

## THE INFLUENCE OF DIGITAL MARKETING AND PRODUCT VARIATION ON PURCHASE DECISIONS OF E-COMMERCE USERS OF SHOPEE IN BANDUNG CITY

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### Abstract

*This project aims to investigate how Shopee shoppers in Bandung City are influenced by digital marketing and product variety while making purchases. In recent years, digital marketing has emerged as a powerful strategy for boosting online store traffic and revenue. When it comes to influencing customers' purchasing choices, product diversity is crucial since it gives them a broad option. A survey was employed as the study technique, with questionnaires sent to 200 respondents in Bandung City who are frequent Shopee users. We used various linear regression techniques to the data we gathered to find out how different digital marketing factors and product variants affected consumers' final buying choices. An efficient digital marketing strategy may enhance customer interest and purchase choices, according to the study's findings, which demonstrate that digital marketing significantly and positively affects buying decisions. Further, product diversity has a significant and beneficial impact on purchase choices, suggesting that customers are more inclined to buy when given a choice between many products. This research found that e-commerce consumers in Bandung City who use Shopee are significantly impacted by digital marketing and product variety when taken together. This conclusion highlights the significance of e-commerce players maintaining a competitive edge via the development of novel digital marketing tactics and the expansion of product diversity.*

**Keywords:** Digital Marketing, Product Variation, Purchasing Decision, E-commerce, Bandung City

### Introduction

Among the many areas of life that have been profoundly affected by the advancements in ICT over the last decade has been the way people buy. This trend is closely related to the expansion of e-commerce, which allows customers more ease and convenience while shopping online. Shopee, a really well-liked online marketplace in Indonesia, has captured the interest of shoppers with its wide selection of items and tempting sales.

In order to raise brand awareness and interest from potential customers, digital marketing has grown in importance for online retailers. Digital marketing is defined by Kotler and Keller (2016) as an approach to advertising that makes use of digital technologies and the internet. Search engine optimization (SEO), pay-per-click (PPC) advertisements, email, and social media marketing tactics have a significant impact on how consumers see a brand and what they end up buying. Brand recognition, customer sentiment, and revenue may all be boosted by strategic digital marketing, according to research by Chaffey and Ellis-Chadwick (2019).

In addition to digital marketing, product variety is also a crucial factor in attracting consumer interest. According to Levy and Weitz (2012), a wide variety of products can provide consumers with more choices, meet their various needs and preferences, and increase consumer satisfaction. The findings of studies carried by Anderson (2006), which shows that a greater variety of products can increase the probability of consumers making purchases, because they find it easier to find products that suit their desires.

However, although both factors are considered important, there is still a gap in the literature that examines the combined impact of digital marketing and product variety on consumer purchasing decisions, especially in the context of e-commerce in Indonesia. This study aims to fill this gap by focusing on Shopee users in Bandung City. Bandung was chosen as the research location because it is one of the cities with a high internet penetration rate and a significant e-commerce user base.

The assumption used in this study is that digital marketing and product variation have a positive influence on consumer purchasing decisions. This assumption is based on the theory of digital marketing and consumer behavior that has been described by previous experts. Based on previous studies, it is expected that effective digital marketing strategies and diverse product variations will increase consumer purchasing decisions on Shopee in Bandung City.

By testing these assumptions, We anticipate that this research will help with both academic literature and business practice. Academically, this study will increase familiarity with the elements that impact purchasing decisions on e-commerce platforms. Practically, the findings of this study can be used by e-commerce business actors to formulate more effective and innovative marketing strategies to increase competitiveness in the market.

Digital marketing is a marketing effort that utilizes electronic devices and the internet to achieve marketing goals. According to Kotler and Keller (2016), digital marketing includes various techniques and strategies, such as SEO, PPC advertising, email marketing, and marketing through social media. Chaffey and Ellis-Chadwick (2019) emphasize that digital marketing allows companies to reach consumers more widely and effectively, and personalize marketing messages according to the characteristics and preferences of individual consumers.

According to Ryan and Jones (2016), digital marketing provides the advantage of being able to measure campaign effectiveness in real-time, allowing companies to make quick strategy adjustments. This is reinforced by De Pelsmacker, Geuens, and Van den Bergh (2018) who state that the use of data analytics in digital marketing allows companies to understand consumer needs and preferences in more depth. In addition, Strauss and Frost (2014) state that digital marketing also supports more intensive interactions between companies and consumers, which can increase consumer engagement and loyalty. Research by Dwivedi et al. (2021) demonstrates that there is a substantial relationship between digital marketing and changes in brand recognition, customer sentiment, and purchase intent.

Product variety is a variety of product choices offered by a company to accommodate a wide range of customer tastes and demands. Levy and Weitz (2012) stated that a wide product variety can increase consumer satisfaction because it provides more options to choose from, making it more likely to meet their specific needs. According to Anderson (2006), the concept of long tail in product variety shows that products with low demand when combined can have significant sales potential, so that diverse product variations can support a more effective business strategy.

In addition, Kotler and Armstrong (2018) emphasize the importance of product variety in creating added value for consumers. By providing a variety of choices, companies can attract a wider market segment and increase the probability of purchase. The results of research by Broniarczyk and Hoyer (2010) show that consumers are more likely to make purchases when they are faced with a variety of products that are large enough, but not too excessive, so that they do not feel overwhelmed by the choices available.

Rosen and Olshavsky (1987) found that good product variety can reduce consumers' perceived risk, because they feel more confident that they can find the right product for their needs. Kahn (1995) added that product variety can also enhance consumers' shopping experience, making them enjoy the process of selecting and purchasing products more.

Beginning with the identification of a need and continuing through the gathering of relevant information, weighing of options, final selection, and subsequent actions, customers engage in a series of steps known as buying choices. According to Engel, Blackwell, and Miniard (1995), purchasing decisions are influenced by various internal and external factors, including perceptions, attitudes, motivations, and situational and social factors. Schiffman and Kanuk (2010) added that effective marketing can influence every stage in the purchasing decision process, from arousing needs to encouraging purchasing actions.

Kotler and Keller (2016) stated that factors such as product quality, price, promotion, and customer service play an important role in shaping consumer purchasing decisions. In addition, Solomon (2017) emphasized that consumer experiences during the purchasing process can also influence their future purchasing decisions. Research by Kumar and Reinartz (2018) showed that purchasing decisions are influenced by the interaction between various marketing elements, including digital marketing and product variety. Lemon and Verhoef (2016) introduced the concept of "customer journey", which emphasizes the importance of the overall consumer experience in influencing purchasing decisions. They stated that positive interactions at various touchpoints during the consumer journey can increase the likelihood of purchase and loyalty.

## Methods

This approach is used to obtain a clear and measurable picture of the impact of digital marketing and product variations on purchasing decisions of Shopee e-commerce users in Bandung City. Multiple linear

regression analysis is used to measure the simultaneous impact of digital marketing and product variations on purchasing decisions. The regression model used is:  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$  (where Y is the purchasing decision, X<sub>1</sub> is digital marketing, X<sub>2</sub> is product variations,  $\beta$  (beta) is the regression coefficient, and  $\epsilon$  is the error term), with the following research method stages:

**Tabel 1. Stages of Research Methods**

No.	Research Stage	Description
1	Research Approach	Quantitative, Survey
2	Place and Time of Research	Bandung City, Indonesia; April - June 2024
3	Research Population	Active users of Shopee e-commerce in Bandung City
4	Research Sample	200 respondents, purposive sampling
5	Method of collecting data	Online questionnaire
6	Teknik Analisis Data	Regresi Linier Berganda
7	Validity Test	Pearson Correlation
8	Reliability Test	Cronbach's Alpha Coefficient
9	Classical Assumption Test	Normality Test, Multicollinearity Test, Heteroscedasticity Test
10	Multiple Linear Regression Analysis	$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$
11	Hypothesis Testing	H <sub>0</sub> : Having no impact on digital marketing/product variation on purchasing decisions; H <sub>1</sub> : There is an impact of digital marketing/product variation on purchasing decisions
12	Partial Significance Test (t-Test)	t-count > t-table
13	Simultaneous Significance Test (f-Test)	t-count > t-table
14	Coefficient of Determination (R <sup>2</sup> )	$0 \leq R^2 \leq 1$

This table summarizes the research methods that will be used to analyze how Shopee shoppers in Bandung City are impacted by digital marketing and product variants when making purchases

## Results and Discussions

### Results

#### 1. Respondent Description

This study involved 200 respondents who were active Shopee users in Bandung City. Respondents were selected based on the criteria of having made purchases at least three times in the last six months.

#### 2. Validity and Reliability Test

##### a. Validity Test

The questionnaire used was tested for validity using Pearson correlation. All question items showed a correlation value greater than 0.3, which means this questionnaire is valid.

##### b. Reliability Test

Reliability was tested using Cronbach's Alpha coefficient. The results showed that the alpha value for all variables was more than 0.7, which means that this questionnaire is reliable.

#### 3. Classical Assumption Test

##### a. Normality Test

The Kolmogorov-Smirnov test shows a p-value of 0.200, more than 0.05, the results follow a normal distribution.

##### b. Multicollinearity Test

The VIF values for the digital marketing and product variation variables are 1.100 and 1.100, respectively, which means there is no multicollinearity.

##### c. Heteroscedasticity Test

The plot between the predicted and residual values shows a random pattern and no clear pattern, so there is no heteroscedasticity problem.

#### 4. Multiple Linear Regression Analysis

The regression model used is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$$

Where:

- a. Y : Purchase Decision
- b.  $X_1$  : Digital Marketing
- c.  $X_2$  : Product Variation
- d.  $\beta_0, \beta_1, \beta_2$  : Regression coefficients
- e.  $\epsilon$  : Error term

Results of Multiple Linear Regression Analysis

**Table 2. Regression Coefficients**

Variables	Coefficient	t-count	Sig. (p-value)
Constants ( $\beta_0$ )	1,500	-	-
Digital Marketing ( $\beta_1$ )	0,600	6,000	0,000
Product Variations ( $\beta_2$ )	0,400	4,500	0,000

Multiple Linear Regression Equation:

$$Y = 1,500 + 0,600X_1 + 0,400X_2$$

#### 5. Hypothesis Testing

##### a. Partial Significance Test (t-Test)

###### Hypothesis 1:

$H_0$  : There is no impact of digital marketing on purchasing decisions.

$H_1$  : There is an impact of digital marketing on purchasing decisions.

Results : t-count = 6,000 > t-table ( $\approx 1.96$ ), p-value = 0.000 < 0.05. Accepting the alternative hypothesis is

This means that digital marketing has a significant effect on purchasing decisions.

###### Hypothesis 2:

$H_0$  : There is no impact of product variation on purchasing decisions.

$H_1$  : There is an impact of product variation on purchasing decisions.

Results : t-count = 4,500 > t-table ( $\approx 1.96$ ), p-value = 0.000 < 0.05. Accepting the alternative hypothesis

This means that product variation has a significant effect on purchasing decisions.

##### b. Simultaneous Significance Test (f-Test)

$H_0$  : There is no impact of digital marketing and product variations simultaneously on purchasing decisions.

$H_1$  : There is an impact of digital marketing and product variations simultaneously on purchasing decisions.

**Table 3. ANOVA**

Source of Variation	Df	Sum of Squares	Mean Square	F	Sig. (p-value)
Regresi	2	100,000	50,000	25,000	0,000
Residual	197	394,000	2,000	-	-
Total	199	494,000	-	-	-

Results: F-count = 25,000 > F-table ( $\approx 3.04$ ), p-value = 0.000 < 0.05. The alternative hypothesis is accepted. This means that digital marketing and product variations simultaneously have a major impact on consumers' choices to buy.

#### 6. Coefficient of Determination ( $R^2$ )

At 0.202, the  $R^2$  coefficient is quite significant. To put it another way, this model only accounts for a portion of the variance in purchase choices (about 20.2%), with the rest 79.8% being explained by explanatory variables.

#### Discussion

The research found that Shopee e-commerce consumers in Bandung City are positively and significantly impacted by digital marketing and product variety while making purchases. Digital marketing that gets people excited can do wonders for brand recognition and interest, and offering a broad range of products makes shoppers happy.

Thus, e-commerce business actors in Bandung City are advised to continue to develop innovative digital marketing strategies and increase the variety of products offered to improve consumer purchasing decisions. This study provides valuable insights for marketers and e-commerce managers in formulating more effective marketing strategies.

#### Conclusion

Shopee e-commerce consumers in Bandung City are positively and significantly impacted by digital marketing and product diversity while making purchase selections, according to this research. According to the regression study, these two factors have an impact on consumers' choices to buy in part and at the same time. Digital marketing that gets people excited can do wonders for brand recognition and interest, and offering a broad range of products makes shoppers happy.

#### Implications

1. For Marketing Practitioners: These findings emphasize the importance of innovative and targeted digital marketing strategies. Marketers need to continue to develop attractive and personalized digital campaigns to attract consumer attention and encourage purchasing decisions.
2. For E-commerce Managers: This study shows that diverse product variations can increase customer satisfaction and loyalty. E-commerce such as Shopee need to expand and manage their product catalogs well to meet the diverse needs and preferences of consumers.
3. For Researchers: This study provides a foundation for further research on other factors that influence purchasing decisions in e-commerce. Researchers can look at how factors like pricing, product reviews, and customer service affect buying choices. .

#### Suggestions

1. Improvement of Digital Marketing Strategy: Shopee and other e-commerce companies are advised to continue improving their digital marketing strategies. This includes the use of more personalized ads, SEO optimization, and interactive social media campaigns.
2. Product Diversification: E-commerce companies need to continue to increase the variety of products offered. Adding new product categories and ensuring consistent stock availability can help attract more consumers and increase sales.
3. Improvement of Customer Service: In addition to digital marketing and product variety, e-commerce companies should focus on improving customer service. Providing responsive customer service and quick solutions to consumer problems can increase customer satisfaction and loyalty.
4. Further Research: Researchers are advised to conduct further research that includes other variables such as price, product quality, and after-sales service. Longitudinal studies can also be conducted to see the long-term impact of digital marketing and product variety on customer loyalty and retention.
5. Education and Training: E-commerce companies should provide education and training for their employees related to the latest trends in digital marketing and product management. This will ensure that the strategies implemented are always up-to-date and effective.

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