Analysis of Electronic Wallets Use Patterns among Students in Online Transportation Services

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Abstract. This study is conducted to discover the impact and the use of electronic wallet (e-wallet) by students especially in online transportation service. This research used a comparative approach by comparing online transportation service users with conventional transportation service and the literature analysis method, interviews, and written surveys involving students in Bandung as respondents. The results of this study showed that students who use electronic wallets to pay for online transportation service were more able to control their expenses efficiently compare to students who use conventional transportation service and use conventional payment methods as well. Especially for students, using an electronic wallet in online transportation services is very helpful in the payment process.

1. Introduction
The advancement of smartphones contributed to the development of online payments which is used by the majority of e-commerc. If we look at these digital-based financial services including electronic wallets, cashless payment technology or electronic wallet is increasingly popular among users, especially students. With this service, consumers can carry out transactions for various purposes with the existing balance in an electronic wallet. At present, consumers do not need to prepare cash to purchase product, but they only need to activate the electronic wallet application to pay. As for the seller, they do not have to provide returns because the payment is done with the exact amount of money. Consumers also do not have to carry large amounts of cash to minimize the risk of crime. Consumers can transfer money anywhere at any time through a smartphone [1]. Using information technology systems has many functions in an organization including automated processes and key roles to empower technology [2]. The role given by the application of information technology is to help us to get information for daily life such as providing convenience and speed in making transactions in payments without the need to carry cash [3].

In the digital era, people are required to be smart in utilizing resources. Various digital innovations in various fields have proven that people also contribute to the development of increasingly sophisticated times [4]. There are 25 million customers of wireless LAN/WLAN telephones. Technologically advanced company in North America whose customers use telephones or cellphones as cellular wallets. Cellular wallet is a high-tech wallet in its time in the form of a cellular payment system in a cellphone that can be used for various types of payments as well as storing personal information such as credit card information, passports, reservation details [5]. Similar to what is being carried out in the Polish City, they make electronic-based payments in transportation services. They want to expand various functions and range of services. By implementing electronic payments, the Polish citizens can pay various public sector payments such as taxes and transportation ticket purchases. With electronic payments, it reduces the cost of paper ticket printing and increased profits [6]. In Indonesia, many
Electronic wallet products have been issued by banks and the private sector such as PT. Dompet Anak Bangsa a company that serves transportation through a motorcycle taxi service called Gojek. The company has an electronic wallet product called Go-Pay [7]. In addition, there is also an electronic wallet product called OVO issued by Bank Indonesia and a private company, PT. Visionet International, which is one of the largest payment companies in Indonesia. OVO itself is allied with Grab and becomes one of the payment systems in the application [8]. The number of cellular users makes the electronic wallet payment scenario more suitable than the payment in cash [9]. This phenomenon raises a question on how generations perceive new technology such as e-payment in their daily lives. People need to get used to the online payment system or e-wallet and leave the conventional payment using cash [10].

This study aims to determine the impact and factors of the use of electronic wallets in online transportation services to the public, especially on students. The method used in this study was a comparative approach to the types of literature analysis methods, interviews, and written survey methods.

2. Method
This study used a comparative approach to the types of literature analysis methods, interviews, and written survey methods by distributing online forms containing several related questions about the use of electronic wallets by comparing users of online transportation services with conventional transportation services and their advantages and disadvantages involving students in the Bandung City as respondent.

3. Results and Discussion
After conducting a literature analysis, interviewing and asking a number of questions through a survey by distributing online forms, the following are the results taken from the answers to the questions raised and then submitted to eighty respondents. The following are the answers from the respondent's gender (See Figure 1).

![Figure 1. The results of respondents' answers from gender](image)

In Figure 1, The diagram is the result of a question about the gender of the respondents which shows that 60% of the respondents are Women and the remaining 40% are Men. In addition, the authors give other questions to respondents who show the results of questions about the types of transportation they often use everyday as follows (See Figure 2).
Figure 2. The results of respondents' answers from transportation are often used

In Figure 2, the diagram shows the results of questions about the type of transportation they often use. 78.8% use online transportation and the remaining 21.3% use public or conventional transportation. Respondents who choose answers using online transportation will be asked questions like the following (See figure 3).

Figure 3. The results of respondents' answers of how often to use online transportation

In figure 3 you can see a diagram showing the results of questions about how often they use online transportation services. 58.8% of respondents use online transportation services less than five times every week, 22.5% use online transportation services five to ten times a week, and the remaining 18.8% answered if they often use it which in this case is an online transportation service site above ten times a week. The method is often used by respondents (See Figure 4).
Figure 4. The results of respondents' answers from the methods they often use in online transportation services

Figure 4 is the result of questions about what payment methods are frequently used. Respondents said that 46.3% of them made payments using cash, and the remaining 53.8% said that they made payments using an electronic wallet (OVO, Gopay, Traveloka, etc.). Then to deepen the information in the use of electronic wallets on online transportation services, the authors provide questions as follows (Figure 5).

Figure 5. The results of the answers of respondents from often they use an electronic wallet in online transportation services

Figure 5 shows the results of the question about how often they use electronic wallets (Ovo, Gopay, Traveloka, etc.), and 50% of respondents use online transportation services less than five times every week, 27.6% of respondents use online transportation services five to ten times a week, and the remaining 22.4% answer if they often use them which in this case is a transportation service site online above ten times a week. In the next diagram we can see the impact of electronic wallets (Figure 6).
Figure 6. The results of respondents' answers agree or disagree if the electronic wallet is very helpful in the online payment process

Figure 6, respondents said they agree, that 98.8% of electronic purses are very helpful in the online transportation payment process. The strengths felt by respondents in online transportation services when using an electronic wallet (Figure 7).

Figure 7. The results of respondents' answers from them about the advantages of electronic wallet compared to cash

In Figure 7 the results of the question about what advantages make respondents use electronic wallets (OVO, Gopay, traveloka, etc.) compared to using cash for several reasons, 19.5% of respondents said that they found it easy when using a wallet electronics, 21.1% answered because they felt electronic wallets were practical when used, 24.9% answered that electronic wallets could be used anytime and anywhere, and 34.6% said that they got promos / discounts / cashback when using electronic wallets. In addition to the advantages of the electronic wallet as for the disadvantages that respondents feel when using an electronic wallet in online transportation (See Figure 8).
What are the disadvantages of using E-wallet over cash?
80 Responses

43.2% Network Disruption
26.1% Top up Process
18.9% Difficult to Use
11.7% Ads

Figure 8. The results of respondents’ answers from them about the lack of an electronic wallet compared to cash

In Figure 8 you can see answers from eighty respondents about what the electronic wallet lacks (OVO, Gopay, traveloka, etc.). Compared to cash, for some reason, 11.7% said that electronic wallets are complicated when used, 18.9% answered that the lack of an online wallet is advertising, 26.1% answered the top-up process which became short of online wallets and 43.2% said that disruption in the internet network is becoming a lack of electronic wallets.

4. Conclusion
From the results of investigations in this study, it proves that electronic wallets have a big impact on society, especially students. Most people prefer electronic wallets. Besides of being practical and easy, there are promos, discounts, cashbacks that attract users to use it. Especially for students, using an electronic wallet in online transportation services is very helpful in the payment process. However, many people also consider it inconvenient because of unstable internet connection, many ads, difficulty in topping up the balance, and unhandy use.

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