

## FACTORS AFFECTING TRUST ON PURCHASE DECISIONS THROUGH E-MARKETPLACE

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**Abstract:** *This study aims to explain the effect of customer reviews and prices on purchasing decisions through trust, and to examine the effect of trust on purchasing decisions on e-marketplace users in Indonesia. Data was collected using a questionnaire survey of 185 active e-marketplace buyers in Indonesia. The analysis used to prove the hypothesis in this study is Structural Equation Modeling (SEM) based on components or variants known as Partial Least Square (PLS) with Smartpls 3.0 application. The results of this study indicate that trust has a positive and significant influence on purchasing decisions. While customer reviews and prices are factors that affect the trust. Where customer reviews have the greatest influence in influencing trust in purchasing decisions through e-marketplaces in Indonesia. This study offers several implications from the research results.*

**Keywords:** *Trust, Purchase Decision, Customer Review, Price, E-marketplace*

### 1. Introduction

The development of the information technology industry is currently expanding, accompanied by the increasing use of the internet which has become part of various activities of people's lives in Indonesia, including business activities through trading sites known as e-commerce. Based on data from the Indonesian Internet Service Providers Association (APJII) in 2019, the percentage of internet users to the total population in Indonesia reached 73.7% of which were used for online selling and online shopping activities. This shows that the opportunity to do business online in Indonesia will be even greater.

One type of e-commerce that provides a place for trading activities between sellers and buyers, namely e-marketplaces, where online sales places act as third parties in transactions. Pavlou and Gefen (2004) define e-marketplaces as commercial sites consisting of buyers and sellers. sellers who exchange information products and conduct transactions using Internet technology. E-marketplace is a great opportunity for micro, small and medium businesses to overcome the problem of limited access to information technology due to limited capital and lack of experts. Currently, the major e-marketplace players in Indonesia are Tokopedia, Shopee, Bukalapak, Lazada and Blibli.

The behavior of online consumers is different from traditional consumer behavior. For online consumers, conducting transactions with online marketers will consider the uncertainty and risk when compared to conventional buying and selling transactions. The results of research conducted by Dharmaadi, Suhardi, Hidayat, Nugraha, & Supangkat (2014) revealed that it turns out that most Indonesians still don't trust e-commerce sites. This distrust turns out to be not from the security aspect on the e-commerce site he uses but from the merchant or third-party seller involved in the e-commerce site.

Customer trust is very important for successful transactions on e-marketplaces, because buyers routinely transact with new sellers who have little or never interacted before (Pavlou & Gefen, 2004). Considering the structure of the e-marketplace, we can assume that customer trust will be fostered by two objects, namely the e-marketplace company (market maker) and the seller in it. In e-marketplaces, market makers are responsible for fostering institutional trust; they are expected to provide mechanisms to structure, regulate, and legitimize the commercial activities that occur in their spaces (Bhargava, Choudhary & Krishnan, 2000). On the other hand, it is the merchant or seller in the e-marketplace who is responsible for the quality and timely delivery of the products or services they sell to establish customer trust.

One of the things that an online buyer pays attention to regarding trust is the availability of information about the product in the review column which contains reviews from customers who have purchased the product. Customer reviews can provide diagnostic value at this stage of the purchasing decision process. The buying decision process includes the stages of need recognition, information search, alternative evaluation, purchase decision, purchase, and post-purchase evaluation (Kotler & Keller, 2005). Once the need is identified, consumers can use customer reviews for information seeking and evaluation of alternatives. The ability to explore information about alternatives helps consumers make better decisions and experience greater satisfaction when using online channels. (Kohli, Devaraj, & Mahmood, 2004)

In addition, price is also one of the considerations of a consumer in purchasing a product. In research conducted by Shanthi and Kannaiah (2015) it was found that price is the most influential factor in online purchasing decisions. Sellers on e-marketplaces are competing to provide low prices and discounts in order to compete with other sellers. This is often known as a “price war” in e-marketplaces. However, the price discrepancy with the product provided will make a consumer also doubt the product.

Every merchant or seller on an e-marketplace has its own challenges to attract consumers in the midst of competition from other online sellers. Growing consumer trust online is one of the most important things. Therefore, this study will provide an explanation of the effect of customer reviews and prices on purchasing decisions through the trust of e-marketplace users in Indonesia.

## **2. Literature Review**

### **E-marketplace**

E-marketplace is one type of e-commerce. The definition of e-marketplace according to Turban, Lee, King, McKay, & Marshall (2008) is a virtual market where buyers and sellers meet to carry out various transactions such as exchanging products, services, or information. E-marketplaces have three main functions, namely; (1) A place to meet buyers and sellers, (2) Facilitate the exchange of information, goods, services, and payments related to market transactions, and (3) Provide institutional infrastructure, such as legal and regulatory frameworks that enable the efficient functioning of markets.

From the consumer's point of view, online purchases can be advantageous in many ways: they allow comparisons and provide qualitative information about various products; increased transaction speed; there is a cost advantage; and instant order confirmation (Cheung & Law, 2009)

## **Trust**

Trust plays a key role in creating the expected satisfaction results on online transactions. In the context of internet shopping, Mayer, Davis, & Schoorman (1995) define trust as the belief that online shoppers have in online sellers and are willing to engage in online shopping transactions, even with the possibility of loss, based on the expectation that the seller will engage in the practice, which is generally acceptable, and will be able to deliver the promised product or service. Furthermore, trust is built by three dimensions, namely; (1) Competence (ability) (2) Benevolence (Kindness) and (3) Integrity (integrity).

Capabilities are perceptions of how well the vendor or seller in the e-marketplace does their job or how broad the vendor's knowledge (skills/competencies) is. Kindness is focused on vendors acting in the customer's best interests, trying to help, and genuinely caring. While Integrity is the perception of truth, honesty, sincerity, and maintaining vendor commitments (McKnight, Choudhury, & Kacmar, 2002).

Lee & Turban (2001) suggest that the three attributes of trust introduced above are conducive to building trust. In general, buyer trust reduces perceived risk and increases the intention to make a transaction (Pavlou & Gefen, 2004). In another related study, Verhagen Meents, & Tan (2006) concluded that there is a positive relationship between trust and consumer attitudes towards purchases. This study focuses on the trust built by consumers in merchants or sellers on e-marketplaces.

## **Customer Reviews**

Mudambi and Schuff (2010) state that online reviews are information about product and service evaluations made by consumers and intended for third-party sellers. E-marketplace sites offer consumers the opportunity to post product reviews with content in the form of a numerical star rating (usually ranging from 1 to 5 stars) and open comments written by customers about the product.

Pavlou and Dimoka (2006) found that very high seller ratings on eBay were more influential than moderate ratings and Forman, Ghose, & Wiesenfeld (2008) found that for books, moderate reviews were less helpful than very high reviews. Likewise, Park and Nicolau (2015) argue that information in the form of customer ratings on travel websites is considered useful. Where a higher review rating results in more pleasure and satisfaction than a medium or lower rating.

From several previous studies above, there are two categories of customer reviews on e-marketplaces, namely reviews and ratings. Review is part of Electronic Word of Mouth (eWOM), which is a direct opinion from someone and not an advertisement. Meanwhile, Rating is part of a review that uses the form of a star symbol rather than text in expressing opinions from customers. A very low rating (one star) indicates a very negative view of the product, a very high rating (five stars) reflects a very positive view of the product, and a three star rating reflects a moderate view.

### **Price**

Kotler and Keller (2007) define price as the amount of money billed for a product or service. More broadly, price is the sum of the value that consumers exchange for the benefits of having or using a product or service. Research conducted by Valvi & West (2013) found that price is a determining factor of online trust. The customer's choice to make a purchase from an online website is due not only to the quality of service offered by the e-retailer, but also to the price.

Meanwhile, Herrmann, Xia, Monroe, & Huber (2007) stated that there are 3 dimensions in measuring the price variable, namely price affordability, discounted prices and payment methods. Where the 3 elements are in accordance with those contained in transactions through e-marketplaces.

### **Buying decision**

Based on previous research on consumer decision making, purchasing decisions are patterns of consumer behavior that determine and follow a decision-making process consisting of various stages to reach a choice (Karimi, Papamichail, & Holland, 2015). Where the purchase decision is the stage in the buyer's decision-making process where the consumer actually buys. (Kotler & Armstrong, 2001)

The purchase decision in this study is a process where a consumer has purchased a product through an e-marketplace, then a trial purchase and a repeat purchase are used as dimensions in this study based on the stage model of the purchase decision made by Schiffman & Kanuk (2010).

Trial buying, which is when consumers buy a product for the first time as a form of trial. While repeat purchases, namely when the product or service provided by a merchant is satisfactory or better than another merchant, consumers tend to repeat the purchase.

### **3. Research Methods**

This study uses a quantitative method with a verification approach that aims to test the truth of a hypothesis, so that this verification method is used to determine the magnitude of the influence of customer reviews and prices on trust and the effect of trust on purchasing decisions. While the sampling technique used is non-probability based. purposive (judgmental), namely internet users in Indonesia who have made purchases of goods from merchants/sellers on e-marketplaces in Indonesia.

The number of e-marketplace users in Indonesia is very large and changes every day, so in determining the number of samples using recommendations from Hair, Black, Babin, & Anderson, (2014) by using the number of indicators which will later become statements in the questionnaire. So the number of samples needed is  $37$  (research indicator)  $\times$   $5$  (standard error 5%) =  $185$  sample of respondents. Thus, as many as  $185$  questionnaires were distributed online via Google forms to e-marketplace customers in Indonesia. While the measurement method that will be used in this study is a Likert scale of 1-5.

The analysis used to prove the hypothesis in this study is a component-based or variant-based Structural Equatin Modeling (SEM) known as Partial Least Square (PLS) with the Smartpls 3.0 application.

**Table 1. Variable Measurement**

Variable	Measurement
Customer Reviews	Reviews and ratings
Price	Price affordability, discounts and payment methods
Trust	Ability, kindness and integrity
Buying decision	Trial and repurchase

#### 4. Results and Discussion

##### Respondent Profile

Respondents in this study were the top e-marketplace users in Indonesia based on the iPrice Group (2020) ranking, namely; Shopee, Tokopedia, Bukalapak, Lazada and Blibli. This ranking is assessed based on the e-marketplaces that are most frequently visited by consumers monthly. Based on the results of questionnaires distributed online, the following data were obtained:

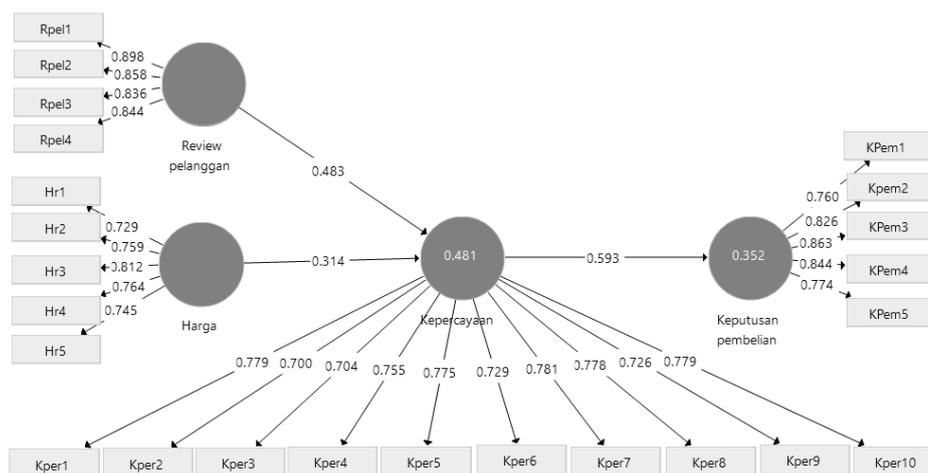
**Table 2. Profile of Respondents**

Characteristic		Frequency	Percentage (%)
Gender	Woman	128	69
	Man	57	31
Age	17-25	113	61
	26-35	34	18
	36-45	16	9
	>45 years old	22	12
Profession	Civil Servants/Private Employees/BUMN	97	53
	Businessman	27	15
	Housewife	15	8
	Student/Student	33	18
	dll (teachers, doctors, freelancers, authors, contract employees)	13	6
Most Used E-Marketplace	Shopee	61	33
	Tokopedia	60	32
	Bukalapak	33	18
	Lazada	26	14
	Blibli	5	3

##### Outer Model, Inner Model and Hypothesis Testing

The analysis on PLS is carried out in three stages, namely; analysis of the outer model, inner model and hypothesis testing. Ghazali & Latan (2015) revealed that the evaluation of the measurement model or the outer model is used to assess the validity and reliability of the model.

The outer model with reflective indicators is evaluated through convergent validity and discriminant validity from indicators forming latent variables. Convergent validity is tested by assessing the loading factor, which must be  $> 0.7$ . Meanwhile, to test the discriminant validity is to compare the square root of the AVE for each construct with the correlation value between the constructs in the model. The following is an image of the results of data processing using the PLS Algorithm:



**Figure 2. Outer Model and Inner Model**

In Figure 2, the results of the loading factor of each indicator on each variable have met the validity, which is above  $> 0.7$ . So based on these results the indicator can be used as an appropriate measuring tool to measure the latent variable.

**Table 3. Cronbach's Alpha, Composite Reliability, and AVE**

	<i>Cronbach's Alpha</i>	<i>Composite Reliability</i>	<i>Average Variance Extracted (AVE)</i>
Price	0.821	0.874	0.581
Buying decision	0.874	0.908	0.663
Review	0.882	0.918	0.738
Trust	0.914	0.928	0.564

The latent variable is declared reliable if it has a composite reliability value  $> 0.7$  and Cronbach's alpha  $> 0.6$ . Based on table 3 above, each latent variable is very reliable because it has composite reliability and high Cronbach's alpha above 0.80. Thus, all of the above variables can be included in the model to analyze the factors that influence trust and purchase decisions. While the value of Average Variance Extracted (AVE) of each latent variable  $> 0.5$ . According to Hair et al. (2014) AVE must be greater than 0.5. This means that the latent variable is able to explain the average of at least 50% of the variance of the indicators that measure it.

The Inner model is evaluated using R-Square on the variables of Purchase Decision and Trust. The following is the R-Square value in this study:

**Table 4. R-Square**

	<i>R-Square</i>
Trust	0.481
Buying decision	0.352

Table 4 gives a value of 0.481 for the Trust variable which means that overall Customer Reviews and Prices have an influence on Trust of 48%, while the remaining 52% is influenced by other factors not examined in this study. Then for the Purchase Decision variable has a value of 0.352 which means that the trust variable is able to influence the purchase decision construct by 35%, while the remaining 65% is influenced by other factors not examined in this study.

Furthermore, for hypothesis testing, it is carried out using the Bootstrapping method, which is a computational method to generate test statistics used is the t statistic or t test. This study uses a 95% confidence level or significance value ( $\alpha = 0.05$ ), where the hypothesis is accepted if the t-table 1.96. The estimated significance of the parameters will provide very useful information about the effect between the variables studied.

**Table 5. Path Coefficient An Effect Size (f-Square)**

	Original Sample (O)	<i>T Statistics</i> ( $ O/STDEV $ )	<i>P Values</i>	<i>Effect Size</i> (f-Square)
Reviews -> trust	0.483	9,068	0.000	0.341
Price -> trust	0.314	5,241	0.000	0.144
trust -> Purchase Decision	0.593	10,345	0.000	0.542

Table 5 above shows the results of the parameter coefficients (original sample) and t-statistics of each variable, namely; Review has a positive and significant effect on trust because it has a parameter coefficient value of 0.483 and a t-statistic of 9.068. Likewise, price also has a positive and significant effect on trust because it has a parameter coefficient value of 0.314 and a t-statistic of 5.241. Because customer reviews and prices have a t-statistic value above 1.96, hypothesis 1, hypothesis 3 and hypothesis 4 are accepted.

Furthermore, trust has a positive and significant influence on purchasing decisions seen from the parameter coefficient value of 0.593 and t-statistic of 10.345. Because trust has a t-statistic  $> 1.96$  then hypothesis 2 is accepted.

### **The Effect of Customer Reviews on Trust**

Customer reviews have a higher influence on trust than price. Customer reviews, which are reviews given by buyers, will provide references to potential buyers. If the review contains positive information about the seller's reputation as well as positive information about the goods being sold, then a prospective buyer will believe it and will not be afraid to be deceived because of the experiences of other customers.

In addition to positive reviews, of course, reviews must also be informative. This informative review is also an important part of e-WOM, where someone will explain their experience in buying products from sellers in the e-marketplace and can influence one's trust in making a purchase decision.

To find out the magnitude of the influence that customer reviews have on trust, it can be seen from the F-Square value which assesses the effect size model. The interpretation of the  $f^2$  value is in accordance with that recommended by Cohen in Ghazali & Latan (2015) which is 0.02 has a small effect; 0.15 has a medium effect and 0.35 has a large influence on the structural level. The value of effect size 0.341 means that customer reviews have a large influence on trust. This means that the better customer reviews contained in the e-marketplace, the higher the trust. consumer.

### **The Effect of Price on Trust**

Price is an inseparable part of the value of a product, even being a very important factor in influencing trust in the buying decision process both online and conventionally. The f-square value of 0.144 in table 5 states that price has a medium/medium influence on trust. Even so, price remains a factor in influencing trust.

In this case, the suitability of the price or the reasonableness of the price is considered in trusting the purchase decision. For example, if the price offered is too low for a product that should have a price not as low as being offered, a consumer will feel doubtful about the product being offered. Consumers may think that the product is counterfeit or of poor quality. Vice versa, if the price offered is in accordance with the knowledge possessed by a consumer about the price of the product in the market, this can foster a sense of trust in the minds of consumers. This is in line with research by Valvi & West (2013) where online sellers must balance quality with price, which is a positive influence on customer attitudes towards websites.

### **The Effect of Trust on Purchase Decisions**

Trust is a major factor in influencing online purchasing decisions. This can be seen from the magnitude of the F-Square value which assesses the effect size model. The effect size value is 0.542, which means that trust has a big influence on purchasing decisions.

In this study, it was found that most of the respondents stated that they often make online purchases through e-marketplaces, which is at least once a month. It turns out that online shopping through e-marketplaces is not something that is foreign to the public, but has become a new habit. Even so, buyers often feel uncomfortable when making online transactions with unknown sellers. This can affect whether they will decide to buy or not on an e-marketplace. The indicator of the trust variable, namely benevolence (kindness) can be seen from customers who believe that sellers on e-marketplaces will provide the best service for their customers through the chat feature available on the e-marketplace site. When a consumer already has the confidence to make a transaction on an e-marketplace, then the consumer will not hesitate to try to make the first purchase, even to make a repeat purchase.

The repurchase stage can also occur after consumers have had a good experience when shopping through e-marketplaces until finally a sense of trust arises and creates a desire to repurchase. On the other hand, a consumer who has a bad experience at the time of a trial purchase tends not to make repeat purchases through sellers on e-marketplaces.

## 5. Conclusions and Suggestions

Online consumer behavior is different from traditional consumer behavior. Online consumers will have more risk considerations compared to conventional shopping. Because they can not see and touch directly the product to be purchased. Many studies have stated that trust is an important factor in online shopping transactions. However, this research focuses on building trust in online transactions through e-marketplaces.

Based on the discussion of the results in this study, it can be concluded that; 1). Customer reviews and prices have a positive and significant effect on trust. 2). Trust has a positive and significant influence on consumer purchasing decisions through e-marketplaces in Indonesia. This means that the higher the trust held by consumers, it will increase the purchasing decisions of e-marketplace users in Indonesia.

Trust has a great influence on consumer purchasing decisions through e-marketplaces in Indonesia. Therefore, business people in e-marketplaces must be able to build and maintain a sense of trust in consumers, so that consumers want to make online purchasing decisions. Then, in this study it was found that customer reviews are the main factor in building that sense of trust. The availability of positive reviews will lead to trust in online consumers. Thus, sellers in e-marketplaces have challenges to provide good quality products and services so that a buyer is willing to give a positive review of the product he bought, either in the form of reviews or star ratings.

Further studies are expected to add other factors that can influence trust in purchasing decisions through e-marketplaces so that the research model can develop again.

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