The Influence of COD (Cash On Delivery), ShopeePay, and Virtual Account Payment Methods on Purchasing Decisions on the Shopee Marketplace

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Abstract

Research objective: *This study aims to determine and analyze the influence of Cash On Delivery (COD), ShopeePay , and virtual account payment methods on purchasing decisions in the marketplace. Shopee either partially or simultaneously.*

Design/Method/Approach: *The approach in this study uses a quantitative approach with a causality research type. The population of this study were students of the Faculty of Economics and Business, Nusantara PGRI University, Kediri who had made purchases on the marketplace. Shopee at least five times. The sample used in this study was 40 respondents taken using purposive sampling technique. The data analysis technique used multiple linear tests.*

Research Findings: *The results of this study indicate that the cash payment method on delivery (cod) and ShopeePay have a significant effect on purchasing decisions and the virtual account payment method does not have a significant effect on purchasing decisions. However, these three variables have a partial and simultaneous effect on purchasing decisions.*

Theoretical contribution/Originality: *This study contributes to understanding and providing insights related to COD, ShopeePay , and virtual account payment methods to reach purchasing decisions.*

Implications for Practitioners/Policies: *This study provides practical implications for business actors (other than Shopee) to provide convenience through payment methods that influence consumer purchasing decisions.*

Research limitations: *The limitation of this research is that the research variables only focus on payment methods.*

Keywords: *Cash On Delivery (COD), ShopeePay , Virtual Account , Purchase Decision.*

1. Introduction

Technological progress is in the era of the 4.0 revolution which creates changes and developments in advanced technology and the flexibility of the internet makes the world increasingly limitless. Results stated by the Indonesian Internet Service Providers Association (apjii), out of total population of 278.969.200 in 2023, 221.563.479 were documented internet users in 2024 with a percentage graph that continues to increase significantly every year since 2018. In 2018 it reached 64.8%, then in 2020 at 73.7%, followed sequentially in 2022 at 77.1%,

78.19% in 2023, and 79.5% in 2024 [1] . One of the activities that many people do in this increasingly limitless era is online shopping via smartphones. Online shopping through marketplaces is the utilization of electronic technology in a business by connecting companies or sellers, consumers, and the public that creates electronic transactions [2] . The convenience offered by online shopping such as fast, easy and just waiting at home makes online shopping a lifestyle for some people.

Shopee, Blibi, Lazada, Tiktok Shop, Bukalapak, and Tokopedia are Indonesian online marketplace. Recorded in Databoks (katadata.co.id) the largest number of marketplace visitors in 2023 is Shopee with a total of around 2.3 billion visits throughout January-December 2023 and surpassing other sites [3] . Shopee is an *online* shopping application that is easily accessible via smartphone . Offering various products from various stores, promos, discounts, free shipping , and varied and flexible payment options, making it a favorite choice for some Indonesian people [4] . Shopee was founded in 2009 by Forest Li under the auspices of the SEA Group Singapore, the first app was launched in 2015 in Singapore and expanded to nearby countries such as the Philippines, Vietnam, Indonesia, Thailand, Malaysia, and Taiwan [5] . People tend to shop online at Shopee because of the convenience and benefits they get, such as promos, free shipping vouchers , flash sales, cheaper prices, access to a wider range of products, and various payment options such as (Cash On Delivery) COD, ShopeePay , and virtual accounts .

The factor that affect the shopping process, whether online and offline, are independent. Purchase decisions combine a number of option that prospective customers have decided upon before making a purchase. The process by which costumers decide whether or not to purchase a products is known the buying decision. Decision making is a consumer condition that directly plays a role in obtaining and using the goods offered [6] . Purchasing decisions are related to what is desired, what the product model is like, the amount of purchase, place, time, amount of money, and payment method [7] . One indicator of the purchasing decision is the payment method, technological modernization produces many conveniences that are obtained through online shopping payment methods . Cash On Delivery (COD), ShopeePay , and virtual accounts are three of the payment methods available on the marketplace Shopee .

One way to pay with cash is through Cash On Delivery (COD), where the payment is paid when the order arrives at the buyer's address and the payment is made by the consumer to the courier who is in charge of delivering the order, this method is a payment method that offers a guarantee of security, privacy, and can be trusted [8] . Other payment methods in the marketplace Shopee is ShopeePay . ShopeePay is an electronic wallet (e- wallet) owned by Shopee that functions as a payment method and a place to store refunds from the Shopee platform . ShopeePay can also be used for payments at merchants (partners) who work with ShopeePay , paying electricity bills, purchasing credit, data packages, and others [9] . While the virtual account payment method is a non-physical account in the form of a unique ID number created by a bank at the request of a company or seller, used to facilitate payments or transactions [10] . According to the official Shopee guide , the virtual account payment method makes transactions easier with a unique number for each user, makes it easier because it can be verified automatically without requiring manual confirmation, allows automatic verification via mobile banking , internet banking , ATM, or related banks such as BCA, BRI, BNI, and Mandiri.

The research conducted by Rusdiana (2023) entitled " The Influence of PayLater and Cash On Delivery (COD) Payment Methods on Purchasing Decisions on Shopee (Case Study: Islamic Economics Students of Jambi University Class of 2018-2022) is related to this research. Rusdiana as a researcher conducted a search, analyzed, and examined whether the COD, Shopeepay, and virtual account payment methods significantly impacted consumers selections to buy on the Shopee marketplace. Then the differences or gaps in this study are first, the use of broader, namely other payment methods, namely ShopeePay and virtual accounts. Second, this study focuses on the increasingly popular digital payment methods, namely ShopeePay and virtual accounts. The last is a different research object. The things mentioned above, apart from being a gap in the research, also differentiate this research from previous research.

Purchase interest arises after consumers are interested in the product they see or follow their needs, so that a desire arises to have it. In purchasing decisions on the Shopee application, people consider factors such as price, quality, location, shipping costs, estimated time, and payment methods. This study focuses on payment methods on Shopee, namely COD (Cash On Delivery), ShopeePay, and Virtual Account. The researcher believes that the selected title and related topics have a strong correlation between COD, ShopeePay, and virtual account payment methods in terms of purchasing decisions. Therefore, this research has the opportunity to contribute to the marketing field, especially in the purchasing decision segment.

1.1. Problem Statement

According to the preceding description, the problem formulation in this study is, namely the tendency of people to shop online in the marketplace. Shopee because there are various conveniences such as various payment methods so that it is possible to give rise to indications of decreasing sales levels in offline stores .

1.2 Research Objectives

The purpose of this study is to ascertain whether, partially and simultaneously, the payment methods Cash On Delivery (COD), ShopeePay, and virtual account have a major impact on the shopping decision of students in the Faculty of Economics and Business at University Nusantara PGRI Kediri.

2. Method

The study employs a quantitative technique, sometimes known as a numerical approach. The quantitative approach itself is a positivist-based research methodology, referring to a view that emphasizes that objective phenomena are analyzed quantitatively. Approaches like this are generally used to test populations or samples collected using research instruments. Then the data obtained is analyzed quantitatively or using statistical methods that aim to test hypotheses or temporary conjectures that have been determined previously. The population used in this study were all students of the Faculty of Economics and Business, Universitas Nusantara PGRI Kediri, whose number is not known for sure. The population itself is the number or total of elements that are the object of research and have similar attributes, including individuals in a group, events, or subjects studied [11] . According to Roscoe, the optimal number of samples is 10 times the number of variables in a study that uses multivariate analysis, such as multiple regression or correlation (cause-and-effect). For example, if there are four research variabels (including dependent and independent variables), the minimum sample size should be 10 x 4

= 40 people. Therefore, 10 x 4 = 40 respondents are required because this study includes four variables (COD, ShopeePay, and virtual account) with the criteria that respondents are marketplace users. Shopee and have made purchases more than five times.

Validity and reliability tests are employed as instrument development in this study. The instrument used to gather data is a questionnaire with a Likert scale, which ranges form 1 to 5. "Strongly disagree" is represented by scale 1, "Disagree" by scale 2, "Neutral" by scale 3, "Agree" by scale 4, and "Strongly agree" by scale 5. The questionnaire to be distributed is based on indicators on each variable as follows:

1. Cash On Delivery (COD) Indicator [12]
    a. Trust
    b. Convenience
    c. Security
    d. practical
2. ShopeePay Indicator [12]
    a. Trust
    b. Convenience
    c. Security
    d. Practical
3. account indicator [12]
    a. Trust
    b. Convenience
    c. Security
    d. Practical
4. Purchase decision indicators [6]
    a. Product selection
    b. Supplier selection
    c. Time of purchase
    d. Purchase amount
    e. Payment methods

Several tests are used in this study's data analysis approach, including the following: 1) multiple linear regression, 2) the classical assumption test, 3) the coefficient of determination, and 4) hypothesis testing.

3. Results and Discussion

Validity Test

To measure whether a questionnaire is valid or not is to use the validity test. this validity test is a determinant of whether the questionnaire is valid and the questions in it are able to reveal what the questionnaire is measuring. [13] . There are several criteria that must be met to show validity, namely:

1) The table is considered valid if r count > r table
2) The table is considered invalid if r count < r table

Table 1. Validity Test Results

Item No.	R. Calculate	R. Table 5%	Significance	Criteria
X1.1.1	0.734	0.312	0,000	
X1.1.2	0.571	0.312	0,000	
X1.2.1	0.758	0.312	0,000	
X1.2.2	0.694	0.312	0,000	Valid
X1.3.1	0.770	0.312	0,000	
X1.3.2	0.791	0.312	0,000	
X1.4.1	0.571	0.312	0,000	
X1.4.2	0.665	0.312	0,000	
X2.1.1	0.802	0.312	0,000	
X2.1.2	0.780	0.312	0,000	
X2.2.1	0.761	0.312	0,000	
X2.2.2	0.907	0.312	0,000	Valid
X2.3.1	0.709	0.312	0,000	
X2.3.2	0.542	0.312	0,000	
X2.4.1	0.603	0.312	0,000	
X2.4.2	0.712	0.312	0,000	
X3.1.1	0.751	0.312	0,000	
X3.1.2	0.875	0.312	0,000	
X3.2.1	0.775	0.312	0,000	
X3.2.2	0.772	0.312	0,000	Valid
X3.3.1	0.509	0.312	0,000	
X3.3.2	0.800	0.312	0,000	
X3.4.1	0.724	0.312	0,000	
X3.4.2	0.603	0.312	0,000	
Y1.1.1	0.664	0.312	0,000	
Y1.1.2	0.633	0.312	0,000	
Y1.2.1	0.649	0.312	0,000	
Y1.2.2	0.814	0.312	0,000	
Y1.3.1	0.443	0.312	0,000	Valid
Y1.3.2	0.678	0.312	0,000	
Y1.4.1	0.612	0.312	0,000	
Y1.4.2	0.696	0.312	0,000	
Y1.5.1	0.702	0.312	0,000	
Y1.5.2	0.614	0.312	0,000	

Source: SPSSv23 Output

Based on the table above, all of the questionnaire's question items have satisfied the requirements (r count is greater than r table), indicating its validity, according to the above table.

Reliability Test

Reliability test is used as a tool to measure the indicators of a variable to be said to be feasible or consistent over time. A variable is said to be feasible if the Cornbach value The resulting alpha (a) is > 0.6 where the test uses the assistance of the SPSS statistics 23 program.

Table 2. Reliability Test Results

Variables	Cornbach's Alpha	N of Items	Criteria
Cash On Delivery (X1)	0.844	8	**Reliable**
ShopeePay (X2)	0.876	8	**Reliable**
Virtual Account (X3)	0.875	8	**Reliable**
Purchase Decision (Y)	0.845	10	**Reliable**

Source: SPSSv23 Output

Based on the table above, the correlation value of Cornbach's Alpha > 0.6, the results indicate that all variables are considered reliable.

Classical Assumption Test

a. Normality Test
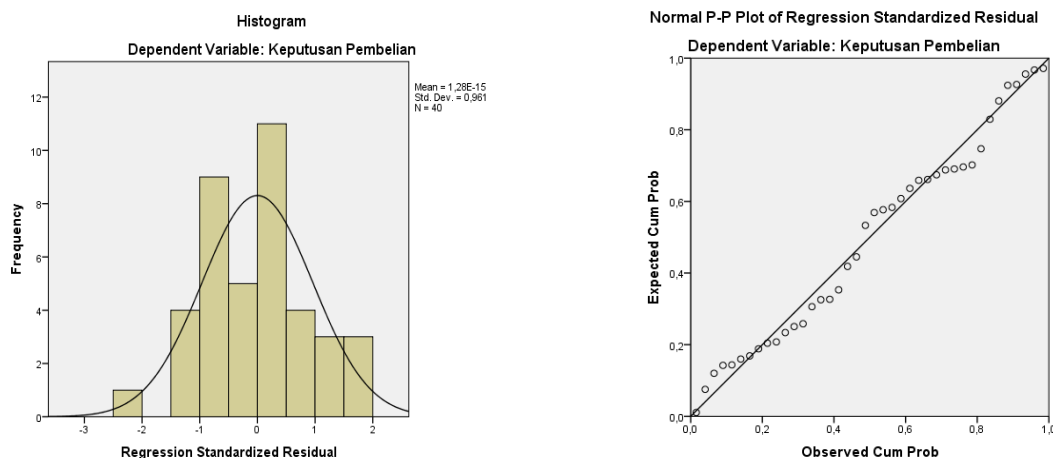
Figure 1. Histogram and P-Plot Graph

Based on the two graphs above, the histogram is bell-shaped, which means it is normally distributed. The P-Plot graph above shows the condition of the points following the diagonal line and means normal. then it can be concluded that the data is normally distributed and meets the classical assumption test.

b. Multicollinearity Test

Table 3. Multicollinearity Test Results

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	20,330	6,325		3,214	,003		
	Cash On Delivery (COD)	,355	,162	,337	2,192	,035	,760	1,316
	Shopeepay	,513	,172	,460	2,981	,005	,755	1,324
	Virtual Account	-,167	,165	-,162	-1,105	0.317	,707	1,415

a. Dependent Variable : Purchase Decision

Source: SPSSv23 output

The table above shows that, the VIF value of the Cash On Delivery (COD) variable is 1.316 <10 and tolerance 0.760> 0.10, the VIF value of shopeepay is 1.324 <10 and tolerance 0.755> 0.10, the last is the VIF value of the virtual account of 1.415 and tolerance 0.707> 0.10. the regression model is deemed free or the multicollinearity assumption is satisfied is each independent variable demonstrates that the VIF value (Variance Inflation Factor) < 10 and the tolerance value is > 0.10.

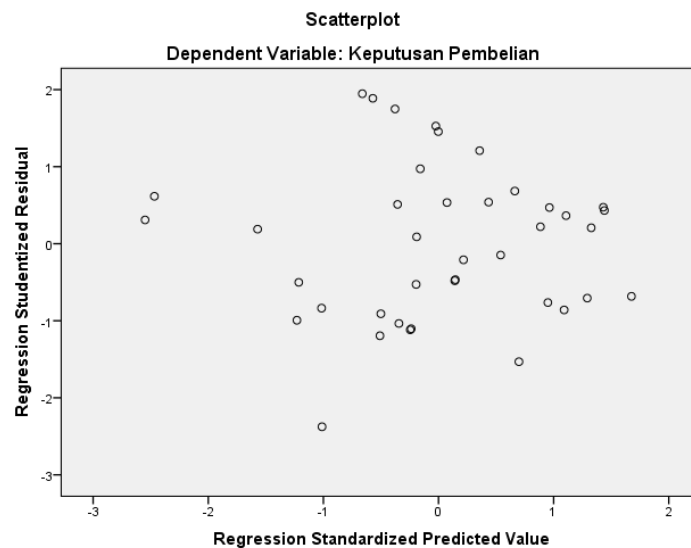c. **Heteroscedasticity Test**

Figure 2. Results of Heteroscedasticity Test

As seen in the following image, the dots are both above and below zero and are dispersed erratically or in a pattern. Consequently, it can be said that either heteroscedasticity does not exist or that the heteroscedasticity assumption has been satisfied.

Multiple Linear Regression Analysis

Table 4. Multiple Linear Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std . Error	Beta
1	(Constant)	20,330	6,325	
	Cash On Delivery (COD)	,355	,162	,337
	Shopeepay	,513	,172	,460
	Virtual Account	-,167	,165	-,162

a. Dependent Variable : Purchase Decision
   Source: SPSSv23 output

Table 4 presents the multiple linear regression equation as follows:

Purchase Decision (Y) = 20.330 + 0.355 (X1) + 0.513 (X2) + (-0.167) (X3)

A constant of 20.330 is obtained from table 4, suggesting that all independent factors and dependent variable have a positive association. With a regression coefficient X1 of 0.355, assuming all other factors remain constant, a 1% rise in the cash variable on delivery will result in a 0.355 impact on the purchase decision. With a regression coefficient X2 of 0.513, the Shopeepay variable will influence the purchase choice by 0.513 for every 1% rise in the variable. Assuming all other variable remain constant. With a regression coefficient 0f -0.167, the virtual account variable will have a -0.167 impact on the purchase decision for every 1% rise in the variable, assuming all other factors remain constant.

Coefficient of Determination (R2)

Table 5. Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std . Error of the Estimate	Durbin-Watson
1	,594	,353	,299	3,369	2,254

Source: SPSSv23 output

The coefficient of determination approaching one means that the independent variables take into account the analysis of the coefficient of determination (adjusted R2) using the assistance of the IBM SPSS Statistics program. [13] . based on the data above, the Adjusted R2 Square value is 0.299. This shows that the cash payment method on delivery (COD), shopeepay , and virtual accounts have an influence of 29.9% on purchasing decisions. while the remaining 70.1% of purchasing decisions are influenced by other variables not discussed in this study.

Hypothesis Testing

a. T-test

Table 6. T-Test Results (Partial)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20,330	6,325		3,214	,003
	Cash On Delivery (COD)	,355	,162	,337	2,192	,035
	Shopeepay	,513	,172	,460	2,981	,005
	Virtual Account	-,167	,165	-,162	-1,105	0.317

Source: SPSSv23 output

Table 6 shows the results that the independent variable COD payment method (X1) and the Shopeepay payment method variable (X2) have a value of 0.035 for COD and 0.005 for Shopeepay, where the value of both is greater than 0.05. Therefore, it may be concluded that Cash On Delivery (COD) and ShopeePay have a big influence on people's decisions to buy (Y). It may be concluded that the virtual account payment method has no discernible impact on purchase decisions (Y) because the variable (X3) for this method has a sig value of 0.317, which is < 0.05.

b. F Test

Table 7. F Test Results (Simultaneous)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	223,174	3	74,391	6,554	,001 [b]
	Residual	408,601	36	11,350		
	Total	631,775	39			

Source: SPSSv23 output

Based on the table above, it shows that the Cash On Delivery (COD) (X1), Shopeepay (X2), and virtual account (X3) values have a significance value of <0.05, namely 0.001, so the results of this test are Ho is rejected and Ha is accepted. Thus, the independent variable cash on delivery (X1), shopeepay (X2), and virtual account (X3) together have a simultaneous influence on purchasing decisions.

4. Conclusion

From the research result that have been presented, it can be concluded that each variable cash payment method on Delivery , ShopeePay , and virtual accounts together influence purchasing decisions on the marketplace Shopee and the three variables have a positive relationship and have a good relationship with purchasing decisions.

As may be seen from the F test table obtained, when F count > F table ($6.554 > 2.886$), Ho is acceptable. The significance value indicates that the significance is < 0.05, so Ho is also accepted. In the T test, there are two variables, namely cash on delivery and shopeepay show positive value significance on purchasing decisions, however because the virtual account variable is negative, it can't have a big impact on decisions about what to buy. Only 29.9% of purchase decisions are impacted by the payment options of Cash On Delivery (COD), ShopeePay, and virtual account, according to the result of the coefficient of determination (R^2). There are other factors that affect the remaining 70.1%.

The research that has been conducted provides in-depth insights into the influence of payment methods such as cash on delivery (COD), Shopeepay , and virtual accounts on purchasing decisions. These result may also serve as the foundation for other studies in adjacent or comparable disciplines. The results can help companies or business actors in integrating various payment methods into their business strategies. Therefore, research on how payment methods affect decisions to buy makes a substantial contribution to the advancement of science and its use in a variety of industrial domains. Over time, this research continues to develop by producing new findings, including customer experience from physical, functional, and emotional aspects.

The study contains a number of shortcomings, particularly with regard to the processing and compilation of the data. One of the constraints faced is the limited population and sample used in the study. In addition, researchers realize that respondents' responses tend to be influenced by their preferences in providing answers. For future research, researchers expect that the scope of the population and sample can be expanded so that the findings obtained are more in-depth and representative.

Reference

[1]   Gergely S. Number of Indonesian Internet Users Reaches 221 Million People. APJII (Association of Indonesian Internet Service Providers 2024:4–6. https://apjii.or.id/berita/d/apjii-jumlah-pengguna-internet-indonesia-tembus-221-juta-orang.

[2]   Silalahi AK, Gultom E, Suparto S. Legal Protection for Sellers in Online Shop Transactions Using the COD Payment System from the Perspective of Consumer Protection Law. JUSTITIA J Ilmu Law Dan Hum 2022;9:1334–43.

[3]   Simatupang S, Susanti D, Butarbutar M, Kevin Indajang, Girsang RM. Cash on Delivery Payment System on Purchase Decisions on Shopee. J Ilm Edunomika 2023;8:1–15.

[4]   Handayani F. The Influence of Payment Methods on Purchasing Decisions of Students

in the Shopee Marketplace Reviewed According to Islamic Economics. STATE ISLAMIC UNIVERSITY OF SULTAN SYARIF KASIM RIAU, 2022.

[5] Marpaung IR, Lubis FA. The Influence of Advertisements, COD System, and Free Shipping Promos on Purchasing Decisions on TikTokShop (Case Study on Students of UIN North Sumatra). JMBI UNSRAT (Journal of Business Management and Innovation, Sam Ratulangi University) 2022;9:1477–91. https://doi.org/10.35794/jmbi.v9i3.44292.

[6] Kotler P, Amstrong G. Principles of Marketing. 13th ed. Jakarta: Erlangga; 2016.

[7] Wardhana A. CONSUMER BEHAVIOR IN THE DIGITAL ERA 4.0. Indonesian Edition. Purbalingga: UEREKA MEDIA AKSARA; 2024.

[8] Hermansyah T, Qolbi N. The Effect of COD (Cash on Delivery) Payments on Purchase Interest in E-Commerce Shopee. Al-Amal 2023;2:35–42.

[9] Fikri A. THE EFFECT OF USING SHOPEEPAY AS A DIGITAL WALLET ON THE CONSUMER BEHAVIOR OF FEB USU STUDENTS. J KomunikA 2021;17 (No. 2).

[10] Kurniawan A. Virtual Accounts Provide Ease of Transactions for Business World and Government Offices. Ministry of Finance of the Republic of Indonesia 2022. https://www.djkn.kemenkeu.go.id/kpknl-semarang/baca-artikel/14691/Virtual-account-berikan-kemudahan-transaksi-bagi-dunia-usaha-maupun-kantor-pemerintah.html (accessed December 8, 2024).

[11] Handayani. Qualitative & Quantitative Research Methods. CV. Pustaka Ilmu; 2020.

[12] Leonard S, Tarigan A. THE EFFECT OF BANK TRANSFER PAYMENT METHODS, SHOPEE PAY, SHOPEE PAYLATER, CASH ON DELIVERY ON PURCHASE DECISIONS IN THE SHOPEE APPLICATION (Case Study on Shopee Marketplace Users in Tangerang City. J Digismantech 2023;3 (No 1):66–81. https://doi.org/https://dx.doi.org/10.30813/digismantech.v3i1.5221.

[13] Ghozali I. Application of Multivariate Analysis with IBM SPSS 23 Program. 8 eds. Semarang: Diponegoro University: 2016.