

## “FACTORS DETERMINING STUDENTS DECISION TO USE DIGITAL WALLETS”

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### *Abstract*

*This study aims to find out what factors determine student decisions to use digital wallets. This study uses a qualitative approach to identify variables and a quantitative to classify variables into factors. This study took students studying in Indonesia as a sample, and 11 students underwent interviews and 309 students who became questionnaire respondents. After conducting the interview, 36 variables appear. Only 18 variables meet the value of communalities for further analysis to determine the factors determining the decision using the Exploratory Factor Analysis technique. The results of this study found that six factors determine the decision to use digital wallets by students, namely Primary Needs, Utilities Spending, Convenience, Education, E-Commerce, and Behavioral Shifting. The factor that most influences students' decisions to use digital wallets is the Primary Needs.*

**Keywords :** *Behavioral Shifting, College Student, Convenience, Digital Wallets, E-Commerce, Education, Primary Needs, Utilities Spending*

### **Introduction**

Digital wallets are electronic platforms or applications that are usually used for non-cash transactions that can be downloaded on smartphones. Transaction security from digital wallets can be relied upon because every transaction requires verification, namely QR code, Near-Field Communication (NFC), and One Time Password (OTP) (Rosmayanti, 2019). Therefore, digital wallets are increasingly being used in various digital transactions such as; Transfer money to a bank registered at ATM Bersama, top-up credit, purchase data packages, online transportation payments, and many other digital transactions that can be done using a digital wallet (Gokilavani, 2018). When the Covid-19 pandemic broke out, the use of digital wallets was increasing. Through the Governor of BI, the government invited the public to make non-cash payments in breaking the chain of spreading the virus (Kencana, 2020). Therefore, since 2019 the use of digital wallets has increased rapidly, and people prefer to transact using digital wallets to avoid transmission of the covid-19 virus (Prasetya, 2020). In India, it is found that the use of digital wallets is influenced by the security and convenience of facilities (Patil, 2020). It was also found that ease of use, usability, risk perception, attitude, influence satisfaction using digital wallet services and that satisfaction can influence social intentions or recommendations for using digital wallets (Singh, 2020). Non-cash payment systems or digital

wallets are most in-demand by students because students closely follow technological developments (Destianti, Hidayat, & Srisusilawati, 2019).

However, some get contradictory results, such as the results of research by Swilley (2010) ease of use and usefulness do not affect interest in using digital wallets besides, security and privacy are found to have a negative effect on attitudes towards digital wallets. There are still many people who refuse to use digital wallets because they are difficult to use, there are many risks such as network instability, fraud, and privacy issues, and choose to use a physical wallet because it has become a habit (Leong, Hew, Ooi, & Wei, 2020). According to previous research, the existence of innovations in digital wallets that are uncertain and considered very complicated to use reduces consumer intentions to use. If the product has a bad image, it has a negative effect on the intention to use a digital wallet (Chung & Liang, 2020). Previous research has found that when e-commerce users perceive electronic wallets as an inconvenient process in switching from cash to electronic payments, it is highly likely that e-commerce users will refuse to adopt a digital wallet payment system (Anuar, et al., 2020). Referring to the government's appeal for non-cash transactions and looking at previous research where there are still people who refuse to use digital wallets, researchers are interested in finding new factors that determine student decisions to use digital wallets Exploratory Factor Analysis research method.

Research can be taken into consideration for students who have not used digital wallets and become input for service providers to reach students who have not used digital wallets by developing their services according to the factors obtained so that students can be more interested in using digital wallets.

## Literature Review

### *Unified Theory of Acceptance and Use of Technology (UTAUT)*

The unified theory of acceptance and use of technology (UTAUT) is a model developed by Venkatesh (2003) to describe individual behavior towards information technology. UTAUT is the development of eight information system acceptance theories and a dominant model, namely Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Models (MM), Theory of Planned Behavior (TPB), Combined TAM, and TPB (C-TAMTPB), Model of the PC Utilization (MPCU), Innovation Diffusion Theory (IDT) and Social Cognitive Theory (SCT) (Williams, Rana, & Dwivedi, 2015) There are four primary constructs in UTAUT theory that determine the intention of user behavior, namely Performance Expectation, Effort Expectation, Social Influence, Facilitating Condition. Thus, Suhendry (2020) states that the Unified Theory of Acceptance and Use of Technology (UTAUT) can be used to find out the main reasons some people use digital wallets.

## Research Method

The research design used in this study used a qualitative, quantitative approach with the method of Exploratory Factor Analysis (EFA) and Principal Component Analysis (PCA) techniques. The purpose of Exploratory Factor Analysis (EFA) is to obtain a factor structure of a measure and test its internal reliability by isolating simple factors so that they can be easily explained (Cooper & Schinder, 2014) and to find new variables to be used in future research conducted (Mulyadi, 2011). In analyzing what factors determine the decision to use digital wallets for student researchers, the researcher uses Principal Component Analysis (PCA) techniques to reduce data (Costello & Osborne, 2005).

The sampling technique used by researchers in this study is the purposive sampling technique with the criteria of students who are active in college levels 1 to 4 (S1) and who are

currently using a digital wallet. According to Guadagnoli and Velicer (1988), the sample size that should be used is 300 respondents.

This study uses interviews and questionnaires as research instruments. Interviews were conducted using In-depth interviews with 11 Indonesian students who were using digital wallets and found that there were 36 variables formed from the interview results. The variables found are processed into question items in distributed questionnaires. Before the questionnaire was distributed, researchers conducted content validity first, which was carried out by expertise. This questionnaire will be distributed to active students studying in Indonesia levels 1 to 4 (S1) who are currently using a digital wallet using a 1 to 5 Likert scale design, and the number of respondents in this study was 309.

Respondents in this study consisted of 105 men and 204 women who used the Ovo digital wallet (59.87%), Dana (48.87%), ShopeePay (45.63%), Gopay (41.75%), LinkAja (15.86%), Jenius (0.32 %), and Isaku (0.32%). Each respondent came from various regions, namely North Sulawesi, East Java, West Java, East Kalimantan, DKI Jakarta, South Sulawesi, Lampung, Central Sulawesi, South Sumatra, West Papua, Central Java, Papua, Banten, Gorontalo, West Kalimantan, West Sumatra, North Sumatra, and Maluku.

Once distributed, the questionnaire results will be tested for validity and reliability first using the IBM SPSS Statistic 21 program. At the time of piloting the 40 respondents, there were four variables that did not meet the requirements, namely variables 2, 6, 35, and 36. However, the researcher was not directly erasing the question is to prevent that due to lack of data or the respondent can issue important variables. It is proven that when the questionnaire was distributed to 60 respondents, variables 2, 6, 35 were valid but not with variable 36, so the researcher issued the 36th variable and distributed it to 70 respondents. After passing the validity and reliability test of 36 variables, only 35 variables meet the validity and reliability requirements and meet the communalities requirements, namely  $> 0.4$ , and at the rotated matrix stage using varimax rotation, it was found that the last factor only has one variable but to provide meaningful interpretation, at least the factors must contain two or three variables (Henson & Roberts, 2006). With that, the researcher only took variables that had a value of communalities  $> 0.5$  even though the standard value of communalities was  $> 0.4$  to  $0.7$  (Velicer & Fava, 1998). The remaining 18 variables had a Communalities value  $> 0.5$ , Pearson correlation  $\geq 0.05$ , and a Cronbach's Alpha value of 0.827 and were declared eligible to be continued at the next stage, namely factor analysis.

## Result and Analysis

Variables with an Eigenvalue  $> 1$  can be accepted as a factor explanation (Fabrigar, Wegener, MacCallum, & Strahan, 1999), and of the 18 reduced variables, six factors have an eigenvalue  $> 1$ . By looking at Table 2, the percentage of Total Variance Explained is 66,995%, and factor 1 explains 26,929% of all the factors formed. In this study, the results of the Total Variance Explained have exceeded the acceptable minimum value of 50% (Beavers, et al., 2013)

**Table 1**  
**Total Variance Explained**

<b>Component</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Eigenvalue</b>	4.847	1.935	1.753	1.220	1.200	1.103
<b>Variance (%)</b>	26.926	10.752	9.741	6.781	6.667	6.127
<b>Cummulative (%)</b>	26.926	37.678	47.420	54.200	60.868	66.995

The variable loading on the factors is shown in Table 2. It can be seen in table 3 that students using digital wallets to pay for online motorcycle taxis have the highest loading value (0.843) and using digital wallets to buy food online which has the second-highest value (0.831) among all the variable at factor 1 is called the Primary Needs. In factor 2, it was found that students used digital wallets to pay electricity token bills (0.735) and Internet and cable TV bills (0.735), and this was called Utilities Spending. In the 3rd factor, the variable with the highest loading value, namely students using digital wallets because it provides many conveniences (0.817), is called the Convenience factor. In the fourth factor, the students of the variable state use digital wallets because on-campus activities providing payment with digital wallets has the highest loading value (0.834), and the fourth factor is called Education. Students use digital wallets to transact in E-Commerce (0.824), being the variable with the highest loading value on the 5th factor, namely E-Commerce. There are two variables in the last factor: students using digital wallets because of the Covid-19 Pandemic (0.843) and students using digital wallets because they follow the cashless movement (0.672), which forms a factor called Behavioral Shifting.

**Table 2**  
**Rotated Component Matrix**

Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
<b>I use a Digital Wallet to pay for online motorcycle taxis</b>	0,843	0,153	0,022	0,048	0,084	0,049
<b>I use my Digital Wallet to order food online</b>	0,831	0,062	0,220	0,018	0,088	0,044
<b>I use Digital Wallet to pay for taxis online</b>	0,801	0,205	-0,064	0,094	0,072	0,106
<b>I use my Digital Wallet to order drinks online</b>	0,800	0,099	0,238	0,076	-0,025	0,004
<b>I use Digital Wallet to pay for electricity tokens</b>	0,094	0,735	0,144	0,091	0,193	-0,079
<b>I use a Digital Wallet to pay for Internet and cable TV</b>	0,106	0,735	0,068	0,124	0,131	0,153
<b>I use Digital Wallet to buy game vouchers</b>	0,109	0,734	-0,056	0,174	-0,084	0,063
<b>I bought cinema tickets using a Digital Wallet</b>	0,256	0,590	0,280	-0,012	0,160	0,126
<b>Digital Wallets provide many conveniences</b>	0,235	0,138	0,817	-0,020	0,003	0,133
<b>Replenishing the digital Wallet balance is very easy</b>	0,131	0,113	0,742	-0,010	0,234	-0,039
<b>Digital Wallet makes it easy for me to transfer money</b>	-0,014	0,049	0,734	0,202	-0,025	0,094
<b>Transaction activities on campus provide payment with Digital Wallets</b>	-0,013	-0,046	0,071	0,834	0,225	-0,010
<b>I use Digital Wallet to pay spp</b>	0,082	0,289	0,030	0,726	-0,098	0,175
<b>I use my Digital Wallet to pay for train tickets</b>	0,229	0,367	0,101	0,566	0,110	-0,096
<b>I use a Digital Wallet to transact in E-Commerce (Shopee, Tokopedia, Lazada, Zalora, etc.)</b>	0,013	0,222	0,071	0,014	0,824	0,007
<b>I use Digital Wallet to pay for online shipping services</b>	0,161	0,050	0,101	0,190	0,755	0,188
<b>I am using a digital wallet because of the Covid-19 Pandemic</b>	0,046	0,206	-0,043	0,091	0,048	0,843
<b>I use a Digital Wallet because I follow the cashless movement (don't use paper money)</b>	0,134	-0,056	0,380	-0,031	0,167	0,672

Factor 1 = Primary Needs; Factor 2 = Utilities Spending; Factor 3 = Convenience; Factor 4 = Education; Factor 5 = E-Commerce; Factor 6 = Behavioral Shifting.

Primary needs are described in terms; (1) Using a digital wallet to pay for online motorcycle taxis; (2) Using a Digital Wallet to order food online; (3) Using a Digital Wallet to pay for online taxis; (4) Using a Digital Wallet to order drinks online. Utilities Spending described in terms of; (1) Using a Digital Wallet to pay electricity tokens; (2) Using a Digital Wallet to pay for Internet and Cable TV; (3) Using a Digital Wallet to purchase game vouchers; (4) Buying cinema tickets using a Digital Wallet. Convenience is described in terms of: (1) Digital Wallets provide many conveniences; (2) Filling up the digital Wallet balance is very easy; (3) Digital Wallets provide convenience in transferring money. Education is described in terms; (1) Transaction activities on campus provide payment with Digital Wallets; (2) Using a Digital Wallet to pay spp; (3) Using a Digital Wallet to pay for train tickets. E-Commerce is described in terms; (1) Using Digital Wallets to transact in E-Commerce (Shopee, Tokopedia, Lazada, Zalora, etc.); (2) Using a Digital Wallet to pay for online shipping services. Behavioral Shifting is described in terms; (1) Using digital wallets due to the Covid-19 Pandemic; (2) Using a Digital Wallet because it follows the cashless movement (does not use paper money).

Primary needs, with the highest eigenvalues value of 4,847 where this factor is the most dominant factor among the six formed factors. For example, research (Wulandari, 2020) states that by using consumer digital wallets it is easier to purchase primary needs and even urgent needs. The second factor is Utilities Spending with eigenvalues of 1,935. In line with Chauhan and Shingari's (2017) research that students use digital wallets to pay for necessities such as ordering bus tickets, planes, or ordering hotels, but most students use digital wallets more for their daily needs, namely paying electricity and water bills. The third factor is convenience with eigenvalues of 1.753. In line with previous research, it turns out that it has a significant effect on digital payment, namely convenience (convenience) has a positive effect on perceived benefits (Puspita, 2019). The fourth factor is Education with an eigenvalue of 1,220. In line with Rahmawati and Maika's (2021) research with technological advances, in the age of digitizing on-campus transaction systems it is more effective to use cashless payments via digital wallets. The fifth factor is E-Commerce with eigenvalues of 1,200. In line with previous research, it is said that many customers find it easy to pay for purchases online using digital wallets (Bezhovski, 2016). The sixth factor is Behavioral Shifting with eigenvalues of 1.103. In line with Undale's research, Kulakrni, and Patil (2020) that consumer behavior in making payments has changed due to the Covid-19 pandemic, which previously made transactions using physical money turned into digital payments.

**Table 3**  
**Cronbach's Alpha**

No	Factor	Cronbach's Alpha
1	Primary needs	0,862
2	Utilities Spending	0,735
3	Convenience	0,717
4	Education	0,639
5	E-Commerce	0,60
6	Behavioral Shifting	0,5

Table 3 displays the Cronbach's Alpha value of each factor. The Primary Needs factor has a Cronbach's Alpha value of 0.862, and the Utilities Spending factor has a Cronbach's Alpha value of 0.735, the Convenience factor has a Cronbach's Alpha value of 0.717, the Education factor has a Cronbach's Alpha value of 0.639, and these four factors have met the feasibility value, which means that factor reliability is acceptable for research. Furthermore, for the E-

Commerce factor, it has a Cronbach's Alpha value of 0.6, and Behavioral Shifting has a Cronbach's Alpha value of 0.5, which does not meet the requirements and is unreliable.

### **Conclusion and Recommendation**

Based on the research results that have been carried out using factor analysis, six factors influence student decisions in using digital wallets, namely: Primary Needs, Utilities Spending, Convenience, Education, E-Commerce, Behavioral Shifting. The research results show that the factors that most influence student decisions in using digital wallets are primary needs.

In this study, some limitations can be considered more for further research in further refining the research, such as this research only focuses on students studying in the undergraduate study program without looking at whether there is a difference between men and women. Based on the research on the determinants of the decision to use digital wallets by students, the authors suggest for further research to do more in-depth research by seeing whether there are differences in the determinants of student decisions between men and women who use digital wallets so that the results obtained can be studied for each digital wallet service provider to increase its users.

For digital wallet service providers that make students their target customers, the results of this study can be used as a strategy in promoting services. Service providers are also advised to improve digital wallets that can facilitate daily consumer activities and collaborate with universities in Indonesia to embrace students to use digital wallets.

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