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**Dewi Indriani Jusuf** International Women University, Bandung.

Jonathan Sarwono International Women University, Bandung.

# **Analysis of Consumer Behavior on Purchase Decision** at the Online Shop Shopee in Indonesia

# Dewi Indriani Jusuf, Jonathan Sarwono

#### Abstract

The goal of the research is to know the effect of the consumer behavior of online shop, Shopee Indonesia on the consumers' buying decision. In this research, the quantitative approach, descriptive and verified design are used. As much as 300 consumers of Shopee in several big cities in Indonesia are selected as respondents using a purposive method. The instrument of data collection is electronic questionnaire. The data analysis used is Structural Equation Modeling based on Partial Least Square (PLS SEM). The research results show that the consumer behavior of Shopee online shop affects the consumer buying decision significantly. The biggest effect of the consumer behavior dimension on the buying decision variable is a personal factor and the biggest effect of the consumer behavior variable is on the payment method dimension.

**Keywords:** consumer behavior, cultural factors, social factors, personal factors and psychological factors, buying decision, product selection, brand selection, distribution selection, payment method and timing.

# 1. Introduction

Today in the era of digital economy, the trend of business model has shifted from the conventional business model into the digital one. This occurs in Indonesian business world as well. Currently, it emerges various online business starting from news, transportation, online shops, online mall, online bookstores, online ticketing business, online food and so forth.

The digital technology gives both opportunities and challenges. One of the potential opportunities is that we can conduct business online more easily through the Internet media by which we can sell and buy the product only using the computers or cellular phones as an instrument of business transaction.

In this paper the writer wants to explore the role of consumer behavior in the online business in relation of the buying decision of the consumers as implemented by Shopee online shop. This online shop sells online product starting from supplementary food, such as honey, omega, and olive oil; accessories, such as belts, purses, and bracelets; home appliances, such as fan, emergency lamp, and electronic massage; as well as car appliances.

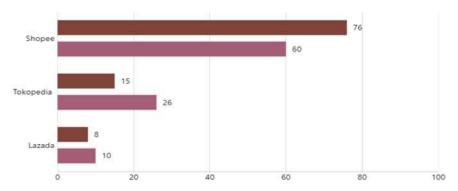


Fig. 1.1 Shopee Online Consumer. (Source: databoks)

Correspondence: Dewi Indriani Jusuf International Women University, Bandung. Populix poll results show that Shopee will be the mainstay of e-commerce for the majority of generation Z and millennial respondents in March 2023. In detail, here are 76% of Gen Z and 60% of millennials who use the application which is based in Singapore. Gen Z women use Shopee more, namely 86% of Gen Z Shopee users.

Meanwhile, men are 63%. Gen Z women use Shopee more, namely 86% of Gen Z Shopee users. Meanwhile, men are 63%. A similar thing happens to the millennial generation, 72% of women use Shopee and 46% of men.

Shopee ecommerce dominates the online transaction value as shown in the following data

No.	Nama Ecommerce	Transaction Value
1	Shopee	55,100,000,000
2	Lazada	18,800,000,000
3	TikTok Shop	16,300,000,000
4	Tokopedia	16,300,000,000
5	Bukalapak	5,700,000,000
6	Blibli	1,900,000,000
7	Amazon	400,000,000
8	Tiki	200,000,000

(Source: databoks)

Those data above implies that shopee ecommerce obtains the largest amount of consumers.

Problems of this study is: what factors emerging from the consumer behavior that affect the buying decision among the consumers under study. The goal of this study is to know whether the consumer behavior affects the buying decision among the consumers of the Shopee online shop. The theoretical common ground that underlies the study can be seen below.

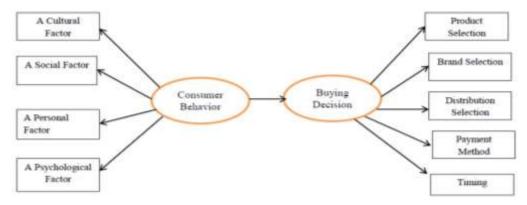


Fig. 1.2 Relationship of Variables under Study Based on Theory.

Kotler dan Keller (2016) said that the factors affecting consumer behavior are culture, social, personal, and psychological factors. Culture is the most dominant factor affecting the consumer behavior. Social factors that affect the consumer behavior are constructed by reference group, family, social role and status. While a personal factor consists of age, life cycle, job, economic environment, personality, self-concept, life style, and values. Moreover, a psychological factor consists of motivation, perception, learning and attitude. Buying decision, according to Kotler and Keller (2016) consists of product selection, trademark selection, distribution selection, buying time, and payment method.

## 2. Method

Based on the relationship of variables under study, in this research the writer uses a quantitative approach, descriptive and verified design, and survey method. As much as 300 Shopee consumers in Indonesia have been selected using a purposive method. The data collection instrument used is electronic questionnaire. Validity and reliability of the instrument is carried out using Pearson Product Moment correlation and Cronbach's Alpha. The analysis technique used is the structural equation modeling based on partial least square (PLS SEM) with assistance of Smart PLS version 3. The research model is as follows

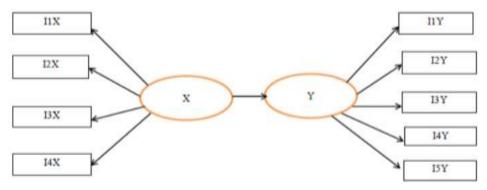


Fig. 1.2 The Research Model.

#### Where:

- X: consumer behavior
  - I1X: a culture factor
  - o I2X: a social factor
  - o I3X: a personal factor
  - o I4X: a psychological factor
- Y: purchase decision
  - I1Y: product selection
  - o I2Y: brand selection
  - o I3Y: distribution selection
  - o I4Y: buying time
  - o I5Y: payment method

The research hypothesis is as follows:

H0: Consumer behavior of Shopee online shop does not affect the consumers' buying decision among the

consumers in Bandung

H1: Consumer behavior of Shopee online shop affects the consumers' purchase decision among the consumers in Bandung

# 3. Research Result

The result of the research will be described one by one as follows

# **Data Collection Instrument's Validity and Reliability**

The Pearson correlation coefficient of all items used in the questionnaire is more than 0.3 meaning that all questions are valid. The Cronbach's Alpha values is 0.865 which is more than 0.6 showing that all questions are reliable. The result of the calculation will be shown in the figure 3.1 below

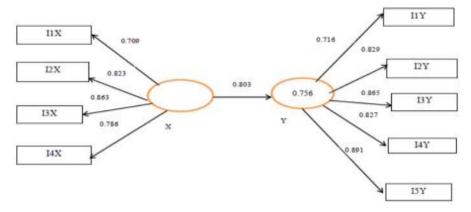


Fig. 3.1 The Value of Path Coefficients and R square (R<sup>2</sup>). The Value of R square (R<sup>2</sup>).

The value of the R square is as much as 0.756 meaning that the proportion of variation of the endogenous latent variable of buying decision with its dimensions can be explained using the exogenous latent variable of consumer behavior with its dimensions. While the remainder as much as 0.244 should be explained by other factors outside the model under study.

# The Value of the Path Coefficient

The path coefficient value from the exogenous latent variable of consumer behavior with its dimensions to the endogenous variable of buying decision with its dimensions is 0.803. This value means the amount of effect of the exogenous latent variable of consumer behavior with its

dimensions on the endogenous variable of decision with its dimensions. When the value of the exogenous latent variable of consumer behavior with its dimensions undergoes one unit increase, then the value of endogenous variable of buying decision with its dimensions increases as much as 0.803. This effect is significant because the t observation (to) as much as 14.023 as seen the figure 3.2 below is more than t table (ta) as much as 1.645 meaning that the H0 is rejected and H1 is accepted. It means that consumer behavior of the Shopee online shop affects the consumers' buying decision among the respondents in Bandung significantly. The amount of effect is as much as 0.803.

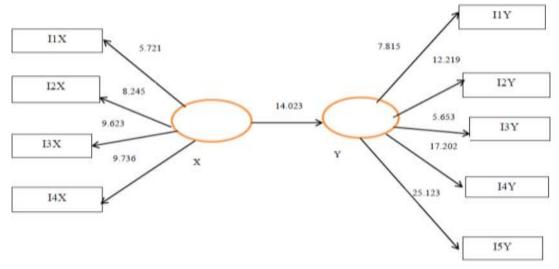


Fig. 3.2 Values of to

# The Dimensions' Effect of the Consumer Behavior on Buying Decision

The Dimensions' Effect of the Consumer Behavior on Buying Decision are as follows: First, the effect of the culture factor on buying decision is  $0.709 \times 0.803 = 0.569$ . Second, the effect of the social factor on buying decision is  $0.823 \times 0.803 = 0.661$ . Third, the effect of the personal factor on buying decision is  $0.863 \times 0.803 = 0.692$ . Fourth, the effect of the psychological factor on buying decision is  $0.786 \times 0.803 = 0.631$ .

# The Effect of Consumer Behavior on the Dimensions of the Buying Decision

The effect of the consumer behavior on the dimensions of the buying decision is as follows: First, the effect of the consumer behavior on product selection is  $0.803 \times 0.716 = 0.575$ . Second, the effect of the consumer behavior on brand selection is  $0.803 \times 0.829 = 0.666$ . Third, the effect of the consumer behavior on distribution selection is  $0.803 \times 0.865 = 0.695$ . Fourth, the effect of the consumer behavior on buying time is  $0.803 \times 0.827 = 0.665$ . Fifth, the effect of the consumer behavior on payment method is  $0.803 \times 0.891 = 0.715$ 

#### **Fitness of the Model**

Fitness of the model under study will be assessed using the construct and discriminant reliability and validity.

# Reliability and Validity of the Latent Variables of Consumer Behavior and Buying Decision

The validity and reliability values refer to how much the construct (latent variable) of the X exogenous variable and the Y endogenous variable underlie their respective dimensions. For the validity, we will use the Rho\_A's values with the minimum value as much as 0.5 while for the reliability, we will use the Cronbach's alpha values with minimum value 0.7 (Sarwono, Jonathan:2023).

Table 3.1: Construct Reliability and Validity.

Construct	Cronbach's Alpha	Rho_A
X	0.895	0.768
Y	0.836	0.813

The latent variable of consumer behavior (X) is valid because the value of Rho\_A as much as 0.768 which is more than 0.5. It is also reliable because the value of Cronbach's alpha as much as 0.895 is more than 0.6. The latent variable of buying decision (Y) is valid because the value of Rho\_A as much as 0.813 which is more than 0.5. It is also reliable because the value of Cronbach's alpha as much as 0.836 is more than 0.6.

# Discriminant Validity of the Dimensions of Consumer Behavior and Buying Decision

Discriminant validity refers to how much the dimensions reflect their latent respective variables.

Table 3.2 Discriminant Validity.

	Fornell-Larcker
i1x	0.635
ily	0.677
i2x	0.815
i2y	0.771
i3x	0.802
i3y	0.689
i4x	0.787
i4y	0.632
i5y	0.756

The dimension of I1X is valid because the value of Fornell - Larcker as much as 0.635 is more than 0.5. The dimension of I2X is valid because the value of Fornell -Larcker as much as 0.815 is more than 0.5. The dimension of I3X is valid because the value of Fornell - Larcker as much as 0.802 is more than 0.5. The dimension of I4X is valid because the value of Fornell – Larcker as much as 0.787 is more than 0.5. The dimension of I1Y is valid because the value of Fornell – Larcker as much as 0.677 is more than 0.5. The dimension of I2Y is valid because the value of Fornell - Larcker as much as 0.771 is more than 0.5. The dimension of I3Y is valid because the value of Fornell – Larcker as much as 0.689 is more than 0.5. The dimension of I4Y is valid because the value of Fornell -Larcker as much as 0.632 is more than 0.5. The dimension of I5Y is valid because the value of Fornell - Larcker as much as 0.756 is more than 0.5. In conclusion, all dimensions above are valid because their discriminant values are more than 0.5 meaning that they have reflected their respective latent variables correctly.

# Multi – collinearity

To test the occurrence of the multicollinearity we use the VIF values below

Table 3.3 Collinearity Statistics (VIF).

Indicators	Inner VIF Values
	VIF
i1x	2,686
i2x	3,691
i3x	1,373
i4x	3,643

Based on the output above, it can be said that there is no multi-collinearity occurring among the indicators of the exogenous variable of the consumer behavior since the values of VIF are less than 10. Multi-collinearity occurs when the values of VIF are more than 10 (Hair: 2010). Based on the criteria above, the model is in a good fit because all the requirements have been fulfilled.

#### 4.Discussion

From the result of analysis above, the research proves that the consumer behavior of the Shopee online shop affects the consumer buying decision significantly. It means that this is in line with the theory proposed by Kotler and Keller (2016) that the four factors affecting the consumer behavior contribute the consumer buying decision. It also proves that consumer culture, social, personal and psychological factors contributes the shifting of the behavior among the consumers under study from the conventional buying

decision into the online buying decision. This can be understood from the respondents' answer about the frequency of buying online the products at the Shopee online shop. Furthermore, consumer behavior has been proved to be effective in strengthening the business sustainability (Alexandra Weniger, et.al., 2023). Another similar study findings show that the consumer behavior including its indicators, namely cultural, social, personal, and psychological factors affect the purchase decision (Suharyanto, Joko, 2023).

From the research result, it is also divulged that the

consumer personal factor generates the biggest contribution on buying decision. This proves that internal drives play an important role in buying decision. The importance of age, life cycle, job, economic environment, personality, self-concept, life style, and values in deciding whether or not a consumer will buy certain product is truly understood. Most of the consumers who buy the products online usually come from well-established economic environment. They have good jobs and follow the trend of life style. The following data shows the products consumers in Indonesia buy in ecommerce.

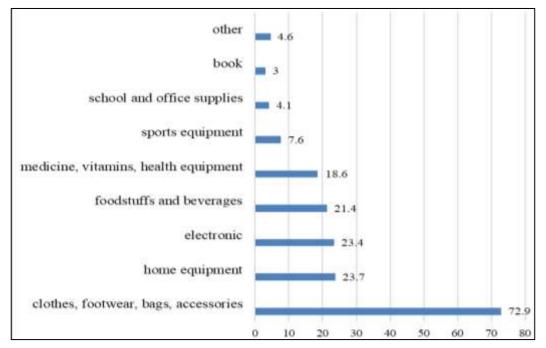


Fig. 3.3 Items Purchased during the Pandemic (Source: Kompas.com)

The items to be purchased online ranging from a) books as much as 3%; b) school and office supplies as much as 4.1%; c) sport equipement as much as 18.6%; d) medicine, vitamins, health equipment as much as 18.6%; e) food stuffs and bevarges as much as 21.4%; f) electronic as much as 23.4%; g) home equipment as much as 23.7%; h) clothes, footwear, bags, accessories as much as 72.9% and i) other as much as 4.6%.

As it is known from the web information of the Shopee

online shop, most of certain products are diffifult to find in the conventional shops. Another study also on the influence of generation z consumer behavior on purchase motivation in e-commerce Shoppe shows that several features of the Shopee e-commerce platform, such as web site display, security and the online service contribute important effect on consumer buying decision (Frans Sudirjo, et.al., 2023). The following data show personal factors that drive the Indonesian consumer conduct the online purchase in ecommerce.

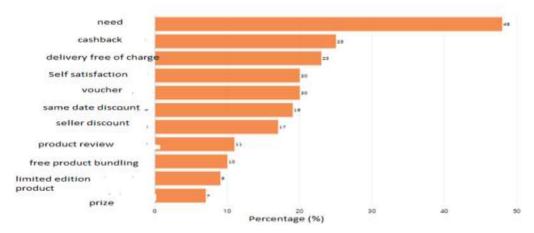


Fig. 3.4 Consumers' Motivation of Making Online Shopping (Source: Databoks).

Many things motivate Indonesian consumers to shop online. These things are recorded in the Populix survey

report entitled Indonesia Shopper Behavior on Promotion Week in the Face of Economic Uncertainty 2023.

According to the report, the majority or 48% of respondents shop online because they are driven by needs. There are also respondents who are motivated to shop online because there are promotions in the form of cashback (25%), free delivery of goods (23%), and to get self-satisfaction (20%). Other things that motivate respondents to shop online are promotions in the form of vouchers, twin date discounts, seller discounts, in-store product reviews, free product bundling, limited edition products, and lucky draws, with the percentages shown in the graph above. This survey involved 1,086 respondents spread across various parts of Indonesia, with details on Java Island 75%, Sumatra 16% and other islands 10%. Data collection was carried out in the period January 25-27 2023.

It is also known that the consumer behavior contributes the biggest effect on payment method. This is also in

convenience with the theory proposed by Kotler and Keller (2016) saying that main stimuli in shaping the consumer behavior are product, price, place and promotion (4P). Generally speaking, people view price as the main thing to consider whether or not they want to buy certain products they need. Most of the online shops ask the buyers to use the credit card to install their payment and some others asks the buyers to use conventional payment method, such as transfer. In the similar study, it is found that pricing strategy has significant effect on the consumers' purchase decision (DY Heryadi & AF Bielgies, 2023). Most of the consumers use the online transaction method rather than the direct conventional payment method. The following is the data of the payment method used buy the shopee consumers.

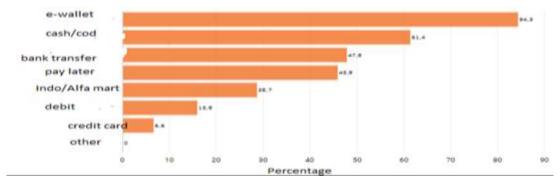


Fig. 3.5 The Digital Payment Method. (Source: Databoks)

There are various payment methods for online shopping provided by e-commerce. Starting from the cash or cash on delivery (COD) method, bank transfers, paying to supermarkets, e-wallets, to PayLater which is more flexible. Of the many payment methods, which one do consumers choose the most? Kredivo together with Katadata Insight Center (KIC) conducted a survey entitled Indonesian e-Commerce Consumer Behavior Report 2023. This report shows trends in consumer payment behavior when shopping online. As a result, payments using ewallets were the most preferred method, reaching 84.3% of respondents. This percentage increased rapidly in 2023 from the previous year (year-on-year/yoy) which earned 60.9% in 2022. Cash on delivery (COD) was still used by many respondents in the past year. Even though digital payments have varied, 61.4% of respondents still choose this method. Bank transfers or virtual accounts are in third place as digital payment methods that are mostly used by respondents, namely 47.8%.

Then PayLater followed with a gain of 45.9%. This digital payment method grew the most rapidly from other payment methods, which increased by 64.3% from the previous period (yoy) of only 28.2%. "PayLater's popularity compared to credit cards is that it is easier to apply, making it easier for people to reach it," wrote Kredivo and KIC in their report. Meanwhile, digital payments using debit cards and credit cards are at the bottom, as can be seen in the graph. This survey was conducted on 9,239 respondents consisting of 3,656 general respondents and 5,583 Kredivo users spread throughout Indonesia. Data collection was carried out for the period March 18-31 2023 using the online survey method. Shifting from the conventional consumer behaviour into the online one is due to the following reasons.

# what are the advantages of shopping online? (%)



Figure 3.6 The Advantages of Shopping Online for the Consumers. (Source: Kompas.com)

The advantages of shoping online according to the customers are as follows: 1) the consumers can do product

comparisons as much as 13.4%; 2) the consumers can use various payment as much as 17.9%; 3) the consumers can

order goods from other cities as much as 20%; 4) the consumers can obtain lots of promotion as much as 27.2%; 5) the consumers can get cheaper price as much as 33.7%; 6) the consumers can do select many choices of goods as much as 38.7%; 7) the consumers can order products and goods from their houses as much as 38.3%; and 8) other reasons as much as 7.5%.

### 5. Conclusion

From the above discussion the writer draws a conclusion of this research as follows: 1) The model of the variable relationship between the consumer behavior and buying decision under study is valid. 2) The consumer behavior of the Shopee online shop among the consumers in Bandung affects the consumer buying decision significantly. 3) The biggest effect of the consumer behavior dimension on the buying decision variable is a personal factor. The second one is a psychological factor then is followed by a social factor. The last one is a cultural factor. 4) The biggest effect of the consumer behavior variable is on the dimension of payment method, then is followed by distribution selection. The third one is on brand selection. The fourth one is on buying time. The last one is on product selection.

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