How Reviews and Ratings Influence Consumer Purchase Intentions in Indonesian E-Commerce

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Abstract

This study examines the correlation of Reviews and Ratings on Consumer Purchase Intention in Indonesian e-commerce industry. As the Indonesian e-commerce industry rapidly growth, logistics service become the backbone of this industry. This research aims to identify the factors that have positive and significant correlation on consumer purchase intention. An explanatory quantitative method is used in this research. This study surveyed 325 e-commerce users in Indonesia. Data was collected via survey web platform using non-probability purposive sampling. The analysis was conducted using multiple regression linear to examine the relationship between Reviews and Rating on Consumer Purchase Intention. The findings reveal a positive and significant correlation between (1) Reviews and Consumer Purchase Intention, and (2) Ratings and Consumer Purchase Intention. This research contributes to the field of customer behavior by demonstrating how Reviews and Rating are influencing the consumer purchase intention in the e-commerce industry. The findings offer insights for optimizing marketing strategies through reviews and ratings.

Keywords: Reviews, Ratings, Purchase Intention, E-commerce

1. INTRODUCTION

Indonesia is considered a very potential market for ecommerce services. The number of internet users in Indonesia is continually increasing (Pramudita, Bisma, & Guslan, 2020). This generates a significant impact on the development of e-commerce, seen from the number of e-commerce startups in Indonesia. Meanwhile, the absence of a physical store results in a barrier where the buyer can't touch the item or test it. Thus, a buyer will be very dependent on information such as ratings and reviews from consumers who have previously transacted with the seller before deciding to make a purchase. After-sales information, such as ratings and reviews given by the seller, can increase the buyer's trust in the seller. This concept is also known as social marketing, where the behavior of others impacts a person's behavior (Kim, 2020).

In addition to social marketing, the concept of inertia is also a reason why buyers are influenced by ratings and reviews before purchasing a product online. Consumers are highly sensitive to ease of choice. Low search costs are an important factor since models' state that individuals tend to stick with their choices when the perceived cost of finding an alternative exceeds the benefits of the change. Therefore, buyers are reluctant to choose products with a low number of ratings and reviews or a low

overall assessment. Seeing the importance of ratings and reviews and the difference in the number of ratings and reviews provided by customers in the transaction makes this research an interesting subject to study (Dai, Chan, & Mogilner, 2020).

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With the development of the Internet, more people are buying and selling products online. E-commerce platforms are one of the sectors benefiting greatly from the digital transformation era (Pramudita & Agustia, 2020). Digitalization allows anyone to take part in online retail, inclusive of individuals as well as businesses. Apart from inclusive transactions, the benefits include being able to conduct various transactions of diverse products without leaving one's home, obtaining transactions in a short amount of time thanks to digital technology, and the ability of businesses to function and reach customers in diverse regions and provinces or even abroad, which would be difficult to achieve in a physical store thanks to e-commerce. Therefore, it is no surprise that increasingly competitive growth has occurred significantly lately and that the online business sector is starting to be considered one of the tracks for business pioneering (Yang, Chen, & Chen, 2023). Indonesia has become an interesting target for investment in recent years. This is thanks to the considerable number of digital users in Indonesia. It belongs to the top digital countries in all businesses,

from tourism to e-commerce, with a high active user base. Indonesia still has the lowest e-commerce user and customer base of all the biggest Asian markets. However, the economic potential in this country, where the incomes of millions of people are slowly growing, is enormous. The number of internet users totaled 132.7 million, 17 of whom acted as online clients, and about 7,460 local e-commerce users bought online. This study focuses on the Indonesian market and addresses the following question: What is the impact of the rating and review of customers on the purchase decision facing the e-commerce seller in Indonesia? (Ariansyah, Sirait, Nugroho, & Suryanegara, 2021).

The literature on the influence of reviews and ratings on consumer purchase decisions within the Indonesian e-commerce landscape reveals a multifaceted relationship shaped by various factors, including social influences, consumer behavior, and the evolving nature of online interactions. There is an establish a foundational understanding of how consumer decision-making is significantly impacted by feedback from others, particularly in the context of online reviews (Stoddard, Dotson, & Das, 2015). They emphasize the growing importance of word-ofmouth communication in the digital realm, noting that a considerable percentage of internet consumers rely on online reviews before making purchases. Their findings underscore the credibility marketers attribute to online reviews, which can even lead to legal actions against consumers for negative feedback. This highlights the critical role that online reviews play in shaping consumer attitudes and purchase intentions. Building on this premise, Brown (2016) explores the complexities of online consumer behavior, particularly in the apparel sector. She points out that while consumers generally trust thirdparty review platforms, the potential bias introduced by reimbursed reviews necessitates further investigation. Brown's research indicates that the quantity of reviews may have a more substantial impact on sales than the average rating, revealing a nuanced understanding of how consumers perceive and utilize reviews in their purchasing decisions. Li (2018) delves deeper into the social dynamics influencing online review behavior, suggesting that consumers often adjust their ratings based on the opinions of previous reviewers. This social influence process is crucial, as it illustrates how consumers' evaluations can be shaped by the collective experiences of others, particularly in the context of experience-oriented products. Li's insights prompt a reevaluation of the assumption that online reviews are purely objective reflections of consumer experiences.

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Riorini (2018) shifts the focus to the role of social media marketing in shaping consumer consciousness, particularly in Indonesia. Her findings indicate that social media marketing positively influences brand and value consciousness, which in turn affects online purchasing intentions. This research highlights the importance of understanding how social media interacts with consumer perceptions and behaviors in the ecommerce space. Sarjana (2021)further contextualizes the findings by examining the relationship between customer experiences and satisfaction in online shopping. They assert that a positive online shopping experience is crucial for customer satisfaction, emphasizing the role of consumer attitudes and behaviors in the rapidly growing e-commerce market in Indonesia. In a similar vein, Shuhaiber & Mashal (2019) analyze the interplay of trust and service quality in shaping customer value and satisfaction in online shopping. Their findings reinforce the notion that trust is a pivotal factor influencing consumer decisions, particularly in the context of e-commerce platforms like Lazada Indonesia. examine the elements of brand reputation in the e-commerce sector, emphasizing the need for companies to effectively communicate their brand values and enhance customer interactions. This qualitative study underscores the significance of brand reputation in influencing consumer behavior in an increasingly competitive online marketplace. Dwidienawati, Tjahjana, Bramantoro, & Gandasari investigate the comparative influence of customer reviews versus influencer endorsements on purchase intentions. They find that electronic word-of-mouth (eWOM) significantly impacts consumer trust and purchasing decisions, highlighting the social nature of online shopping and the importance of peergenerated content in shaping consumer confidence. Finally, Chen et al (2022) provide empirical evidence on the impact of online reviews on purchasing decisions through an eye-tracking study. Their research identifies critical factors such as review detail, perceived credibility, and diagnostic that influence consumer behavior, further elucidating the

complex dynamics at play in the realm of online reviews. Overall. the literature collectively underscores the significant influence of reviews and ratings on consumer purchase decisions in Indonesia's e-commerce sector, revealing landscape shaped by social dynamics, consumer trust, and the evolving nature of online interactions. Compared to the research about the perception of quality, the influence of attributes on purchase decisions, and customer loyalty in e-commerce, as well as research about e-commerce in Indonesia, the study about the influence of customer perception toward one attribute in e-commerce, customer ratings and reviews, has not been conducted in Indonesia. E-commerce has experienced rapid growth in Indonesia. The highly competitive ecommerce business in Indonesia has grown significantly. Currently, there are many new ecommerce platforms entering the market to compete with existing ones. This competition is also conducted by foreign e-commerce platforms that have significant power. Consequently, there is a notable change in consumer behavior.

As one of the influential factors in purchase decisions, sellers raise the rating and review feature on their websites. These sellers expect that the ratings and reviews obtained from customers will help other customers trust and respond to the perceptions of others who have experienced using the product. They hope that customers are satisfied and that the ratings and reviews of the product become positive. This study presents some conditions such as the trend of customer tiresomeness, pessimism regarding the products, private quality, persuasive deceptive sales, the preference of customers between e-retailers, and the average value that influences the perception of other customers toward ratings and reviews, the possibility of contributing to the overall perceived quality, positive deceptive sales deviations, clustering of positive deceptive sales, and clustering of negative deceptive sales.

2. LITERATURE REVIEW

Rating is represented by the value given to a product by the customer. Rating is derived from the subjectivity and the experience felt by the customers. The increase in discussions related to the rating accompanies the growth of online transactions. There is a negative influence on a decline in the value of rating on the probability of a purchase. Negative results were also found, indicating that the value of purchase decreases as the rating value becomes more controversial. There is an effect of the translation of the average rating on the demand for goods in the market. Products with an average amount of translation gain better demand than others. Similar results were found, showing better demand for songs with high scores compared to those with low scores (Dam, 2020).

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This study focuses on SNS in the form of online marketplace services in Indonesia, where the decision whether to buy by potential buyers can be influenced by a set of ratings and reviews. In the online shopping process, prospective customers share information about products and services they are looking for. If one user expresses an affinity with another user's published content - such as posting wall posts on a product, commenting on a product, answering a user question, writing comments, making statements, expressing great wishes, tagging, sharing information, and creating purchasing decisions, expressing likes, and writing feedback that reflects overall satisfaction - it is reasoned that their social ties should have some strength. Given the nature of the social context, users in the same business-to-business environment, such as corporate pages, may have more strongly expressed issues in products or corporate pages that contain users or companies (Zahara, Rini, & Sembiring, 2021).

Reputation evaluation systems, in the form of online buyer reviews, have been proposed to address potential challenges in regulating cheaters in distributed and crossing niches. In an environment where potential customers have limited opportunities to examine examples and regulations online as assurance that abiding by rules will be compliant with ethics, an information signal synthesized from the ease of imposed distrust is expected to screen off dishonest suppliers. It is suggested that it is easy or difficult for high-quality suppliers to comment on the online reviewer rating submitted by previous buyers. A rating system that is proportional to the proportion of negatively confused ratings has been shown to reward high-quality suppliers. However, the threat is that companies must distribute review rigidity and modify the rating system and harm themselves, and companies can afford to inflate their own scores. Society has chosen to address this reputation risk through self-certification, industry support, and the establishment of goals (Garg & Goel, 2022).

The purchase decision is a term used to describe the behavior of individuals or organizations that process the stages of buying goods and services. Every buying process is a market transaction, or the exchange of money for goods and services, along with the consequences and reminders of symbolic experiences. Individuals going through the purchase process have the intention to buy. This is in line with the idea that a purchase decision can also be called a buying decision. When talking about a purchase decision, we immediately remember a form of ecommerce: a marketplace. A marketplace is an online sale or buying and selling application in which transactions are carried out between sellers and buyers. Customer purchases depend on several factors, such as ratings and reviews (Vana & Lambrecht, 2020).

Ratings are a form of review that generally consists of star descriptions. The number of star ratings is usually a visual designation of a particular value. Each star gives different narratives or narrative values that accompany the star ratings. For example, on a scale of one to five, one star can be labeled as poor, two stars as fair, three stars as good, four stars as very good, and five stars as excellent. In general, the higher the number of stars a product review has, the more reputable the product is in the eyes of the customer. Reviews are also known as customer feedback, user reviews, or reviews about products on e-commerce. A review is a literary activity for something or a lecture that contains a variety of opinions about the reading content. In the world of ecommerce, every review submitted by the customer will bind the fee based on the stars given (Hong & Pittman, 2020).

Focusing on customer purchase decisions in offline and online used textbook retailers, a study found that the additional rating attribute for 'like new' increased both the perceived transaction quality and the ratings but was not enough to increase the actual product quality, as consumers who purchased products with this rating did not find them to be of higher quality than any other rating. Furthermore, the website that failed to provide the additional ratings received lower perceived transaction quality. Moreover, the website that provided this rating received an increase in actual product quality; however, the transaction quality was not better than that of the other website due to the riskier ratings they received. The results of

this study, along with a survey conducted, were used to describe the decision-making process that leads customers to adjust their perception of a product's quality due to more specific ratings (Moon & Armstrong, 2020).

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3. METHOD

The population in this research consists of consumers who shop at online marketplace that has implemented a rating and review system. The data used in this study is primary data. The data was collected through a questionnaire that was distributed online to consumers who had shopped in the online marketplace. The research hypothesis was developed based on previous literature. Each of the hypotheses was enunciated as a statement in the questionnaire in the form of a proposition. The questionnaire consisted mainly of a five-point Likert scale.

The study conducted a quantitative approach with survey data to test whether rating and review have a meaningful effect on purchase intention. Moreover, researchers sought to uncover the importance of rating and review on e-commerce in Indonesia. Projecting from saturation point graphs, the number of questionnaires distributed through website and returned was 325.

Data were collected through a survey using a questionnaire. Questionnaires were created and distributed for rating and review, as well as for purchase decision. This was done to avoid bias in the research data and to ensure that the answers received were based on the respondents' actual experiences. The questionnaire was distributed through social media and email to people who have ever shopped in Indonesian e-commerce using convenience sampling.

This study utilized primary data that was gathered and analyzed using multiple regression analysis. Multiple regression analysis is a statistical method used to examine the relationship between one dependent variable and two or more independent variables. This method allows researchers to determine how each independent variable contributes to changes in the dependent variable, while controlling for the effects of the others. It is widely used in various fields to predict outcomes, test hypotheses, and identify significant predictors within complex datasets.

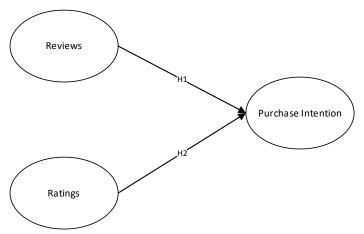


Figure 1 Research Conceptual Model

In the research methodology, the definitions of rating, review, and purchase intention in e-commerce are as follows: Rating is the transaction process, proof, and index that allows value judgments about the products or items listed on the e-commerce website. Reviews come from customers and sellers, who buy and sell items and provide opinionated views. Transaction postings can only result in either a positive, negative, or no review, with feelings of satisfaction, dissatisfaction, or disinterest. A posting from a new review changes the seller's and buyer's aggregated level of trust expression. Purchase intention represents a pattern of an individual's desire to perform a behavioral act. It includes the motivation activated by decision process elements. These elements are mainly pragmatic goals related to the value that the consumer receives from the transaction activities, as well as hedonic goals related to affective promotional values. Based on the above definition, there are the following hypotheses.

H1: There is a positive and significant correlation between Reviews and Purchase Intention

H2: There is a positive and significant correlation between Ratings and Purchase Intention

4. RESULTS

Validity and reliability test is used to determine whether the data can be analyzed or not. Reliability refers to the consistency of a measure, the three attributes of reliability are homogeneity which refers to the extent to which the items of a scale measure one construct, stability which refers to the consistency of the results with repeated testing and equivalence which refers to the consistency of the measure among responses of multiple users of an

instrument (Heale & Twycross, 2015). According to Hulin, Netemeyer, & Cudeck (2001) Cronbach alpha above 0.6 is an acceptable level of reliability. In this study all items were found to have coefficient higher than 0.6, the total degree of reliability is 0.780.

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As for validity test, Pearson's correlation analysis has been used to test the relationship between the independent variables and the dependent variables. The value of r (coefficient of correlation) is only allowed to change between + 1 and -1. +1 indicates that there is a positive relationship between the dependent and independent variable and -1 indicates a negative relationship. The value of r-count should be higher than r-table to be categorized valid. All the result of r-count (0.840, 0.863, 0.797) are >0.5214 (r-table) which can be concluded as valid.

The normality test aims to determine whether the residual values are normally distributed or not. A good regression model has residual values that are normally distributed. The normality test can be conducted using the Kolmogorov-Smirnov test. If the significance value is > 0.05, the residuals are normally distributed. If the significance value is < 0.05, the residuals are not normally distributed. The results of the normality test can be seen in the table below:

Table 1. Normality Test

	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
Reviews	0.245	324	0.251
Ratings	0.209	324	0.24
Customer_Decision	0.243	324	0.19

The multicollinearity test is necessary to determine whether there is a strong correlation (relationship) between the independent variables in the regression model. If the Variance Inflation Factor (VIF) value is ≤ 10.00 , there is no multicollinearity, and if the Tolerance value is ≥ 0.10 , there is no multicollinearity. The results of the multicollinearity test are as follows:

Table 2. Multicollinearity Test

Model		Collinearity Statistics		
		Tolerance	VIF	
	(Constant)			
1	Reviews	0.647	1.545	
	Ratings	0.647	1.545	

The purpose is to measure how well the independent variables (e-service quality of the website and e-promotion of the website) explain the variation in the dependent variable (purchase decision). The coefficient of determination ranges from zero to one. A value close to one indicates that the independent

variables provide nearly all the information needed to predict the dependent variable. The results of the coefficient of determination (R²) test.

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Table 3. Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.581ª	0.338	0.333	0.706	

Based on the result above the R² value is 0.338 which shows that the independent variable (Reviews and Ratings) can describe as 33.8% to dependent variable (Purchase Intention) in online buying.

The data analysis technique used in this study is twopredictor regression analysis or multiple regression analysis. This method is used to determine whether there is a simultaneous influence of Ratings (X1) and Reviews (X2) on Purchase Intention (Y) in online purchasing through e-commerce.

Table 4. Regression Analysis Result

	Model	Unstandardized Coefficients		Standardized Coefficients	4	Cia	
	iviodei	В	Std. Error	Beta	τ	Sig.	
	(Constant)	1.548	0.164		9.410	0.000	
1	Reviews	0.253	0.051	0.279	4.940	0.000	
	Ratings	0.318	0.049	0.370	6.559	0.000	

Both independent variables have significant value less than 0.05, which means that the respondents believe that these variables can influence purchase decision. Beta coefficient explained the relative importance of the factors in terms of their contribution to the variance. However, in this kind of study, the beta score does not matter. We only need to see whether the beta score is positive or negative since it shows the correlation characteristics to dependent variable. Both dependent variables have a positive correlation to purchase intention.

According to Ghozali (2011) in Dita Puspita (2016), the t-test is conducted to determine the partial influence of independent variables on the dependent variable. This test is performed by observing the significance value. If the significance value is less than (<) 0.05, the independent variable affects the dependent variable. Based on the result above, the significant value of both dependent variables (reviews and ratings) have a significant value less

than 0.05. It can be concluded that both hypothesis (H1 and H2) is accepted.

The findings about the effect of ratings and reviews on customer purchase decisions show that there is a significant effect of ratings on customer purchase decisions. The better the ratings received by the product, the more product reviews there are, making the product more attractive and drawing the attention of consumers to make purchasing decisions. The ranking of the product will attract the attention of consumers, encouraging them to shop more often on e-commerce websites. Online review valence is the percentage of positive, neutral, or negative reviews of a product; it is the mentioned number that highly influences consumers to shop online. Furthermore, the number of neutral reviews can increase consumers' purchase intentions. Prior research always refers to the positive valence of the reviews. Whether the positive or negative valence of online reviews can affect the sales performance of the products available at online stores is a significant question. The evidence suggests that only the positive valence of online reviews affects sales performance. Consumers tend to follow and trust the positive valence that comes from other customers, while the negative valence causes hesitancy among customers.

On this issue, in other words, e-commerce websites should not always filter reviews positively, meaning they should not only pass the positive reviews but also include anything interesting from other customers' perspectives. Neutral and negative valence of the reviews can also attract consumers' attention, which eventually leads to impulse buying decisions when shopping at online stores. In terms of practical contribution, the current study suggests that e-commerce websites should not only present the positive valence of the reviews but also acknowledge the existence of review filters that attempt to downplay the negative valence. In response, the authors of the current study could use more computational or mathematical skills explored around the review genre, focusing on the rating system to examine the overall effect of reviews.

5. CONCLUSION

This study aims to provide an understanding of the influence of rating and review in making a purchase decision on the e-commerce platform. From the analysis, it is concluded that the rating and review have a positive and significant influence on customer purchase intentions. The main contribution of this study is the identification of the role and boundary conditions of rating and review in the context of the e-commerce purchase decision-making process through empirical methodology.

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