

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

Yoseph Daniel Jemai¹, Boanerges Sipayung², Umbu Joka³, Dudi Septiadi⁴

^{1,2,3}Department of Agribusiness, Faculty of Agriculture, Timor University, Indonesia

⁴Faculty of Agriculture, University Of Mataram, Indonesia

ARTICLE INFO

Article history:

Received Feb 19, 2022

Revised Mar 11, 2022

Accepted Apr 11, 2022

Keywords:

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

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' decisions in the North Central Timor Regency. Meanwhile, the texture was found to affect consumers' preference in selecting the dry sliced areca nut.

This is an open access article under the CC BY-NC license.



Corresponding Author:

Yoseph Daniel Jemai
Department of Agribusiness,
Timor University
Sasi, Kabupaten Timor Tengah Utara, Nusa Tenggara Tim, Indonesia
Email: dennyjemai@gmail.com

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 last 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 $\alpha=10\%$. 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).

$$\hat{Y}_1 = (X_i) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \dots + \beta_n X_n)}}$$

The logit model used in this study is as follow:

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

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 1. Respondent Characteristic

Criteria	Number (people)	Percentage (%)
	Education	
Elementary School	190	53

Criteria	Number (people)	Percentage (%)
Junior High School	101	28
Senior High School	50	14
Bachelor's Degree	19	5
No. of Dependents (people)		
1-4	199	55
5-8	161	45

Source Primary Data, processed in 2022

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

Variable	B	Significance	Odds Ratio
Age	0.533	0.180 ^b	1.703
Gender	0.012	0.961	1.012
Habit	0.156	0.666	1.169
Taste	0.421	0.223	1.524
Texture	-2.387	0.000 ^a	0.092
Constant	-0.004	0.344	0.283
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 $\alpha= 1\%$ 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 ($\alpha= 20\%$.) 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.

f. 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).

g. 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).

h. Taste

Areca taste was found not to significantly affect respondents' decision in choosing the areca variant they consume. The coefficient of the areca taste variable was found to be positive. Young dry sliced arecas tends to be more sour and bitter, which was found to increase consumer chance to choose them by 1.524 compared to the mature, dry sliced areca. Arecas have a special taste that causes consumer addiction. The increase in areca consumption may be caused by daily social life, which according to Kurniawan and Ridlo (2017), can shape the consumers' taste in certain places.

i. Texture

The texture was found to significantly affect the consumers' decision on dry sliced areca they consume ($\alpha= 1\%$). 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

- Arimurti, N. H., Edy Sularso, K., & Hartati, A. (2021). Kesiediaan Membayar (Willingness To Pay) Beras Organik di Kabupaten Banyumas dan Faktor Yang Mempengaruhinya. *Forum Agribisnis*, 11(1), 75–89. <https://doi.org/10.29244/fagb.11.1.75-89>
- Badan Pusat Statistik. (2021a). Ringkasan Pola Konsumsi Penduduk Provinsi Nusa Tenggara Timur Pada Maret 2021.
- Badan Pusat Statistik. (2021b). Ringkasan Pola Konsumsi Penduduk Timor Tengah Utara Maret 2021.
- Esi Asyani, L., Suryantini, A., & Irham. (2021). MINAT DAN PERSEPSIKONSUMEN DALAM PEMBELIANSAYURAN DAN BUAH SECARA ONLINE. *Agritepa*, 8(2), 148–164. <https://doi.org/https://doi.org/10.37676/agritepa.v8i2.1764>
- Fariadi, H., & Saputra, B. (2019). Faktor-faktor Yang Mempengaruhi Konsumsi Kopi Bubuk 1001 Di Kota Bengkulu. *AGRITEPA: Jurnal Ilmu Dan Teknologi Pertanian*, 6(2). <https://doi.org/10.37676/agritepa.v6i2.882>
- Fitriani, E. (2012). POLA KEBIASAAN MAKAN ORANG LANJUT USIA (Studi Kasus: Penderita Penyakit Hipertensi Sukubangsa Minangkabau di Jakarta). *Humanus*, 12(2), 134. <https://doi.org/10.24036/jh.v11i2.2162>
- Hanum, N. (2018). Pengaruh Pendapatan , Jumlah Tanggungan Keluarga Dan Pendidikan Terhadap Pola Konsumsi Rumah Tangga Nelayan Di Desa Seuneubok Rambong Aceh Timur. *Jurnal Samudra Ekonomika*, 2(1).
- Juanda, B. 2009. *Ekonometrika Permodelan Dan Pebdugaan*, Cetakan Pertama: Bogor: Penerbit IPB Press PT.
- Keskin, B., & Güneş, E. (2021). Social and cultural aspects of traditional drinks: A review on traditional Turkish drinks. In *International Journal of Gastronomy and Food Science* (Vol. 25). <https://doi.org/10.1016/j.ijgfs.2021.100382>
- Kurniawan, A., & Ridlo, M. R. (2017). Perilaku Konsumtif Remaja Penikmat Warung Kopi. *Jurnal Sosiologi DILEMA*, 32(1), 9–22.
- Lind, D., & Barham, E. (2004). The social life of the tortilla: Food, cultural politics, and contested commodification. *Agriculture and Human Values*, 21(1). <https://doi.org/10.1023/B:AHUM.0000014018.76118.06>
- Muhida, H. S. B., & Isnanto. (2021). Karakteristik Dan Pengetahuan Lansia Tentang Kesehatan Gigi Dan Mulut Di Dusun Koloran Kabupaten Probolinggo Tahun 2020. *Indonesian Journal Of Health and Medical*, 1(2).
- Naimena, F., & Nubatonis, A. (2017). Analisis Pemasaran Pinang Kering Oleh Pedagang di Kecamatan Kota Kefamenanu Kabupaten Timor Tengah Utara. *Agrimor*, 2(02), 27–29. <https://doi.org/10.32938/ag.v2i02.303>
- Neni Sumarni, Syifa Pramudita Faddila, & Robby Fauji. (2020). PERILAKU BELANJA ONLINE PADA IBU RUMAH TANGGA DISAAT PANDEMI COVID-19 (STUDI KASUS IBU RUMAH TANGGA DI ANJUN KARAWANG). *Jurnal Manajemen & Bisnis Kreatif*, 6(1). <https://doi.org/10.36805/manajemen.v6i2.1186>
- Rizkillah, M. N., Isnaeni, R. S., & Fadilah, R. P. N. (2019). Pengaruh Kehilangan Gigi Posterior Terhadap

- Kualitas Hidup Pada Kelompok Usia 45-65 Tahun. *Padjadjaran J Dent Res Student*, 3(1), 7–12.
- Robertson, J., Ferreira, C., & Botha, E. (2018). The influence of product knowledge on the relative importance of extrinsic product attributes of wine. *Journal of Wine Research*, 29(3). <https://doi.org/10.1080/09571264.2018.1505605>
- Ruwani, A., Retnaningsih, R., & Simanjuntak, M. (2014). Nilai dan Tipe Konsumen Rumah Tangga dan Kaitannya dengan Perilaku Pembelian Produk Makanan Kemasan. *Jurnal Ilmu Keluarga Dan Konsumen*, 7(1). <https://doi.org/10.24156/jikk.2014.7.1.48>
- Saputro, W. A., & Santoso, A. P. A. (2021). FAKTOR-FAKTOR YANG MEMPENGARUHI PERILAKU FOOD WASTE (STUDI KASUS MASYARAKAT KOTA SURAKARTA). *Agritepa*, 8(2), 165–174. <https://doi.org/10.31857/s013116462104007x>
- Suharto. (2016). Pengaruh Budaya Terhadap Keputusan Pembelian Menggunakan Variabel Sosial Dan Pribadi Sebagai Mediasi Produk Air Minum Kemasan. *Derivatif*, 10(1), 26–44.
- Suminar, E. (2020). Simbol dan makna sirih pinang pada suku atoni pah meto di timor tengah utara. *Komunikasi Dan Bisnis*, VIII(1), 55–62.
- Suryono, C., Ningrum, L., & Dewi, T. R. (2018). Uji Kesukaan dan Organoleptik Terhadap 5 Kemasan Dan Produk Kepulauan Seribu Secara Deskriptif. *Jurnal Pariwisata*, 5(2). <https://doi.org/10.31311/par.v5i2.3526>
- Taena, W., Rustiadi E., & Hariyoga, H. (2010). Pengembangan Wilayah Perbatasan Kabupaten Timor Tengah Utara Dengan Distrik Enclave Oekusi Sebagai Kawasan Agropolitan. *Forum Pasca Sarjana*, 33(1), 35-33. <http://repository.ipb.ac.id/handle/123456789/5909>
- Yunita, Y., & Arbi, M. (2019). KARAKTERISTIK KONSUMEN DAN PREFERENSINYA TERHADAP ATRIBUT BERAS BERDASARKAN GOLONGAN TINGKAT PENDAPATAN DI KOTA PALEMBANG. *JSEP (Journal of Social and Agricultural Economics)*, 12(3). <https://doi.org/10.19184/jsep.v12i03.14500>