Factors Influencing Generation Z Intention in Using FinTech Digital Payment Services

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Abstrak

Kata kunci—layanan pembayaran digital, teknologi finansial, generasi Z.

Abstract
Many studies related to financial technology (FinTech), especially digital payment, have been carried out. However, there is still a lack of studies that focus on Generation Z, especially their intention to use the service, while this generation is very familiar and is easily adaptable to new technologies. In addition, it is projected that this generation will contribute greatly to online transactions in Indonesia and even the world. For this reason, this study focuses on factors that can influence Generation Z’s intention to use digital payment services. There are five independent factors that will be tested, namely: culture, perceived security, performance expectancy, effort expectancy, and social influence. The research instrument was a questionnaire adopted from related literature, which was distributed online using the snowball and convenient sampling method. A total of 266 Generation Z people participated in this study. A descriptive statistic and multiple regression analysis were performed and found that simultaneously these five factors had a significant positive effect (Sig < .05) on the intention of Generation Z in using the service. This study concludes that service providers have to pay attention to these factors in attracting Generation Z.

Keywords—digital payment services, financial technology, Generation Z.
1. INTRODUCTION

One of the technological breakthroughs that can be said to change the world is financial technology or mostly known as FinTech. Because it integrates technology into the financial system, people can easily access the financial services offered. Furthermore, FinTech provides new experiences and offers efficiency to the public through the use of easily accessible technology such as smartphones [1]. Thus, FinTech makes it easier for people to make payment transactions, opens access to savings and loans with a wider platform, and shortens business transaction time. Nowadays, FinTech is widely known and used by people, especially those who live in cities and even in rural areas.

Bank Indonesia Peraturan Bank Indonesia No. 19/12 / PBI / 2017 Pasal 1, Ayat 1 [2] defines FinTech as “the use of technology in the financial system that results in new products, services, technology and/or business models and can impact monetary stability and financial system stability, and/or efficiency, smoothness, security, and reliability of the payment system”. Through this definition, it can be said that FinTech is a combination of technology and finance which is expected to make a real contribution to financial stability, efficiency, and effectiveness of payment systems, as well as reliable security through the services and products offered. Meanwhile in Pasal 3 Ayat 1, in its implementation, FinTech can be divided into five main categories: payment systems; market support; investment management and risk management; loans, financing, and provision of capital; and other financial services [2]. Of the many types of FinTech in Indonesia, the most widely used is payment systems, especially digital payment services including e-wallet or digital wallet, mobile banking, and internet banking. A report from Statista [3] estimates that the transaction value of digital payment services in Indonesia could reach $ 38 million in 2020 or an increase of around 17% from 2019, which was valued at $ 32.4 million. In addition, FinTech contributes greatly to Indonesia's macroeconomy, the indicators of which are Gross Domestic Product (GDP) (contribution of up to IDR 25.97 trillion) and household consumption (up to IDR 8.94 trillion) per year [4]. Besides, this service became popular, especially when the emergence of e-commerce and online transportation applications, which resulted in a comprehensive service from the application provider, from payment for transportation, delivery of goods packages, to food order and delivery.

Although people from various generations are using FinTech, especially its payment services, the generation that has a big role today and in the future is Generation Z (Gen Z). Although there is still debate in the range of birth years of this generation, in general, Gen Z is those born from 1995-2010 who are capable of technology [5]. That means the age range of this generation in 2020 is in the range of 10-25 years. It can be said that this generation is a generation that has been familiar with technology since born and when they grow up using technology for convenience in financial transactions. Many of them, for example, use digital payment services to order food, buy goods, pay for transportation services via smartphone applications. Furthermore, data from Barkley [6] reveals that direct Gen Z expenditure in the United States alone totals $ 143 billion. Compared to the expenditure of Millennials in 2017 of $ 65 billion [7], this figure is enormous. In fact, by 2020 Gen Z is projected to contribute around 40% of total consumption [8]. Coupled with the characteristics of this generation who want everything to be practical and easy and their sensitivity to technology, Gen Z is the largest market share and plays an important role in the growth of FinTech [9]. For this reason, research related to Gen Z and FinTech needs to be enriched in order to get a clear picture of the two.

Research related to people's intention to use FinTech digital payment services was carried out by Putritama [10] with the condition that respondents, who are mostly millennials, have used this service. He then compiled a conceptual framework to find out the relationship between perceived benefits represented by three factors, namely economic benefits, convenience, and seamless transactions as well as the perceived risk with three factors: financial risk, legal risk, and security risk toward people's intention to use FinTech payment services. The study found that perceived benefits have a positive relationship with people's intentions with convenience in using
services as the most influential factor, followed by economic benefits and seamless transactions. People feel comfortable using the services because they can be accessed on their smartphones, in addition to the convenience and benefits of making transactions. The same finding was found through research from Burhanuddin and Abdi [11] who found that the majority of respondents stated that the service was easy because it could be done anytime and anywhere which made them intend to use FinTech services. Thus, the convenience of using the service will have an impact on increasing this service usage. Meanwhile, perceived risk has a negative relationship with people's intentions because they think FinTech services have a fairly large potential risk and currently offer small benefits. However, the financial risk factor has a positive relationship which can reduce people's intention to use this service. For this reason, it is recommended that FinTech service providers make improvements in improving service security to foster public trust.

Furthermore, Jiwasiddi et al [12] conducted a study related to the attitudes of the millennial generation in using FinTech services. There are three variables used in this study, namely brand and service trust, perceived usefulness, and perceived ease of use. The results of the study found that these three variables had a significant impact on millennial intentions to use FinTech services, with trust being the strongest factor. This is understandable because as a generation that are proficient in technology and financial, millennials, in general, are always careful in using technology-based financial services because they prioritize security. They are aware that the security of their data is important while the risk in transactions is quite large, so they prioritize the trust factor in FinTech services. These results support the previous findings of Chuang, Liu, and Kao [13] who found brand and service trust have a positive impact on people's attitudes to using FinTech services. In another study, Yuspita et al [14] found an impact of perceived ease and interest, perceived benefits and interest, and attitude and interest towards people's intention to use these services. This means that the convenience and benefits offered attract public interest in addition to the influence of other people who have already used the service which attracts the public as well. Putritama [10] and Hatmawan [15] then also agreed that ease of use can also play a role in attracting the interest of the millennial generation, which shows this generation wants services that are easy, simple, and fast to use. Moreover, Hatmawan [15] recommends that FinTech payment service providers create applications with features that are easy to understand and learn so that users are more interested in using them.

Several other studies were also conducted with mixed results. In South Korea, a study by Kim, Choi, Park, and Yeon [16] was conducted using the Elaboration Likelihood Model (ELM). This model describes how humans receive and process information, in this study about FinTech technology. Kim et al found that while mobility does not have a positive impact, usefulness, ease of use, and social influence have a positive impact on interest in using FinTech mobile payment services. It is interesting to find that the higher the installation rate of FinTech applications via smartphones, the higher the public's interest in using them. This means, social influence, both direct and indirect from other people, is influential and deserves attention. Similar results were also obtained by Mugambe [17] who used the Unified Theory of Acceptance and Use of Technology 2 (UTAUT-2) model from Venkatesh et al [18] where social influence greatly influences a person's intention to use digital payments, followed by habit and facilitating conditions. However, it was also found that effort expectancy, price value, and hedonic motivation were not very significant.

A further study was conducted by Sfenrianto, Junaidi, and Saragih [19] related to a model made by Junadi and Sfenrianto [20] to test whether culture, perceived security, effort expectancy, performance expectancy, and social influence people's intention to use electronic payments when they shop at online marketplaces like Lazada, Zalora, Blibli, and others. Using Structural Equation Modeling (SEM), it was found that these five variables proved to have a positive impact on people's intention to shop online using electronic payments. However, of the five variables, it was found that effort expectancy was more impactful because of the ease of learning and use as well as the flexibility offered by electronic payments. Meanwhile, perceived security is a factor that
has a small impact because of the lack of public awareness and the low level of security perceived in using electronic payments.

From previous studies, it can be seen what are the factors that society consider in using this popular FinTech service. Even so, research that focuses on Gen Z is still minimal while this generation are tech savvy and want to find convenience in all things, one of which is in payment transactions, in addition to predictions that this generation will later become the main market for FinTech. Also, several studies have been carried out using the Technology Acceptance Model (TAM) and UTAUT models that have been widely followed. For this reason, it is necessary to have a research that focuses on the factors that influence Generation Z’s intention to use FinTech digital payment services in order to enrich knowledge on this area while providing insight to interested parties, especially these services providers to set the right strategy and how to improve services to attract Gen Z to using their services. In addition, this study is inspired from a model created by Junadi and Sfenrianto [20] which can be seen in Figure 1. This model includes two variables, culture and perceived security, which are considered important to be added because they play a role in the adoption of new technology. In addition, these two variables could also measure people basis for decisions and interest in using electronic payment systems.

![Figure 1 Model of factors influencing consumer's intention to use the electronic payment system](image)

The following are elaborations of these variables [20]

1. Culture. How do cultural factors as measured by internet access, computer and smartphone experience, and level of education influence consumer intention to use electronic payment systems.
2. Perceived Security. How safe do consumers feel when using electronic payment systems in transactions, in this case, related to technical protection from providers, security statements from the applications, as well as rules and regulations from the government and central bank.
3. Performance Expectancy. How consumers think about the use of electronic payment systems will provide benefits in online transactions measured in terms of productivity, convenience, and speed of transactions.
4. Effort Expectancy. The convenience felt by consumers when using electronic payment systems is related to ease of use, transaction flexibility, and ease of learning about the services.

5. Social Influence. The influence of the closest person to consumers that encourages them to use electronic payment systems, is measured by how the closest person uses the electronic payment system as well as recommends and supports consumers to use it too.

Based on the literature review and the model in Figure 1, this study uses a model which is slightly modified from previous model as shown in Figure 2.

![Figure 2 Research model](image)

With this model, there are six hypotheses, namely:

- Ha1: Culture has a significant positive influence on Generation Z's intention to use FinTech digital payment services.
- Ha2: Perceived Security has a significant positive influence on Generation Z's intention to use FinTech digital payment services.
- Ha3: Performance Expectancy has a significant positive influence on Generation Z's intention to use FinTech digital payment services.
- Ha4: Effort Expectancy has a significant positive influence on Generation Z's intention to use FinTech digital payment services.
- Ha5: Social Influence has a significant positive influence on Generation Z's intention to use FinTech digital payment services.
- Ha6: Culture, perceived security, performance expectancy, effort expectancy, and social influence simultaneously have a significant positive influence on Generation Z's intention to use FinTech digital payment services.

2. RESEARCH METHOD

2.1 Research Method and Instrument

The method used in this research was quantitative method. The research instrument was made in the form of a questionnaire adopted from Junadi and Sfenrianto [20] which can be seen in Figure 2. This questionnaire is divided into three main section. The first and second sections
ask for respondent information (gender, age, and employment status) and information on knowledge and use of digital payment. The third section related to the five factors according to the model that affects the respondent's intention to use digital payment services, divided into three questions each for culture (CU), perceived security (PS), performance expectancy (PE), effort expectancy (EE), and social influence (S) respectively and three questions for Intentions to Use (IU). A total of 18 items were measured using a Likert scale with a scale of 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly Agree). Furthermore, this questionnaire was then created using Google Form to be distributed online.

![Research questionnaire]

**Figure 3 Research questionnaire**

2.2 Sample
The research sample is Gen Z, in this case are high school students, undergraduate students, and recent graduates who are in the North Sulawesi province, Indonesia. This research sampling method used the Snowball and Convenience Sampling method, where the questionnaire links were distributed to respondents individually or with the help of several colleagues which are then distributed again to respondents who meet the requirements through chat applications (i.e. Whatsapp and Messenger) and Google Classroom. After collecting data for two months, the number of respondents participating were 266 people.

2.3 Data Analysis
The data obtained were analyzed using the IBM SPSS Version 21 statistical application to test classical assumptions (normality test, multicollinearity test, and heteroscedasticity test) as well as validity and reliability tests. After that, a descriptive analysis was done to see the proportion of respondents based on gender and their knowledge and use of digital payment services. Multiple regression analysis was then carried out to test the effect of five independent variables on one dependent variable simultaneously.

3. RESULTS AND DISCUSSION

3.1 Classical Assumption Test
The classical assumption test, namely the normality test, multicollinearity test, and heteroscedasticity test were carried out to find out whether the data obtained were normally distributed, the independent variable did not detect multicollinearity, or was not heteroscedasticity. The Kolmogorov-Smirnov test was performed for normality test with a result of \( .340 > \text{Sig.} \) 0.05, which means that the data is normally distributed. Then, the multicollinearity test was carried out by comparing the Variance Inflation Factor (VIF, must be < 10.00), tolerance (must be > .10) and the correlation between variables must be < 0.80. It was found that the VIF number of each independent variable was below the number 10, the tolerance was greater of 0.10 and the correlation between variables is below 0.80, which means that there is no multicollinearity (the strong linear relationship between independent variables). Finally, using the Rank Spearman method, it was found that there was no heteroscedasticity problem for each variable (Sig. > 0.05). Thus, it can be concluded that this study met the requirements of the classical assumption test for multiple regression analysis.

3.2 Validity and Reliability Test
After that, a validity test was conducted to see whether the measuring instrument (question items) in the research instrument were valid with an indication of item correlation below 0.05 [21]. A reliability test was also conducted to test whether the data obtained were reliable. Table 1 and Table 2 show the results of the validity and reliability tests carried out where all items are valid (Sig. < 0.05) and the data is reliable with a Cronbach's Alpha value .824 > .70.

Table 1 Validity test result

<table>
<thead>
<tr>
<th>Correlations</th>
<th>CU</th>
<th>PS</th>
<th>PE</th>
<th>EE</th>
<th>S</th>
<th>IU</th>
</tr>
</thead>
<tbody>
<tr>
<td>CU Pearson Correlation</td>
<td>1</td>
<td>.462**</td>
<td>.381**</td>
<td>.439**</td>
<td>.276**</td>
<td>.364**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>266</td>
<td>266</td>
<td>266</td>
<td>266</td>
<td>266</td>
<td>266</td>
</tr>
<tr>
<td>PS Pearson Correlation</td>
<td>.462**</td>
<td>1</td>
<td>.452**</td>
<td>.471**</td>
<td>.364**</td>
<td>.382**</td>
</tr>
</tbody>
</table>
The descriptive statistics of this study are summarized in Table 3 which contains demographic information regarding gender, age, respondents' awareness of the existence of digital payment, and whether they have ever used the service. The table shows that out of a total of 266 respondents, 111 were male respondents (41.7%) and 155 were female respondents (58.3%). Based on age, the majority of the respondents were between 15-20 years old (80.8%), while the rest were under 15 years old and over 20 years old. This means that all respondents are Gen Z and met the requirement as research samples. Then, 256 people (96.2%) know about digital payment and 228 people (85.7%) stated that they have used the services in their transactions, which shows that this generation is familiar with digital payment services and even many of them use it in their daily lives.

Table 3 Respondents demography

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Category</th>
<th>N=266</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Boys</td>
<td>111</td>
<td>41.7</td>
</tr>
<tr>
<td></td>
<td>Girls</td>
<td>155</td>
<td>58.3</td>
</tr>
<tr>
<td>Age</td>
<td>&lt; 15</td>
<td>1</td>
<td>.4</td>
</tr>
</tbody>
</table>

3.3 Descriptive statistic

The descriptive statistics of this study are summarized in Table 3 which contains demographic information regarding gender, age, respondents' awareness of the existence of digital payment, and whether they have ever used the services. The table shows that out of a total of 266 respondents, 111 were male respondents (41.7%) and 155 were female respondents (58.3%). Based on age, the majority of the respondents were between 15-20 years old (80.8%), while the rest were under 15 years old and over 20 years old. This means that all respondents are Gen Z and met the requirement as research samples. Then, 256 people (96.2%) know about digital payment and 228 people (85.7%) stated that they have used the services in their transactions, which shows that this generation is familiar with digital payment services and even many of them use it in their daily lives.
3.4 Multiple Regression Analysis

Multiple regression analysis was then performed to test whether the factors of culture (CU), perceived security (PS), performance expectancy (PE), effort expectancy (EE), and social influence (S) simultaneously have a significant positive influence on Gen Z's intention to use FinTech digital payment services. The results of multiple regression analyses using the IBM SPSS Version 21 statistical software are summarized in Table 4.

Table 4 Multiple regression analysis results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.311</td>
<td>.296</td>
<td>1.049</td>
<td>.295</td>
</tr>
<tr>
<td>CU</td>
<td>.108</td>
<td>.065</td>
<td>.092</td>
<td>1.647</td>
</tr>
<tr>
<td>PS</td>
<td>.045</td>
<td>.066</td>
<td>.040</td>
<td>1.678</td>
</tr>
<tr>
<td>PE</td>
<td>.207</td>
<td>.074</td>
<td>.184</td>
<td>2.780</td>
</tr>
<tr>
<td>EE</td>
<td>.270</td>
<td>.078</td>
<td>.241</td>
<td>3.470</td>
</tr>
<tr>
<td>S</td>
<td>.281</td>
<td>.053</td>
<td>.284</td>
<td>5.267</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td>36.741</td>
<td>.000</td>
</tr>
<tr>
<td>R Square</td>
<td></td>
<td></td>
<td>.414</td>
<td></td>
</tr>
</tbody>
</table>

Based on the results in Table 4, it can be seen that simultaneously the CU, PS, PE, EE, and S factors have a significant positive influence on Gen Z's intention to use FinTech digital payment services (Sig <0.05). In other words, Gen Z's intention is getting stronger to use the service if the services provided related to these factors are simultaneously improved. This is in line with previous research from Sfenrianto, Junadi, and Saragih [19] who found that these five factors influence people's intention to use electronic payments. Then, the influence of the five independent variables on Gen Z's intention can be seen in the R Square which shows the proportion of 41.4% (R Square) while the rest is influenced by other factors that are not in this model. However, when viewed partially, the regression results found that three factors, namely: PE, EE, and S positively had a significant influence (Sig <0.05), while two other factors, CU and PS, did not affect Gen Z's intention (Sig> 0.05). It means that if done partially, only Performance Expectancy, Effort Expectancy, and Social Influence can influence Gen Z's intention to use.

4. CONCLUSION

From this study, it can be concluded that the majority of Gen Z know and use digital payment services. This is in line with the characteristics of this generation who are quickly familiar with technology, in this case, financial technology. Furthermore, the study results show that although partially only performance expectancy, effort expectancy, and social influence show a significant influence on Gen Z's intention to use this FinTech service, it simultaneously prove
that all factors, namely: culture, perceived security, performance expectancy, effort expectancy, and social influence simultaneously have a positive and significant influence on Gen Z’s intention (0.000 < 0.05). Therefore, the conclusion for Ha1, Ha2, Ha3, Ha4, and Ha5 hypothesis is shown in Table 5. Meanwhile, the conclusion for the last hypothesis is to accept Ha6 which is: culture, perceived security, performance expectancy, effort expectancy, and social influence simultaneously have a significant positive influence on Generation Z's intention to use FinTech digital payment services.

Table 5 Conclusion for Ha1, Ha2, Ha3, Ha4, and Ha5 hypothesis

<table>
<thead>
<tr>
<th>Intention to Use FinTech Digital Payment Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture (CU)</td>
</tr>
<tr>
<td>Perceived Security (PS)</td>
</tr>
<tr>
<td>Performance Expectancy (PE)</td>
</tr>
<tr>
<td>Effort Expectancy (EE)</td>
</tr>
<tr>
<td>Social Influence (S)</td>
</tr>
</tbody>
</table>

Based on the results obtained simultaneously, it is necessary to have a holistic strategy that is carried out jointly to increase the influence of the five factors to be effective. For this reason, it is recommended that digital payment service providers to learn about Gen Z's shopping culture and behavior, strengthen service security, improve convenience, flexibility, and ease of use of services provided as well as promote through popular social media so that consumers are attracted in using digital payment services. With a better service performed and effective promotions, it will provide a pleasant experience for users who can give recommendations to other people, especially Gen Z, to use similar services. This of course will benefit service providers and, in the end, will benefit all parties (providers, users, sellers, or merchants) so that it will drive public consumption and increase the country's economic activity.

5. FUTURE WORKS

Apart from all that, it is advisable to hold further studies by expanding the research location and increasing the number of samples. After all, recently, people are more motivated to transact online because it is advisable to stay at home if it is not urgent to leave the house. In addition, further research can also be carried out on other generations such as generation x and millennials. The use of other theory and statistical techniques can be made as a comparison with the results of this study so that researchers and other parties can obtain broader knowledge and information regarding what factors influence consumer intentions, even further, consumer behavior to use digital payment services.

REFERENCES


