Consumers purchasing decisions on local and national retail bakery products based on price

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Abstract. Purchase decision is the thought process that leads a consumer from identifying a need, generating options, and choosing a specific product and brand. One of the important factors in the decision to purchase a product is the price. Price is the amount of money needed to get some combination of goods along with services. The purpose of the study is to know the influence of price towards the consumers decision purchase of local and national retail bakery products. The population of this research are undergraduate students who are active in Universitas Syiah Kuala. The samples are taken 374 students based on systematic random sampling method. Linear regression analysis technique is used to get result. The results showed that price effect significantly to the purchasing decisions of packaging bread. The magnitude of the influence of these variables about 42.6%.

1. Introduction

Purchasing decisions are based on an act or behavior of consumers to carry out purchases or transactions and influenced by several factors. Purchase decision as buyer’s decision-making stage where consumer decides to buy the product being considered [1]. Factors that influence consumer behavior in determining the purchasing decisions of each consumer are different. These factors are personal factors, cultural factors, psychological factors and cultural factors [2].

Prices will be considered by consumers before making a purchase, especially for daily needs products such as drinks, food and other basic necessities. These prices need to be considered by the manufacturer due to the tight competition with competitors. If the price offered by a competitor is lower but has a quality that is not different or even better, the producer will lose in the competition. Consumers will pay attention to the price of these products with their financial capabilities and also the benefits they will get. Previous research by [3] states that the fulfillment of consumer purchases of Indomie products is influenced by the price that is affordable and varies according to the type of product. Price is an important factor in the purchasing decision, especially for products that are frequently purchased, and in turn, influences the choices of which store, product, and brand to patronize [4]. Research by [5] reports that consumer purchasing decisions at Soto Angkring restaurant in Semarang are positively influenced by price. Previous research reported by [6] mentioned that consumer decisions in buying Woles Chips products are significantly affected by price. This explains
that prices are affordable with purchasing power or the ability of consumers to have competitiveness with other similar products and also compatibility between price and quality.

Many brands and diverse price of packaged bread are available in cafeteria, canteen and markets around Universitas Syiah Kuala. The breads majorly comprised local brands which have lower prices than national brands. Students engaged with many academic activities have the habit of consuming bread as breakfast because of the economical and practical factors. Due to many choices of the breads around them, thus they need to make purchasing decision which not only based on taste and brand but also price of the breads. Therefore in this study, impact of price to preference of the breads would be investigated. This study aims to obtain information accompanied by scientific evidence on the effect of prices on purchasing decisions on packaged bread. The results of this research would be offer information for the bread producer to have overview about consumer perception of packaged bread based on its price.

2. Materials and Method

2.1 Objects and Scope

The object of research was active undergraduate students from each faculty at Universitas Syiah Kuala. The scope of the research was to discover the influence of purchasing decisions on packaged bread products based on price.

2.2 Population and Sample

The population of this study were active undergraduate students at Universitas Syiah Kuala. The sampling method in this study was probability sampling because the profitability of elements in the population to be selected as a sample is known. The type of probability sampling chosen was systematic random sampling method. The sample member was called an object and then determined by using the Slovin (1) equation. The Slovin equation was used to have a representative number of respondent so that the results can be generalized and the calculation can be done with equations and simple calculations [7]

\[ n = \frac{N}{1+Nmoe^2} \]  

(1)

Based on calculation, the number of samples needed was 392 people. Then to determine the amount of subsample per stratum, the fraction per cluster sampling equation was used as illustrated in equation (2) as follows [7]:

\[ n_i = f_i \cdot n \]  

(2)

Based on the faculties, most respondents came from Faculty of Teaching and Education with total 25% respondents. Then followed by respondents from Faculty of Engineering with 17%, Faculty of Agriculture with 13%, Faculty of Economics and Business as much as 10%, Faculty of Social and Political Sciences as much as 7%, Faculty of Mathematics and Natural Sciences with 7%, Faculty of Law 7%, Faculty of Medicine as much as 4%, Faculty of Veterinary Medicine around 3%, Faculty of Maritime Affairs and Fisheries 4%, Faculty of Nursing 2%, and the fewest came from the Faculty of Dentistry which amounted to 1%.

2.3 Method of Data Collection

Prior investigation was conducted to identified brands of packaged bread in canteens at Universitas Syiah Kuala. The results showed that there are 15 brands of the breads comprised mostly local brands and few national brands with price range from Rp 1.000 up to Rp 4.500.
Furthermore, these 15 brands was investigated to obtained primary data of consumer preference based on the price.

Primary data was obtained from respondents using a questionnaire as measuring instrument. Questionnaires were made using some alternative answers to simplify the respondents in answering the questions. The questionnaire was distributed electronically using google forms. The questionnaire used a Likert scale with intervals of 1-5 (1: strongly disagree; 2: disagree; 3: neutral; 4: agree; 5: strongly agree). The distribution of questionnaires was done by distributing google form links to respondents through social media.

In the questionnaire, respondents were presented with a number of demographic questions and also the name of the package bread. For the name of package bread, respondents can select more than one brand that available in the cafeteria in Universitas Syiah Kuala. This choice is made to determine the respondents' perceptions and research variables on the object of research. The list of bread brands is set out in Table 1. "Other" choices are intended for packaged bread products that do not have brand names. The focus of this research was the price variable as independent variable, while the purchase decision variable is the dependent variable that is influenced by the independent variable.

2.4 Data Analysis Method
Quantitative analysis method was chosen in this study, where regression analysis was used to process the data. The analysis was carried out using SPSS tools.

2.5 Instrument Test
In quantitative research, variable measurement instruments are required to produce accurate research variable measurement data. Validity and reliability are the most standard requirements suggested by experts. Instrument testing (questionnaire) can be done to 30 respondents [8].

2.5.1 Validity Test. This test was used to measure accuracy of a technique, instrument, or process in measuring a concept. The questionnaire can be claimed valid if the questions on the questionnaire can reveal what will be measured by the questionnaire [9]. Determination of validity is measured by applying the Pearson product moment coefficient of correlation based on a comparison between the correlation values obtained between the question item scores and the critical values (r table). If the value of r count ≥ r table at 95% confidence level, it can be said that the question items are valid [10].

2.5.2 Reliability Test. The reliability test aims to measure that the instrument (questionnaire) used has a 95% confident level free from errors so that it can be used properly under different conditions. Measurements are stated consistent, if they are carried out repeatedly over the same symptoms with the same measurement instruments [10]. In this study the Cronbach Alpha technique was used to determine the level of instrument reliability of the variables. Reliability measures are considered reliable when the Cronbach Alpha value> 0.60 [11].

2.5.3 Hypothesis Test. T test is carried out to determine the relationship of independent variables and dependent variables by assuming that other independent variables are considered constant. The calculated t value of each regression coefficient will be compared with the t table value at the 5% significance level [8].

Determination test ($R^2$) was carried out to find how dependent variable is influenced by the independent variable. $R^2$ value which is close to 0 means that the dependent variable that is influenced by the independent variable has a small percentage, whereas if the value of $R^2$ moves toward 1 it means that the greater the percentage of the dependent variable that is influenced by the independent variable [12]. The accuracy of the $R^2$ value will be enhanced by the Adjusted R Square column.
3. Results and Discussion

3.1 Respondents Characteristics
Respondent characteristics were identified based on gender, age, and faculty (Undergraduate School). The results showed that 32% respondents were male, while 68% were female. Based on the age of respondents, around 56% of respondents were 21-23 years old and 44% were 18-20 years old. Based on the faculty affiliation, most respondents (25%) were students of Faculty of Teaching and Education. Then the percentage of respondents was followed by 17% respondents from Faculty of Engineering, 13% from Faculty of Agriculture, 10% from Faculty of Economics and Business, and equally 7% from Faculty of Social and Political Sciences, Faculty of Mathematics and Natural Sciences and Faculty of Law, respectively. Moreover, the respondents from Faculty of Medicine were 4%, Faculty of Veterinary Medicine were around 3%, Faculty of Maritime Affairs and Fisheries were 4%, Faculty of Nursing were 2%, and the fewest respondents were from the Faculty of Dentistry (1%).

3.2 Bread Brands
The object of this research was brands of bread products that were available in cafeteria of Faculty in Universitas Syiah Kuala. The respondents choose bread products that normally bought. The brands of bread products chosen by respondents were provided in Table 1. Based on Table 1, Sari Roti is the most favorable to purchase brand among other brands, even though it has higher price compared to other brands.

Table 1. List of packaged bread products purchased in cafeteria at University Syiah Kuala

| No | Bread brands            | Quantity |
|----|-------------------------|----------|
| 1. | Mumtaz                  | 3        |
| 2. | Sari Roti               | 336      |
| 3. | Anugrah Bakery          | 15       |
| 4. | Monas Bakery Pastries   | 45       |
| 5. | Nusa Indah Bakery       | 107      |
| 6. | Raden Bakeri            | 7        |
| 7. | Ridho Bakery            | 9        |
| 8. | Robinson Bakery         | 24       |
| 9. | Roti Kita               | 22       |
| 10.| Roti Sehati Serasi      | 5        |
| 11.| Rotiku                  | 12       |
| 12.| Sarigut Bakery          | 12       |
| 13.| Satyva Bakery           | 4        |
| 14.| Sinar Bulan Bakery      | 18       |
| 15.| Uwais                   | 6        |
| 16.| Others                  | 14       |

3.3. Research Instrument Test Results

3.3.1. Validity Test Result. The SPSS output value of r count for each question on each variable is greater than r table value as can be seen in Table 2. This shows that each question item was declared valid. The result also shows that each question in the questionnaire can be understood by the respondent so that they can know the parameters to be measured.
Table 2. Validity test result

| No | Questions                                                                 | Variable       | R value | R table | Note |
|----|---------------------------------------------------------------------------|----------------|---------|---------|------|
| 1  | The price of packaged bread products is affordable.                       | Price (X)      | 0,742   | 0,101   | Valid |
| 2  | The price of baked products is appropriate with the quality of the product |                | 0,842   |         | Valid |
| 3  | The price of packaged bread products has strong competitiveness in the market |                | 0,765   |         | Valid |
| 4  | The price of packaged bakery products suitable with the benefits          |                | 0,833   |         | Valid |
| 5  | The price of baked products in accordance with the guarantee of safety.   |                | 0,786   |         | Valid |
| 6  | I will buy an affordable packaged bakery product                          | Purchase decision (Y) | 0,704  | 0,101   | Valid |
| 7  | I decided to purchase a packaged bakery product because it suits my needs |                | 0,805   |         | Valid |
| 8  | I feel that packaged bakery products benefit me                          |                | 0,780   |         | Valid |
| 9  | I give recommendations to others about packaged bakery products           |                | 0,712   |         | Valid |
| 10 | I will repurchase packaged bakery products next time                      |                | 0,667   |         | Valid |

3.3.2. Reliability Test Results. The results of the SPSS output show the Croanbach Alpha calculated value of each variable of 0.850 (price) and 0.801 (purchase decision), where the Croanbach Alpha value of all statement items used on the research variable> 0.60. This shows that the instruments used in this study are reliable, the measuring instruments used are reliable, stable and can be used in forecasting. In other words, the measuring instrument used can give results that are not different even though it is used many times by different researchers [13].

3.3.3. Descriptive Price Variables. Price becomes one of the most important variable in marketing that can influence consumers to make decisions in buying a product for a variety of reasons. Economic reasons will indicate that low prices or too competitive can be a trigger for improving marketing performance. Thus in psychologically aspect, price is an indicator of quality, therefore it is planned as one of the sales tools and competition tools that determine product sales [14].

On economic reasons can show that low prices or too competitive can be a trigger for improving marketing performance, but psychologically shows that prices are actually an indicator of quality, therefore planned as one of the sales tools as well as competition tools that are decisive [14]. Based on the results of data processing, respondents' responses to the price variable are shown in Table 3.
Table 3. Descriptive price variable

| No. | Statement                                                                 | Alternative Answer Options | Frequency | Percentage | Average choice of answers |
|-----|----------------------------------------------------------------------------|------------------------------|-----------|------------|---------------------------|
|     |                                                                            | SD  | D   | N   | A   | SA  | SD  | D   | N   | A   | SA  | SD  | D   | N   | A   | SA  | SD  | D   | N   | A   | SA  |
| 1   | The price of packaged bread products is affordable.                        | 7   | 19  | 103 | 188 | 57  | 2   | 5   | 28  | 50  | 15  | 3,71|
| 2   | The price of package bread products is appropriate with the quality of the product | 5   | 19  | 80  | 212 | 58  | 1   | 5   | 21  | 57  | 16  | 3,79|
| 3   | The price of packaged bread products has strong competitiveness in the market | 6   | 17  | 77  | 183 | 91  | 2   | 5   | 21  | 49  | 24  | 3,89|
| 4   | The price of packaged bread products suitable with the benefits             | 5   | 21  | 124 | 171 | 53  | 1   | 6   | 33  | 46  | 14  | 3,65|
| 5   | The price of baked products in accordance with the guarantee of safety.    | 9   | 32  | 114 | 158 | 61  | 2   | 9   | 30  | 42  | 16  | 3,61|

Average overall level of agreement of respondents 3,73

Note: SD= strongly disagree; D= disagree; N=neutral; A= agree, SA = strongly agree

The average value of the overall level of respondents’ agreement with the statement of price variables shown in Table 3 is equal to 3.73 (agree), where the value indicates good judgment. This shows that the price of packaged bread products is suitable with what is needed by respondents. Previous research by Widodo [3] claims that product prices can be perceived differently by different people. If the price of a product matches the needs of consumers, it will lead to positive perceptions from consumers about the product.

Stating the price information clearly such as prices according to product quality can attract consumers to buy products [15]. Economic conditions that are part of personal factors become things that affect consumers in the purchasing process. Consumers who have an unfavorable economic situation will certainly pay more attention to the price of a product as a consideration before buying. As in this study using students as respondents, price is one of the main factors to be considered in purchasing the product.

3.3.4. Descriptive Purchasing Decisions Variable. An individual action that directly participates in obtaining and using the product offered is called decision making. A decision can be made if there are several alternative choices. If there is no alternative choice, the action taken cannot be said to be an act in forming a decision. Based on the results of data processing, respondents' responses to the purchase decision variables are shown in Table 4.
Table 4. Descriptive of the purchase decision variable

| No. | Statement                                                                 | SD | D  | N  | A  | SA | SD | D  | N  | A  | SA |
|-----|---------------------------------------------------------------------------|----|----|----|----|----|----|----|----|----|----|
| 1   | I will buy an affordable packaged bakery product                          | 3  | 20 | 82 | 182| 87 | 1  | 5  | 22 | 49 | 23 |
| 2   | I decided to purchase a packaged bakery product because it suits my needs  | 5  | 12 | 80 | 206| 71 | 1  | 3  | 21 | 55 | 19 |
| 3   | I feel that packaged bakery products benefit me                           | 4  | 14 | 137| 166| 53 | 1  | 4  | 37 | 44 | 14 |
| 4   | I give recommendations to others about packaged bakery products          | 5  | 32 | 183| 122| 32 | 1  | 9  | 49 | 33 | 9  |
| 5   | I will repurchase packaged bakery products next time                      | 2  | 14 | 130| 169| 59 | 1  | 4  | 35 | 45 | 16 |

Average overall level of agreement of respondents 3.70

Note: SD= strongly disagree; D= disagree; N=netral; A= agree, SA = strongly agree

The average value of the overall level of respondent’s agreement towards the statement of the purchase decision variable in Table 4 is 3.70 (agree), where the value indicates good judgment. This data confirm that the respondent has no difficulty in deciding to buy packaged bakery products, because the respondent already has the trust and confidence in certain brands of packaged bakery products. The same thing was experienced by [3] when a consumer make first buys a product; the consumer has given confidence in the quality of the product. If the product fits to the benefits or desires of consumers, then on the next purchase the consumer will buy the product again and eventually a customer loyalty will be created.

3.3.5. Hypothesis Test Results. T Test Results is the result of the SPSS output shows that the price variable also has a t-value > t-table and a significance value <0.05 (Table 5). According to Table 5, it can be concluded that the consumer's decision to buy bread products in packaging is significantly influenced by price.
Table 5. T Test Calculation

| Model         | Unstandardized beta (B) | t value | t table Sig |
|---------------|-------------------------|---------|-------------|
| (Constant)    | 7.681                   |         |             |
| Price         | 0.580                   | 16,674  | 1,960,000   |

Based on Table 5, price has a regression coefficient of 0.580 (weak) which shows that purchasing decisions are positively influenced by price variables. The result of this significant influence is corresponding with [6] which show that the consumer's decision to buy Woles Chips is significantly influenced by price. Furthermore, price play sasignificantroleinshaping customer expectation of quality. The higher the prices observed by the customer, the higher the quality of products or service the customer expects, because higher prices add value to the perceived quality of the product [16].

3.3.6. Determinant ($R^2$) test results.
The result from SPSS analysis showed that the Adjusted R Square value was 0.426 (Table 6). This number indicated that the portion of purchasing decisions was influenced by price at 42.6%. While the remaining 57.4% was influenced by other factors, which were not investigated in this study. The percentage in this study had higher portion comparing to [17], which showed that purchasing decision of bread was influenced by price as much as 22.9%. Other factors that influenced purchasing decisions were quality of the product, brand image, freshness, promotion and sales location [3][17]. The result implied that Sari Roti bread was the most favorable one because of its quality, brand image and also strategic sales location.

Table 6. Calculation Results of $R^2$ Test

| Model | R    | R Square | Adjusted R Square |
|-------|------|----------|-------------------|
| Price | 0.654| 0.428    | 0.426             |

4. Conclusion
The consumer's decision to buy bread products in packaging among Universitas Syiah Kuala students was significantly influenced by the price. The magnitude of the consumer's purchasing decision of bakery products among students in Universitas Syiah Kuala was affected by the price at 42.6% while the remaining 57.4% was influenced by other factors which were not investigated in this study. Therefore, further research is needed in order to discover other variables that influence consumer purchasing decisions in package bread products.

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