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CONSUMER PREFERENCES ANALYSIS OF WHITE RICE LABELED ON RICE ATTRIBUTES IN THE CITY OF BANJARBARU

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ABSTRACT

Rice is a basic need for most Indonesian people. Rice with packaging that includes various information attributes such as trademark names, prices, or degrees of quality is known as labeled rice. This study examines "Analysis of Labeled White Rice Consumer Preferences on Rice Attributes in Banjarbaru City. This study aims to analyze consumer preferences for labeled white rice in Banjarbaru. The population in this study is urban communities in Banjarbaru City that prefer labeled white rice products both those who buy in traditional markets and those who buy in modern retail markets. Determination of the number of respondents took as many as 80 people, consisting of 40 respondents in the modern retail market and 40 respondents in the traditional market. The method used in this research is conjoint analysis. From the results of the study, the main preferences that will affect consumers of labeled white rice are rice with cheap rice prices, well-known brands and rice sizes ranging from 5-10 kg with conspicuous packaging designs. The importance level of the rice price attribute has the highest overall value, which is 74.307%, while the size attribute is in second place with a percentage of 11.398%, brand attributes are in third place with a percentage of 7.280% and packaging attributes are in fourth place with a percentage of 7.014%.

KEY WORDS

Conjoined, labeled rice, preferences.

Rice is a basic need for most Indonesian people. There are many types of rice in Indonesia. The types of original Indonesian rice that can be enjoyed by the public are pandan fragrant rice, IR 64 or rojolele, IR 42, IR 36, ciherang, taj mahal, cisokan, margasari, logawa. In addition, there are also types of local rice native to South Kalimantan such as Siamese, Mayang, Unus, Pay, Lemo, Karang Dukuh, Pandak and others. Rice with packaging that includes information attributes such as the name of the trademark, manufacturer, or degree of quality. In trade, this kind of packaged rice is known as labeled rice.

According to McCluskey and Loureiro (2003), consumers are increasingly interested in labeled food products following the increasing awareness for a healthier, safer and more environmentally friendly life. Labeled food is present as an answer to the dilemma of incomplete information about food safety. This awareness makes consumers ready to pay more for labeled products that have health, safety, and environmentally friendly guarantees.

Attribute Product is a measure of the consumer's relationship to a product. This size is able to provide an idea of possible whether or not a consumer likes the product, especially if the product was found that there was a change in either the price or other attributes. The number of choices of organic rice on the market will affect consumers of rice products, consumers also have many choices in buying rice products so it is possible to try, feel and assess rice products. It is important for producers to analyze consumer perceptions. In analyzing consumer preferences for labeled white rice in this study, four attributes were used, namely price, brand, size, and packaging design. In this study, the product studied was a labeled white rice product, while the target segment is people who consume labeled white rice, especially in Banjarbaru. Consumer preferences are important in order to obtain input from consumers about the products being marketed and the decision-making process in purchasing by consumers. This preference will become a source of information for



producers/sellers to develop their products for the better so that they can increase their income.

Problem formulation: what are consumer preferences for labeled white rice, especially about attributes (price, brand, size, and packaging design of labeled white rice).

Research objectives: to analyze consumer preferences of labeled white rice on rice attributes in Banjarbaru City.

Usefulness of research: to producers and investors as input and marketing information for labeled white rice products that can be done for business development; as an expansion of scientific studies concerning the marketing of labeled white rice products.

LITERATURE REVIEW

Rice is a food ingredient obtained from the processing of grain. Grain is formed from rice seeds that have been separated from the rice plant (*Oryza sativa* L.). Rice plants are native to eastern Asia and northern India. Rice plants grow in areas with a geographical location of 30°N to 30°LS and grow at an altitude of 2500 m above sea level. In Indonesia, rice has adapted to an altitude range of 0-1500 m above sea level. The temperature suitable for rice growth is 30-37°C, the minimum temperature is 10-12°C and the maximum is 40-42°C (Sadjat, 1976).

Rice circulating in the market is generally already labeled, but does not comply with the requirements of the food product labeling system rules listed in Government Regulation no. 69 of 1999 concerning Food Labels and Advertisements, and Regulation of the Minister of Health No. 79/Menkes/Per/III/1978 concerning food labels and advertising. Example: the name of the variety is used as a trademark that does not match its contents, the brand is Rojolele Rice or Pandanwangi Rice, but the contents are IR-64 variety rice. Permenkes No.79/Menkes/Per/III/1978 states that at least include: name/trademark, composition, net contents, name and address of the company producing or distributing it, registration number and product code. The rice packaging has not listed the composition and registration number. Whereas regulations require the inclusion of labels on marketed commodities such as Law no. 18 of 2012 concerning Food, Law no. 8 of 1999 concerning Consumer Protection, Government Regulation No. 69 of 1999 concerning Food Labels and Advertisements. Ministry of Agriculture No. 15 of 2021 concerning Standards for Business Activities and Product Standards in the Implementation of Risk-Based Business Licensing in the Agriculture and Ministry of Agriculture Sector No. 53 of 2018 concerning Food Safety and Quality of Fresh Food of Plant Origin (PSAT).

Consumer behavior according to Engel is: "*Consumer behavior is defined as the acts of individuals directly involved in obtaining and using economic good service including the decision process that precedes and determines these acts*". directly involved in obtaining and using economic goods and services, including the decision-making processes that precede and determine these actions.

Consumer preference is a person's choice of liking or disliking the products (goods or services) that are consumed. Consumer preferences show consumer preferences from a wide selection of existing products (Kotler, 2001).

Conjoint analysis is a multivariate technique that is used specifically to find out how consumers prefer a product or service and to help get the combination or content of attributes of a product or service, both new and old, that consumers like the most. Attributes are elements contained in a product that serves to describe the character of the product (Hair et al., 1995).

METHODS OF RESEARCH

The research location is in Banjarbaru City, South Kalimantan Province. This location was chosen after three pre-surveys were conducted. The consideration for choosing this location is because the area is an urban area where the average population is educated and



has an upper-middle income level and is one of the labeled white rice marketing areas. The period of data collection in the field is about 1 (one) month, namely March 2022.

The types of data collected in this study are primary data and secondary data. Primary data is data collected directly from the field by interview method using previously prepared questionnaires. Secondary data is data collected from indirect sources, generally obtained through the relevant agencies/services/agencies in the data collection process.

The population in this study is urban communities in Banjarbaru City who consume labeled white rice products, both those who buy labeled rice in traditional markets and those who buy labeled rice in modern retail markets. The sampling technique in this study uses deliberate sampling by using *judgment sampling*. The sample used in this study were 80 respondents (80 people) consisting of 40 respondents in the modern retail market and 40 respondents in the traditional market.

To analyze consumer preferences for the attributes of labeled white rice products, a conjoint analysis model was used. Conjoint analysis in principle aims to estimate the respondent's opinion pattern which is called the estimated part-worth opinion of the respondent actual in the profile.

The operational definition in this research is as follows:

- Consumer preference is the consumer's choice of liking or disliking product attributes, in this case is labeled white rice (Kotler, 1997). The measurement is done by looking at consumer evaluations of rice attributes;
- According to McCluskey and Loureiro (2003), consumers are increasingly interested in labeled food products following the increasing awareness for a healthier, safer and more environmentally friendly life;
- Labeled food is present as an answer to the dilemma of incomplete information about food safety;
- Rice attributes are characteristics found in rice that serve as assessment criteria in decision making. Attributes to be studied include: price, brand, size, packaging design;
- The price of rice is a series of consumer perceptions and impressions about the price of rice purchased. The price of rice can be divided into expensive, medium and cheap;
- Rice brand is a series of meanings or impressions of a rice brand. Rice brands are divided into well-known and not well-known brands;
- Rice size is a series of consumer perceptions and impressions about the satisfaction obtained from the size of the rice package. The size of the rice is divided into, for example, < 5 kg, 5-10 kg, and > 10 kg;
- The packaging design in this study means whether the rice packaging has a striking appearance or is it normal.

RESULTS AND DISCUSSION

Respondents who consumed white rice with labels in this study were dominated by female respondents that are equal to 77 respondents (96.25%), while the smallest is male as many as 3 respondents (3.75%). Women are known to be more careful in making purchases than men, especially in choosing the form of product to be purchased up to the price of the product. In addition, women are also potential buyers because of their behavior which tends to buy more products and is attracted more quickly.

Respondents consuming white rice labeled in this study were dominated by respondents who were old, namely respondents who had an age range between > 50, namely 23 respondents (28.75%). age range is classified as old age, where this age group is a group that is more careful in buying because they have a lot of experience in deciding the purchase of a rice product for consumption, making it possible to draw consistent conclusions compared to the younger age group.

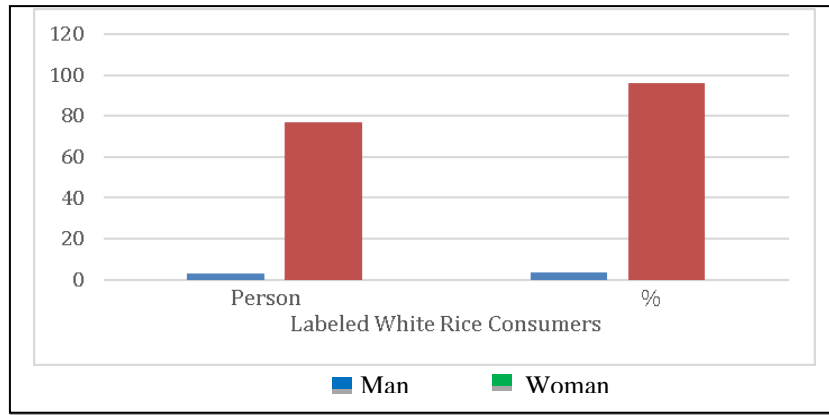


Figure 1 – Gender of Respondents.

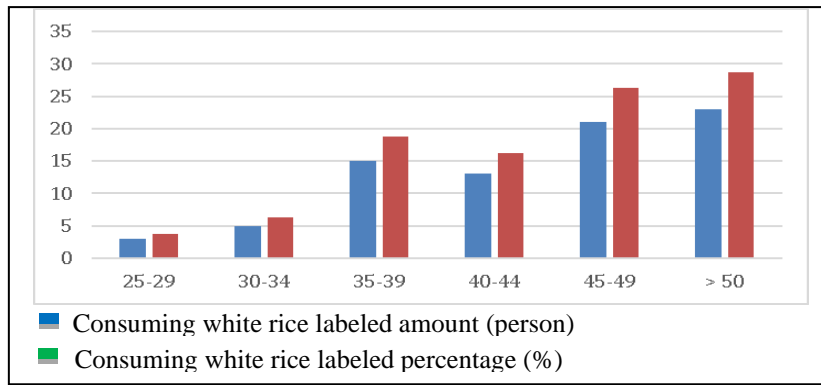


Figure 2 – Respondent's Age

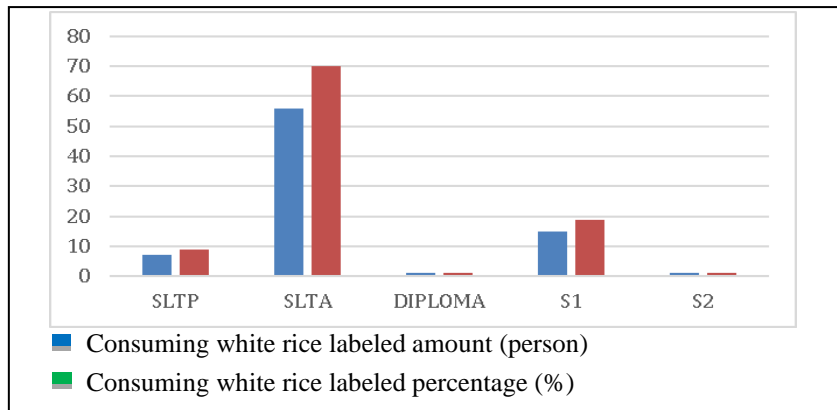


Figure 3 – Educational Level of

Respondents who consumed white rice labeled in this study were mostly high school graduates, as many as 56 respondents (70%). Most of the respondents who buy rice in traditional markets have a high school education, while those who buy rice in modern markets are mostly at the undergraduate level. This shows that all respondents who bought labeled white rice had formal education. Based on this, it can be seen that respondents have a fairly good knowledge of what their tastes are for shopping at the market. The knowledge referred to includes a person's experience of buying rice based on rice attributes. The higher the level of consumer education, the easier it will be to receive and absorb information about the products they consume. Consumers who have a fairly high level of education mean that they have broad enough information and knowledge, so that they will influence consumers in purchasing decisions.



Labeled white rice is consumed by consumers from various backgrounds and types of work. The results showed that most of the respondents who bought labeled white rice were housewives with a total of 25 respondents with a percentage of 31.25 percent, where housewives have a focused role in taking care of the household, especially managing the implementation of various kinds of household work, whether it is taking care of various household chores or shopping for daily needs, such as rice.

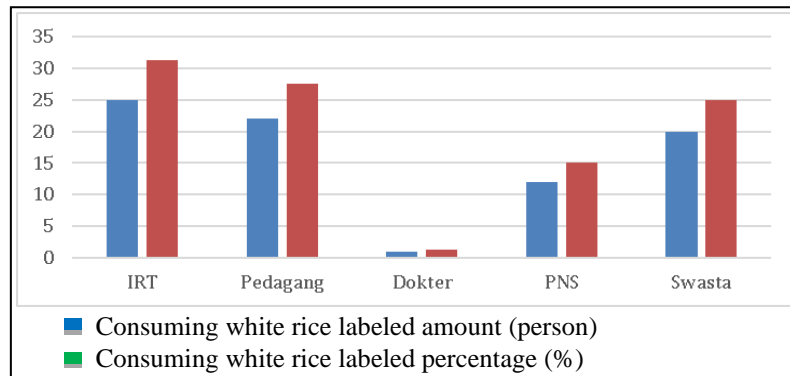


Figure 4 – Respondents' Job

Based on the results of the study, a recapitulation of the rating results was carried out by calculating the order of the profiles chosen by the respondents from the most to the least, and then the calculation of the mean (average) was also included to determine the highest frequency level.

Table 1 – Preference Rating of Labeled White Rice Consumers on Rice Attributes

| Ranking | Profile | Total | Mean |
|---------|--|-------|--------|
| 1 | Profile 8 Price, well-known brand, size 5 - 10 kg, packaging design striking | 361 | 4,5125 |
| 2 | Profile 2 Low price, famous brand, size < 5 Kg, Ordinary packaging design | 330 | 4,125 |
| 3 | Profile 1 Price, unknown brand, size > 10 kg, flashy packaging design | 308 | 3.85 |
| 4 | Profile 5 Medium price, brand not well-known, size < 5 kg, striking packaging design | 187 | 2.3375 |
| 5 | Profile 3 Medium price, well-known brand, size > 10 kg, ordinary packaging design | 183 | 2.2875 |
| 6 | Profile 4 Medium price, well-known brand, size 5 - 10 kg, flashy packaging design | 182 | 2,275 |
| 7 | Profile 7 Price, well-known brand, size < 5 kg, flashy packaging design | 167 | 2,0875 |
| 8 | Profile 9 Price, unknown brand, size 5-10 kg, ordinary packaging design | 166 | 2,075 |
| 9 | Profile 6 Expensive price, famous brand, size > 10 kg, design striking packaging | 162 | 2,025 |

By looking at the ranking results in Table 1, profile 8, namely products with low prices, well-known brands, sizes 5 - 10 kg and flashy packaging designs are the product profiles most preferred by respondents with labeled white rice which has a score of 361 with a mean 4,5125. Meanwhile, the most disliked profile for labeled white rice respondents is profile 6, namely products with high prices, well-known brands, sizes > 10 kg and flashy packaging designs with a total score of 162 and a mean of 2,025.

To determine the relative importance of attributes, utility level attributes, and the combination of respondents' main preferences for rice products, conjoint analysis was used.

Table 2 – Conjoint Analysis

| n/n | Utility Estimate | Importance Values |
|------------------|------------------|-------------------|
| Price | -0.779 | 74.307 |
| | moderate | 1.321 |
| | cheap | Famous |
| Brand | -0.063 | 0.063 |
| | Unknown | Size |
| Weight | < 5 kg | 0.004 |
| | 5- 10 kg | 0.117 |
| | > 10 kg | -0.121 Striking |
| Design packaging | -0.006 | 0.006 |
| | ordinary | 2.819 |
| Pearson's R | 0.993 | 0.000 |
| Kendall's Tau | 0.833 | 0.001 |



From the results of Table 2 analysis, the preferences of respondents who consume white rice labeled with product attributes are as follows:

- The order of importance of attributes, the rice price attribute has the highest value with a percentage of 74.307%, while the size attribute is ranked second with a percentage of 11.398%, brand attributes in third place with a percentage of 7.280% and packaging attributes in fourth place with a percentage of 7.014%;
- The highest level of utility of the price attribute is the price of rice which is cheap (1.321), medium (-0.542) and expensive (-0.779);
- The utility of the highest level of brand attribute is well-known (0.063), while the lowest is unknown (-0.063);
- The highest size attribute level utility is 5-10 kg (0.117), then < 5 kg (0.04) and the lowest is > 10 kg (-0.121);
- The highest packaging design attribute level utility is conspicuous packaging (0.006) , while the lowest is the average packaging, which is (-0.006);
- The main combination of preferences that will affect consumers is low-priced rice, well-known brands, 5-10 kg in size and conspicuous packaging design;
- It is known that the Sig value of Pearson's R is $0.000 < 0.05$ and the Sig value of Kendall's tau is $0.001 < 0.05$ which means that the accuracy between the actual assessment and the assessment based on the estimation results is significant;
- Cheap, well-known brands and rice sizes ranging from 5-10 kg with striking packaging designs can be an opportunity to dominate a larger market share.

CONCLUSION

Based on the research conducted, the following results are obtained, namely the main preferences that will influence consumers of labeled white rice in buying are the cheap price of rice, the well-known brand and the size of the rice which ranges from 5-10 kg with a striking packaging design. The importance level of the rice price attribute has the highest overall value, which is 74.307%, while the size attribute is in second place with a percentage 11.398, brand attributes are in third place with a percentage of 7.280% and packaging attributes are in fourth place with a percentage of 7.014%.

Based on the conclusions from the results of the study, the suggestions that can be given by the author are as follows:

- To Producers of Labeled White Rice it is recommended to create a cheap price of rice without reducing the quality of the rice itself, do extra promotions so that the rice product becomes a well-known brand, produces more the size of rice is 5 – 10 kg and designing the packaging to make it more attractive by playing with colors or pictures on the rice packaging and so on, for marketing labeled white rice in Banjarbaru City;
- To expand the study, it is necessary to conduct further research on the preference for labeled white rice in the City of Banjarbaru by adding several attributes that are unique to the people of Banjarbaru city which are plural, for example, one of them is about the image of taste (rice crunchy after processing) and so on.

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