Consumers Decision and Preference of Dry Sliced Arecas in Border Area (A Case Study in North Central Timor Regency)

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ABSTRACT

People in North Central Timor Regency used the areca as their customary symbol and a pivotal part of their daily social life. This study aims to describe the factors affecting people's decision and preference to consume dry sliced areca nut sold in the market near the North Central Timor border. The population of this study was 259,000 people in the north-central Timor regency. As many as 360 people were recruited as the study samples using Isaac Michael's table with 10% margin of error. The study was conducted between December 2021 and February 2022. The collected data were analyzed using qualitative descriptive and logistic regression analysis techniques. This study found that age, gender, psychological factor, taste, and texture simultaneously affect consumers' decision in consuming dry sliced areca nuts. Age and texture were found to significantly affect the consumers' decision in the North Central Timor Regency. Meanwhile, the texture was found to affect consumers' preference in selecting the dry sliced areca nut.

Keywords: Border; Consumer; Culture; Decision; Dry Areca Nut.

1. Introduction

East Nusa Tenggara is an archipelago with abundant culture, tradition, beliefs, and foods. This abundant resource affects the goods and services consumed by locals. One’s consumption may depend on their purchase decision, which is affected by external and internal factors such as attitude, socio!culture, taste, product design, and innovation, among others (Suharto, 2016). Locals’ hereditary habit and culture still common in East Nusa Tenggara is consuming betel and areca nuts. Betel and areca consumption in East Nusa Tenggara contains cultural meanings. In this regard, people in this province are known to spend about 10% of their monthly food spending to buy betel and areca nuts. Their spending for betel and areca nuts is even higher than that for protein consumption (Badan Pusat Statistik, 2021a).

The North Central Timor regency is the part of the province that borders Timor Leste. The betel nut consumption in this regency is quite high. Local people spend 11.46% of their monthly food to buy betel and areca, higher than the average people in East Nusa Tenggara Province (Badan Pusat Statistik, 2021b). Demands for areca has become a social problem in North Central Timor regency. The natural and soil condition prevents them from cultivating areca on a big scale. People in this regency should hence import dry areca from other regions in Indonesia, or even occasionally from Timor Leste (Taena, 2010).

People in the north central Timor call betel, areca nut, and crushed lime wrapped in “kabi” as “mamat.” They usually consume areca nuts along with betel nuts and crushed lime. (Suminar, 2020). Areca also plays a cultural role in the North Central Timor Regency. In addition to daily consumption, it serves as a dowry, and its presence, in any event, represents their pride (Naimena & Nubatonis, 2017).
Locals are familiar with two types of areca: fresh areca (fruit) and dry areca slice. The former has become the people's primary choice. However, this fruit does not last long and is more difficult to find. The latter, on the other hand, becomes the people's favorite as it lasts longer and is easier to find. Dry sliced areca nut consumed by people in North Central Timor is commonly divided into two variants based on its processing time: old and young dry sliced arecas. While the old dry sliced arecas are processed after reaching their mature state, the young dry sliced arecas are processed when they are young. The difference in this processing time results in different tastes. People's consumption can be affected by their own tastes (Fariadi & Saputra, 2019). Both dry sliced areca variants are sold at similar prices and packaging. Locals buy the areca based on their taste and knowledge. Their knowledge of attributes of both dry sliced areca variants is one of the factors affecting their consumption, as asserted by Robertson et al. (2018), who state that knowledge of goods attribute is one of the factors influencing consumer's purchase decision. The present study aims to analyze the consumer decision and preference of dry sliced areca consumption in the North Central Timor Regency.

2. Research Method

This study was conducted in the six most-populated districts in North Central Timor, namely West Mioffafo, East Mioffafo, biboki Moenleu, Insana, South Biboki, and Kefamenanu districts between December 2021 and February 2022. The primary data in this study were collected through interviews and observation. Meanwhile, the secondary data of the study were obtained from the Provincial Statistics Agency of East Nusa Tenggara and the Regional Statistics Agency of North Central Timor Regency. The population of this study was 259,829 people. Of that number, the number of the study sample was determined using Isaac and Michael's table with α=10%. The sample of the study was recruited using the purposive sampling technique (inclusion criteria: dry sliced areca consumer), resulting in 360 respondents.

2.1 Data Analysis

A qualitative descriptive method was applied to analyze consumers’ preference of dry sliced areca. Meanwhile, the logistic regression technique was also employed to see consumers’ decisions regarding the dry areca variants they consumed. The logistic regression model used in this study adopts the model proposed by Juanda (2009).

\[ Y_1 = \left( X_i \right) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \cdots + \beta_n X_n)}} \]

The logit model used in this study is as follow:

\[ (X_i) = \ln \frac{P_i}{1-P_i} = \beta_0 + \beta_1 \text{Age} + \beta_2 \text{J. Gender} + \beta_3 \text{Psychological Factors} + \beta_4 \text{taste} + \beta_5 \text{texture} + e \]

Description:
P = Proportion of consuming dry sliced arecas
P_0 = Possibility of consuming old dry sliced arecas
P_1 = Possibility of consuming young dry sliced arecas
Age = respondents age
Gender = Respondents gender (male and female).
JK_0 = Male
JK_1 = Female
Psychological Factor = Areca Consumption Habit
Taste = Value of dry sliced arecas
Texture = Value of dry sliced arecas

3. Results And Discussions

3.1 Respondents Characteristics

Respondents characteristics in this study included educational background and number of dependents. The characteristic of dry sliced areca consumers in North Central Timor is presented in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Respondent Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Elementary School</td>
</tr>
</tbody>
</table>
The majority of respondents in this study were elementary school graduates. Those who graduated from higher education were less than 5%. In this regard, consumers with lower educational backgrounds usually exhibit lower product expectations (Yunita & Arbi, 2019). Meanwhile, individuals with higher education levels are usually more aware of the health of products they consume. People with higher education are also known to have higher expectations, eventually affecting their purchase behavior (Saputro & Santoso, 2021).

Respondents in this study were known to have 3-5 dependents. In this regard, more dependents may result in higher consumption costs, both food and non-food consumption. As Hanum, (2018) the number of family dependents may affect the household consumption pattern.

### 3.2 Factors Affecting People’s Decision in Selecting Dry sliced Areca in North Central Timor Regency

This study used age, gender, psychological factor, taste, and texture variables to analyze consumers’ decisions regarding dried areca variants. The analysis result is presented in the following Table 2.

#### Table 2. Factors Affecting Consumers’ Decision regarding Dry sliced Areca

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Significance</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.533</td>
<td>0.180&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1.703</td>
</tr>
<tr>
<td>Gender</td>
<td>0.012</td>
<td>0.961</td>
<td>1.012</td>
</tr>
<tr>
<td>Habit</td>
<td>0.156</td>
<td>0.666</td>
<td>1.169</td>
</tr>
<tr>
<td>Taste</td>
<td>0.421</td>
<td>0.223</td>
<td>1.524</td>
</tr>
<tr>
<td>Texture</td>
<td>-2.387</td>
<td>0.000&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.092</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.004</td>
<td>0.444</td>
<td>0.283</td>
</tr>
</tbody>
</table>

#### Chi-square

| Omnibus Tests of Model Coefficients | 0.000 | 77.839 |
| Hosmer and Lemeshow Test           | 0.138 | 12.299 |
| Nagelkerke R Square                | 0.259 |        |

Source: Primary Data, processed in 2022. Description: a and b are significant at α= 1% and 20%, respectively.

a. Omnibus Test of Model Coefficients (Overall Test)

The omnibus test value was found to be significant (0.000 <0.05). The count Chi-square was 77.839, higher than the table chi-square of 11.071, indicating that The independent variables simultaneously affect the dependent variable.

b. Hosmer and Lemeshow (Goodness of Fit)

Table 2 shows a significance value of 0.138 (>0.05) and the chi-square count value of 12.299 (< 15.507), meaning that the proposed model has described the data.

c. Nagelkerke R Square (Model Summary)

Nagelkerke R Square test showed a value of 0.259, Meaning that independent variables can account for the dependent variable by 25.9%.

d. Partial Test

This study found that two variables exhibited significance, age and texture.

e. Age

Age was found to significantly affect the consumers’ decision on dry sliced areca they consume (α= 20%). The coefficient value of the age variable was positive, meaning that Older consumers are likely to consume younger dry sliced areca 1.703 times more than younger consumers. This may be accounted for by their dental structure that is no longer strong. Areca consumption has become a habit since they were young, making it far more difficult to stop the habit. Stopping areca consumption can lead to lower life quality. In this regard, tooth loss may cause elders to perceive...
lower life quality (Muhida & Isnanto, 2021). Older consumers are likely to consume younger dry sliced areca due to its softer texture.

Older people in North Central Timor also exhibit higher adherence to the customs or even become customary elders. Areca contains cultural and customary values in North Central Timor, making it seems impossible for older people to stop consuming areca. Elders’ eating patterns may represent a cultural heritage and socialization of a community (Fitriani, 2012). Therefore, consumers are likely to prefer young dry sliced areca to consume.

g. Gender

Gender was found not to significantly affect consumers' decision on dry sliced areca variants they consume. This variable exhibited a positive coefficient. Female consumers tend to choose young dry sliced areca 1.012 times higher than male consumers. The majority of female respondents in this study were housewives. They were responsible for handling various household needs and helping their husbands to work and usually had a shorter time to socialize and enjoy areca. Female respondents were found to prefer foods that can be served or consumed faster. Housewives, as stated by Ruwani et al. (2014), prefer instant foods for their family to save their time. Housewives in North Central Timor are decision-makers regarding their family’s monthly grocery shopping. Other family members usually accept and consume the products the housewife buy, including the areca. This condition is typical in most Indonesian regions, where housewives are influential and can change family consumption patterns (Neni Sumarni et al., 2020).

h. Psychological Factor

The psychological factor in this study did not significantly affect respondents' decision on consuming young dry areca. The psychological factor in this study was the consumer addiction and habit of consuming dry sliced areca. This factor was found to increase the consumer's chance to consume the young dry sliced areca by 1.169. Respondents in this study were found to prefer young dry sliced areca due to its stronger taste. Respondents stated that they are more satisfied when consuming young dry sliced arecas. The psychological factor and consumption habits can increase the consumer decision of using a product (Esi Asyani et al., 2021). Continuous areca consumption makes a local habit and improves their sense in selecting the variant of dry sliced areca to consume. Continuous product consumption may improve consumers' ability to judge the product quality, which in turn affects their habit (Arimurti et al., 2021).

i. Texture

The texture was found to significantly affect the consumers' decision on dry sliced areca they consume (α= 1%). The coefficient of this variable exhibits a negative value, meaning that the texture lowers consumers' possibility of choosing young dry sliced arecas by 0.092. Consumers in North Central Timor were found to prefer the harder, chewier texture of the old dry sliced arecas. This finding supports Suryono et al. (2018) who state that texture is among the factors to consider when selecting foods. A harder and chewier dry sliced areca allows consumers to consume the areca longer. Areca was found to be the part of socialization and daily tradition of people in North Central Timor. Harder and chewier texture allows longer duration, as they need longer time to consume while spending time with their friends. Food becomes part of the culture and daily habits of consumers. (Lind & Barham, 2004).

3.2 Dry sliced Areca Consumption Preference in North Central Timor

Areca consumption is inseparable from people's daily life in North Central Timor. The first food to serve when visiting one's house is mostly areca. Its availability affects the social life of people in this regency. Betel and areca nuts have appeared to be a must-there food during the wedding reception or other events. People are likely to gossip about the hosts when they do not serve betel and areca during an event.

Most respondents were in productive age (21-60 years old) in this study with the good dental condition. They prefer the old dry sliced areca to consume due to its hard and chewy texture. Harder and
chewier textures allow them to enjoy the areca longer while spending time with friends. People in North Central Timor usually enjoy their togetherness while eating arecas with their family and colleagues. Food and beverages can be a part of the history and character of consumers in certain places (Keskin & Güneş, 2021).

Consumers older than 60 years old usually suffer from declined dental health. However, people in North Central Timor find it difficult to leave their habit of consuming arecas. For elders, their physical condition leaves them with two options regarding areca consumption, i.e., consuming fresh arecas and young dry sliced arecas. Since fresh arecas are more difficult to find, people prefer young dry sliced areca. However, elders are likely to choose arecas that suits their dental ability, considering that tooth is pivotal for elders (Rizkillah et al., 2019).

4. Conclusion

Consumers' age and areca texture were found to affect the decision in choosing the areca variant they consume. In this regard, consumers in North Central Timor prefer dry sliced arecas.

References


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