E-Commerce Dynamics: Product Quality, Brand Image, and Ambassadors Impacting Purchase Decisions

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Abstract. This descriptive quantitative research examines the influence of product quality, brand image, and brand ambassadors on e-commerce purchasing decisions among high school students in Sidoarjo District, Sidoarjo Regency. The study, with a sample size of 160 respondents, utilized questionnaires and unstructured interviews for data collection. Results indicate that guaranteed product quality, including neat packaging and durability, positively affects purchasing decisions on Tokopedia. Additionally, a favorable brand image characterized by trustworthiness further drives consumer preference for Tokopedia, amplified by the influence of well-known brand ambassadors. These findings highlight the significance of product quality assurance, a trusted brand image, and influential brand ambassadors in attracting consumer interest and driving sales on e-commerce platforms like Tokopedia, providing valuable insights for marketers and e-commerce platforms seeking to enhance consumer engagement and loyalty.

Keywords: product quality, brand image, brand ambassador, tokopedia, quantitative

1 Introduction

Advances in information and communication technology can change the lifestyle of today's society, especially in the economic field. Nowadays, the internet has become a necessity in business activities. Many people use the internet to conduct buying and selling activities because of the many conveniences and benefits gained from using the internet. With access, we quickly obtain information that helps human activities in a simple and easy way. This technology creates communication tools that include the existence of social networks as communication tools. Social networks are not only a means of communication, but also influence a person's behavior, namely the development of consumer behavior. Not only that, the Internet also has a huge impact on science and worldview. Outside the internet there are also forms of communication that people do through social networks [1].

With the internet, we can buy online just by opening an internet connection. One of them is online shopping through social networks. We can learn about online shopping from the internet world. Online shopping is a form of change represented by the Internet in terms of innovation in consumer behavior. Therefore, the increasing number of people who transact and buy online makes it easier to meet their needs. The high use of the internet also invites new developments or phenomena in other fields. One of them is in the economic field, especially electronic commerce, where people's opportunities to open their own business opportunities are greater with the internet media. It turns out that doing business online via the Internet can play an

important role in the global money cycle. E-commerce purchases have apparently increased in Indonesia, as seen from the rise of e-commerce in Indonesia. The increase in e-commerce users has led to the development of e-commerce consumer behavior. The trend of e-commerce users not only affects entrepreneurs and adults, but also young people who become e-commerce consumers [2].

Consumers themselves consider a number of elements while making purchasing decisions when using e-commerce, such as product quality, brand perception, and the e-commerce platform's brand ambassador. A product's quality is determined by its capacity to meet explicit or implicit needs of the consumer. A product's quality statement expresses how well a given brand or product can perform the functions that are required of it. [3]. views and opinions that customers hold that are mirrored or ingrained in their own experiences and brains [4].

Factors supporting the formation of brand image according to Keller include *strength of brand association*, *favorability of brand association*, and *uniqueness of brand association* [5]. *brand ambassador* can be defined as an iconic symbol of a company or *brand* whose purpose is a promotion represented by a person or a fame in marketing a product [6].
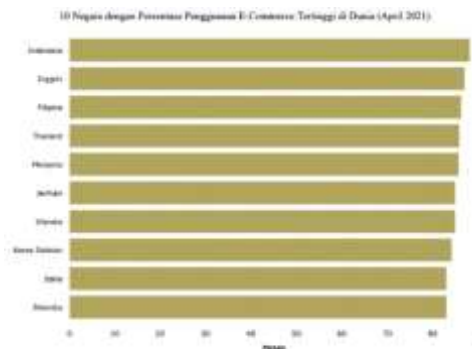

Fig. 1. 10 Countries with the Highest Percentage of E-Commerce Usage in the World (April 2021)

In the graph in Figure 1 above, sourced from We Are Social on April 21, 2021, it shows that Indonesia is the country with the highest percentage of using e-commerce in the world with 88.1% of users. In an article written in Sirclop on September 27, 2021 entitled "Indonesia is the Country with the Highest E-Commerce Users in the World" states that many people in Indonesia choose to use e-commerce because it is flexible, easily accessible, diverse and has many programs that benefit consumers [7]. The number of e-commerce visitors in Indonesia sourced from the iPrice.co.id website shows that Tokopedia e-commerce is ranked first with the number of visitors, namely 147.7 million users, followed by shopee with 126.9 users, which in other subsequent rankings already has a very significant difference in number with a difference of more than 100 million. On the sindonews.com website, it is reported that during the covid19 pandemic itself, e-commerce transactions in East Java have increased. Based on data from the East Java Provincial Economic Report (LPP), in the first quarter of 2021, the nominal value of e-commerce transactions reached IDR 10.41 trillion. In a research journal conducted by Elizar Putri Bunda and Maman Suherman, it shows how the meaning of E-commerce exists among unpad students [8].

Purchasing decisions are actions taken by consumers to want to buy a product or not. Of the various factors that influence consumers in buying a product or service, generally consumers

always consider quality, price and products that are already known to the public [9]. Product quality has a positive influence on purchasing decisions from Tokopedia *e-commerce* users, which indicates that there is a commitment from *e-commerce to* sell quality products in accordance with the satisfaction of Tokopedia *e-commerce* users. In addition, according to him, Tokopedia always prioritizes the quality of products that have long durability, have reliable products and have designs according to consumer needs. *E-commerce* Tokopedia is considered to make it easier for users to shop for the products desired by consumers [10].

According to research conducted by [11], product quality has a significant influence on purchasing decisions made by consumers in Lazada *e-commerce* [12].

Based on the background description above, the researcher is interested in raising this research, with the title **"THE *EFFECT OF PRODUCT QUALITY, BRAND IMAGE, AND BRAND AMBASSADORS ON E - COMMERCE PURCHASE DECISIONS (CASE STUDY IN KECAMATAN SIDOARJO)"*.**

2   Research Methods

This research uses quantitative research. quantitative research is a research method based on the philosophy of *positivism*, which can be used to research on a population / sample [13]. usually in sampling is always carried out randomly, in the data collection process always uses research instruments, data analysis is quantitative / statistical with the intention of seeing how far the hypothesis has been applied [14]. This research will use a questionnaire survey whose data will be processed by statistical methods and then the results will be presented systematically to make it easier to understand and conclude [15].

3   Result and Discussion

Based on the results of the validity test of each variable formed from Product Quality (X1), Brand Image (X2), Brand Ambassador (X3), Purchase Decision (Y). To measure the validity of the questionnaire, it is done by calculating the correlation between factors, between scores, on the construct so it is called item / item analysis. The significance test is used by comparing the correlation coefficient value (r_{count}) with the value (r_{tabel}) for degrees of *freedom* (df = *degre of freedom)* n-k where n is the number of samples and K is the number of independent variables at a significant level of 1% ($\mu = 0.01$). If the value of rcount> r_{tabel}, then it can be stated that the question item is valid. Likewise, on the contrary, if $r_{count} < r_{tabel}$ then it can be said that the question item is invalid. R_{tabel} in this study, is 0.204. The validity test results are as follows:

Table 1. Validity Test Results

Variables	Indicator	Counter	Rtabel	Description
Product Quality (X)$_1$	KPRO1	0,917	0,204	VALID
	KPRO2	0,940	0,204	VALID
	KPRO3	0,919	0,204	VALID
	KPRO4	0,933	0,204	VALID
	KPRO5	0,913	0,204	VALID
	KPRO6	0,895	0,204	VALID
	KPRO7	0,896	0,204	VALID

	KPRO8	0,924	0,204	VALID
	BI1	0,747	0,204	VALID
	BI2	0,672	0,204	VALID
	BI3	0,805	0,204	VALID
Brand Image	BI4	0,815	0,204	VALID
$(X)_2$	BI5	0,700	0,204	VALID
	BI6	0,649	0,204	VALID
	BI7	0,819	0,204	VALID
	BI8	0,656	0,204	VALID
	BA1	0,765	0,204	VALID
	BA2	0,799	0,204	VALID
Brand Ambassador	BA3	0,792	0,204	VALID
(X3)	BA4	0,703	0,204	VALID
	BA5	0,781	0,204	VALID
	BA6	0,842	0,204	VALID
	KPEM1	0,737	0,204	VALID
	KPEM2	0,818	0,204	VALID
	KPEM3	0,828	0,204	VALID
	KPEM4	0,765	0,204	VALID
Purchase Decision	KPEM5	0,690	0,204	VALID
(Y)	KPEM6	0,783	0,204	VALID
	KPEM7	0,654	0,204	VALID
	KPEM8	0,651	0,204	VALID
	KPEM9	0,671	0,204	VALID
	KPEM10	0,729	0,204	VALID
	KPEM11	0,810	0,204	VALID

Source: Processed by Researchers (2022)

From the table above, it can be seen that all indicators of each variable have exceeded the criteria. So overall, this validity test is feasible to define each variable in this study.

Table 2. ANOVA[a]

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.145	3	1.715	113.305	.000[b]
	Residuals	2.361	156	.015		
	Total	7.506	159			

a. Dependent Variable: Purchase Decision
b. Predictors: (Constant), Brand Ambassador, Brand Image, Product Quality
Source: Processed by Researchers (2022)

Based on Table 4.2 above, the following information is obtained:
a. F_{count} of 113.305 > F_{Tabel} (df1, 4 - 1 = 3, df2, 160 - 4 = 156, 5%) of 2.66.
b. The sig value. 0,000 < 0,05.
So, simultaneously the variables of Product Quality (X_1), *Brand Image* (X_2), and *Brand Ambassador* (X_3) have a significant effect on the Purchasing Decision variable (Y).

3.1. Partial Hypothesis Testing (T Test)

The t test or *test of significance is* used to determine whether the independent variable partially (individually) affects or not the dependent variable with the standard significance used is 0.05 and the comparison between the tcount value and the t $_{valuetabel}$.

t_{tabel} = (α/2; n-k-1)

$_{ttable}$ = (0,05/2; 160-3-1)

$\quad$ $_{ttable}$ $\quad$ = (0,025; 156)

$\quad$ $_{ttable}$ $\quad$ = 1,975

$\quad$ Ket:

$\quad$ k= $\quad$ Number of independent variables

$\quad$ n= $\quad$ number of samples

$\quad$ Here are the test results:

Table 3. T Test Results (Partial)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.436	.028		3.908	.008		
Product Quality	.614	.054	.357	5.767	.000	.527	1.897
Brand Image	.550	.059	.540	9.401	.000	.611	1.638
Brand Ambassador	.436	.056	.536	6.632	.009	.614	1.630

a. Dependent Variable: Purchase Decision

Based on Table 4.3 above, the significance value of Product Quality (X_1) 0.000 <0.05 and the $_{tcount}$ value (5.767) > t_{tabel} (1.975). This means that Product Quality (X_1) has a positive and significant effect on Purchasing Decisions (Y). Then, the significance value of *Brand Image* (X_2) on Purchasing Decisions (Y) is 0.000 <0.05 and and the $_{tcount}$ value (9.401) > t_{tabel} (1.975). This means that *Brand Image* (X_2) has a positive and significant effect on Purchasing Decisions (Y). Furthermore, the significance value of *Brand Ambassador* (X_3) on Purchasing Decisions (Y) is 0.009 <0.05 and and the $_{tcount}$ value (6.632) > t_{tabel} (1.975). $_3$So, the research hypothesis which states that there is a positive and significant influence between Product Quality (X_1) and Purchase Decision (Y) *E - Commerce* Tokopedia (H_1); There is a positive and significant influence of *Brand Image* (X_2) on Purchase Decision (Y) *E - Commerce* Tokopedia *(*H_2); There is a positive and significant influence of Brand *Ambassador (*X_3*)* on Purchase Decision *(*Y*) E - Commerce* Tokopedia (H_3), accepted.

3.2. Simultaneous Hypothesis Testing (F Test)

F testing is a testing model used to determine whether the results of regression analysis are significant or not, in other words, the estimated model is correct or not. The standard value of significance used is 0.05. The following are the test results:

Table 4. F Test Results (Simultaneous)

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	5.145	3	1.715	113.305	.000[b]

Residuals	2.361	156	.015
Total	7.506	159	

a. Dependent Variable: Purchase Decision
b. Predictors: (Constant), Brand Ambassador, Brand Image, Product Quality
Source: Processed by Researchers (2022)

Based on Table 4.4 above, the following information is obtained:
c. F_{count} of 113.305 > F_{Tabel} (df1, 4 - 1 = 3, df2, 160 - 4 = 156, 5%) of 2.66.
d. The sig value. 0,000 < 0,05.
So, simultaneously the variables of Product Quality (X_1), *Brand Image* (X_2), and *Brand Ambassador* (X_3) have a significant effect on the Purchasing Decision variable (Y).

3.3. Test Coefficient of Determination (R)^2

The following are the results of the determination coefficient test which is used to find how much influence Product Quality (X_1), *Brand Image* (X_2), and *Brand Ambassador* (X_3) have on Purchasing Decisions (Y).

Table 5. Test Results of the Coefficient of Determination (R2)

Model Summaryb			
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.828a	.685	.679	.123024992909318

a. Predictors: (Constant), Brand Ambassador, Brand Image, Product Quality
b. Dependent Variable: Purchase Decision
Source: Processed by Researchers (2022)

Based on Table 4.9 *Model Summary*, it can be seen that the Coefficient of Determination / KD / Adjusted *R Square* shows 0.679, meaning that 67.9% of the Purchasing Decision (Y) value is determined by the Product Quality variable *(X_1)*, *Brand Image* (X_2), and *Brand Ambassador* (X_3).

4   Conclusion

The following conclusions can be made in light of the research discussion under the heading The effect of product quality, brand ambassadors, and brand image on purchase decisions on e-commerce Tokopedia (Case Study in Sidoarjo Kecaamtan):
1) Product Quality (X_1) has a positive and significant effect on Purchasing Decisions (Y) with a significance value of Product Quality (X_1) 0.000 <0.05 and a $_{tcount}$ value (5.767) > t_{tabel} (1.975).
2) *Brand Image* (X_2) has a positive and significant effect on Purchasing Decisions (Y) with a significance value of *Brand Image* (X_2) 0.000 <0.05 and a $_{tcount}$ value (9.401) > t_{tabel} (1.975).
3) *Brand Ambassador* (X_3) has a positive and significant effect on Purchasing Decisions (Y) with a significance value of *Brand Ambassador* (X_3) 0.000 <0.05 and the $_{tcount}$ value (6.632) > t_{tabel} (1.975).

4) Product Quality (X_1), *Brand Image* (X_2), and *Brand Ambassador* (X_3) simultaneously have a significant effect on the Purchasing Decision variable (Y) with a significance value of $0.000 < 0.05$ and $F_{count}(113.305) > F_{Tabel}(2.66)$.

5) The variable that has the most influence on purchasing decisions in e-commerce is product quality.

Acknowledgments

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