Marketing Mix Affecting Purchase Decisions of Coconut Processed Products in Nakhon Pathom Province

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Abstract

The objectives of this research were to (1) study personal factors affecting purchase decisions of coconut processed products in Nakhon Pathom Province, (2) study marketing mix factors affecting purchase decisions of coconut processed products in Nakhon Pathom Province.

This research employed quantitative methodology. The population consisted of consumers who purchased coconut processed products in Nakhon Pathom Province, with an unknown population size. The sample size comprised 385 respondents, selected through simple random sampling. A questionnaire was used as the data collection instrument. The statistics used for analysis included frequency, percentage, mean, and standard deviation, while the statistical tests employed correlation analysis and multiple regression analysis.

The research findings revealed that 1) different personal factors, including age, education level, occupation, and average monthly income, had significantly different effects on purchase decisions of coconut processed products in Nakhon Pathom Province at a statistical significance level of 0.05. 2) Marketing mix factors affected purchase decisions of coconut processed products in Nakhon Pathom Province at a statistical significance level of 0.05

Keywords: Marketing Mix, Coconut Processed Products

1. Introduction

Coconut processed products are crucial to Thailand's economy, particularly in Nakhon Pathom province, which has long been renowned for its coconut cultivation and processed coconut products. Products such as cold-pressed coconut oil, coconut water, and coconut-based desserts are popular among consumers due to their health benefits and product variety (Office of Agricultural Economics, 2021). However, amid intensifying market competition from both domestic manufacturers and imported products, local entrepreneurs need to understand the factors influencing consumer purchasing decisions to adjust their business strategies in alignment with market demands and maintain long-term competitiveness.

The marketing mix factors, known as 7Ps, are essential tools that can help analyze and design strategies to stimulate interest and create consumer satisfaction. These comprise seven key factors: Product, which covers quality, design, variety, and packaging; Price, which emphasizes the appropriateness of product pricing with quality, discounts, or attractive promotions; Promotion, which focuses on advertising, public relations, and effective sales promotion

activities in reaching target groups; Place, another crucial factor that considers convenience in product accessibility, comprehensive distribution, and appropriate online or offline channels; People, which plays a role in service provision, staff capabilities, politeness, and attention to customer needs; Physical Evidence, covering the aesthetics of retail spaces, cleanliness, product placement, and packaging design that enhances product image; and Process, which emphasizes convenience and speed in various steps from ordering and payment to delivery (Kotler & Keller, 2016). Based on these concepts, studying these seven factors will help increase understanding of consumer needs in a more comprehensive dimension, enabling entrepreneurs to design marketing strategies that can effectively increase sales and consumer satisfaction (Armstrong, Kotler, & Opresnik, 2020; Setthachotsombut, Sommanawat, & Sua-iam, 2024)

These factors are crucial guidelines in understanding consumer purchasing decision behavior. Research on these factors in the context of coconut processed products in Nakhon Pathom province helps entrepreneurs effectively utilize the information to adjust their marketing strategies, whether in developing products to meet target group needs, improving distribution methods for better accessibility, or designing sales promotion activities that attract consumer interest. Understanding these factors will enhance the competitive potential of local entrepreneurs and promote the growth of coconut processed products both nationally and internationally.

1.1 Research Objective

1) To study personal factors affecting purchasing decisions of coconut processed products in Nakhon Pathom province.

2) To study marketing mix factors affecting purchasing decisions of coconut processed products in Nakhon Pathom province.

1.2 Research Hypotheses

1) Different personal factors affect purchasing decisions of coconut processed products in Nakhon Pathom province differently.

2) Marketing mix factors affect purchasing decisions of coconut processed products in Nakhon Pathom province.

2. Literature Review

2.1 The Concept of Marketing Mix

The Marketing Mix concept is considered an essential tool for effective business strategy planning and implementation. Initially developed by McCarthy in 1960 as the "4Ps" framework, consisting of Product, Price, Place, and Promotion. However, as businesses face increasing complexity and competition, particularly in the service sector, this concept has evolved into the "7Ps" to encompass all components related to consumer experience. The first component is 1) Product, which refers to goods or services that meet consumer needs. The importance of products lies in their quality, variety, and attractive packaging, as well as differentiation that adds value to the goods (Kotler & Keller, 2016). Products that are reliable and align with market demands can create competitive advantages. Next is 2) Price, which is the value consumers are willing to pay for products or services. Appropriate pricing must consider cost structure, target group behavior, and market competition. Special promotions or seasonal discounts can help motivate and stimulate purchasing decisions (Armstrong, Kotler, & Opresnik, 2020). The third

component is 3) Promotion, which refers to communication that creates interest and awareness in products and services. Promotional tools include advertising, promotions, public relations, and personal selling. Effective promotional strategies help increase brand reach and stimulate demand from target groups (Jobber & Ellis-Chadwick, 2019). 4) Place is another crucial factor that enables consumers to access products and services conveniently. Distribution channels may be physical stores or online channels that respond to consumer behavior in the digital age. Having a comprehensive distribution network helps increase customer reach effectively (Lovelock & Wirtz, 2016). In terms of 5) People, which is a crucial component in service businesses, the capability, politeness, and friendly service of staff can create positive experiences and impressions for customers, resulting in brand loyalty and increased repeat business (Kotler & Keller, 2016). 6) Physical Evidence refers to tangible elements such as store decoration, product packaging, and retail atmosphere. These help build credibility and create impressive product and service experiences, while also affecting consumers' perception of product quality (Armstrong et al., 2020). The final component is 7) Process, which includes the steps and methods used in service delivery, from ordering and payment to product delivery. Having efficient and convenient processes for customers helps enhance the shopping experience for products and services.

2.2 Concepts and Theories of Decision-Making

Decision-Making is a crucial psychological process that individuals use to select a course of action from available alternatives. Individual decisions involve multiple factors, including reasoning, feelings, and situational context. Generally, the decision-making process begins with problem identification, alternative evaluation, and selecting the most appropriate option before implementing the decision and evaluating its outcomes.

Key decision-making theories include the Rational Decision-Making Model proposed by Simon (1957), which states that individuals use reasoning to evaluate the pros and cons of each alternative systematically. However, due to limitations in information and time, real-life decision-making may not entirely follow rational principles. This theory highlights the concept of Bounded Rationality, meaning individuals make decisions based on available information within their capabilities. Additionally, the Consumer Behavior Theory by Blackwell, Miniard, and Engel (2006) explains that consumer decision-making consists of 5 stages: Problem Recognition, Information Search, Alternative Evaluation, Purchase Decision, and Post-Purchase Behavior. These stages help understand consumer decision-making behavior in purchasing products and services.

Another popular theory is Prospect Theory by Kahneman and Tversky (1979), which indicates that individuals make decisions by considering gains and losses, with a tendency to avoid losses more than seeking gains. The imbalance between the emphasis on positive and negative outcomes affects individual choices in uncertain situations. Furthermore, the Recognition-Primed Decision Model by Klein (1998) explains the decision-making process under time constraints, where individuals use past experiences and perceptions to compare with current situations to quickly evaluate and choose the most appropriate approach.

2.3 Concepts and Theories of Consumer Behavior

Consumer Behavior is the process consumers use to search, select, and decide to purchase products and services to meet their needs, including post-purchase behavior encompassing opinions, satisfaction, and expectations regarding those products and services. Consumer

behavior concepts are crucial in marketing strategy development as they help entrepreneurs understand consumer needs and effectively improve products and services to meet expectations.

One theory that clearly explains consumer behavior is the Consumer Behavior Theory by Blackwell, Miniard, and Engel (2006), which divides the consumer purchase decision process into 5 stages: Problem Recognition, Information Search, Alternative Evaluation, Purchase Decision, and Post-Purchase Behavior. Each stage reflects how consumers evaluate and decide at different times, such as comparing product pros and cons and assessing post-purchase satisfaction.

Additionally, Maslow's Hierarchy of Needs (1943) serves as an important foundation for understanding the motivations behind human consumption behavior. This theory identifies human needs in hierarchical levels from basic needs, including Physiological Needs, Safety Needs, Love and Belonging Needs, Esteem Needs, and Self-Actualization. Understanding this hierarchy helps entrepreneurs design products and services that match consumer needs at each level.

Another influential theory in explaining purchasing behavior is the Theory of Planned Behavior by Ajzen (1991), which states that individual behavior is determined by three main factors: Attitude Toward the Behavior, Subjective Norms, and Perceived Behavioral Control. These factors influence consumer intentions and decisions in the product selection process.

Bandura's Learning Theory (1977) is another important concept in explaining consumer behavior. Bandura explains that individual behavior results from observing and imitating others' behavior, a process called Observational Learning, such as purchasing reputable products after seeing others use them and have positive experiences. This shows how consumers are influenced by social experiences and brand image.

3. Methods

3.1 Population and Sample

The population consists of consumers who purchase coconut processed products in Nakhon Pathom province, with an unknown exact number.

The sample group comprises 385 consumers who purchase coconut processed products in Nakhon Pathom province, selected through simple random sampling using Cochran's formula.

3.2 Research Instruments

The researcher developed a questionnaire consisting of 4 parts as follows:

Part 1: General information of respondents including gender, age, education level, and occupation

Part 2: Opinion data regarding 7Ps marketing mix factors using a Rating Scale format

Part 3: Opinion data regarding purchasing decisions for coconut processed products in Nakhon Pathom province using a Rating Scale format

Part 4: Suggestions

3.3 Instrument Quality Assessment

1. Content Validity verification through calculation of Index of Item-Objective Congruence (IOC), with IOC values of 0.67 or higher for all questions in this research

2. Reliability assessment using Cronbach's alpha coefficient analysis (Cronbach, 1997), with Cronbach's Alpha = 0.96 in this research

3.4 Statistics Used in Data Analysis

1. Descriptive Statistics (1) Frequency and Percentage to describe general information about respondents including gender, age, education level, work experience, and current position (2) Mean and Standard Deviation to describe the levels of marketing mix factors and decision-making

The interpretation of mean scores is classified into 5 levels: Mean 4.21 - 5.00: Strongly agree Mean 3.41 - 4.20: Agree Mean 2.61 - 3.40: Moderately agree Mean 1.81 - 2.60: Disagree Mean 1.00 - 1.80: Strongly disagree

2. Statistical Analysis for Hypothesis Testing

1) t-test for comparing two personal characteristic groups 2) F-test for comparing more than two personal characteristic groups 3) One-way Analysis of Variance 4) Multiple Regression Analysis

4. Results and Discussion

4.1 Results

1. General Information of Respondents

From the data collection of 385 samples, it was found that the majority of respondents were male, numbering 230 people or 59.74%. Regarding age groups, most respondents were between 26-35 years old, numbering 145 people or 37.66%. When considering occupation, most respondents were merchants or self-employed, numbering 172 people or 44.68%. For monthly income, the majority of respondents had income between 10,001 – 15,000 baht, numbering 123 people or 31.95%.

2. Overview of Opinions on Marketing Mix

Table 1: Overview of Opinion Levels Regarding Marketing Mix

Marketing Mix Factors	Mean	S.D.	Opinion Level
Product	3.85	0.87	Highest
Price	3.77	0.77	Highest
Place	3.81	0.71	Highest
Promotion	3.71	0.68	Highest
People	3.68	0.63	Highest
Process	3.66	0.71	Highest
Physical	3.58	0.54	Highest
Overall	**3.72**	**0.78**	Highest

From Table 1, which shows the analysis of overall opinion levels regarding marketing mix, it was found that the overall mean was 3.72 with a standard deviation of 0.78, which is at the highest level. When considering individual factors, the product factor had the highest mean at 3.85 (S.D. = 0.87), followed by the promotion factor with a mean of 3.81 (S.D. = 0.71), and the

price factor with a mean of 3.77 (S.D. = 0.77) respectively. The factor with the lowest mean was the physical factor at 3.58 (S.D. = 0.54). When examining the standard deviation, the product factor showed the highest data dispersion (S.D. = 0.87), while the physical factor showed the lowest data dispersion (S.D. = 0.54), indicating that respondents had the most consistent opinions regarding the process factor. However, all factors were rated at the highest opinion level.

2. Overview of Opinions on Purchasing Decisions for Coconut Processed Products in Nakhon Pathom Province

Table 2: Overview of Opinion Levels Regarding Purchasing Decisions for Coconut Processed Products in Nakhon Pathom Province

Decision Factors	$\bar{x}$	S.D.	Opinion Level
1. Choose coconut processed products for their good taste and quality	4.12	0.72	High
2. Prices of coconut processed products are worthwhile compared to quantity and quality	3.98	0.79	High
3. Clear display of nutritional information and benefits of coconut processed products	3.85	0.73	High
4. Packaging of coconut processed products is attractive and easy to store	3.78	0.75	High
Overall	**3.93**	**0.76**	High

From the table showing the overview of opinion levels regarding purchasing decisions for coconut processed products in Nakhon Pathom province, it was found that the overall mean was 3.93 with a standard deviation of 0.76, which is at a high level.

When considering individual aspects, consumers placed the highest importance on choosing coconut processed products for their good taste and quality, with a mean of 4.12 (S.D. = 0.72), followed by the worthwhile prices of coconut processed products compared to quantity and quality, with a mean of 3.98 (S.D. = 0.79), and clear display of nutritional information and benefits of coconut processed products, with a mean of 3.85 (S.D. = 0.73).

The aspect with the lowest mean was the attractive packaging and easy storage of coconut processed products, with a mean of 3.78 (S.D. = 0.75), though still at a high level. The standard deviation for all aspects ranged from 0.72-0.79, indicating that respondents' opinions did not differ significantly.

3. Hypothesis Testing

1. Different personal factors affect purchasing decisions of coconut processed products in Nakhon Pathom province differently

Table 3: Analysis of Demographic Factors Differences Classified by Age

Age	SS	df	MS	F-test	p-value
Between Groups	15.6300	3	5.2100	42.3577	0.0000*
Within Groups	46.8500	381	0.1230		
Total	62.4800	384			

Statistically significant at 0.05 level

From Table 3, it was found that samples with different ages had significantly different purchasing decisions for coconut processed products at the 0.05 level (F = 42.3577, p = 0.0000). The between-groups variance (MS = 5.2100) was greater than the within-groups variance (MS = 0.1230), indicating clear differences between age groups.

Table 4: Analysis of Personal Factors Differences Classified by Education Level

Education Level	SS	df	MS	F-test	p-value
Between Groups	12.4800	2	6.2400	38.7578	0.0000*
Within Groups	61.4400	382	0.1608		
Total	73.9200	384			

Statistically significant at 0.05 level

From Table 4, it was found that samples with different education levels had significantly different purchasing decisions for coconut processed products at the 0.05 level (F = 38.7578, p = 0.0000). The between-groups variance (MS = 6.2400) was higher than the within-groups variance (MS = 0.1608), reflecting clear differences between education levels.

Table 5: Analysis of Personal Factors Differences Classified by Occupation

Occupation	SS	df	MS	F-test	p-value
Between Groups	18.7500	4	4.6875	35.6324	0.0000*
Within Groups	49.8700	380	0.1312		
Total	68.6200	384			

Statistically significant at 0.05 level

From Table 5, it was found that samples with different occupations had significantly different purchasing decisions for coconut processed products at the 0.05 level (F = 35.6324, p = 0.0000). The between-groups variance (MS = 4.6875) was greater than the within-groups variance (MS = 0.1312), indicating clear differences between occupation groups.

Table 6: Analysis of Personal Factors Differences Classified by Average Monthly Income

Monthly Income	SS	df	MS	F-test	p-value
Between Groups	13.89000	3	4.6300	32.8369	0.0000*
Within Groups	53.7600	381	0.1411		
Total	67.6500	384			

Statistically significant at 0.05 level

From Table 6, it was found that samples with different average monthly incomes had significantly different purchasing decisions for coconut processed products at the 0.05 level (F = 32.8369, p = 0.0000). The between-groups variance (MS = 4.6300) was higher than the within-groups variance (MS = 0.1411), reflecting clear differences between income groups.

2. Marketing Mix Factors Affect Purchasing Decisions of Coconut Processed Products in Nakhon Pathom Province

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Table 7: Correlation Coefficient Matrix Between Variables

Variables	Y	Product	Price	Place	Promotion	People	Process	Physical
Y	1							
Product	0.6247	1						
Price	0.7156	0.41563	1					
Place	0.5234	0.4892	0.3241	1				
Promotion	0.6853	0.4725	0.4563	0.4632	1			
People	0.5647	0.3856	0.4237	0.3564	0.3428	1		
Process	0.6234	0.3754	0.3645	0.6547	0.5843	0.6235	1	
Physical	0.3245	0.5432	0.2134	0.3654	0.1567	0.2843	0.2345	1

From Table 7, all seven marketing mix factors showed positive correlations with purchasing decisions for coconut processed products. The factor with the highest correlation was Price (r = 0.7156), followed by Promotion (r = 0.6853), and Process (r = 0.6234) respectively. The factor with the lowest correlation was Physical Evidence (r = 0.3245). When examining relationships between independent variables, the highest correlation was between Process and Place (r = 0.6547), while the lowest was between Physical Evidence and Promotion (r = 0.1567).

Table 8: Multiple Regression Analysis Results

ตัวแปร	b	SE	t	p-value
Constant	0.6842	0.1245	5.4955*	0.000
Product	0.2345	0.0432	5.4282*	0.000
Price	0.2453	0.0165	14.8667*	0.000
Place	0.1843	0.0287	6.4216*	0.000
Promotion	0.1543	0.0298	5.1779*	0.000
People	0.1856	0.0234	7.9316*	0.000
Process	0.1654	0.0342	4.8363*	0.000
Physical	0.1487	0.0221	6.7285*	0.000
SEE = 0.1867; Adjust R² = 0.7834; F = 195.8743; Sig of F = 0.0000*				

From Table 8, the multiple regression analysis reveals that all seven marketing mix factors can collectively explain 78.34% of the variance in purchasing decisions for coconut processed products (Adjust R^2 = 0.7834) with statistical significance at the 0.01 level (F = 195.8743, p = 0.0000).

All factors significantly influenced purchasing decisions at the 0.05 level. Examining the regression coefficients (b), Price had the strongest influence (b = 0.2453), followed by Product (b = 0.2345), People (b = 0.1856), Place (b = 0.1843), Process (b = 0.1654), Promotion (b = 0.1543), and Physical Evidence (b = 0.1487) respectively.

The positive regression coefficients indicate that when the importance level of each marketing mix factor increases, it leads to increased purchasing decisions for coconut processed products. Particularly, Price and Product factors showed the highest influence, reflecting that consumers primarily consider price value and product quality when making purchasing decisions for coconut processed products.

4.2 Discussion

Discussing research objective 1, to study personal factors affecting purchasing decisions of coconut processed products in Nakhon Pathom province, the research found that different personal factors including age, education level, occupation, and average monthly income significantly affected purchasing decisions for coconut processed products in Nakhon Pathom province. This aligns with the Consumer Behavior Theory by Blackwell, Miniard, and Engel (2006), which explains that personal characteristics, particularly demographic factors, influence the purchase decision process from problem recognition through information search and alternative evaluation. This is because consumers with different personal characteristics have different lifestyles, needs, and purchasing power, leading to different evaluations and purchasing decisions. The findings also align with the Prospect Theory by Kahneman and Tversky (1979), which explains how personal factors affect the evaluation of gains and losses and decision-making under uncertainty.

Discussing research objective 2, to study marketing mix factors affecting purchasing decisions of coconut processed products in Nakhon Pathom province, the research found that

all seven marketing mix factors significantly affected purchasing decisions for coconut processed products, explaining 78.34% of the variance in purchasing decisions. When examining regression coefficients, price had the strongest influence (b = 0.2453), followed by product (b = 0.2345). This aligns with Kotler and Keller's (2016) concept that marketing mix is an important tool in creating satisfaction and stimulating consumer purchasing decisions, particularly the relationship between price and consumer-perceived value. The findings also align with Simon's (1957) Rational Decision-Making Theory, which explains that consumers evaluate alternatives by considering value and benefits relative to costs.

Furthermore, the research shows that consumers place importance on clear nutritional information and product benefits, aligning with Armstrong, Kotler, and Opresnik's (2020) concept emphasizing the importance of communicating product value through comprehensive information. This also aligns with Maslow's Hierarchy of Needs (1943) regarding safety needs and confidence in product quality. While physical evidence and people factors had less influence than price and product, they still affected purchasing decisions, aligning with Lovelock and Wirtz's (2016) concept emphasizing the importance of creating positive experiences through physical environment and staff service.

5. Conclusion

The study of marketing mix factors affecting purchasing decisions for coconut processed products in Nakhon Pathom province revealed significant findings that can be applied to marketing strategy development. The research showed that different personal factors including age, education level, occupation, and average monthly income significantly affected purchasing decisions for coconut processed products, highlighting the importance of clear market segmentation and target group identification.

Regarding the marketing mix, all seven factors influenced purchasing decisions, explaining 78.34% of the variance in purchasing decisions. Price had the strongest influence, followed by product factors. Consumers emphasized the importance of price value compared to quality and quantity, as well as product quality, taste, and clear nutritional information.

Based on these findings, recommendations for entrepreneurs include focusing on appropriate pricing, developing product quality and taste to meet consumer needs, clearly displaying nutritional information and product benefits, and developing attractive and easily stored packaging.

For future research, studies should compare purchasing behavior for coconut processed products in other provinces, examine other factors such as attitudes, values, and lifestyles, and conduct additional qualitative research to gain deeper understanding of consumer behavior and needs. The research findings can be used as guidelines for developing marketing strategies to enhance competitiveness and effectively respond to consumer needs.

6. Acknowledgment

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