

# A STUDY ON THE FACTORS INFLUENCING THE DEMAND FOR TRADITIONAL HAI HAU LONGAN CAKE IN VIETNAM

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## Abstract

This study analyzes the factors affecting the demand for traditional Hai Hau Longan Cake in Vietnam, based on survey data from 212 consumers. Regression and statistical analysis methods were employed to evaluate the roles of price, related goods, and consumer behavior variables. The results indicate that price has an inverse relationship with demand; Keo Suu Chau acts as a substitute good, with its price increase leading to higher demand for longan cake; while paper bags and tea are complementary goods, whose price increases reduce demand for longan cake. In addition, factors such as flavor, origin, and cultural value positively influence purchasing decisions. The study also reveals that although market potential remains significant, the conversion rate from awareness to actual purchase is still limited. Accordingly, the research proposes several implications to enhance demand, including reasonable pricing strategies, product development, and strengthened communication activities.

**Keywords:** Determinants; Demand; Traditional Longan Cake; Longan Cake Demand; Hai Hau; Vietnam.

## 1. INTRODUCTION

In the context of Vietnam's economy becoming increasingly integrated into the global market and consumer trends undergoing significant changes, traditional products are facing both major opportunities and challenges. On the one hand, consumers are paying greater attention to cultural values and local identity; on the other hand, they are strongly influenced by modern trends such as convenience, aesthetics, and consumption experiences. This situation creates an urgent requirement for local specialty products to continuously innovate in order to adapt to market demand.

The traditional Longan Cake of Hai Hau is one of the most representative products that embodies the cultural and culinary heritage of the region. With its distinctive flavor, handcrafted production process, and long-standing traditional value, Longan Cake not only meets domestic consumption needs but also holds potential to develop into a large-scale commercial product. However, in practice, the level of consumption of this product remains influenced by various factors, ranging from consumer characteristics, pricing, and product quality to marketing elements such as packaging, branding, and distribution channels. Particularly, in the context of an increasingly competitive market with the emergence of diverse industrial confectionery products and strong promotional strategies, traditional Longan Cake is facing considerable competition. Moreover,

changes in consumer behavior, especially among younger generations, raise questions about the ability to sustain and expand demand for this product in the future.

From this reality, studying the factors affecting demand for traditional Longan Cake in Hai Hau, Vietnam is essential. This research not only clarifies the determinants influencing consumer purchasing decisions but also provides a scientific basis for proposing solutions to enhance product consumption, thereby contributing to the preservation and promotion of local specialties in the market economy.

## 2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

### 2.1. Demand and the Factors Affecting Demand and Quantity Demanded

The theory of demand for goods is presented a lot in the textbooks and lectures of the subject Microeconomics. In this article, the research team analyzes the theory of demand for goods based on documents from Nguyen Thi Van Anh, Luong Xuan Duong (2021).

**Demand (D):** “Demand is the quantity of consumers who are willing and able to buy products at various prices during a given period of time, other things being constant.” Buyers tend to increase the quantity of a good demand when its price falls and vice versa, which can be explained by the substitution effect and the income effect. The inverse relationship between price and quantity demanded holds true for most goods in an economy.

**Quality Determinants (Q<sup>D</sup>):** “The quantity demanded of a certain good or service tends to increase when the price of that good or service decreases and vice versa (with all other factors are constant)”.

To see the factors affecting the consumption of products of enterprises, managers need to understand the factors affecting demand. The analysis of factors affecting demand helps managers make appropriate decisions in the strategy to stimulate demand and promote product consumption. For each different commodity, the factors affecting demand will be different. The common factors affecting the demand and quantity demanded of goods can be summarized in Table 1 as follows:

**Table 1: Factors affecting demand and quantity demanded**

| Factors                                 | Relationships  | Correlation         |
|---|--|---------------------|
| P <sub>x</sub> : Price of the commodity | P <sub>x</sub> ↑ => Q <sup>D</sup> <sub>x</sub> ↓<br>P <sub>x</sub> ↓ => Q <sup>D</sup> <sub>x</sub> ↑                 | Inverse             |
| I: Income                               | Normal goods: I ↑ => D <sub>x</sub> ↑<br>Inferior goods: I ↑ => D <sub>x</sub> ↓                                       | Positive<br>Inverse |
| N: Population                           | N ↑ => D <sub>x</sub> ↑<br>N ↓ => D <sub>x</sub> ↓   | Positive            |
| P <sub>y</sub> : Price of related goods | Supplementary goods: P <sub>y</sub> ↑ => D <sub>x</sub> ↑<br>Complementary goods: P <sub>y</sub> ↑ => D <sub>x</sub> ↓ | Positive<br>Inverse |
| T: Taste                                | T ↑ => D <sub>x</sub> ↑  | Positive            |

*D<sub>x</sub>*: Demand for good X

*Q<sup>D</sup><sub>x</sub>*: Quantity demand for good X.

Source: Nguyen Thi Van Anh, Luong Xuan Duong (2021)

## 2.2. Cake and Its Characteristics

### Definition of Longan Cake

Longan Cake is a traditional Vietnamese pastry originating from Hai Hau, Vietnam. It is primarily made from glutinous rice flour, chicken eggs, sugar, and cooking oil. The cake is small and round, fried until crisp and typically golden-brown in color, with a mildly sweet taste, a light crunchy texture, and a characteristic aroma. It is called “Longan Cake” because its shape resembles that of the longan fruit. This product embodies local culinary cultural value and is commonly consumed during festivals and Tet or given as a gift. (banhnhanhaihou.com.vn, 2019)

### Characteristics of Longan Cake

Longan Cake is a traditional specialty of Hai Hau, Vietnam, exhibiting prominent features in terms of ingredients, form, and cultural value.

First, **regarding ingredients**, Longan Cake is made from simple components such as glutinous rice flour, chicken eggs, sugar, and cooking oil. These ingredients are readily available but require mixing in appropriate proportions to achieve the characteristic crispness and flavor. (banhnhanhaihou.com.vn, 2024)

Second, **regarding form and texture**, the cake takes the form of small round pieces, roughly the size of a longan fruit, and turns golden-brown after frying. The cake’s texture is crispy and porous on the outside with a slightly hollow interior, making it easy to eat and suitable for a wide range of consumers. (dulichninhbinh.com.vn, 2025)

Third, **regarding flavor**, Longan Cake has a mild sweetness with fragrant notes of egg and glutinous rice; it is not as greasy as many other fried pastries. This flavor profile is an important factor that helps the product maintain its appeal in traditional markets. (dacsanthanhnam.com, 2019)

Fourth, **regarding processing method**, Longan Cake is primarily produced by traditional artisanal methods, requiring skillful dough kneading, shaping, and frying at appropriate temperatures to ensure even expansion and a non-tough texture. This distinguishes it from industrial bakery products. (banhnhanhaihou.com.vn, 2024)

Fifth, **regarding cultural value**, Longan Cake is not only a food item but is also closely associated with the cultural life of local people; it commonly appears during festivals and Tet and is used as a traditional gift. (Tran, M. H., 2021). (dulichninhbinh.com.vn, 2025; banhnhanhaihou.com.vn, 2025)

## 2.3. Literature Review

Studies on demand for goods in microeconomics indicate that demand and quantity demanded are influenced by fundamental factors such as price, income, prices of related goods, preferences, expectations, and market size (Mankiw, 2021; Samuelson &

Nordhaus, 2010). This analytical framework has been widely applied in empirical studies on food consumption.

First, the **price factor** is identified as the central determinant in most studies of demand. The study by Andreyeva et al. (2010) shows that demand for food tends to be price-elastic, although the degree of elasticity varies across product groups. Notably, traditional or local specialty products often exhibit lower price elasticity because they are tied to established consumption habits and cultural factors.

Consumer income is also an important factor. The study by Deaton, A. (1997) shows that as income increases, consumers tend to shift toward consuming higher-value products, including higher-quality foods and specialties. This is reinforced by recent studies on food consumption, which find that income has a positive effect on demand for specialty products and products with clear provenance.

In addition, **the prices of related goods** play an important role in determining demand. The demand-system model of Deaton, A., and Muellbauer, J. (1980) shows substitution relationships among food groups, whereby a change in the price of one product can alter the demand for other products within the same group.

For traditional food products, many recent studies have expanded the analysis to non-economic attributes, particularly the **“local” and “traditional” attributes**. The study by Feldmann, C., and Hamm, U. (2015) shows that consumers tend to prioritize local foods due to perceptions of quality, freshness, and benefits for the local community. Similarly, the study by Aprile, M. C., Caputo, V., and Nayga, R. M. (2016) indicates that local origin is an important signal influencing food purchase decision.

In addition, **cultural values and local identity** have also been shown to significantly influence demand. The study by Guerrero, L., et al. (2009) on traditional foods in Europe demonstrates that consumers highly value products associated with tradition and cultural heritage, thereby increasing their willingness to pay. This indicates that demand for traditional foods is shaped not only by economic factors but also by social and cultural dimensions.

**Consumer tastes and consumption trends** are also important factors. Grunert, K. G. (2005) argues that consumers' perceptions of food quality and safety can change consumption behavior over time. In the current context, the trend toward traditional foods and local specialties is increasing, particularly alongside the growth of tourism and the demand for cultural experiences.

Moreover, **population size and characteristics** also have a significant impact on market demand. The study by Lusk, J. L., and Briggeman, B. C. (2009) shows that food-related values, including tradition and origin, differ across consumer groups. At the same time, the increase in tourism is considered an important source of demand for local specialty products.

In addition to the factors mentioned above, **consumer expectations** also influence demand. According to Principles of Economics, if consumers expect prices to rise in the

future, they tend to purchase more in the present, and vice versa. Moreover, in the food sector, expectations are linked to perceptions of product quality and safety (Grunert, K. G., 2005). For local specialties, expectations are often shaped by word-of-mouth information and social experiences, thereby positively affecting purchase decisions (Verbeke, W., & Vackier, I., 2005).

Although there have been many studies on food demand and local foods, research focusing on specific products such as Hai Hau Longan Cake remains very limited. Existing studies mainly examine traditional economic factors or provide general analyses of local foods, while few have fully integrated economic factors such as price, income, and related goods with distinctive attributes such as cultural values and tradition within a single analytical framework. Therefore, studying the factors influencing demand for Hai Hau Longan Cake is necessary to fill the current research gap.

### 3. RESEARCH METHODOLOGY

#### ***Theoretical Research Methods***

Analytical and synthetic methods are employed to clarify the theoretical basis of demand and the factors influencing the demand for Hai Hau traditional Longan Cake in Vietnam.

The paper reviews studies on the demand for goods associated with food products and local specialties. From this, it identifies and analyzes the impact of various factors on the demand for Hai Hau traditional Longan Cake in Vietnam

#### ***Empirical Research Methods***

Survey and investigation methods: Based on the factors influencing the demand for Hai Hau traditional Longan Cake in Vietnam, the research team designed a questionnaire and conducted a pilot survey with 20 consumers who had previously purchased and consumed longan cake, as well as 10 lecturers teaching Microeconomics, in order to refine the questionnaire on the factors affecting demand for Hai Hau traditional Longan Cake.

Drawing on the feedback from the pilot respondents and the lecturers, the research team finalized the questionnaire. The survey was distributed to individuals via the Google Form platform (<https://forms.gle/mYNGbsQvkHu1s6Xa8>), and a total of 212 valid responses were collected and included in the analysis.

#### ***– Analyzing the relationship between price and demand for Hai Hau traditional Longan Cake using an econometric model***

Based on the influencing factors, combined with the demand analysis method using an econometric model, the paper estimates the demand for Hai Hau traditional Longan Cake in Vietnam.

With the price of Hai Hau traditional Longan Cake ( $P$ ), the research team constructs a regression equation to establish the relationship between this variable and the demand for Hai Hau traditional Longan Cake in Vietnam.

*General Model:*

$$Q = a \cdot P + b \quad (1)$$

Where: P denotes price of Hai Hau traditional Longan Cake in Vietnam;

Q represents quantity demanded of Hai Hau traditional Longan Cake in Vietnam (reflecting the willingness and ability of respondents to pay). a, b are coefficients.

**Hypothesis H1.** The price of Hai Hau traditional Longan Cake in Vietnam has an inverse relationship with its demand (*the coefficient a is expected to be negative*).

**The procedure is taken as follows:**

Step 1: Use EViews software to run the model with collected secondary data.

Step 2: Check the statistical significance of the regression coefficients with the explanatory variables and the statistical significance of the regression model with a significance level  $\alpha=0.05$ .

A regression coefficient is statistically significant if:

- Prob <  $\alpha=0.05$
- Prob(F-statistic) <  $\alpha=0.05$

Step 3: Check the explainability of the model through the coefficients R-squared and Adjusted R-squared.

A model is explanatory (fit) if:

- R-squared > 0.6
- Adjusted R-squared > 0.6

Step 4: Check the model's defects with  $\alpha=0.05$ .

A model is good (can be used for analysis) when the regression coefficients in the model are statistically significant, and the R-squared, Adjusted R-squared should not have autocorrelation and heteroskedasticity. At the same time, the residuals of the model should follow the standard normal distribution.

In the study, the authors used tools on EViews 8 to check for these defects. Specifically:

- Breusch-Godfrey test to check autocorrelation. The model does not have an autocorrelation defect at some level p if Prob (F-statistic) and Prob (Obs \*R-squared) >  $\alpha=0.05$ .
- Breusch-Pagan-Godfrey to test heteroskedasticity. The model is not subject to heteroskedasticity if Prob (F-statistic) and Prob (Obs\*Chi-squared) >  $\alpha=0.05$ .
- Jarque - Bera to check if the residuals of the model follow the standard normal distribution. The residuals of the model are normally distributed if Prob (Jarque - Bera) > 0.05.

- ***The regression equation is constructed to capture the relationship between the price of related goods and the demand for Hai Hau traditional Longan Cake in Vietnam, using Excel as the estimation tool.***

The prices of related goods include substitute goods (PTT) and complementary goods (PBS). The research team examines the relationship between the prices of these related goods and the demand for Hai Hau traditional Longan Cake by constructing a regression equation with the support of Excel software.

$$P_{TT} = c \cdot Q_{TT} + d \quad (2)$$

*In this model:*  $P_{TT}$  denotes the price of substitute goods for Hai Hau traditional Longan Cake in Vietnam (specifically, Nam Dinh Sủu Châu candy, with prices ranging from approximately 25,000 to 50,000 VND);  $Q_{TT}$  denotes the demand for Hai Hau traditional Longan Cake in Vietnam (reflecting respondents' willingness and ability to pay for longan cake when the price of Suu Chau candy changes).  $c$ ,  $d$  are coefficients.

***Hypothesis H2.*** The price of Nam Dinh Suu Chau candy has a positive relationship with the demand for Hai Hau traditional Longan Cake in Vietnam (*the coefficient  $c$  is expected to be positive*).

$$P_{BS1} = e \cdot Q_{BS1} + f \quad (3)$$

*In this model:*  $P_{BS1}$  denotes the price of complementary goods for Hai Hau traditional Longan Cake in Vietnam (specifically, paper bags, with prices ranging from approximately 5,000 to 10,000 VND);  $Q_{BS1}$  denotes the demand for Hai Hau traditional Longan Cake in Vietnam (reflecting respondents' willingness and ability to pay for longan cake when the price of paper bags changes).  $e$ ,  $f$  are coefficients.

***Hypothesis H3.*** The price of paper bags has an inverse relationship with the demand for Hai Hau traditional Longan Cake in Vietnam (*the coefficient  $e$  is expected to be negative*).

$$P_{BS2} = n \cdot Q_{BS2} + m \quad (4)$$

*In this model:*

$P_{BS2}$  denotes the price of complementary goods for Hai Hau traditional Longan Cake in Vietnam (specifically, a 100-gram tea package, with prices ranging from approximately 20,000 to 50,000 VND).

$Q_{BS2}$  denotes the demand for Hai Hau traditional Longan Cake in Vietnam (reflecting respondents' willingness and ability to pay for longan cake when the price of a 100-gram tea package changes, under the assumption that the price of longan cake remains constant at 25,000 VND per 300 grams).  $n$ ,  $m$  are coefficients.

***Hypothesis H4.*** The price of a 100-gram tea package has an inverse relationship with the demand for Hai Hau traditional Longan Cake in Vietnam (*the coefficient  $n$  is expected to be negative*).

– **Likert Method of determining the level based on the mean value of the Likert scale**

In addition, to evaluate the degree of agreement or disagreement with several statements regarding Hai Hau traditional Longan Cake in Vietnam, the research team employed a 5-point Likert scale when designing the survey questionnaire with questions about the cake's advantages. The scale was defined as follows: 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree. To assess the impact level of each factor, the team calculated the interval value and the mean value of each factor, and then determined which response category the mean score falls into.

The interval value is calculated as  $(\text{Maximum} - \text{Minimum}) / n = (5-1)/5 = 0.8$

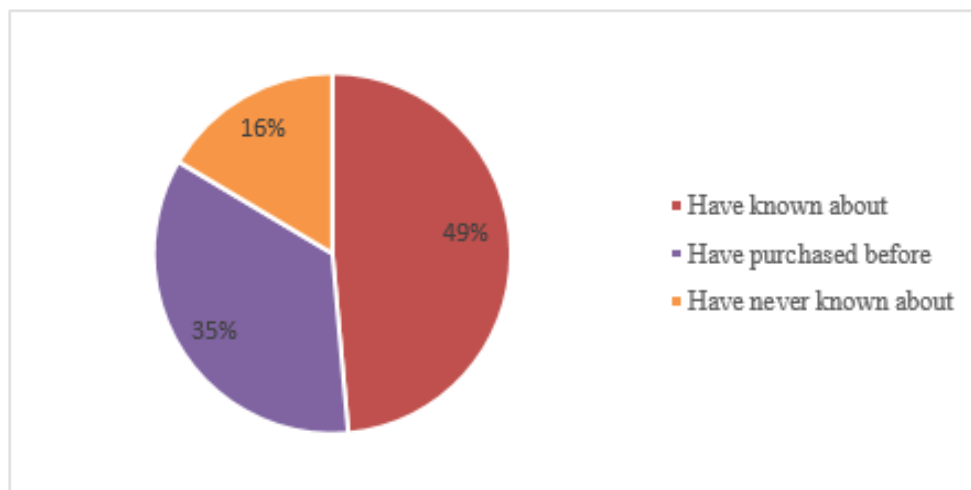
Based on the mean score, the evaluation thresholds are defined as follows:

- + 1.00 - 1.80: Strongly disagree
- + 1.81 - 2.60: Disagree
- + 2.61 - 3.40: Neutral
- + 3.41 - 4.20: Agree
- + 4.21 - 5.00: Strongly agree

#### 4. ANALYSIS OF FACTORS AFFECTING THE DEMAND FOR HAI HAU TRADITIONAL LONGAN CAKE IN VIETNAM

##### 4.1. Description of survey participants

The number of survey questionnaires collected was 212.



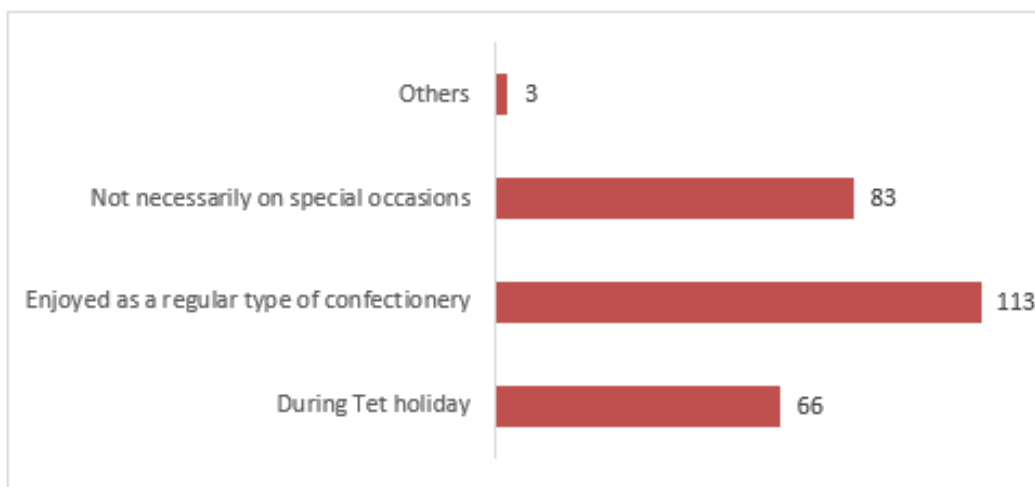
**Figure 1: Awareness of Hai Hau traditional Longan Cake in Vietnam**

Source: Survey results

The survey results show that out of a total of 212 respondents, 177 people (83.5%) were aware of Hai Hau traditional Longan Cake. Among them, 74 respondents (34.9%) had purchased the product, while 103 respondents (48.6%) were aware but had not purchased it.

Meanwhile, 35 respondents (16.5%) had never heard of the product; however, within this group, 32 respondents (91.4%) expressed interest in learning more, while only 3 respondents (8.6%) were not interested.

The proportion of purchasers among those who were aware was approximately 41.8%, indicating that the conversion rate from awareness to purchase behavior remains limited. At the same time, within the group of 35 respondents who were previously unaware of the product, as many as 32 respondents (91.4%) expressed interest and were provided with links to learn more about the product to continue participating in the survey, while only 3 respondents (8.6%) were not interested. This demonstrates that the potential for expanding awareness and developing the market remains significant.

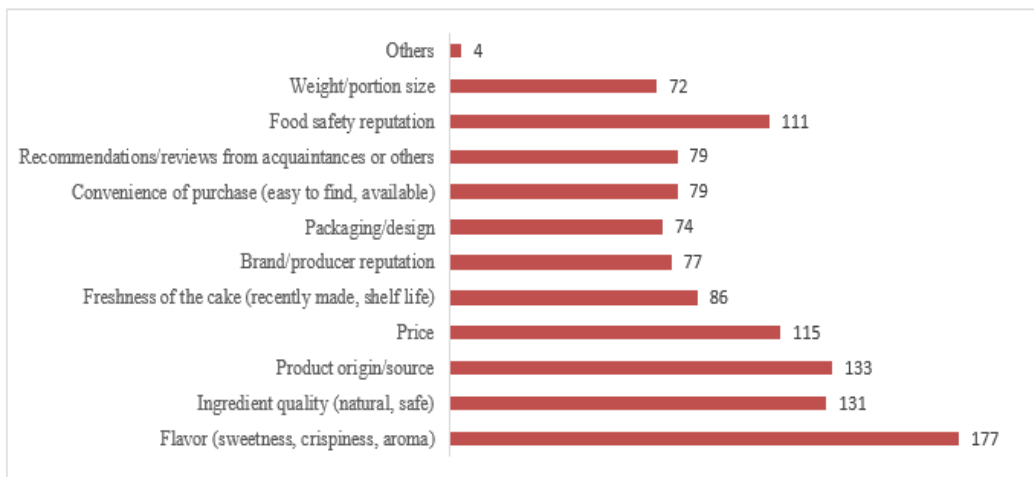


**Figure 2: When Hai Hau traditional Longan Cake is usually consumed**

*Source: Survey results*

Among the 209 survey respondents, the largest proportion (113 people, 54.1%) reported consuming Hai Hau traditional Longan Cake as a regular type of confectionery, indicating a shift in consumer behavior from perceiving it as a specialty product to everyday use. In addition, 83 respondents (39.7%) stated that it is not necessarily reserved for special occasions, reinforcing the notion of flexibility in consumption.

However, 66 respondents (31.6%) reported consuming it during Tet holidays, reflecting that the product's traditional role has not disappeared. Overall, Longan Cake is increasingly being consumed as a common product while still maintaining its cultural value during festive occasions.



**Figure 3: Factors considered when choosing Hai Hau traditional Longan Cake**

Source: Survey results

The survey results with 209 respondents indicate that flavor is the most important factor, chosen by 177 respondents ( $\approx 84.7\%$ ), reflecting that consumers prioritize *sensory experiences* such as sweetness, crispiness, and aroma when deciding to purchase Longan Cake. Next are factors related to *product quality and reliability*, including origin/source (133 respondents,  $\approx 63.6\%$ ) and ingredient quality (131 respondents,  $\approx 62.7\%$ ), showing that consumers pay particular attention to tradition, clear provenance, and safety. *Price* (115 respondents,  $\approx 55.0\%$ ) and *food safety reputation* (111 respondents,  $\approx 53.1\%$ ) also play significant roles, demonstrating a balance between cost and safety considerations. Factors such as freshness (41.1%), convenience of purchase and peer reviews ( $\approx 37.8\%$ ), or brand ( $\approx 36.8\%$ ) have moderate influence. Meanwhile, *packaging/design* ( $\approx 35.4\%$ ) and *weight/portion size* ( $\approx 34.4\%$ ) are considered less important. Overall, consumers of Longan Cake tend to prioritize core quality and reliability over external appearance factors.

#### 4.2. Survey results on the advantages of Hai Hau traditional Longan Cake in Vietnam

**Table 2: Advantages of Hai Hau traditional Longan Cake in Vietnam**

| Assessment of the advantages of Hai Hau traditional Longan Cake in Vietnam | 1 | 2 | 3  | 4  | 5  | Mean | Perception level |
|--|---|---|----|----|----|------|------------------|
| Distinctive and delicious flavor   | 6 | 1 | 43 | 90 | 69 | 4.03 | Agree            |
| Made from familiar, natural ingredients                                    | 4 | 3 | 43 | 76 | 83 | 4.11 | Agree            |
| Carries local cultural and traditional values                              | 5 | 2 | 26 | 77 | 99 | 4.26 | Strongly agree   |
| Easy to preserve and consume   | 5 | 2 | 38 | 82 | 82 | 4.12 | Agree            |
| Suitable as gifts or presents  | 5 | 4 | 42 | 83 | 75 | 4.05 | Agree            |

1. Strongly disagree; 2. Disagree; 3. Neutral; 4. Agree; 5. Strongly agree

Source: Survey results

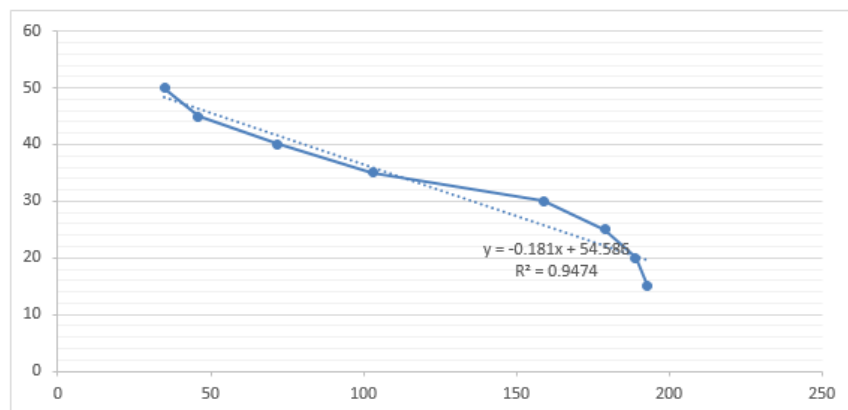
The survey results show that consumers evaluate quite positively the advantages of Hai Hau Longan Cake, with the average scores of all criteria being above 4.0. Among them, the factor of *local cultural and traditional value* was rated the highest with an average score of 4.26, reaching the level of ‘strongly agree,’ showing that consumers particularly value the specialty associated with the local identity of the product. Other factors such as *ease of preservation and use* (4.12), *being made from familiar and natural ingredients* (4.11), *suitability as gifts* (4.05), and *distinctive, delicious flavor* (4.03) all reached the level of ‘agree,’ reflecting positive but not absolute evaluations. In general, these results show that Hai Hau Longan Cake is not only recognized for its sensory quality and convenience but also stands out for its cultural and traditional value, thereby creating an important competitive advantage for the product in the market.

#### 4.3. Analysis of factors affecting demand and quantity demanded for Hai Hau traditional Longan Cake in Vietnam

**Table 3: The relationship between price and consumers’ willingness and ability to purchase Hai Hau traditional Longan Cake in Vietnam**

| Price | Willing and able to purchase | Not willing |
|-------|------------------------------|-------------|
| 15    | 193                          | 16          |
| 20    | 189                          | 20          |
| 25    | 179                          | 30          |
| 30    | 159                          | 50          |
| 35    | 103                          | 106         |
| 40    | 72                           | 137         |
| 45    | 46                           | 163         |
| 50    | 35                           | 174         |

Source: Survey results



**Figure 4: Demand curve of Hai Hau traditional Longan Cake in Vietnam**

Convention: The vertical axis represents the price of Hai Hau Longan Cake (P: thousand VND); The horizontal axis represents the quantity (number of buyers out of 209 survey participants)

Source: Survey results

**Table 4: Results of estimating the relationship between P and quantity demanded of Hai Hau traditional Longan Cake in Vietnam**

| Dependent Variable: P      |             |                       |             |          |
|----------------------------|-------------|-----------------------|-------------|----------|
| Method: Least Squares      |             |                       |             |          |
| Date: 04/12/26 Time: 22:24 |             |                       |             |          |
| Sample: 1 8                |             |                       |             |          |
| Included observations: 8   |             |                       |             |          |
| Variable                   | Coefficient | Std. Error            | t-Statistic | Prob.    |
| Q                          | -0.181031   | 0.017415              | -10.39487   | 0.0000   |
| C                          | 54.58572    | 2.380132              | 22.93391    | 0.0000   |
| R-squared                  | 0.947393    | Mean dependent var    |             | 32.50000 |
| Adjusted R-squared         | 0.938625    | S.D. dependent var    |             | 12.24745 |
| S.E. of regression         | 3.034177    | Akaike info criterion |             | 5.270075 |
| Sum squared resid          | 55.23737    | Schwarz criterion     |             | 5.289936 |
| Log likelihood             | -19.08030   | Hannan-Quinn criter.  |             | 5.136125 |
| F-statistic                | 108.0532    | Durbin-Watson stat    |             | 1.199705 |
| Prob(F-statistic)          | 0.000046    |                       |             |          |

Source: *Estimated results*

From the estimation results, there is an inverse relationship between price and the demand for Hai Hau traditional Longan Cake in Vietnam. Specifically, the relationship between price (P) and quantity demanded (Q) is represented by the following equation:

$$P = -0.181031 \cdot Q + 54.58572 \quad (1)$$

$$\text{Hay: } Q = -5.233333 \cdot P + 292.0833$$

This shows that when the price increases by 1 thousand VND, the demand for Hai Hau traditional Longan Cake decreases by 5.233333 units (consistent with economic theory). Thus, ***hypothesis H1 is accepted.***

Checking model if fits:

- + The coefficients are statistically significant because the coefficient Prob (P)=0.0000 < 0.05; Prob (C)=0.0000 < 0.05
- + The regression model is suitable, because Prob coefficient (F-statistic) = 0.000046 < 0.05
- + The coefficient of determination R-squared and Adjusted R-squared are 0.947393 and 0.938625 respectively, both are > 0.6

**Table 5: Autocorrelation defect test**

|  |          |                     |        |
|--|----------|---------------------|--------|
| <b>Breusch-Godfrey Serial Correlation LM Test:</b> |          |                     |        |
| F-statistic  | 2.117275 | Prob. F(2,4)        | 0.2360 |
| Obs*R-squared                                      | 4.113934 | Prob. Chi-Square(2) | 0.1278 |

Source: *Model test results*

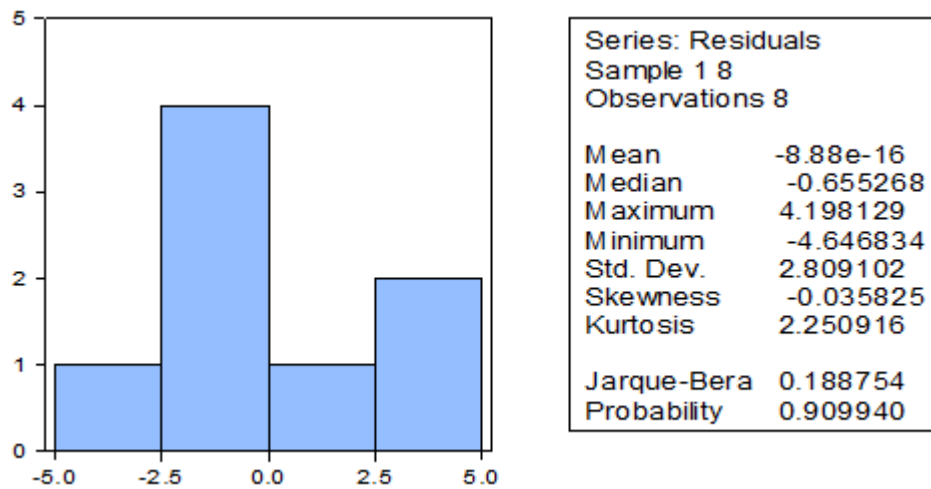
According to Table 5, the Prob. F and Prob. Chi-Square are > 0.05. The model does not have autocorrelation defects.

**Table 6: Checking for variable error variance**

| Heteroskedasticity Test: White |          |                     |        |
|--------------------------------|----------|---------------------|--------|
| F-statistic                    | 1.174031 | Prob. F(2,5)        | 0.3819 |
| Obs*R-squared                  | 2.556388 | Prob. Chi-Square(2) | 0.2785 |
| Scaled explained SS            | 0.899389 | Prob. Chi-Square(2) | 0.6378 |

Source: Model test results

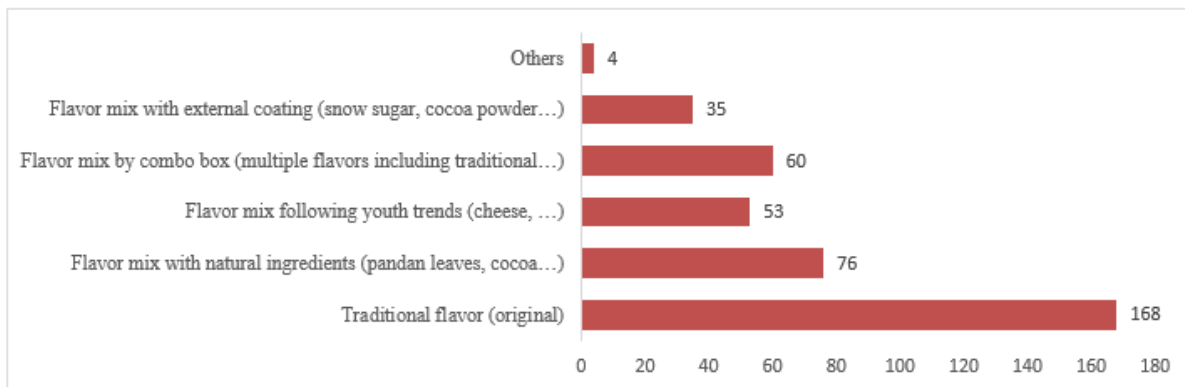
According to Table 6, the Prob values. F and Prob. Chi-Square > 0.05. The model is not flawed with variable variance.



**Figure 5: Normal distribution residuals**

Source: Model test results

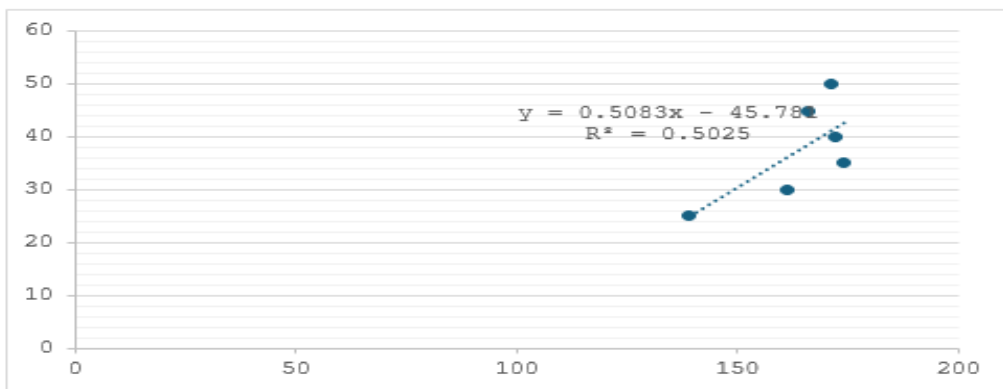
The residuals of the model follow a normal distribution, Prob values (Jarque-Bera) in the model > 0.05.



**Figure 6: Consumer preferences for Hai Hau traditional Longan Cake in Vietnam**

Source: Survey results

The survey results show that consumers still clearly prioritize the traditional flavor, with 168 out of 209 respondents choosing it (≈80.4%), reflecting the characteristic preference for “authenticity” in specialty products. The trends of variation received lower levels of interest, in which mixing flavors with natural ingredients (≈36.4%) and multi-flavor combo boxes (≈28.7%) were more accepted compared to youth-oriented trendy flavors (≈25.4%) or coated versions (≈16.7%). Overall, consumer preferences remain strongly oriented toward tradition, but there is a tendency to expand toward natural variations and moderate diversification.



**Figure 7: The impact of changes in the price of Suu Chau candy on the demand for Hai Hau traditional Longan Cake in Vietnam**

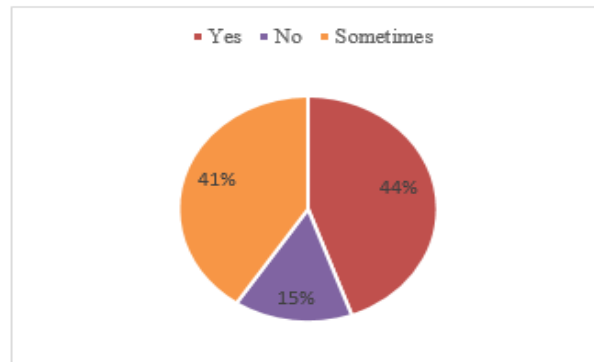
*Convention: The vertical axis represents the price of Suu Chau candy (P: thousand VND); the horizontal axis represents the quantity (number of buyers of Hai Hau Longan Cake out of 209 survey participants)*

*Source: Calculated from survey results*

We can construct the following equation:

$$P_{TT} = 0.5083 * Q_{TT} - 45.781 \quad (2)$$

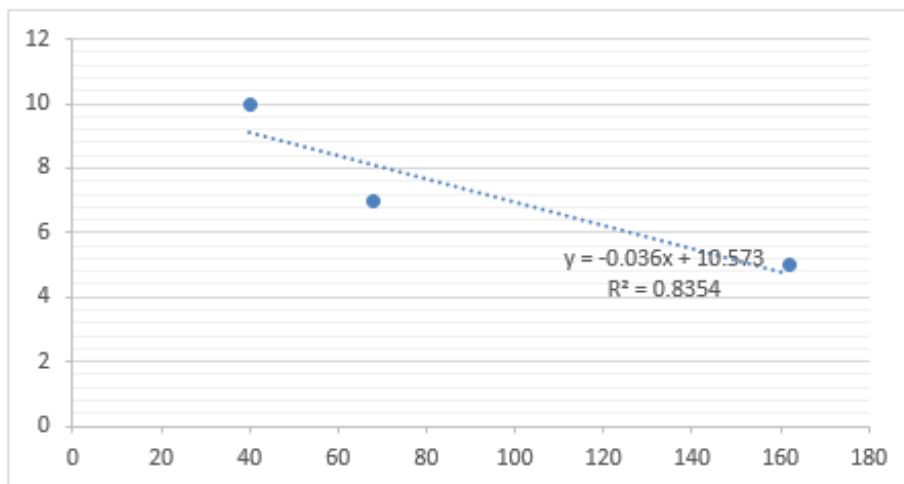
The data show that when the price of Suu Chau candy increases from 25 to 50 (while the price of Hai Hau Longan Cake remains unchanged), the quantity purchased of Longan Cake generally tends to rise. Specifically, the quantity purchased increases from 139 (when the candy price is 25) to a peak of 174 (when the price is 35), then fluctuates slightly but remains high (around 166-172) as the price continues to increase. This indicates that there exists a substitution relationship between Longan Cake and Suu Chau candy: when Suu Chau candy becomes more expensive, consumers tend to switch to buying more Longan Cake. However, the increase is not perfectly uniform but shows fluctuations, reflecting that the degree of substitution is imperfect, and purchasing decisions are also influenced by other factors such as preferences or consumption habits. These results are consistent with microeconomic theory: when the price of a substitute good rises, the demand for the other good increases. Thus, *hypothesis H2 is accepted*.



**Figure 8: Purchase Hai Hau traditional Longan Cake in Vietnam with a paper bag**

Source: Survey results

The survey results indicate that the demand for purchasing paper bags alongside Hai Hau Longan Cake is fairly promising but not yet stable. Specifically, 93 respondents were willing to buy paper bags at 5,000 VND per bag, the highest proportion, reflecting a clear customer segment willing to pay extra for convenience and aesthetics. Meanwhile, 85 respondents chose ‘sometimes,’ showing flexible demand depending on circumstances such as buying gifts, purchasing in larger quantities, or requiring product presentation; this group has high potential to convert if appropriately influenced. In contrast, only 31 respondents expressed no demand, a relatively small proportion, suggesting that the price of 5,000 VND is not a significant barrier for most customers. Overall, these findings suggest that businesses should adopt a flexible bundling strategy, emphasizing the aesthetic and practical value of paper bags to increase acceptance rates, particularly by effectively targeting the ‘sometimes’ customer group.



**Figure 9: The relationship between paper bag price and consumers' willingness to purchase Hai Hau Longan Cake with paper bags**

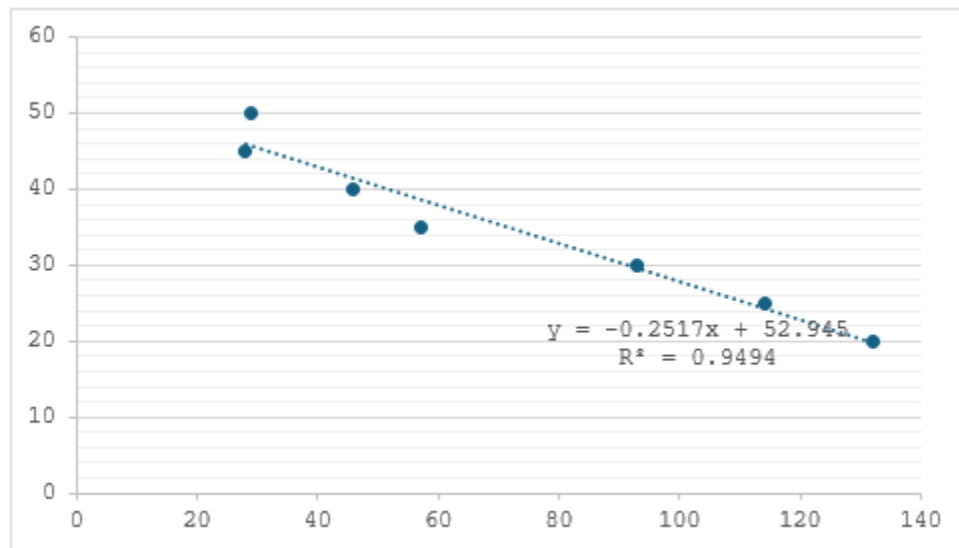
*Convention: The vertical axis represents the price of paper bags (P: thousand VND); the horizontal axis represents the quantity (number of buyers of the combo Longan Cake and paper bag out of 209 survey participants).*

*Source: Calculated from survey results*

We can construct the following equation:

$$P_{BS1} = -0.036 \cdot Q_{BS1} + 10.573 \quad (3)$$

The results show that as the price of paper bags increases, the willingness to purchase decreases significantly. Specifically, at 5,000 VND, 162 respondents accepted to buy, but this number dropped to 68 at 7,000 VND and only 40 at 10,000 VND. This indicates that demand is quite sensitive to price, and 5,000 VND is the most appropriate price to maintain demand. Thus, ***hypothesis H3 is accepted.***



**Figure 10: The relationship between tea bag price and consumers' willingness to purchase Longan Cake in a tea-and-cake combo**

*Convention: The vertical axis represents the price of tea bags (P: thousand VND); the horizontal axis represents the quantity (number of buyers of the combo Longan Cake and tea bags out of 209 survey participants)*

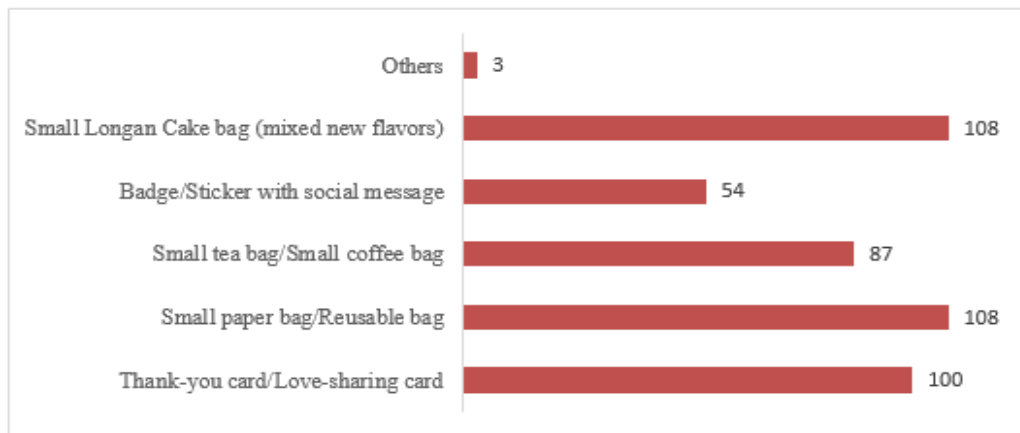
*Source: Calculated from survey results*

We can construct the following equation:

$$P_{BS2} = -0.2517 \cdot Q_{BS1} + 52.945 \quad (3)$$

The results show that as the price of tea bags increases, the demand for the combo of Longan Cake with tea bags gradually decreases. Specifically, at 20,000 VND, 132 respondents were willing to buy, but this number dropped to 114 at 25,000 VND and 93 at 30,000 VND. When the price continued to rise to 35,000-50,000 VND, the number of

buyers declined sharply, falling from 57 to around 28-29. This indicates that demand for the combo product is quite sensitive to price, especially from the threshold of 30,000 VND upwards. Overall, the price range of 20,000-25,000 VND is the most suitable to maintain demand, while higher pricing would require enhancing perceived value to avoid customer loss. Thus, *hypothesis H4 is accepted*.



**Figure 11: Desired free gifts**

Source: Survey results

Customers tend to prioritize promotional gifts that are practical and provide direct product experience, while symbolic or socially driven items receive lower levels of interest. This suggests that businesses should focus on functional packaging and product sampling, while also incorporating emotional elements (such as thank-you cards) to enhance perceived value.

## 5. DISCUSSION

The research results show that the demand for Hai Hau traditional Longan Cake is the outcome of multiple groups of factors, including economic factors (prices, prices of related goods) and non-economic factors (taste preferences, cultural values, consumer behavior). Analyzing these groups of factors simultaneously helps clarify the characteristics of demand for a specialty product in the context of the modern market.

First, regarding the **price factor**, the regression results confirm the inverse relationship between price and demand, which is fully consistent with microeconomic theory (Mankiw, 2021). However, it is noteworthy that the responsiveness of demand is not uniform across different price ranges. When the price increases from low to medium levels (15,000-30,000 VND), demand decreases relatively slowly, indicating that consumers still accept this price range. In contrast, when the price exceeds 35,000 VND, demand drops sharply, reflecting the existence of a ‘psychological price threshold.’ This implies that Longan Cake, although a traditional product, is still clearly constrained by consumers’ ability to pay and their expected price levels. Therefore, pricing strategies need to pay particular attention to the optimal price range to maintain stable demand.

Second, considering the **prices of related goods**, the study shows that Longan Cake and Xu Chau candy have a substitutive relationship: when the price of Xu Chau candy increases, the demand for Longan Cake tends to rise. However, the degree of substitution is not complete, as the increase in Longan Cake demand fluctuates. This reflects that, beyond price factors, consumption decisions are also influenced by habits, taste preferences, and attachment to the product. Conversely, for complementary goods such as paper bags and tea, the results indicate that the demand for Longan Cake decreases when the prices of these products rise, especially in the case of combo purchases. This demonstrates that the total consumption cost (bundle price) plays an important role in purchase decisions. The identified optimal price thresholds (5,000 VND for paper bags and 20,000-25,000 VND for tea) provide an important basis for businesses in designing products and accompanying pricing policies.

Third, regarding **taste preferences and perceived value**, the research highlights the prominent role of tradition. Most consumers still prioritize the original flavor and highly appreciate the cultural value of the product. This is consistent with previous studies (Feldmann & Hamm, 2015; Guerrero et al., 2009), which show that traditional foods carry meanings beyond ordinary use value. However, the results also reveal the emergence of a group of consumers seeking new product experiences (flavor mixes, combos), particularly among younger demographics. This raises the need to balance preserving traditional values with product innovation. Excessive innovation may erode authenticity, while a lack of innovation may hinder market expansion.

Fourth, regarding **consumer behavior**, an important finding is that the conversion rate from 'awareness' to 'purchase' remains relatively low ( $\approx 41.8\%$ ), while the group of consumers who were previously unaware but expressed interest in learning more accounts for a very high proportion (91.4%). This indicates that the core issue does not lie in potential demand but rather in the level of awareness and accessibility of the product. In other words, the market's potential demand remains substantial but has not been effectively tapped. Therefore, marketing activities such as communication, promotion, product storytelling, and expanding distribution channels need to be strengthened to increase conversion from awareness to actual purchasing behavior.

Fifth, the research results also reflect **a shift in consumption purposes**. Longan Cake is no longer limited to festive occasions but is gradually becoming a regular consumer product. This is a positive trend, helping expand the market scale from 'seasonal demand' to 'regular demand.' However, to capitalize on this trend, the product needs to be adjusted toward greater convenience (compact, easy-to-use packaging) and alignment with modern distribution channels such as e-commerce.

In addition, the study shows that consumers prioritize **core factors such as flavor, quality, and origin over superficial factors such as packaging or brand**. This implies that the competitive advantage of Longan Cake lies in the intrinsic value of the product rather than in surface-level marketing elements. However, in the context of increasing competition, improving packaging and building a brand remain necessary to enhance recognition and create differentiation in the market. From the above analyses, several

important implications can be drawn: (i) *Maintain reasonable pricing and avoid exceeding the market's acceptance threshold*; (ii) *Leverage the substitutive relationship with products in the same category to expand demand*; (iii) *Control the costs and prices of complementary products*; (iv) *Emphasize cultural value and origin in communication activities*; (v) *Innovate products selectively*; and (vi) *Expand distribution channels to enhance customer accessibility*. Overall, the study not only confirms the validity of microeconomic theories in practical contexts but also shows that for local specialty products such as Hai Hau Longan Cake, cultural factors and consumer behavior play roles as important as economic factors. This provides the foundation for orienting demand development toward sustainability in the future.

## CONCLUSION

The study clarifies the factors influencing the demand for Hai Hau traditional Longan Cake, in which price, related goods, and consumer behavior all have significant impacts. The results show that the demand for Hai Hau traditional Longan Cake in Vietnam follows the rules of microeconomics while being strongly influenced by cultural values and traditional taste preferences. In addition, the market potential remains large but has not been effectively exploited due to limitations in awareness and conversion into purchasing behavior. On this basis, a harmonious combination of pricing strategy, product development, and enhanced communication will be the key to expanding demand and ensuring sustainable development of Hai Hau Longan Cake in the future.

The study also has several limitations, such as a relatively small sample size and narrow survey scope, a simple analytical model that does not fully cover factors like income, marketing, or distribution channels. Moreover, the data were collected at a single point in time, which does not capture changes in consumer behavior over time. Future research could expand the sample and survey scope, incorporate additional variables related to behavior and communication, and apply advanced analytical methods such as SEM/PLS-SEM combined with qualitative research to *better clarify consumer motivations and improve the reliability of the results*.

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