

Effects of Product Quality, Service Quality, Price Perception, and Reputation on Purchase Intention: The Mediating and Moderating Roles of Trust in Shopee as an Online Shopping E-Commerce

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Abstract

The research entitled "Effects of Product Quality, Service Quality, Price Perception, and Reputation on Purchase Intention: The Mediating and Moderating Roles of Trust in Shopee as an Online Shopping E-Commerce" aims to examine and analyze the influence of the shopping experience based on product quality, service quality, price perception, reputation, and consumer confidence in purchase intentions on the Shopee application. The method used in this research is an online questionnaire via Google Form with a sampling technique of 220 respondents and using Structural Equation Modeling data analysis with the help of AMOS 23 software. Based on the data analysis carried out, it was concluded that product quality, service quality, price perception, reputation, and increased consumer confidence in E-Commerce has a positive influence on consumers' purchase intentions.

Keywords

product quality; service quality; price perception; reputation; trust in E-Commerce; purchase Intention; Shopee



I. Introduction

Technological developments globally have made all technological goods undergo rapid changes to suit individual lifestyles, such as mobile phones. Mobile phones recently have made mobile phones not only used as a communication tool but also used as a technology that helps individuals to do daily activities such as at work, checking email/data, and even shopping online. These developments make individuals today depend on smartphones, and this has an impact on smartphone demand. Therefore, the use of smartphones and mobile applications in this modern era provides new opportunities for companies interested in forming relationships with consumers (Tarute et al., 2017). In the past few years, the use of smartphones for internet activities has increased compared to the previous era. This allows users to use the internet as a mediating tool to shop online in E-Commerce. E-Commerce has grown rapidly in Indonesia in recent years, which is one of the efforts to expand marketing reach to be more effective and efficient. The development of E-commerce in Indonesia has affected some consumer behavior.

In E-Commerce, the internet ability to engage with consumers is necessary to capture and retain market share in a highly competitive market, especially the E-commerce mobile applications market. In this era, the number of mobile applications is greatly increased, but the margin per sales is very low (Dovaliene et al., 2015; Lim et al., 2015). The more attractive the technology and mobile applications, it will make many E-commerce companies want to develop relationships with consumers through mobile applications. With so many differences in consumer behavior, it creates new challenges for companies to take advantage of E-commerce mobile application technology as an intermediary on

how they can influence consumer purchase intention through various directions such as product quality, service quality, price perception, reputation, and trust in E-Commerce.

Shopee is one of applications for electronic trading (E-Commerce) tools for buying and offering online easily and quickly. Shopee exists within the frame of a mobile application to make it easier for users to carry out online shopping activities. Shopee is an e-commerce company that came from Singapore under the sponsorship of the Garena Company. Shopee application started to enter Indonesia on December 1, 2015 (Rafsandjani, 2018). Shopee is known to be able to provide free shipping services for customers. Indeed, Shopee started to be followed by other e-commerce business (Nursyirwan & Ardaninggar, 2020).

II. Review of Literature

2.1 Product Quality

Offering good quality products and benefiting customers can have a positive effect on customer trust when shopping online. As stated by Siswati & Widiانا (2021), product quality is the overall product features and characteristics that can provide satisfaction to consumers. This evidence is also in line with Hulu & Roswanti (2018), that if consumers have trust in a particular brand or product into consideration of consumers to increase the purchase of a product or service. This can increase the customer's sense of trust because the goods that have been offered will give rise to the customer's intention to repurchase the product, also quality could be a very imperative portion of a product, both goods and services to gain the trust of consumers. In line with Siswati & Widiانا (2021), good product quality in online commerce can be in the form of products or goods that do not harm effectively, and there are no defects from consumers, meaning that the product is by the wishes of consumers, including the benefits of the appropriate product.

H1. Product quality has a positive impact on trust in E-commerce

2.2 Service Quality

The key success factor to survive within the furious e-environment competition is a service-focused strategy. A company must provide a superior service experience to its customers, therefore they will repurchase and be loyal to the company (Rita et al., 2019). To get a high level of customer satisfaction, high quality of service is required, which often leads to favorable behavioral intentions. Numerous analysts have examined the concept of service quality. In line with Blut et al., (2015), service quality traits have a significant relationship with overall service quality, specifically through e-service quality, customer satisfaction, and repurchase intentions, but not with WOM. According to Chang et al., (2013), trust is one of the most important factor to attract e-commerce buyers. However, a few studies on the impact of service quality have a positive impact on trust, especially in the sphere of online business.

H2. Service quality has a positive impact on trust in E-commerce

2.3 Price Perception

A price is a key major tool and a significant determinant of consumer purchasing decisions, it is also used excessively to attract consumers to certain products. Different ways of price levels have different impacts on consumers' perceptions and on their purchasing decisions (Aprilianty et al., 2016). According to Gotmare et al., (2021), progresses in technology and information analytics empower online retailers to embrace dynamic pricing strategies that help identify and track individual online customers in real-

time. In line with Hung et al., (2021), reference prices are an effective method for consumers to encode information, increase purchase volume, and strengthen brand choice. E.g., consumers who want to buy products online can check prices listed on e-commerce platforms like Shopee, etc, or use comparison sites or price tracking tools to track price fluctuations. By that, applying the right price perception for customers will gain trust and provide them with the desired price threshold value.

H3. Price perception has a positive impact on trust in E-commerce

2.4 Reputation

Reputation can be interpreted as an image of the mind, namely the image that is in individual's mind. Reputation is an intangible asset that is difficult to measure and explain since reputation is not a product that can be seen (Agustin & Helianto, 2020). Reputation evaluation is usually done through a post-transaction feedback review. However, the quality of the feedback degrades the quality of the reviews. According to Tian et al., (2015), reputation is one of the most important ways to help build trust, also introducing an adaptive and dynamic reputation-based trust model to evaluate trust, based on community feedback about participants' past behavior.

H4. Reputation has a positive impact on trust in E-commerce

2.5 Trust in E-Commerce

According to Tian et al., (2015), trust is an abstract concept and it is often used interchangeably with relative concepts such as reputation, credibility, and self-confidence. On the other hand, trust also defined as a multi-faceted concept that combines cognitive, emotional, and behavioral components that creates customer loyalty. Aparicio et al., (2021), stated that loyal customers develop connections with the company and carry on in an unexpected way from ordinary customers, consumer loyalty has an impact on the attitude taken and thus on purchase intention. Another study was conducted to understand the impact of gamification on brand satisfaction and loyalty, moreover confirming the positive impact of trust on sellers on purchase intention, repurchase, and purchase intention (Aparicio et al., 2021).

H5. Trust in E-commerce has a positive impact on purchase intention

2.6 Purchase Intention

According to Hulu & Ruswanti (2018), it shows that product quality influences trust, and trust affects purchase intentions. The determinant of consumer confidence is the consumer's perception of the quality of a product/service. Likewise, with the influence of prices, different ways of price levels have different impacts on consumers' perceptions and on their purchasing decisions (Aprilianty et al., 2016). Quality is a combination of properties and characteristics that determine the extent to which the output can meet the requirements of consumer needs. Therefore, if consumer needs are met based on undoubted quality and the right price, it can form consumer trust and loyalty (Hulu & Ruswanti., 2018). On the other hand, reputation evaluation is usually done through post-transaction feedback reviews. According to Tian et al., (2015), reputation is the foremost significant ways to help build trust, which is it also introduces an adaptive and dynamic reputation-based trust model to evaluate trust, based on community feedback about participants' past behavior. Therefore, if customer loyalty has been obtained, customers can easily trust products and services that can be repurchased based on the experiences that have been obtained by consumers.

H6. Product quality, service quality, price, and reputation has a positive impact on purchase intention

III. Research Method

A survey approach would be implemented in this research, by spreading online questionnaires to social media to be filled by respondents that are fulfilling the classification required. According to Sekaran & Bougie (2009), "The questionnaire is a preformulated written set of questions to which respondents record their answers, usually within rather closely defined options". The questionnaire is a list of written statements that were already formulated and then respondents select their responses. The sample of the research is about the number of certain characteristics of the part of the population that has the same characteristics of the population.

The distribution of research questionnaires were conducted online using the Google Form platform, distributed through social media such as Facebook, Instagram, Whatsapp, etc. The respondents in this research are mainly smartphone users that are actively involved in using mobile applications E-commerce "Shopee" especially in Yogyakarta. Online data retrieval is more effective and efficient because the data must be filled in completely before it was sent. With non-probability and judgment sampling, this study is targeting 220 individual respondents who are still using mobile applications. Based on this technique, certain criteria for a respondent in this study are based on the number of samples:

- Minimum sample size = 5 x total questionnaires items = 5 x 27 = 135
- Maximum sample size = 10 x total questionnaires items = 10 x 27 = 270

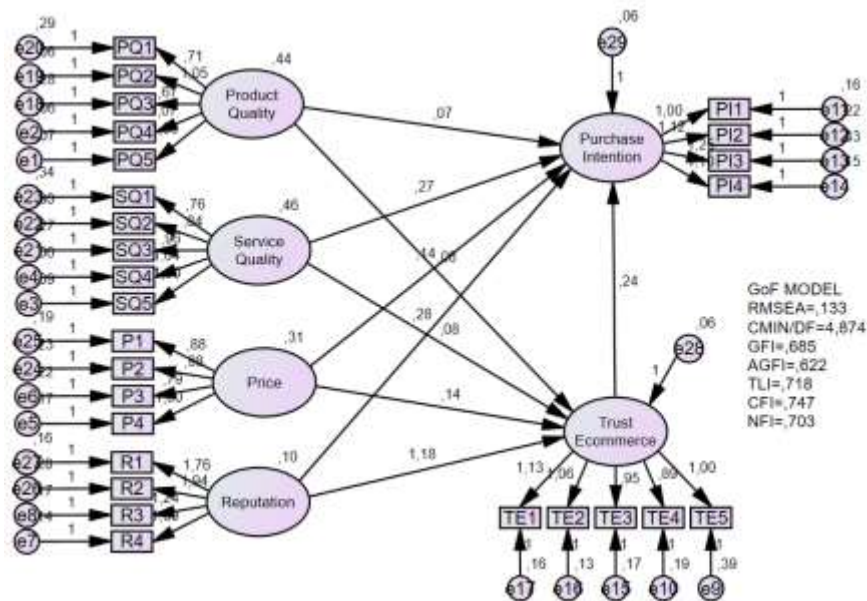
Table 1. Research Variables

No	Name of Variable	Function Variable
1	Product Quality	Independent
2	Service Quality	Independent
3	Price Perception	Independent
4	Reputation	Independent
5	Trust in E-Commerce	Intervening
6	Purchase Intention	Dependent

IV. Result and Discussion

4.1 Descriptive Statistics

The next stage is to make the shape of the research model on AMOS 23 software, the model created in this study is adjusted to the theory and framework of thought in previous research. The model in this study is presented in Figure 4.1 using AMOS 23 software.



Source: Primary data processed (2022)
Figure 1. Research Model with AMOS 23

To make it easier when entering data into the AMOS 23 software, the name of each dimension is used as an abbreviation or a code. The names are preceded by letters from each of the existing dimensions. Furthermore, testing was carried out on the research model that had been made on the AMOS 23 software by looking at the degree of freedom (df) number. The AMOS 23 software needs to estimate the variance and ovarian variance in the research model that has been created. The results of testing the research model in Figure 4.1 show the results of the calculation of the degree of freedom (df). On the other hand, in assessing the model with SEM, it begins by looking at the R-square for each dependent latent variable. Table 2 is the result of R-square estimation using AMOS.

Table 2. Value of R Square

Variable	R Square
Trust in Ecommerce	0,713
Purchase Intention	0,575

Source: Primary data processed (2022)

In principle, this study uses two variables that are influenced by other variables. The results of the R Square value of the Trust in Ecommerce variable are 0.713 or 71.3%, meaning that the Product Quality, Service Quality, Price and Reputation variables can substantially explain the Trust in E-commerce variable with a level of 71.3% while the rest is influenced by other factors that are not included in this research variable. While the results of the R Square value of the Purchase Intention variable are 0.575 or 57.5%, meaning that in Product Quality, Service Quality, Price, Reputation and Trust in Ecommerce variables can substantially explain the Purchase Intention variable with a level of 57.5% while the rest is influenced by other factors, which are not included in the variables of this study.

4.2 Hypotheses Testing

The test results with the AMOS program provide structural equation model results that show the relationship between exogenous, endogenous, and intervening variables. After identifying the description of the relationship between the variables of this study, the results of hypothesis testing will be presented. The results of the SEM analysis will be presented with the path coefficient values between the following variables, and the significance of the hypothesis test results in Table 3 below:

Table 3. Path coefficient values and (Direct Effect) hypothesis testing

	Estimate	S.E.	C.R.	P	STATUS
Trust_Ecommerce <--- Product_Quality	,079	,037	2,144	,032	Accepted
Trust_Ecommerce <--- Service_Quality	,085	,036	2,332	,020	Accepted
Trust_Ecommerce <--- Price	,138	,048	2,877	,004	Accepted
Trust_Ecommerce <--- Reputation	1,180	,173	6,812	,000	Accepted
Purchase_Intention <--- Trust_Ecommerce	,239	,139	1,719	,086	Accepted
Purchase_Intention <--- Product_Quality	,071	,037	1,917	,055	Accepted
Purchase_Intention <--- Service_Quality	,275	,042	6,589	,000	Accepted
Purchase_Intention <--- Price	,139	,051	2,759	,006	Accepted
Purchase_Intention <--- Reputation	,279	,196	1,423	,155	Rejected

Source: Primary data processed (2022)

The results of hypotheses testing of Table 3 shows the relationship between product quality, service quality, and price perception variables affects Trust in E-Commerce (intervening) and purchase intention show a coefficient value (positive) and a p-value not more than 0.1. Therefore, it can be concluded that product quality, service quality, and price perception variables has significant effects on Purchase Intention. Meanwhile the reputation variable and purchase intention show a coefficient value of 0.279 (positive) and a p-value of 0.155 which is greater than 0.1 (10%). So, it can be concluded that reputation has no significant effect on Purchase Intention.

Table 4. Mediation Test (Indirect Effect)

No	Variable	Path Coefficient
1	Effect of Product Quality on Purchase Intention through the mediation of the Trust in E-commerce variable	0,019
2	Effect of Service Quality on Purchase Intention through the mediation of the Trust in E-commerce variable	0,020
3	Effect of Price on Purchase Intention through the mediation of the Trust in E-commerce variable	0,033
4	Effect of Reputation on Purchase Intention through the mediation of the Trust in E-commerce variable	0,282

The results of testing the mediation hypotheses (*indirect effect*) in Table 4 shows the relationship between product quality, service quality, price perception, and reputation variables through the mediation of the Trust in Ecommerce variable shows a coefficient value (positive). Therefore, from the table above it can be concluded that product quality (0,019), service quality (0,020), price perception (0,033), and reputation (0,282) variables

has a positive effect on Purchase Intention through the mediation of the Trust in Ecommerce variable.

4.3. Discussions

After the researcher has tested the hypotheses based on the findings of the research, the following discussion can be drawn:

- a) The product quality offered by Shopee as a mobile application has a positive effect on the customers' trust in e-commerce.

Based on the results of data analysis leading to the CFA SEM test, product quality variable has a positive and significant effect on trust in e-commerce. Therefore, it is said that the results of H1 are accepted. This means that the higher the level of consumer certainty in a product, the higher the purchase intention for the product. The results of this study are in line with previous research conducted by Hulu and Ruswanti, (2018) which showed that aspects of an offer such as good product quality has strong effect on consumers's the trust in e-commerce.

- b) The service quality offered by Shopee as a mobile application has a positive effect on the customers' trust in e-commerce.

Based on the results of data analysis leading to the CFA SEM test, service quality variable has a positive and significant effect on trust in e-commerce. It can be conclude that the results of H2 are accepted. This means the higher the quality of the product, the higher the trust of users to buy the product. The results of this study are in line with previous research conducted by Wilson et al., (2019) which showed that service quality offered are relevant for trust in e-commerce felt by users.

- c) The price perception offered by Shopee as a mobile application has a positive effect on the customers' trust in e-commerce.

Based on the results of data analysis leading to the CFA SEM test, it shows that the price perception variable has a positive and significant influence on trust in e-commerce, so the results of H2 are relevant and accepted. This means that the price perception given by the Shopee application has an effect on purchase intention and refers to an increase in consumer confidence. The results of this study are in line with a research by Zielke and Komor, (2014) which proved the important role of deliberation to find out the lower and higher prices is characterized as price awareness, and it has an impact on consumers' trust of price perceptions in getting a positive response from users.

- d) The reputation offered by Shopee as a mobile application has a positive effect on the customers' trust in e-commerce.

Based on the result of data analysis that led to the CFA SEM test, reputation has a positive and significant effect on trust in e-commerce. Therefore, H4 were accepted. The more guaranteed the reputation of the Shopee application, the higher the trust obtained from consumers. The results of this study are in accordance with the previous research by Zelalem (2021) stated that, reputation is additionally conceptualized as the consumer's perception of a brand reputation, and the reputation is strongly characterized as the degree to which buyers' trust to a brand.

- e) The trust in e-commerce offered by Shopee as a mobile application has a positive effect on the customers' purchase intention.

Based on the result of data analysis that led to the CFA SEM test, trust in e-commerce has a positive and significant effect on purchase intention. Therefore, H4 were accepted. The higher the consumer trust in the Shopee application, the higher the purchase intention obtained by Shopee as an e-commerce. The results of this study are in

accordance with the previous research by Jeon et al, (2021), that found consumers' trust in a store or brand through the network is also at a level comparable to their offline store since their previous buying experience. This clearly has a positive effect on the purchase intention felt by consumers through the trust that has been obtained.

- f) Product quality, service quality, price perception, and reputation offered by Shopee as a mobile application has a positive effect on the customers' purchase intention. Based on the results of data analysis leading to the CFA SEM test, product quality, service quality, and price perception variables have a positive and significant effect on purchase intention. It can be concluded that the results of H₆ were accepted. On the other hand, reputation does not have a significant effect on purchase intention. Therefore, the result of reputation is rejected. The results of this study are in line with the previous research by Hulu and Ruswanti (2018), which showed product quality influences purchase intentions, and trust affects purchase intentions. The determinant of consumer confidence is the consumer's perception of the quality of a product/service. On the other hand, previous research by Aprilianty et al, (2016) stated that the influence of prices, different ways of price levels have different impacts on consumers' perceptions and on their purchasing decisions.

V. Conclusion

This research examines effects that can influence purchase intention through product quality, service quality, price perception, reputation, and trust in E-Commerce. Therefore, the following conclusions can be drawn:

1. Through the results of the research analysis listed, the analysis that have been carried out show the effect of a positive relationship between product quality, service quality, price, and reputation on trust in e-commerce as a mediator and to the dependent variable purchase intention. It can be concluded that almost all of the hypotheses that have been formulated can be accepted, therefore the results shown in the overall hypotheses are positive and significant. From all of the results, there were twelve approved hypotheses (direct & indirect) and one disapproved hypothesis (direct).
2. This research reveals that the influence obtained from trust in E-commerce on product quality, service quality, price, and reputation has created an impact on customers to choose preferences to create their purchase intentions. People will choose how Shopee application as an E-commerce offers the convenience and uniqueness of their experience by shopping on the application. Therefore, the seller and the application provider must be able to provide a high-quality experience for customers.
3. Within the acceptance of the direct and indirect hypothesis, the positive and significant influence of product quality, service quality, price, reputation on trust in e-commerce, Shopee application and sellers must increase these variables to get consumer purchase intentions. The right strategy must be formulated by taking into account the indicators of each variable.
4. To fulfill all of this, Shopee management and sellers must provide the best for customers starting from product quality, service quality, price, brand reputation in line with the appropriate market share, a qualified place to sell for sellers, good and suitable offers for customers. It also ensures that customers have the opportunity to learn a unique and interesting experience while shopping online.

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