# An Analysis of Student's Behavioral Intention to Use Digital Wallet Using UTAUT Model

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**Abstract.** The aim of study is to analyze the factors that affect the behavioral intention of students to use digital wallet based on unified theory of acceptance and use of technology (UTAUT). The population of research is students of Universitas Negeri Semarang who have used digital wallet. The number of respondents was 155 students. The sampling technique was incidental sampling. We used a questionnaire for data collection. The data analysis technique used was SEM-PLS. The results showed that performance expectancy, facilitating conditions, hedonic motivations, and habits influence behavioral intention significant and positively. Meanwhile, there are no evidence that effort expectancy, social influence, and price value affect student's behavioral intention to use a digital wallet significantly.

Keywords: UTAUT model; Performance expentancy; Effort expectancy; Behavioral intention

### 1 Introduction

The industrial revolution 4.0 has caused a rapid growth of technology and information in various area and industries. This has a direct impact on the number of smartphone and internet users to adapt to the occurring technological and information developments. APJIII survey in 2018 shows that smartphone use is also closely related to internet users in Indonesia, which currently have reached 64.8% of Indonesia's population. Technological developments have an impact on the financial sector, marked by the presence of financial technology. The rapid development of financial technology requires various industries in the financial sector to continue to provide innovation in technology. One of the financial technology services that has been gaining attention in recent years is electronic money. According to the Financial Services Authority (OJK), electronic money is one of the tools to realize an increase in non-cash transactions in society. Electronic wallets or what are commonly referred to as digital wallet or e-wallet is a type of server-based electronic money.

The increase in public intention to use e-money or digital wallet is because the currency that is often used in every transaction has many weaknesses, one of which is a currency that is considered impractical. Based on iprice.co.id research, e-wallet or e-money is the number two preference for online transaction payment methods (see Figure 1). DS Research survey in 2019 contained ten digital wallets that were most widely used by people in Indonesia. Go-pay is a digital wallet with a usage percentage of 83.3% and followed by OVO with a percentage of 81.4%. Meanwhile, other digital wallets have not yet reached a percentage of more than 80%.



Fig.1. Indonesians Preferred Payment Method for Online Shopping (iprice.co.id)

The high level of digital wallet use of is of course influenced by several factors. Acceptance and use of digital wallet fitures by users can be identified by using a model, i.e. the Unified Theory of Acceptance and Use of Technology (UTAUT) [1]. UTAUT developed into UTAUT 2 with the addition of new constructs such as hedonic shopping, habit, and price value. [2]. The UTAUT concept is a development of previous theories such as Theory of Reasoned Action (TRA) and the Technology Acceptance Model. (TAM) [3]–[5].

Many researchers use UTAUT to explain the factors that affect the intention to use a digital wallet or e-wallet [6], [7] or mobile wallet [3], [8]. However, not many have tested the UTAUT 2 concept [9]. The UTAUT 2 concept can be used to understand determinants of intention to adopt mobile payments [10]. Researchers used UTAUT 2 concept to re-examine the factors that influence behavioral intention to use digital wallet. The various findings in previous studies became a factor for researchers to re-test. The researchers did not add a new construct to the UTAUT 2 concept to find the full effect of the existing constructs in the UTAUT 2 concept. The researchers used the SEM-PLS model to analyze the obtained data.

Performance expectancy or perceived usefulness is the main factor in the UTAUT concept to understand user behavioral intentions, apart from effort expectancy, social influence, and facilitating conditions. [6]. behavioral intention to use e-wallet Performance expectancy shows the user's perception of the usefulness of a technology. The higher the user's belief that a technology is useful, the more they will intend to use the technology continuously. Previous studies have tested the relationship between performance expectancy (perceived usefulness) as a determining factor for behavioral intention to use e-wallet [5]–[7], mobile wallet [3], [8] or mobile payment [4], [11]. Different results were obtained by other researchers, that behavioral intention is not explained by performance expectancy significantly [12].

Convenience is also a factor determining behavioral intention to use e-wallet [6], [7]. Effort expectancy is a significant predictor of behavioral intention to use an e-wallet or mobile wallet [5], [12] and digital payment or e-payment [11], [13]. However, there are findings that indicate effort expectancy is not a factor affecting the intention to use a mobile wallet [3] or mobile payment [4].

Social influence in the UTAUT concept is explained as environmental factors that will affect a person's intention to use a technology-based service [1]. This means that a user will have a stronger intention when the surrounding environment also uses the same service and recommends it to other users [14]. Previous studies confirm this opinion [4], [12], [15]. Meanwhile, the results of other studies show different findings [3], [5], [7], [8]. [10] and [11] do not verified a significant impact of social influence on intention to adopt mobile payments or e-payments.

Intention to use e-wallet can also be influenced by facilitating conditions. The devices that are owned by the users are very influencing. The availability of features in the device, including the speed of internet access, will increasingly determine a person's intention to use e-wallet services. Previous studies provide empirical proof of a significant impact of facilitating conditions on behavioral intention [4], [11], [15]. However, there were researchers who did not find a significant effect between facilitating conditions on behavioral intention [3], [6], [7], [12].

The new constructs in UTAUT 2 are hedonics motivations, habit, and price value. A user who has high hedonic motivation will tend to take advantage of e-wallet services. The ease of use of e-wallet services will make users continue to use them. Previous studies have proven that hedonic motivations are factors that can predict the intention to use digital wallet or e-payment [11], [12]. However, different findings were obtained by other researchers [7], [15].

Habit refers to the experience a user has. The more users use e-wallet services and have a pleasant experience, the more they will continue to use the service. The findings of previous researchers reinforce the opinion that habit can determine the intention to use digital wallet positively and significantly [7], [8], [11], [12], [15].

Intention to use digital wallet will also increase if there is an attractive price value factor. This economic factor greatly influences behavioral intention. Empirical evidence indicates a significant effect of price value on the intention to use an e-wallet [7]. However, different findings were obtained by previous researchers [10], [12], [15].

Based on the description above, the research model developed in this paper can be seen in Figure 2 below.

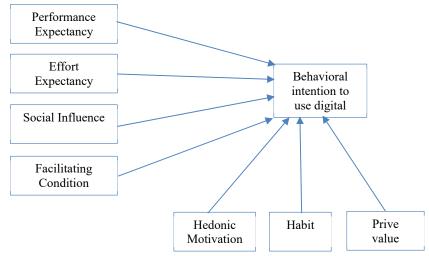


Fig.2. Research Model.

### 2 Research Methods

We use the UTAUT 2 model to analyze the determinants of behavioral intention to use digital wallet. Respondents in this study were students of Universitas Negeri Semarang who have used e-wallet such as Go-Pay, OVO, and others. This study obtained 155 students who became research respondents. Respondents were selected using the incidental sampling method. The dependent variable in this study is behavioral intention. Meanwhile, the independent variable consists of the constructs of UTAUT 2, i.e., performance expectancy, effort expectancy, social influence, facilitating conventions, hedonic motivations, price value, and habit.

The questionnaire was developed from previous researchers and had been tested for validity and reliability. The questionnaire was distributed using the Google Form online application. The research variables were measured using a 5 Likert scale. The data analysis technique used was SEM-PLS. Data were processed using warPLS 7.0 software.

## **3** Results and Discussion

The results of hypothesis testing are shown in Table 1. The p-values that were less than 0.05 of the tested variables were only four, i.e., the variables of performance expectancy, facilitating conditions, hedonic motivations, and habit. The results of this study provide the evidence that the four variables are factors that influence the student's intention to use digital wallet positively and significantly. Meanwhile, the p-values of the variables of effort expectancy, social influence, and price value is more than 0.05. These findings indicate that behavioral intention to use digital wallet is not significantly affected by effort expectancy, social influence, and price value.

| Independent Variable    | Path        | p-value | Conclusion    |
|-------------------------|-------------|---------|---------------|
|                         | coefficient |         |               |
| Performance expectancy  | 0.180       | 0.010   | Supported     |
| Effort expectancy       | 0.089       | 0.131   | Not supported |
| Social influence        | 0.069       | 0.191   | Not supported |
| Facilitating conditions | 0.259       | < 0.001 | Supported     |
| Hedonic motivations     | 0.272       | < 0.001 | Supported     |
| Price value             | 0.099       | 0.106   | Not supported |
| Habit                   | 0.302       | < 0.001 | Supported     |

 Table 1. Results of Research Hypothesis Testing

Performance expectancy has been shown to have a significant impact on student's intention to use a digital wallet. The results indicate that the better the perceived usefulness of the digital wallet, the more users will intend to use it. Digital wallet, e-wallet, and mobile wallet are the best choices for users to make transactions easier, especially online shopping transactions. Users can quickly and practically use existing features so that they can save time they have to go to the ATM (make payments). The results of the study confirm the results of previous studies [3], [5]–[8], [11].

The benefits obtained from using a digital wallet are felt by users. They can do anything and anywhere to fulfill their needs and wants. This factor is a significant trigger for the use of e-wallet in Indonesia (and even in the world) which has experienced a tremendous increase. The use of e-wallet will also support the business and social performance of users.

The results also show that effort expectancy is not able to have an impact on students' intentions to use digital wallet. The convenience factor is not the reason why students intend to use digital wallet in payment of transactions that have been made. Students consider the use of digital wallet to be commonplace and not difficult to use. Previous researchers also found the same thing [3], [4]. Students are a generation that is very fast in adopting technology. So that the features in the digital wallet are considered very easy to understand and use. This factor becomes unimportant for students because they can quickly identify the existing features. Thus, effort expectancy is not a predictor of students' intention to use digital wallets.

The social influence factor is also not a factor capable of changing the intention to use a digital wallet. Students are not influenced by friends or relatives who are around them in using e-wallet. Students think that the use of e-wallet is a common thing to do. The results of this study supported the previous findings [3], [5], [7], [8].[10]. Students are motivated from fulfilling their self-actualization needs to continue using e-wallet even though their peers and family do not use it. They consider the existence of a digital wallet very important in their lives.

The third finding in this study is the significant impact of facilitating conditions and hedonic motivations. The availability of devices owned by the user with the latest features will cause the user to make online transactions and this is where easy payment is needed. The use of digital wallet is the best solution for now. Previous studies have shown a positive and significant impact of facilitating conditions on the intention to use digital wallet [4], [11], [15].

The new constructs in UTAUT 2 are hedonic motivation, habit, and price value. Hedonic motivation refers to the behavior of users who want to look as if they have the latest and luxurious style. The user does not care that the item purchased is a necessity or something else. The higher the tendency for users to have hedonic motivation, the more often they will use digital wallet to complete their online payments. Previous studies have confirmed this argument [11], [12]. Habit reflects user's habits after using digital wallet services. The better the user experience, the more it will create new habits. This research is in line with previous empirical studies [7], [8], [11], [12], [15].

People's habits today encourage the use of digital wallets. Community mobility is also very high, both in business and social contexts. People's lifestyles have become new with economic activities that tend to fulfill more hedonic desires. In transacting, people no longer see it as a necessity or not. Moreover, if you have the facilities (smartphone, internet, credit card, etc.), people will be more motivated to buy things that are sometimes not needed. The use of e-wallet will be even higher.

Students are very dynamic individuals and enjoy self-actualization in various activities. Students will be more likely to use e-wallet because it can show their identity as a habit of the millennial generation. Students will be able to fulfill their lifestyle needs by means of easy access to e-wallet. This habit will encourage students to use e-wallet.

An interesting result was obtained by the researchers, i.e., the insignificance of price value in influencing behavioral intention. The economic factor should be the dominant factor for students to continue using digital wallet. The existence of tantalizing discounts provided by service providers will increase the user's willingness to transact online and then use a digital wallet or e-wallet. The results of the study do not confirm the concept of UTAUT 2 which shows that price value is a determinant of behavioral intention. Previous studies have obtained the same results [10], [12], [15].

Students no longer consider the price in the use of e-wallet. The items needed will still be purchased even though the price is more expensive, if they can use an e-wallet which is very easy to use. Students better fulfill their lifestyle needs to gain recognition from their friends. Another reason is that students can quickly get the items they need by using payments via e-wallet.

### 4 Conclusion

UTAUT 2 was retested in this paper to analyze the factors that affect the student's intention to use digital wallet. Researchers found a significant effect of performance expectancy, facilitating conditions, hedonic motivation, and habit on student's intention. Meanwhile, other factors (effort expectancy, social influence, and price value) are not indicated to have a significant impact on behavioral intention. Students are not affected by the ease of using digital wallet and environmental factors to continue to intend to use digital wallet. An interesting finding is the insignificance of price value on behavioral intention. However, price value is an economic and dominant factor for a person to make a transaction or shop online. Then, it will encourage the person to take advantage of a digital wallet.

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#### References

- V. Venkatesh, "User Acceptance of Information Technology: Toward A Unified View," MIS Q., vol. 47, no. 2, pp. 425–478, 2003, doi: 10.1006/mvre.1994.1019.
- [2] V. Venkatesh, J. Y. L. Thong, and X. Xu, "Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology," MIS Q., vol. 36, no. 1, pp. 157–178, 2012.
- [3] V. Patel, "Young Consumers' Intention to Use Mobile Wallet Services: an Empirical Investigation using UTAUT Model," in Nirma International Conference on Management (NICOM) 2016, 2016, no. January, pp. 1–15, [Online]. Available: https://www.researchgate.net/publication/303685121.
- [4] X. Lin, R. Z. Wu, Y. T. Lim, J. Han, and S. C. Chen, "Understanding the sustainable usage intention of mobile payment technology in Korea: Cross-countries comparison of Chinese and Korean users," Sustainability, vol. 11, no. 19, pp. 1–23, 2019, doi: 10.3390/su11195532.
- [5] P. Intarot and C. Beokhaimook, "Influencing Factor in E-Wallet Acceptant and Use," Int. J. Bus. Adm. Stud., vol. 4, no. 4, pp. 167–175, 2018, doi: 10.20469/ijbas.4.10004-4.
- [6] M. Yang, A. Al Mamun, M. Mohiuddin, N. C. Nawi, and N. R. Zainol, "Cashless transactions: A study on intention and adoption of e-wallets," Sustainability, vol. 13, no. 2, pp. 1–18, 2021, doi: 10.3390/su13020831.
- [7] S. Chresentia and Y. Suharto, "Assessing Consumer Adoption Model On E-Wallet: An Extended UTAUT2 Approach," Int. J. Econ. Bus. Manag. Res., vol. 4, no. 06, pp. 232–244, 2020.
- [8] H. Hoang and T. T. Le, "The role of promotion in mobile wallet adoption A research in Vietnam," Adv. Sci. Technol. Eng. Syst., vol. 5, no. 6, pp. 290–298, 2020, doi: 10.25046/aj050635.
- [9] P. P. Patil, N. P. Rana, and Y. K. Dwivedi, "Digital payments adoption research: A review of factors influencing consumer's attitude, intention and usage," in Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 2018, vol. 11195 LNCS, pp. 45–52, doi: 10.1007/978-3-030-02131-3 6.
- [10] H.-Y. Lin, M.-H. Wang, and H.-T. Chen, "Determinants for Consumer Adoption of Mobile Payment Technology," Int. J. e-Education, e-Business, e-Management e-Learning, vol. 9, no. 3, pp. 146–159, 2019, doi: 10.17706/ijeeee.2019.9.3.146-159.

- [11] V. Acharya, S. O. Junare, and D. D. Gadhavi, "E-Payment: Buzz Word or Reality," Int. J. Recent Technol. Eng., vol. 8, no. 3S2, pp. 397–404, 2019, doi: 10.35940/ijrte.c1076.1083s219.
- [12] S. Megadewandanu, Suyoto, and Pranowo, "Exploring Mobile Wallet Adoption in Indonesia Using UTAUT2," in 2nd International Conference on Science Technology Engineering and Management, ICONSTEM 2016, 2016, no. October, pp. 11–16.
- [13] W. I. Rachmawati, B. R. Kartawinata, C. Wijayangka, and I. Hasbi, "Factors Analysis that Affecting the Intention to Use Digital Payment (Case Study on OVO Users in Jakarta, Bogor, Depok, Tangerang, Bekasi)," in KnE Social Sciences; ICE-BEES 2019 International Conference on Economics, Business and Economic Education 2019, 2020, vol. 2020, pp. 290–302, doi: 10.18502/kss.v4i6.6605.
- [14] P. Sunny and A. George, "Determinants of Behavioral Intention To Use Mobile Wallets--