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Factors Influencing the Decision to Develop Mulberry Wine Products: A Case Study of Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province

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Abstract

The objectives of this research were: 1) to analyze the components of decision making to develop a mulberry wine product and 2) to study the factors influencing the decision to develop a mulberry wine product in Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province. This quantitative study employed a survey research method. Descriptive statistics, including mean, percentage, and standard deviation, were used for data analysis, while factor analysis and multiple regression analysis were used as inferential statistics. The results revealed that four factors of the marketing mix significantly influenced the decision to develop a mulberry wine product: 1) price, 2) marketing promotion and advertising, 3) product, and 4) personnel and sales service. The findings indicate that price is an important consideration in developing mulberry wine products, particularly in terms of production costs, product value, and purchasing power. Product factors emphasize quality and characteristics that meet community tastes. Marketing promotion and advertising focus on both online and offline communication channels, while personnel and sales services emphasize product knowledge, good service, reputation, and product image. These findings provide useful information for community entrepreneurs in planning product development and adjusting marketing strategies.

Keywords*: factor analysis; product development; mulberry wine; marketing mix factors; community entrepreneurship*

1. Introduction

The development of value-added agricultural products has become an important approach to enhancing the economic potential of local communities. Communities can create additional value through processing, product innovation, branding, and market-oriented product development. Among various forms of agricultural processing, fruit-based products, including fruit wines, provide opportunities to transform local agricultural resources into higher-value products. Such development involves decisions concerning product characteristics, packaging, pricing, promotion, distribution, and sales services.

Mulberry is a potential local agricultural resource for value-added product development because it can be processed into products such as mulberry wine. However, the availability of raw materials alone does not ensure successful product development. Communities must also consider product characteristics, price, distribution channels,

promotional activities, and personnel or sales services when assessing the feasibility and market potential of a new product.

Previous research has emphasized entrepreneurial capabilities, innovation, product differentiation, packaging, and value-chain management in strengthening community products and enterprises. However, relatively less attention has been given to the decision-making stage preceding the development of a specific value-added agricultural product. In particular, limited empirical evidence explains how market-related factors influence the decision to transform a locally available agricultural resource into a new product.

This research gap is important because product development requires communities to evaluate market attractiveness, price appropriateness, distribution channels, promotional activities, and sales services. Therefore, this study examines the factors influencing the decision to develop mulberry wine products in Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province. The study focuses on five marketing mix factors (5Ps): product, price, distribution channels, marketing promotion, and people or sales service. The findings are expected to provide empirical evidence concerning the market-oriented decision-making process involved in transforming local agricultural resources into value-added community products.

1.1 Research Objectives

1. To analyze the factors involved in the decision-making process for developing mulberry wine products.

2. To study the factors influencing the decision to develop mulberry wine products in Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province.

2. Literature Review

The researchers have summarized the concepts and theories related to studying an analysis of factors influencing the decision to develop mulberry wine products: a case study of Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province, in the following points.

2.1 Entrepreneurship, Product Innovation, and Agricultural Value Addition

Community-based agricultural product development involves transforming local resources into value-added products through entrepreneurship, innovation, and market-oriented activities. Community entrepreneurship emphasizes opportunity recognition, resource mobilization, product development, networking, and value creation. Previous studies have shown that entrepreneurial capability, innovation, management, competitiveness, and business networks are associated with the performance and sustainability of community enterprises and processed agricultural products (Somwethee et al., 2023; Muangmee et al., 2024; Boonyarat et al., 2023; Chaiphawang, 2022). Product innovation can further create differentiation through product characteristics, packaging, branding, and the application of local knowledge, while agricultural value addition can increase the economic value and market potential of local resources through processing and product development (Pimonrattnakan, 2022; Wongphatthanon, 2020; Chaiwongsakda et al., 2023). These perspectives suggest that community product development is a process linking local agricultural resources, entrepreneurship, innovation, value creation, and market opportunities.

2.2 Marketing Mix Factors and Community-Based Product Development

Marketing factors are important in determining the feasibility and market potential of value-added agricultural products. The marketing mix in this study comprises five factors: product, price, distribution channels, promotion, and people. Product concerns quality, taste, packaging, branding, and product image; price concerns production cost,

perceived value, and market competitiveness; distribution channels concern accessibility and convenience; promotion concerns advertising and promotional activities; and people concern personnel and sales services. Previous research has indicated that product differentiation, packaging, distribution, promotion, management, and market access contribute to the development and competitiveness of community products (Pimonrattnakan, 2022; Wongphatthanon, 2020; Muangmee et al., 2024). Thus, these marketing factors provide a framework for examining how communities evaluate the potential of a local agricultural resource to be developed into a commercially viable product.

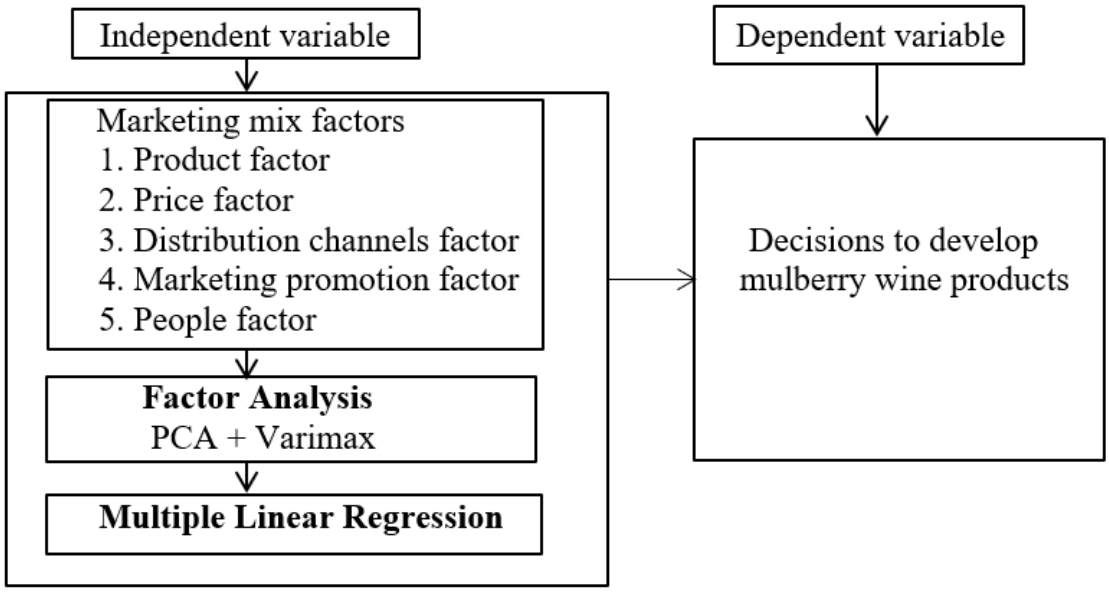
2.3 Mulberry Wine Product Development and Research Gap

Mulberry represents a local agricultural resource that can be transformed into higher-value products through processing and product innovation. Mulberry wine provides an appropriate case for examining the connection between agricultural value addition and market-oriented product development. However, previous studies have largely focused on community enterprise performance, innovation, competitiveness, sustainability, or consumer purchasing behavior, while relatively limited attention has been given to the decision to develop a specific value-added agricultural product. In particular, empirical evidence concerning how marketing mix factors jointly relate to the decision to develop mulberry wine products at the community level remains limited. Therefore, this study examines five marketing mix factors—product, price, distribution channels, promotion, and people—and their influence on the decision to develop mulberry wine products in Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province.

2.4 Research Conceptual Framework

Based on the study of various concepts and theories, as well as related research mentioned above, the researcher has used the concepts and theories obtained from the literature review to define the conceptual framework of this research. This framework will serve as a guideline for conducting research on factors influencing the decision to develop mulberry wine products: a case study of Khlong Niyom Yatra Subdistrict, Samut Prakan Province, as follows:

Figure 1 Decisions to develop mulberry wine products Source: Developed by the researchers (2026).



RJCM Vol. 7, No. 3, September-December 2026

3. Methodology

3.1 Research Design

This research is a quantitative research with a survey research format using a questionnaire as a data collection method from the target group, to study the analysis of factors affecting the decision to develop the mulberry wine product in Bang Bo District, Samut Prakan Province. The sample group is the behavior of consumers in deciding to develop the mulberry wine product, totaling 400 samples. The data was analyzed as demographic characteristics of the respondents to the questionnaire on decision-making in choosing to develop the mulberry wine product. The dependent variable is the decision to develop the mulberry wine product. The independent variables in this research consist of marketing mix factors (5Ps): product factors, price factors, distribution channel factors, marketing promotion factors and people factors.

3.2 Population and sample

The population used in this research includes business operators, business owners, community enterprises, farmers, the Khlong Niyom Yatra community, consumers, and those wishing to develop mulberry wine products in Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province, etc., in order to support the development of mulberry wine products in the community. The sample size in the study area of Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province was determined by the researcher using the table of Krejcie and Morgan (1970) at a 95% confidence level and a 5% margin of error. The target was to collect data from at least 400 people to obtain a sufficient number of questionnaires for statistical analysis and to increase the reliability

3.3 Variables used in the research

Consumer behavior data that consumers need the decision to develop mulberry wine products, which has a dependent variable (Y) which is the decision to develop mulberry wine products. As for the independent variables in this research, which consists of marketing mix factors (5Ps), namely product factors, price factors, distribution channel factors, marketing promotion factors, and people factors, which can show the values of each factor as follows:

(1) Product factors are X1.1 The wine product has a variety of recipes to suit tastes, X1.2 The wine product has a reliable proof of product results, X1.3 The taste of this wine is always fresh and new, X1.4 The taste of this wine is consistent in every bottle, X1.5 The product has a good reputation and image, X1.6 The product has a beautiful packaging design, X1.7 This wine packaging has a wine box that conveys a good image of preservation and X1.8 The wine bottle can be used as a showpiece.

(2) Price factors are X2.1 The price of the wine is reasonable when compared to the quality, X2.2 The price of the wine is reasonable when compared to the quantity of the product, X2.3 The price of this wine is not too expensive, and X2.4 The benefits from drinking this wine are worth the price you paid for it.

(3) Distribution channel factors are X3.1 The place where the wine is sold is convenient for purchasing, X3.2 The place where the wine is sold is spacious and modern, X3.3 The store has a clearly visible store sign, X3.4 The wine store is located in a leading shopping mall, X3.5 The wine display in this store is enticing for customers to want to buy wine, X3.6 The distribution channels are both online and offline and X3.7 The distribution channels have a variety of payment methods.

(4) Market promotion factors are X4.1 The product is advertised through various media such as television, magazines, and newspapers, etc., X4.2 The product is given away to try before purchasing, X4.3 The product has attractive discount promotions, and X4.4

The product has interesting promotional programs during festivals such as free gifts, point collection, etc.

(5) People factors are X5.1 Sales staff are willing and enthusiastic in giving good product recommendations, X5.2 Sales staff are polite and speak nicely, X5.3 Sales staff provide fast and convenient service, X5.4 Drink wine because friends or acquaintances invite you, X5.5 Drinking wine makes you more associable and X5.6 Drinking wine makes you more confident and makes you look elegant.

3.4 Data Analysis

The questionnaire processing by statistical methods uses a statistical program to analyze the data as follows:

3.4.1 Descriptive statistics are used to describe general data. They are described and presented in terms of percentages, means, and standard deviations.

3.4.2 Inferential Statistics:

3.4.2.1 Exploratory Factor Analysis (EFA)

3.4.2.1.1 Checking the suitability of data for factor analysis using KMO and Bartlett's Test of Sphericity.

3.4.2.1.2 Performing exploratory factor analysis (EFA) using PCA and Varimax rotation, considering Eigenvalues, Factor Loading, and cumulative variance, while assessing the suitability of the data from the values.

3.4.2.2 Multiple Linear Regression analysis: The components obtained from EFA were analyzed using Multiple Linear Regression to test the factors influence the decision to develop mulberry wine products. The statistical significance level was set at 0.05.

4. Results and Discussions

4.1. Research Findings

In this research, the researcher selected questionnaires from the sample group who attended the training on making mulberry wine at the Learning Center at the multipurpose area of Bang Bo Subdistrict Administrative Organization, Bang Bo District, Samut Prakan Province. The trainees have a desire to develop the product, mulberry wine, in the community and want to market and sell in the community. The researcher collected data and was able to collect 400 sets of data as follows:

This research collected data from a sample group in the study area of Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province. The sample group consisted of individuals who were considering the decision to develop mulberry wine products in the community and wished to market them. The researchers collected data from 400 people, with the following information:

4.1.1 General Characteristics of Respondents

Analysis of general personal data and behavioral data on the decision to develop mulberry wine products. The results of the analysis of general data and behavioral data on the decision to develop mulberry wine products using descriptive statistics, including percentage, mean, and standard deviation, were as follows:

The demographic data of the sample group, which were the participants in the mulberry wine training course, showed that the majority were female more than male, which is divided into females accounting for 60 percent and males accounting for 40 percent respectively. Most of them were aged 51 years and over, accounting for 70 percent. Most of them are married, accounting for 75 percent. Most of them are education level lower than a bachelor's degree, accounting for 65 percent. Most of them work in private

businesses, accounting for 50 percent, and most of them have an average monthly income of less than 20,000-baht, accounting for 62 percent of the total sample.

The data on the behavior of purchasing wine products of the Mulberry Wine Making Training Course participants in Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province, found that the majority of the sample group did not drink alcoholic beverages, accounting for 35 percent, followed by those who chose to drink local wine/local liquor and beer, accounting for 30 percent, and the least were those who chose to drink whiskey/brandy, accounting for 5 percent, respectively. The majority of the sample group chose to drink local wine/local liquor with others at parties (30%), followed by friends/neighbors (25%) and drinking alone (20%), respectively.

Table 1 Descriptive statistics of mean and standard deviation Source: Data collected by the researchers (2026).

Independent variable	Mean	SD
1. Product factor	**4.29**	**0.359**
X1.1	4.32	0.474
X1.2	3.90	0.744
X1.3	4.60	0.496
X1.4	4.40	0.545
X1.5	4.30	0.791
X1.6	4.60	0.545
X1.7	4.05	0.552
X1.8	4.13	0.911
2. Price factor	**4.33**	**0.389**
X2.1	4.40	0.778
X2.2	4.22	0.660
X2.3	4.28	0.452
X2.4	4.43	0.747
3. Place factor	**4.34**	**0.394**
X3.1	4.45	0.846
X3.2	4.20	0.464
X3.3	4.35	0.700
X3.4	4.95	0.316
X3.5	3.89	0.563
X3.6	4.20	0.791
X3.7	4.33	0.474
4. Market promotion factor	**4.43**	**0.359**
X4.1	4.60	0.496
X4.2	4.68	0.474
X4.3	4.32	0.694
X4.4	4.10	0.744
5. People factor	**4.22**	**0.424**
X5.1	4.22	0.733
X5.2	4.20	0.564
X5.3	4.33	0.859
X5.4	3.95	0.904
X5.5	4.08	0.526
X5.6	4.55	0.677
Dependent variable	Mean	SD
Decisions to Develop mulberry Wine Products	**4.389**	**0.403**

From Table 1, the independent variables for determining the decision-making process in developing mulberry wine products are as follows: Factor 1, the product factor, showed that the most common response was that the wine's taste is consistently fresh and new, and the packaging is aesthetically pleasing (average score 4.60). This was followed by the consistent quality of the wine's taste (average score 4.40), and the least common response was that the product has reliable proven results (average score 3.90). Factor 2, the price factor, showed that the most common response was that the benefits from drinking the wine are worth the price paid (average score 4.43). This was followed by the wine's price being appropriate compared to its quality (average score 4.40), and the least common response was that the wine's price is appropriate compared to the product quantity (average score 4.22). Factor 3, the place factor, showed that the most popular response was the location of wine stores in leading shopping malls (average score 4.95). This was followed by the convenience of the distribution location (average score 4.45), and the least popular response was the attractive display of wine in the store (average score 3.87). Factor 4, the marketing promotion factor, showed that the most common response was that the product offers free samples for tasting before purchase (average score 4.68). This was followed by advertising through various media such as television, magazines, and newspapers (average score 4.60), and the least common response was that the product has attractive promotional offers such as free gifts and loyalty programs (average score 4.10). Finally, Factor 5, the people factor, showed that drinking wine increased confidence and made one feel sophisticated (4.55). This was followed by convenient and efficient service from sales staff (4.33), and the least positive was drinking wine because of recommendations from friends or acquaintances (3.95). respectively.

The dependent variable, which is the level of opinion on the decision to develop mulberry wine products, showed that the sample group's likelihood of developing mulberry wine products was 4.389 with a standard deviation of 0.403.

4.1.2 Factor Analysis

Exploratory factor analysis of the decision to develop mulberry wine products, yielded the following results:

4.1.2.1 The researcher examined the relationship between variables using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's test of sphericity to measure the suitability of the data, as shown in Table 2.

Table 2 Results of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's test of sphericity analysis of the decision to develop mulberry wine products. Source: Data collected by the researchers (2026).

Test Statistic		Statistical Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)		0.613
Bartlett's test of Sphericity	Chi-Square	14330.413
	Df	406
	Significance	< 0.001

Table 2 shows that the data suitability test for factor analysis revealed that 29 observed variables had a Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) of 0.613, which is higher than the minimum criterion of 0.50, indicating that the data is suitable for factor analysis. Furthermore, the Bartlett's Test of Sphericity showed a chi-square value (χ^2) of 14,330.413 with 406 degrees of freedom (df) and was statistically significant ($p < .001$), thus rejecting the hypothesis that the correlation matrix is an identity matrix. This reflects that the observed variables are statistically significantly correlated and the data is suitable for further factor analysis.

RJCM Vol. 7, No. 3, September-December 2026

4.1.2.2 The researchers performed factor extraction using Principal Component Analysis (PCA) and orthogonal rotation with the Varimax Method, obtaining 7 components with eigenvalues. More than 1 is shown in Table 3.

Table 3 Factor Analysis and Total Variance Explained Source: Data collected by the researchers (2026).

Total Variance Explained									
	Initial Eigenvalues			Extraction Sum of Squared Loading			Rotation Sum of Squared Loading		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.111	31.419	31.419	9.111	31.419	31.419	7.297	25.161	25.161
2	5.331	18.384	49.809	5.331	18.384	49.809	5.093	17.564	42.725
3	4.809	16.582	66.384	4.809	16.582	66.384	4.460	15.381	58.106
4	3.409	11.961	78.346	3.409	11.961	78.346	3.169	10.928	69.934
5	2.315	7.983	86.379	2.315	7.983	86.379	2.917	10.057	79.091
6	1.722	5.398	92.268	1.722	5.398	92.268	2.869	9.894	88.985
7	1.116	3.849	96.116	1.116	3.849	96.116	2.068	7.132	96.116

Remark Extraction Method: Principal Component Analysis

From Table 3, it shows the Eigenvalue value is greater than 1 and the Factor Loading value of the variable in the factor must be not less than 0.5. It was found that in the factor extraction, the Eigen value is greater than 1.00. Therefore, it can be organized into 7 new groups of factors that can explain the variance of all the original independent variables up to 96.116 percent. When combined with the weight values of the components after rotating the axes of the rotating factors, the factors can be organized into 7 groups of factors, which will result in new groups of factors from the factor analysis, as shown in Table 4.

Table 4 Rotation component matrix Source: Data collected by the researchers (2026).

Factor	Component						
	1	2	3	4	5	6	7
X1.1	-0.141						
X1.2	0.321						
X1.3	-0.374						
X1.4	0.873						
X1.5		0.066					
X1.6		0.273					
X1.7		0.200					
X1.8		0.123					
X2.1			0.142				
X2.2			0.239				
X2.3			0.884				
X2.4				0.490			
X3.1				0.283			
X3.2				0.479			
X3.3				0.300			
X3.4				0.257			
X3.5					0.104		
X3.6					0.108		
X3.7					0.238		
X4.1						-0.183	
X4.2						0.139	
X4.3						-0.065	
X4.4						-0.605	
X5.1							-0.409
X5.2							0.012
X5.3							0.608
X5.4							0.273
X5.5							0.063
X5.6							0.048

Remark Extraction method: Principal component analysis.
Rotation method Varimax with Kaiser Normalization

1. The factors obtained from factor analysis 1 are called Product factors, where the absolute value of the weight in factor 1 when rotated orthogonally using the Varimax Rotation method has an Eigenvalue of 9.111. It consists of wine products having a variety of recipes that suit tastes (X1.1), wine products having reliable evidence of product results (X1.2), the taste of this wine is always fresh and new (X1.3), and the taste of this wine maintains quality in every bottle (X1.4).

2. The factors obtained from factor analysis 2 are called Packaging and Product Image Reputation factors, where the absolute value of the weight in factor 2 when rotated orthogonally using the Varimax Rotation method has an Eigenvalue of 5.331. It consists of the product having a good reputation and image (X1.5), the product having a beautiful packaging design (X1.6), this wine packaging has a wine box that conveys an image of good storage (X1.7), and the wine bottle can be used as a showpiece (X1.8).

3. The factor obtained from the analysis of factor 3 is called Appropriateness of Product Price factors, where the absolute value of the weight in factor 3 when rotated orthogonally using the varimax rotation method has an Eigenvalue of 4.809, consisting of the wine price being appropriate when compared to the quality (X2.1), the wine price being appropriate when compared to the quantity of the product (X2.2), and the price of this wine is not too expensive (X2.3).

4. The factors obtained from the analysis of factor 4. is called Arrangement of the place and the store factors, where the absolute value of the weight in factor 4 when rotated orthogonally (Orthogonal Rotation) with the Varimax Rotation method has an Eigenvalue of 3.409, consisting of the benefits of drinking this wine being worth the price you paid (X2.4), the place where the wine is sold is convenient for shopping (X3.1), the place where the wine is sold is spacious and modern (X3.2), the store has a clearly visible store sign (X3.3), and the wine store is located in a leading shopping mall (X3.4).

5. The factor obtained from factor analysis number 5 is called Distribution Channel factors, where the absolute value of the weight in factor 5 when rotated orthogonally using the varimax rotation method has an Eigenvalue of 2.315. It consists of wine display in the store as an incentive to buy wine (X3.5), distribution channels are both online and offline (X3.6), and distribution channels have various payment methods (X3.7).

6. The factor obtained from factor analysis 6 is called Marketing promotion and advertising factors, where the absolute value of the weight in factor 6 when rotated orthogonally using the varimax rotation method has an Eigenvalue of 1.722. It consists of products advertised through various media such as television, magazines, and newspapers, etc. (X4.1), products are given away for trial before purchase (X4.2), products have attractive discount promotions (X4.3), and products have interesting sales promotion programs during festivals such as free gifts, point collection, etc. (X4.4).

7. The factor obtained from factor analysis 7 is called Personnel and Sales Service factors, where the absolute value of the weight in factor 7 when rotated orthogonally (Orthogonal Rotation) with the varimax rotation method has an Eigenvalue of 1.116, consisting of salespeople who are willing and enthusiastic in giving good product advice (X5.1), salespeople who are polite and speak sweetly (X5.2), salespeople who provide fast and convenient service (X5.3), drinking wine because friends or acquaintances invited (X5.4), drinking wine makes you socialize better (X5.5), and drinking wine makes you confident and looks elegant (X5.6).

4.1.3 Multiple Regression Analysis

The researcher used the data values of the constructed components (factor score) obtained from the analysis of factors affecting the decision to develop the mulberry wine products. Which can be used to analyze the multiple regression equation to create an equation to find the relationship between the decision to develop the mulberry wine

products. The 4 factors obtained from the factor analysis can tell which factors have an influence on the decision to develop the mulberry wine products with a significance of 0.05. The analysis results are as follows:

Table 5 Coefficients of Multiple regression analysis results Source: Data collected by the researchers (2026).

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.364	0.126		-2.880	0.007*
	Price factor	0.348	0.024	0.516	14.508	0.000*
	Marketing promotion and advertising factor	0.287	0.019	0.392	15.527	0.000*
	Product factor	0.305	0.022	0.417	13.815	0.000*
	Personnel and sales services factor	0.142	0.019	0.228	7.408	0.000*

a. Dependent Variable: decision making to choose to develop mulberry wine product

. * p-value < 0.05

From Table 5, The seven components were subsequently examined using multiple regression analysis to determine their influence on the decision to develop mulberry wine products. The results indicated that four factors significantly influenced the decision to develop mulberry wine products, ranked according to their standardized regression coefficients as follows: 1) Price factor, 2) Product factor, 3) Promotion and advertising factor, and 4) Personnel and sales service factor. Together, the extracted components accounted for 96.116% of the total variance. The multiple regression equation was: Decision to develop mulberry wine products = −0.364 + 0.348 Price + 0.305 Product + 0.287 Marketing Promotion and advertising + 0.142 Personnel and Sales Service, with R = 0.978, R^2 = 0.957, Adjusted R^2 = 0.953, F= 264.599 and Sig. = 0.000

4.2 Discussions

This study examined the marketing mix factors influencing the decision to develop mulberry wine products in Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province. The findings indicate that the decision to develop mulberry wine involves several interconnected marketing considerations rather than a single factor. Factor analysis identified seven dimensions of marketing considerations, while multiple regression analysis showed that four factors significantly influenced the decision: price, product, promotion and advertising, and personnel and sales service**.** These findings support the view that community-based product development requires the integration of local agricultural resources with product innovation and market-oriented strategies.

The price factor was the strongest predictor of the decision to develop mulberry wine products. This finding suggests that economic feasibility is an important consideration before transforming mulberry into a value-added product. Community entrepreneurs need to consider production costs, product quality, quantity, perceived value, and customers' purchasing power when determining an appropriate price. An economically feasible pricing strategy can therefore support both market acceptance and the sustainability of community-based production.

The product factor was the second strongest predictor. This result highlights the importance of developing mulberry wine as a differentiated value-added product rather than simply processing an agricultural resource. Product quality, taste, formulation, packaging, and product identity can contribute to product attractiveness and perceived value. This finding is consistent with research emphasizing product innovation, packaging, and value creation as important mechanisms for strengthening the competitiveness of

community products (Pimonrattnakan, 2022; Wongphatthanon, 2020; Saenchana et al., 2024).

The promotion and advertising factor also significantly influenced the decision to develop mulberry wine. This indicates that entrepreneurs need to consider how product value can be communicated to potential customers. Both online and offline promotional activities, including product trials, promotional offers, social media, and other communication channels, can increase product awareness and support market development. This finding reinforces the importance of integrating marketing communication with product innovation.

The personnel and sales service factor were also significant, although its standardized effect was lower than the other three factors. This suggests that knowledgeable, polite, enthusiastic, and responsive personnel can strengthen customer confidence and support the commercialization of community products. Overall, the findings indicate that the decision to develop mulberry wine is associated with an integrated combination of economic feasibility, product value, market communication, and service capability**.** These factors provide a practical framework for transforming local mulberry resources into higher-value community products.

Figure 2 Mulberry wine fermentation process using yeast and Developed mulberry wine products. Source: Developed by the researchers (2026).



5. Conclusion

This study analyzed the marketing factors influencing the decision to develop mulberry wine products in Khlong Niyom Yatra Subdistrict, Bang Bo District, Samut Prakan Province. The 29 observed marketing variables were analyzed using Principal Component Analysis (PCA) with Varimax rotation, resulting in seven components. These components represented different dimensions of marketing considerations associated with mulberry wine product development.

Multiple regression analysis was subsequently used to determine the factors influencing the decision to develop mulberry wine products. Four factors significantly influenced the decision, ranked by their standardized regression coefficients as follows: 1) Price, 2) Product, 3) Promotion and Advertising, and 4) Personnel and Sales Service. The extracted components accounted for 96.116% of the total variance. The regression model was significant ($R = 0.978$, $R^2 = 0.957$, Adjusted $R^2 = 0.953$, $F = 264.599$, Sig. = 0.000), indicating that the model explained a high proportion of variation in the decision to develop mulberry wine products.

Price was the strongest predictor, indicating the importance of economic feasibility, production costs, product quality, quantity, and perceived value. Product was the second most influential factor, emphasizing quality, taste, consistency, formulation, and product identity. Promotion and Advertising was the third factor, highlighting the importance of product sampling, promotional activities, and online and offline

communication. Personnel and Sales Service was the fourth significant factor, emphasizing product knowledge, communication, responsiveness, and service quality.

Overall, the findings indicate that the decision to develop mulberry wine products is influenced by an integrated combination of economic feasibility, product development, marketing communication, and personnel capabilities. These four factors provide a practical basis for community entrepreneurs seeking to transform local mulberry resources into differentiated and value-added products.

6. Recommendations

6.1 Price

Community entrepreneurs should establish an appropriate pricing strategy by considering production costs, product quality, quantity, perceived value, and the purchasing power of target customers. Pricing should remain competitive while ensuring the economic feasibility of mulberry wine production.

6.2 Product Development

Entrepreneurs should improve product quality, taste, formulation, packaging, and product identity to differentiate mulberry wine from competing products. Product development should emphasize the transformation of local mulberry resources into a distinctive value-added community product.

6.3 Promotion, Advertising, and Sales Service

Promotional strategies should combine online and offline communication, including social media, product trials, promotional activities, and presentation of the product's community identity. Sales personnel should also be knowledgeable, polite, responsive, and able to communicate product characteristics effectively to customers.

6.4 Recommendations for Future Research

Future research should examine additional factors such as consumer preferences, brand image, digital marketing, product innovation, and market readiness. Comparative studies across different communities or agricultural products, as well as qualitative studies of community entrepreneurs, could provide further insight into value-added product development.

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8. Conflict of Interest

The authors declare no conflict of interest.

9. The Author’s Biography

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