THE ROLE OF DIGITAL PAYMENT IN MEDIATING THE EFFECT OF E-COMMERCE TRANSACTION CONVENIENCE ON STUDENTS' CONSUMPTIVE BEHAVIOR

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Abstract

This study aims to analyze the role of digital payment in mediating the effect of e-commerce transaction convenience on students' consumptive behavior. The method used is quantitative with a correlational approach. The research population includes all active students of the Faculty of Teacher Training and Education at Universitas Pancasakti Tegal, with a total sample of 88 respondents selected through proportional random sampling. Digital payment has a significant influence on consumptive behavior and is able to mediate the effect of e-commerce on consumptive behavior, with a Z value of 2.887 (Z > 1.96). E-commerce encourages impulsive purchases through ease of access and attractive offers, further reinforced by the role of digital payment, which makes transactions more practical and increases students' tendency toward consumptive behavior. Students need to improve their financial literacy to control consumption, while educational institutions are advised to provide financial education. Future research is recommended to expand the population and include more diverse variables to gain a broader understanding of consumptive behavior.

Keywords: Digital Payment, E-Commerce, Consumptive Behavior

1   INTRODUCTION

The rapid development of technology has had a significant impact on various aspects of life, including the economic sector, such as shopping and transaction activities that have now become easier, faster, and more efficient, thereby changing the consumption patterns of society, especially among students. One tangible form of this transformation is the emergence of e-commerce. As a generation that is closely connected to technology, students quickly adapt to various digital services designed to be user-friendly and practical to use, such as Shopee, Tokopedia, and Lazada (Lestari & Dwijayanti, 2021). In addition, offers such as discounts, cashback, and free shipping further enhance the appeal of online shopping (Hafiza et al., 2024). According to Statista (2024), the number of e-commerce users in Indonesia is projected to reach 99.1 million by 2029, indicating consistent growth in the digital market.
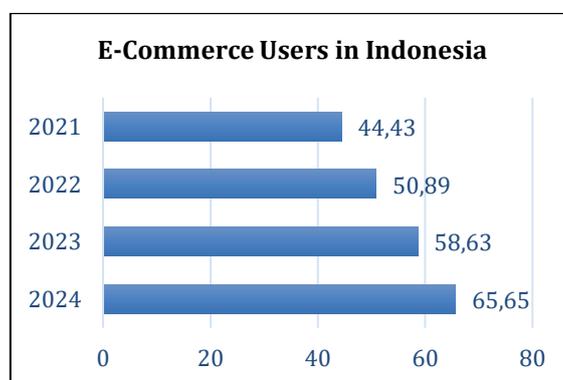
Gambar 1. *E-Commerce Users in Indonesia*

The convenience of transactions in e-commerce is supported by the presence of digital payment, which has become one of the key factors in driving the growth of e-commerce itself (Febriyanti et al., 2023). Digital payment systems facilitate cashless transactions through various methods such as e-wallets, mobile banking, and internet banking (Rositasari, 2022). Along with technological developments, cashless payments have become increasingly accessible, no longer limited to ATMs, credit cards, or e-money as before (Naufalia, 2022). E-commerce has transformed the way students shop, especially with

the presence of digital payment that simplifies transactions without the need to carry cash. This convenience enables students to make purchases quickly and efficiently, thereby influencing their consumption patterns. Students need to use e-commerce and digital payment wisely, such as by comparing prices and ensuring that expenses align with their budge (Febriyanti et al., 2023). Financial literacy through education and training is essential so that students can make sound financial decisions and avoid wasteful spending (Ermalina Rumbik et al., 2024).

Based on interviews with three students on January 9, 2025, it was found that they shop online more frequently due to convenience, practicality, efficiency, and lower prices compared to physical stores. E-commerce balance top-ups are generally conducted through mobile banking and virtual accounts. Promotions on social media and recommendations from friends also influence purchasing decisions, thereby encouraging consumptive behavior. Meanwhile, observations confirmed that discounts, ease of transactions, and high levels of satisfaction and trust are the main factors that drive students to continue using e-commerce and digital payment. This indicates that transaction convenience can trigger an increase in consumptive behavior.

Based on this background, the research problem is formulated as follows: to what extent does the convenience of transactions in e-commerce influence students' consumptive behavior, and how does digital payment play a role in mediating this relationship? The purpose of this study is to determine the extent to which the convenience of transactions in e-commerce and the use of digital payment can encourage the formation of consumptive behavior among students. In addition, the findings of this study are expected to contribute to the development of empirical understanding regarding the model of students' digital consumption behavior, particularly in explaining the mediating role of digital payment in the relationship between e-commerce transaction convenience and consumptive patterns.

1.1 E-Commerce

According to Rosmawarni N (2024) *E-commerce*, e-commerce, also known as electronic commerce, is a system of buying and selling activities conducted digitally through the internet or other electronic-based platforms. Meanwhile, according to Alamin et al. (2023) e-commerce is a modern system or business model that revolutionizes conventional trading methods by utilizing advances in Information and Communication Technology (ICT) as the main medium for conducting digital buying and selling activities. There are six components in e-commerce according to Hidayat, as cited by Hilman, (2021), amely: (1) product, (2) place to sell the product, (3) method of receiving orders, (4) payment method, (5) delivery method, and (6) customer service.

1.2 Digital Payment

Digital payment is an electronic payment method that allows users to conduct cashless financial transactions through digital devices such as smartphones, computers, or electronic cards connected to a network system (Rahayu et al., 2023). Meanwhile, according to Salsabila et al. (2024) a digital payment system, also known as digital payment or mobile payment, is an electronic-based payment method in which the value of money is stored and managed through specific digital media. Commonly used types of digital payment include e-money, e-wallet, QRIS (Quick Response Code Indonesian Standard), mobile banking, and internet banking (Safira et al., 2023). According to Hendaryati et al. (2025) one of the innovations in the digital payment system that is highly favored by Generation Z, including students, is the use of e-wallets. An e-wallet, or digital wallet, is a form of financial technology (fintech) that enables users to make transactions online.

1.3 Consumptive Behavior

Consumptive behavior is the tendency of individuals to make excessive purchases, prioritizing the fulfillment of secondary and tertiary needs over primary needs, which can lead to wastefulness (Andriani et al., 2023). According to Pratami N (2024) consumptive behavior is the act of purchasing goods excessively solely to fulfill momentary desires, even when the individual is aware that the goods are not needed at that time. Consumptive behavior is not only evident from the frequency of purchases but can also be analyzed through various psychological and social aspects underlying a person's consumption actions. The main aspects of consumptive behavior, according to Hidayati as cited by (Natasha Luas et al., 2023) are: (1) a tendency to act impulsively, (2) attitudes that lead to wastefulness, (3) a drive to seek pleasure, and (4) the desire to obtain personal satisfaction.

2   METHODOLOGY

This research is a quantitative study with a correlational approach. The population of this study consists of all active students of the Faculty of Teacher Training and Education (FKIP) at Universitas Pancasakti Tegal from the 2021, 2022, 2023, and 2024 cohorts. The sampling technique used is proportional random sampling. Based on calculations with a 10% margin of error, a total of 88 respondents was obtained. Respondents were proportionally selected from each study program to ensure balanced representation of the entire population. The data collection techniques employed in this study include interviews, observations, questionnaires, and documentation. The questionnaire consists of 40 statements measured using a five-point Likert scale, with response options ranging from 1 to 5. Before being distributed to all respondents, the questionnaire was first tested on 20 students to assess the validity and reliability of the instrument. The validity and reliability tests were conducted using SPSS version 26. Data were analyzed in several stages, namely descriptive statistical analysis, simple linear regression test, t-test, F-test, and Sobel test. All stages of data analysis were carried out using the SPSS (Statistical Package for the Social Sciences) software version 26.

3   RESULTS

Based on the data collected from 88 respondents, it can be concluded that the majority of respondents were female (83%). In terms of age, most respondents were 22 years old, totaling 30 people (34.1%), followed by those aged 21 years with 27 people (30.7%). Meanwhile, when viewed by study program, students from the Guidance and Counseling (BK) program dominated with 19 respondents or 21.59%.

The validity test results show that all instrument items had a correlation coefficient (r-count) greater than the r-table value (0.444). This indicates that all statements used to measure the e-commerce variable (X), the digital payment variable (Z), and the consumptive behavior variable (Y) are valid, as they meet the requirement of r-count > r-table. Therefore, all items are suitable for use in the data collection process for this study.

The reliability test results show that all instruments had a Cronbach's Alpha value above 0.60, indicating that all of them are considered reliable. The e-commerce variable obtained a value of 0.730, the digital payment variable 0.822, and the consumptive behavior variable 0.784, indicating that the instruments used have high reliability.

Tabel 1. *Descriptive Analysis Results*

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
E-Commerce	88	34	55	43.00	3.514
Digital Payment	88	39	63	48.06	4.281
Consumptive Behavior	88	34	66	49.59	4.093
Valid N (listwise)	88				

Based on the interval scores, the e-commerce variable is categorized as low if the X score is < 40, medium if $40 \leq X \leq 46$, and high if X > 46. For the digital payment variable, it is considered low if Z < 44, medium if $44 \leq Z \leq 52$, and high if Z > 52. Meanwhile, the consumptive behavior variable is classified as low if Y < 46, medium if $46 \leq Y \leq 54$, and high if Y > 54.

Tabel 2. *Simple Linear Regression Results (Coefficients)*

	Coefficients[a]				
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	14.799	3.898		3.796	.000
E-Commerce	.809	.090	.695	8.954	.000

a. Dependent Variable: Consumptive Behavior

In the simple linear regression test, the regression coefficient value of the e-commerce variable (X) on consumptive behavior (Y) was 0.809, with a constant value of 14.799. The resulting regression equation is Y = 14.799 + 0.809X.

The t-test in this study was conducted to determine the partial effect between variables. Table 2 shows that the significance value of the effect of e-commerce (X) on consumptive behavior (Y) is 0.000 < 0.05, and the t-count value of 8.954 > t-table value of 1.663, thus the hypothesis is accepted. This means

there is a significant effect of e-commerce on consumptive behavior. Next, the t-test was calculated between the digital payment variable (Z) and consumptive behavior (Y).

***Tabel 3.** T-Test Results of Digital Payment (Z) on Consumptive Behavior (Y)*

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	23.854	4.119		5.791	.000
	Digital Payment	.536	.085	.560	6.272	.000

Coefficientsᵃ

a.   Dependent Variable: Consumptive Behavior

Based on Table 3, the results of the t-test (partial) show that the significance value of the effect of digital payment (Z) on consumptive behavior (Y) is $0.000 < 0.05$, and the t-count value of $6.272 >$ the t-table value of 1.663; thus, the hypothesis is accepted. This means that there is a significant effect of digital payment on consumptive behavior.

***Tabel 4.** Hasil Perhitungan F*

ANOVAᵃ

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	797.721	2	398.860	51.403	.000ᵇ
	Residual	659.552	85	7.759		
	Total	1457.273	87			

a. Dependent Variable: Consumptive Behavior
b. Predictors: (Constant), Digital Payment, E-Commerce

Based on the results of the F-test in Table 4, it can be seen that the significance value for the effect of e-commerce and digital payment on consumptive behavior is $0.000 < 0.05$. This proves that the hypothesis is accepted, meaning that e-commerce and digital payment have a significant effect on consumptive behavior..

***Tabel 5.** Reference for Sobel Test Calculation of E-Commerce (X) on Digital Payment (Z)*

Coefficientsᵃ

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	22.593	4.954		4.560	.000
	E-Commerce	.592	.115	.486	5.157	.000

a. Dependent Variable: Digital Payment

Table 5 shows that the regression coefficient value of e-commerce on consumptive behavior is 0.592 with a standard error of 0.115 and a significance value of 0.000; therefore, the hypothesis is accepted. This means that there is a significant effect of e-commerce on digital payment.

***Tabel 6.** Reference for Sobel Test Calculation of E-Commerce (X) through Digital Payment (Z) on Consumptive Behavior (Y)*

Coefficientsᵃ

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	8.503	4.086		2.081	.040
	E-Commerce	.644	.097	.553	6.623	.000
	Digital Payment	.279	.080	.292	3.491	.001

a. Dependent Variable: Consumptive Behavior

Based on Table 6, it is shown that digital payment has a coefficient value of 0.279 with a standard error of 0.080 and a significance value of 0.000. Thus, e-commerce (X) has a significant direct effect on

consumptive behavior (Y), and digital payment (Z) also has a significant direct effect on consumptive behavior (Y).

Next, the Sobel test calculation was carried out, showing that the value of A was 0.592 with SEA of 0.115, while the value of B was 0.279 with SEB of 0.080. This resulted in a z-value of 2.887 > 1.96 at a 5% significance level, proving that digital payment is able to mediate the relationship between e-commerce and consumptive behavior.

4   CONCLUSIONS

Based on the results of this study, it can be concluded that the convenience of transactions in e-commerce has a significant effect on the consumptive behavior of FKIP UPS Tegal students. E-commerce directly encourages students to make impulsive purchases due to ease of access, convenience, and various attractive offers. In addition, digital payment plays an important role in strengthening the relationship between e-commerce and consumptive behavior. The presence of e-commerce and digital payment makes transactions more practical, thereby increasing students' tendency to engage in consumptive behavior.

ACKNOWLEDGEMENTS

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