



The Effect of Diffusion of Fintech Information through Social Media on Changes in Payment Transaction Patterns among Young People in Jakarta

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Abstract

The presence of E-Wallet in various industrial sectors, both private and government, is a new breakthrough in fintech (financial technology) innovation that allows people to make transaction in buying and selling goods and services more easily. This new technology provides a more transparent electronic payment system. However, until now there are still so many people who have not adopted and used E-Wallet due to their lack of knowledge of this new financial technology. The approach to diffusion of innovation theory is carried out to see the effect of the use E-Wallet fintech on changes in the sale and purchase transaction patterns. The results show that the diffusion of fintech promotional messages through social media and the adaptation to the use of E-Wallet have an effect on changes in buying and selling transaction patterns among young people in Jakarta.

Keywords: *Diffusion of information; Fintech; E-Wallet; Transaction Patterns*

Introduction

Digital-based technology provides vast changes to Indonesian people. This is marked by the emergence of digital data-based transaction systems and long-distance transaction systems using online media through internet technology that can be easily accessed using various digital devices, such as smartphones, laptops or computers, and tablet PCs. The existence of gadgets, such as smartphones and several other devices that are managed in a digital-based computing system, is able to penetrate all aspects of the field of work and daily activities, including supporting devices, to meet the needs of daily life.

Globally, the use of gadgets to access the internet and information online has increased. In April 2020, according to wearesocial.org data, internet users increased by 7.1% compared to the previous year, with world internet users of more than 301 million. Meanwhile, internet access via gadget devices, such as smartphones and laptops, has also increased. Until April 2020, internet access via smartphones increased by 76%, while internet access via laptops increased by 45%.

The higher the number of internet users each year, the higher the number of social media users. According to wearesocial.org data, the majority of social media users are young people aged 16-24 years (64% for users at the age of 16 and 54% for users at the age of 24). Thus, it can be said that internet users

are dominated by generation Z or millennial generation although at this time the Alpha generation has also utilized the technology.

The types of social media used also vary. In Indonesia, according to wearesocial.org data, up to April 2020, Facebook users was in ranked first, with a total over 2,498 (in millions), followed by YouTube users 2,000 (in million) and WhatsApp users 2,000 (in million). Thus, Facebook and YouTube have a role as Social Media Leaders in daily life and become a community's dependence on information.

The increasing number of the users of smartphone, PCs, Laptops, Tablet PCs and so on and the more affordable prices of gadget devices make it easier for the public to access information through social media in the form of either text, video, or audio. Of course, social media cannot be separated from the public's need for information. The public considers that the use of social media is very easy, practical, and efficient so that the need for very broad information can be reached easily through the role of online technology.

Some technology platforms are currently trying to come up with the latest products in order to be able to compete in obtaining a wider market reach and a more diverse market segment. Technology exists to provide convenience, including in getting information about products from manufacturers. Ads in the form of products and applications often appear on social media, such as YouTube and Facebook. They are offered to provide convenience and simplicity in use. One of them is the advertisement of financial technology (fintech) products offered to the public, such as E-Money or E-Wallet. This emerges along with the development of network connectivity-based digital technology.

Fintech comes as a manifestation of the implementation of the Industrial Revolution 4.0, where technology is not only limited to computerization and multimedia, but also connects to the database and generates Big data for application account users in online media. Therefore, all forms of transactions through the online network system can be identified as a whole, including history of transactions from a long period of time to the latest user data. Of course, such innovations are not made without reasons. This new financial technology is developed to facilitate the interests of the public in the transaction to meet the needs of each individual.

The industry producing financial technology is going through a period of similar changes. End to end platforms are now dismantling various barriers to penetrate market and reduce costs. In the investment business, the "robot-advisor" algorithms and the corresponding applications have been able to provide advisory services and portfolio tools at a very low cost compared to the previous cost, or only 0.5% and not 2%, thus threatening all segments of the financial industry, (Scwhab, 2018).

Fintech is increasingly being intensified by banking companies and independent start-up companies to be able to generate electronic financial product innovations and digital online transaction systems so that they can be adapted by the public and adopted by users, especially for those who often transact goods and services. In addition, the innovations offered by fintech also provide transparency of financial data on every transaction made by users, thus making it easier for companies to monitor the flow of financial transactions and detect the network of financial transaction.

Fintech is currently widely involved in multiuser trading systems, including conventional trade transactions, such as in mini markets, supermarkets, and the Department Store, for clothing products and so on. In addition, fintech is also involved in infrastructure facilities, such as parking facilities in shopping centers and toll gates. At present some startups also involve fintech product, such as E-Wallet, which is widely used in payment transactions.

Online shopping is now a habit in Indonesia. People use smartphones as their new shopping assistant. At present more than 45% of Indonesian people have already had smartphones. This figure is fairly competitive with neighboring countries, such as Singapore and South Korea. For the people of Indonesia, smartphones are the main device to enter the virtual world. On average, Indonesian people spend more than two hours or more interacting through smart devices every day. This figure is evenly split between the use of cellular applications and internet browsing via cellular. Meanwhile, on average, they only spent 52 minutes in front of a desktop computer. Information about Google Indonesia's findings also shows that for many Indonesians, smartphones are a new shopping assistant. (Akbar, 2018)

The large number of local players in the Indonesian fintech industry makes local e-wallet applications still a mainstay for cashless solutions in Indonesia. Based on Q2 2019 data obtained from App Annie, the top 5 e-wallet applications with the most active monthly users are still occupied by local players, such as *Go-Pay*, *OVO*, *DANA*, *LinkAja*, and *Jenius*. Meanwhile, E-Money users are still dominated by E-Money from Bank Mandiri, followed by *Flazz* BCA and *Brizzi* BRI. Each type of fintech has its own characteristics, strengths, and weaknesses. This certainly gives people many choices in using fintech.

Associated with competition between similar and dissimilar fintech products, startups strive to offer the best services and facilities that begin with promotion through mass media, either print or electronic media. At present, electronic media has a higher position than print media, considering that online media is even more intensively created. Even today, startups and large companies that produce fintech products, such as banking, utilize social media, like *Facebook*, *YouTube*, and *Instagram* to market their products. Almost every minute and even every second, advertisements continue to appear on social media, such as *Youtube*. Fintech ads, such as E-Wallet, often appear on the *YouTube* screen when users want to play the selected video. This certainly aims to persuade the public to adapt to fintech and utilize fintech products issued by either independent startups or large companies, including banks.

The increasing number of fintech released by banking companies is also fully supported by the Government of Indonesia, both the central and regional governments, which have begun to promote the movement of non-cash payments for goods purchases, toll payments, parking payments, entertainment venue fees, and so on. Fintech products such as E-Wallet and E-Money offer financial data transparency so that the Government also supports in order to minimize misuse of budget and funds for irresponsible matters and identify user account data in the form of Big Data.

Shared database technology can shorten a wide variety of activities such as storage space for client accounts, cross-border payments and clearing, as well as settlement of purchases, including goods and services that have not yet been created. So, it can be seen that in almost all industries, digital technology has created new and disruptive ways of combining goods and services, which in the process has dissolved traditional boundaries between industries, (Schwab, 2018).

This buying and selling market approach is progressively eroding the incumbent's comfortable position and breaking down the boundaries between industries. Many senior executives suspect that the convergence of the industry can be a major force that will affect their business in the next three to five years. Once a customer has trust and confidence in a platform, it will be easy for the digital service provider to offer products and other services to him. It can be said that the more intense and innovative use of fintech can help public administration modernize its structure and improve overall performance.

Diffusion is expected to be a process in which a fintech innovation is communicated through various channels of mass communication media and within a certain period of time in a social system. This kind of technological innovation needs to be introduced to the public, and then adopted, and used to

change the pattern of payment transactions in buying and selling goods and services. In addition, it is expected to be able to penetrate all segments of society in daily transaction patterns.

Changes in transaction patterns using fintech are very much expected, especially by producers of fintech products, so that these products can be adopted and adapted by the public. In order for a change in the transaction patterns, producers of fintech products often promote their products through mass communication media, such as television, online news, and social media.

Although promotions have often been carried out, many people in Indonesia, especially in Jakarta, including teenagers, still rely on cash payments. Some transactions, such as purchases of clothing, food, accessories and other necessities, still rely on cash payments as a means of exchange. This old habit is what makes fintech product manufacturers have to think hard and try to make changes in transaction patterns. Various offers have been made in order to make the community interested.

Millennial generation, especially for young people who are not working, of course still have not fully adapted to this new payment technology yet. According to research conducted by Pambudi (2019), interest in the use of fintech among teenagers is still relatively low, or only 28%, and 48% are still hesitant in using fintech. This makes fintech innovation still doubtful whether it can be accepted or not by young people in the capital city.

On the other hand, the government expects cashless in every sale and purchase transaction. It is hoped that the financial transaction system can be more transparent and there is no corruption. However, there is still no change in transaction patterns among young people. Therefore, research needs to be conducted to see whether there is an effect of the diffusion of fintech innovations on changes in transaction patterns.

The government is trying to ensure the security of the transaction system using fintech. According to Indonesia Economic Outlook 2019 data, up to February 1, 2019 there were 99 fintech companies registered with the Financial Services Authority (OJK). All digital-based financial services must be under the supervision of Bank Indonesia and OJK. So, the security of transactions using fintech has been guaranteed by the government.

However, the level of public knowledge, especially the millennial generation, about financial security guaranteed by the Financial Services Authority (OJK) is still low. They mostly still doubt the security system. This is what causes no change in transaction patterns in the sale and purchase of goods or services. Therefore, the purpose of this study is to determine the effect of diffusion of fintech innovation through social media on changes in the sale and purchase transaction patterns among young people in Jakarta and the extent of their knowledge of the use of fintech.

Research Theory

This research focuses on media studies by referring to theories related to the use, acceptance, and effect, as well as innovations adapted by the people. The theory used is the Diffusion of Innovations Theory. This theory explains how innovation is introduced and adopted by various communities. Early users of the diffusion of innovations theory were those who first adopted innovation, even before receiving significant amounts of information, (Baran & Davis, 2012).

The diffusion of innovations theory gives a very limited role to the mass media, where in general the mass media only creates awareness of new innovations. However, this theory gives a major role to various types of people who criticize the diffusion process. Media directly influenced early users, but these people generally had enough information and were careful media users, (Perloff, 2010).

The diffusion of innovation theory represents an important development of limited effect theory. Like other classical research in the early 1960s, this theory was drawn from existing empirical conclusions and then combined into a deep and rational perspective. In addition, to guide the development of third world countries, this theory provided the basis for a large number of promotional communication and marketing theories and campaigns that they carried out, even today, (Baran & Davis, 2010).

In the diffusion of innovation model, researchers examine how innovation or new information is applied by the recipient of innovation in the form of messages on social media related to fintech and the extent to which social media or interpersonal channels affect diffusion determined by intermediate variable, which in this model is called antecedent. Recipient variables include demographic data and socio-psychological variables.

The variable of diffusion effect can be temporal, spatial, and structural. The term temporal indicates the pattern of adoption of new ideas over a period of time. This is usually represented by an S curve: starting from a small number of adopters, a large number of adopters in the middle, and a small number of adopters behind. The term spatial indicates a certain order in the spatial pattern of innovation distribution. Meanwhile, the term structural indicates the diffusion of information through communication structures which can be two-step or multistep, (Rakhmat & Ibrahim, 2018).

Research Method

The research method used is quantitative method with explanatory research to measure the correlation and the influence of diffusion of fintech innovation through social media and the adaptation of young people to the use of fintech on changes in the sale and purchase transaction patterns. South Jakarta was chosen because the area is the center for the dissemination of financial technology promotion.

This study uses a survey method. Data are collected by distributing questionnaires to respondents electronically. The respondents include young workers and college students. The sampling technique used in this study is Non-Probability Sampling with purposive sampling method which refers to the method of determining respondents to be sampled based on certain criteria. The criteria include the age, profession, and job status of respondents located in South Jakarta area (Siregar, 2017). The type of data used is ordinal data using a *Likert* scale. The level of adaptation is measured using the Guttman scale and interval scale. Segmentation and identity of respondents are measured using nominal data.

The two segments are chosen because workers and college students begin to adapt to fintech for the sale and purchase transactions, one of which is using E-Commerce. In addition, young workers and students are classified as the most active social media users, especially those aged 16-24 and 25-34. This is the reason for researcher to make young workers and students the main respondents.

The presentation of data instruments from the survey results is carried out using not only distribution frequency but also cross tabulation to find out the details of the segmentation of age, gender, and occupation or education of respondents who use fintech such as E-Money or E-Wallet through the mapping of each of these segments.

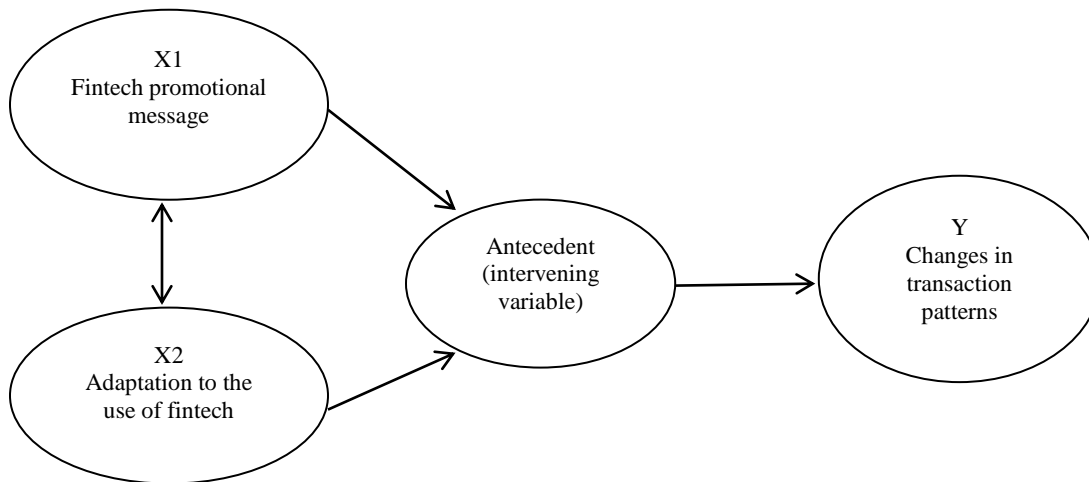
Correlation is tested using the Pearson Product Moment Correlation formula to find the direction and strength of the relationship between the independent variable (X) and the dependent variable (Y), as well as interval data. The independent variables used in this study are fintech promotional messages through mass media and social media (X1) and adaptation to the use of e-wallet fintech (X2). The dependent variable used is changes in the sale and purchase transaction patterns among young people in Jakarta (Y). Meanwhile, knowledge of e-wallet fintech serves as the antecedent or intervening variable. This study attempts to find out the effect of these two independent variables (X1) and (X2) on the

dependent variable (Y). Dimensions and indicators of the variables refer to independent variables, intermediate variable, and dependent variable.

The formula to calculate r value is as follows:

$$r = \frac{n(\sum xy) - (\sum x \cdot \sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

The type of correlation analysis used in this research is Multiple Correlation, which is to find out the level or strength of the relationship between three or more variables and to find out the contribution made simultaneously between variables. To see the capacity of the relationship is done by looking at Correlation Value (r) ($-2 \leq r \leq 1$). To see the level of correlation and strength of the relationship is done by looking at the results of the correlation value and the level of the relationship between the two variables.



In the calculation of multiple correlations, r value is calculated using the formula as follows: (Siregar, 2017)

$$R_{X1.X2.Y} = \sqrt{\frac{r^2_{X1.Y} + r^2_{X2.Y} - 2(r_{X1.Y})(r_{X2.Y})(r_{X1.X2})}{1 - r^2_{X1.X2}}}$$

The next step is doing a statistical test (significance test) by making a hypothesis that compares H_0 and H_a .

The measurement of correlation is also carried out to determine whether fintech promotional messages through social media have an influence on the adaptation to the use of fintech. Correlation is also seen from the intervening variable that the diffusion of fintech innovation is not directly related to the adaptation to the use of Fintech and also does not directly affect the changes in the sale and purchase transaction patterns, but is an intervening variable as an antecedent, namely knowledge of E-Wallet fintech.

After the correlation test, the next step is to carry out multiple linear regression tests. Multiple regressions are a future development based on past data. The test is done to determine the effect of one or more than 2 variables.

The formula used is:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 \dots + b_nX_n$$

After testing the relationship and influence of fintech promotional messages and adaptation to the use of E-Wallet fintech on changes in transaction patterns, the next step is to conduct a factor analysis to find out what factors of the X variables that affect the Y variable. The factor analysis procedure is carried out in accordance with the main principle of factor analysis, namely correlation. Therefore, assumptions related to correlation will be used, in which the correlation or the relationship between independent variables must be strong enough, or above 0.5. Partial correlation is the correlation between two variables by assuming that the other variables are constant, or even smaller. The next step is to test all correlation matrices (correlation between variables), which is measured using the *Bartlett Test of Sphericity* or *Measure Sampling Adequacy* (MSA). This test requires a significant correlation between at least a few variables. It also takes into account that the normality of the variables or factors that occurs must be met, (Santoso, 2019).

After conducting regression test to measure the effect between variables and mapping each segment of respondents, the next step is to conduct descriptive comparative test using ANOVA to see whether there are significant differences in the variables tested and is based on mapping of the respondent segments tested using Two Way Anova (Classification of Two Factors), that is, the testing of comparative hypotheses (comparison) for k samples (more than two samples) by measuring and grouping data based on two influential factors arranged in rows and columns. Correlated k samples are a comparative hypothesis testing for k samples (more than two samples) which correlate with two influential factors. (Siregar, 2017)

Review and Discussion

The presence of E-Wallet is intended to replace cash or hard cash payment systems. In fact, the number of E-Wallet users in Jakarta is very large at this time. Of the 300 respondents collected based on Snow Ball Sampling in South Jakarta and West Jakarta as the central trade areas, the majority have used e-wallet for the sale and purchase transactions in shopping centers.

Based on the current activity, the majority of respondents are workers (68.7%). Based on the job status, the majority of respondents are private workers (68%). Based on the education, the majority of respondents have the latest education of Senior High School (52.7%). Based on the use of E-Wallet brand, the majority of respondents uses E-Wallet OVO (40.7%), and followed by E-wallet Go Pay (20%).

Based on income per month, the majority of respondents earn IDR 3,000,000 - 5,000,000 per month (48.0%). Based on monthly expenditure, the majority of respondents have monthly expenditure of IDR 1,000,000 - 3,000,000 (51.7%). Based on shopping activities, the majority of respondents have shopping activities of 1-3 times per month (82.7%). Based on working hours per day, the majority of respondents have 8-9 working hours per day (67.7%). Based on the use of social media, the majority of respondents spend more than 5 hours per day to use social media (48.7%).

For OVO users, 41.3% are aged 19-25 years and 39.1% are aged above 31-35 years. For Go Pay users, 21.7% are aged 31-35 years. On average, Go Pay users have an older age than OVO users who have the status as college students (42.5%) and high school students (38.6%).

68.9% of Go Pay users are young people who have worked, while OVO users who have worked are 66.1%. OVO users with the status as students are 25.6%, while Go Pay users with the status as students are 23%. The majority of OVO users are workers with the status as private employees. Likewise, E-

Wallet users are mostly workers who already have an income (68.0%). In terms of income, either from pocket money or from work, 45.5% of OVO users respondents earn IDR 1 million - 3 million, while 22.9% of Go Pay users are worker respondents with income IDR 3 million - 5 million. 51.0% of worker respondents who use OVO and Go pay brands have the average expenditure from IDR 1 million to 3 million, similarly, with the status of students whose expenses are the same or smaller.

Overall, the questions in the research questionnaire using ordinal data are declared “valid” based on the validity test of the construct, with a comparison of $r_{count} > r_{table}$. The value of r_{table} $n = 300$, with $\alpha = 0.05$. The question is declared “valid” if the Pearson product moment testing has a validity rate of 100%. The data acquisition in the field is declared “reliable” if it has Alpha Cronbach value of 0.964.

Based on the results of the binominal test with NPar Test, 234 respondents say “No”, while 66 respondents say “Yes”. Proportion of Group 1 is 0.78 and proportion of Group 2 is 0.22. Based on the binominal test, exact sig. (2 tailed) = 0.000, with probability of sig. = 0,000 \leq 0.05. So, H_0 is rejected and H_a is accepted. Therefore, it can be said all respondents have a good level of knowledge about E-Wallet.

Based on the correlation table, the relationship between the variable of fintech promotional message (X1) and the variable of adaptation to the use of E-Wallet fintech (X2) is very strong and positive, or with the value of 0.840. Positive means that the relationship between fintech promotional messages and adaptation to the use of E-Wallet fintech is in the same direction. The same direction means that if the E-Wallet fintech promotional messages are intensively carried out, there will be an increase in the level of consumer adaptation to the use of E-Wallet fintech. The results of the comparison between sig value and α value show that Sig value = 0.00. In the case of $\alpha = 0.05$, it can be seen that Sig = 0.00 \leq 0.01. So, H_0 is rejected, which means that fintech promotional messages and adaptation to the use of E-Wallet technology have a relationship with the level of knowledge of E-Wallet technology usage.

The relationship between fintech promotional messages through social media (X1) and the changes in the sale and purchase transaction patterns (Y) is also strong and positive, or with the value of 0.761. Positive means that the relationship between fintech promotional messages and changes in the sale and purchase transaction patterns is in the same direction. The same direction means that if the fintech promotional messages are intensively carried out, there will be an increase in the level of changes in the sale and purchase transaction patterns using E-Wallet fintech. It can be seen that Sig = 0.00 \leq 0.01. So, H_0 is rejected, which means that there is a relationship between fintech promotional message and changes in the sale and purchase transaction patterns using fintech E-Wallet.

The relationship between adaptation to the use of E-Wallet fintech (X2) and changes in the sale and purchase transaction patterns (Y) is very strong and positive, or with the value of 0.829. Positive means that the relationship between the adaptation to the use of E-Wallet fintech and changes in the sale and purchase transaction patterns is in the same direction. The same direction means that if the level of adaptation to the use of E-Wallet fintech is high through the level of knowledge of the use of E-Wallet fintech, there will be an increase in the level of changes in the sale and purchase transaction patterns using E-Wallet technology.

Based on the correlation, the three variables have a very strong and significant relationship. The influence between variables can be measured using multiple regression tests with a load of three variables. After the correlation test is performed, the summary mode can be analyzed by looking at the simultaneous effect (R) of the variable of fintech promotional message of through mass media (X1) and the adaptation to the use of E-Wallet fintech (X2) on changes in the sale and purchase transaction patterns using E-Wallet fintech (Y). The contribution of the independent variables (X) to the dependent variable (Y) is 70.2%.

Based on the ANOVA Table, the multiple linear regression models can be used to predict changes in the sale and purchase transaction patterns using E-Wallet fintech which are influenced by fintech promotional messages through mass media and adaptation to the use of E-Wallet fintech. ANOVA table shows that the probability value (sig) = 0.00 and the significance level $\alpha = 0.05$. Because the probability value (sig) $0.000 < \text{significance level } \alpha 0.05$, then H_0 is rejected. So, multiple linear regression models can be used to predict changes in the sale and purchase transaction patterns using E-Wallet fintech which are influenced by fintech promotional messages through mass media and adaptation to the use of E-Wallet fintech.

The multiple regression coefficient values of 0.414 and 1.144 indicate additional levels of changes in the sale and purchase transaction patterns using E-Wallet fintech. The multiple regression equation of $Y = 10.775 + 0.414 (300) + 1.144 (300) = 478.2$ which is used as a basis for estimating the level of change in the sale and purchase transaction patterns using E-Wallet fintech which is influenced by promotions in the mass media and adaptation to E-Wallet fintech will be tested to find out whether the equation is valid or not.

There are three methods used to test the validity of the multiple regression equation, such as the F test (simultaneously), t test (partially), and probability technique. Based on the analysis using F test, it can be seen that $F_{\text{count}} = 349.0 > F_{\text{table}} = 3.14$. So, H_0 is rejected, which means that fintech promotional message through mass media and the adaptation to the use of E-Wallet fintech simultaneously have a significant effect on changes in the sale and purchase transaction patterns using E-Wallet fintech.

Based on the analysis using t test (partially) on the effect of fintech promotional messages through mass media on changes in the sale and purchase transaction patterns, it can be seen that the value of t1 count = 3.744 and the value of t2 count = 11.042. So, H_0 is rejected, which means that fintech promotional messages through the mass media and the adaptation to the use of E-Wallet fintech partially have a significant effect on changes in the sale and purchase transaction patterns.

Determining hypotheses based on probability techniques and testing criteria.

From the Coefficients (a) table, it can be seen that the value of Sig = 0.00. Because of the two-tailed test, the value of α is divided by 3. So, the value of $\alpha = 0.05 / 3 = 0.017$. The value of Sig = $0.00 < \alpha = 0.017$, then H_0 is rejected. Both variables, X1 and X2, show the value of Sig. = 0.00, which means that fintech promotional messages through mass media and the adaptation to the use of E-Wallet fintech have significant influence on changes in the sale and purchase transaction patterns using E-Wallet fintech.

The results of overall analysis show that there is a significant influence between the variable of fintech promotional messages through mass media and the variable of the adaptation to the use of E-Wallet fintech. In addition, the two variables have an influence on changes in the sale and purchase transaction patterns using E-Wallet fintech. So, it can be stated that the fintech product in the form of E-Wallet technology is accepted and adopted by the Indonesian people, especially young people from the age of 16 to 35.

In addition to determine the influence of the variable of fintech promotional message through the mass media and the variable of the adaptation to the use of E-Wallet technology on the variable of changes in the sale and purchase transaction patterns using E-Wallet, the researcher also explores what factors that have the most influence on changes in young people. Factor Analysis is used to find out what factors that have the most influence on the changes in young people and the changes in the sale and purchase transaction patterns using E-Wallet fintech.

Based on the factor analysis conducted by researcher, the KMO value is 0.937, with a significance level of 0.000. Because the value is above 0.5 and the level of significance is far below 0.05 ($0.00 < 0.05$), the existing variables and samples can be analyzed using factor analysis. There are 18 components included in the factor analysis which include variables of promotional message through the mass media, adaptation to E-Wallet fintech, and their impact on social change.

Based on Total Variance, if 18 components of the variables are extracted into 4 main factors, from the variable components that have a role to influence society to make changes in the sale and purchase transaction patterns using E Wallet, then the first factor is 52.384, the second factor is 5.587, the third factor is 4.711, and the fourth factor is 3.409. The component matrix table shows the distribution of the eighteen components of variables on the four formed main factors. The numbers in the table show the factor loadings which indicate the magnitude of the correlation between a variable and factor 1, factor 2, factor 3, and factor 4. The process of determining which variable that will go into which factor is done by comparing the magnitude of the correlation on each row.

After knowing that the four factors are the most optimal factors, the next important step is to determine what variables will fall into which factors. Based on the component matrix, the components with a score below 0.5 must be discarded. The components selected as the factors to be measured are those that have a score above 0.5. Based on the communalities score, what is seen is the largest score, so that the largest score is the main factor that has an influence between variable X and variable Y.

Based on factor analysis, there are 4 main factors that influence a person to make changes in transaction patterns. The first factor is the reputation of the E-Wallet fintech product, with an extraction rate of 0.794. The second factor is the transaction process using E-Wallet fintech which is considered faster, with an extraction rate of 0.789. The third factor is the messages conveyed through promotional media, with an extraction rate of 0.770. The fourth factor is the value of the E-Wallet product which is considered to be more practical and effective in making payment.

After performing factor analysis, the next step is to group respondents into 4 clusters based on the characteristics of the respondents. The mapping of the 4 clusters is based on the division of the analyzed factor groups. Cluster analysis is used to analyze the clusters in this study. Based on the cluster analysis, cluster 1 is male respondents with the last education of high school, working, work status as private employees. Respondents are users of E-Wallet OVO brand products with an income of more than IDR 5 million per month, have shopping activities 1 times per month, and use social media 1 - 3 hours per day.

The second cluster is female respondents with the last education of high school, working, and work status as private employees. Respondents are users of E-Wallet OVO brand products with an income of IDR 3-5 million per month, have shopping activities 1 times per month, use social media 3-5 hours per day, and have expenditures for shopping IDR 1-3 million.

The third cluster is female respondents with the last education of high school, working, and work status as private employees, but having no permanent jobs. The respondents are users of E-Wallet OVO brand product with an income of IDR 1-3 million per month, have shopping activities 1 times per month, and active in social media with a duration of 4 - 5 hours per day.

The fourth cluster is female respondents with the last education of high school, working, and work status as private employees. The respondents are also users of E-Wallet OVO brand product with an income of IDR 1-3 million per month, the same as their expenditure, and active in social media with the duration of 1-3 hours per day.

In this study, the role of respondents is converted into informants through cluster criteria in order to obtain more in-depth data. Based on the results of interviews with the four informants according to the cluster division, the majority of respondents aged 20-35 years are active social media users who often use e-commerce media and social media applications to transact goods online. E-Wallet products are more widely used to transact products online through e-commerce. E-commerce and social media operations are carried out using smartphones. The majority of respondents use smartphones for social media and browsing e-commerce products.

The informants, who are dominated by women, use e-commerce applications to make online transactions, such as to order fashion and cosmetics products, electronic products, and household appliances. E-Wallet is used not only in buying and selling online through e-commerce media, but also in buying and selling goods directly at shopping centers, such as malls and wholesale centers.

The informants learn about various kinds of e-wallet products through social media, such as *YouTube*, *Facebook* and *Instagram*, including the web. Informants who are consumptive mostly adopt e-wallet technology. The information posted massively on social media has generated interest in female informants to buy products offered on social media and e-commerce applications so that the desire to shop is high.

There are significant differences in the measured variables. Respondents have rapid technological adaptation due to these differences, such as varying ages, work status, and expenses. The majority of respondents who are young people or in the millennial and adolescent category make it easier for them to adopt E-Wallet technology.

The dependence of young people on short information through social media and online mass media is quite high. This can be seen from the use of social media per day which can reach 5 hours per day. This means that the adaptation to smartphone and E-Wallet technology runs smoothly because E-Wallet technology is very easy to use and very practical for long distance transactions compared to using electronic cards, such as E Money.

Based on the information diffusion theory, one of the important communication channels is the mass media. Therefore, the diffusion model assumes that the mass media have different effects at different points in time. The mass media can generate knowledge and influence someone to accept or reject something. The effect of mass media includes messages built through the text and context of E-Wallet product and fascination with advertising messages.

It is also found that respondents start using e-commerce after receiving information messages through social media and through online mass media massively. In addition, they also get information interpersonal from one person to another, such as through friendships or colleagues and other relationships. Other findings of this study include the fact that early adopters take longer to make decisions. Of course, it is not easy for informants to adopt and accept E-Wallet technology because it involves trust factor.

If a product has a good reputation, practical value, time efficiency in transactions, no element of damage, and no element of fraud in payments, the respondents will feel confident about using E-Wallet product in payment transactions. Mass media and social media are very effective in changing respondents' attitudes.

Judging from the level of knowledge, respondents have good knowledge about E-Wallet. Building this level of knowledge requires considerable time. In order to have this good level of knowledge, interpersonal sources are the most effective way to disseminate information. A large number of teenage

respondents decide to adopt E-Wallet technology immediately after learning a lot about online payment technology via mobile devices.

The respondent's innovative attitude can be measured on a scale of innovation, correlation with adoption, use of online payments, age of respondent in using technology, level of education, timing of introduction, exposure to mass media, and cosmopolitan attitudes of young people. Early adopters tend to use social media (*Facebook, Instagram, and Youtube*) more than print mass media.

Conclusion

Based on the research results, research that uses the information diffusion model is generally a correlational study because the data is taken from the public. It can be seen that there is a correlation between the variable of fintech promotional messages through the mass media and the variable of the adaptation to the use of E-Wallet fintech. The correlation between fintech promotional messages through the mass media and the adaptation to the use of E-Wallet fintech has a strong relationship with the knowledge of E-Wallet fintech. The fintech promotional messages through the mass media have a strong influence on the changes in the sale and purchase transaction patterns using E-Wallet fintech. In addition, the adaptation to the use of E-Wallet fintech also has a strong influence on the changes in the sale and purchase transaction patterns using E-Wallet fintech. The conclusion is that fintech innovation in the form of E-Wallet product can be accepted by the public and the public or respondents also have a good level of knowledge about E-Wallet fintech.

References

- Akbar, Ali. 2018. *Digital Ekosistem*. Jakarta: Penerbit Republika.
- Baran, Stanley J. & Dennis K. Davis. 2012. *Mass Communication Theory: Foundations, Ferment, Aand Future*, 6th Edition. US: Wadsworth.
- Perloff, Richard M. 2010. *The Dynamics of Persuasion Communication And Attitudes in the 21st Century*. New York: Routledge.
- Rakhmat, Jalaluddin & Idi Subandy Ibrahim. 2017. *Metode Penelitian Komunikasi (Dilengkapi Contoh Analisis Statistik dan Penafsirannya)*. Jakarta: Penerbit Simbiosis Rekatama Media.
- Siregar, Syofian. 2017. *Metode Penelitian Kuantitatif*. Jakarta: Kencana Prenada Media Group.
- Schwab, Klaus. 2016. *The Forth Industrial Revolution 4.0*. UK: Crown Bussiness.

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