The Effect of Product Perception and Price Perception on Reference Book Purchase Decisions

Kuswanto1*, Refnida1, Lulu Ratnadillah1
1 Economics Education Study Program, Faculty of Teacher Training and Education, Jambi University, Indonesia

Abstract

The decision to purchase reference books is a form of a student's positive attitude in meeting learning needs. This study was conducted to analyze the effect of product and price perceptions on reference book purchasing decisions. This research was conducted on 80 students of the Jambi University Economic Education Study Program class of 2017. Data were obtained from the results of a survey using a questionnaire. The data were analyzed using the logit regression model because the dependent variable data were categorical (buying and not buying). The results of the analysis show that product perception has a significant influence on purchasing decisions for reference books at an error rate (alpha) of 5 percent. Student perceptions of price also significantly influence the decision to purchase reference books at an error level (alpha) of 5 percent. Taken together, product perception and price significantly influence the purchasing decision of reference books. Thus, it is recommended for students to make the right decision by understanding the quality and usefulness of reference books to meet their learning needs and supported by adequate purchasing power.

Keywords:
Product Perception; Price Perception; Purchase Decision; Logistics Model.

How to Cite:

* Corresponding Author.
kuswanto.fkip@unj.ac.id, Kuswanto
INTRODUCTION

The decision to buy reference books is a choice of student actions in meeting learning needs. By buying reference books, their use will be more optimal in obtaining information, theoretical explanations and case studies needed to build understanding and expertise. Knowing the level of reference book purchase decisions will provide an overview of student behavior as consumers in completing their studies. According to Firmansyah (2014) what underlies the consumer’s decision to determine his purchase is his behavior in assessing the price, quality, model, shape, packaging, function or use of the item.

Purchasing is part of economic activities carried out in an effort to meet the needs of goods or services. Someone will make a purchase on the basis of needs that must be met. A person’s assessment of a product will affect his decision to buy the item. If consumers judge the goods to be purchased according to their needs and abilities, they will decide to buy them. Conversely, if it is not in accordance with their wishes and abilities, they tend not to buy it. Purchasing decisions are consumer behavior in determining their choices from several alternatives available in the market (Schiffman & Kanuk, 2008).

In taking education, a student has various needs that must be met to support learning activities. One of them is the need for reference books (Kuswanto, 2019). Reference books are used by students as a source, reference or reference in carrying out learning activities where reference books can help students to understand more deeply about learning materials outside of the understanding obtained through the learning process in class. To obtain reference books, there are several ways that can be done by students, namely by borrowing books at the library, looking for reference books online (e-books), or making purchases.

Class of 2017 students generally need reference books to meet the needs of completing their final project. The study of the field of science and its development through research that will be carried out requires the availability of adequate references (Sujana et al., 2005). Reference books are used by students as a source, reference or reference in carrying out learning activities where reference books can help students to understand more deeply about learning materials outside of the understanding obtained through the learning process in class (Prajawinanti, 2020). Reference books contain a collection of concepts of a field of science or research results, reference books are often used as a reference source (Arifin & Kusrianto, 2009). When reference books are used by students, they are assumed to be independent learners because the language used in reference books is generally more complex than textbooks, because reference books do not provide certain facilities to facilitate reader understanding.

Purchasing reference books is one of the decisions faced by students to meet the needs of learning resources. The many types of reference books offered by traders allow students the flexibility to get reference books that suit their needs and purchasing power. The decision to buy reference books is a form of a student’s positive attitude in meeting learning needs. Purchasing decisions show individual behavior in finding, buying, and using goods or services to get satisfaction with the needs they fulfill (Stankevich, 2017).

Based on the results of observations using google forms media conducted on 20 students of the 2017 class, it was found that there were still few (40%) students who had reference books, while the other 60 percent did not have reference books. Students who do not have reference books state that the benefits of reference books do not have to be obtained by owning a book, but can be borrowed from the library or other sources. In addition, the price of reference books is relatively expensive and considers it not too important while being able to meet learning needs in other ways.

One of the factors that influence the behavior of purchasing decisions for a product is the product itself. This happens if the consumer’s perception of a product to be purchased is in accordance with his assumptions or views, both in terms of function and use and quality. Research conducted by Oktavenia & Ardani (2019) revealed that the higher the quality of the products offered by the company, the higher the consumer's decision to buy them. Putra et al. (2017) through his research found the fact that product quality has the highest influence compared to other factors in influencing purchasing decisions. Based on the theory and various findings, the following
hypotheses can be formulated:

\[ H_1: \text{Student perceptions of the product have a positive and significant effect on purchasing decisions for reference books.} \]

In addition to the perception of the product, purchasing decisions can also be influenced by price perceptions. Price is often associated with the usefulness of an item (Malau, 2018). In general, the more expensive the price of an item, the higher the benefits of the item. As a student, price is the basis for consideration in deciding to purchase reference books other than the benefits contained in them. Price is the main determinant of purchasing decisions for an item before determining the store and brand (Faith & Agwu, 2014). The suitability of the price of an item will increase the decision to buy the item (Brata et al., 2017). The results of research conducted by Gunarsih et al. (2021) revealed that consumers' assessments of product prices for affordability to buy, suitability with product benefits and differences in prices of other goods have a significant influence on purchasing decisions. Based on the description, the following hypothesis is formulated:

\[ H_2: \text{Students' perception of price has a positive and significant effect on the decision to purchase reference books.} \]

According to Suryani (2012), consumers' decisions in buying an item are determined by their thoughts related to needs or motivations, perceptions, attitudes, characters formed by demographic conditions, lifestyle and personality. In addition, the environment related to cultural values, social class and face to face groups will also influence consumer purchasing decisions. Ownership of reference books by buying allows students to use the book optimally as study material compared to borrowing which is limited by the time of its use. Research conducted by Munawarooh & Akbar (2016) reveals that students' decisions to buy lecture books are more influenced by student attitudes than motivation. The International Triumvirate is dominated by the price factor. Aisyah's findings (2016) in her thesis state that there are seven factors that are highly considered by consumers to buy books, namely aspects of motivation, influence of stimuli, influence of groups, families, purchases, ease of shopping, and situations. More specifically the results of Hidayat's research (2020); Daud (2018); Rasyid & Indah (2018) states that both product quality and price factors have a significant influence on purchasing decisions. Based on the study, the following hypotheses were formulated:

\[ H_3: \text{Students' perceptions of products and prices have a positive effect on purchasing decisions for reference books.} \]

From these various studies, purchasing decisions are seen as attitudes that are explicitly stated, namely buying or not buying so that the data collected is in the form of nominal dichotomous scales, but the analysis carried out mostly uses ordinary regression models and path analysis. According to Winarno (2017); Harlan (2018), if the dependent variable data is dichotomous or has multivariate more than one attribute, it will be more effective if analyzed using logistic regression. Logistic regression analysis in measuring reference book purchase decisions is a new finding in social science studies, especially in the field of marketing.

This study aims to analyze the level of student decisions in buying reference books as a result of the influence of product and price assessments so that they can be used as a reference for changing attitudes in meeting learning needs.

**METHOD**

This research is in the form of quantitative descriptive to generalize a set of statistically analyzed data. This research was conducted to reveal students' decisions in buying reference books which were influenced by their perceptions of product quality and price. The research was conducted on students of the Economic Education Study Program at the University of Jambi batch 2017, as many as 80 people. The determination of research subjects was based on the highest level of intensity and lecture activity. Data were collected using a questionnaire containing statements with
a Likert scale to measure product and price perception variables while purchasing decision variables were measured using the Guttman scale (Sugiyono, 2016). The data were analyzed using the Logit regression model (Winarno, 2017; Gujarati, 2013) using the SPSS version 24 program.

The model built to explain the effect of product and price perceptions on purchasing decisions uses the logistic regression formula developed by Agresti (2013) as written in the following equation:

\[
p(x) = \frac{\exp(\beta_0 + \beta_1x_1 + \beta_2x_2)}{1 + \exp(\beta_0 + \beta_1x_1 + \beta_2x_2)}
\]

(1)

Where \( p(x) \) is the probability of a purchase decision determined by \( y = 1 \), is the parameter value, \( x_1 \) is the perception of the product and \( x_2 \) is the perception of the price. To change the equation into logit form, a transformation is carried out into logit form so that it can be seen the effect of the response variable with the explanatory variable, as shown in the following equation:

\[
g(x) = \ln \left( \frac{p(x)}{1-p(x)} \right) = \beta_0 + \beta_1x_1 + \beta_2x_2
\]

(2)

Where \( \frac{p(x)}{1-p(x)} \) is the risk of \( y = 1 \) to a certain \( x \).

Model fit test using Hosmer and Lemeshow test (Hosmer & Lemeshow, 2000). The model can be used as a predictive tool if it meets the probability value generated is greater than the alpha of 5 percent. This means that the model used has the ability to statistically predict the value of the observations.

Hypothesis testing was carried out simultaneously and partially. Simultaneous test using the Omnibus Test of Model Coefficient (Ghozali, 2018). If the calculated chi-square value > chi-square table at 5 percent alpha, then the independent variables together have a significant effect on the dependent variable. The significance test can also be done by comparing the significance value with the alpha value of 5 percent. If the significance value is < alpha of 5 percent, then there is a jointly significant effect between the independent variable and the dependent variable.

The partial test was carried out comparing the z statistical value with the z table or based on the probability value (p-value) (Agresti, 2013). If the value is < alpha (5%), then it shows a significant influence between the independent variable and the dependent variable.

RESULTS AND DISCUSSION

The purchase decision is an attitude shown by consumers in making purchases due to the previously received stimulus. Purchase decisions are measured based on the category of buying or not buying (Kotler, 2002). From the data obtained, there were 37 students who decided to buy reference books and 43 students did not. As shown in Table 1 below:

<table>
<thead>
<tr>
<th>Probability of purchase</th>
<th>Code</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buy</td>
<td>1</td>
<td>37</td>
<td>46.2</td>
</tr>
<tr>
<td>Not Buying</td>
<td>0</td>
<td>43</td>
<td>53.8</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: primary data processed

Student perceptions of reference books are measured based on the indicators of their formation, namely ease of use, clarity of function and durability (Pardede & Haryadi, 2017). Perception of Study Program students. Class of 2017 Economic Education on reference books is described in Table 2 below:
Table 2. Description of Student Perceptions of Reference Books

<table>
<thead>
<tr>
<th>Class Interval</th>
<th>F</th>
<th>Percentage (%)</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>70-92</td>
<td>43</td>
<td>53.75</td>
<td>Very good</td>
</tr>
<tr>
<td>47-69</td>
<td>37</td>
<td>46.25</td>
<td>Well</td>
</tr>
<tr>
<td>24-46</td>
<td>0</td>
<td>0</td>
<td>Bad</td>
</tr>
<tr>
<td>0-23</td>
<td>0</td>
<td>0</td>
<td>Very bad</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Source: primary data processed

Based on Table 2, most of the students' perceptions of reference books (53.75%) were very good and some (45.25%) were good. The condition describes a very good level of student perception of the reference book in terms of its function, durability and level of use.

Price perception is a person's view of the amount of money that must be spent as a sacrifice to get goods according to needs and desires that describe the value and benefits received. Perception of Study Program Students, Economic Education Class 2017 on the price of reference books is measured using two indicators, namely price suitability with product quality and price affordability. The results of descriptive data analysis explain perceptions of reference book prices as shown in Table 3 below:

Table 3. Description of Student Perceptions of Reference Book Prices

<table>
<thead>
<tr>
<th>Class Interval</th>
<th>F</th>
<th>Percentage (%)</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>61-80</td>
<td>33</td>
<td>41.25</td>
<td>Very good</td>
</tr>
<tr>
<td>41-60</td>
<td>47</td>
<td>58.75</td>
<td>Well</td>
</tr>
<tr>
<td>21-40</td>
<td>0</td>
<td>0</td>
<td>Bad</td>
</tr>
<tr>
<td>0-20</td>
<td>0</td>
<td>0</td>
<td>Very bad</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Source: primary data processed

Based on Table 3, it explains that most (41.25%) students of economic education class 2017 have a perception of a high reference book price in the very high category, while some (41.25%) are very high.

To produce the right predictions, the regression model built has a high standard of feasibility. The feasibility test of the model in this study used the Hosmer and Lemeshow test. If the significance value is > 5 percent, then the model is feasible to use as a predictive tool (Mardisentosa et al., 2020). The results of the model analysis are shown in Table 4 below:

Table 4. Hosmer and Lemeshow Test Results

<table>
<thead>
<tr>
<th>Step</th>
<th>Chi-square</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.674</td>
<td>8</td>
<td>0.792</td>
</tr>
</tbody>
</table>

Source: primary data processed

Based on this test, a probability value of 0.792 > 0.05 was obtained, so that the binary logistic regression model was feasible to be used as a predictive tool, where the observed classification and the predicted classification were not significantly different.

The logit regression model describes the effect of product and price perceptions on reference book purchase decisions as shown in Table 5 below:
Table 5. Results of Logistics Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95% C.I. for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.116</td>
<td>0.058</td>
<td>3.971</td>
<td>1</td>
<td>0.046</td>
<td>1.123</td>
<td>1.002 - 1.258</td>
</tr>
<tr>
<td>X2</td>
<td>0.142</td>
<td>0.059</td>
<td>5.884</td>
<td>1</td>
<td>0.015</td>
<td>1.153</td>
<td>1.028 - 1.294</td>
</tr>
<tr>
<td>Constant</td>
<td>-17.139</td>
<td>4.517</td>
<td>14.394</td>
<td>1</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

Source: primary data processed

Mathematically the influence between independent variables on the dependent variable can be formulated in the following equation:

$$\text{Logit} \left( \frac{\pi}{1-\pi} \right) = \frac{e^{(-17.14+0.116x_1+0.142x_2)}}{1+e^{(-17.14+0.116x_1+0.142x_2)}}$$

...........................................(3)

The results of the logit equation above cannot be directly interpreted from the coefficient values like ordinary linear regression. Interpretation is carried out using the value of Exp(B) or the exponential value of the formed regression equation coefficient. From Table 5, the p-value of the Product Perception variable is 0.046 < 0.05 so it can be concluded that the product perception variable has a significant effect on purchasing decisions for reference books with an influence coefficient value of 1.123, meaning that if students' perceptions of reference books increase by 1 unit will allow deciding to buy a reference book for 1.123.

The price perception variable also has a significant influence as shown by the p-value of 0.015 < 0.05 with a coefficient value of 1.153, meaning that if students' perceptions of the price of reference books increase by one unit, they will increase the potential to decide to buy reference books by 1.153.

To determine the effect of product and price perceptions simultaneously on reference book purchase decisions in logit regression using the Omnibus Test of Model coefficient value, as shown in Table 6 below:

Table 6. Omnibus Tests of Model Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step</td>
<td>19.825</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Block</td>
<td>19.825</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Model</td>
<td>19.825</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: primary data processed

Based on Table 6, the value of Sig. The model of 0.000 is smaller than the 5 percent alpha so that the product perception and price variables together affect the purchasing decision of reference books.

Perception is a process that makes a person choose, organize and interpret the stimuli received to make a decision to do something. Thus, if a student judges that a reference book can meet his learning needs, he will decide to buy it. The results of this study explain that the better students' perceptions of reference books will strengthen their decision to buy the book. This happens because students consider reference books to be easy to use, have clarity of function and have the endurance to support learning needs so that it becomes an impetus to buy them (Pardede & Haryadi, 2017). On the other hand, if a student judges that a reference book cannot meet his learning needs, he will not decide to buy it. In product quality there is a combination of properties and characteristics as a determinant of meeting consumer needs that reflect the level of performance, durability, conformance to specifications, features, reliability, aesthetics, perceived quality, and serviceability (Tjiptono & Candra, 2012). The results of the study support the theory expressed by Setiadi (2010), that perception is part of one of the psychological factors that are factors in the occurrence of consumer purchasing decisions.
Research conducted by Satriawan & Setiawan (2020); Ranto (2014) also revealed the same thing, namely the existence of a positive influence between the perception of product quality on purchasing decisions. Perception of product quality is an important factor considered by consumers before making a purchase decision (Harjati, 2017). Product quality that is considered good by consumers will create a purchasing decision on a product (Anis et al., 2015).

Purchase decisions will be made when consumers have chosen a product that suits their needs. Thus, students who have a positive perception of reference books will have a stronger decision to buy the reference book. Student purchasing decisions will increase when students realize the importance of using an item to meet their needs (Fattah & Khaled, 2021). Someone decides to buy an item because they judge that the item is able to meet their needs, has accuracy, is easy to use and has durability (Brata et al., 2017).

Price is the main factor in deciding to buy an item. Price describes the high or low quality or usefulness of an item (Malau, 2018). Students who assess the price of reference books as having conformity with the usefulness of the book as a reference that will meet their needs then will be compelled to decide to buy it as shown in the results of this study. This happens because students judge that the price of reference books is in accordance with the quality and affordable to buy (Pardede & Haryadi, 2017). On the other hand, if students judge that the price of a reference book is not in accordance with its quality and is not affordable for its finances, they tend not to buy it.

The results of this study are in accordance with the results of research conducted by Mukaromah et al. (2019), where the better the consumer’s price perception, the greater the chance of a decision to buy a product. The perception of price is a psychological factor that plays an important role in deciding to buy a product. While Rommy & Nur (2018) explained that price is one of the important variables in marketing because the price can influence consumers in making decisions to buy a product. In addition, Suhaily & Darmoyo (2017) revealed that price has a positive influence on consumer purchasing decisions. This is in accordance with the opinion of Sukotjo & Radix (2010), which states that price is one of the important factors in deciding whether to make a transaction or not.

Research conducted by Pardede & Haryadi (2017) also reveals the same thing, where the perception of price has a significant effect on purchasing decisions. In addition, Owusu (2013) in his research considers price and quality in consumer buying situations. Meanwhile, according to Alma & Saladin (2010) price perception is one of the unexpected factors in purchasing decisions. A positive perception of price increases the brand image of an item so that it encourages consumers to buy it (Albari & Safitri, 2018). Thus, students will decide to buy reference books if they judge the price of the reference book according to the benefits needed to meet learning needs.

The consumer's perception of a product is based on his understanding of its function, how to use it and its durability as a tool to meet needs (Cahya, 2018). A good student assessment of reference books and assessing the price according to their usefulness and supported by financial capabilities will further strengthen their decision to buy the book. The results of the analysis in this study reveal that there is a positive and significant influence between product and price perceptions on reference book purchasing decisions.

These results are supported by research conducted by Brata et al. (2017); Oktavenia & Ardani (2019); Hidayat (2020), which reveals the simultaneous influence of product quality and price on purchasing decisions. Consumers decide to buy a product because they assess the quality of the goods, in which there are characteristics or characters that show their ability to produce satisfaction from the needs they fulfill. The price set on a product provides meaningful value to consumers.

Price indirectly explains the value and usefulness of an item so that it becomes the main consideration for consumers in purchasing the item (Kotler & Keller, 2016). Reference books are very important in supporting student learning needs, especially in completing the final project. The decision to purchase reference books will occur if students recognize the existence of learning needs that can be met by using reference books. This attitude will encourage students to search for various information about the reference books needed, both in price and quality and try to provide some money to buy them. The right decision in purchasing a reference book if it is based on the results of an assessment of various alternatives (Schiffman & Kanuk, 2008).
CONCLUSIONS AND SUGGESTION

Based on the results of research and discussion that have been described previously, it can be concluded that (1) Product Perception has a significant effect on purchasing decisions for reference books. The better the student's assessment of the quality of the reference book, the stronger the decision to buy the book, (2) Price Perception has a significant effect on the decision to purchase reference books. The better the student’s perception of the price of the reference book, the stronger the decision to decide to buy the book. Simultaneously, product perception and price have a positive and significant effect on purchasing decisions for reference books.

The implications of the results of this study as a reference for students to determine their decision in buying reference books. Ownership of reference books by buying makes students have flexibility in their use, not limited to the time and period of use. Thus the decision to buy reference books is a positive attitude of student responsibility in meeting learning needs. To make the right decision in buying reference books, students must understand the quality and usefulness of reference books to meet their learning needs and be supported by adequate final skills. On the other hand, student behavior in deciding to purchase reference books can be used as a reference in formulating marketing strategies for publishers of university reference books.

However, this research has shortcomings because it only focuses on product perception and price variables. Therefore, a broader analysis is needed of various other factors so as to produce a model of purchasing decision making patterns that are more accurate in predicting buying behavior.

REFERENCES
Kuswanto, K., Refnida, R., & Ratnadillah, L. / Jurnal Pendidikan Ekonomi & Bisnis, 9(2) 2021, 179-188.


