Purchasing Decisions in Terms of Perceived Quality and Product Knowledge

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Abstract— The purpose of this study is to find out the Quality, Product Knowledge, and Purchase Decisions on Samsung smartphone products as well as to determine the effect of Quality Perception and Product Knowledge on Purchasing Decisions simultaneously and partially on samsung smartphone products. This study used descriptive and verification methods. The analytical method used is a multiple regression analysis method using primary data by distributing a series of questionnaires to visitors of the BEC Palace in Bandung. Samples were taken using simple random sampling with a total sample of 92 people from a population of 1025. The research results are perception of quality, product knowledge about Samsung smartphones is good, and consumers have the desire to buy Samsung smartphones as their choice. The conclusion of this research perceived that the quality of Samsung is already known to be good by consumers, consumers have a good product knowledge about Samsung smartphones, consumers also have the desire to buy Samsung smartphones as their choice, perceived quality and product knowledge have a positive influence on the purchasing decisions both partially and simultaneously. The impact of this research is to be able to implement new knowledge in the field of economics that is useful in improving and assessing marketing performance, especially for Marketing Management, to improve Product Quality Perception and to be more satisfied for the consumers so that the Purchasing Decisions can arise. This study find that Perception of Quality and Knowledge of Products had a significant effect on Purchasing Decisions both partially and simultaneously.

Keywords—Quality Perception, Product Knowledge, Purchasing Decision

I. INTRODUCTION

In the selection of products, consumers first select the criteria obtained from the seller, media information, and experience in general. If consumers do not recognize a product from product quality, consumers will guess about a product's information, which will ultimately affect the purchasing decisions. Wang Feng mentioned that brand is an important differentiating factor for highly educated responses [1].

Smartphone users in Indonesia have experienced an increase. Based on the site tribunnews.com; January 2019 predicted to increase to 265.3 million in 2019 with the Compound Annual Growth Rate abbreviated as CAGR 4.77%. Meanwhile, smartphone users are expected to increase to 140.4 million in 2019 (CAGR of 26.17%). Even so for internet use it is predicted to be 89.4 Million (2019) with a CAGR of 9.2% [2]. Generally, in choosing Smartphone products, consumers first select the criteria obtained from the seller, media information, and experience. If consumers do not know a product from a country, the consumer will guess about the information of a product, which will ultimately affect the purchasing decision, following the countries of origin of products from various smartphones in the world. Perception of product quality will be one of the first things consumers see when they will buy a product. Quality is defined as the overall characteristics and properties of goods and services that affect the ability to meet stated and implicit needs. Perception of quality that arises from consumers whether positive or negative will affect the purchasing decision of a product. Perception of quality is also defined as consumer valuation of product superiority [3]. Quality perceptions arising from consumers, both positive and negative, will influence purchasing decisions on a product. Quality perception is also defined as a consumer's assessment of product superiority [4].

Besides the perception of quality, consumers choose smartphone products can also be determined by product knowledge. Product knowledge is a collection of various kinds of information about products. This knowledge includes product categories, brands, product terminology, product attributes or features, product prices, and product beliefs [5]. In addition, consumer knowledge about all knick-knacks relating to a product that being sold [6].

Product knowledge is also defined as a comparison with others; consumers have knowledge about a product [7]. Joyce and Willem defined "product knowledge is a collection of information about a product. This knowledge includes product categories, brands, product terminology, attributes or product features, product prices and confidence in the product" [8].

Consumer knowledge about learning products includes various labels, such as experience, frequency, expertise, and familiarity. When the consumers decided to buy a product, they will determine where they buy the product and when to buy it. Consumer decisions regarding the place of purchase
of the product will be largely determined by their knowledge. An important implication for marketing strategies is to provide confirmation to consumers where consumers can buy the product [9].

According Yacan Wang's research with Benjamin T. Hazen, product knowledge consistently ranks among the most important influences regarding consumer purchase behavior [10].

Babu John Mariadoss, et al. stated that "Salespersons product knowledge was measured using a five-item adapted scale adapted, that assessed the level of salespersons knowledge on usage, technical developments, applications, and treatments of the company's product offerings" [11]. Peter and Olson mentioned that consumers have different levels of product knowledge. This knowledge includes product classes, product forms, brands, and models or features [12].

Samsung's perception of the quality of some people already know, a smartphone launched from South Korea is a sophisticated smartphone that is not inferior to competing companies of other brands. Samsung’s quality can be seen from the features or specifications that make consumers want to buy the product. Perception shows that there are considerable differences in the ability of consumers to take from brands in stores in memory compared to the most famous national brands [13].

Perception of quality can influence consumer decision making in determining what products will be purchased for some consumers to see how the quality. Product quality is satisfying user needs that can include a variety of features and that enhance product performance [14]. According to Shiffman and Kanuk perceptions of product quality or services are based on various information cues from which they associate with the product [15].

The consumer's decision to buy a product after previously thinking about the worthiness of buying the product by considering information that is known to the reality of the product after he witnessed it [16].

According to Kotler and Armstrong, "The purchase decision will buy the most preferred brand, but two factors can come between the purchase intention and the purchase decision." According Raeni Dwi Santy's research, purchasing decisions are consumer decisions regarding preferences for brands in a collection of choices [16].

Indarto explained that the results of the study revealed that the effect of product quality on purchasing decisions showed that product quality had an impact or influence on consumer purchasing decisions. Thus, perceptions of the overall quality of a product or service can determine the value of the product or service and directly influence consumer-purchasing decisions [17].

Sudomo’s research in Gordius’s research, found in his research, that product quality has a positive and significant influence on purchasing decisions. So that the brand of the country of origin and the image of the country does play a very important role when the consumer makes a decision and will influence the level of consumer preference and subsequently influence the purchase intention and intention to search for information [18].

Research by Khosrozadeh and Heidarzadeh describes consumer behavior and product knowledge plays an important role. During the purchase process, the amount of knowledge that consumers have about a product will not only affect the information search behavior. Also, at the same time, influences information and decision-making processing. Furthermore, it affects consumer-purchasing intentions [19].

In Raja and Rizal's research, purchasing decisions are a matter of common concern for consumers in the process of fulfilling the need for goods and services. For marketers, the "information search" stage by prospective customers is certainly one of the opportunities for them to enter the product line that will be evaluated by prospective customers. In this case, marketers will try to provide the widest possible information regarding the characteristics of the products offered, including through various forms of promotion. Consumer’s knowledge will influence purchasing decisions. When consumers have more knowledge, they will be better at making decisions, more efficient, more appropriate in processing information, and able to recall information better [20].

Indarto used multiple regression analysis, with two independent variables namely product knowledge and quality perceptions and one dependent variable, namely purchasing decisions, product knowledge and perceived product quality have a positive effect on purchasing decisions [17]. The purpose of this study is to find out the Quality Perception, Product Knowledge, Purchase Decisions, Quality Perception, and Product Knowledge on Purchasing Decisions simultaneously and partially on smartphone products, Samsung. The method used in this research was descriptive and verification methods with a quantitative approach because the writer wants to describe the effect of perceived quality and product knowledge on purchasing decisions on Samsung smartphones.

Simultaneously, the two independent variables consisting of perceived quality and product knowledge significantly influence the purchase decision of Samsung smartphones at Atlantic Cellular Palace BEC Bandung. It can be concluded that the quality obtained by Atlantic Cellular Palace BEC consumers is in accordance with what is needed so that consumers have a good perception with the addition of consumers who already have good enough product information so that good consumer product knowledge can be seen and both affect consumer-purchasing decisions.

Partially, the perception of quality has a significant positive effect on the decision to purchase a Samsung smartphone at Atlantic Cellular Istana BEC Bandung. This means that the perception of quality on smartphones will be the main reason for consumers to make a purchase decision.
and the perception of quality has major implications for purchasing decisions.

The product knowledge partially has a significant positive effect on the decision to buy Samsung smartphones at the Atlantic Cellular Istana BEC Bandung. This means that the higher the product knowledge, the higher the frequency of making purchasing decisions and product knowledge has major implications for purchasing decisions.

II. METHOD

The sample used in this study was 92 people from the population of 1025 BEC Palace consumers in Bandung. The sampling technique in this study used a non-probability sampling method to choose samples randomly so that not every member of the population has the same opportunity to become a member of the sample. The type of method used was purposive sampling where the selection of respondents was chosen based on certain criteria, namely consumers who had bought a Samsung smartphone at the BEC Bandung palace. The data analysis technique used is:

1. Regression Analysis

The analysis technique used is multiple linear regression analysis with the following formula:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 \ldots + \beta_n X_n + \varepsilon \]

Where:

- \( Y \): Dependent Variables
- \( X_1 \): Quality Perception Variable
- \( X_2 \): Product knowledge variable
- \( \beta_0 \): Constant
- \( \beta_1 \): Linear regression coefficient variable Perception of quality
- \( \beta_2 \): Variable linear regression coefficient Product knowledge

Hypothesis:

H1: Perception of quality influences the decision to purchase Samsung smartphone products at the Atlantic Cellular Palace BEC Bandung.

H2: Knowledge of the product influences the decision to purchase Samsung smartphone products at the Atlantic Cellular Palace BEC Bandung.

H3: Perception of quality and product knowledge influences the decision to purchase Samsung smartphone products at the Atlantic Cellular Palace BEC Bandung.

III. RESULTS AND DISCUSSION

From the results of the study obtained data about the characteristics of respondents as follows in Table 1:

<table>
<thead>
<tr>
<th>Respondents based on:</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Man</td>
<td>36</td>
<td>39</td>
</tr>
<tr>
<td>Woman</td>
<td>56</td>
<td>61</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100</td>
</tr>
<tr>
<td>Age:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 - 25 years old</td>
<td>62</td>
<td>67</td>
</tr>
<tr>
<td>26 - 30 years old</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>31 - 40 years old</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>&gt; 40 years old</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100</td>
</tr>
</tbody>
</table>

The respondents were dominated by female respondents as many as 56 people (61%) and male respondents as many as 36 people (39%). Based on the results, the number of female respondents due to features such as cameras, storage or durability such as the battery so that it encourages women to make purchasing decisions looking at these factors.

The highest frequency of respondents is 13-25 years old, as many as 62 people (67%). Based on the results, many respondents aged 13-25 years because at that age is the ideal age to have a smartphone for the first time. In addition, the features and specifications factors that owned by Samsung is being a driver in making purchasing decisions.

The results of the Multiple Linear Regression Calculation are as Table 2:

<table>
<thead>
<tr>
<th>TABLE II. EQUATION OF MULTIPLE LINEAR REGRESSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>COEFFICIENTS</td>
</tr>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
</tr>
<tr>
<td>TX.1</td>
</tr>
<tr>
<td>TX.2</td>
</tr>
</tbody>
</table>

From Table 2 obtained a value of 6.944, \( \beta_1 \) of 0.646 and \( \beta_2 \) of 0.491. Thus, the multiple linear regression equations that will be formed are as follows:

\[ Y = 6.944 + 0.646X_1 + 0.491X_2 \]

a. Dependent Variable: TY

The constant of 6.944 shows that when the two independent variables are zero (0) and there are no changes, the purchase decision is predicted to be worth 6,944 times.
b. Variable $X_1$, namely the perception of quality has a regression coefficient of 0.646, indicating that when perceptions of quality are improved, it is predicted that it will increase purchasing decisions by 0.646 times.

c. Variable $X_2$, namely product knowledge has a regression coefficient of 0.491, indicating that when product knowledge is increased, it is predicted that it will increase purchasing decisions by 0.491 times.

Therefore, based on the regression test, it can be concluded if Perception of Quality and Product Knowledge is increased then the Purchasing Decision will also increase. It means that if the quality of the product is better and consumers have better knowledge of product information, more consumers will make a purchase. Enhanced in the sense that the Quality Perception indicators are performance quality, conformity quality, durability and reliability of Samsung smartphones in BEC Bandung, purchasing decisions will be higher with problem recognition indicators, information seeking, alternative evaluations, purchasing decisions, and post-purchase behavior will increase. Likewise, product knowledge if the indicator has good knowledge, desires to know more deeply, remember well the information, know the differences with other products, and buy and use their own knowledge is increasing, product knowledge is improved then purchasing decisions will increase.

According to Kotler and Keller, consumer decisions regarding preferences for brands in a collection of choices [3]. The results of Indarto Candra’s research product knowledge and perceived quality of products together can improve purchasing decisions [17].

**H1: Perception of quality influences the decision to purchase Samsung smartphone products at the Atlantic Cellular Palace BEC Bandung.**

By using SPSS, the results of the partial hypothesis test $X_1$ are obtained as Table 3:

<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 (Constant)</td>
<td>6.944</td>
<td>2.114</td>
<td></td>
<td>3.285</td>
</tr>
<tr>
<td>TX.1</td>
<td>.646</td>
<td>.128</td>
<td>.430</td>
<td>5.049</td>
</tr>
<tr>
<td>TX.2</td>
<td>.491</td>
<td>.115</td>
<td>.364</td>
<td>4.270</td>
</tr>
</tbody>
</table>

a. Dependent Variable: TY

Based on Table 2, it is known that the t-value obtained by perceived quality ($X_1$) is 5.049. This value will be compared with the t-value in the distribution table $t$. With $\alpha = 0.05$, df = n-k-1 = 92-2-1 = 89, the t-table value for the two-party test is $\pm 1.986$. From the values above, it can be seen that the calculated t-value is 5.049, which is outside the value of t-table ($-1.986$ and $1.986$). In accordance with the testing criteria of the hypothesis that H0 is rejected and H1 is accepted, it means that partially the perception of quality has a significant effect on the decision to buy a Samsung smartphone at the BEC Palace in Bandung. The results of Indarto Candra Yoesmanam’s study have a positive influence between the perception of product quality and purchasing decisions, so that the more consumers have knowledge about the perception of product quality, the faster consumers make purchasing decisions [17].

**H2: Knowledge of the product influences the decision to purchase Samsung smartphone products at the Atlantic Cellular Palace BEC Bandung.**

By using SPSS, the results of the partial hypothesis $X_2$ test are obtained as Table 4:

<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 (Constant)</td>
<td>6.944</td>
<td>2.114</td>
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<tr>
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<td>.430</td>
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</tr>
<tr>
<td>TX.2</td>
<td>.491</td>
<td>.115</td>
<td>.364</td>
<td>4.270</td>
</tr>
</tbody>
</table>

a. Dependent Variable: TY

Based on Table 4, it is known that the calculated t value obtained by product knowledge ($X_2$) is 4.270. This value will be compared with the t-table value in the distribution table $t$. With $\alpha = 0.05$, df = n-k-1 = 92-2-1 = 89, the t-table value for the two-party test is $\pm 1.986$. From the above values, it can be seen that the calculated t-value is 4.270, which is outside the value of the t-table ($-1.986$ and $1.986$). In accordance with the hypothesis testing criteria that H0 is rejected and H1 is accepted, meaning that partially product knowledge has a significant effect on purchasing decisions of Samsung smartphones at the Bandung BEC Palace. Indarto Candra Yoesmanam’s research results have a positive influence between product knowledge and purchasing decisions. The more consumers have a lot of product knowledge, the faster consumers make purchasing decisions [17].

**H3: Perception of quality and product knowledge influences the decision to purchase Samsung smartphone products at the Atlantic Cellular Palace BEC Bandung.**

By using SPSS, the results of the simulant hypothesis test are obtained as Table 5:
Based on Table 5, it is known that the calculated F-value is 30.445. This value will be compared with the value of F-table in the distribution table F. With α = 0.05, df1 = 2 and dfb = 89, the F-table value is 3.10. From the above values, it can be seen that the value of Fcount (30.445) > Ftable (3.10), according to the testing criteria of the hypothesis that H0 is rejected and H1 is accepted. This means that simultaneously the two independent variables consisting of perceptions of quality and product knowledge have a significant effect on purchasing decisions of Samsung smartphones at the BEC Palace in Bandung. It can be concluded that the quality that consumers get from BEC Palace is in accordance with what is needed so that consumers have a good perception by adding consumers who already have a good product information so that good consumer product knowledge can be seen and both influence consumer-purchasing decisions. The results of Indarto Candra Yoesmanam’s study of perceived quality and product knowledge influence purchasing decisions in choosing a product positively both simultaneously and partially. These results show that the more consumers have a perception of quality and product knowledge, the faster consumers make purchasing decisions [17].

The results of this study are in line with Kotler and Keller where consumer decisions regarding preferences for brands are in a collection of choices [3]. The results of Indarto Candra's research, product knowledge and perceived quality of products together can improve the purchasing decisions [17]. This theory is reflected in this study. In this study if the quality of the product is better and consumers have better knowledge of product information, more consumers will make a purchase. Enhanced in the sense that the Quality Perception indicators are performance quality, conformity quality, durability, and reliability. The purchasing decisions will be higher with problem recognition indicators, information seeking, alternative evaluations, purchasing decisions, and post-purchase behavior will increase. Likewise, product knowledge if the indicator has good knowledge, desires to know more deeply, remember well the information, know the differences with other products, and buy and use their own knowledge is increasing, product knowledge is improved then purchasing decisions will increase.

### IV. CONCLUSION

Quality perception and product knowledge have a simultaneous effect on interest in purchasing decisions on Samsung smartphone products at the BEC Palace in Bandung. Perception Quality and product knowledge have a partial effect on the decision to purchase Samsung smartphone products at the BEC Bandung palace.

### ACKNOWLEDGMENT

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### REFERENCES


### TABLE V. TESTING OF SIMULTANEOUS HYPOTHESES (TEST F) ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>660.632</td>
<td>2</td>
<td>330.316</td>
<td>30.445</td>
<td>.000 *</td>
</tr>
<tr>
<td>Residual</td>
<td>965.607</td>
<td>89</td>
<td>10.850</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1626.239</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- a. Dependent Variable: TY
- b. Predictors: (Constant), TX.2, TX.1

<table>
<thead>
<tr>
<th>Model</th>
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