e-Wallet usage intensity and the determining factors during pandemics: A closer look on Indonesian students’ perspectives

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ABSTRACT

COVID-19 has changed the way we live to the extent of many choices in our lives. Physical distancing measurement that took place months, followed by restriction to travel, to reduce mobility, has been gradually implemented by the government of Indonesia. The e-wallet transaction by volume during the pandemic accounts for 1.7 million times with 67 total users in Indonesia. This study is comprehensive on previous research on 2020 with a smaller sample. This research is aimed to find out 1) the usage intensity of e-wallet amongst them and 2) to understand the underlying factors of using such e-wallet. The data is collected by interviewing 100 students in Universitas Negeri Malang, Indonesia. The data was then analyzed using NVIVO and interpreted using content analysis to reach the objective of this research. It is found out that 1) undergraduate students use it quite frequently, and 2) three key factors as the determining factors, namely practicality efficiency, and discount. This research aims to contribute to the digital payment literature and future research agenda on e-wallet amongst undergraduate students during pandemic and post-pandemic.

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Introduction

COVID-19 has changed the way we live to the extent of many choices in our lives. Physical distancing measurement that took place months, followed by restriction to travel, to reduce mobility, has been gradually implemented by the government of Indonesia. According to official government data (2021), Indonesia reached its COVID-19 peaks in July and August 2021, with data recorded highest of 41,000 daily cases. The health system was collapsed which the government then enacted travel restrictions and curfew. As a result, a closing mandate is erected to public places and prominent tourism spots from July to October 2021 to limit citizens’ mobility and control the spread (OCHA, n.d.). As people stay at home more often, their consumption styles shift to online purchasing more.

Before the pandemic, the digital-based economy in Indonesia had increased quadruple in size from 2015 to 2019, with an estimated growth of 49%. From 2020 to 2021, according to Data Reportal (2021), there is a surge of users in social media which accounted for 60 million users.

The main factor for the growth of the digital economy in Indonesia is the progress in the e-Commerce and ride-hailing sectors and the massive growth in the digital payment sector. With an enormous increase in the number of internet users for four years, from the previous 92 million users in 2015 and an increase of 60 million users, in 2019, there were as many as 152 million internet users in Indonesia, indicating that digital-based business will become a profitable business in the future (Temasek, 2019). Looking at this data, there is a tendency to increase the digital payment landscape during the pandemics. According to (Boku Inc, 2021), the e-wallet...
transaction by volume during the pandemic accounts for 1.7 million times with 67 total users in Indonesia. This trend is happening not only in Indonesia but also in another developing countries. (Abushamleh, 2021).

E-wallet or electronic wallet is a digital wallet and payment application that provides numerous security features not available on regular wallets, allowing users to make electronic transactions quickly and securely (Upadhyaya, 2012). Digital payment is not only beneficial for buyers but also for the business. Hence, it is a fast and convenient transaction process and less labor cost that persuades people to use it (Hayasi. Et al., 2014). The use of an e-wallet is not only shared in the online store but also commonly done in physical stores by scanning QR codes from mobile user devices to confirm the payment (Rpa, A., 2020). As reflected in many small stalls and shops in Indonesia, people are done it in physical stores to avoid queues by paying with an e-wallet. Interestingly, the majority of the e-wallet users in Indonesia are 35% millennials, and another 38% is generation z, which is under 25 by the year 2021 (Jakpat, n.d.).

e-Wallet and digital payment are thriving in Indonesia. Many of the research on e-wallet in developing countries are fragmented. Research done on this topic focuses on e-wallet usage in pandemics by comparing two multi-group, Indonesian and Malaysian (Aji, 2020), another investigation focuses on the developing country (Abushamleh, 2021), while other focus on the framework or model such as continuous technology theory (Daragmeh, 2021). While there are a few articles on generation Z or undergraduate students, the finding discussed addressed several main topics using the theory of planned behavior (Persada, 2021), and strategically focused on customer satisfaction in certain regions such as India (Dhanda, 2018). Author has also conducted preliminary research that found out that e-wallet usage in Indonesia is widespread amongst generation Z, with discounts as the underlying factors of choosing the e-wallet (Prasasti, 2021). Indonesia also has key players in an e-wallet, namely OVO, GoPay, ShopeePay, Dana, and Link Aja (Daily Social, 2020), with the total monthly active users combined accounting for

To reduce the gap in the literature and see the massive number of users in Indonesia, it aims to dig deeper into the phenomenon happening in Indonesia where undergraduate students (under 25 years old) are easily and conveniently use e-wallet as one of their transaction methods. The study’s objective is divided into two 1) to find out the usage intensity of the e-wallet amongst undergraduate students in Indonesia, and 2) to understand the factor underlying their choice of e-wallet.

This study used a qualitative research method using interviews as a data collection. Qualitative research is chosen to understand a complex phenomenon from the perspective of the one who experienced it (Vaismoradi, 2013). This research collects data from 100 undergraduate students in Universitas Negeri Malang, Indonesia. The sample is selected based on these criteria 1) an e-wallet user, 2) using an e-wallet for any transaction during the pandemics, and 3) an undergraduate student in Universitas Negeri Malang, and 4) 17-24 years old.

The data then being analyzed using NVIVO software and interpreted it using content analysis. Content analysis is chosen to understand who says what, to whom, and with what effect (Vaismoradi, 2013). Such phenomenon that happens in a vast number of populations in Indonesia needed to validate by describing and interpreting what they have to say from their own perspectives. As a result of coding and selecting the interview transcripts, the data can then be decrypted and discussed in the results and discussion sections below.

Digital Payment and e-Wallet

Digital payment is defined as any transaction made using digital money, including e-Wallet. e-wallet adoption facilitates social distancing between the seller and consumers, which helps prevent COVID-19 (Daragmeh, 2021). e-Wallet researches are predominantly emphasizing the adoption and the technology acceptance model (Singh, 2021); on the UTAUT framework (Sikdar, 2019); and concentrated on the certain region such as India (Shah, 2017); Malaysia, and Indonesia (Aji, 2020); Vietnam (Phuong, 2020), and in Hungary (Daragmeh, 2021).

Most of this research is conducted in developing countries where 1) population is big and or 2) the number of generation Z is significant, and 3) conducted in a more developed country where the population is relatively small such as in Hungary. The future of e-wallet is seemingly bright with the recent studies found out that in India, the perceived ease-of-use influence considerably in their continuance to use e-wallet(Phuong, 2020).

The author also found one research from Indonesia that focused on the financial institution where the research is conducted to find out about the quality of the application towards customer satisfaction. It is found out that user experience is important when using such apps (Susanto & Chang, 2016). For more gender-wise context, the Author found out that there is one research from Nigeria that discovered about the young rural women who are a farmer, in which engaged in e-wallet program has not fully utilized the program because of many reasons such as beliefs, norms, and discrimination on women even though the government has initiated the program (Uduji, 2018).

The usage of e-wallet has spanned many countries under the same range of ages and generations. Reflecting on the previous research, it has resulted in similar benefits towards the user, yet it is implemented in a different context altogether.
Indonesian students’ perspectives: A Field Study

This study seeks to understand 100 undergraduate students' usage of e-wallet in Universitas Negeri Malang, Indonesia. Authors asked our informants about their choices of e-wallet in the QR1 about what kind of e-wallets that they are using, and they are mostly using OVO, Gopay, and ShopeePay, as reflected on the excerpts below:

Interviewer: What kind of e-wallet that you use?

Informants: I am using OVO (Interview 1, Akris)
Informants: I am using OVO as well as ShopeePay (Interview 13, Iqbal)
Informants: Depending on what I need, I am mostly using GoPay (Interview 189, Galang)
Informants: GoPay, to make payment for food and ordering online ojek (Interview 2, AKT)

When probed about their usage intensity, most students answered 3 to 6 times a month, while several people answered that they use it almost every day. Those students using go pay are mostly because that the apps are interrelated apps connected to the ride-hailing system; therefore, they can use it together along with ordering online food delivery, hence paying with Go-Pay. It is reflected on the excerpts from QR2 below:

Interviewer: How Often Did You Use e-Wallet?

Informants: I am using it almost every day for ordering food online (Interview 8, Agitha)
Informants: 5-6 times a month (Interview 13, Iqbal)
Informants: For OVO, I use it 5-6 times per month, for ShopeePay 3-5 times a month (Interview 89, Evi)
Informants: GoPay 3-5 times per month, to make payment for food and to order online ojek (Interview 2, AKT)

It is found out that amongst 100 people who have been interviewed, they are mostly using it to purchase food or to pay for online ojek or online transportation. The further answer towards the questions is reflected in the excerpts here:

Informants: I use it frequently to purchase food, pay for online shopping, and also for online transportation (Interview 5, Dinda)
Informants: Depending on what they offer, though, if OVO offers a discount, I would gladly choose OVO, but if I don't need anything, then I won't buy. (Interview 11, Chani)

All the excerpts summarize in the hierarchy chart. The hierarchy chart in Figure 1 below summarizes the coding reference we obtained from the transcripts that have been analyzed using NVIVO software. The darker color represents the frequency of the answers.

Figure 1: Hierarchy Chart on e-Wallet Usage Intensity; Source: Author Data (2021)
Whereas when probing further on the reason why they are using an e-wallet, the informant's answer reflected on three key factors as the determinant in using e-wallet during pandemics. On our QR.3, we ask the informants the below question:

**Interviewer: What is the reason why you used e-wallet during the pandemics?**

Informants: *There is plenty of discount and cashback compared to paying with cash and cashless. No touching.* (Interview 15, Karina)

Informants: *I look for discounts and points, I feel rewarded by getting points. Especially now I stay at home a lot I need points for my online shopping* (Interview 45, Darwin)

Informants: *Usually, in OVO, when I order food, we can redeem a voucher* (Interview 70, Anita)

Informants: *Discount may influence me, but mostly the security and the practicality in using it that attracts me the most* (Interview 83, Nia)

Informants: *It is very easy to use, simple. No contact with people* (Interview 88, Arif)

Informants: *It is easier to use than mobile banking* (Interview 41, Galea)

Informants: *It is more convenient than going to ATM to withdraw money, no contact with people as well* (Interview 55, Santoz)

Informants: *Well, with an e-wallet, I can do so many transactions in one go, I can buy phone credits as well as pay for electricity bills.* (Interview 38, Hira)

Informants: *It is practical, no-hassle I used it more often now than back in 2019.* (Interview 53, Karunia)

Informants: *I use it to order food, shop online, pay for online transportation, basically the practicality of using it.* (Interview 27, Zain)

In line with the previous research, e-wallet is being used as a mode of transactions amongst youngsters, millennials, and generation Z altogether (Monilakshmane, 2019)(Daqar, 2020)(Persada, 2021). The main factors in using e-Wallet, namely discount (Prasasti, 2021); ease-of-use (Daqar, 2020); seemingly good idea (Persada, 2021); and the quality of mobile application (Phuong, 2020). In this study, the author found three striking answers from the interviewee. They are not reluctant to answer the questions and gladly tell the interviewers about why they use the e-wallet. From the excerpts above, most students are using e-wallet because of the practicality that they can do many transactions at once. In contrast, a small number of other students mentioned the ease of use and the simplicity of the apps. Whereas quite many students consider discounts as their main factor in choosing an e-wallet. The hierarchy chart in Figure 2 summarizes the interview excerpts. The darker color represents the frequency it is being said in the interview.

![Figure 2: Three Keys Determinant in Using e-Wallet](Source: Author Data (2021))
During the pandemics, undergraduate students continue to study from home, which they admit, increases their purchases compared to the last two years in 2019. This is supported by recent studies that recorded an increase in active users in e-wallet payments. As the landscape of Indonesia’s e-wallet is thriving, this can be a determinant for the e-wallet growth in the region, and the e-wallet platform can be utilizing his research for their marketing strategies ahead.

Conclusions

It can be concluded that generation Z in Indonesia is tech-savvy. It is convenient to use several e-wallets at once to find the bargain where it is necessary. However, the students conduct a transaction using an e-wallet at least three to five times a month. The usage intensity seems conditional depending on what they needed the most. Interestingly, a discount is not the only key factor in determining their choices, and other key factors such as practicality and efficiency in using are also being considered.

All authors have read and agreed to the published version of the manuscript.

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