

# Analysis of the Influence and Impact of Using Financial Technology on Shopee Pay and Gopay Applications among Students

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**Abstract---**Technological developments in the industrial era 4.0 make patterns of consumer change through the use of digital technology, namely non-cash transactions called digital payments into new Financial Technology (FinTech) innovations in industrial era 4.0. Financial Technology (FinTech) is a financial service using technology that aims to facilitate users to make transactions digitally. Financial Technology (FinTech) has a very popular product, namely E-Wallet. The E-Wallet can allow someone to store funds digitally and make transactions online. Some applications that are included in the type of Financial Technology (FinTech) are Shopee Pay and Gopay. This study aims to determine the influence and impact of using Financial Technology (FinTech) on the Shopee Pay and Gopay applications among students. The method used in this research is a descriptive quantitative method based on the answers to questionnaires given to respondents. Respondents in this study were 81 students who used the Shopee Pay and Gopay applications.

**Keywords:** *Financial Technology, E-Wallet, Shopee Pay dan Gopay*

## I. INTRODUCTION

The presence of the industrial revolution 4.0 has changed the way of life and behavior of the community where this can be seen from the change in community activities carried out from manual to automation through a combination of digital technology. Digital-based information technology is an important and inseparable part of business behavior in the era of the industrial revolution 4.0. Furthermore, changes in business behavior in the era of the industrial revolution 4.0 provide opportunities for business people to bring up an innovations in digital-based information technology, one example is in the financial services sector. The digital-based information technology innovation that has emerged in the financial services sector is a financial

technology (Fintech). Financial technology (fintech) is a breakthrough in new business innovation through a combination of financial services with digital-based information technology that changes the financial services business model from manual to automated through digital technology. The emergence of fintech in the era of the industrial revolution 4.0 is expected to play a role in increasing technological progress in the financial services sector and can facilitate public access to financial services. [6]

Bank Indonesia also defines Financial Technology (Fintech) that Financial Technology is the use of technology in the financial system that produces new service products, technology, and/or business models and can have an impact on monetary stability, financial system stability, and/or the efficiency, smoothness, security, and reliability of the payment system.

According to [10] Financial technology seeks to make it easier for humans to meet increasing needs, accelerating human mobilization, and increasing human busyness.

According to [11]. An E-wallet (electronic wallet) is a form of Fintech (Financial Technology) that utilizes internet media and is used as an alternative payment method. E-wallets appear to offer more convenience with the latest technology that can be accessed by all groups. Indonesia currently has a millennial generation, who are mostly teenagers who have recognized and adopted the technology. Access to the internet has been able to be enjoyed in almost every circle throughout the country.

Some students are quite enthusiastic about welcoming and using fintech services, even with a not-so-good understanding of fintech. For students,

the existence of fintech that offers easy transactions and many bonuses is new and interesting to be applied in everyday life.

## II. THEORITICAL FRAMEWORK

### A. Financial Technology

According to IOSCO [4], financial technology is a catch-all term for innovative business models and new technologies that have the potential to transform the financial services industry. IOSCO divides fintech into 8 categories, namely payments, insurance, planning, lending and financing, blockchain, trading and investment, data and analytics, and security. Meanwhile, financial technology according to Bank Indonesia regulation No. 19/12/PBI/2017 states as follows: Fintech is the use of technology in the financial system that produces new products, services, technologies, and/or business models and can have an impact on monetary stability, financial system stability, and/or the efficiency, smoothness, security, and reliability of the payment system. Fintech is classified into five categories: payment systems, market support, investment management, lending, financing, capital provision, and other financial services. Fintech has the following criteria: innovative, can impact existing financial products, services, technology, and/or business models, can provide benefits to the community, and can be widely used, other criteria set by Bank Indonesia.

### B. E-Wallet

According to [8] e-wallet is a server-based digital or electronic payment tool. E-wallets are usually applications that require internet access to connect to the issuing server. E-wallet is different from cryptocurrency, one of the differences is in the storage media. On the other hand, Bank Indonesia through Bank Indonesia Regulation Number 18/40/PBI/2016 concerning the implementation of payment transaction processing CHAPTER I Article 1 Number 7 explains that electronic wallets are electronic services for storing payment instrument data, including payment instruments using cards and/or electronic money, which can also accommodate funds, to make payments.

### C. Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is the development of TRA (Theory of Reasoned Action) [3] [5] The TRA model can be applied because individual decisions to adopt information system technology are conscious, interpretable, and predictable actions in the interests of the perpetrator [5], TAM is the most widely used model in predicting the acceptance of information technology

and has proven to be a very useful theoretical model in helping to understand and explain user behavior in implementing information systems. The main purpose of TAM is to provide a basis for exploring the influence of external factors on user beliefs, attitudes, and goals. TAM considers two personal beliefs, namely perceived ease of use and perceived usefulness, as the main factors that influence information system acceptance behavior.

### D. Perceived Usefulness (PU)

Perceived usefulness is the extent to which a person thinks using the system will improve performance. The definition of Perceived Usefulness is also in line with the definition (Utami & Kusumawati, 2017) [16], namely the extent to which a person believes that using mobile payment services will improve their performance and productivity in making payment transactions. In addition, there is a positive attitude towards using e-money products through Shopee Pay and Gopay, such as consumers feeling that using Shopee Pay and Gopay services makes their work more efficient and effective. They feel comfortable using this service without carrying cash for payment.

### E. Perceived Ease Of Use (PEU)

Perceived ease of use is a person's belief in using technology that is easy to use and understand. Convenience will have an impact on behavior, the higher the view of the ease of a system, the higher the level of use of information technology. The characteristics of user convenience that cause users to continue using it are when users (users) of the technology believe that the system is more flexible, easy to understand, and easy to operate (compatible) [5].

Perceived ease of use in this study is defined as the opinion of users who believe that cashless payments make transactions easy to understand. If Shopee Pay and Gopay users are considered easy to use by consumers, then these services will be used regularly and continuously.

### F. Attitude Toward Using

Attitude Toward Using (ATU) described in the TAM model is the level of assessment of the impact a person feels when using a particular system in his work. The form of assessment of the use of technology systems [5], can be in the form of acceptance or rejection which will also have an impact on one's work when using technology. Technology user attitudes are positive or negative feelings that a person has when they have to determine the attitude or behavior to be taken.

### G. Perceived Of Security

Perceived security is defined as a perception of uncertainty and unintended consequences in performing activities [13] identifying that security can affect customer perceptions of general banking activities of commercial banks, and also as an endogenous variable in e-money activities. Security and privacy indicate the level of security and privacy when using electronic money for transactions.

### H. Behavioral Intention To Use (BIU)

Behavioral Intention to Use (BIU) is the behavior of a person involved in an activity. In this study, behavioral intention to use is defined as a person's willingness to use electronic payment facilities as a tangible form of acceptance of an electronic payment system. This definition interprets a description of the purpose of user behavior that concludes whether a person's attitude or desire is the basis for using an existing system.

Behavioral intention is a person's desire to do a behavior [5]. Furthermore, interest is not yet the behavior. Meanwhile, [7] state that interest is an effort owned by someone to try and how many determinants they plan to use in performing a behavior.

## III. METHODOLOGY

### A. Type of Research

The research method used in this research is qualitative research. Where this qualitative research is research that is heavily based on social phenomena that occur in an environment. A qualitative approach is in research that has a descriptive nature. This means that carrying out a qualitative research process, it is more concerned with the research process. This is because qualitative research will emphasize the phenomena that occur during the research process [15].

The purpose of qualitative research aims to find out the meaning made by someone to trigger behavior or actions that occur [19]. From this perspective, it can be seen that qualitative research emphasizes more on the involvement of researchers in conducting field observations to obtain information that is relevant to the facts or facts.

In addition to using a qualitative approach, the author uses a research method in the form of a descriptive method. This method is taken by the author to make descriptive research containing data that is described. By using this method, researchers will look for various kinds of elements that occur in reality that occurs. To support this research, the author designs several data collection techniques that can be used as a guide in searching for relevant data, namely interview techniques, observation & documentation studies [12].

The data collection technique carried out is in the form of questions & statements in a questionnaire which is then distributed via internet media using Google Forms. The items & measurements used in this questionnaire are using TAM measurements in the use of Shopee Pay and Gopay. Where later the respondents will state whether they agree or not with the statements submitted about the perception of the use of e-wallets in this case Shopee Pay and Gopay. In this case, the respondents totaled 81 people and the next step was to interpret the data descriptively to receive conclusions about the influence and impact of using Fintech on the Shopee Pay and Gopay applications among students.

This study aims to examine perceived usefulness (X1), perceived ease of use (X2), attitude toward using (X3) and perceived of security (X4), behavioral intention in use (Y) in the Shopee Pay and Gopay shopping applications.

### B. Research Variables

A research variable is something that is defined by the researcher to collect information and then draw conclusions about the object of research.

- a. Independent Variables Independent variables are variables that affect other variables, Sanusi (2017). In this case, the independent variables are perceived usefulness (X1), perceived ease of use (X2), attitude towards using (X3) and perceived of security (X4).
- b. Dependent variables the dependent variable or dependent variable is the variable that is influenced by other variables, Sanusi (2017). In this case, the dependent variable is behavioral intention in use (Y).

### C. Data Analysis Method

The data analysis method is the process of grouping data based on variables and all respondents, tabulating data based on variables and all respondents, presenting data for each variable studied, and performing calculations to test hypotheses that have been proposed by [16].

### D. Test of Multiple Linear Regression

This analysis is intended by researchers if the researcher intends to predict how the condition (ups and downs) of the dependent variable (criterion) if two or more independent variables as predictor factors are manipulated (increase and decrease in value) Sugiyono (2017) [16]. So multiple linear regression analysis is performed when the number of independent variables is at least 2. Qualitative analysis is carried out using statistical variables to determine and explain the effect of perceived usefulness, perceived convenience, attitude of use, and perceived security on interest in use in this study: Multiple linear regression, with the following formula:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4$$

Description:

Y = Interest in Use

X1 = Independent variable (Perceived Usefulness)

X2 = Independent variable (Perceived Ease Of Use)

X3 = Independent variable (Attitude Towards Using)

X4 = Independent variable (Perceived Of Security)

a = Constant (Y value if X = 0)

$\beta$  = Regression coefficient (increase or decrease value)

#### E. Hypothesis Testing

The effect of perceived usefulness (X1) on behavioral intention in use (Y) in the Shopee Pay and Gopay applications

Ho = Perceived usefulness (X1) has no significant effect on behavioral intention in use (Y) in the Shopee Pay and Gopay applications.

Ha = Perceived usefulness (X1) has a significant effect on behavioral intention in use (Y) in the Shopee Pay and Gopay applications.

- a. If the t value > t table then Ho is rejected  
If the t value < t table then Ho is accepted
- b. If the sign value < 0.05 then Ho is rejected  
If the sign value > 0.05 then Ho is accepted

The effect of perceived ease of use (X2) on behavioral intention in use (Y) in the Shopee Pay and Gopay applications.

Ho = Perceived ease of use (X2) has no significant effect on behavioral intention in use (Y) in the Shopee Pay and Gopay applications.

Ha = Perceived ease of use (X2) has a significant effect on behavioral intention in use (Y) in the Shopee Pay and Gopay applications.

- a. If the t value > t table then Ho is rejected  
If the t value < t table then Ho is accepted
- b. If the sign value < 0.05 then Ho is rejected  
If the sign value > 0.05 then Ho is accepted

The effect of attitude towards using (X3) on behavioral intention in use (Y) in the Shopee Pay and Gopay applications.

Ho = Attitude towards using (X3) has no significant effect on behavioral intention in use (Y) in the Shopee Pay and Gopay applications.

Ha = Attitude towards using (X3) has a significant effect on behavioral intention in use (Y) in the Shopee Pay and Gopay applications.

- a. If the t value > t table then Ho is rejected  
If the t value < t table then Ho is accepted
- b. If the sign value < 0.05 then Ho is rejected  
If the sign value > 0.05 then Ho is accepted

The effect of perceived of security (X4) on behavioral intention in use (Y) in the Shopee Pay and Gopay applications

Ho = Perceived of security (X4) has no significant effect on behavioral intention in use (Y) in the Shopee Pay and Gopay applications.

Ha = Perceived of security (X4) has a significant effect on behavioral intention in use (Y) in the Shopee Pay and Gopay applications.

- a. If the t value > t table then Ho is rejected  
If the t value < t table then Ho is accepted
- b. If the sign value < 0.05 then Ho is rejected  
If the sign value > 0.05 then Ho is accepted

## IV. RESULT AND DISCUSSION

Students' perceptions of the use of fintech on the Shopee Pay & Gopay applications can be measured using the TAM or Technology Accepted Model. The characteristics of respondents measured in this study are gender, age, and type of fintech (Shopee Pay or Gopay) used. Details are described in the following table.

### A. Age of Responden

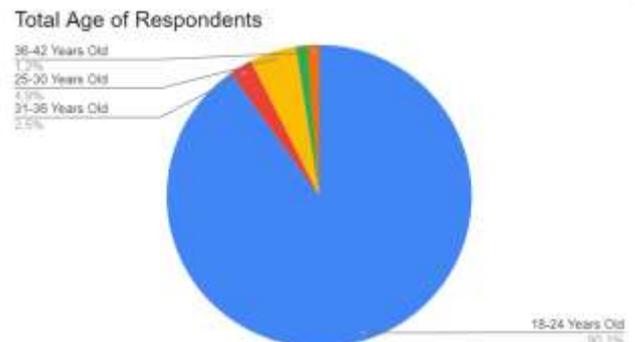


Figure 1. Source: Google Form  
<https://bit.ly/kuesionermmt2>

Figure 1. shows the age of respondents in the sample in this study, as many as 90.1% are aged 18-24 years, 4.9% are aged 25-30 years, 2.5% are aged 31-36 years, 1.2% are aged 36-41 years and 1.3% are above 42 years.

## B. Gender

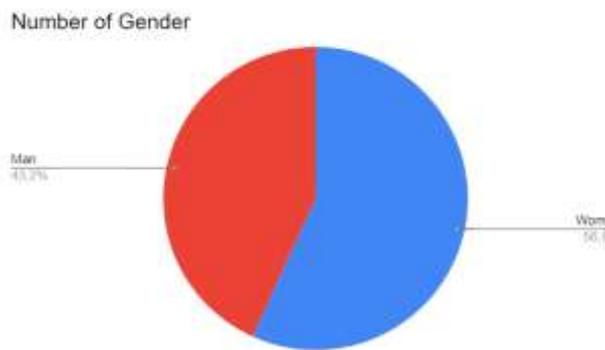


Fig.2 Source: google form  
<https://bit.ly/kuesionermmt2>

Figure 2 shows that there is an imbalance in the sex ratio in the sample in this study, with 43.2% male and 56.8% female.

## C. Fintech User

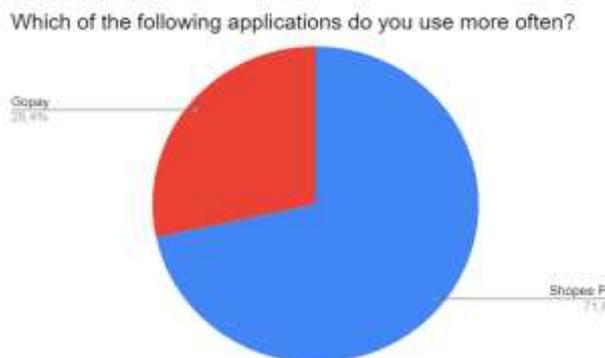


Figure 3. Source: google form  
<https://bit.ly/kuesionermmt2>

Figure 3. shows that 71.6% of respondents use the Shopee Pay application and 28.6% use Gopay. It can be said that the majority of students use fintech on the Shopee Pay application compared to the Gopay application.

## D. Factors that affect

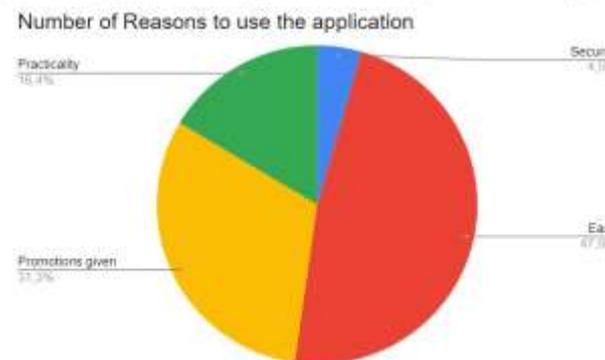


Fig.4 Source: google form  
<https://bit.ly/kuesionermmt2>

Figure 4. shows the results of students' perceptions of the factors that influence the use of fintech in the Shopee Pay and Gopay applications 47.8% of students stated that the fintech application was easy to use. 31.3% of students stated that the attitude of using the application was due to the promo provided. 16. 4% of students stated that the application was practical and useful and 4.5% of students stated that they felt safe using the fintech application.

## V. CONCLUSION

The conclusion in the results of this study has shown that the percentage of FinTech use among students is mostly dominated by the age range 18-24 years with female gender, some measurements can be distributed to find out whether there is an influence and impact on average using Shopee Pay compared to Gopay and the use of fintech in both applications because it is easy to use and because of the promos provided. In the results of this study, some measurements can be distributed to determine whether there is an influence and impact of using fintech on the Shopee Pay and Gopay applications among students, by processing data obtained through questionnaires that have been filled out by respondents to find out the results of hypothesis testing.

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