Models of Consumer Loyalty toward Local and Imported Vegetables in Pekanbaru City, Riau Province: A Comparative Approach

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Abstract: Vegetables are one of the food ingredients that are important for health. Vegetables contain various nutrients that the body needs, such as vitamins, minerals, and fiber. In Indonesia, there are two types of vegetables that are commonly consumed: local and imported. The purpose of this study was to identify factors that influence consumer loyalty to local and imported vegetables. This study uses quantitative research methods with a comparative approach. Data collection techniques used in this study were literature studies, observations, and questionnaires. The data that has been collected is then analyzed using the SPSS program. The results showed that product quality, price, and ease of obtaining are the factors that have the greatest influence on consumer loyalty to local and imported vegetables. Therefore, to increase consumer loyalty to local and imported vegetables, it is necessary to improve product quality, competitive prices, and ease of obtaining vegetables.

Keywords: consumer loyalty; local vegetables; imported vegetables

廖内省北干巴鲁市消费者对本地蔬菜和进口蔬菜的忠诚度模型：比较方法

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摘要：蔬菜是健康的重要食品成分之一。蔬菜含有人体所需的各种营养成分，如维生素、矿物质和纤维。在印度尼西亚，有两种常见的蔬菜：本地蔬菜和进口蔬菜。本研究的目的是确定影响消费者对...
本地和进口蔬菜忠诚度的因素。本研究采用定量研究方法和比较方法。本研究使用的数据收集技术包括文献研究、观察和问卷调查。然后使用统计软件程序分析收集到的数据。结果表明，产品质量、价格和获取的便利性是影响消费者对本地和进口蔬菜忠诚度的最大因素。因此，要提高消费者对本地和进口蔬菜的忠诚度，必须提高产品质量、有竞争力的价格和获取蔬菜的便利性。

关键词：消费者忠诚度；本土蔬菜；进口蔬菜

1 Introduction

Vegetables are an important part of a healthy diet because they are rich in nutrients that the body needs. These nutrients include various vitamins, such as A, C, and K, several types of vitamins B, minerals, such as potassium, magnesium, iron, and fiber, which are beneficial for digestion [2]. The diversity of types of vegetables allows consumers to obtain a variety of important nutrients that support overall health. Vegetables are also known as a source of antioxidants and phytochemical compounds that can protect the body from various diseases, including heart disease, diabetes, and several types of cancer [3]. Consuming sufficient amounts of vegetables can boost the immune system, improve digestive function, and help maintain a healthy weight. As an important part of a balanced diet, vegetables play a role in maintaining body health and supporting a healthy lifestyle [4].

In Indonesia, there are two main categories of vegetables that are commonly consumed: local and imported. Local vegetables are types of vegetables that are usually grown and produced domestically, according to the climate, seasons, and soil in Indonesia. The types of local vegetables vary, depending on the production area, and are usually easier to find in local markets. Meanwhile, imported vegetables are types of vegetables obtained from other countries and imported into Indonesia for consumption. According to data from the Central Statistics Agency (BPS), throughout 2022, Indonesia will import around 1 million tons of vegetables. This number has increased by approximately 3.3% compared to 2021. This increase also marks the highest number of vegetable imports in the last five years according to a report from the Central Statistics Agency (BPS).

In 2022, most Indonesia’s vegetable imports will come from China, reaching around 62% of total national imports. There are also large amounts of vegetable imports from countries such as India, Myanmar, Netherlands, New Zealand, Australia, Germany, Ethiopia, Canada, and the United States, as shown in the graph. According to a statement by the General Chair of the Indonesian Market Traders Association (Ikappi), Abdullah Mansuri, the types of vegetables most often imported by Indonesia are garlic, onions, carrots, broccoli, and peppers. This wide array of vegetable options available to consumers provides them with numerous choices when purchasing produce. However, despite this abundance of options, there are several factors that influence consumers to repeatedly purchase or remain loyal to certain products. Consumer loyalty is the strong bond and commitment of customers toward a brand, shop, or provider of goods or services as a result of consistently positive experiences throughout their purchasing journey. This concept emphasizes that loyalty to a particular brand arises because of the right mix between the level of satisfaction felt by consumers and how consumers face or respond to complaints that may arise [5].

Nurhalimah [6] shows that product quality has a positive and significant effect on consumer
loyalty. These results are supported by the assessment of product quality effect on consumer loyalty, which has an original sample value of 0.715 (positive influence), a t statistic of 7.383 > 1.96, and a p value of 0.000 < 0.05. Product price has a positive and significant effect on consumer loyalty. These results are supported by the assessment of product price effect on consumer loyalty, which has an original sample value of 0.286 (positive influence), a t statistic of 2.932 > 1.96, and a p value of 0.004 < 0.05. Service quality has no influence on consumer loyalty. These results are supported by the assessment of service quality on consumer loyalty, which has an original sample value of -0.098 (negative influence), a t statistic of 0.834 < 1.96 and a p value of 0.405 > 0.05.

Tuhumury and Parera [7] show that the level of consumer satisfaction with the attributes of these two products is in the satisfied category, where satisfaction with imported vegetables, 79.82% and 77.48%, respectively. Hidayati and Syamsun [8] show that the quality of organic vegetable products directly has a positive and significant effect on customer satisfaction, customer satisfaction directly has a positive and significant effect on customer loyalty, and the quality of organic vegetable products through customer satisfaction indirectly has an effect positive and significant toward customer loyalty. Product quality directly has a positive effect on customer loyalty, but it is not significant.

The novelty of this research comes from the research object, namely comparative research regarding consumer loyalty models for local and imported vegetables in Pekanbaru City, Riau Province, which has never been studied before. The research results can help local and imported vegetable traders or producers in Pekanbaru City understand the factors that influence consumer loyalty. From this knowledge, they can develop more effective marketing strategies to maintain and increase consumer trust, satisfaction, and loyalty toward vegetables. The aim of this research was to identify factors that influence consumer loyalty toward local and imported vegetables.

2 Research Methods

This study uses quantitative research methods with a comparative approach. Quantitative research is a research approach based on the philosophy of positivism. This approach is considered a scientific method because it adheres to scientific standards that are concrete and empirical, objective, measurable, rational, and systematically organized [9]. The data collection techniques used in this research were literature study, observation, and questionnaires. The population of this research is the people of Pekanbaru City, Riau Province. The sampling technique used in this research was a purposive sampling technique. Purposive sampling is a research method in which researchers intentionally select participants or sample units that align with specific criteria related to the research topic. This approach is not random and is based on the specific objectives of the research and certain characteristics of the population to be sampled. This technique is used to select samples that are considered most relevant, have appropriate knowledge, or can provide in-depth insights related to the research problem being studied [10]. The inclusion criteria for this study included individuals who purchased vegetables, whether local or imported, at least three times per month. Based on the criteria set, the researchers obtained 100 respondents. The collected data were then analyzed using the SPSS program. Based on this description, we formulated the following hypotheses:

H1: Product quality significantly affects consumer loyalty to local vegetables.

H2: Product quality has a significant effect on consumer loyalty to imported vegetables.

H3: Price has a significant effect on consumer loyalty to local vegetables.

H4: Price has a significant effect on consumer loyalty to imported vegetables.

H5: Ease of accessibility has a significant effect on consumer loyalty to local vegetables.

H6: Ease of accessibility has a significant effect on consumer loyalty to imported vegetables.

3 Results

3.1 Validity Test

Validity testing is a process for assessing the extent to which a measurement instrument measures what it is supposed to measure. This relates to the extent to which a measurement instrument can be relied on to measure the concept in question, whether it is in accordance with theory or not [11].

<table>
<thead>
<tr>
<th>Tab. 1 Validity test results (The authors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
</tr>
<tr>
<td>X1</td>
</tr>
</tbody>
</table>
Based on the results of the validity test above, all variables had a significance value of <0.05, so it can be concluded that all variables are valid.

### 3.2 Reliability Test

Reliability testing assesses the consistency and dependability of a measurement instrument. It evaluates how stable and consistent a measurement instrument is in measuring a concept over time, as well as how well the instrument measures what it is supposed to measure.[12]

#### Tab. 2 Reliability test results (The authors)

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.774</td>
<td>5</td>
</tr>
</tbody>
</table>

Based on the results of the reliability test, Cronbach’s alpha is 0.774 or >0.60, so it can be stated that all questionnaires used are reliable.

### 3.3 Hypothesis Testing

Hypothesis testing is a statistical process utilized to verify the validity of a proposed statistical hypothesis statement. This involves testing an assumption or statement regarding the statistical parameters of a data sample to make inferences about a larger population. This includes the null hypothesis and alternative hypothesis testing stages[13]. In this hypothesis test, we employed the multiple linear regression analysis. The results are as follows.

#### Tab. 3 Y1 multiple linear regression analysis results (The authors)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.553</td>
<td>4.454</td>
<td>.124</td>
</tr>
<tr>
<td>X1</td>
<td>-.085</td>
<td>.206</td>
<td>-.066</td>
<td>-.414</td>
</tr>
<tr>
<td>X2</td>
<td>.124</td>
<td>.169</td>
<td>.129</td>
<td>.736</td>
</tr>
<tr>
<td>X3</td>
<td>.619</td>
<td>.188</td>
<td>.516</td>
<td>3.292</td>
</tr>
</tbody>
</table>

Based on the results of hypothesis testing using multiple linear regression tests, it can be concluded that product quality (X1) influences local vegetable purchase loyalty (Y1) with a sig. value of 0.001. Then, price (X2) affects loyalty to purchase local vegetables (Y1) with a sig. value of 0.000. For ease of accessibility (X3), we obtained the sig. amounting to 0.002; it can be concluded that ease of accessibility (X3) influences loyalty to purchase local vegetables (Y1).

#### Tab. 4 Y2 multiple linear regression analysis results (The authors)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>6.965</td>
<td>8.503</td>
<td>.819</td>
</tr>
<tr>
<td>X1</td>
<td>-.748</td>
<td>.393</td>
<td>-.317</td>
<td>-1.902</td>
</tr>
<tr>
<td>X2</td>
<td>.556</td>
<td>.322</td>
<td>.319</td>
<td>1.725</td>
</tr>
<tr>
<td>X3</td>
<td>.846</td>
<td>.359</td>
<td>.388</td>
<td>2.355</td>
</tr>
</tbody>
</table>

On the basis of the multiple linear regression analysis above, it can be concluded that product quality (X1) influences loyalty to purchase imported vegetables (Y2), with a sig. of 0.000.
Price (X2) affects loyalty to purchase imported vegetables (Y2) with a sig. value amounting to 0.001. Ease of accessibility (X3) also influences loyalty in purchasing imported vegetables (Y2) with a sig. value of 0.000.

4 Discussion

4.1 Product Quality Has a Significant Effect on Consumer Loyalty to Local Vegetables

Based on the research results, it was found that product quality has a significant effect on local consumer loyalty. These results are supported by Indrawati [14], who states that product quality has a significant and positive direct effect on customer loyalty. This indicates that if product quality increases, customer loyalty will also increase.

As competition increases, every trader must know the factors that influence customer satisfaction to make improvements, develop the business, and innovate, which is expected to increase customer satisfaction. Ensuring quality assurance is a paramount concern within the market [15], including when it comes to product quality. In this study, the focus is on local and imported vegetables sold in Pekanbaru City. When purchasing vegetables, it is crucial to prioritize the quality of the product [16].

Several factors influence consumer loyalty, including price, habits, and product quality [17]. Product quality refers to the condition, characteristics, and performance of a product in meeting the needs and expectations of consumers. This includes factors such as appearance, durability, and the benefits that the product offers [18]. Therefore, it can be concluded that product quality has a significant effect on local vegetable consumer loyalty. The higher the quality of the local vegetables sold, the higher the consumer loyalty in buying them.

4.2 Product Quality Has a Significant Effect on Consumer Loyalty to Imported Vegetables

The research results showed that product quality had a significant effect on consumer loyalty to imported vegetables. These results are also supported by Palilatin et al. [19], who stated that product quality has a positive and significant effect on consumer loyalty. The meaning of the positive coefficient shows that product quality has a positive impact on increasing consumer loyalty to various products marketed.

Factors influencing consumer loyalty, as identified by Mahanani and Alam [20], include:

2. Brand image and reputation: A company’s image starts with brand awareness and market share.
3. Convenience and accessibility: meeting consumer demands for convenience in a competitive market.
4. Consumer satisfaction: Satisfied customers are more likely to repurchase a product or brand.
5. Quality service: Providing excellent service can enhance consumer loyalty.

Based on the factors that influence consumer loyalty, the main one is value, including price and quality. The following are the benefits of good product quality according to Sangadjji and Sopiah in [21]: (1) greater customer loyalty, (2) larger market share, (3) higher share prices, (4) higher selling prices, and (5) higher productivity. Therefore, it can be concluded that the higher the quality of the product being marketed, the more benefits it will provide, as is the case with imported vegetables. The higher the quality of the product, the higher the loyalty of imported vegetable consumers.

4.3 Price Has a Significant Effect on Consumer Loyalty to Local Vegetables

The research results showed that price had a significant effect on local vegetable consumer loyalty. This is supported by Arianto and Febrian [22], who assert that price has a positive and significant effect on loyalty. Products that have the same quality but set relatively cheap prices will provide higher value to customers [23]. Therefore, the price will affect the loyalty of local vegetable consumers.

Loyalty is part of consumer behavior. Loyalty shows a commitment not to change when using a product. Loyalty is formed because the desires or expectations that consumers have before using a product or service can be fulfilled [24]. Creating value for consumers will build and retain their loyalty. This value includes the price offered [25].

Thus, it can be concluded that the most important factor in maintaining consumer loyalty is price. Apart from high product quality, consumers will also choose products with more affordable prices.

4.4 Price Has a Significant Effect on Consumer Loyalty to Imported Vegetables

The research results showed that price has a significant effect on consumer loyalty to imported vegetables, which is supported by research by Farisi and Siregar [26], who state that price influences consumer loyalty.

To foster customer loyalty, companies must...
prioritize delivering exceptional service and competitive pricing. Price is a critical factor for customers as it serves as the benchmark for evaluating the value of a product in relation to the financial or personal sacrifices made to acquire it. According to Tjiptono, price plays two main roles in buyers’ decision-making: allocation and information. Allocation is the function of price in helping buyers decide how to obtain the highest expected benefit or utility based on their purchasing power. Meanwhile, information is the function of price in educating consumers about product factors such as quality. This is useful in situations where buyers have difficulty objectively assessing product factors or benefits.

Thus, it can be concluded from this research that price influences customer loyalty when price is used as a factor in decision-making. Therefore, the more affordable it is, the higher consumer loyalty will be in purchasing imported vegetables.

4.5 Ease of Accessibility Has a Significant Effect on Consumer Loyalty to Local Vegetables

Based on the research results, it was found that ease of accessibility has a significant effect on local consumer loyalty. These results are supported by Juansyah et al., who stated a significant influence of accessibility on loyalty.

Accessibility is the ease of reaching or going to and while at the place of purchase of a product because of the availability of interconnected money facilities and infrastructure, both physical and non-physical. Placing the correct layout of shop/outlet locations in the market, the presence of signboards that function to make it easier for consumers to find the goods they want to buy in the shop, thereby creating many conveniences that can be enjoyed by consumers, which is also a factor in increasing consumer loyalty.

It can be concluded that accessibility influences consumer loyalty. The more strategic the local vegetable sales location, the higher the loyalty of local vegetable consumers.

4.6 Ease of Accessibility Has a Significant Effect on Consumer Loyalty to Imported Vegetables

Based on the research results, it was found that ease of accessibility has a significant effect on consumer loyalty to imported vegetables, which is supported by Triandika, who also found that ease of access influences consumer loyalty.

Ease of access is paramount in today’s globalized world, where complexity abounds. Easy access is crucial, particularly for consumers who value simplicity and efficiency. The easier it is to access a product or service, the more time-saving and cost-effective it becomes. When consumers perceive that all transactions and interactions are seamless and efficient, they are more likely to choose the company.

Therefore, it is concluded that there is an influence of ease of accessibility on the loyalty of imported vegetable consumers. The easier the accessibility, the higher the consumer loyalty.

5 Conclusion

The research results confirm that product quality, price, and ease of accessibility are the main factors that play a significant role in forming consumer loyalty toward local and imported vegetables. These findings indicate that improving product quality, competitive price adjustments, and ease of obtaining vegetables have a strong positive impact on consumer loyalty. Therefore, efforts to increase the level of consumer loyalty toward these two types of vegetables should focus on these aspects. Adopting strategies that lead to improved product quality, more competitive price adjustments, and improvements in the accessibility or distribution of vegetables can be effective steps in strengthening consumer loyalty toward local and imported vegetables in Pekanbaru City, Riau Province.

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