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ANALYSIS OF FACTORS AFFECTING PURCHASING DECISION CONSUMERS OF COCONUT COOKING OIL IN THE MODERN MARKET IN SEMARANG

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Abstract: This study aims to determine the characteristics of consumers of coconut cooking oil and analyze the factors that influence the purchase decisions of coconut cooking oil in the Modern Market of Semarang City. The study was conducted in Transmart Setiabudi, Gelael Sultan Agung, Farmer's Market, and Hypermart Semarang City in October - November 2022. The research method was a survey method with a questionnaire. The sampling method was using the Accidental Sampling method with a total sample of 100 respondents. Data were analyzed descriptively and logistic regression analysis using SPSS software. The results showed that the product, price, location, social, individual, and psychological simultaneously had a significant effect on coconut cooking oil purchasing decisions in the Modern Market of Semarang City. Variable product, price, location, social, individual, and psychological partially had a significant effect on coconut cooking oil purchasing decisions in Semarang Modern Market. For coconut cooking oil producers that supply to the modern market to be able to improve the promotion dan culture can increase the demand for coconut cooking oil market.

Keywords: coconut; cooking oil; decision; purchase.

INTRODUCTION

Today, Indonesian people are beginning to realize the importance of healthy living. This can be proven by the increasing consumption of coconut cooking oil in Indonesia as a form of lifestyle change. Oil in its development has been used as a raw material to meet the needs of the community in terms of food and non-food (Sukandar, 2008). The average consumption of coconut cooking oil per capita in Semarang City increased by 0.007 liters/week/year, which was 0.005 liters/week/year in 2020 to 0.012 liters/week/year in 2021 (Central Bureau of Statistics, 2021).

Urban areas have people with diverse income and employment levels that influence the decision to purchase coconut cooking oil products as cooking oil. The level of people's desire to consume coconut cooking oil (coconut cooking oil) influences purchasing decisions, namely product, price, location, promotional, social, cultural, and psychological factors derived from buyer characteristics, while service factors are influential factors from market segments.

Cooking oil with coconut meat raw materials (coconut meat) is expected to provide a lot of good for health because as a source and solvent of vitamins A, D, E, and K and contains antimicrobials, antioxidants, essential acids, unsaturated fats and vitamin solvents (Shilling et al., 2013). Unsaturated fats contained in coconut cooking oil contain omega 3 and omega 6, and there are essential fatty acids that function to prevent the narrowing of blood vessels due to cholesterol buildups, such as lauric acid, linoleic acid, linolenic acid, and arachidonic acid (Intahphuak et al., 2010). The nutritional content contained in old coconut every 100 grams, namely 359 cal calories, 34 g protein, 34.7 g fat, 14 g carbohydrates, 21 mg calcium, 21 mg phosphorus, 2 mg iron, 0.01 IU vitamin A, 0.1 mg thiamine, 2 mg ascorbic acid, and 46.9 g water (Ketaren, 2008).

Generally, the purchasing decision process of coconut cooking oil consumers occurs in the modern market. The modern market is a market that targets the upper middle class by offering the quality of an item, besides that it also has a large and strong distribution network that affects the selling price of the products offered to consumers (Rahanita and Suliswanto, 2018). The advantages of the modern market that become the fundamental attraction of consumers are understanding the changing needs and desires of consumers, as well as providing comfort and security (Wijayanti and Winarno, 2011).

The purchase decision of a product with a particular brand will begin with several steps, namely the introduction of needs, information search, alternative evaluation, evaluation criteria, and determination of choices (Sumarwan, 2011). Search can be done internally and externally (Sumarwan, 2014). Internal through remembering the product then focuses on products that are very familiar and external through the environment around the consumer and information obtained such as brand alternatives, evaluation criteria and level of importance.

MATERIALS AND METHODS

This research was carried out in August - September 2022 in four modern markets in Semarang City, namely Transmart Setiabudi on Jl. Jend. Pol. Anton Sujarwo No. 119, Gelael on Jl. Sultan Agung No. 97, Hypermart Paragon Mall on Jl. Pemuda No. 118 and Farmers Market on Jl. Gajahmada No. 123. The place of study is determined by purposive methods. The method used in this study is a survey method. The data collection technique in this method is carried out by distributing questionnaires.

Sampling in this study used non-probability sampling techniques using the side accidental method. The following method is used due to the unknown population of coconut cooking oil consumers in the modern market of Semarang City. Lemeshow's formula is as follows:

n=

$$\frac{Z^2 \cdot p(1-p)}{E^2} = \frac{(1,96)^2 \cdot 0,5(1-0,5)}{(0,1)^2} = 96,04 \approx 100 \text{ responden}$$

Description: n: Number of samples

Z: Z value at 95% confidence level

p: Proportion of population

E: Desired sampling error

(Lemeshow et al., 1997)

Based on these calculations, the number of samples used in this study was 96.04 or rounded to 100 respondents. If in determining the number of samples in the four modern markets, it will be further divided so that each population has a sample of 25 respondents. This can be obtained by using quota sampling. Respondents in this study are consumers of coconut cooking oil in the modern market of Semarang City who have respondent criteria such as having purchased coconut cooking oil products at least once in the past month.

Data collection conducted in this study used two sources, namely primary data and secondary data. Primary data was obtained directly by distributing questionnaires to coconut cooking oil consumers in the modern market of Semarang City. Meanwhile, secondary data is obtained indirectly by collecting data and information from various print and electronic media, such as journals, research, books, data from the Central Statistics Agency (BPS), and other references related to research to support primary data information that has been obtained.

Data that has been obtained from the results of the study is then tabulated using Microsoft Office Excel software tools and data analysis is carried out. The data analysis conducted in this study was descriptive analysis and logistic regression analysis. Descriptive analysis is used to determine consumer characteristics and the decision-making process of purchasing coconut cooking oil products in Semarang Modern Market. Meanwhile, logistic regression analysis is used to determine how much influence the factors influence the purchase of coconut cooking oil products in the Semarang Modern Market. This study uses validity and reality tests to test the feasibility of the instrument which is then continued with the Goodness of Fit test, Omnibus Test, Pseudo R Square (R^2) test, Wald test, and Odd Ratio test to test Logistic Regression Analysis.

RESULTS AND DISCUSSION

Characteristics of Respondents

Respondents in this study were consumers of coconut cooking oil at Pasar Modern Transmart Setiabudi, Gelael Sultan Agung, Farmer's Market, and Hypermart who were met by researchers who were making purchasing decisions. The number of respondents taken in the study was 100 respondents divided into 25 respondents in each research location. The characteristics of respondents in this study are reviewed from gender, age, education level, occupation, and level of respondents' opinions.

Based on gender, it can be seen that the characteristics of respondents who consume coconut cooking oil in Semarang Modern Market are dominated by 75 women with a percentage of 75%. This shows that in shopping for coconut cooking oil, consumers of the female gender are more often found in Semarang Modern Market.

Based on age, it can be seen that the characteristics of respondents who are consumers of coconut cooking oil in the Semarang Modern Market are dominated by consumers aged between 35 - 45 years as many as 40 people with a percentage of 40%. This shows that the majority of coconut cooking oil consumers in Semarang Modern Market are at productive age.

Based on the level of education, it can be seen that the characteristics of respondents show that consumers of coconut cooking oil in the Semarang Modern Market are dominated by the Bachelor (S1) level as many as 46 people with a percentage of 46%. This shows that consumers of coconut cooking oil (coconut cooking oil) are consumers who are classified as having a high level of education and good science.

Based on work, it can be seen that the characteristics of respondents show that consumers of coconut cooking oil in Semarang Modern Market are dominated by Housewives (IRT) as many as 43 people with a percentage of 43%. Some respondents with this type of work also concurrently serve as housewives, so they still have the task to shop for quality household staples such as coconut cooking oil.

Based on the level of income, it can be seen that the characteristics of respondents show that consumers of coconut cooking oil in Semarang Modern Market are dominated by > IDR 10,000,000 as many as 39 people with a percentage of 39%. This shows that the average income level of coconut cooking oil consumers in the Semarang Modern Market is classified as middle to upper because it has an income level above the Semarang City Minimum Wage (UMK), which is Rp. 2,835,021.29 based on the Decree of the Governor of Central Java Number 561/39 of 2021 concerning Minimum Wages in 35 Regencies / Cities in Central Java Province in 2022.

Purchasing Behavior

The consumer purchasing behavior of coconut cooking oil in Semarang Modern Market is reviewed based on product brand, product size, number of products per purchase, frequency of purchases per month, and monthly purchase expenditure

Based on the product brand, it can be seen that the purchasing behavior of coconut cooking oil consumers in the Semarang Modern Market is dominated by the Barco brand as many as 56 products with a percentage of 56%. This shows that consumers prefer coconut cooking oil products with well-known brands in the market rather than less well-known ones.

Based on product size, it can be seen that the purchasing behavior of coconut cooking oil consumers in Pasar Modern Kota is dominated by the size of 1000 ml as many as 78 products with a percentage of 78%. This shows that coconut cooking oil with a size of 1000 ml is more practical in shopping because it can meet other shopping needs.

Based on the number of products, it can be seen that the purchasing behavior of coconut cooking oil consumers in Pasar Modern Kota is dominated by 2 packs per purchase of 50 products with a percentage of 50%. This shows that various cooking oil quantities are obtained by consumers in minimarkets, supermarkets, and hypermarkets with an average purchase frequency of 2 packs a month.

Based on the frequency of purchases, it can be seen that the purchasing behavior of coconut cooking oil consumers in the Semarang Modern Market is dominated 2 times a month with a percentage of 33%. This shows that consumers of coconut cooking oil in Semarang Modern Market have different needs every month

Based on purchase expenditures, it can be seen that the purchasing behavior of coconut cooking oil consumers in the Semarang Modern Market is dominated by > IDR 100,000 – IDR 200,000 with a percentage of 56%. This shows that the expenditure on purchasing coconut cooking oil consumers varies.

The Relationship between Income Level and Purchase Frequency

Based on the results of cross-tabulation between income level and purchase frequency, a probability of significance of 0.036 < α = 0.05 and a Chi-Square value of 16.471 were obtained. This means that income level has a relationship or influence on the frequency of consumer purchases of coconut cooking oil (coconut cooking oil) in the Semarang City Modern Market. It is known that the majority of coconut cooking oil consumers in Semarang Modern Market with an income level range of > IDR 10,000,000 have sufficient purchase frequency, which is 2 times a month. This shows that there is a relationship between income level and purchase frequency, where the higher the level of consumer income, the frequency of purchasing coconut cooking oil in Semarang Modern Market also increases.

Factors Influencing Purchasing Decisions

The factors influencing purchasing decisions in this study were analyzed using logistic regression analysis. The dependent variable (Y) in this analysis is a purchase decision categorized into two, namely Y = 1 means buying, and Y = 0 means not buying. While the independent variables (X) used as factors that are thought to influence purchasing decisions are product (X1), price (X2), promotion (X3), location (X4), social (X5), culture (X6), individual (X7) and psychological (X8). Logistic regression analysis in this study was carried out using

the help of a computer application program package in the form of Statistical Program for Social Science (SPSS) version 23. The output results that need to be considered in logistic regression analysis are Goodness of Fit testing with Hosmer Lemeshow and Nagelkerke R Square, simultaneous testing with the Omnibus Test of Model Coefficients, partial testing with the Wald test, and Odd Ratio interpretation.

Validity Test

Table 1. Validity Test Results

Variable	Sig. Pearson correlation				
	1	2	3	4	5
Products (X1)	0,000	0,000	0,000	0,000	0,000
Price (X2)	0,000	0,000	0,000	0,000	0,000
Promotion (X3)	0,000	0,000	0,000	0,000	0,000
Location (X4)	0,000	0,000	0,000	0,000	0,000
Social (X5)	0,000	0,000	0,000	0,000	0,000
Culture (X6)	0,000	0,000	0,000	0,000	0,000
Individual (X7)	0,000	0,000	0,000	0,000	0,000
Psychological (X8)	0,000	0,000	0,000	0,000	0,000

Source: Primary Data Processing (2022)

The validity test results of each variable were analyzed using the significance value of Pearson's correlation with the hypothesis H_0: invalid instrument and H_1: valid instrument. H0 is rejected if the Pearson correlation value > the Pearson table correlation or the sig value. < α so the questionnaire is said to be valid. Each variable in this study has an average sig value. 0.000 so that H0 is rejected and H1 is accepted because of the value of sig. < α = 0.05 or the questionnaire in this study is valid.

Reliability Test

Table 2. Reliability Test Results

Variable	Cronbach's Alpha
Products (X1)	0,820
Price (X2)	0,824
Promotion (X3)	0,824
Location (X4)	0,821
Social (X5)	0,820
Culture (X6)	0,815
Individual (X7)	0,801

Psychological (X8)	0,801

Source: Primary Data Processing (2022)

The reliability test results of each variable were analyzed using Cronbach's Alpha with hypotheses H_0: reliable instruments and H_1: unreliable instruments. H0 is accepted if Cronbach's Alpha value > 0.7 so that the questionnaire to be used in the study is said to be reliable and can be used repeatedly. The results showed that each variable in this study had a Cronbach's Alpha value of more than 0.8 so H 0 was accepted because Cronbach's Alpha value = 0.8 > 0.7 or the questionnaire in this study was reliable, meaning that at different times with the same questionnaire produced fixed answers.

Logistic Regression Test

Table 3. Logistic Regression Test Results

Test		Result
Omnibus test	Chi-square	16,729
	Itself.	0,033
Nagelkerke R Square		0,626
Hosmer and Lemeshow	Chi-square	10,624
	Itself.	0,224

Source: Primary Data Processing (2022)

The Omnibus test in this study produced a Chi-square value = 16.729 > a table Chi-square value = 15.51 for free degrees df = 8 and α = 0.05 or a big value. = 0.033 < α = 0.05 so that H_0 is rejected and H1 is accepted. Based on the Omnibus Test, it can be concluded that product, price, promotion, location, social, cultural, individual, and psychological variables simultaneously have a significant effect on purchasing decisions for coconut cooking oil at the Semarang Modern Market.

The value of the coefficient of determination using Nagelkerke R Square is 0.626. This shows that all independent variables in this model, namely product, price, promotion, location, social, cultural, individual, and psychological variables can explain purchasing decisions by 0.626 or 62.6% and the remaining 37.4% is explained by other variables that are not included in the study, such as personal selling, distribution channels and so on (Silvia, 2020).

The results of the model conformity test using the Hosmer and Lemeshow test with hypotheses H_0: accepted and H_1: rejected. The test criterion is H0 rejected if the Chi-square value > Chi-square table or sig value. < α. Hosmer and Lemeshow's test in this study yielded a Chi-square value = 10.624 < a table Chi-square value = 15.51 for free degrees df = 8 and α = 0.05 or a big value. = 0.224 > α = 0.05 so that H_0 is accepted. Based on the test of Hosmer and Lemeshow, it can be concluded that the

logistic regression model for purchasing decisions for coconut cooking oil in the Modern Market of Semarang City is

appropriate.

Uji Odd Ratio

Table 4. Variable coefficient value

Variable	Coefficient (b)	Wald (sig.)	Odds Ratio (exp β)
(Constant)	-1.505	0.576	0.222
Product	0.780	0.011	2.181
Price	1.272	0.003	0.279
Promotion	-0.008	0.972	1.008
Location	1.477	0.006	4.379
Social	0.40	0.089	1.041
Culture	-0.951	0.024	0.386
Individual	0.032	0.910	0.969
Psychological	0.969	0.025	1.101

Source: Primary Data Processing (2022)

Based on product variables, it can be known that the odd ratio value is 2.188 with a positive B coefficient of 0.780. Coefficient B shows a positive influence on the purchase decision of coconut cooking oil assuming the other variables are constant.

Based on the price variable, it can be known that the odd ratio value is 0.279 with a positive B coefficient of 1.272. Coefficient B shows a positive influence on the purchase decision of coconut cooking oil assuming the other variables are constant.

Based on the promotion variable, it can be known that the odd ratio value is 1.008 with a coefficient B of -0.008. A negative sign on coefficient B indicates a negative influence on the purchase decision of coconut cooking oil assuming the other variables are constant.

Based on the location variable, it can be known that the odd ratio value is 4.379 with a positive B coefficient of 1.477.

Coefficient B shows a positive influence on the purchase decision of coconut cooking oil assuming the other variables are constant.

Based on social variables, it can be known that the odd ratio value is 1.041 with a positive B coefficient of 0.40. Coefficient B shows a positive influence on the purchase decision of coconut cooking oil assuming the other variables are constant.

Based on cultural variables, it can be known that the odd ratio value is 0.386 with a coefficient B of -0.951. A negative sign on coefficient B indicates a negative influence on the purchase decision of coconut cooking oil assuming other variables are constant

Based on individual variables, it can be known that the odd ratio value is 0.969 with a positive B coefficient of 0.032. Coefficient B shows a positive influence on the purchase decision of coconut cooking oil

assuming the other variables are constant.

Based on psychological variables, it can be known that the odd ratio value is 1.101 with a positive B coefficient of 0.969.

Uji Forest

Based on the price variable, it can be seen that the results of the Wald test produce a significance value of $0.003 < \alpha = 0.05$ then H_0 is rejected and H_1 is accepted. It can be concluded that price variables have a significant partial effect on the decision to purchase coconut cooking oil in the Semarang Modern Market

Based on the promotion variable, it can be seen that the results of the Wald test produce a significance value of $0.975 > \alpha = 0.05$ then H_0 is accepted and H_1 is rejected. It can be concluded that the promotion variable does not have a significant partial effect on the decision to purchase coconut cooking oil at the Semarang Modern Market

Based on the location variable, it can be seen that the results of the Wald test produce a significance value of $0.006 < \alpha = 0.05$ then H_0 is rejected and H_1 is accepted. It can be concluded that the location variable has a significant partial effect on the decision to purchase coconut cooking oil in the Semarang Modern Market

Based on social variables, it can be seen that the results of the Wald test produce a significance value of $0.089 < \alpha = 0.05$ then H_0 is rejected and H_1 is accepted. It can be concluded that social variables

Coefficient B shows a positive influence on the purchase decision of coconut cooking oil assuming the other variables are constant.

have a significant partial effect on the decision to purchase coconut cooking oil in the Semarang Modern Market

Based on cultural variables, it can be seen that the results of the Wald test produce a significance value of $0.910 > \alpha = 0.05$ then H_0 is accepted and H_1 is rejected. It can be concluded that cultural variables do not have a significant partial effect on the decision to purchase coconut cooking oil at the Semarang Modern Market

Based on individual variables, it can be seen that the Wald test results in a significance value of $0.024 < \alpha = 0.05$ then H_0 is rejected and H_1 is accepted. It can be concluded that individual variables have a significant partial effect on the decision to purchase coconut cooking oil in the Semarang Modern Market

Based on psychological variables, it can be seen that the results of the Wald test produce a significance value of $0.025 < \alpha = 0.05$ then H_0 is rejected and H_1 is accepted. It can be concluded that psychological variables have a significant partial effect on the decision to purchase coconut cooking oil in the Semarang Modern Market

The logistic regression equation formed for the purchase decision of coconut cooking oil is as follows:

$$Y = \ln = -1.505 + 0.780X1 - 1.276X \left(\frac{p}{1-p}\right)2 + 0.008X_3 + \ldots\ldots + 0.096X_8 + e \ldots\ldots (6)$$

Or in the form of P:

$$P = \frac{e^{-1.505+0.780X1-1.276X2+0.008X3+1.447X4+0.040X5-0.951X6-0.032X7+0.096X8}}{1 + e^{-1.505+0.780X1-1.276X2+0.008X3+1.447X4+0.040X5-0.951X6-0.032X7+0.096X8}}$$

The equation of the logistic regression model is to calculate the estimated value of the opportunity for the emergence of coconut cooking oil purchase decisions in the Semarang City Modern Market.

Estimation of Logistic Regression Parameters at the Lowest Scale

Table 5. Estimation of Logistic Regression Parameters at the Lowest Scale

Variable	Information	Characteristics of Respondents
X1	Product	Strongly Disagree (5)
X2	Price	Strongly Disagree (5)
X3	Promotion	Strongly Disagree (5)
X4	Location	Strongly Disagree (5)
X5	Social	Strongly Disagree (5)
X6	Culture	Strongly Disagree (5)
X7	Individual	Strongly Disagree (5)
X8	Psychological	Strongly Disagree (5)
Opportunity Value		0,234

Based on the calculation results, it can be seen that the average chance with the lowest rating scale, where consumers strongly disagree that explanatory variables influence the decision to purchase coconut cooking oil in the Semarang Modern Market is 0.234 or 23.4%.

Estimation of Logistic Regression Parameters at the Highest Scale

Table 6. Estimation of Logistic Regression Parameters at the Highest Scale

Variable	Information	Characteristics of Respondents
X1	Product	Very Agree (1)
X2	Price	Very Agree (1)
X3	Promotion	Very Agree (1)
X4	Location	Very Agree (1)
X5	Social	Very Agree (1)
X6	Culture	Very Agree (1)
X7	Individual	Very Agree (1)
X8	Psychological	Very Agree (1)
Opportunity Value	0,790	

Source: Primary Data Processing (2022)

Based on the calculation results, it can be seen that the average opportunity with the highest rating scale, where consumers strongly agree that explanatory variables influence the decision to purchase coconut cooking oil (coconut cooking oil) in the Semarang Modern Market by 0.790 or 79%.

Accuracy of Classification of Purchasing Decisions

Table 7. Accuracy of Classification of Purchasing Decisions

Observation	Predictions		True (%)
	Not Buying	Buy	
Not Buying	6	21	22,2
Buy	4	69	94,5
Overall (%)			75

Source: Primary Data Processing (2022)

The accuracy of measurement in this study is based on obtaining a classification accuracy value of 75%, which means that the equation of the proposed logistic regression model shows the grouping of respondents' decisions in purchasing coconut cooking oil correctly by 75% and the remaining 25% of respondents did not decide to buy. The decision of respondents who did not buy coconut cooking oil has been correctly grouped by 22.2% and the remaining 77.8% experienced misclassification in the decision not to buy. The decision of respondents who buy coconut cooking oil is grouped correctly by 69% and the remaining 31% have misclassified in the decision to buy

CONCLUSIONS

Consumers of coconut cooking oil in Semarang Modern Market have dominated women, the majority are aged between 36 - 45 years, educational background is dominated by Bachelor (S1) level, type of work is dominated by Housewives (IRT) and the average income level is > Rp 10,000,000,-. The majority of coconut cooking oil consumers in Semarang Modern Market choose the 1000 ml Barco brand with an average purchase of 2 packs in one month, having an average purchase frequency of 2 times a month with purchase expenditures ranging from > IDR 100,000 – IDR 200,000 per month.

The results of logistic regression analysis show that simultaneously (simultaneously) product, price, location, social, individual, and psychological variables have a significant effect on purchasing decisions for coconut cooking oil in the Semarang Modern Market. Partially, product, price, location, social, individual, and psychological variables have a significant effect on the decision to purchase coconut cooking oil in the Semarang Modern Market.

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