The effect of supply chain quality perception and country of origin on Smartphones purchase intention of Indonesian consumers

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ABSTRACT

The purpose of this study was to analyze the relationship between Role of Country of Origin and Quality Perception of Smartphones Purchase Intention. The approach in the research used is a quantitative approach using PLS-SEM SmartPLS software as a data processing tool. In this study, data collection technique was carried out using either a questionnaire or online questionnaire which was distributed to 120 respondents of Millennial Smartphone Consumers. Sampling system was a snowball sampling method. Based on the results of hypothesis testing, it was found that there was a positive and significant relationship between Country of origin and perceived quality of the product. There was also a positive and insignificant relationship between Country of origin and purchase intentions. Finally, there was a positive and significant relationship between perceived quality and consumer purchase intentions.

1. Introduction

In the digital era the gadget products are something that cannot be separated from the daily life of modern humans, one of which is a smartphone. According to Adinugraha (2021), smartphone users in Indonesia currently have reached 63.1 million people or 47.6 percent of the total population in Indonesia which is a potential market share for smartphone companies in the world. Generally, most consumers will see where the product is produced from before deciding to buy the product. The role of the perception of country origin in general can lead to the characteristics of a product. The country of origin is an association and mental belief that is triggered by a country. According to Adinugraha (2021), Akkucuk and Esmaeili (2016), Country of origin is often interpreted as an identity in a product that influences consumer evaluations in identifying the country of origin of a product. The perception of country origin is related to the image of a country, even the perception of country of origin can lead to perceptions. Sometimes a perception pervades the entire country. In addition, the perception of country of origin can influence consumers when evaluating products when deciding as well as a general picture that can influence consumers. According to Yuliantoro et al. (2019), quality is one of the reasons consumers buy products. High quality is perceived by consumers because of the production of countries that have high technology. Currently, trade between countries is wide open, and the distribution of goods is getting easier. Developed countries such as the United States, Germany, Japan or South Korea are known as producers of products that are exported all over the world. Supported by marketing and advertising campaigns to support brand image, brands from these countries are popular all over the world. According to Wijaya (2021) and Yuliantoro et al. (2019), advances in information technology have made advertising media quickly accessible to the public. The market is filled with products offered to potential consumers. Therefore, marketers face intense competition in marketing their products. The decrease in trade barriers between countries has the consequence that more products and services are traded
According to Wijaya et al. (2021) and Yuliantoro et al. (2019), high-tech products from developed countries enter other countries. In Indonesia, consumer perceptions are affected by the brand image and country of origin of the product. For example, smartphone products from the United States are perceived to be of high quality, and smartphone products from China are perceived to have low prices. This is the influence of the country of origin or the country of origin of the product or brand. Brand name and product are different things. Products are offered to the market and used to fulfill needs and wants, while a brand name is a name or symbol associated with a product or service to differentiate it from other products or services. When consumers buy products, they generally consider the brand of the product. A brand that has a good brand image makes consumers have a perception that the quality for the product is also high. Previous research has discussed a lot about brand image that influences consumer purchasing decisions. Brands that are popular and have a good image are perceived by consumers as brands from developed countries. If it is associated with the image of the country of origin, for example a car brand from Germany is known as a producer of world-quality automotive products. Country of origin can be understood simply as the country of origin of a product. Country of origin will influence consumer behavior. According to Shirvani et al. (2020), Wei and Zhu (2020), local consumers will be psychologically affected if they find brands that come from abroad. In one of the studies on country of origin, Japan is perceived by consumers in Southeast Asia, namely Malaysia as the country with the highest product quality, followed by Germany and the United States. For this reason, in global business competition, marketers can take advantage of the advantages of their home country to compete and influence the psychological aspects of prospective consumers.

The growing variety of quality smartphone products with various brands circulating in the market gives consumers the opportunity to choose products. According to Pool (2018) The number of smartphone brands entering the Indonesian market illustrates that there is very tight competition in the market to make their product brands the best and enter the top smartphone brands in the Indonesian market. According to the market research institute Canalsys, the position of the top 5 smartphone vendors in Indonesia in the first quarter of 2018 was filled by Samsung which was in first place, followed by Xiaomi, Oppo, Vivo, and Smartfren who were in second, third, fourth and fourth place respectively. fifth. Samsung is still the first smartphone of choice in Indonesia. The growth of vendors from South Korea rose to 17.2 percent to 25.5 percent in the first quarter of 2018. Xiaomi, a vendor from China, managed to dominate the Indonesian smartphone market by 18.3 percent, followed by Oppo with 16.8 percent and Vivo at 6.5 percent. According to Loureiro and Kaufmann (2017), Mo and Zhai (2013), the only vendor that experienced a decline in numbers was Smartfren where its market share shrank by 5.6 percent. For companies, strong brands create value, both for companies and consumers. Nowadays, the increasing number of products offered to consumers makes them unable to assess the function of the product, for that brand and price can function in creating customer perceptions, brands help consumers to identify products, and provide useful information related to the quality of a product. Brand names originating from developed countries have a high-quality perception in the minds of consumers. This is influenced by the country of origin or the country of origin of the brand or product. Initial research on the country of origin has been carried out for. Previous research According to Muni-Awudu and Hyekomin (2017) found a positive relationship between country of origin and perceived quality and purchase intention. Country of origin is a phenomenon when consumers evaluate products based on judgments about the country of origin. Country of origin can influence consumer decisions and behavior. Research in marketing with different product contexts proves this. In its development, research with the theme of country of origin was carried out in various countries.

Hypothesis 1: Country of origin (CO) has a positive effect on perceived quality of the product (QP).

According to Shirvani et al. (2020), consumers rate positively the relationship between countries of origin and give a positive assessment of perceived quality perceptions. Perceived quality is expected to lead customers to repeat purchases, so a better understanding of the relationship between perceived product quality and product engagement, consumer satisfaction and purchase intention can help to develop consumer decision-making models. The theory regarding the purchase intention variable is explained by Shirvani et al. (2020) which discusses behavioral intentions which are influenced by three kinds of considerations, namely behavioral beliefs, normative beliefs, and control beliefs. Behavioral beliefs are beliefs about the likely outcomes of behavior and evaluations. Normative beliefs are beliefs about the normative expectations of others and the motivation to comply with those expectations. Control beliefs are beliefs about the existence of factors that can facilitate or hinder behavioral performance. According to Wei and Zhu (2020), Wijaya et al. (2021) and Yuliantoro et al. (2019), the more favorable the subjective attitudes and norms, and the greater the perceived control, the stronger a person's intention to perform a behavior. In terms of consumer purchasing decisions, at the evaluation stage a consumer will rank the brand and the form of their purchase intention. Consumers will then buy the most preferred brand, but there are other factors that sometimes influence purchase intentions and decisions to buy, namely the attitudes of other people and unexpected situations.

Hypothesis 2: Country of origin (CO) has a positive effect on consumer purchase intentions (PI).

Perceived quality is the overall feeling about the brand based on the dimensions attached to the product including characteristics such as reliability and performance, so perceived quality is intangible. Research by Loureiro and Kaufmann
(2017), Mo and Zhai (2013), Naing and Chaipoopirutana, (2014) Pool et al. (2018), Phuong and Dai Trang (2018), Shirvani et al. (2020), Wei and Zhu (2020), Wijaya et al. (2021), Yuliantoro et al. (2019) found that there was a relationship between country of origin and perceived quality. The results showed that there was a positive assessment of the country of origin and perceived quality. Many studies have been conducted on perceived quality and country of origin. According to Wijaya (2021), Yuliantoro et al. (2019), the relationship between brand image and brand equity is mediated by perceived quality. According to Naing and Chaipoopirutana (2014), Pool et al. (2018) Perception of quality directly affects consumers' purchase intentions. Before making a purchase, consumers have perceptions about the quality, price, and style of the product, only then after using the product, the purchase intention will decrease because there is a direct relationship that affects each other.

**Hypothesis 3:** Perceived quality (QP) of the product has a positive effect on consumer purchase intentions (PI).

![Fig. 1. Research Model](image)

### 2. Method

The research in this paper is quantitative. This type of research is confirmatory research which aims to test hypotheses based on existing theories. The survey research method was conducted to collect data through a list of questions on the questionnaire. This study focuses on four variables, namely brand name, country of origin, perceived quality and consumer purchase intention. The measurement scale used is a 5-point Likert scale, the questions are adapted from research conducted by Järveläinen (2012) and Country of Origin, Purchase Intention, Perceived Quality. Research respondents will be asked to fill out a questionnaire to get responses to the questionnaire questions. The research questionnaire contains question items that provide an overview of the variables studied. The data in the form of numbers are then processed and analyzed to obtain scientific information behind these numbers (Purwanto et al., 2021). The data collection technique was carried out using a questionnaire or online questionnaire which was distributed to 120 consumer respondents. Sampling system with snowball sampling method.

#### 2.1 Validity test

With the aim of knowing the validity or invalidity of the statement use in the questionnaire, the statement is declared valid if the statement used indicates something that will be measured (Latan et al., 2017). Validity testing focuses on all variables that have a unidimensional form. For this study, using convergent validity testing, namely through the Average variance extracted (AVE) value for each Latan et al. (2017). Validity of an indicator if the AVE value is equal to or more than 0.5

#### 2.2 Reliability Test

To see the accuracy, and consistency of the model can be measured using the reliability test, in the SmartPLS 3.0 program there are two ways to test the instrument model, namely Cronbach's Alpha and Composite Reliability, but usually the results of Cronbach's Alpha test have a lower value, therefore Latan, & Noonan (2017) prefers that reliability testing be carried out using Composite Reliability. Latan et al. (2017) believe that the assumption of accurate parameter estimates is tested using Composite Reliability, in Composite Reliability testing there is the use of the Rule of thumb to measure the reliability of a variable. Composite Reliability is said to be valid if the value is more than 0.7 (Purwanto et al., 2021).

#### 2.3 Structural Model Test

The study used this method to calculate the significance value of the relationship between variables directly without mediation. The magnitude of the value of the relationship between variables can be seen in the Sample Mean table in the Path coefficients. To see the relationship between variables is significant or not we can see in the T-Statistics table where the value must be more than > 1.96, or the P-Value (Betta) is less than <0.05.
2.4 R Square (Coefficient of Determination Test)

The correlation test uses the coefficient of determination (R2) between the independent variable and the dependent variable with the aim of seeing whether there is a relationship between the Independent Variable and the Dependent Variable. The results of the coefficient of determination test (R2) also show how much the independent variable explains the independent variable. An independent variable is said to contain the information needed by the dependent variable if it has an R-Square value of 1 (one) or at least close to it, and vice versa (Purwanto et al., 2021).

2.5 Quality Index

The test is to assess the model in an overall way. The test is to assess the model in an overall way. The Quality Index is measured by looking at the value of GoF (Goodness of fit), the better the resulting model can be seen from the higher the GoF value, GoF Small = 0.10, GoF Medium = 0.25, GoF Large 0.36 (Purwanto et al., 2021).

2.6 Hypothesis testing

According to Hair et al. (2019) after a research model is believed to be fit, a hypothesis test can be carried out. The next step is to test the hypothesis that has been built in this study. In this case, the bootstrapping method is applied to the sample. Testing with bootstrapping is intended to minimize the problem of abnormal research data. The last step of the test using the SmartPLS application is hypothesis testing and is carried out by looking at the results of the bootstrapping value. Hypothesis testing using the Bootstrapping function on SmartPLS 3.0. The hypothesis is accepted when the significance level is less than 0.05 or the t-value exceeds the critical value (Hair et al., 2014). The value of t statistics for the 5% significance level is 1.96.

3. Result and Discussion

3.1 Reliability test

To test the reliability of the construct in this study used the value of composite reliability. A variable is said to meet construct reliability if it has a composite reliability value > 0.7 (Purwanto et al., 2019) and the alpha Cronbach value > 0.7 has a good level of reliability for a variable. Table 1

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Reliability Testing Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
<td>rho_A</td>
</tr>
<tr>
<td>CO</td>
<td>0.901</td>
</tr>
<tr>
<td>PI</td>
<td>0.888</td>
</tr>
<tr>
<td>QP</td>
<td>0.928</td>
</tr>
</tbody>
</table>

In Table 1, it can be seen the results of the reliability test analysis using the SmartPLS tool which states that all composite reliability values are greater than 0.7, which means that all variables are reliable and have met the test criteria. Furthermore, the value of Cronbach’s omission also shows that all Cronbach’s alpha values are more than 0.6 and this indicates the level of reliability of the variable has also met the criteria.

3.2 Convergent Validity

Convergent validity is used to measure the correlation between item scores and construct scores, the higher the correlation the better the data validity (Purwanto et al., 2021). Measurement can be categorized as having convergent validity if the loading factor value is > 0.7.

Fig. 2. Validity Testing
3.3 Discriminant Validity

Discriminant validity is a test of construct validity by predicting the size of the indicator from each block (Hair et al., 2021). One of the discriminant validities can be seen by comparing the AVE value with the correlation between other constructs in the model. If the AVE root value is > 0.50, it means that discriminant validity is reached (Hair et al., 2012). Discriminant validity was also carried out based on the Fornell Larcker Criterion measurement with the construct. If the correlation of the constructs on each indicator is greater than the other constructs, it means that latent constructs can predict indicators better than other constructs (Purwanto et al., 2020; Nagoya et al., 2021).

Table 2
Discriminate validity Result

<table>
<thead>
<tr>
<th></th>
<th>CO</th>
<th>PI</th>
<th>QP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>0.848</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>0.414</td>
<td>0.866</td>
<td></td>
</tr>
<tr>
<td>QP</td>
<td>0.405</td>
<td>0.707</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Based on Table 2, it appears that each statement indicator has the highest loading factor value in the tested latent constructs than other latent constructs, meaning that each statement indicator can be predicted well by each latent construct in other words discriminant validity is valid.

3.4 R Square Value

The value of R square (R²) is a measure of the proportion of the variation in the value of the affected variable which can be explained by the variable that influences it. If in a study using more than two independent variables, then the adjusted r-square (adjusted R²) is used. The value of r square adjusted is a value that is always smaller than r square. The R² value is close to 1, with the limiting criteria being divided into 3 classifications, namely (Jamal Maulana Hudin, Yusti Farlina & Denny Pribadi, 2018):

Table 3
R Square Value

<table>
<thead>
<tr>
<th></th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>0.520</td>
<td>0.510</td>
</tr>
<tr>
<td>QP</td>
<td>0.164</td>
<td>0.155</td>
</tr>
</tbody>
</table>

Based on Table 3, the R Square of Purchase Intention (PIN) value of 0.510 or 51% means that the Purchase Intention (PIN) variable is influenced by quality product (QP) and Country origin (CO) variable by 51%, while the remaining 49% is influenced by other variables not discussed in this study. quality product (QP) variable is influenced by Country origin (CO) variables by 0.155 of 15.5% means that the quality product variable is influenced by Country origin (CO) variable by 15.5%, while the remaining 84.5% is influenced by other variables not discussed in this study.

3.5 Hypothesis testing

According to Hair et al. (2019) after a research model is believed to be fit, a hypothesis test can be carried out. The next step is to test the hypothesis that has been built in this study. In this case, the bootstrapping method is applied to the sample. Testing with bootstrapping is intended to minimize the problem of abnormal research data. The last step of the test using the Smart PIs application is hypothesis testing and is carried out by looking at the results of the bootstrapping value. Hypothesis testing using the Bootstrapping function on SmartPLS 3.0. The hypothesis is accepted when the significance level is less than 0.05 or the t-value exceeds the critical value (Hair et al., 2014). The value of t statistics for the 5% significance level is 1.96.

Table 4
Hypothesis Testing

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Original Sample</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO → PI</td>
<td>0.153</td>
<td>1.554</td>
<td>0.1210</td>
</tr>
<tr>
<td>CO → QP</td>
<td>0.405</td>
<td>3.957</td>
<td>0.0000</td>
</tr>
<tr>
<td>QP → PI</td>
<td>0.645</td>
<td>8.316</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

The effect of Country of origin relationship on perceived quality of the product

Based on the results of data processing, it was found that the original sample value was positive 0.405 and the T value was 3.957 > 1.96 and the P value was 0.000 < 0.050 meaning that there was a positive and significant relationship between Country of origin on perceived quality of the product. As the Country of origin variable increases, the quality of the product variable will increase significantly. This result is in line with research conducted by Adinugraha et al. (2021), Akkucuk and Esmaeili
The effect of Country of origin on consumer purchase intentions

Based on the results of data processing, it was found that the original sample value was 0.153 positive, and the T value was 1.554 < 1.96 and the P value was 0.121 > 0.050 meaning that there was a positive and insignificant relationship between Country of origin and purchase intentions. The more the Country of origin variable increases, the purchase intentions variable will increase insignificantly. This result is not in line with research conducted by Pool (2018), Phuong and Dai Trang (2018), Shirvani et al. (2020), Wei and Zhu (2020), Wijaya et al. (2021), Yuliantoro et al. (2019) that it means that there is a positive and significant relationship between Country of origin on purchase intentions

The relationship between perceived quality and consumer purchase intentions

Based on the results of data processing, it was found that the original sample value was positive 0.645 and the T value was 8.316 > 1.96 and the P value was 0.000 < 0.050 meaning that there was a positive and significant relationship between perceived quality and consumer purchase intentions. As the perceived quality variable increases, the purchase intentions variable will increase significantly. This result is in line with research conducted by Akkuçuk and Esmaeilii (2016), Muni-Awudu and Hyekomin (2017) that it means that there is a positive and significant relationship between perceived quality on consumer purchase intentions

4. Discussion

According to Shirvani et al. (2020), Wei and Zhu (2020), Wijaya et al. (2021), Yuliantoro et al. (2019) there is a belief that if perceived quality is high, it will lead to repeat purchases, and this is the foundation of any business. Thus, a better understanding of the relationship between perceived product quality and product engagement, consumer satisfaction and purchase intention can help to develop consumer decision-making models. According to Wijaya et al. (2021) the relationship between differences in perceived quality and product involvement, consumer satisfaction and purchase intention with a study conducted among consumers of sports shoes. The results show that the perception of product quality is significantly related to all the variables studied (involvement, satisfaction, and purchase intentions). However, perceived quality explained more of the variance in overall satisfaction than product involvement and purchase intention. According to Phuong and Dai Trang (2018), Shirvani et al. (2020), Wei and Zhu (2020), Wijaya et al. (2021), Yuliantoro et al. (2019) argues that there are many factors that influence consumer buying behavior to reach target customers efficiently, but marketers do not can control, such as individual, social, and psychological factors so that these factors must be considered. In terms of its effect on purchase intention, perceived product quality can directly affect purchase intention. Surely customers have some perception about product quality, price and style before they go to buy a product. After using the product, purchase intention increases and decreases, because it has a direct relationship that influences each other. If the quality is high, then the purchase intention will be high. Customers perceive perceived quality as a more specific concept based on product and service features, while companies can have a degree of control over quality. It can be concluded, if perceived quality is considered as an overall assessment, then perceived quality can be understood as a source of customer satisfaction. In the research conducted according to Shirvani et al. (2020), Wei and Zhu (2020), the results of their research found that consumers gave preference to product quality. Consumers judge product quality in terms of durability, reliability and sustainability. The results also show that customer satisfaction does act as a partial intermediary, and perceived quality has a direct positive relationship with purchase intention and customer satisfaction. In terms of managerial implications, the study confirms that quality is an important contributor to customer satisfaction and should assess not only improvements in customer satisfaction but also intentions to improve customer perceptions of product quality as a whole and to improve consumer perceptions. Then it is also important to convince customers that they are getting high quality from the company so that it becomes the main goal of the company's advertising campaign. In a competitive environment, managers should not only focus on product quality but also assess other factors. Satisfaction will be reflected in customer evaluations and purchase intentions so that there may be a trade-off between improving quality and increasing satisfaction.

The country of origin of the product is very important and is closely related to the brand name. If the brand name is very important for a business exchange, then by looking at the results of the country of origin analysis it can be said to have an equally important role. Brand name can be regarded as an asset for business organizations. According to Muni-Awudu and Hyekomin (2017) Kim and Chao (2018), Loureiro and Kaufmann (2017), Mo and Zhai (2013), (2014) brand name is a guide for potential consumers. In relation to the many products on the market, without a brand name a product cannot communicate its own function or monetary value to potential consumers. With a brand name, it will make it easier for potential consumers to give value to a product because potential consumers get a perception guide. This helps potential customers to solve their confusion when faced with many product choices. Many previous studies of Akkuçuk and Esmaeilii (2016), Muni-Awudu and Hyekomin (2017) Kim and Chao (2018), Loureiro and Kaufmann (2017), Mo and Zhai (2013) examined country of origin and brand names. When potential consumers face confusion with the large variety of products, they can use the brand name and country of origin as its function, which is to regulate the choices of potential consumers in the midst of their confusion,
and assist in making decisions. The results of the regression analysis above also show that the country of origin factors influence consumer buying intentions, this is in line with that prospective consumers will look for products that can meet their expectations and needs. The perception of the country of origin of the product will influence their decision. For example, products from Europe are generally perceived to have better durability than products from Asian countries. By paying attention to these two variables, for potential consumers it will simplify product selection, and shorten the purchasing decision-making process.

5. Conclusion

Based on the results of data processing, it was found that there was a positive and significant relationship between Country of origin and perceived quality of the product. There is also a positive and insignificant relationship between Country of origin and purchase intentions. There is a positive and significant relationship between perceived quality and consumer purchase intentions. Based on these conclusions, the following can be recommended. First, smartphone companies are expected to continue to improve the quality and good brand image so that consumers have a positive perception of quality and high brand trust considering the competition in the smartphone market in Indonesia is quite tight. Consumers do not really pay attention to where the product comes from if the product is able to build a good perception of quality and brand. Furthermore, for researchers, it is hoped that this research can be improved and be able to help other researchers by making it a reference for further research. Thus, further researchers can develop this research further both from the method, object, and place of research.

References


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