



Consumer Based Competitive Priorities of Via Tuban Shrimp Paste in the Indonesian Market: An Importance Performance Analysis

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Abstract

This study evaluates the consumer-based competitive priorities of Via Tuban shrimp paste (terasi) by analyzing the gap between perceived importance and performance of key product attributes using Importance-Performance Analysis (IPA). Drawing on the resource-based view and consumer value theory, the research assesses seven attributes; quality, packaging, price, distribution, brand image, food safety, and promotion & innovation through a structured 5-point Likert survey administered to 65 purposively selected consumers. Findings reveal a significant shortfall in performance relative to expectations, with a grand mean importance of 4.26 and performance of 2.63. All attributes show negative gaps; "quality" has the largest gap (-1.81) and falls into Quadrant I (high importance-low performance), marking it as the top priority for improvement. "Packaging," "distribution," and "food safety" fall into Quadrant II (high importance-high performance), indicating existing strengths. In contrast, "price" and "promotion & innovation" are lower priorities, while "brand image" suggests possible overemphasis. The study provides a clear, evidence-based roadmap for capability upgrading in traditional fermented seafood MSMEs and contributes to the strategic management of local food products by linking customer perception to actionable operational improvements. Limitations include a localized sample and reliance on self-reported data, suggesting opportunities for future research expansion.

Keywords: *Consumer based competitiveness, competitive priorities, importance performance analysis, MSME capability upgrading, traditional fermented seafood.*

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1. INTRODUCTION

Traditional processed food MSMEs in coastal regions represent an important pathway for community-based economic empowerment because they transform local marine resources into higher value products that enhance regional food security and support livelihoods (Meutia, M., Ismail, T., & Bukhori, 2021). In East Java's coastal areas, including Tuban, terasi (shrimp paste) is not only a culinary identity but also a livelihood source for households and micro enterprises that contribute significantly to the local economy through job creation and income generation (Yuliari, K., Rosalina, D., & Ruhamak, 2021). However, competitiveness in processed food markets increasingly depends on a firm's ability to deliver consistent product value that matches changing consumer expectations particularly regarding standardized quality, hygienic handling, informative packaging, and credible safety cues that signal reliability to modern buyers (Rizal, A., Cheung, W., Suryana, A. A. H., & Nurhayati, 2019).

Terasi is commonly produced through traditional fermentation practices. While this tradition creates distinctive sensory characteristics, it often involves limited quality inspection and variable process control, which may lead to inconsistencies in sensory outcomes and safety assurance that challenge market acceptance and limit scalability for micro enterprises (Nurliza, N., Suharyani, A., & Nugraha, 2021). Terasi quality literature emphasizes that intrinsic quality dimensions (sensory outcomes, shelf life, and safety related aspects) are central to consumer acceptance and should be supported by better handling and inspection practices that ensure product reliability and minimize variability in the final output (Ferdinand et al., 2023). Experimental work also shows that process interventions can improve physicochemical and sensory properties of terasi, strengthening the managerial rationale for standardization efforts that align production capabilities with market requirements (Widyaningrum et al., 2019). In broader fish based product contexts, compliance with good processing practices is frequently uneven, reinforcing the need for systematic hygiene and process improvements to reduce safety risks and quality variability in traditional fermented products (Rahman, A., Astuti, R. S., & Sucipto, 2023).

For Via Tuban Terasi, market dynamics are becoming more competitive. Consumers increasingly encounter competing products that signal quality and safety through modern packaging, labeling, and branding that differentiate them in retail environments and influence purchase decisions (Lestari, S. P., Iryanti, E., Farel, K. G., Dewantara, A. G., Falah, N., & Husnika, 2026). Packaging cues can shape perceptions of naturalness, healthiness, and purchase intention, while visual features such as material and color can influence willingness to consume (Surya, R., Nugroho, D., Kamal, N., & Petsong, 2024). At the same time, food labels and safety claims may create a "trust paradox", where certification can both increase confidence and invite skepticism depending on prior beliefs (Hermawati, A., Anam, C., Suwarta, S., & Puspitosarie, 2020). Trust in the food system therefore becomes a strategic asset that must be built through consistent product performance and transparent information about production processes and safety standards (Wu Wen, 2021).

From a strategic management perspective, competitive advantage is sustained when firms deploy valuable and difficult to imitate resources and capabilities to deliver superior customer value (Karneta & Gultom, 2017). For MSMEs producing traditional foods, heritage recipes and local identity can support differentiation, but they must be complemented by capabilities in standardization, packaging information, safety assurance, and distribution reach that allow the firm to reliably meet modern market demands and expand beyond local trade boundaries (Anggraeni, S. K., Maarif, M. S., Sukardi, S., & Raharja, 2021). Yet, MSME decision makers often lack an evidence based map of which attributes matter most to consumers and where performance gaps are most critical for resource allocation and capability development. This becomes the key research problem addressed in this study: Which product attributes should be prioritized for improvement to strengthen the consumer based competitiveness of Via Tuban Terasi?

To address the research problem, Importance–Performance Analysis (IPA) is employed to compare attribute importance and performance and to classify attributes into actionable quadrants for resource allocation (Indrasari et al., 2021). Specifically, this study addresses three research questions: (RQ1) Which product attributes are perceived as most important by repeat consumers of Via Tuban terasi? (RQ2) Where are the largest performance shortfalls relative to consumer expectations? and (RQ3) How can the IPA evidence be translated into a sequenced improvement strategy for strengthening MSME competitive positioning beyond

the local market? Therefore, the objectives are to (1) quantify perceived importance and performance for each attribute, (2) map attributes into the IPA matrix and compute gap and priority indices, and (3) formulate managerial recommendations that are explicitly traceable to the empirical results.

To answer this problem, Importance Performance Analysis (IPA) is applied as a practical diagnostic tool that compares attribute importance and performance to produce priority quadrants for managerial action, enabling the identification of strengths to maintain, weaknesses to correct, and opportunities to leverage in the competitive landscape (Indrasari, L. D., Komari, A., Tripariyanto, A. Y., Rahayuningsih, S., & Santosa, 2021). IPA has been used widely for priority setting and can be strengthened by combining it with strategic translation tools and by incorporating validation from multiple data sources, including online reviews and direct consumer feedback to ensure a comprehensive assessment of market positioning and attribute prioritization (Pitaloka & Tambunan, 2021). Recent evidence also demonstrates that IPA can be operationalized using user generated content to guide managerial resource allocation strategies that align operational improvements with the most critical consumer expectations (Eka, A. D. & Kristina, S, 2019). Therefore, this study aims to: (1) measure the perceived importance and performance of Via Tuban terasi attributes, (2) map attributes into IPA quadrants, and (3) formulate strategic recommendations to improve competitiveness and support sustainable MSME development in Tuban's coastal economy. The following section reviews the theoretical foundations of competitive advantage and the application of Importance Performance Analysis in formulating MSME strategies.

This literature review integrates three concept clusters (i) consumer value formation through expectation–performance evaluation, (ii) attribute cues (intrinsic and extrinsic) that shape trust and purchase decisions in processed foods, and (iii) competitive advantage as MSME capability upgrading. These clusters are then operationalized into an attribute framework and assessed using IPA as a decision-support tool for prioritizing improvements under resource constraints.

2. LITERATURE REVIEW

2.1 Consumer Satisfaction as Expectation Performance Evaluation

Expectancy disconfirmation theory explains that satisfaction increases when performance meets or exceeds expectations and declines when performance falls short of those expectations (Hermawati, A., Anam, C., Suwarta, S., & Puspitosarie, 2022). Recent meta-analytic evidence supports the centrality of expectancy disconfirmation mechanisms in satisfaction formation across categories (Chairy et al., 2022). In marketing practice, satisfaction is also shaped along the customer journey pre purchase information, purchase experience, and post purchase consumption making consistent product experience essential for repeat purchase and loyalty (Setyaningrum, 2020).

2.2 Product Attribute Cues: Quality, Safety, Packaging, and Trust

Processed foods especially fermented seafood-based products are evaluated through intrinsic cues (taste, aroma, and texture) and extrinsic cues (packaging, labels, brand, and safety signals). Terasi literature highlights that sensory, shelf life, and safety related quality are key dimensions shaping acceptance and perceived value. Process upgrading through controlled inoculation can improve physicochemical, sensory, and bioactivity outcomes, reinforcing the need for standardization in traditional terasi production. For sambal terasi, terasi type and concentration significantly affect sensory acceptance, showing that sensory consistency remains decisive in determining consumer preference and purchase behavior within this product category (Ambarita et al., 2020). Packaging and labeling act as quality/safety signals: Responsible packaging perceptions can shape naturalness and healthiness inferences, and packaging design can motivate consumers to process information and influence purchase decisions (Guizzardi & Stacchini, 2017). However, consumers may experience a trust paradox toward safety labels, and broader evidence emphasizes that trust in the food system must be earned through transparency and credible governance. Consumers' food safety perceptions are influenced by cognitive factors such as risk perception and trust, and can vary substantially across contexts. Meta analytic evidence also links food safety risk perception to consumer attitudes and behavior, underscoring the importance of managing perceived and actual safety risks through rigorous quality control protocols and transparent communication of

production practices to mitigate consumer concerns and build long term brand credibility (Chiang, A., Aguilera, M., Cabana, S. R., & Mora, 2021).

2.3 Competitive Advantage and MSME Capability Upgrading

Competitive advantage is sustained when firms deliver superior customer value through resources and routines that are valuable and difficult to imitate. For traditional food MSMEs, uniqueness from local identity can be a differentiation asset, but it must be supported by capabilities in quality control, hygienic processing, and consistent delivery systems that ensure product reliability and market reach (Sahir & Fahlevi, 2023). In fish based product environments, uneven compliance with good processing practices elevates safety risk and can reduce consumer confidence in product integrity (Ohorella, R., Baskoro, M. S., & Harijati, 2022). From a broader food quality management perspective, systematic quality management practices can enhance process reliability and support consumer-driven value creation, including in sustainable food networks where adherence to quality standards and safety protocols is essential for maintaining market position and consumer trust in competitive environments (Okpala & Korzeniowska, 2023).

2.4 Importance Performance Analysis (IPA) as a Priority Setting Tool

IPA compares the importance of attributes with perceived performance and maps them into quadrants that guide improvement priorities and resource allocation strategies, distinguishing between "concentrate here" attributes where performance is low but importance is high, and "keep up the good work" attributes where both dimensions are favorable (Adetoyinbo et al., 2023). IPA has been combined with SWOT analysis to translate priority attributes into strategic programs under resource constraints, ensuring that limited managerial capital is directed toward areas with the highest potential impact on consumer satisfaction and competitive positioning (Ferdinand et al., 2023). Methodologically, sentiment based IPA using online reviews has been proposed to strengthen preference measurement and guide product improvement decisions, and applications have demonstrated that review based IPA can support managerial prioritization by identifying specific product features that require immediate attention to enhance market competitiveness and consumer satisfaction (Shen et al., 2024). More recent work proposes integrated frameworks for IPA and validation from multiple evidence streams (e.g., online reviews and maintenance records), improving robustness of decision support systems by incorporating diverse consumer feedback and reducing platform specific bias (S. Yang et al., 2025).

2.5 Conceptual Framework and Attribute Operationalization

In this study, "competitive advantage" is interpreted in a consumer-based sense: the MSME's ability to deliver superior perceived value through a bundle of attributes that consumers consider important. Each attribute reflects a capability area that the MSME can upgrade (e.g., process consistency for quality; information design for packaging; assurance routines for food safety; channel management for distribution). This framing strengthens conceptual coherence by linking competitive advantage logic (capabilities/resources) to consumer attribute evaluation, and it clarifies why IPA is appropriate as a resource-allocation tool under MSME constraints (Rahman et al., 2023; Wu Wen et al., 2021; Okpala & Korzeniowska, 2023).

Table 1 | Attribute Operationalization and Capability Mapping

Attribute	Capability Domain (MSME)	Consumer-Facing Meaning	Example Questionnaire Item	Key Supporting Sources
Quality	Process consistency & sensory control	Stable taste, aroma, texture, and overall product reliability across batches	The product delivers consistent taste and aroma across purchases	Rahman et al. (2023); Surya et al. (2024)
Food safety	Hygiene assurance & risk control	Perceived hygiene, safe ingredients, and credible safety cues (label/certification)	The product feels hygienic and safe to consume	Okpala & Korzeniowska (2023); Wu Wen et al. (2021)

Packaging	Information & protection design	Packaging protects the product and communicates key information (date, storage, producer)	Packaging provides clear and trustworthy product information	Orquin et al. (2020); Guizzardi & Stacchini (2017)
Distribution	Channel reach & availability	Ease of access: availability in stores/online and reliable delivery/stock	The product is easy to find and purchase when needed	Indrasari et al. (2021); Adetoyinbo et al. (2023)
Price	Value based pricing capability	Price is perceived as fair relative to quality and alternatives	The price is fair for the quality received	Malekpour et al. (2022)
Promotion & innovation	Market communication & incremental innovation	Credible communication and minor product improvements that support market expansion	Product information and innovations increase my interest to buy	Shen et al. (2024); Syahlan et al. (2023)
Brand image	Identity & trust signaling	Brand reputation and authenticity as signals of reliability	The brand is reputable and increases my confidence to buy	Kovács et al. (2022); Wu Wen et al. (2021)

Source: Data Processed (2025)

3. RESEARCH METHOD

3.1 Research Design And Setting

This study adopts a descriptive quantitative design to assess consumer-based competitive priorities of Via Tuban terasi using IPA. Data were collected from repeat consumers of the product during the research project period, focusing on how consumers evaluate importance and performance of key attributes that reflect MSME capability areas (Table 1).

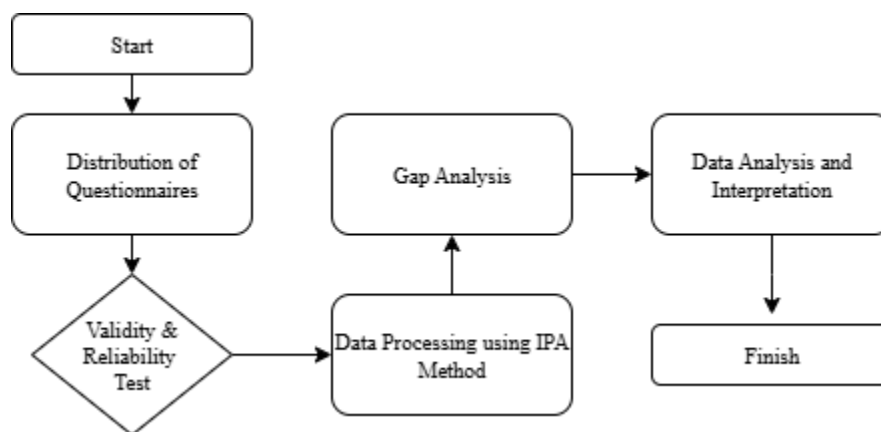


Figure 1. Research Flowchart (Questionnaire Based IPA And Strategy Translation)

The flowchart summarizes respondent screening, instrument testing, IPA computation, and the translation of quadrant evidence into staged managerial actions.

3.2 Population, Sampling Frame and Respondents

The target population comprises adult consumers (≥17 years) who have purchased Via Tuban terasi at least twice, ensuring adequate consumption experience to evaluate attribute performance. Respondents were recruited purposively through the MSME’s distribution touchpoints (producer outlet and distribution partners) and screened using eligibility questions. This purposive design is appropriate for exploratory competitiveness diagnostics where the aim is to capture informed evaluations from experienced users rather than to estimate population prevalence.

A total of 65 valid responses were obtained. Because the number of eligible repeat consumers cannot be enumerated precisely, a purely population-based Slovin calculation is not strictly applicable; therefore, the study treated the target sample as a pragmatic minimum for stable mean estimation in IPA applications and aligned it with common practice in IPA studies on consumer attribute evaluations. The limited sample size is acknowledged as a constraint on generalizability and is addressed in the Limitation section.

3.3 Instrument Development and Measurement

The instrument was a closed questionnaire using a 5 point Likert scale. Each attribute was measured twice: (i) perceived importance (1 = not important, 5 = very important) and (ii) perceived performance (1 = strongly disagree/very poor performance, 5 = strongly agree/very good performance), yielding 14 items. The attribute set and wording were developed based on prior research on processed-food attribute cues and MSME competitiveness, and then refined for context relevance to terasi (Table 1). Respondents completed the survey voluntarily and anonymously after providing informed consent.

3.4 Instrument Quality

Item validity was assessed using Pearson product–moment correlations ($\alpha = 0.05$), and internal consistency was evaluated using Cronbach’s alpha. These checks ensure that the importance and performance items provide a reliable basis for computing attribute means and subsequent IPA mapping.

3.5 Data Analysis

First, mean scores of importance (I) and performance (P) were calculated for each attribute. Second, a data centered crosshair was constructed using grand means (\bar{I} and \bar{P}) to place attributes into the four IPA quadrants. Third, the study computed the performance importance gap (P–I), the conformity ratio ($P/I \times 100\%$), and a weighted shortfall index ($I \times (I-P)$) to rank priorities beyond quadrant placement. This additional index helps interpret borderline cases when importance scores are clustered near the grand mean. Finally, quadrant results and priority indices were translated into a staged managerial roadmap that links each recommendation directly to the empirical evidence.

The next section presents the instrument tests, IPA results, and the evidence based strategic implications for MSME competitiveness.

4. RESULTS AND DISCUSSION

4.1 RESULTS

This section reports (i) instrument quality tests, (ii) descriptive importance–performance means, (iii) IPA quadrant mapping, and (iv) additional priority indices (gap, conformity, and weighted shortfall) to support a more robust interpretation of improvement priorities.

Table 2 | Result of Validity Test for Performance and Importance Questionnaire

Attributes	Pearson Correlation	Sig. (2-tailed)	Validity	Attributes	Pearson Correlation	Sig. (2-tailed)	Validity
Performance Quality	0.888	0.000	Valid	Importance Quality	0.721	0.000	Valid
Performance Packaging	0.806	0.000	Valid	Importance Packaging	0.784	0.000	Valid
Performance Price	0.874	0.000	Valid	Importance Price	0.697	0.000	Valid
Performance Distribution	0.698	0.000	Valid	Importance Distribution	0.785	0.000	Valid

Performance	0.846	0.000	Valid	Importance			
Brand Image				Brand	0.812	0.000	Valid
				Image			
Performance	0.888	0.000	Valid	Importance			
Food Safety				Food Safety	0.887	0.000	Valid
Performance	0.908	0.000	Valid	Importance			
Promotion & Innovation				Promotion & Innovation	0.768	0.000	Valid

Source: Data Processed (2025)

All research indicators have met the validity criteria, so that the questionnaire instrument can be used in the next analysis stage without the need for revision or deletion of question items. Thus, these results strengthen that the research instrument has good quality in measuring performance factors that influence competitive advantage.

Next is to carry out reliability testing for the research instrument. Based on the results of the reliability test using the Cronbach's Alpha method, a value of 0.871 was obtained with a total of 14 statement items.

According to reliability measurement standards:

- Cronbach's Alpha value ≥ 0.60 → the instrument is declared reliable.
- Value 0.70 – 0.90 → reliability is in the high/strong category.
- Value > 0.90 → very high reliability, although sometimes considered too homogeneous.

Table 3 | Result of Reliability Test for Performance and Importance Questionnaire

Cronbach's Alpha	N of Items	Reliability
0.871	14	Reliable

Source: Data Processed (2025)

Thus, the value of 0.871 indicates that this research instrument has high reliability, meaning that the statement items in the questionnaire have good internal consistency and can be trusted to measure the variables studied. All statement items used in this research are reliable so that the instrument can be used for further analysis stages. Respondents provide consistent answers, so that the measurement results can be trusted as a representation of actual conditions. The subsequent analysis involved calculating the mean scores for both importance and performance across all attributes to facilitate the mapping process onto the Importance Performance Analysis matrix.

Tabulation of the questionnaire results for performance and importance is built. After that, the average tabulation is carried out so that processing can be carried out using the IPA method.

Table 4 | Tabulation of Questionnaire Mean

Attributes	Performance	Importance
Quality	2.45	4.26
Packaging	2.74	4.43
Price	2.60	4.25
Distribution	2.68	4.32
Brand Image	2.74	4.03
Food Safety	2.65	4.31
Promotion & Innovation	2.54	4.22

Source: Data Processed (2025)

From the tabulated data in Table 4, the grand mean of perceived performance across attributes is 2.63, while the grand mean of perceived importance is 4.26. These grand means are used as the crosshair to map attributes into the IPA quadrants.

To strengthen interpretation beyond quadrant placement, a gap analysis (Performance Importance) and a conformity ratio (Performance/Importance × 100%) were calculated (Table 4). The results show that the performance importance gap is negative for all attributes, indicating that current performance has not fully met consumer expectations.

Table 5 | Weighted Shortfall Index and Priority Ranking (I × (I-P))

Rank	Attribute	Importance (I)	Performance (P)	Gap (P-I)	Weighted shortfall	Interpretation
1	Quality	4.26	2.45	-1.81	7.71	Highest priority
2	Packaging	4.43	2.74	-1.69	7.49	High priority
3	Food Safety	4.31	2.65	-1.66	7.15	High priority
4	Promotion and Innovation	4.22	2.54	-1.68	7.09	Watch list
5	Distribution	4.32	2.68	-1.64	7.08	Watch list
6	Price	4.25	2.60	-1.65	7.01	Watch list
7	Brand Image	4.03	2.74	-1.29	5.20	Lowest shortfall

Source: Data Processed (2025)

Table 5 complements quadrant mapping by ranking attributes using a weighted shortfall index. While “quality” remains the dominant priority, the index also shows that packaging and food safety have substantial shortfalls because their importance is high therefore, maintaining their Quadrant II position should not mean stagnation, but rather continuous reinforcement while quality upgrading is executed. In addition, the importance scores are tightly clustered (4.03–4.43); thus, attributes classified as “low priority” in a data-centered crosshair (e.g., price and promotion & innovation) should be interpreted as “relatively lower” priorities and monitored, especially if market expansion changes consumer reference points.

Table 6 | Gap, Conformity, and IPA Quadrant Classification

Attribute	Performance (P)	Importance (I)	Evidence from IPA (Table 4/5)	Conformity (%)	IPA Quadrant
Quality	2.45	4.26	Quality: I=4.26; P=2.45; gap=-1.81; shortfall rank #1	57.51	I (Concentrate Here)
Packaging	2.74	4.43	Packaging: I=4.43; P=2.74; gap=-1.69 (rank #2) Distribution: I=4.32; P=2.68; gap=-1.64 (rank #5) Food safety: I=4.31; P=2.65; gap=-1.66 (rank #3)	61.85	II (Keep Up the Good Work)
Price	2.60	4.25	Price: I=4.25; P=2.60; gap=-1.65 (rank #3)	61.18	III (Low Priority)

			#6) Promotion & innovation: I=4.22; P=2.54; gap=-1.68 (rank #4)		
Distribution	2.68	4.32	Brand image: I=4.03; P=2.74; gap=-1.29; lowest shortfall (rank #7)	62.04	II (Keep Up the Good Work)
Brand Image	2.74	4.03	-1.29	67.99	IV (Possible Overkill)
Food Safety	2.65	4.31	-1.66	61.48	II (Keep Up the Good Work)
Promotion & Innovation	2.54	4.22	-1.68	60.19	III (Low Priority)

Source: Data Processed (2025)

IPA Cartesian Diagram for Via Tuban Terasi Attributes

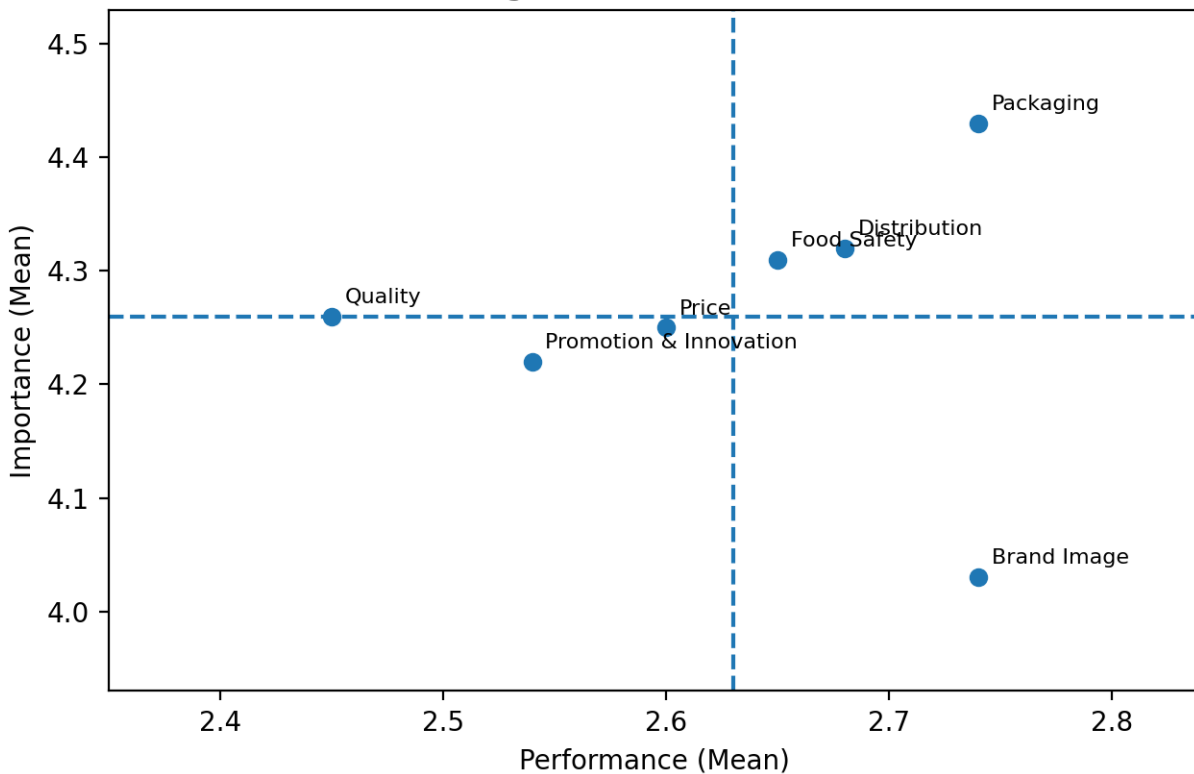


Figure 2. IPA Cartesian Diagram (crosshair: $\bar{P} = 2.63$; $\bar{I} = 4.26$)

The placement of attributes in the IPA Cartesian diagram (Figure 2) provides a practical prioritization structure for consumer-based competitiveness improvement. Quadrant I captures attributes with high importance but low performance—here, Quality—indicating immediate upgrading needs supported by the largest gap and weighted shortfall (Tables 4 and 5). Quadrant II contains Packaging, Distribution, and Food Safety, which should be maintained and reinforced as trust and market-access enablers. Quadrant III includes Price and Promotion & Innovation, which should be interpreted as relatively lower priorities (given clustered importance scores) and managed as staged investments. Quadrant IV contains Brand Image, suggesting efficient branding and potential reallocation of resources toward quality process improvements.

4.2 DISCUSSION

This discussion translates the IPA evidence into competitive positioning strategies that are explicitly traceable to the results (Tables 4 and 4a). Conceptually, the negative gaps indicate expectation–performance disconfirmation, signalling that value delivery is below repeat-consumer expectations. From a capability perspective, the largest shortfalls identify the MSME capability areas that must be upgraded first to strengthen perceived competitiveness beyond local markets.

Quadrant I (Concentrate Here) – Quality. “Quality” is the most urgent constraint and the strongest leverage point because it has the largest gap ($P=2.45$; $I=4.26$; $gap=-1.81$) and the highest weighted shortfall (rank #1 in Table 4a). In fermented seafood products, intrinsic sensory cues (taste, aroma, texture) dominate repeat purchase; thus, quality shortfalls typically reflect upstream variability in raw materials and downstream variability in fermentation/drying controls (Rahman et al., 2023; Surya et al., 2024). For Via Tuban, the findings imply that the competitiveness bottleneck is not primarily marketing, but **process capability**: standardizing raw material specifications, fermentation SOPs (time–temperature–mixing), sanitation routines, and batch documentation. A low-cost sensory scoring checklist and simple consistency checks (e.g., moisture/salt uniformity) can reduce variance and improve perceived reliability. Only after stability is achieved should quality claims be amplified through periodic laboratory testing and transparent communication to reduce consumer risk perception and strengthen trust (Okpala & Korzeniowska, 2023; Wu Wen et al., 2021).

Quadrant II (Keep Up the Good Work) – Packaging, Distribution, and Food Safety. These attributes sit above the grand-mean importance threshold and show relatively better performance, but they still have meaningful shortfalls (e.g., packaging $gap=-1.69$; food safety $gap=-1.66$; Table 4). Therefore, “keep up” should be interpreted as **maintain and reinforce** while quality upgrading is executed. Packaging should continue to function as a trust and information device—clear labels (ingredients, production/expiry date, storage instructions, producer identity) and, where feasible, certification/traceability cues (P-IRT/BPOM/halal, QR code) that are consistent with actual practices. Distribution is a market-access capability; expansion through resellers, retail placement, and marketplaces should be accompanied by standardized packing and shipping SOPs to protect quality. Food safety routines (GMP-oriented hygiene checks and documented controls) are essential to prevent the “trust paradox” where safety labels raise scrutiny if performance is inconsistent (Hermawati et al., 2020; Wu Wen et al., 2021).

Quadrant III (Relatively Lower Priority) – Price and Promotion & Innovation. These attributes are classified as lower priority because their importance scores are slightly below the grand mean ($I=4.25$ and $I=4.22$, respectively), not because they are unimportant in absolute terms. Given the tight clustering of importance scores, they should be treated as a “watch list” (Table 4a). A staged strategy is recommended: avoid aggressive discounting that could signal low quality; instead, use value-based pricing and size-tiering (trial vs family packs). Promotion and innovation should emphasize credibility—storytelling and user reviews that document verified quality improvements—followed by incremental innovations (packaging format/size) once process consistency is stable.

Quadrant IV (Possible Overkill) – Brand Image. Brand image shows the smallest shortfall ($gap=-1.29$; Table 4) and appears relatively “over-served” compared with its importance ($I=4.03$). This suggests that branding efforts should be kept efficient and evidence-based. Rather than investing in symbolic branding, the MSME should anchor brand narratives to verifiable proof points (SOP compliance, hygiene routines, traceability cues) so that authenticity reinforces—rather than substitutes for—quality performance.

Table 7 | Quadrant Based Strategies Linked to IPA Evidence

IPA Quadrant	Attribute(s)	Winning Strategy and Concrete Actions
I – Concentrate Here (High importance– Low performance)	Quality	<p>Goal: build differentiation through consistent sensory quality.</p> <ul style="list-style-type: none"> • Standardize raw materials and fermentation SOP; keep batch records. • Implement simple QC: sensory scoring checklist, moisture/salt consistency checks. • Training and sanitation routines; gradual adoption of GMP/HACCP elements. • Communicate improvements only after verified consistency (avoid overpromising).
II – Keep Up the Good Work (High importance–High performance)	Packaging; Distribution; Food safety	<p>Goal: maintain strengths and leverage them as trust + access enablers.</p> <ul style="list-style-type: none"> • Packaging: maintain design; strengthen factual labels; add certification/QR traceability when possible. • Distribution: expand reseller/retail/e-commerce channels with standardized packing & shipping SOP. • Food safety: documented hygiene checks, periodic testing; transparency to build trust.
III – Low Priority (Low importance– Low performance)	Price; Promotion & innovation	<p>Goal: staged, efficient investment to support expansion after quality is stable.</p> <ul style="list-style-type: none"> • Price: value-based, avoid deep discount; use tiered sizes (trial vs family pack). • Promotion: low-cost digital content, sampling, reviews/UGC emphasizing verified upgrades. • Innovation: incremental (sizes/packaging), test-market before scaling.
IV – Possible Overkill (Low importance–High performance)	Brand image	<p>Goal: optimize spending; keep branding evidence-based.</p> <ul style="list-style-type: none"> • Reallocate excess branding budget to quality upgrading. • Maintain consistent brand story, anchored to proof (SOP, safety routines, traceability). • Use authenticity narrative to reinforce quality, not replace it.

Source: Data Processed (2025)

Managerial Roadmap (Sequencing Derived From IPA Priorities):

- Short term (0–3 months): execute Quality upgrading (Quadrant I; rank #1) through SOP standardization, sanitation routines, and batch-based QC; simultaneously maintain Packaging–Distribution–Food Safety performance (Quadrant II).
- Medium term (3–12 months): leverage Quadrant II as trust and access enablers—strengthen factual labeling/traceability and

expand distribution with standardized packing/shipping that protects the upgraded quality.

- Long term (12+ months): once quality stability is verified, selectively activate Price and Promotion & Innovation (watch-list attributes) to accelerate penetration; keep Brand Image spending efficient and anchored to proof points.

5. CONCLUSION

This study applied Importance Performance Analysis (IPA) to evaluate seven consumer based competitive priority attributes of Via Tuban terasi and to identify capability-upgrading priorities for strengthening perceived competitiveness. The evidence indicates systematic expectation–performance shortfalls across attributes, implying that the value delivered has not fully matched repeat-consumer expectations.

The IPA map positions “Quality” in Quadrant I (high importance–low performance) and as the highest weighted shortfall, making it the primary bottleneck for competitive positioning. “Packaging”, “Distribution”, and “Food Safety” fall into Quadrant II (high importance–higher performance), representing strengths that should be maintained and reinforced as trust and access enablers. “Price” and “Promotion & Innovation” are relatively lower priorities under the current crosshair and should be activated selectively after quality stability is achieved, while “Brand Image” in Quadrant IV suggests that branding resources should be efficient and anchored to proof points.

Accordingly, Via Tuban can strengthen competitive positioning in the Indonesian market through a sequenced, evidence-based strategy: (1) build differentiation via consistent sensory quality and process control (Quadrant I), (2) protect and leverage packaging, distribution, and safety as trust and market-access enablers (Quadrant II), (3) activate price architecture and credible promotion/innovation selectively once core quality is verified (watch-list attributes), and (4) keep brand spending evidence-based rather than symbolic (Quadrant IV). Future research should use broader samples and longitudinal designs to test whether quadrant positions shift after interventions and to validate strategy effectiveness over time.

6. LIMITATIONS AND IMPLICATIONS

This study has several limitations. First, the attribute set is restricted to seven factors; additional drivers such as perceived authenticity, sustainability cues, service/after-sales interactions, and online review signals may also shape competitiveness in broader markets. Second, the data were collected from 65 purposively selected repeat consumers; because the eligible consumer population could not be enumerated and the sample was not probability based, the findings should be interpreted as an exploratory diagnostic rather than a nationally representative estimate. Third, the IPA approach is primarily descriptive and does not model causal linkages among attributes; future research can combine IPA with multivariate designs (e.g., SEM) and triangulate perception data with objective product tests (sensory panels and safety indicators) to strengthen inference.

Despite these limitations, the study offers managerial and academic implications. Managerially, the IPA evidence indicates that quality-process capability is the first-order priority for competitiveness; investments in SOP standardization, hygiene routines, and batch based QC should precede aggressive marketing. Packaging, distribution, and food safety should be maintained and continuously reinforced as trust and market access enablers that support quality upgrading. Brand-related investments should remain efficient and be anchored to verifiable proof points, while price architecture and promotion/innovation can be scaled after quality stability is achieved. Academically, the study enriches the application of IPA in traditional processed food MSMEs by linking attribute priorities to capability-upgrading logic and by offering a replicable attribute operationalization map for fermented seafood products.

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REFERENCES

- Adetoyinbo, A., Asravor, J., Olaleye, S. A., & Owusu, V. (2023). Food quality and supply chain networks in dynamic business environments: evidence from the Nigerian shrimp subsector. *British Food Journal*, 126(3), 995–1013. <https://doi.org/10.1108/BFJ-02-2023-0171>
- Adilah, K., Sibuea, S. R., & Arfah, M. (2024). Analisis Kepuasan Pelanggan dengan Metode Importance Performance Analysis (IPA) di UMKM Jajani Aja. *Factory Jurnal Industri, Manajemen Dan Rekayasa Sistem Industri*, 2(2), 1–10. <https://doi.org/10.56211/factory.v2i2.412>
- Ambarita, M. T. A. et al. (2020). Identification of Key Sensory Attributes of Sambal-Terasi, Impact of Different Type of Terasi, Chemical Characteristics and Salt Addition. *Sains Malaysiana*, 49(3), 561–571. <https://doi.org/10.17576/jsm-2020-4903-11>
- Andespa, R., Yurni, Y., Aldiyanto, A., & Efendi, G. (2024). Challenges and Strategies in Halal Supply Chain Management for MSEs in West Sumatra: A Participatory Action Research Study. *International Journal of Safety and Security Engineering*, 14(3), 907–921. <https://doi.org/10.18280/ijssse.140322>
- Anggraeni, S. K., Maarif, M. S., Sukardi, S., & Raharja, S. (2021). Prospective Strategy for Strengthening the Fish Processing Innovation System in Banten Province. *Atlantis Press Joint Proceedings of the 2nd and the 3rd International Conference on Food Security Innovation*, 9, 1–6. <https://doi.org/10.2991/absr.k.210304.026>
- Aryani, L. & D. (2019). The Behavior of Consumer Satisfaction in The Process of Purchasing Decisions in the Umkm Culinary Bogor North Bogor City. *International Journal of Multicultural and Multireligious Understanding*, 6(4), 199–217. <https://doi.org/10.18415/ijmmu.v6i4.989>
- Aryudiawan, C. & S. S. (2022). A Constant Market Share Analysis of Indonesia's Fishery Export. *Jurnal Perikanan Universitas Gadjah Mada (JPUGM)*, 24(1), 91–99. <https://doi.org/10.22146/jfs.72860>
- Balakrishnan, R., Mann, S., Kumar, A., & Murai, A. S. (2024). Perceived Constraints In Agro-Processing In Unorganized Agri-Businesses: Learning From Trans-Gangetic Plains. *The Indian Journal of Agricultural Sciences*, 94(3), 18–25. <https://doi.org/10.56093/ijas.v94i3.148596>
- Canta, R. I. A. C. et al. (2024). Consumers' Perception Analysis on Service Quality of Coffee Shops and Coworking Spaces in Yogyakarta, Indonesia. *AgriTECH*, 44(2), 128–136. <https://journal.ugm.ac.id/agritech/article/view/70046>
- Chairy, C., Karunia, H., & Selamat, F. (2022). The Development of Sustainable Destination Marketing Model: An IPA Result of Tanjung Lesung Tourism Area. *Atlantis Press Advances in Economics, Business and Management Research*, 216(Icebm 2021), 546–551. <https://doi.org/10.2991/aebmr.k.220501.083>
- Chiang, A., Aguilera, M., Cabana, S. R., & Mora, M. (2021). Chinese consumers' purchase intention of fresh cherries: Modeling of relations between satisfaction and perceived quality. *La Revista de La Facultad de Ciencias Agrarias de La Universidad Nacional Del Cuyo*, 53(2), 204–213. <https://doi.org/10.48162/rev.39.053>
- Eka, A. D. & Kristina, S. (2019). Importance-Performance Analysis: Reviewing The Evaluation Of Licensing Service For Production Certificate Of Home Food Industry. *Russian Journal of Agricultural and Socio-Economic Sciences!*, 1(January), 173–179. <https://doi.org/10.18551/rjoas.2019-01.20>
- Ferdinand, A. T., Kinasih, R. S., Kusumawardhani, A., Idris, I., Rini, I., Pangestuti, D., & Hersugondo, H. (2023). *Culinary-Gastronomic Value Advantage in a Competitive Dynamic Market: A Service-Dominant Logic Perspective*. 25(3), 369–381. <https://doi.org/10.14414/jebav.v25i3.3356>
- Guizzardi, A., & Stacchini, A. (2017). Destinations strategic groups via Multivariate Competition-based IPA. *Tourism Management*, 58, 40–50. <https://doi.org/10.1016/j.tourman.2016.10.004>
- Hauff, S., Franziska, N., Sarstedt, M., & Ringle, C. M. (2024). Importance and performance in PLS-SEM and NCA: Introducing the combined importance-performance map analysis (cIPMA). *Journal of Retailing and Consumer Services*, 78(January), 103723. <https://doi.org/10.1016/j.jretconser.2024.103723>
- Hermawati, A., Anam, C., Suwarta, S., & Puspitosarie, E. (2020). Urban Consumer Trust and Food Certifications in China. *MDPI Foods*, 9(9), 1–14. <https://doi.org/10.3390/foods9091153>
- Hermawati, A., Anam, C., Suwarta, S., & Puspitosarie, E. (2022). Reconstruction of Spiritual Marketing, Culture of Innovation, Quality of Work Life, and Retainers for Tourism Industry SMEs in East Java. *MDPI Administrative Sciences*, 12(4), 152–168. <https://doi.org/10.3390/admsci12040152>
- Hidayat, Y. R., Ibrahim, M. A., Srisusilawati, P., & Eprianti, N. (2023). BPRS Performance Evaluation Using Importance-Performance Analysis (IPA). *Amwaluna: Jurnal Ekonomi Dan Keuangan Syariah*, 7(1), 104–115. <https://doi.org/10.29313/amwaluna.v7i1.11232>
- Indrasari, L. D., Komari, A., Tripariyanto, A. Y., Rahayuningsih, S., & Santosa, H. B. (2021). Upaya meningkatkan daya saing produk baso aci tata snack di Kediri, Jawa Timur melalui re-packaging. *Community Empowerment*, 6(5), 713–720. <https://doi.org/10.31603/ce.4608>
- Karneta, R., & Gultom, N. F. (2017). *The Development Strategy of Packaged Pempek Industry*. 12(8), 227–233.

- <https://doi.org/10.5539/ijbm.v12n8p227>
- Kartikasari, R. D., Irham, I., & Mulyo, J. H. (2018). Level Of Customer Satisfaction Towards Marketing Mix In Indonesian Traditional Market. *Agro Ekonomi*, 29(2), 218–230. <https://doi.org/10.22146/ae.35888>
- Khan, T. (2024). Circular-ESG Model for Regenerative Transition. *MDPI Journals Sustainability*, 16(17), 7549. <https://doi.org/10.3390/su16177549>
- Kovács, I. et al. (2022). The Importance of Food Attributes and Motivational Factors for Purchasing Local Food Products : Segmentation of Young Local Food Consumers in Hungary. *Sustainability*, 14(6), 3224. <https://doi.org/10.3390/su14063224>
- Lerro, M., Marotta, G., & Nazzaro, C. (2020). Measuring consumers ' preferences for craft beer attributes through Best-Worst Scaling. *Agricultural and Food Economics*, 8(1), 1–13. <https://doi.org/10.1186/s40100-019-0138-4>
- Lestari, S. P., Iryanti, E., Farel, K. G., Dewantara, A. G., Falah, N., & Husnika, R. (2026). Implementasi Kombinasi Press Molding & Dehydrator Package Untuk Meningkatkan Produktivitas, Higienitas, Serta Profitabilitas Usaha Terasi Qonjamadu. *COMMUNITY : Jurnal Pengabdian Kepada Masyarakat*, 6(1), 307–322. <https://doi.org/10.51878/community.v6i1.8950>
- Malekpour, M. et al. (2022). Investigating the relationship between intrinsic and extrinsic product attributes with customer satisfaction : implications for food products. *British Food Journal*, 124(13), 578–598. <https://doi.org/10.1108/BFJ-02-2022-0097>
- Mantolas, H., & Al, E. (2025). Customer Satisfaction Mapping of Hot Mix Asphalt Products Using Importance-Performance Analysis. *SCIENCE TECH: Jurnal Ilmiah Ilmu Pengetahuan Dan Teknologi*, 11(2), 192–202. <https://doi.org/10.30738/st.vol11.no2.a19185>
- Maulidah, S., Hs, H. S., & F, F. Y. (2014). Peningkatan Brand Image (Citra Merek) Dalam Rangka Pengembangan Produk Agroindustri Kering Kentang (Studi Kasus Pada Kering Kentang “Kirana” Di Kabupaten Tuban). *SEPA: Jurnal Sosial Ekonomi Pertanian Dan Agribisnis*, 11(1), 98–109. <https://doi.org/10.20961/sepa.v11i1.14158>
- Meutia, M., Ismail, T., & Bukhori, A. (2021). *Consumer Perceptions of Sate Bandeng Attributes*. 9, 28–32. <https://doi.org/10.2991/absr.k.210304.006>
- Nurliza, N., Suharyani, A., & Nugraha, A. (2021). *The Product Features, Functions, and Benefits of Seafood Products for Competitive Repositioning*. 7(1), 91–110. <https://doi.org/10.18196/agraris.v7i1.10571>
- Ohorella, R., Baskoro, M. S., & Harijati, S. (2022). Strategi Pengembangan Usaha Kecil Menengah (UKM) Pengolahan Ikan Asap Yang Berorientasi Pasar Di Kabupaten Bone. *Jurnal Matematika Sains Dan Teknologi (JMST)*, 23(2), 93–105. <https://doi.org/10.33830/jmst.v23i2.2030.2022>
- Okpala, C. O. R., & Korzeniowska, M. (2023). Understanding the Relevance of Quality Management in Agro-food Product Industry : From Ethical Considerations to Assuring Food Hygiene Quality Safety Standards and Its Associated Processes Understanding the Relevance of Quality Management in Agro-food Pro. *Food Reviews International*, 39(4), 1879–1952. <https://doi.org/10.1080/87559129.2021.1938600>
- Orquin, J. L., Bagger, M. P., Lahm, E. S., Grunert, K. G., & Scholderer, J. (2020). The visual ecology of product packaging and its effects on consumer attention. *Journal of Business Research*, 111, 187–195. <https://doi.org/10.1016/j.jbusres.2019.01.043>
- Pitaloka, V., & Tambunan, D. B. (2021). An Analysis of Consumers ' Preferred Attributes of COK-KIS Products. *KnE Social Sciences 7th International Conference on Entrepreneurship*, 57–67. <https://doi.org/10.18502/kss.v5i5.8798>
- Rahman, A., Astuti, R. S., & Sucipto, S. (2023). *Quality properties of indonesian traditional terasi : a review*. 17(1), 222–235. <https://doi.org/10.21107/agrointek.v17i1.15274>
- Rizal, A., Cheung, W., Suryana, A. A. H., & Nurhayati, A. (2019). *Consumer Satisfaction Analysis of Seafood Processed Products*. 2(2), 173–181. <https://doi.org/10.17509/tjr.v2i2.19710>
- Sahir, S. H., & Fahlevi, M. (2023). Chef-Preneur And Restaurant Performance: The Role Of Mediation In Competitive Advantage. *EKUITAS (Jurnal Ekonomi Dan Keuangan)*, 7(4), 522–541. <https://doi.org/10.24034/j25485024.y2023.v7.i4.5730>
- Setyaningrum, F. E. (2020). Customer Satisfaction Index (CSI) and Importance Performance Analysis (IPA) Methods of Exclusive Matte Lip Cream. *Indonesian Journal of Industrial Engineering & Management*, 1(2), 116–126. <https://doi.org/10.22441/ijiem.v1i2.10220>
- Shen, M., Cheng, A., & Bi, Y. (2024). An integrated framework for importance-performance analysis of product attributes and validation from online reviews and maintenance records. *Design Science Cambridge University Press*, 10(19), 1–35. <https://doi.org/10.1017/dsj.2024.15>
- Surya, R., Nugroho, D., Kamal, N., & Petsong, K. (2024). Characteristics of Indonesian traditional fermented seafood paste (terasi) made from shrimp and anchovy. *Journal of Ethnic Foods*, 11(2), 1–13. <https://doi.org/10.1186/s42779-023-00218-y>
- Syahlan, F., Hurriyati, R., & Dirgantari, P. D. (2023). Market Mastery in the MSMEs Business Scope : Private Label Success in Indonesia Analyzed Through Price , Quality , Branding , Promotion , and Consumer Perception. *West Science Business and Management*, 1(05), 532–543. <https://doi.org/10.58812/wsbm.v1i05.441>
- Weerasinghe, W. A. R. N. & S. H. P. M. (2022). Consumer Buying Behavior Of Coconut Oil: A Case Of The Homagama Ds Division In Sri Lanka. *Contemporary Agriculture*, 71(3), 203–211. <https://doi.org/10.2478/contagri-2022-0027>
- Widjaja, A., Astuti, W., & Manan, A. (2019). The Relationship between Customer Satisfaction and Loyalty : Evidence on Online Transportation Services in Indonesia. *International Journal of Advances in Scientific Research and Engineering (IJASRE)*, 5(4), 214–222. <https://doi.org/10.31695/IJASRE.2019.33166>
- Widyaningrum, M. E., Fattah, A., & W, Muslichah Erma, S. (2019). *Empowerment and Product Development of " Terasi Rebon " Processed Seafood Craftsmen as a Leading Potential for Competitive Coastal Areas in Karang Agung , Tuban , East Java*. 6(11), 333–340. <https://doi.org/10.14738/assrj.611.7416>
- Wu Wen, et al. (2021). *Consumer Trust in Food and the Food System : A Critical Review*. 10(10), 1–15. <https://doi.org/10.3390/foods10102490>
- Yang, L., Zhang, T., Li, H., Chen, T., & Liu, X. (2023). Control of Beany Flavor from Soybean Protein Raw Material in Plant-

- Based Meat Analog Processing. *MDPI Foods*, 12(5), 1–18. <https://doi.org/10.3390/foods12050923>
- Yang, S., Liao, H., & Zhang, C. (2025). Exploring Service Improvement Through Importance-Performance Analysis Considering The Reliability Of Multiple Online Platforms. *Technological and Economic Development of Economy*, 31(5), 1291–1319. <https://doi.org/10.3846/tede.2025.23838>
- Yuliani, K., Rosalina, D., & Ruhamak, M. D. (2021). *Analysis of Competition Reviewed From Consumer Attitudes to Yellow Tofu Attributes in Kediri City*. 175, 69–72. <https://doi.org/10.2991/aebmr.k.210510.014>

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