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STRATEGIC VALUE CHAIN OPTIMIZATION AND CONSUMER ACCEPTANCE OF THAI GI SABA BANANA PRODUCTS

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Abstract

This mixed-methods study examines fundamental consumer behavior and proposes an optimized, eco-friendly value chain model for Geographical Indication-certified Saba banana products in Southern Thailand to drive sustainable grassroots economic development. Quantitative data were gathered from 400 consumers via a survey, alongside qualitative insights from key stakeholders and regional policymakers. The research findings reveal exceptionally high levels of overall consumer satisfaction and market acceptance, driven primarily by rising health consciousness, green product attributes, and standard certifications such as Halal and FDA approval. Marketing mix analysis indicates that the product and price elements are the primary determinants of actual purchasing decisions, while distinct demographic variations significantly influence consumer preferences. Based on these insights, a sustainable value chain framework is introduced that seamlessly integrates clean raw material sourcing, diversified high-value processing—such as banana flour and skincare products—collaborative stakeholder networks, and robust financial management. Ultimately, this research provides crucial administrative and strategic insights for local community enterprises and regional administrators to maximize the competitive advantages of indigenous agricultural resources within dynamic regional markets.

Keywords: Value Chain Optimization, Consumer Behavior, Geographical Indication, Saba Banana, Grassroots Economic Development

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Introduction

Thailand's 20-Year National Strategy (2017-2036) outlines a visionary framework and development guidelines for all government agencies, aiming to achieve the overarching national vision of "Thailand: Stable, Prosperous, and Sustainable," a developed nation guided by the Sufficiency Economy Philosophy. This strategy prioritizes human and social development to build a robust national foundation, fostering individuals and communities that are physically and mentally resilient, intellectually capable, globally-minded, possess critical thinking skills, discipline, respect for law and ethics, and appreciate Thai values, within stable family units (Office of the National Economic and Social Development Council, 2019).

Complementing this, the 13th National Economic and Social Development Plan emphasizes grassroots economic development to create "stability, prosperity, and sustainability" at the community level. In alignment with these national directives, Yala province has set "stable quality of life, prosperous agriculture, and sustainable tourism" as its provincial development goals, with the Sufficiency Economy Philosophy serving as the foundation for daily life.

The "prosperous agriculture" objective focuses on enhancing the quality, standards, and adoption of agricultural technologies, thereby fostering food security and establishing Yala as a safe food city. Community development initiatives, such as the "Kok Nong Na Model" for quality-of-life enhancement and home vegetable garden projects for food security, play a crucial role in supporting these agricultural goals. Currently, bananas play a significant role in daily life. It can be argued that bananas are consumed more frequently than any other fruit globally, given their versatility - almost all parts of the plant can be utilized. Leaves serve as wrappers, the trunk is used for animal feed, and the fruit itself is consumed directly. Bananas are highly nutritious, affordable, easy to cultivate, and quick to yield, making them a popular crop that generates millions in annual revenue nationwide. In the future, bananas are expected to become an even more critical economic crop for the country. This involves careful selection and improvement of varieties, diligent cultivation practices, and maintenance to ensure consistent yields suitable for various uses, including fresh consumption and processing into savory and sweet dishes, as well as other products like dried bananas, banana chips, fried bananas, and baked bananas (Krungkaew et al., 2023; Udomkun et al., 2021).

The Yala Provincial Agricultural Office actively encourages farmers to expand their Saba banana cultivation under the framework of the Large-Scale Farming System Project. This strategic initiative transfers knowledge to farmers to enable efficient plot management and higher-quality yields. Promoting valuable local crops and enhancing farmers' incomes by consistently increasing yields of high-quality Saba bananas meets the needs of both farmers and processors. Notably, the Saba banana (Kluay Hin) of Yala province is a distinctive local crop that has held Geographical Indication (GI) certification since 2011 (Internal Security Operations Command Region 4, 2023). "Kluay Hin Bannang Sata," also known as Saba banana, is characterized by its predominantly square-shaped fruit, with triangular ends on both sides of the bunch. The peel is thick and green when unripe, turning yellow as it ripens. The flesh is firm, white when unripe, and creamy yellow when ripe, and non-sticky. When fully ripe, it has a tart taste. Locals commonly process unripe bananas into chips, while ripe bananas are typically cooked, steamed, or grilled for consumption, such as boiled bananas, deep-fried bananas in batter, bananas in coconut milk, or sweet sticky rice with bananas (Rojanapornthip, 2020).

This study, adapted from a broader investigation into environmentally friendly value chain models, aims to address two primary objectives: 1) to investigate consumer behavior regarding Saba banana products from Bannang Sata, Yala, and 2) to develop an optimized value chain for these indigenous products. By integrating consumer insights into a strategic framework, this research seeks to transform local agricultural assets into high-value processed goods.

Ultimately, the findings establish a robust database to foster stable and sustainable grassroots economic development, maximizing benefits for community enterprises throughout the region.

Literature Review

Consumer Behavior and Marketing Mix

Consumer behavior is central to the formulation of marketing strategy. Numerous scholars consistently view it as the decision-making processes and actions individuals undertake in selecting, acquiring, consuming, and disposing of products or services to satisfy their needs (Hoyer & MacInnis, 2007). This behavior is observable and measurable (Peter & Olson, 2010). To analyze consumer behavior and understand the motivations and factors influencing purchase decisions, the researchers applied Kotler and Keller's (2009) 6W's 1H (or 7O's) model, comprising: 1) Who is the target market (Occupants) to identify genuine demographic characteristics? 2) What do target customers buy (Objects) to understand the characteristics or value consumers seek? 3) Why do consumers buy (Objectives) to analyze their purchase intentions or motivations? 4) Who participates in the purchase (Organization) to identify decision-making influencers? 5) When do consumers buy (Occasions) to determine appropriate opportunities and timing for product presentation? 6) Where do consumers buy (Outlets) to manage distribution channels for convenient consumer access? Moreover, 7) How do consumers buy (Operations) to understand the steps in their purchase decision process?

Alongside this, the marketing mix concept is considered a crucial tool that businesses can use to satisfy the needs of their target markets (Kotler, 2011). Lamb, Hair, and McDaniel (2001) defined it as elements designed to facilitate satisfactory exchanges, comprising four key components: 1) Product: What a business offers to satisfy needs, encompassing both tangible goods and intangible services, including quality, branding, and packaging. 2) Price: The monetary value buyers and sellers agree upon for exchange, which consumers compare against perceived value before making a purchase decision. 3) Place: Activities and structures that facilitate moving products to consumers at the right time and location. 4) Promotion: Communication tools used to build awareness, foster positive attitudes, and stimulate purchase behavior through communication between buyers and sellers.

Value Chain

Porter's (1985) value chain concept refers to the various activities undertaken within an organization to create value for its products and services. These activities are categorized into primary activities and support activities. For processed Saba banana products, the value chain begins with upstream raw material management (Inbound Logistics), which involves sourcing indigenous crops. This is followed by production and processing (Operations), product distribution (Outbound Logistics), marketing and sales (Marketing and Sales), and customer service (Services). However, in the current context, discussions have evolved to a "new value chain" that emphasizes sustainability and value creation through innovation and identity. This shift moves beyond conventional value chains focused solely on cost reduction towards those emphasizing customer satisfaction and cultural storytelling, aligning with grassroots economic development initiatives that seek to differentiate local products.

Research Conceptual Framework and Hypotheses

Drawing from the aforementioned consumer behavior concepts and theories, this study employs a consumer behavior research approach tailored explicitly to Saba banana products. This guides the investigation into various aspects of consumer behavior, including purchase reasons, desired product attributes, selection motivations, purchase timing, preferred distribution channels, influencers, and the overall purchase decision process. Individual characteristics of Saba banana consumers influence these factors. The aim is to develop and integrate the 4Ps concept with a new value chain analysis to form a framework that enhances the potential of Saba banana products in Bannang Sata, Yala. In the Next Normal era,

consumers prioritize product traceability and food safety standards as primary factors in their purchase decisions. For this study on the new value chain and consumer behavior of Saba banana products in Bannang Sata, Yala, the researchers reviewed concepts and theories, defined the research conceptual framework, and formulated hypotheses, as detailed in Figure 1.

Hypothesis: Different personal factors (such as demographic characteristics and product consumption experience) significantly affect consumer behavior (including reasons for purchase, desired product attributes, selection motivations, purchase timing, preferred distribution channels, influencers, and the overall purchase decision process) towards environmentally friendly Saba banana products at the 0.05 statistical significance level.

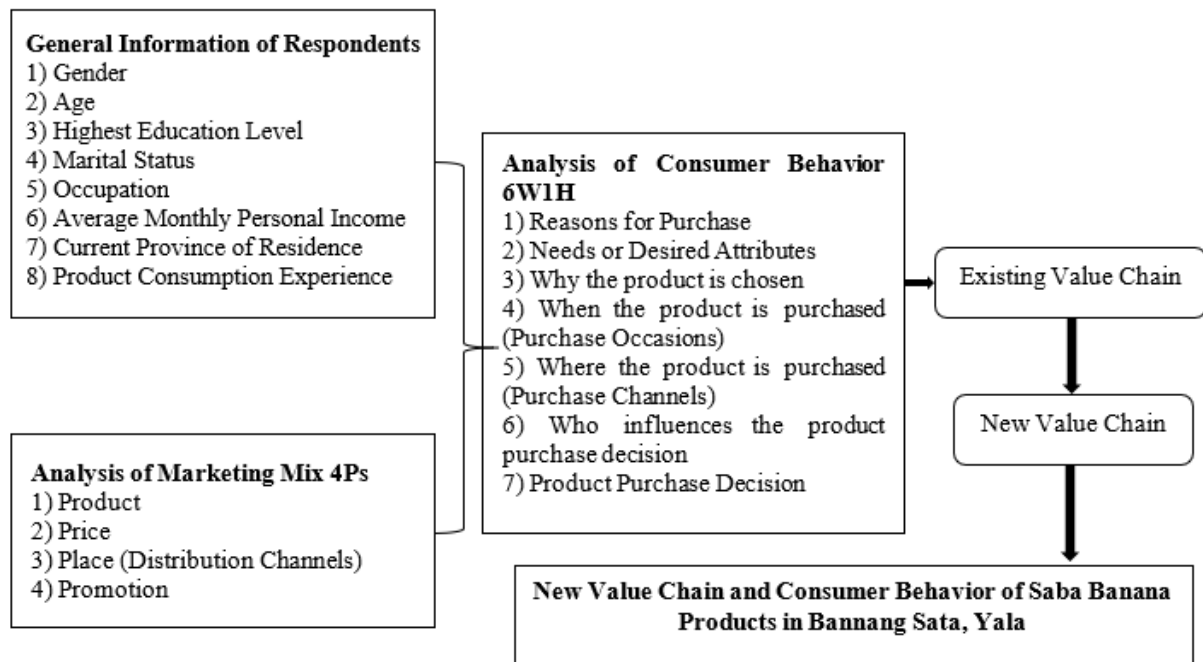


Figure 1 Research Conceptual Framework

Research Methodology

This study employed a mixed-methods approach, combining quantitative and qualitative methods. For the quantitative phase, the researchers focused on consumer behavior among those with experience in purchasing or consuming Saba banana products. As the exact population size was unknown, the sample size was determined using Cochran's (1977) formula, with a 95% confidence level and a 0.05 margin of error. A total sample of 400 respondents was selected using purposive sampling based on predefined criteria. Data were collected via online channels using Google Forms from 150 respondents across academic, student, and community enterprise networks, and via offline channels in three provinces (Pattani, Narathiwat, and Yala) from 250 respondents, ensuring demographic diversity. To study the new value chain, the researchers conducted qualitative research by purposively selecting 10 key informants, comprising representatives from Saba banana producers in Bannang Sata District and experts from government agencies involved in policy-making and environmental product evaluation. The research instruments included multiple-choice questionnaires, checklist-type questions (nominal scale), and closed-ended rating-scale questionnaires (ordinal scale), all using a 5-point Likert scale. Quantitative data covered consumer behavior and marketing mix factors (4Ps). At the same time, qualitative instruments, such as in-depth interviews and open-ended focus group discussions, were used to explore the existing value chain structure and approaches to building a new value chain model. All instruments underwent content validity assessment.

by three experts, yielding Item-Objective Congruence Index (IOC) scores between 0.50 and 1.00, which are within the acceptable range.

Furthermore, the questionnaire was pilot-tested (try-out) with 30 respondents to assess its reliability using Cronbach's Alpha Coefficient (Cronbach, 1990). A resulting coefficient of 0.882 indicated sufficient reliability for actual data collection. For data analysis, descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to characterize consumer behavior and marketing factors. Questionnaire quality was assessed using Cronbach's alpha coefficient. Inferential statistics, specifically the Chi-square Test, were employed to test hypotheses, with a statistical significance level set at 0.05 (95% confidence level; Cronbach, 1990). Qualitative data were subjected to content analysis and narrative description to summarize key findings. The entire research process adhered to ethical principles for human research, prioritizing the protection of the rights of all participants and key informants. Ethical approval was obtained from the Human Research Ethics Committee of Sirindhorn College of Public Health, Yala (Reference No.SCPHYLIRB-2566/056), ensuring the highest level of protection for their rights, privacy, and confidentiality.

Research Results

Consumer Behavior towards Saba Banana Products in Bannang Sata, Yala

General information from the questionnaire respondents revealed that the majority were female, aged 21-30 years, held a bachelor's degree as their highest level of education, and were single. Occupations were equally split between government/state-enterprise officials and office/private-business employees. Most respondents had an average monthly income of less than 10,000 baht, resided in Yala province, and had previous experience consuming Saba banana products. The analysis of opinions regarding consumer behavior regarding environmentally friendly Saba banana products, using frequency distributions, percentages, means, and standard deviations, is presented in Table 1.

Table 1 Overview of the level of opinions regarding consumer behavior

Consumer Behavior Factor	$\bar{x}$	S.D.	Level	Rank
What you need/want from Saba banana products	4.75	0.43	Highest	1
How do you choose Saba banana products	4.75	0.43	Highest	2
Your decision to buy Saba banana products	4.69	0.48	Highest	3
Reasons why you buy Saba banana products	4.51	0.54	Highest	4
Who influences your decision to buy Saba banana products	4.16	0.51	High	5
When you usually buy Saba banana products	4.13	0.58	High	6
Where do you usually buy Saba banana products	4.10	0.58	High	7
Overall Consumer Behavior	4.44	0.51	Highest	

The data collection results showed that overall consumer behavior regarding environmentally friendly Saba banana products was at the highest level ($\bar{x} = 4.44$). When examined by item, two aspects received the highest opinion scores: "What you need/want from Saba banana products" and "How you choose Saba banana products," both at the highest level ($\bar{x} = 4.75$). This was followed by "Your decision to buy Saba banana products" at the highest level ($\bar{x} = 4.69$). The aspect with the lowest, yet still highest level of opinion, was "Reasons why you buy Saba banana products" ($\bar{x} = 4.51$).

Analysis of Marketing Mix Factors

The analysis of opinions regarding marketing mix factors, using frequency distributions, percentages, means, and standard deviations, is presented in Table 2.

Table 2 Level of opinions about marketing mix factors of environmentally friendly banana products, Bannang Sata, Yala

Marketing Mix Factor	$\bar{x}$	S.D.	Level	Rank
Product	4.71	0.45	Highest	1
Price	4.71	0.47	Highest	2
Place	4.65	0.54	Highest	3
Promotion	4.55	0.58	Highest	4
Overall	4.65	0.51	Highest	

The data collection results revealed that the overall opinion on marketing mix factors for environmentally friendly Saba banana products in Bannang Sata, Yala, was at the highest level ($\bar{x} = 4.65$). When examined by item, consumers held the highest opinions across all factors. Ranking the mean opinion scores from highest to lowest, "Product" and "Price" were at the highest level ($\bar{x} = 4.71$), followed by "Place" ($\bar{x} = 4.65$), and then "Promotion" ($\bar{x} = 4.55$).

Hypothesis Testing Results

Hypothesis testing of the impact of various personal factors on consumer behavior towards environmentally friendly Saba banana products was conducted using the Chi-square Test at the 0.05 level of statistical significance. The results are presented in Table 3.

Table 3 Different personal factors affect consumers' behavior toward environmentally friendly banana products.

Personal Factors	Consumer Behavior						
	Reasons for Purchase	Needs/Desired Attributes	Why Chosen	Purchase Time	Purchase Channels	Influencer	Purchase Decision
	χ^2 (df)	χ^2 (df)	χ^2 (df)	χ^2 (df)	χ^2 (df)	χ^2 (df)	χ^2 (df)
Gender	0.257	0.481	0.019	0.383	2.774	3.275	2.348
Age	21.318* (8)	6.498 (4)	20.958 (4)	4.730 (8)	22.165 (16)	7.647 (8)	19.263 (8)
Highest Education Level	75.689* (12)	17.309* (6)	23.580* (6)	49.278* (12)	35.758* (24)	12.729 (12)	41.602* (12)
Marital Status	39.564* (6)	7.335 (3)	21.953 (3)	3.159 (6)	37.481* (12)	4.987 (6)	26.012* (6)
Occupation	57.449* (12)	5.837 (6)	20.532 (6)	83.233* (12)	26.012* (24)	7.921 (12)	46.269* (12)
Average Monthly Personal Income	35.976* (12)	1.864 (6)	10.638* (6)	18.772* (12)	40.301* (24)	10.797 (12)	20.992* (12)
Current Province of Residence	3.318 (6)	8.756 (3)	6.729 (3)	4.609 (6)	33.101* (12)	5.928 (6)	1.262 (6)
Consumption Experience	2.565 (4)	16.620* (2)	23.241* (2)	7.344 (4)	199.810* (8)	87.028* (4)	7.344 (4)

Note: * p-value < 0.05, (Chi-square test statistics)

The hypothesis testing results indicated that different personal factors significantly affect consumer behavior towards environmentally friendly Saba banana products in all aspects, with a statistical significance level of 0.05. Specifically, demographic variables such as "Highest Education Level" and "Occupation," along with "Consumption Experience," demonstrated the most pronounced influence on varying consumer behaviors.

New Value Chain of Saba Banana Products in Bannang Sata, Yala

To establish a competitive advantage for "Kluay Hin Bannang Sata," this research developed a new value chain model by integrating consumer behavior insights with marketing mix strategies. This model emphasizes collaboration among community stakeholders across upstream, midstream, and downstream activities to enhance efficiency in line with the Sufficiency Economy Philosophy. The primary activities focus on environmentally friendly raw material sourcing, standardized production (Halal and FDA), and diversified export promotion, while supporting activities prioritize human resource management and robust financial capital to ensure long-term sustainability. Figure 2 displays products derived from Saba bananas in Bannang Sata, Yala.



Figure 2 Saba banana products from Bannang Sata, Yala

The five primary activities include:

- 1) Raw Material Sourcing for Product Creation: Government agencies or relevant organizations should promote and encourage local farmers to cultivate environmentally friendly Saba bananas. This stimulates income generation and establishes unique agricultural livelihoods within the community.
- 2) Saba Banana Production Process: Community enterprises should produce high-quality products that meet market standards, such as Halal, FDA, and GMP certifications.
- 3) Product Export: Government agencies or relevant organizations should support exporting products to international markets, positioning the community as a leader in the region.
- 4) Saba Banana Product Promotion: Community enterprises should increase the volume or frequency of promotional activities to stimulate greater purchases.
- 5) Customer Service: Community enterprises should use a diverse range of marketing tools to enhance service channels and offerings.

The four supporting activities (Supporting Activities) include:

- 1) Local Raw Material Sourcing: Government agencies or relevant organizations should promote and encourage local farmers to cultivate environmentally friendly Saba bananas. This stimulates income generation and establishes unique agricultural livelihoods within the community, where farmers naturally grow crops.
- 2) Differentiated Saba Banana Product Development: Community enterprises should process Saba bananas into diverse products, such as banana flour or banana scrubbing products, to add value and create new, environmentally friendly products, prioritizing consumer needs.
- 3) Human Resource Management in Production: Community enterprises should focus on systematic capacity building, providing specialized training for local farmers and production staff on advanced processing technologies and quality control standards to ensure supply chain consistency and operational efficiency.
- 4) Financial Management: Community enterprises should manage their working capital effectively or seek financial support from other relevant agencies.

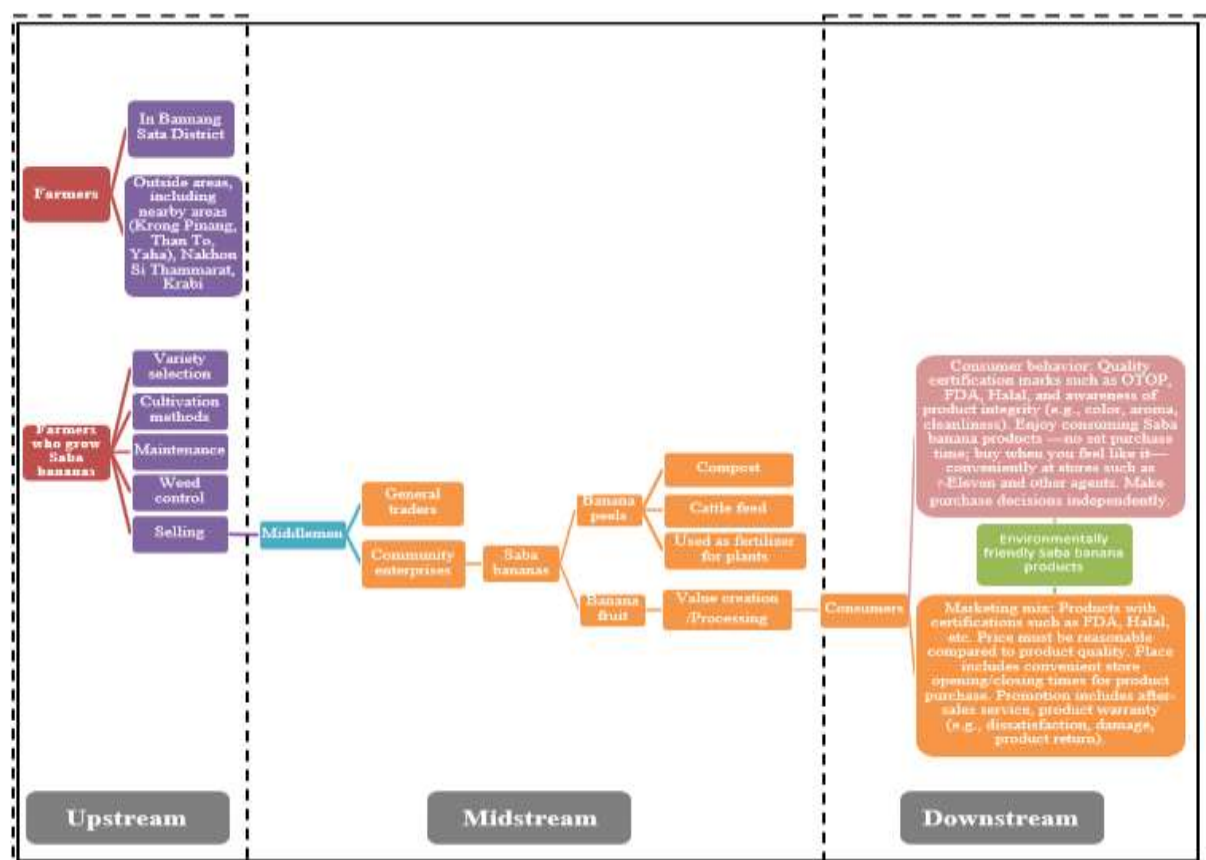


Figure 3 New value chain model for Saba banana products in Bannang Sata, Yala

Figure 3 illustrates the new value chain model for Saba banana products in Bannang Sata, Yala, collaboratively developed by the researchers, community enterprise representatives, and government agency representatives.

Conclusion and Discussion

The analysis of consumer opinions regarding environmentally friendly Saba banana products in Bannang Sata, Yala, indicated an overall perception score at the highest level. When examined item by item, opinions were highest for "What consumers need or want from environmentally friendly Saba banana products" and "How consumers choose environmentally friendly Saba banana products". This was followed by "The decision to purchase environmentally friendly Saba banana products" and "Reasons for purchasing environmentally

friendly Saba banana products". Other aspects, such as individuals influencing purchase decisions, purchase timing, and purchase locations, were also rated highly. These findings indicate that consumer behavior strongly emphasizes the necessity and desirability of environmentally friendly Saba banana products. This aligns with Kotler and Keller's (2009) concept of personal factors influencing consumer behavior. Consumers with specific demographic profiles—such as holding a bachelor's degree, being single, working as civil servants, and residing in Yala province—exhibit distinct psychological traits that drive their purchase decisions, which are based on practical needs and health awareness. While previous literature, such as Amberg and Fogarassy (2019), highlights that green consumerism strongly drives purchasing decisions in other markets, this study demonstrates that such health and environmental consciousness equally motivates consumers in the local agricultural and food product sectors. Environmentally conscious consumers continue to make informed purchasing decisions based on product safety, organic standards, and existing product knowledge.

The analysis of opinions regarding marketing mix factors for environmentally friendly Saba banana products in Bannang Sata, Yala, yielded an overall average at the highest level. Breaking this down by individual factors, all aspects were perceived at the highest level. The "Product" dimension scored highest, particularly for products with certifications such as FDA and Halal. This highlights that consumers prioritize certified products. Current consumer trends show increasing concern for health and wellness, consistent with research by Sawangfah et al. (2022) on community enterprises in Chumphon province that process Nang-leab bananas, where marketing mix factors were found to be the highest overall. This also aligns with consumer behavior and demographic data in the three southern border provinces. Most consumers in Yala province who have experience with Saba banana products are aware that Saba bananas are safe, pesticide-free, meet organic farming standards, and do not contain harmful chemicals, due to health and safety concerns (Giuggioli et al., 2024; Saraithong et al., 2024). Regarding the "Price" of Saba banana products, perceived value for money relative to product quality scored highest. For "Place" (distribution channels), the convenient operating hours of sales points scored highest. In terms of "Promotion," after-sales services and product guarantees, such as returns for dissatisfaction or defects, scored highest. Thus, the marketing mix factors are critical for studying environmentally friendly Saba banana products in Bannang Sata, Yala, serving as tools to align with market objectives. This is consistent with Kotler & Armstrong (2016) and Amberg & Fogarassy (2019), who propose the marketing mix as a strategic planning tool to achieve marketing objectives. For community enterprises processing Nang-leab bananas in Chumphon province, product, price, place, and promotion are key factors influencing operational effectiveness.

The hypothesis testing results revealed that differing personal factors—including age, highest level of education, marital status, occupation, average monthly income, current province of residence, and experience with product consumption—significantly influenced consumer behavior toward environmentally friendly Saba banana products at the 0.05 level of statistical significance. It can be concluded that personal factors significantly dictate purchasing behavior, confirming Kotler and Keller's (2009) theoretical model. Consumers who fit specific demographic profiles are more familiar with Saba banana products and are more likely to purchase them due to their practical needs. This corresponds with broader market trends identified by Amberg and Fogarassy (2019) and Sawangsub (2018), which indicate an increasing receptiveness to natural and eco-friendly products among both producers and consumers. Rather than being limited to specific industries, this growing awareness of environmental and health issues is a cross-sectoral phenomenon. The findings confirm that health and environmental awareness will remain significant drivers of consumer choices, presenting a critical opportunity for the local food industry to align its environmentally friendly production methods with these evolving preferences.

To effectively translate these findings into practice, continuous entrepreneurship development must be aggressively promoted. This includes enhancing local and provincial human capital, fostering exports of products to international markets, improving the strategic marketing mix, and building resilient competitive capabilities to achieve higher-quality outcomes and optimal products. Ultimately, regional administrators and community enterprises should prioritize strengthening technical skill development and formalizing alternative career pathways, thereby enabling the creation of well-integrated, eco-friendly, and value-added agricultural products within local communities.

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References

- Amberg, N., & Fogarassy, C. (2019). Green Consumer Behavior in the Cosmetics Market. *Resources*, 8(3), 137.
- Cochran, W. (1977). *Sampling Techniques* (3rd ed.). New York: John Wiley & Sons.
- Cronbach, L. (1990). *Essentials of Psychological Testing* (5th ed.). London: UCL Press.
- Giuggioli, N., Ollani, S., Zanchini, R., Danielle, B., Sparacino, A., Massaglia, S., & Merlino, V. (2024). The appeal of bananas: A qualitative sensory analysis and consumers' insights into tropical fruit consumption in Italy. *Journal of Agriculture and Food Research*, 16, 101110.
- Hoyer, W., & MacInnis, D. (2007). *Consumer Behavior* (4th ed.). Massachusetts: Houghton Mifflin Company.
- Internal Security Operations Command Region 4. (2023). *The Yala Provincial Agricultural Office organized an event to promote the expansion of banana cultivation areas in Yala province, emphasizing participation and integration among agencies to develop agricultural occupations, create jobs, and generate income for the people*. Retrieved from www.southpeace.go.th/?p=64937.
- Kotler, P. (2011). Philip Kotler's contributions to marketing theory and practice. In N. Malhotra (ed.). *Review of Marketing Research: Special issue—Marketing legends* (pp. 87-120). Bingley: Emerald Group.
- Kotler, P., & Armstrong, G. (2016). *Principles of Marketing* (16th ed.). London: Pearson.
- Kotler, P., & Keller, K. (2009). *Marketing Management* (13th ed.). New Jersey: Prentice Hall.
- Krungkaew, S., Hülsemann, B., Kingphadung, K., Mahayothee, B., Oechsner, H., & Müller, J. (2023). New Sustainable Banana Value Chain: Waste Valuation toward a Circular Bioeconomy. *Energies*, 16(8), 3453.
- Lamb, C., Hair, J., McDaniel, C., & McDaniel, C. (2001). *Essentials of Marketing*. Tennessee: South-Western College Publishing.
- Office of the National Economic and Social Development Council. (2019). *The Thirteenth National Economic and Social Development Plan (2023-2027)*. Bangkok: Office of the National Economic and Social Development Council.
- Peter, J., & Olson, J. (2010). *Consumer Behavior & Marketing Strategy* (9th ed.). New York: McGraw-Hill.
- Porter, M. (1985). *The Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.
- Rojanapornthip, J. (2020). *Bannang Sata Kluai, endemic plant, Yala Province*. Retrieved from www.khaosod.co.th/technologychaoban/techno-news/article_140310.

- Saraithong, W., Chanchaoenchai, K., & Chairassamee, N. (2024). Assessing the Likelihood of Buying Thai Local Snacks. *Foods*, 13(21), 3419.
- Sawangfah, T., Tipawanna, M., & Subongkod, M. (2022). Marketing Mix Factors and Management Factors of Community Enterprise Affecting the Operational Effectiveness of Community Enterprise in Lebmuernang Banana Processing Group in Chumphon Province. *Journal of KMITL Business School*, 12(1), 1-12.
- Sawangsub, N. (2018). *Marketing Mix Factors and Post Purchase Behavior of Consumers at Community Markets in Thanyaburi District, Pathum Thani Province*. Master of Business Administration Thesis, Rajamangala University of Technology Thanyaburi.
- Udomkun, P., Swennen, R., Masso, C., Innawong, B., Kuate, A., Alakonya, A., & Vanlauwe, B. (2021). Influence of bunch maturation and chemical precursors on acrylamide formation in starchy banana chips. *International Journal of Food Science and Technology*, 56(10), 5417-5431.

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