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DO PEOPLE AWARE OF HOW DISTINCT E-WALLET PRODUCTS ARE? : CASE OF INDONESIA UNIVERSITY STUDENTS' PERSPECTIVES

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Abstract. In Indonesia, financial technology industry has been growing rapidly, including e-wallet. Currently, there are listed 36 e-wallet issuers which indicates tight competition. This study aims to determine university students' choice pattern on e-wallet products, create function to classify their preferences in choosing e-wallet products and to derive proper strategy for the e-wallet issuers. This research was conducted using questionnaire through convenience sampling. The number of respondents used was 455. The data were analyzed using Independent T-Test and Discriminant Analysis. Author used only GoPay and OVO in the analysis since those products are dominating. It is found that both genders and people living in DKI Jakarta and West Java prefer GoPay to OVO. However, people from Social Field prefer OVO to GoPay. It also shows that GoPay users are more digital savvy compared to OVO's. The discriminant function created has a weak discriminatory ability. Lastly, it is recommended for e-wallet players to follow GoPay in creating broader environment for its usage, benchmarking with OVO to capture users from social studies background, and create product differentiation. Further research could be conducted by adding business model as an independent variable and done when there are more apparent differentiation within e-wallet products in Indonesia.

Keywords: financial technology; e-wallet; university students; preference; discriminant analysis.

INTRODUCTION

With the rapidness of technology growth that affects almost all industries, FinTech comes to be the newest player in the financial industry. The shifting from traditional financial activities to a digital one cannot be denied from the power of gadgets. MDI Ventures & Mandiri Sekuritas Research (2017) indicates how smartphone subscribers and bank accounts have positive correlation and keeps rising up in the last 5 years. Since the number of smartphone users keeps increasing, it is predicted that e-wallet would be the future of FinTech in Indonesia. In the past few years, FinTech has been a new hit in financial sector. "Financial technology" or "FinTech" refers to technology-enabled financial solutions (Arner, DW et.al, 2015). One of the most popular form of financial technology is e-wallet. In Indonesia, there are many e-wallet products available (e.g., GoPay, OVO). FinTech industry in Indonesia is highly attractive. Based on data from MDI Ventures & Mandiri Sekuritas Research (2017), FinTech is dominating funding rounds by industry vertical with 28 investment rounds in 2017. Currently, there are 36 e-wallet products in Indonesia (bi.go.id, 2019) which indicates that the competitive landscape of FinTech industry in Indonesia is high. Go-Jek is one of the largest players in Indonesia with GoPay's (GoJek's financial services) transaction, based on cnbcindonesia.com (2019) was 69.6% of its overall transaction in 2018 with IDR 87 trillion (US$6.3 billion). OVO also starts to dominate the market, showing from its ability to grow by 75 times in 2018 with more or less 1 billion transactions (cnbcindonesia.com, 2019). Based on a survey conducted by PwC (2018), 72% percent of Indonesian bankers perceive Go-Jek as an emerging banking competitors, which strengthen the data that GoPay is one of the most popular and most used e-wallet service in Indonesia, followed by OVO. Knowing the powerful strength of e-wallet industry, the Government is planning to merge all of its financial technology services into 1 in order to compete with their forces (detik.com, 2019). Therefore, it would be hard to compete with the giants, especially in terms of customers' switching products ability, unless e-wallet issuers have a proper strategy to conduct their business.

FinTech is highly supported by internet infrastructure. Internet users in Indonesia have been around all big islands in Indonesia. Based on data from DailySocial.id (2017), *Asosiasi Penyelenggara Jasa Internet Indonesia* held a statistical data that shows the largest users of internet in Indonesia is from age range 19-34 years old (49.52%) followed by 35-54 years old age group in second place with (29.55%), 13-18 years old age group in the third place (16.68%) and lastly is over 54 years old group (4.24%). The large number of internet users from millennials combined with data which shows that 63% of millennials have already use digital payment products (DailySocial.id, 2017) makes millennials one of the biggest target potentially in FinTech industry. The writer focuses on only university students because the age within university students in Indonesia which ranges from mainly 17-25 years old since the young adult segment represents large amount of internet users and would probably have similar behavior towards internet and digital products. Thus, FinTech industry players, especially in digital mobile payments or e-wallet, have to be sure that they can win this big potential target market to increase their chance in being the market leader.

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Lifestyle has also been long considered an important determinant and a better predictor than demographic information (Lazar, 1963; Jih and Lee, 2003; Pandey and Chawla, 2014). Consumer lifestyles have been studied in various contexts over several decades (Pandey and Chawla, 2014). The research will focus on university students considering their large amount of students who use internet, including using e-wallet products in their daily life. By knowing customers' lifestyle especially regarding digital lifestyle, the author hoped to know university students' e-wallet preferences better.

Therefore, the following research questions are derived:
1. Is there any pattern of choosing e-wallet products on Indonesia university students?
2. Could discriminatory function reliably classify Indonesia university students' preferences in choosing e-wallet products?
3. What is the proper strategy for e-wallet issuers in Indonesia to create better-suited products towards university students' preferences?

The objectives of this study are as follows: to determine choice pattern of Indonesia university students on e-wallet products, to know whether discriminatory function could reliably classify Indonesia university students' preferences in choosing e-wallet products or not, and to derive proper strategy for e-wallet issuers in Indonesia to create better-suited products towards university students' preferences. In this research, the author aims to use primary data using a questionnaire from respondents of university students in Indonesia. The university students should mainly be in a range of age 17-25 years old and include male and female. The questions are made to get to know their views about e-wallet products in Indonesia. The data would be tested using Independent T-Test and Discriminant Analysis tool on SPSS. The end result of this research may be used to further develop e-wallet products by FinTech players in Indonesia.

LITERATURE REVIEW

There are various definitions about financial technology by multiple experts. However, there are still many debates and arguments involving the scope of financial technology. Arner, D.W. et.al. (2015) refer Financial Technology or FinTech to technology-enabled financial solutions. From his definition, we could say that FinTech is any technology functions related to financial solutions. In 2016 Kim, Y. et.al. also defined FinTech as a service sector, which uses mobile-centered IT technology to enhance the efficiency of the financial system. It is quite similar to the previous definition, but the objective of FinTech is mentioned in Kim's definition, which is to make financial systems more efficient. In another journal, FinTech is described as "Financial Technology, also known as FinTech, is a new sector in finance industry that incorporates the whole platform of technology that is used in finance to facilitate trades, corporate business or interaction and services provided to the retail consumer" (Micu & Micu, 2016). From the definition, it is apparent that the meaning of FinTech has become more inclusive, making it a new sector in financial industry. Aside from those definitions, Shim & Shin (2016) mentioned that "Fintech is an emerging financial services sector that includes third-party payment, MMF, insurance products, risk management, authentication, and peer to peer (P2P) lending". It implies that FinTech has become more varied in terms of products and had managed to enter and impact various industries. FinTech is also explained as "Organizations combining innovative business models and technology to enable, enhance and disrupt financial services" (Ernst & Young, 2016). It added new important factor of FinTech, which is the ability to disrupt current available financial services.

FinTech has many derivatives of products, for instance e-money, e-wallet, until digital insurance. In this paper, the author will focus on one of the most popular product of FinTech, which is e-wallet. Just like FinTech, there are various definitions of e-wallet by experts. "Electronic Wallet is an e-money payment instrument. It is a smart card with a microprocessor whose memory is credited with purchasing power stored in a float account that has previously been deposited in a specialized company (Bank or e-money issuing company). This float account is debited at each purchase with no involvement from the issuer" (Sahut, 2008). Sahut's definition of e-wallet is concerning more on instant debit of money by users of e-wallet technology. Olsen et.al (2011) said "An m-wallet is a personalized digital artifact that contains electronic payments instruments such as virtual currencies and payment cards, repository for receipts and tickets, identification cards such as passports, drivers' licenses and insurance cards, and personal items such as pictures and shopping lists". It is clear that their perception are much broader, not only in terms of money but also includes many personal important documents. Pretty similar to Olsen et.al, in 2014, Doan mentioned that "Mobile wallet is formed when your Smartphone functions as a leather wallet: it can have digital coupons, digital money (transactions), digital cards, and digital receipts". The scope became bigger, involving digital coupons, cards, and also receipts. Husson (2015) managed to define technology used in e-wallet in his definition of e-wallet, which is "Mobile wallet service allows the user to install an application from online stores in their smartphones and use them to pay for their online and offline purchases. Using latest technologies that connect smartphones to the physical world such as NFC (Near Field Communication), sound waves, and QR codes, cloud-based solutions, mobile wallets are believed to provide more convenient payment solutions to the customers in future".

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Lin et.al (2012) mentioned that lifestyle refers to a person's particular way of living, and has been used primarily to examine the living patterns and mobility of various social classes. Lifestyle is often used to determine the relationship between demographic variables and behavioral patterns for technology-enabled services and products (Lee et al., 2009; Yu, 2011). Its use as a moderator is not a new concept (Chen and He, 2006), and its application can be found in many studies (Matzler et al., 2007; Ko et al., 2010). Digital, according to Cambridge Dictionary, is defined as 'using or relating to digital signals and computer technology' or 'showing information in the form of an electronic image'. Thus, combining the definition of digital and lifestyle, it can be assumed that digital lifestyle means a person's particular way of living in using or relating to digital signals and computer technology. V. Anojan & T. Subaskaran (2015) in their paper describe consumer preference as how a consumer ranks a collection of goods or services or prefers one collection over another. The definition assumes that consumer's rank goods or services by the amount of satisfaction, or utility, afforded. The consumer preference theory does not take the consumer's income, good or service's price, or the consumer's ability to purchase the product or service.

There were many journals and articles specifying on e-wallet topic but none of them are focusing on customer preferences of choosing e-wallet or using Discriminant Analysis. In "An Intellectual Study on Preference towards the Usage of Electronic Wallets among Urban Population of Chennai City" (Bhuvaneswari, D. & Sivakavitha, S., 2017), the objective of their research were to find the preference towards the usage of e-wallet, to find out the various demographic variables on usage of e-wallets, and to study the factors that influence customer adoption of e-wallet. The basis of respondents were in India, and they also focused on two parts, which are customer adoption and customer preferences towards e-wallet products. Sardar (2016) in "Preference Towards Mobile Wallets Among Urban Population Of Jalgaon City" also focused in India, with objectives of studying the awareness and preference towards the usage of Mobile wallets in Jalgaon, find out the impact of various demographic variables on the usage of mobile wallets, study the factors influencing to opt for Mobile wallets 4, and to examine the factors refraining the usage of Mobile wallets. In "A Study On Consumer Preference Towards Mobile Wallet" (Praiseye, T. & John, F., 2018), the objectives were to find out the impact of demographic factors on consumer preference towards mobile wallet and to identify the factors that affects consumer preference towards mobile wallet. They did not specify the class or segment of their population of respondents. In Indonesia, there are several journals that took e-wallet as the theme. However, most of them are assessing e-wallet based on customer adoption and customer acceptance focus. In "*Analisis Penerimaan E-Wallet di Indonesia: Studi Kasus Doku Wallet*" (Fathi, 2014), the researcher focused on the customer acceptance part. In "Analysis of Determinant Factors of User Acceptance of Mobile Payment System in Indonesia (A Case Study of Go-Pay Mobile Payment)" (Chandra, et.al, 2018), they focused on the user acceptance part.

METHODOLOGY

The author used primary data for this research from using questionnaire and conducting preliminary research in order to validate dependent variables used. The research starts from identifying problem. Then, author starts to do literature review and collect data from preliminary research and from spreading questionnaire. The main part of questionnaire consists of questions with 7 point likert scale, using reference from Ally (2010). After choosing research methodology, the author will analyze the result of data and eventually provide conclusion and recommendation regarding e-wallet preferences for university students in Indonesia topic. The author conducted interview with 12 university students to ensure that items of variables put in questionnaire have depicted what university students think about each variables and did some changes. Then, the author managed to gather thorough picture about the items and started to develop questionnaire. According to Connelly (2008), it is recommended that a pilot study sample be more or less 10% of the sample projected for the larger parent study. Thus, the author gathered 54 respondents to test out the questionnaire. The author assessed for validity and reliability of questionnaire using Pearson Correlation and Cronbach Alpha respectively.

Since there are no exact information regarding overall population of the research, author used Cochran Formula (Cochran, 1963) to find minimum number of sample needed. The formula is:

$$n_0 = \frac{Z^2}{}$$

e = the desired level of precision (i.e. the margin of error)
p = the (estimated) proportion of the population which has the attribute in question
q = 1 – p

Assuming that 50% of the university students in Indonesia uses e-wallet product, then value of p=0.5. With regard to the level of accuracy, a confidence level of 95% as suggested by Kothari (2005), this means that there are 95 chances in 100 (or .95 in 1) that the sample results represent the true condition of the population within a specified precision range against 5 chances in 100 (or .05 in 1) that it does not. Therefore, the author used e=0.05 and Z-value =1.96 in the calculation. The minimum sample needed based on the calculation would be 384.16 or 385 respondents.

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The author used convenience sampling as the sampling method. Convenience sampling (also known as Haphazard Sampling or Accidental Sampling) is a type of nonprobability or nonrandom sampling where members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study (Dörnyei, 2007). The method is also referred as the researching subjects of population that are easily accessible to the researcher (S. K. and Given, 2008). Convenience Sampling is affordable, easy and the subjects are readily available, giving advantages of faster time in collecting data and inexpensive to create samples.

There are two statistical tool used in this study. The first is Independent T-Test (also known as two sample t-test or student's t-test), which is an inferential statistical test that determines whether there is a statistically significant difference between the means in two unrelated samples on the same continuous, dependent variable (Oyejola and Adebayo, 2004). Table 1 shows variable used in conducting the test.

Table 1. Variable for Independent T-Test

Independent Variable	Dependent Variable
GoPay	Digital Savviness Index
OVO	

The following hypotheses were created:

H0: $\mu_{GoPay} - \mu_{OVO} \leq 0$

H1: $\mu_{GoPay} - \mu_{OVO} > 0$

There are some classical assumptions that are needed to be met before conducting the test. The first is independence which means that observations within each sample must be independent. The second is normal distribution – the scores in each population must be normally distributed. The third homogeneity of variance, a condition when the two populations must have equal variances (the degree to which the distributions are spread out is approximately equal). If the assumptions are deemed to not be violated, the author will conduct Independent T-Test with formula as listed below.

$$t = \frac{\bar{x}_1 - \bar{x}_2}{S_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \sim$$

where,

$\overline{x_1}$ = 1st sample mean

$\overline{x_2}$ = 2nd sample mean

$S_p^2 = \frac{(n_1-1)S_1^2+(n_2-1)S_2^2}{n_1+n_2-2}$

If t-value is greater than table value, the null hypothesis is rejected. Otherwise, the null hypothesis is not rejected.

The second statistical used is Discriminant Analysis, a statistical tool with an objective to assess the adequacy of a classification, given the group memberships; or to assign objects to one group among a number of groups. The author will use SPSS to conduct the analysis. Table 2 give more detail regarding independent and dependent variable used in the analysis.

Table 2. Variable for Discriminant Analysis

Independent Variable	Dependent Variable
User Interface (UI)	Main E-Wallet Product Used
Practicality (P)	
Safety in Transactions (ST)	
Customers' Privacy Protection (CP)	
Promo/Discount Offered (PDO)	
Number of Merchants/Partners (MP)	
Easiness to Top-Up Balance (TU)	
Company Branding (CB)	

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Before using the analysis, there are few assumptions that should be noted (Walden, n.d.), which are multivariate normality within groups, homogeneous within-group variances, no multicollinearity and linearity among all pairs of variables. After the assumptions are tested and fulfilled, the author will conduct discriminant analysis. The formula is as listed below.

been used and used .

where,
Z = the discriminant score
W = the discriminant weights
X = the independent variables
This study is looking at the value of Sig. in Wilks' Lambda table. If the p-value<0.05, then the null hypothesis is rejected. Otherwise, the null hypothesis is not rejected.

FINDINGS AND ARGUMENT

The author used Pearson Correlation tool to measure validity of questions, if Sig.(2-tailed)<0.05, then the variable is deemed to be valid. After conducting the test, it was apparent that all questions are valid. Cronbach Alpha is used to test reliability of the questionnaire. A general accepted rule is that alpha level of 0.6-0.7 indicates an acceptable level of reliability, and 0.8 or greater a very good level. However, values higher than 0.95 are not necessarily good, since they might be an indication of redundance (Hulin, Netemeyer, and Cudeck, 2001). The author found that all of the questions are reliable (all values>0.6). Thus, it shows that the questionnaire is valid and reliable, which means that author could proceed to distribute the questionnaire widely.

The author made use of several portals to distribute questionnaire, including various social media platforms. Total respondents gathered was 530. However, after eliminating several unfit answer from a few respondents (e.g. do not live in Indonesia, do not use e-wallet products), total respondents used for further analysis were 455. The participants are mostly female-gendered, with comparison of 245 to 210 female to male. The age of participants are spread from below 17 years old until over 25 years old, however the majority are from 17-20 years old group (222 respondents) followed by 21-23 years old group (198 respondents). The majority of respondents' domicile are in West Java (208 respondents) and DKI Jakarta area (132 respondents), hinting that most of the respondents are living in big cities, perhaps with more developed financial services sector. The respondents of this research come from various background, although most are from Business and Economics background (170 respondents), followed by Engineering field (139 respondents) and Science Studies (108 respondents). A big part of respondents chose IDR 2 million to IDR 4 million as their monthly income (178 respondents) with parents became main source of income (358 respondents). It shows that most respondents are still dependent to their parents for the daily financial aspect.

Kaleta et.al (2006) in their "Lifestyle Index and Work Ability" created lifestyle index and work ability by score composed of different items which was determined according to different scales arranged in order of importance. They calculated the index by summing up the estimated points for each item. Benchmarking to the said study, the author created digital lifestyle index. The first step of doing lifestyle analysis is by starting to group the data into several bigger classification. Out of 11 questions on lifestyle, the author created 5 groups to better depict respondents' lifestyle. After grouping each question into each group, the author put scores on each questions, which would be averaged for each category. Then, the author put weight on each category. After calculating weighted average for each classification, the number will be sum up into 1 number, ranging from 1-5 (1 being the least digital savvy and 5 being the most digital savvy) which depicts digital savviness of respondents. Average respondents score 3.165 on digital savviness index, which means that even though they are already comfortable with digital environment, they have not been fully adopting digital lifestyle as their daily pattern in doing activities yet. Table 3 shows the category and weight for each groups.

Table 3. Category and Weight

EXPENSE (0.15)	LEISURE (0.15)	KNOWLEDGE (0.25)	COMMUNICATION (0.25)	TRANSPORTATION (0.20)
Monthly expense on entertainment and internet (E1)	Daily activities during leisure time (L1)	Consistent ways of learning (K1)	Daily hours spent on using internet (C1)	Usual modes of transportation (T1)
Monthly expense on food and beverage (E2)	Weekend activities during leisure time (L2)	Main way to access the newest information (K2)	Online activities (C2)	
			Most frequent place to	

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Monthly expense on clothing (E3)	Long holidays activities during leisure time (L3)		access internet (C3) Ways to communicate with friends (C4)	

Connecting result from demographic analysis and digital savviness index, the result showed that almost all region listed (North Sumatra, Central Sumatra, South Sumatra, DKI Jakarta, West Java, Central Java, DI Yogyakarta, East Java, Kalimantan, Sulawesi) have more or less the same value, scoring around 3. However, North Sumatra region has a pretty big gap by scoring the lowest (average score= 2.48). It shows that possibly, people in North Sumatra are not as comfortable with digital adoption in daily life compared to other area. But, considering that the number of respondents whose domicile is in North Sumatra is only one person, the conclusion might not be inclusive and representative to whole North Sumatra population. From Fig. 1, it is apparent that all faculty groups have more or less a similar score of average digital savviness, which means that they all have been quite comfortable in using digital products in their daily activities. The highest ones are people from Business and Economics background (average score= 3.198). The fact is not shocking, considering that they would have been more exposed to the changes in financial world. With the latest development involving internet to financial life, it makes perfect sense that people from Business and Economics background have started to go on with the trend. The second highest position is taken by Engineering field (average score= 3.192), which is also not a surprise considering how people from this field are usually aware and interested with the newest technology. However, Social Studies has the lowest digital savviness index (average score= 2.99). The reason could be due to the group are not exposed yet to e-wallet and its benefits, which makes them reluctant to use e-wallet.

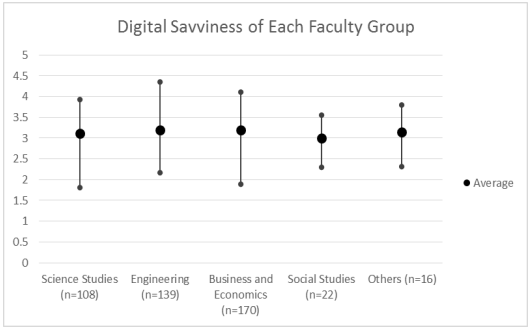

Figure 1. Digital Savviness of Each Faculty Group

Before moving on to further analysis, the author sorted final dependent variable used. Out of 9 options of e-wallet products which would be dependent variable items (GoPay, OVO, LinkAja, Sakuku, Rekening Ponsel CIMB Niaga, PayPro, Dokupay, TrueMoney and Dana), majority choose GoPay (273 respondents) and OVO (156 respondents) as e-wallet products that they most frequently use. The other products, combined with some brands that have not yet been listed in the previous 9 choices only made up by 26 respondents (Table 4). Therefore, the author decided to use only GoPay and OVO as dependent variables, considering the small amount of respondents who chose Others.

Table 4. Detail on 'Others' Category

Others	Frequency
LinkAja	5
Rekening Ponsel CIMB Niaga	1
DokuPay	1
Dana	16
ShopeePay	1
FasaPay	1
Steam Wallet	1

Then, the author started to analyze choice pattern based on gender. Since female respondents are more than male, then the author used random generator on Ms. Excel to gather 192 random female respondents to be analyzed. It is found that both genders prefer GoPay to OVO, with 63.4% female respondents who uses GoPay and 66.1% male respondents that uses GoPay. Male prefer GoPay slightly more than female with 2.7% difference. Next, the author moved to analyze choice pattern based on domicile. Since the two highest respondents based on domicile were from DKI Jakarta and West Java, the author decided to use those two variable. The author used random generator on Ms. Excel to gather 130 respondents for people living in West Java to

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generate similar frequency with people living in DKI Jakarta. It is found that people living in DKI Jakarta are almost equal in preferences towards GoPay and OVO, with 52.3% prefer GoPay and 47.7% prefer OVO. People in West Java also prefer GoPay to OVO with 63.8% to 36.2% people respectively. However, it is clear that people in West Java prefer GoPay more than people living in DKI Jakarta with 11.5% difference. Lastly, the author analyze choice pattern based on faculty background. The author neglected Others group and pooled Science Studies and Engineering to Science Field and Business and Economics and Social Studies to Social Field. Then, the author used random generator on Ms. Excel to gather 194 respondents from Science Studies to match with number of members in Social Studies. It is found that people with Science Field background prefer GoPay to OVO with 64.5% and 35.5% respectively. However, people in Social Field prefer OVO to GoPay, with 67.2% and 32.8% respectively.

Aftert that, the author started to conduct Independent T-Test. However, it should be noted that it is crucial to test the assumptions before conducting the test. In the questionnaire, respondents can only choose one group of e-wallet products that they use most frequently, whether it is GoPay, OVO, or Others. Thus, it can be concluded that the data are independent and do not influence each other. The author tested normality of the variables using Saphiro-Wilk test in SPSS. Since Sig.>0.05 for both Gopay and OVO (0.131 and 0.315 respectively), it indicates that data for both groups are normally distributed, which means that the assumption is met. To test whether or not the data have equal population variances for all groups, the author used Levene Test in SPSS. If Sig.<0.05, then the assumption is violated. Since Sig.>0.05 (0.064), then the assumption of homogeneity of variances is fulfilled.

Table 5. Independent T-Test Result

	GoPay	OVO
Sig. (2-tailed)	0.073	0.073
Mean	3.211806815	3.129031242

From table 5, it can be seen that the mean for both groups are almost equal, with <0.01 difference. Using confidence interval percentage of 90%, if the value of Sig.(2-tailed)<0.1, that means for the two groups are significantly different. Since both groups' value of Sig.(2-tailed)<0.1, then the group means are significantly different. Therefore, the null hypothesis is rejected. In other words, GoPay group and OVO group respondents have different digital savviness score, with GoPay users are more digital savvy compared to OVO users. This might be seen as users chose GoPay instead of OVO because GoPay offer more complete experience and features which are more accommodating to its users' digital lifestyle.

Before moving on to using Discriminant Analysis, ensuring fulfilment of required assumptions had to be done. The author tested normality of the variables using Saphiro-Wilk test in SPSS. After conducting the test, it is apparent that all the variables are not normally distributed (Sig<0.05). However, this should not be a problem considering that Discriminant Analysis are not relying heavily on normality assumption, thus the analysis can still be conducted. In testing multicollinearity, if VIF is 10 and above, then it would be a problem. After conducting the test, it is found since the VIF value are all between 1 to 10, it means there are some multicollinearity but are not severe enough to destroy further analysis. To test whether or not the data have equal population variances for all groups, the author used Levene Test in SPSS. If Sig.<0.05, then the assumption is violated. Since Sig. value for all variables are all bigger than 0.05, assumption of homogeneity of variance test is passed. Linearity assumption is tested using ANOVA. In 'Deviation of Linearity', if Sig.<0.05, it means that the independent variable are not linearly correlated with dependent variable, which violates the assumption. After conducting the test, it is found that all variables have passed the assumption.

Table 6. Discriminant Analysis Result

Eigenvalues	0.030
Canonical Correlation	0.171
Wilks' Lambda	0.971
Sig.	0.127

The result of Discriminant Analysis is shown in table 6. Eigenvalue shows proportion of variance explained (between-groups sums of squares divided by within-groups sums of squares). Since eigenvalue for the function is low (0.030), it indicates that the function derived is not strong. Canonical relation is correlation between discriminant scores and levels of the dependent variable. The correlation for the function is low (0.171), meaning that it does not discriminate dependent variable well. Wilks' Lambda is the ratio of within-groups sums of squares to the total sums of squares. This is the proportion of the total variance in the discriminant scores not explained by differences among groups. If Lambda value is close to 1, it indicates that observed group mean is almost equal or not differ. Since the lambda value is close to 1 (0.971), it means that discriminatory ability of functions are low. If Sig.<0.05, that means the function is statistically significant in classifying e-wallet users preferences. Since

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the Sig.>0.05 (0.127), then the function is a weak model. Standardized Canonical Discriminant Function Coefficients indicates scores concerning the independent variables. It is the list of coefficients of the standardized discriminant equation. Each subject's discriminant score would be computed by entering his or her variable values (raw data) for each of the variables in the equation. The discriminant function (score) derived is: 0.463 UI + 0.565 P – 0.279 ST + 0.671 CP + 0.031 PDO – 0.464 MP – 0.950 TU + 0.304 CB.

Functions at Group Centroid indicates discriminant score for each group when the variable means (rather than individual values for each subject) are entered into the discriminant equation. Since GoPay's score is 0.131 and OVO's is -0.229, it indicates that the values do not differ much which means it is hard to differentiate those two groups. It is further proven by the fact that the discriminant function could only classify users correctly by 61.3%. However, it can do better in classifying GoPay rather than OVO users. That means, in respect of independent variables, users perceive GoPay and OVO as pretty similar. So, for example, in terms of user interface, university students value GoPay and OVO's user interface as not different. This might be caused due to similar features of GoPay and OVO, which provides more or less the same utility.

The research depicts suggestion for e-wallet issuers from users' perspective. From e-wallet choice pattern based on gender, both male and female prefer GoPay to OVO. From e-wallet choice pattern based on domicile, it is also found that people living in West Java and DKI Jakarta prefer GoPay to OVO. However, the pattern started to differ when the author analyze e-wallet pattern choice based on faculty background. People from Social Field highly prefer OVO to GoPay. Therefore, e-wallet issuers could see this pattern by benchmarking their features to GoPay to capture all genders users, and people in West Java and DKI Jakarta. However, e-wallet issuers could benchmark to OVO instead to capture more users from Social Field background. The benchmarking could be done by comparing their current e-wallet products in terms of features or services offered to GoPay's or OVO's. They could also hire experts or consultants to give them more specific way to develop their products according to GoPay or OVO. From Independent T-Test, it is found that GoPay users are more digital savvy than OVO users. It could be interpreted that GoPay are better in accommodating services compared to its competitors. Therefore, to serve users digital needs better, issuers should create comprehensive environment similar to GoPay with GoLife, in order to increase ways to use e-wallet in daily life. In addition, since discriminant function is weak, that means it is hard to classify users preferences based on the 8 independent variables used (User Interface, Practicality, Safety in Transactions, Customers' Privacy Protection, Promo/Discount Offered, Number of Merchants/Partners, Easiness to Top Up, Company Branding). Therefore, from these independent variables factors, e-wallet users perceive GoPay and OVO as similar, so it is easy for customers to switch from one product upon another. The author believe that e-wallet issuers should create added value by varying their features to make differentiation compared to other products. They could also increase switching cost of users by giving more promo/discount to loyal customers to maintain customer loyalty. In the long run, it is hoped that enhancement and development of e-wallet products would create a better environment for e-wallet issuers to involve in healthy competition in fulfilling customers' needs which would ultimately lead to a better and promising landscape for FinTech industry in Indonesia.

CONCLUSIONS

In the current evolution of FinTech industry landscape, it is necessary for players to know their market and how they perceive their products. One of the biggest users of e-wallet, university students, should also be taken into account. By spreading questionnaire, the data gathered are further analyzed using Discriminant Analysis and Independent T-Test. Regarding e-wallet choice pattern, the author got the result that both male and female prefer GoPay to OVO. Also, people in DKI Jakarta and West Java prefer GoPay to OVO. However, even though people with Science Studies prefer GoPay to OVO, people with Social Studies prefer OVO to GoPay. In terms of digital savviness, it is found that GoPay users are more digital savvy compared to OVO users. From conducting Discriminant Analysis, the discriminant function is:

Discriminant score: 0.463 UI + 0.565 P – 0.279 ST + 0.671 CP + 0.031 PDO – 0.464 MP – 0.950 TU + 0.304 CB.

However, it should be noted that the function's Wilks' Lambda value are close to zero (0.971) with Sig.>0.05 meaning that the discriminant function is weak. The fact is enhanced by the fact that the function could only classify dependent groups correctly with 61.3% success rate. There are three strategy suggestions for e-wallet issuers in Indonesia. First, e-wallet issuers should benchmark to GoPay in terms of capturing male, female, West Java, DKI Jakarta, and Science Field background users. However, they should benchmark from OVO to capture more Social Field background users. Second, e-wallet issuers should also accommodate its users with more comprehensive environment usage just like GoPay to better suit users with high digital savviness. Third, e-wallet issuers should create added value by varying their features and to increase switching cost of users by giving more promo/discount to loyal customers to maintain customer loyalty. By doing so, hopefully in the future FinTech landscape in Indonesia would be better especially in providing a healthy environment for e-wallet issuers to compete with each other and fulfill customers' needs.

The author is fully aware that this research produces weak functions. For future research in this topic, considering that GoPay and OVO have a different business model, the author would suggest to add business model as an independent variable. The addition of variable may create a stronger discriminant function. Also, the current research is done when the differentiation within product development of e-wallet in Indonesia are still not obvious. Thus, the suggestion is to wait until the differentiation within e-wallet products become more apparent to conduct another similar research.

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