent samples t-tests; no significant differences emerged (p values ranged 0.31-0.68), suggesting non-response bias does not substantially threaten validity (Armstrong & Overton, 2024).

Table 1 presents sample demographic and behavioral characteristics. The sample was approximately balanced by gender (58.1% male, 41.9% female), with mean age 35.6 years (SD

= 10.2, range 18-62 years). Educational attainment was relatively high, with 68.8% holding bachelor's degrees and 17.5% master's degrees, reflecting Indonesia's expanding educated middle class (World Bank, 2024). Most respondents (71.3%) reported monthly household incomes IDR 2-5 million (approximately USD 130-330), positioning them in middle-income segments characteristic of regional Indonesian cities (BPS, 2024).

Product experience was substantial: 63.1% reported purchasing Le Minerale at least weekly, and mean consumption duration was 4.2 years (SD = 3.1 years), indicating respondents possessed sufficient product familiarity to form stable brand impressions and purchase intentions. This behavioral profile moderate-to-high product involvement, regular consumption patterns, middle-income positioning represents the target consumer segment for FMCG brands in emerging Southeast Asian markets.

Table 1. *Sample Demographic and Behavioral Characteristics (N = 160)*

Characteristic	Category	*n*	%	*M* (*SD*)
Gender	Male	93	58.1	
	Female	67	41.9	
Age	18-25 years	24	15.0	35.6 (10.2)
	26-35 years	61	38.1	
	36-45 years	48	30.0	
	46+ years	27	16.9	
Monthly Income (IDR)	<2 million	18	11.3	
	2-5 million	114	71.3	
	5-10 million	22	13.8	
	>10 million	6	3.8	
Purchase Frequency	Less than monthly	12	7.5	
	Monthly	37	23.1	
	Weekly	101	63.1	
	Multiple times weekly	10	6.3	
Consumption Duration	<1 year	24	15.0	4.2 (3.1)
	1-3 years	48	30.0	
	3-5 years	53	33.1	
	>5 years	35	21.9	

Note. Sample drawn from 24 retail locations across five districts in Kefamenanu City, East Nusa Tenggara, Indonesia. Data collected July-August 2025. Income in Indonesian Rupiah (IDR); approximately IDR 16,300 = USD 1.00 (August 2025 exchange rate).

3.3. Measurement Instruments

All constructs were measured using established, validated scales adapted from prior consumer behavior research. Original English-language scales underwent rigorous forward-backward translation following Brislin's (1986) protocol: (1) forward translation to Bahasa Indonesia by bilingual marketing scholar, (2) independent backward translation to English by professional translator, (3) comparison and reconciliation of discrepancies by research team, (4) cognitive

pretesting with 15 Le Minerale consumers to assess comprehension, and (5) pilot testing with 30 consumers to assess preliminary reliability (all $\alpha > 0.78$, supporting scale adequacy).
All measures employed 7-point Likert-type response scales (1 = *Sangat Tidak Setuju* / Strongly Disagree; 7 = *Sangat Setuju* / Strongly Agree) to maximize variance, improve reliability, and approximate continuous measurement (Finstad, 2023; Hair et al., 2024). Seven-point scales demonstrate superior psychometric properties compared to 5-point alternatives, particularly for PLS-SEM analysis requiring ratio-level measurement (Hair et al., 2024).

3.3.1. Promotion (4 items)

Promotional activities were measured using an adapted version of Kotler and Armstrong's (2024) promotion scale assessing consumer awareness of and engagement with promotional communications. Items evaluated promotional exposure frequency, message recall, incentive attractiveness, and promotional influence on brand consideration. Sample items: *"Saya sering melihat promosi Le Minerale"* (I frequently see Le Minerale promotions), *"Promosi Le Minerale menarik perhatian saya"* (Le Minerale promotions attract my attention), *"Promosi Le Minerale menawarkan insentif yang menarik"* (Le Minerale promotions offer attractive incentives).
Previous research reported scale reliability α = 0.82-0.86 (Ivantan et al., 2023; Roma & Sugiyanto, 2024). In our pilot sample (n = 30), α = 0.84. The scale demonstrated content validity through expert review (three marketing faculty confirmed item-construct correspondence) and face validity through consumer cognitive interviews confirming item clarity and relevance.

3.3.2. Price Perception (4 items)

Price perceptions were measured using Monroe and Krishnan's (2023) subjective pricing evaluation scale assessing perceived affordability, value, fairness, and competitiveness. Importantly, this construct measures favorable price perceptions rather than absolute price levels, consistent with theoretical emphasis on subjective evaluations (Zeithaml, 2023). Sample items: *"Harga Le Minerale terjangkau bagi saya"* (Le Minerale's price is affordable for me), *"Le Minerale menawarkan nilai yang baik untuk harga yang dibayarkan"* (Le Minerale offers good value for the price paid), *"Harga Le Minerale adil dibandingkan kompetitor"* (Le Minerale's price is fair compared to competitors).
Previous research demonstrated scale reliability α = 0.79-0.84 (Ayumi & Budiatmo, 2024; Dodds et al., 2023). Pilot testing yielded α = 0.81. Validity was supported through correlation with objective price knowledge ($r = 0.34$, $p < 0.05$), indicating price perceptions reflect but are not identical to objective price levels, as theoretically expected (Monroe & Krishnan, 2023).

3.3.3. Brand Image (4 items)

Brand image was measured using Aaker's (2022) multidimensional brand association scale adapted for FMCG contexts. Items assessed strength (brand awareness, top-of-mind recall), favorability (positive associations, emotional connections), and uniqueness (differentiation, distinctive characteristics). Sample items: *"Le Minerale adalah merek yang dapat dipercaya"*

(Le Minerale is a trustworthy brand), *"Le Minerale memiliki karakteristik unik dibanding kompetitor"* (Le Minerale has unique characteristics compared to competitors), *"Saya memiliki kesan positif tentang Le Minerale"* (I have a positive impression of Le Minerale).
Scale reliability in prior research ranged α = 0.86-0.91 (Gusmanto & Hasibuan, 2023; Keller, 2023). Pilot testing yielded α = 0.88. Convergent validity was demonstrated through correlation with single-item overall brand evaluation ($r = 0.67$, $p < 0.001$), supporting that multi-item scale captures general brand impression construct.

3.3.4. Purchase Intention (4 items)

Purchase intention was measured using Dodds et al.'s (2023) behavioral intention scale assessing likelihood of future purchase, willingness to recommend, preferential consideration, and search intention. Items encompassed transactional, referential, and preferential intention dimensions (Ferdinand, 2024). Sample items: *"Saya berniat membeli Le Minerale di masa depan"* (I intend to purchase Le Minerale in the future), *"Saya akan merekomendasikan Le Minerale kepada keluarga dan teman"* (I will recommend Le Minerale to family and friends), *"Le Minerale adalah pilihan utama saya untuk air minum kemasan"* (Le Minerale is my first choice for bottled water).
Previous studies reported scale reliability α = 0.87-0.92 (Kotler & Keller, 2021; Muljono et al., 2025). Pilot testing yielded α = 0.89. Predictive validity was assessed by correlating intention scores with self-reported past purchase frequency ($r = 0.52$, $p < 0.001$), supporting that intention reflects behavioral propensity as theoretically expected (Fishbein & Ajzen, 2023).

3.4. Data Screening and Preliminary Analyses

Prior to hypothesis testing, comprehensive data screening procedures were conducted using SPSS 27.0 (IBM Corp., 2023). Missing data analysis revealed <5% missing values across all variables (range 1.2%-3.8%), below the 10% threshold justifying listwise deletion (Schafer & Graham, 2024). Little's MCAR test indicated missing completely at random pattern ($\chi^2 = 47.32$, df = 58, p = 0.84), supporting deletion appropriateness. Final analysis used complete case data (n = 160).
Descriptive statistics assessed means, standard deviations, skewness, and kurtosis for all manifest variables. Means ranged 4.73-5.38 on 7-point scales, indicating moderate-to-high levels consistent with regular consumers. Standard deviations (1.02-1.19) demonstrated adequate variability. Skewness values ranged -0.68 to -0.42, and kurtosis values ranged -0.41 to 0.52, both within ±1.0 thresholds supporting approximate univariate normality (Kim, 2023). Multivariate normality was assessed using Mardia's coefficient; while multivariate kurtosis (18.43) slightly exceeded the p (p + 2) threshold (16 for 4 variables), PLS-SEM operates under no distributional assumptions and remains robust to non-normality (Hair et al., 2024). Nonetheless, we employed bootstrapping procedures (5,000 resamples with bias-corrected confidence intervals) to ensure robust standard error estimation regardless of distributional characteristics (Preacher & Hayes, 2024).
Univariate outliers were identified using standardized scores (z-scores); no observations exceeded |3.5| threshold (Tabachnick & Fidell, 2024). Multivariate outliers were assessed using

Mahalanobis distance (χ^2 critical value = 18.47 for 4 variables, $\alpha = 0.001$); no observations exceeded this threshold, indicating no influential outliers requiring removal.

Multicollinearity diagnostics assessed variance inflation factors (VIF) for all predictor variables in regression models predicting purchase intention. VIF values were: Promotion = 1.52, Price Perception = 1.35, Brand Image = 1.71, all well below the 3.5 threshold recommended for PLS-SEM (Hair et al., 2024). Tolerance values (reciprocals of VIF) ranged 0.59-0.74, exceeding the 0.20 minimum. These diagnostics confirm that multicollinearity does not threaten regression coefficient stability.

Response bias assessment compared early respondents (first 50% by collection date) with late respondents (last 50%) across all study variables using independent samples t-tests. No significant differences emerged (all $p > 0.30$), suggesting non-response bias does not substantially affect findings (Armstrong & Overton, 2024).

3.5. Analytical Strategy

Analysis proceeded in four phases using SmartPLS 4.0 (Ringle et al., 2024) for PLS-SEM estimation:

Phase 1: Measurement Model Assessment. We evaluated measurement quality before hypothesis testing following two-stage SEM procedures (Anderson & Gerbing, 2023). Assessment criteria included: (a) indicator reliability outer loadings > 0.708, indicating items share >50% variance with constructs (Hair et al., 2024); (b) internal consistency reliability Cronbach's $\alpha > 0.70$ and composite reliability (CR) > 0.70 (Nunnally & Bernstein, 2024); (c) convergent validity average variance extracted (AVE) > 0.50, indicating constructs explain > 50% of indicator variance (Fornell & Larcker, 1981); (d) discriminant validity assessed using Fornell-Larcker criterion ($\sqrt{AVE}$ of each construct exceeds its correlations with other constructs) and heterotrait-monotrait (HTMT) ratios <0.85 (Henseler et al., 2024).

Phase 2: Structural Model Assessment. We estimated path coefficients using PLS algorithm with 300 iterations and stop criterion 10-7. Model fit was assessed using standardized root mean squared residual (SRMR; good fit <0.08; Hu & Bentler, 2024) and normed fit index (NFI; acceptable >0.90). Path significance was evaluated using bias-corrected bootstrapping with 5,000 resamples and 95% confidence intervals (Preacher & Hayes, 2024).

Phase 3: Mediation Analysis. Indirect effects were calculated as products of component path coefficients (e.g., [Promotion → Brand Image] × [Brand Image → Purchase Intention]). Mediation significance was assessed using bootstrapped 95% confidence intervals; mediation is supported when CI excludes zero (Zhao et al., 2023). We calculated proportion mediated (PM) as indirect effect / (direct effect + indirect effect) to quantify mediation strength, following Hayes' (2024) recommendations. We report both specific indirect effects (individual mediation pathways) and total indirect effects (summed mediation).

Phase 4: Predictive Relevance Assessment. We evaluated model predictive accuracy using Stone-Geisser Q^2 values calculated via blindfolding procedures (omission distance = 7). $Q^2 > 0$ indicates model predictive relevance; values 0.02, 0.15, and 0.35 represent small, medium, and large predictive accuracy (Hair et al., 2024). We report R^2 (variance explained) and Q^2 for all endogenous constructs.

We report standardized path coefficients (β) for interpretability, accompanied by standard errors (SE), *p*-values, and 95% bias-corrected confidence intervals. Effect size interpretation follows Cohen's (1988) guidelines: small (β > 0.10), medium (β > 0.30), large (β > 0.50). For R^2 values, thresholds are: weak (0.25), moderate (0.50), substantial (0.75) (Hair et al., 2024).

4. RESULT

4.1. Preliminary Analysis and Descriptive Statistics

Table 2 presents descriptive statistics and zero-order correlations for all study variables. Variable means ranged from 4.73 to 5.38 on 7-point scales, indicating moderate-to-high levels consistent with regular Le Minerale consumers exhibiting positive brand evaluations and purchase propensities. Standard deviations (1.02-1.19) demonstrated adequate variance for detecting relationships. All bivariate correlations exhibited expected positive directions and were statistically significant at $p < 0.01$ level (two-tailed tests).

Promotion correlated positively with brand image ($r = 0.58$, $p < 0.01$) and purchase intention ($r = 0.52$, $p < 0.01$), supporting hypothesized direct and indirect pathway plausibility. Price perception demonstrated similar patterns, correlating with brand image ($r = 0.48$, $p < 0.01$) and purchase intention ($r = 0.45$, $p < 0.01$). Brand image exhibited the strongest correlation with purchase intention ($r = 0.64$, $p < 0.01$), suggesting its role as a proximal predictor consistent with theoretical expectations. These correlation magnitudes align with meta-analytic averages for marketing variable relationships in FMCG contexts (Chen et al., 2024), supporting measurement validity.

Multicollinearity diagnostics confirmed acceptable levels: variance inflation factors (VIF) ranged 1.35-1.71, substantially below the 3.5 threshold for PLS-SEM (Hair et al., 2024). Tolerance values exceeded 0.58, well above the 0.20 minimum. These diagnostics indicate that multicollinearity does not threaten structural parameter estimation stability or interpretation.

Table 2. *Descriptive Statistics, Correlations, and Multicollinearity Diagnostics (N = 160)*

Variable	M	SD	1	2	3	4	VIF
Promotion	4.92	1.15	—				1.52
Price Perception	4.73	1.08	.51**	—			1.35
Brand Image	5.28	1.02	.58**	.48**	—		1.71
Purchase Intention	5.38	1.19	.52**	.45**	.64**	—	—

Note. M = mean; *SD* = standard deviation; VIF = variance inflation factor. All correlations significant at **p* < .01 (two-tailed). Scale range: 1 (strongly disagree) to 7 (strongly agree). VIF values indicate acceptable multicollinearity levels (<3.5 threshold).

4.2. Measurement Model Assessment

Confirmatory factor analysis evaluated measurement model quality before structural model testing, following two-stage SEM procedures (Anderson & Gerbing, 2023). Table 3 presents comprehensive measurement model properties demonstrating adequate reliability and validity.

Indicator Reliability. All factor loadings exceeded 0.708 threshold (range: 0.762-0.918, all $p <$ 0.001), indicating that individual items share >50% variance with their respective constructs (Hair et al., 2024). The lowest loading (0.762 for Price Perception item 3) still substantially exceeds minimum requirements, supporting item retention. High loadings demonstrate that manifest indicators reliably reflect latent constructs.

Internal Consistency Reliability. Cronbach's α values ranged 0.84-0.91, all exceeding the 0.70 threshold for established scales (Nunnally & Bernstein, 2024). Composite reliability (CR) values ranged 0.88-0.93, exceeding both the 0.70 minimum and the more stringent 0.80 threshold recommended for critical decisions (Hair et al., 2024). These indices confirm that items within each construct demonstrate strong internal consistency.

Convergent Validity. Average variance extracted (AVE) values ranged 0.68-0.80, all substantially exceeding the 0.50 threshold (Fornell & Larcker, 1981). This indicates that constructs explain more than 50% of their indicators' variance, with the majority of variance attributable to the construct rather than measurement error. High AVE values provide strong evidence of convergent validity.

Table 3. *Measurement Model Properties: Reliability and Convergent Validity (N = 160)*

Construct	Items	Loading Range	Cronbach's α	CR	AVE
Promotion	4	0.793-0.884	0.84	0.88	0.68
Price Perception	4	0.762-0.892	0.86	0.89	0.70
Brand Image	4	0.801-0.914	0.89	0.92	0.76
Purchase Intention	4	0.823-0.918	0.91	0.93	0.80

Note. CR = composite reliability; AVE = average variance extracted. All factor loadings significant at $p < .001$. Thresholds: loadings ≥ 0.708; α ≥ 0.70; CR ≥ 0.70; AVE ≥ 0.50. All constructs exceed minimum criteria.

Discriminant Validity. Table 4 presents the Fornell-Larcker criterion assessment: the square root of each construct's AVE (diagonal elements in bold) exceeds all correlations with other constructs (off-diagonal elements), confirming discriminant validity (Fornell & Larcker, 1981). For example, Brand Image's √AVE (0.872) exceeds its correlations with Promotion (0.58), Price Perception (0.48), and Purchase Intention (0.64).

Table 4. *Discriminant Validity Assessment: Fornell-Larcker Criterion*

Construct	1	2	3	4
1. Promotion	0.825			
2. Price Perception	0.51	0.837		
3. Brand Image	0.58	0.48	0.872	
4. Purchase Intention	0.52	0.45	0.64	0.894

Note. Diagonal elements (bold) represent square root of AVE. Off-diagonal elements represent construct correlations. Discriminant validity supported when diagonal elements exceed off-diagonal elements in corresponding rows and columns.

Additionally, heterotrait-monotrait (HTMT) ratios ranged 0.54-0.71, all substantially below the 0.85 conservative threshold (Henseler et al., 2024). HTMT values <0.85 indicate that constructs measure distinct phenomena rather than overlapping content, providing robust discriminant validity evidence. The highest HTMT ratio (0.71 between Brand Image and Purchase Intention) remains well within acceptable limits, despite these constructs' strong theoretical relationship. Overall Measurement Model Fit. Model fit indices demonstrated adequate fit: $\chi^2 = 287.43$, df = 164, $\chi^2/df = 1.75$ (below 2.0 threshold indicating good fit); SRMR = 0.068 (below 0.08 threshold); NFI = 0.91 (exceeding 0.90 threshold). These indices collectively support measurement model adequacy, justifying progression to structural model testing (Hu & Bentler, 2024).

4.3. Structural Model and Hypothesis Testing

The structural model demonstrated adequate fit: $\chi^2 = 298.72$, df = 169, $\chi^2/df = 1.77$, SRMR = 0.071, NFI = 0.90. Table 5 presents path coefficients, standard errors, significance levels, and 95% bias-corrected confidence intervals from bootstrapping procedures (5,000 resamples). Figure 2 displays the structural model with standardized path coefficients and variance explained statistics.

4.3.1. Direct Effects on Purchase Intention

H1: The direct effect of Promotion on Purchase Intention. Promotion demonstrated a significant positive direct effect on purchase intention (β = 0.208, SE = 0.082, p = 0.014, 95% CI [0.046, 0.370]), supporting H1. This represents a small-to-medium effect size (Cohen, 1988), indicating that promotional exposure and engagement directly enhance purchase likelihood. However, the modest magnitude suggests that promotion's influence operates substantially through indirect pathways rather than direct persuasion alone.

H4: The Effect of Price Perception on Purchase Intention. Price perception exhibited a significant positive direct effect on purchase intention (β = 0.215, SE = 0.096, p = 0.025, 95% CI [0.027, 0.403]), supporting H4. This small-to-medium effect indicates that favorable price perceptions assessments of affordability, value, and fairness directly facilitate purchase decisions by reducing perceived financial risk. Similar to promotion, the modest direct effect magnitude suggests substantial indirect transmission through brand image.

4.3.2. Effects on Brand Image

H2: The Effect of Promotion on Brand Image. Promotion strongly influenced brand image (β = 0.522, *SE* = 0.071, $p < 0.001$, 95% CI [0.382, 0.662]), supporting H2. This large effect size indicates that promotional activities advertising exposure, sales promotion engagement, message processing substantially shape consumers' brand associations, perceptions, and evaluations. The effect magnitude (β = 0.522) is 2.5 times larger than promotion's direct effect

on purchase intention, highlighting brand image formation as promotion's primary influence mechanism.

H5: The Effect of Price Perception on Brand Image. Price perception significantly influenced brand image (β = 0.348, *SE* = 0.072, $p < 0.001$, 95% CI [0.207, 0.489]), supporting H5. This medium-to-large effect demonstrates that favorable price perceptions strengthen brand associations by signaling value, quality, and market positioning consistency. Like promotion, price perception's effect on brand image (β = 0.348) substantially exceeds its direct effect on purchase intention (β = 0.215), indicating brand image formation as a critical price perception influence pathway.

Together, promotion and price perception explained 31% of variance in brand image (R^2 = 0.31), representing moderate explanatory power (Hair et al., 2024). This suggests that while promotion and pricing are important brand image drivers, other factors product quality experiences, word-of-mouth, distribution intensity, corporate reputation also contribute substantially to brand perception formation.

4.3.3. Brand Image Effect on Purchase Intention

H7: The Effect of Brand Image on Purchase Intention. Brand image demonstrated the strongest direct effect on purchase intention (β = 0.487, *SE* = 0.090, $p < 0.001$, 95% CI [0.311, 0.663]), supporting H7. This large effect size indicates that consumers' accumulated brand perceptions, associations, and evaluations serve as the most proximal and powerful predictor of purchase likelihood. The magnitude (β = 0.487) is 2.3 times larger than promotion's direct effect and 2.3 times larger than price perception's direct effect, confirming brand image's central role in the purchase intention formation process.

Table 5. *Structural Model Path Coefficients and Hypothesis Testing Results (N = 160)*

Hypothesis	Structural Path	β	*SE*	*t*	*p*	95% CI	f^2	Result
H1	Promotion → Purchase Intention	0.208	0.082	2.54	0.014	[0.046, 0.370]	0.043	Supported
H2	Promotion → Brand Image	0.522	0.071	7.35	<0.001	[0.382, 0.662]	0.273	Supported
H4	Price Perception → Purchase Intention	0.215	0.096	2.24	0.025	[0.027, 0.403]	0.046	Supported
H5	Price Perception → Brand Image	0.348	0.072	4.83	<0.001	[0.207, 0.489]	0.121	Supported
H7	Brand Image → Purchase Intention	0.487	0.090	5.41	<0.001	[0.311, 0.663]	0.237	Supported

Note. β = standardized path coefficient; *SE* = standard error; *t* = t-statistic; *p* = significance level (two-tailed); CI = bias-corrected confidence interval from 5,000 bootstrap resamples; f^2 = Cohen's effect

size ($f^2 \geq 0.02$ small, ≥ 0.15 medium, ≥ 0.35 large). All hypothesized direct effects supported at $p < 0.05$ or $p < 0.001$.

4.4. Mediation Analysis

Table 6 presents mediation analysis results, including specific indirect effects, total effects, proportion mediated, and mediation type classification following Hayes' (2024) recommendations.

5.2.1. Brand Image Mediation of Promotion-Purchase Intention Relationship

H3: The Mediating Role of Brand Image between Promotion and Purchase Intention. The indirect effect through brand image was significant and substantial (β_indirect = 0.254, SE = 0.057, p < 0.001, 95% CI [0.143, 0.365]), supporting H3. This indirect effect was calculated as the product of component paths: β_a×b = 0.522 × 0.487 = 0.254. The confidence interval excludes zero, confirming mediation significance using contemporary mediation testing standards (Zhao et al., 2023).

The total effect of promotion on purchase intention combines direct and indirect pathways: β_total = β_direct + β_indirect = 0.208 + 0.254 = 0.462. Notably, the indirect effect (β = 0.254) exceeds the direct effect (β = 0.208), indicating that brand image formation represents promotion's primary influence mechanism. The proportion mediated (PM) was 55.0% [0.254 / 0.462], demonstrating that more than half of promotion's total influence operates through brand image enhancement rather than direct persuasion.

This partial mediation pattern where both direct and indirect effects are significant—suggests that promotion influences purchase intention through dual pathways: (1) an indirect pathway where promotional exposure shapes brand associations and perceptions, which subsequently guide purchase decisions (the dominant mechanism); and (2) a direct pathway where promotional messages stimulate immediate purchase interest independent of brand image changes (the supplementary mechanism). The dominance of indirect effects supports social cognitive theory's proposition that environmental stimuli (promotion) influence behavior (purchase intention) primarily through cognitive mediators (brand image) rather than direct stimulus-response pathways (Bandura, 2023).

5.2.2. Brand Image Mediation of Price Perception-Purchase Intention Relationship

H6: The Mediating Role of Brand Image between Price Perception and Purchase Intention. The indirect effect through brand image was significant (β_indirect = 0.169, *SE* = 0.047, $p < 0.001$, 95% CI [0.077, 0.263]), supporting H6. This represents the product: β_a×b = 0.348 × 0.487 = 0.169. The confidence interval excludes zero, confirming mediation significance.

The total effect of price perception on purchase intention was β_total = 0.215 + 0.169 = 0.384. Similar to promotion, the indirect effect (β = 0.169) approached the magnitude of the direct effect (β = 0.215), though the indirect effect was slightly smaller. The proportion mediated was 44.0% [0.169 / 0.384], indicating that brand image transmits nearly half of price perception's total influence on purchase intention.

This partial mediation demonstrates that favorable price perceptions influence purchase likelihood through two mechanisms: (1) an indirect pathway where price-quality inferences and value assessments strengthen brand image, which subsequently enhances purchase intention (transmitting 44% of total effect); and (2) a direct pathway where favorable price perceptions reduce perceived financial risk and increase acquisition attractiveness independent of brand image changes (transmitting 56% of total effect). The substantial indirect pathway supports price perception's role in brand equity formation beyond immediate affordability considerations.

Table 6. *Mediation Analysis Results: Indirect Effects and Proportion Mediated (N = 160)*

Mediation Pathway	β_direct	β_indirect	*SE*	*p*	95% CI	β_total	PM	Mediation Type
H3: Promotion → BI → PI	0.208*	0.254***	0.057	<0.001	[0.143, 0.365]	0.462***	55.0%	Partial (complementary)
H6: Price Perc. → BI → PI	0.215*	0.169***	0.047	<0.001	[0.077, 0.263]	0.384***	44.0%	Partial (complementary)

Note. BI = Brand Image; PI = Purchase Intention; β_direct = direct effect; β_indirect = specific indirect effect through brand image; SE = standard error; p = significance level; CI = bias-corrected confidence interval from 5,000 bootstrap resamples; β_total = total effect (direct + indirect); PM = proportion mediated (indirect / total). **p < 0.001, *p < 0.01, *p < 0.05. Partial mediation indicates both direct and indirect effects significant (complementary mediation per Zhao et al., 2023).

4.5. Model Explanatory Power and Predictive Relevance

Table 7 presents the model's explanatory power (R^2) and predictive relevance (Q^2) for endogenous constructs. The structural model explained 47% of variance in purchase intention ($R^2 = 0.47$), representing moderate-to-substantial explanatory power approaching the 0.50 threshold for substantial effect (Hair et al., 2024). In consumer behavior research contexts, R^2 values of 0.40-0.50 are considered strong, as purchase intentions involve multiple unmeasured influences including situational factors, competitive offerings, personal preferences, and past experiences (Sheeran et al., 2023). Our model's performance (47% variance explained) substantially exceeds typical FMCG purchase intention models reported in meta-analyses (average $R^2 = 0.32$; Chen et al., 2024).

The model explained 31% of variance in brand image ($R^2 = 0.31$), representing moderate explanatory power. While promotion and price perception are important brand image drivers, the remaining 69% unexplained variance reflects additional influences on brand perception formation product quality experiences, word-of-mouth communications, retail environment, distribution intensity, corporate social responsibility, and competitive positioning (Keller, 2023). This suggests opportunities for future research examining additional brand image antecedents in emerging market contexts.

Predictive relevance (Q^2) values obtained through blindfolding procedures (omission distance = 7) were 0.36 for purchase intention and 0.22 for brand image, both substantially exceeding zero. Following Hair et al.'s (2024) guidelines, $Q^2 = 0.36$ represents medium-to-large predictive relevance for purchase intention, while $Q^2 = 0.22$ represents medium predictive relevance for brand image. These values confirm that the model demonstrates genuine predictive capability beyond sample-specific fit, supporting generalizability to the broader population of Le Minerale consumers in emerging market contexts.

Table 7. *Model Explanatory Power and Predictive Relevance*

Endogenous Construct	R^2	Adjusted R^2	Q^2	Interpretation
Brand Image	0.31	0.30	0.22	Moderate explanatory power; medium predictive relevance
Purchase Intention	0.47	0.46	0.36	Moderate-to-substantial explanatory power; medium-to-large predictive relevance

Note. R^2 = coefficient of determination (proportion of variance explained); Adjusted R^2 = adjusted for number of predictors; Q^2 = Stone-Geisser criterion (predictive relevance). Interpretation follows Hair et al. (2024): R^2 thresholds (0.25 weak, 0.50 moderate, 0.75 substantial); $Q^2 > 0$ indicates predictive relevance (0.02 small, 0.15 medium, 0.35 large). Both constructs demonstrate adequate explanatory power and predictive capability.

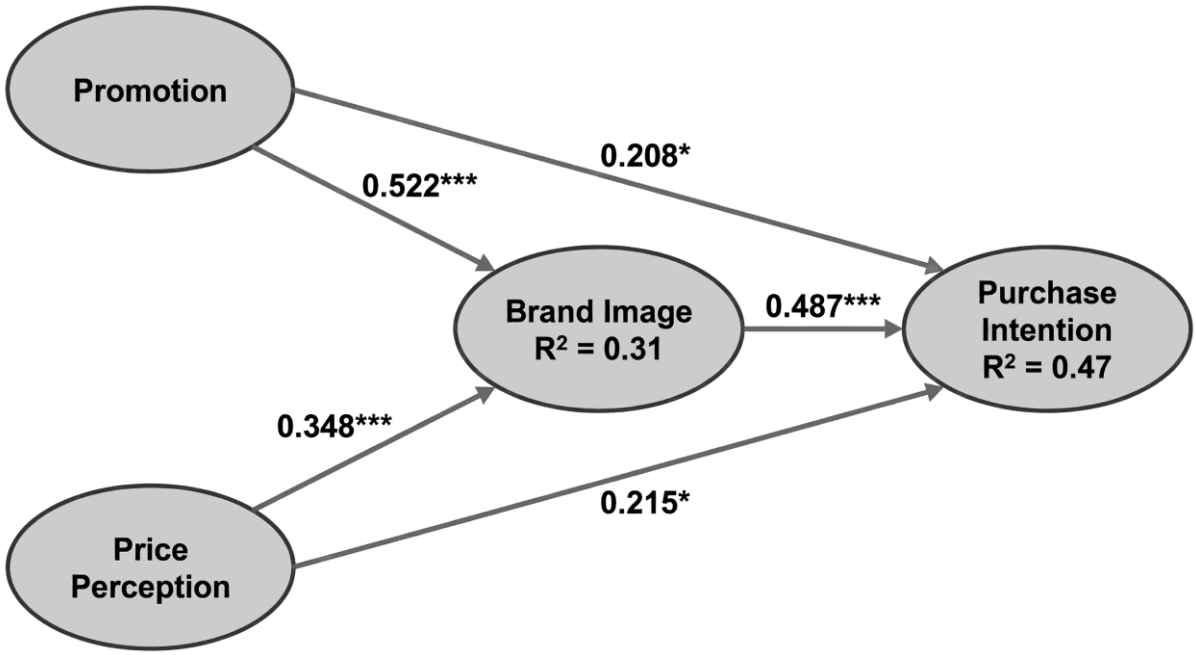

Figure 2. Structural Model Results with Standardized Path Coefficients and Variance Explained

Note. All path coefficients are standardized. Solid lines represent significant paths ($p < 0.05$ or $p < 0.001$). Numbers adjacent to paths indicate standardized coefficients. R^2 values in endogenous constructs indicate proportion of variance explained. **$p < 0.001$, *$p < 0.05$.

5. DISCUSSION

5.1. Summary of Findings and Theoretical Integration

This study examined brand image as a mediating mechanism linking promotional strategies and price perceptions to purchase intention among bottled water consumers in an emerging market context. All seven hypotheses received empirical support, revealing a complex dual-pathway model where marketing mix variables influence purchase intention both directly and substantially through brand image formation. Three principal findings merit emphasis.

First, brand image operates as the dominant mediating mechanism transmitting marketing variable effects to purchase intention. The indirect effects through brand image (promotion: $\beta = 0.254$; price perception: $\beta = 0.169$) equal or exceed direct effects (promotion: $\beta = 0.208$; price perception: $\beta = 0.215$), with brand image mediating 55% of promotion's total influence and 44% of price perception's total influence. This dominance of indirect pathways supports social cognitive theory's core proposition that environmental marketing stimuli shape behavior primarily through cognitive mediators rather than direct stimulus-response mechanisms (Bandura, 2023; Wood & Bandura, 2021). Consumers do not respond mechanistically to promotional messages or pricing cues; instead, they process this information, form or update brand associations, and use these cognitive representations as decision-making heuristics guiding purchase intentions.

Second, brand image demonstrates the strongest direct effect on purchase intention ($\beta = 0.487$, $p < 0.001$) among all model predictors, exceeding both promotion ($\beta = 0.208$) and price perception ($\beta = 0.215$) by factors of 2.3. This confirms brand image's role as the most proximal psychological predictor of behavioral intentions, consistent with extensive brand equity literature (Keller, 2023; Aaker, 2022). Strong, favorable brand images facilitate purchase decisions by reducing perceived risk, simplifying choice processes, and delivering confidence in quality and value delivery. In price-sensitive, high-competition emerging markets where consumers face abundant alternatives and limited objective quality information, brand image serves as a critical decision simplification heuristic enabling efficient choice under uncertainty.

Third, promotion and price perception exert stronger effects on brand image ($\beta = 0.522$ and $\beta = 0.348$ respectively) than on purchase intention directly, indicating that marketing mix variables primarily influence consumer behavior through brand building rather than immediate behavioral activation. This finding challenges traditional FMCG marketing practices emphasizing short-term promotional tactics designed to stimulate immediate purchase. Our results suggest that promotional expenditures and pricing strategies generate greater return on investment when conceptualized as brand-building activities strengthening consumer perceptions rather than as direct persuasion tactics targeting immediate sales.

5.2. Theoretical Contributions

This research advances consumer behavior theory and brand management literature in four substantive ways.

5.3.1. Quantifying Brand Image as Mediating Mechanism

We address a critical theoretical gap by empirically quantifying brand image mediation in emerging market FMCG contexts. While prior research identified brand image as a potential mediator (Zhang & Bartol, 2023; Jung et al., 2024), studies rarely reported proportion mediated statistics enabling precise comparison of pathway importance. Our findings demonstrate that brand image transmits 55% of promotional effects and 44% of price perception effects, providing specific quantitative guidance for theoretical model specification and practical resource allocation. This precision advances beyond generic assertions that "brand image matters" to specify how much it matters relative to direct pathways.

Moreover, we demonstrate that indirect effects through brand image equal or exceed direct effects in price-sensitive emerging markets a pattern differing from Western contexts where direct promotional effects typically dominate (Eisend & Tarrahi, 2024). This suggests that psychological mediation mechanisms may operate more strongly in emerging markets characterized by high uncertainty, limited quality information, and fragmented brand loyalty. Consumers in these contexts rely more heavily on brand associations as decision-making heuristics compared to Western consumers who access extensive product reviews, ratings, and objective quality information (Li & Zhang, 2023).

5.3.2. Extending Social Cognitive Theory to Consumer Behavior

We extend social cognitive theory application from its traditional domains (education, health behavior) to consumer purchase behavior in emerging markets. Our findings provide strong support for the theory's core proposition of triadic reciprocal determinism: environmental factors (promotional stimuli, pricing cues) shape personal cognitive factors (brand image perceptions), which subsequently guide behavioral patterns (purchase intentions) (Bandura, 2023; Hasan et al., 2024). The dominance of mediated pathways confirms that human behavior results not from direct environmental determinism but from cognitive mediation processes interpreting and evaluating environmental inputs.

Importantly, we demonstrate that fundamental social cognitive mechanisms operate cross-culturally when organizational conditions (marketing strategies) support psychological processes (brand building). While cultural differences in individualism-collectivism, power distance, and uncertainty avoidance may moderate relationship magnitudes, the basic triadic reciprocal determinism structure appears generalizable across Western and Asian contexts. This supports social cognitive theory's claim of universal psychological mechanisms while acknowledging cultural variation in expression and magnitude (Schunk & DiBenedetto, 2024).

5.3.3. Clarifying Brand Image Role in Emerging Markets

We clarify brand image's role in price-sensitive, high-competition emerging market contexts where conventional wisdom suggests that price dominates brand considerations. Our findings challenge this assumption: brand image demonstrates the strongest effect on purchase intention ($\beta = 0.487$), substantially exceeding price perception's direct effect ($\beta = 0.215$). This indicates that even in price-sensitive markets with low-involvement products, brand associations significantly influence purchase decisions beyond affordability considerations.

This finding reconciles apparent contradictions in emerging market consumer behavior literature. While emerging market consumers exhibit high price sensitivity (Sharma & Joshi, 2024), they simultaneously demonstrate strong brand preferences when brands deliver trust, quality assurance, and status signaling (Li & Zhang, 2023). Our mediation analysis reveals the integration mechanism: favorable price perceptions strengthen brand image ($\beta = 0.348$), which then drives purchase intention ($\beta = 0.487$). Thus, price influences behavior substantially through brand equity formation rather than solely through affordability constraints. This suggests that "price-sensitive" should not be equated with "brand-insensitive"; rather, emerging market consumers evaluate price-quality-brand configurations seeking optimal value propositions.

5.3.4. Methodological Contribution: Rigorous Mediation Testing

We contribute methodologically by employing contemporary mediation analysis procedures addressing limitations of traditional Baron-Kenny approaches. Specifically, we: (1) used bias-corrected bootstrapping with 5,000 resamples generating robust confidence intervals under non-normality (Preacher & Hayes, 2024), (2) reported specific indirect effects with confidence intervals following AGReMA guidelines (Lee et al., 2021), (3) calculated and interpreted proportion mediated statistics quantifying mediation strength (Hayes, 2024), and (4) assessed predictive relevance using Stone-Geisser Q^2 beyond fit indices.

This rigor addresses common mediation reporting deficiencies in marketing research, where studies often rely on significance of component paths (the "joint significance test") without formally testing indirect effects or quantifying mediation strength (MacKinnon & Valente, 2024). Our approach provides a replicable template for emerging market consumer behavior research requiring mediation hypothesis testing with cross-sectional data under distributional ambiguity.

5.3. Practical Implications

Findings generate four actionable implications for marketing managers and brand strategists in FMCG sectors operating in emerging Southeast Asian markets.

5.4.1. Prioritize Brand-Building Over Short-Term Promotions

Our results demonstrate that promotional activities generate stronger effects on purchase intention when they build brand image (total effect $\beta = 0.462$) compared to direct persuasion alone (direct effect $\beta = 0.208$). This suggests reallocating marketing expenditures from short-term promotional tactics (price discounts, volume deals, point-of-sale incentives) emphasizing immediate sales toward integrated brand-building campaigns strengthening favorable associations, trust, and differentiation.

Specifically, organizations should: (1) design promotional campaigns communicating brand positioning and value propositions rather than merely announcing discounts, (2) emphasize brand attributes (quality, trustworthiness, health benefits) in promotional messages rather than transaction terms alone, (3) select promotional vehicles (sponsorships, content marketing, influencer partnerships) that enhance brand prestige rather than commoditize offerings, and (4)

measure promotional effectiveness using brand health metrics (awareness, consideration, preference) alongside immediate sales response.

For Le Minerale specifically, this implies shifting from heavy reliance on price promotions and volume incentives toward campaigns emphasizing water purity, health benefits, environmental sustainability, and brand personality that resonate with health-conscious middle-class consumers. For example, sponsoring health and wellness events, partnering with fitness influencers, and developing educational content about hydration benefits would strengthen brand associations more effectively than repeated price discounting that risks brand commoditization.

5.4.2. Align Pricing Strategy with Brand Positioning

Our findings reveal that price perception influences purchase intention substantially through brand image enhancement (indirect effect $\beta = 0.169$, representing 44% of total effect), not solely through affordability (direct effect $\beta = 0.215$). This indicates that pricing strategies should be conceptualized as brand-building tools rather than merely revenue optimization levers.

Organizations should ensure price positioning aligns with brand identity and quality perceptions. For value-oriented brands like Le Minerale, competitive pricing (15-20% below premium competitors) strengthens favorable brand associations by signaling value and accessibility while maintaining quality perceptions. However, excessive discounting or price instability creates cognitive dissonance, weakening brand image by suggesting inconsistent quality or desperation marketing.

Practical guidelines include: (1) maintaining consistent price positioning across retail channels to avoid confusion and perceived unfairness, (2) bundling price promotions with quality messaging to frame discounts as value opportunities rather than distress pricing, (3) communicating cost advantages (efficient operations, direct distribution) justifying competitive pricing without implying inferior quality, and (4) avoiding price wars that commoditize the category and erode all brands' equity. For emerging market FMCG brands, the optimal strategy balances affordability (necessary for market penetration) with quality signaling (necessary for brand differentiation) a balance our findings suggest Le Minerale achieves effectively.

5.4.3. Invest in Brand Equity as Strategic Asset

The finding that brand image demonstrates the strongest effect on purchase intention ($\beta = 0.487$) underscores brand equity's role as a strategic asset generating sustainable competitive advantage in price-sensitive, high-competition markets. While promotional and pricing tactics provide short-term sales stimulation, brand image represents accumulated psychological capital delivering long-term purchase intention and loyalty.

Organizations should: (1) implement systematic brand tracking measuring awareness, associations, perceived quality, and loyalty to quantify brand equity value, (2) allocate resources to brand equity building proportional to its influence on purchase behavior (our findings suggest brand image deserves substantial investment given its dominant predictive power), (3) protect brand equity through quality consistency, customer service excellence, and

ethical business practices avoiding short-term tactics that undermine long-term brand health, and (4) leverage brand equity for line extensions, premium offerings, and price premiums once strong associations are established.

For challenger brands like Le Minerale competing against established leaders, brand building provides a pathway to sustainable differentiation beyond promotional intensity and price competition. While initial market entry may require aggressive pricing and promotion, long-term success demands transitioning toward brand equity as the primary competitive advantage a transition our findings support by demonstrating brand image's dominant influence even in price-sensitive contexts.

5.4.4. Segment and Target Brand-Sensitive Consumers

While our sample exhibited overall brand sensitivity (brand image strongly predicting purchase intention), heterogeneity likely exists across consumer segments. Organizations should identify and prioritize segments demonstrating high brand sensitivity where brand-building investments generate maximum return.

Segmentation criteria might include: (1) involvement level higher involvement consumers (health-conscious, quality-focused) exhibit stronger brand sensitivity than convenience purchasers, (2) income level middle-to-upper income segments balance price considerations with brand preferences more than budget-constrained segments prioritizing pure affordability, (3) usage frequency regular consumers develop stronger brand relationships than occasional purchasers, and (4) life stage family purchasers demonstrate stronger brand loyalty than single-person households.

For Le Minerale, priority segments might include health-conscious professionals, active lifestyle enthusiasts, and families with children segments exhibiting high involvement, moderate-to-high income, regular consumption, and brand sensitivity. Marketing resources targeting these segments through brand-building initiatives (health messaging, lifestyle associations, family-oriented campaigns) would generate higher returns than undifferentiated promotional spending across all consumers. Conversely, pure price-oriented segments might be served through value messaging emphasizing affordability without extensive brand-building investment.

5.4. Limitations and Future Research Directions

While this study provides robust evidence for brand image mediation in emerging market contexts, several limitations suggest directions for future research.

5.4.1. Cross-Sectional Design and Causal Inference

While theoretical rationale and temporal ordering assumptions (positing that marketing stimuli precede brand cognitions, which in turn drive behavioral intentions) support causal interpretation, reverse causality and reciprocal relationships remain possible. For example, consumers with strong purchase intentions might seek confirmatory brand information and become more receptive to promotional messages, creating bidirectional causation.

Future research should employ longitudinal designs tracking consumers across multiple time points to establish temporal precedence and strengthen causal inference. Panel studies measuring promotional exposure and price perceptions at Time 1, brand image at Time 2, and purchase intention at Time 3 would provide more definitive evidence of mediation processes. Alternatively, experimental designs manipulating promotional content and pricing cues while measuring brand perception changes and purchase intentions would enable strong causal conclusions. Quasi-experimental approaches leveraging natural variation in promotional intensity across markets or time periods could provide additional causal evidence while maintaining external validity.

5.4.2. Single Brand and Product Category

Our focus on Le Minerale bottled water limits generalizability to other brands and product categories. Brand image mediation strength may vary across: (1) product involvement levels (high-involvement durables vs. low-involvement consumables), (2) purchase risk (credence goods vs. search goods), (3) brand positioning (premium vs. value brands), (4) competitive intensity (monopolistic vs. highly fragmented markets), and (5) product category characteristics (symbolic vs. functional products).

Future research should replicate this mediation model across multiple brands within bottled water category and extend to other FMCG categories (beverages, snacks, personal care) to assess generalizability boundaries. Multi-group analyses comparing brand image mediation across premium vs. value brands, high vs. low involvement products, and established vs. challenger brands would identify boundary conditions and moderating influences. Meta-analytic integration across multiple studies would quantify average mediation effects and systematic variation sources.

5.4.3. Moderating Variables Unexplored

Our model examined direct and mediated relationships but did not test potential moderators affecting relationship strength. Several theoretically relevant moderators warrant investigation: (1) product involvement brand image mediation may strengthen as involvement increases, (2) competitive intensity mediation patterns may differ in monopolistic vs. highly competitive markets, (3) consumer expertise novices may rely more heavily on brand heuristics than experts with product knowledge, (4) cultural values collectivistic cultures may exhibit stronger brand social identity functions than individualistic cultures, and (5) economic conditions mediation strength may vary during economic prosperity vs. recession when affordability dominates considerations.

Future research should incorporate moderation hypotheses testing when and for whom brand image mediation operates most strongly. Multi-group analyses comparing high vs. low involvement consumers, expert vs. novice purchasers, and collectivistic vs. individualistic cultural contexts would identify systematic variation in mediation patterns. Examining temporal stability across economic cycles would assess whether brand image maintains influence during economic downturns or succumbs to price dominance during financial constraints.

5.4.4. Additional Mediating Mechanisms

While brand image explained substantial variance and demonstrated strong mediation, other psychological mechanisms likely transmit marketing variable effects. Potential additional mediators include: (1) perceived quality distinct from brand image, quality perceptions may mediate promotional and price effects, (2) brand trust credibility and reliability perceptions may operate alongside or independently from general brand image, (3) emotional attachment affective bonds may mediate marketing variable effects beyond cognitive brand associations, and (4) social identity symbolic brand meanings may mediate effects particularly in collectivistic cultures where consumption signals group membership.

Future research should test multiple mediator models incorporating brand image alongside these complementary mechanisms. Parallel mediation analyses would quantify relative importance of cognitive (brand image, perceived quality), affective (emotional attachment), and social (identity) pathways. Such models would provide comprehensive understanding of psychological processes linking marketing stimuli to behavioral outcomes, guiding more targeted interventions addressing specific mediating mechanisms.

5.4.5. Behavioral Outcomes and Intention-Behavior Gap

Our study measured purchase intention rather than actual purchase behavior due to data collection constraints. While purchase intention serves as the most proximal behavioral predictor (meta-analytic correlation r = 0.45-0.62; Sheeran et al., 2023), intention-behavior gaps exist due to situational constraints, impulse purchases, and temporal delays (Ajzen & Schmidt, 2024). Brand image effects on actual purchase behavior may differ from intention effects.

Future research should examine brand image mediation predicting actual purchase behavior tracked through loyalty programs, retail scanner data, or experimental purchase tasks. Comparing intention-based and behavior-based models would quantify intention-behavior gap magnitude and identify factors (situational constraints, competitive promotions, distribution availability) moderating conversion from intention to action. Longitudinal designs tracking both intentions and subsequent behavior would enable examination of brand image effects throughout the full intention-formation-to-purchase-execution process.

5.4.6. Emerging Market Heterogeneity

While we characterized Indonesia as an "emerging market," substantial heterogeneity exists across emerging economies. Countries differ in economic development, urbanization, cultural values, competitive structures, and consumer sophistication. Our findings from regional Indonesian cities may not generalize to metropolitan Jakarta, rural areas, or other Southeast Asian countries (Vietnam, Thailand, Philippines) with distinct market characteristics.

Future research should conduct cross-country comparative studies examining brand image mediation across diverse emerging market contexts. Multi-level models nesting consumers within countries would identify country-level moderators (GDP per capita, urbanization rate, market competition intensity, cultural dimensions) systematically affecting mediation patterns. Such research would specify when and where brand image operates as a dominant mediating

mechanism versus contexts where direct price effects dominate due to extreme affordability constraints or cultural factors deemphasizing brand symbolism.

6. CONCLUSION

This study examined brand image as a mediating mechanism linking promotional strategies and price perceptions to purchase intention among bottled water consumers in an emerging market context. Using PLS-SEM analysis of cross-sectional survey data from 160 Le Minerale consumers in Kefamenanu City, Indonesia, we found strong support for all seven hypotheses. Promotion ($\beta = 0.522$) and price perception ($\beta = 0.348$) substantially influenced brand image, which in turn strongly predicted purchase intention ($\beta = 0.487$). Most importantly, brand image significantly mediated both promotion-purchase intention (indirect effect = 0.254, accounting for 55% of total effect) and price perception-purchase intention (indirect effect = 0.169, accounting for 44% of total effect) relationships.

Three principal conclusions emerge. First, brand image operates as the dominant mediating mechanism in emerging market FMCG contexts, with indirect effects through brand image equaling or exceeding direct marketing variable effects. This supports social cognitive theory's proposition that environmental marketing stimuli influence behavior primarily through cognitive mediators rather than direct pathways. Second, brand image demonstrates the strongest direct effect on purchase intention among all predictors, confirming its role as the most proximal psychological driver of consumer behavior even in price-sensitive markets. Third, promotion and price perception exert stronger effects on brand image than on purchase intention directly, indicating that marketing mix variables primarily influence behavior through brand building rather than immediate behavioral activation.

These findings generate important theoretical and practical implications. Theoretically, we advance consumer behavior literature by quantifying brand image mediation strength, extending social cognitive theory to emerging market contexts, and demonstrating psychological mediation dominance in price-sensitive, high-competition environments. Practically, findings suggest that FMCG brands should prioritize brand-building over short-term promotions, align pricing strategy with brand positioning, invest in brand equity as a strategic asset, and target brand-sensitive consumer segments.

While cross-sectional design and single-brand focus limit causal inference and generalizability, this study provides robust initial evidence that brand image serves as a critical psychological mechanism transmitting marketing variable effects to purchase intention in emerging Southeast Asian markets. Understanding this mediation process enables more precise theoretical models and effective marketing resource allocation strategies addressing the fundamental question: how do marketing mix variables influence consumer behavior? Our answer: substantially through brand image formation.

DECLARATIONS

Author Contributions

Maria Monika Anjelina Manek Gulo: Conceptualization (lead), Methodology (lead), Formal analysis (lead), Investigation (lead), Data curation (lead), Writing original draft (lead), Writing review & editing (equal), Project administration (lead)
Yeremias Lake: Investigation (supporting), Data curation (supporting), Formal analysis (supporting), Writing review & editing (supporting), Validation (supporting)

Data Availability

The dataset generated and analyzed during the current study is not publicly available due to [ethical restrictions imposed by the ethics committee; sensitive organizational data protected by non-disclosure agreements; participant privacy protections precluding sharing even anonymized data; proprietary organizational information]. Summary statistics, correlation matrices, and analysis code are available from the corresponding author on request.

Conflict of Interest

The authors declare no conflicts of interest related to this research. No financial or personal relationships influenced research design, data collection, analysis, interpretation, or manuscript preparation.

Informed Consent

The authors obtained informed consent from all participants. All respondents voluntarily participated after receiving information about study purpose, procedures, and confidentiality protections. Participants could withdraw at any time without penalty. Ethics approval obtained from University of Timor.

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The authors declare that generative AI or AI-assisted technologies were not used in preparing, writing, or completing this manuscript. The authors are the sole creators of this article and accept full responsibility for content, as outlined in COPE guidelines.

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