Consumer Preferences to Use Digital Payment OVO as Study of Industry Development 4.0 in Indonesia (Case Study: Student of Walisongo State Islamic University)

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Abstract. Financial technology (fintech) emerged as a form of innovation in digital payment systems. OVO is one of the platforms that has contributed to the growth of digital payment service providers in Indonesia. This platform is a subsidiary of the Lippo Company managed by PT. Visionet International. According to a report released by CB Insight titled "The Global Unicorn Club OVO" has been a unicorn status since March 14th, 2019, and seat in the 2nd ranks with a valuation of $ 2.9 billion (Rp. 40.6 trillion). This is can be the effect of the various facilities and friendly users so that OVO continues to make a better future of Fintech as comfort that always available in accessing support economic activities in the industrial era 4.0. This study aims to determine what factors influence consumer preferences in using digital payment OVO. The technique used is purposive random sampling by distributing questionnaires to specific respondents. The factors that are considered influential are gender, student level, average student financial per month, brand image, risk perception, price, and ease of use. Using binary logistic regression analysis (logit), this research concluded that the factors of influence consumer preferences in using digital payments OVO are risk perception and price.

Keywords: binary logistic regression, consumer preferences, digital payment OVO.

1 Introduction

The industrial revolution is divided into 4 phases. The term industrial revolution 1.0 began in the 18th century, which was marked by the invention of a steam engine that was collected in mass productions. The 2.0 industrial revolution occurred in the 19th century marked by the discovery of electrical energy which affected cheap production costs and the 3.0 industrial revolution occurred in 1970 which was marked by the use of computerized technology. The industrial revolution 4.0 is a phase of the industrial revolution that was born in Germany in 2011. Some terms are also used by other countries in realizing the concept of Industry 4.0 such as the Smart Factory, the Internet of Things Industry, the Smart Industry, or Advanced Manufacturing. Although there are

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differences in terms used, they all have the same goal of increasing the industrial competitiveness of each country in the global market competition that is developing very rapidly along with developments in the use of technology [1].

Industry Change Basic 4.0 provides the effect of changing the way humans think, and relate to other individuals. This era has moved various elements of people's lives in using information technology tools to be able to eliminate various human activities in the economic, social, political, and various other life fields. The term financial technology (fintech) has emerged as an innovation in electronic payments. Financial technology is a tangible form of the development of the 4.0 revolution in the economic field which is very instrumental in helping human economic activities. Financial technology is concerned with building systems that model, value, and process financial products such as bonds, stocks, contracts, and money [2].

Financial technology in Bank Indonesia Regulation Number 19/12/PBI/2017 which states that financial technology is the use of financial system technology that produces a new product, technology, service, or business model that has implications for monetary stability, efficiency, finance, security, smoothness, and reliability in the payment system. The digital payment as an alternative to non-cash payments in Indonesia is defined as all parties involved in transactions using the online method which is the payer and recipient use digital mode to send or receive money. Components used in digital financial systems include (i) money transfer applications, (ii) network infrastructure, (iii) rules, and procedures governing the use of the system used.

Digital payments are known in two types, namely electronic wallet and electronic money. Electronic money (e-money) first appeared in Indonesia in 2007 in the form of chips planted on cards or other media (chip-based), such as BCA Flazz, BRI Brizzi, e-Toll, and many others. Whereas e-wallet is electronic money based on a server, which requires a connection with the issuing server first in the process of using it. This product can be found in T-Cash Telkomsel, Xl-Cash, OVO, GO-PAY, Link-Aja, and others.

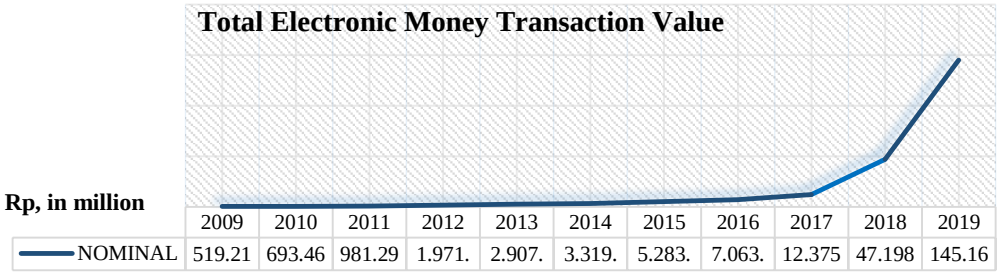

Figure 1. Total Electronic Money Transaction Value in Indonesia for 2009-2019 periods

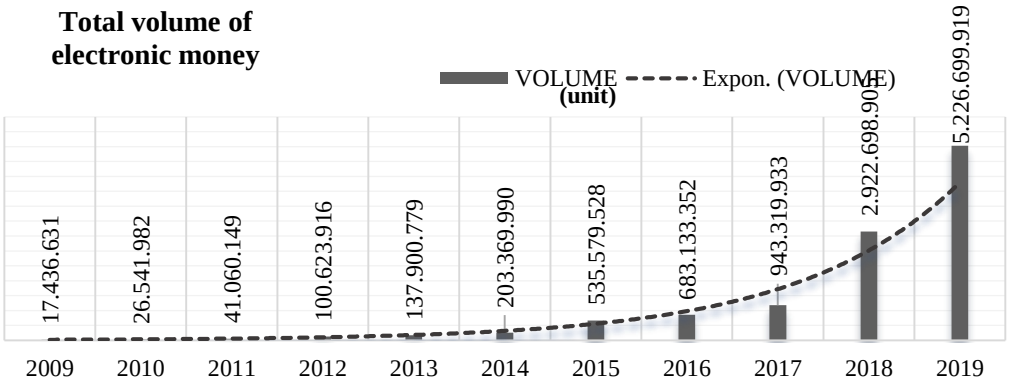

Figure 2. Total Volume of Electronic Money Transactions in Indonesia for 2009-2019 periods

Figure 1. shows the trend of the value of electronic money that was transacted from 2009 to the end of 2019. Figure 2. shows the trend in the volume of electronic money transactions from 2009 to the end of 2019. Based on the two charts above, a high increase occurred in 2018 towards the end of 2019. The number of electronic money transactions at the end of 2019 reached 145.16 billion in rupiah, this increase in steepness increased by 98 billion from the achievement points in 2018 of 47.19 billion in rupiah. The volume of electronic money transactions also showed a similar increase from 2,922 billion transactions in 2017 to 5.22 billion in rupiah for transactions in 2018.

The increase of electronic money products is the effect of the various facilities and friendly users in accessing and conducting financial transactions digitally. On May 27, 2020, there were 51 registered and licensed name of e-money from Bank Indonesia [3]. OVO is one of the platforms that has contributed to the growth of digital payment service providers in Indonesia. This platform is a subsidiary of the Lippo Company managed by PT. Visionet

International since March 2017. More specifically, PT. Visionet Internasional is a subsidiary of PT. Multipolar Tbk which is part of the Lippo Group.

OVO is a smart application that offers a variety of ease of use in transactions, also the opportunity to get various attractive offers through points collected at merchants that have collaborated. OVO is one of the most popular mobile payments in Indonesia with more than 10 million users downloaded on the Playstore app. Some types of transactions that can be paid using OVO such as purchase BPJS Health payment, postpaid, cable TV, payment at the online motorcycle taxi application service, namely GRAB, and many others.

Based on the background of the company's establishment, OVO has a very large capital market in its funding systems. Digital payment OVO has cooperated with 200 thousand merchants in more than 300 cities throughout Indonesia [4]. A report released by CB Insight titled "The Global Unicorn Club OVO" has been a unicorn status since March 14th, 2019. It was stated that OVO came in second with a valuation of US $ 2.9 billion (Rp 40.6 trillion) after defeating Traveloka with a valuation of US $ 2 billion (Rp 28 trillion) and Bukalapak with a valuation of US $ 1 billion (Rp 14 trillion) that had been the first in unicorn status [5].

Related to the various research or studies of digital finance in Indonesia with diverse results and methods, including research conducted by Dwi related to intensity of use, preferences, transaction volume and perceptions in using BRIZZI [6]. Priyono who researches the level of trust and risk of Gojek for the acceptance of electronic payments [7]. Suwandi applies UTAT in looking at the factors that encourage consumer interest in using digital payments in Indonesia [8]. Nugroho used the theory of planned behavior in analyzing electronic money [9].

Research conducted by Pambudi related to the development of Fintech among UIN Walisongo Students mentioned that the type of fintech that is often used by students is in payment, settlement, and clearing services [10]. Ansori argues that one of the causes of the increasingly widespread development of fintech is a change in the mindset of the consumer, especially for millennials who prioritize personal access and can facilitate it in fulfillment related to financial needs [11]. The digital payment as a form of industry 4.0 has positive and real implications for all levels of society. Based on this background, the researchers determined the target of Walisongo State Islamic University students as research objects because the researchers wanted to find out how big the role of UIN Walisongo students was in realizing a cashless society in the digitalization era. This study was to explain the preferences used by consumers in using digital payments OVO.

2 Method

This research is an explanatory category with a quantitative approach. The population was Walisongo State Islamic University Students in 2019/2020. Using a purposive random sampling technique and this research instrument was distributing questionnaires to specific respondents by fulfilling some criteria and the data has consisted of nominal and ordinal data. The determination of the sample size for research is based on the calculation of the Cochran formula with a margin of error is ten percent. Based on the formula, the results obtained were 96 respondents, but the author entered 133 respondents for data to strengthen the research results.

Table 1. Research Variable

Variable	Scale	Information	
Consumer Preferences	*Nominal*	(0)	: Not making a preference
		(1)	: Making a preference
Gender	*Nominal*	(0)	: Male
		(1)	: Female
Student Levels	*Ordinal*	(0)	: 2014, 2015
		(1)	: 2016, 2017
		(2)	: 2018, 2019
Financial Average per Month	*Ordinal*	(0)	: 0.5 – 1 million in rupiah (Low Income)
		(1)	: 1-2 million in rupiah (Middle Income)
		(2)	: >2.5 million in rupiah (High Income)
Usage Frequency	*Ordinal*	(0)	: 1x a week
		(1)	: 3x a week
		(2)	: 5x a week
Brand Image	*Ordinal*	(0)	: Not have a brand image
		(1)	: Middle brand image
		(2)	: High brand image
Risk perception	*Ordinal*	(0)	: Not have a high-risk perception
		(1)	: Middle-risk perception
		(2)	: High-risk perception
Price	*Ordinal*	(0)	: Not expensive
		(1)	: Middle
		(2)	: Expensive
Ease of Use	*Ordinal*	(0)	: Not have ease of use
		(1)	: Middle ease of use
		(2)	: High ease of use

The data processing method used by the author is logistic regression using IBM SPSS Statistics 21. Following the stages of data analysis in this study:

2.1 Descriptive Statistics

Descriptive statistics are statistical techniques by drawing or descriptions in presenting data that has been obtained for analysis. The form of data presentation consists of several types, including in the form of tables,

frequencies, cross-tabulations, diagrams, histograms, and certain quantities (mean, mode, median, and variance).

Descriptive statistics used in this study are cross-tabulation to explain the characteristics of factors that influence consumer preferences in using digital payment OVO. Cross tabulation is a statistical method that describes two or several variables simultaneously and the results obtained are presented in tabular form.

Table 2. *Cross Tabulation*

Variable A	Variable B				Total
	1	2	…	j	
1	n_{11}	n_{12}	…	n_{1j}	n_1
2	n_{21}	n_{22}		n_{2j}	n_2
.	.	.	.	.	.
I	n_{i1}	n_{i2}	…	n_{ij}	n_i
Total	n_1	n_2	…	n_j	$n_{..}$

note : $n_{..}$: Total observations on ij cell with i = 1,2, .., I and j = 1,2, ..., J.

2.2 Logistic Regression

Logistic regression analysis is used to analysis the effect of some independent variable (X) on the dependent variable (Y) which can be in the form of categorical variables (binominal, multinominal, and ordinal). A dichotomous variable is a variable that has two categories, as the category describes success or yes (code: 1) and the category describes failure or no (code: 0).

Logistic regression is used because it is flexible. The logistic regression has flexible and easily used from a mathematical dimension. Logistic regression does not have an assumption of normality on the independent variables used in the model. It can be interpreted that the explanatory variable does not have a normal linear distribution or have the same variance in each group. Independent variables in logistic regression can be mixed data from continuous variables, discrete or dichotomous data.

Logistic regression is a regression method when the response is qualitative data. In the quantitative response regression model, estimates are made at the mean value. This is different from the regression model that uses qualitative or categorical data on the dependent variable, estimations will be made on the probability value obtained in the model. This probability value can be used to see the characteristics of the respondents in the study. It is also hoped that the probability value can be used as a material for improving policies that will be

carried out in the future. Logistic regression models involving several independent variables can be written [12]:

$$\pi(x_i) = \frac{e^{\beta_0+\beta_1 X_{1_i}+\cdots+\beta_p X_{pi}}}{1+e^{\beta_0+\beta_1 X_{1i}+\cdots+\beta_p X_{pi}}} \quad (1)$$

$$Jika\ g(x_i) = \beta_0 + \beta_1 X_{1i} + \cdots + \beta_p X_{pi}, so\ \pi(x_i) = \frac{e^{g(x_i)}}{1+e^{g(x_i)}} \quad (2)$$

$$e^{\beta_0+\beta_1 X_1+\beta_2 X_2+\cdots+\beta_p X_{pi}} = \pi x_i\left(1 + e^{\beta_0+\beta_1 X_{1i}+\beta_2 X_{2i}+\cdots+\beta_p X_{pi}}\right)$$

$$e^{\beta_0+\beta_1 X_{1i}+\beta_2 X_{2i}+\cdots+\beta_p X_{pi}} = \pi x_i + \pi x_i\left(e^{\beta_0+\beta_1 X_{1i}+\beta_2 X_{2i}+\cdots+\beta_p X_{pi}}\right)$$

$$\pi x_i = e^{\beta_0+\beta_1 X_{1i}+\beta_2 X_{2i}+\cdots+\beta_p X_{pi}} - \pi x_i\left(e^{\beta_0+\beta_1 X_{1i}+\beta_2 X_{2i}+\cdots+\beta_p X_{pi}}\right)$$

$$\pi x_i = \left(1 - \pi(x_i)\right)e^{\beta_0+\beta_1 X_{1i}+\beta_2 X_{2i}+\cdots+\beta_p X_{pi}}$$

$$\frac{\pi(x_i)}{1-\pi(x_i)} = e^{\beta_0+\beta_1 X_{1i}+\beta_2 X_{2i}+\cdots+\beta_p X_{pi}} \quad (3)$$

2.3 Parameter Estimation

The estimation of logistic regression parameters can be determined by using the *Maximum Likelihood Estimation* (MLE) method. Hence, this method can provide the estimated value β by maximizing the *likelihood* function. Mathematically the *likelihood* function (X_i, Y_i) can be stated:

$$f(x) = \pi(x_i)^{y_i}[1 - \pi(x_i)]^{1-y_i} \quad (4)$$

If each observation is considered as an independent variable, then the *likelihood* function namely:

$$L(\beta) = \prod_{i=1}^{n} f(x_i) \quad (5)$$

Some of the tests contained in the logistic regression analysis:

2.3.1 Independence Test

The independence test is used to find the relationship between response variables with predictor variables in research. The independence test results can be seen in the *chi-square* table.

$$X^2 = \frac{\sum_{i=1}^{I}\sum_{j=I}^{J}(n_{ij}-e_{ij})^2}{e_{ij}} \quad (6)$$

$$\text{with : } e_{ij} = \frac{n_i \text{ x } n_j}{n} \quad (7)$$

n_{ij} = observation value of *i*-row and to *j*-column

e_{ij} = expectation value of *i*-row i and to *j*-column

The criteria of this test did not confirm *Ho* if $X^2 > X^2_{(df,\alpha)}$ or

p-value $< \alpha$.

2.3.2 Simultaneous Test

The simultaneous is tools for the test of predictor variables simultaneously on the response variable. According to Hosmer David testing of these parameters is done by using the *likelihood* ratio test with the G test statistics [13]. Mathematically the G statistic formula is [13]:

$$G = 2\left(\ln L_0 - \text{Ln}\, l_p\right) = -2\,(L_0 - L_p) \quad (8)$$

L_0 = *Log-likelihood* without predictor variables or consisting only of constants

L_p = *Log-likelihood* with predictor variables (independent) or complete models

The criteria of this test did not confirm *Ho* if $X^2 > X^2{}_{(df,\alpha)}$ or *p-value* $< \alpha$.

2.3.3 Partial Test (*Wald* Test)

Wald Test or Partial Test is a tool analysis to find the effect of an independent variable on the dependent variable in research. Variables are declared significant if the value of *p-value* (Sig) < 0.05. *Wald* test statistics can be formulated as follows:

$$W = \left[\frac{\beta_{i1}}{se\beta_i}\right]^2 \quad (9)$$

β_{i1} = estimator β_i

$se\beta_{i1}$= standard error estimator β_{i1}

The criteria of this test did not confirm *Ho* if $|W| > Z_{a/2}$ or *p-value* $< \alpha$.

2.3.4 Model Suitability Test (*Hosmer and Lemeshow* Test)

In logistic regression, the model suitability test is performed using the *Hosmer and Lemeshow* test by looking at the *Chi-square* value. The model used must meet the *Goodness of Fit* (GOF) if there is a match between the data entered into the model and the observed data. Then the *Goodness of fit* model is good and can be used because it has predicted the value of the observation

In this test there are hypotheses to be tested:

H_0= Model is appropriate; There is no difference between observation and prediction (*goodness of fit*).

H_i = Model does not match; There is a difference between observation and prediction.

The criteria of this test did not confirm *Ho* $X^2count > X^2tabel$ or *p-value* $< \alpha$. [14]

2.4 Hypothesis Construction

Based on the explanation above, the authors have a research hypothesis.

H1: Have a positive effect on gender variables for consumer preferences in using digital payment OVO.

H2: Have a positive effect on the student-level variables for consumer preferences in using digital payment OVO.

H3: Have a positive effect on average income per month variable for consumer preferences in using digital payment OVO.

H4: Have a positive effect on usage frequency variable for consumer preferences in using digital payment OVO.

H5: Have a positive effect on brand image variable for consumer preferences in using digital payment OVO.

H6: Have a negative effect on risk perception variable for consumer preferences in using digital payment OVO.

H7: Have a negative effect on price variable for consumer preferences in using digital payment OVO.

H8: Have a positive effect on ease of use variable for consumer preferences in using digital payment OVO.

3 Analysis Results

3.1 Descriptive Statistics

Table 3. Consumer Preferences * Gender Variable Crosstabulation

		Gender		Total
		Male	Female	
Consumer Preferences	Not make OVO as preferences	1	5	6
	Make OVO as preferences	23	104	127
	Total	24	109	133

Table 3. Showed that the respondents of this study were dominated by females, namely 104 people out of a total of 127 respondents who used digital payment OVO. Then, for male students as many as 23 people who used digital payment OVO.

Table 4. Consumer Preferences* Average Income Per Month Variable Crosstabulation

		Average Income Per Month			Total
		Low Income	Middle Income	High Income	
Consumer Preferences	Not make OVO as preferences	5	0	1	6
	Make OVO as preferences	95	27	5	127
	Total	100	27	6	133

Based on table 4. There are 95 students have an average low-class allowance of around 0.5 million until one million in rupiah, 27 people in the middle-class category of around one million until two million in rupiah, and 5 people who are in the high-class category which is an average allowance of over 2.5 million in rupiah.

Table 5. Consumer Preferences*Student-Levels Variable Crosstabulation

		Student Levels			Total
		2014, 2015	2016, 2017	2018, 2019	
Consumer Preferences	Not make OVO as preferences	1	2	3	6
	Make OVO as preferences	12	70	45	127
Total		13	72	48	133

Table 5. Showed that students who use digital payment OVO are dominated by students in 2016 and 2017 amounting to 70 people, then the number of 2018 and 2019 students is 45 people and for 2014 and 2015 there are 12 people.

Table 6. Consumer Preferences*Usage Frequency Variable Crosstabulation

		Usage Frequency			Total
		Low Frequency	Middle Frequency	High Frequency	
Consumer Preferences	Not make OVO as preferences	5	0	1	6
	Make OVO as preferences	67	38	22	127
Total		72	38	23	133

Based on table 6. The frequency of using digital payment OVO within Walisongo State Islamic University Students in a low category, which is one

time a week as many as 67 people, a medium category which is 38 people for 3 times a week, and the rest use as much as 5 times a week.

Table 7. Consumer Preferences*Brand Image Variable Crosstabulation

		Brand Image			Total
		Not have	Middle	High	
Consumer Preferences	Not make OVO as preferences	0	0	6	6
	Make OVO as preferences	6	25	96	127
	Total	6	25	102	133

Based on table 7. It is known as many as 96 respondents use digital payments due to brand image factors. Then, 25 respondents have a middle category and 6 respondents have not brand image to use digital payment OVO.

Table 8. Consumer Preferences*Risk Perception Variable Crosstabulation

		Risk Perception			Total
		Not have	Middle-risk	High-risk	
Consumer Preferences	Not make OVO as preferences	2	1	3	6
	Make OVO as preferences	8	34	85	127
	Total	10	35	88	133

Table 8. Illustrated that as many as 85 students have a high-risk perception in using digital payment OVO, 34 students in the middle-risk category, and 8 people have not a perception of risk to use digital payment OVO.

Table 9. Consumer Preferences*Price Variable Crosstabulation

		Price			Total
		Not expensive	Middle	Expensive	
Consumer Preferences	Not make OVO as preferences	2	2	2	6
	Make OVO as preferences	8	44	75	127
	Total	10	46	77	133

In table 9. Showed that as many as 75 students use digital payment OVO due to expensive price factors. Then, 44 students due to middle price, and 8 students due to not expensive in use digital payment OVO.

Table 10. Consumer Preferences*Ease of Use Variable Crosstabulation

		Ease Of Use			Total
		Low	Middle	High	
Consumer Preferences	Not make OVO as preferences	0	1	5	6
	Make OVO as preferences	14	43	70	127
Total		14	44	75	133

Table 10. Showed that 70 students have high perceptions related to the ease of using digital payment OVO. There are 43 students in the middle category and 14 students have low perceptions about ease of use to use digital payment OVO.

3.2 Independence Test

Table 11. Chi-Square Tests Gender Variable

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.008[a]	1	.928		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.008	1	.928		
Fisher's Exact Test				1.000	.704
Linear-by-Linear Association	.008	1	.929		
N of Valid Cases	133				

Table 12. Chi-Square Tests Student Level Variable

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.144[a]	2	.564
Likelihood Ratio	1.135	2	.567
Linear-by-Linear Association	.079	1	.779
N of Valid Cases	133		

Table 13. Chi-Square Tests Average Income Per Month Variable

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.389[a]	2	.184
Likelihood Ratio	3.798	2	.150
Linear-by-Linear Association	.034	1	.854
N of Valid Cases	133		

Table 14. Chi-Square Tests Usage Frequency Variable

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.786[a]	2	.248
Likelihood Ratio	4.365	2	.113
Linear-by-Linear Association	.959	1	.327
N of Valid Cases	133		

Table 15. Chi-Square Tests Brand Image Variable

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.910[a]	2	.385
Likelihood Ratio	3.270	2	.195
Linear-by-Linear Association	1.658	1	.198
N of Valid Cases	133		

Table 16. Chi-Square Tests Risk Perception Variable

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.040[a]	2	.049
Likelihood Ratio	3.649	2	.161
Linear-by-Linear Association	2.797	1	.094
N of Valid Cases	133		

Table 17. Chi-Square Tests Price Variable

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.227[a]	2	.044
Likelihood Ratio	3.896	2	.143
Linear-by-Linear Association	3.953	1	.047
N of Valid Cases	133		

Table 18. Chi-Square Tests Ease of Use Variable

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.982[a]	2	.371
Likelihood Ratio	2.623	2	.269
Linear-by-Linear Association	1.908	1	.167
N of Valid Cases	133		

Table 19. Independence Test Results

Variable	X^2	$X^2_{(0,05;df)}$	Df	Decision
Gender	0.08	3.841	1	*Confirmed Ho*
Student Level	1.144	5.991	2	*Confirmed Ho*
Average Income Per Month	3.389	5.991	2	*Confirmed Ho*
Usage Frequency	2.786	5.991	2	*Confirmed Ho*
Brand Image	1.910	5.991	2	*Confirmed Ho*
Risk Perception	6.040	5.991	2	*Not confirmed Ho*
Price	6.227	5.991	2	*Not confirmed Ho*
Ease Of Use	1.982	5.991	2	*Confirmed Ho*

The independence test results contained in the *chi-square* table show that the value of X^2 *count* the risk perception and X^2*count* price variable are greater than the value of the X^2 *table*, so it's *not confirmed* Ho. It means that there is a significant relationship between consumer preferences in using digital payment OVO with the perception of risk and price variables.

3.3 Simultaneous Significance Test Results

Table 20. Simultaneous Significance Results of Parameters

	X^2	df	$X^2_{(0,05;df)}$	Z
Model	29.145	15	24.955	0.015

Based on the table, the value of X^2*count* (29,145) is bigger more than X^2*table* (24,955) or *p-value* (0.015) is less than α (0.05), so it's *not confirmed Ho*. It can be concluded that there is a minimum one predictor variable that has a significant effect on the model formed.

3.4 Partial Significance of Test Results of Parameters

Table 21. Partial Significance Results of Parameters

Estimasi Parameter	*B*	*Wald*	df	*P-value*	*Exp (B)*
Risk Perception (X2) (1)	-1.952	0.913	1	0.339	0.142
Risk Perception (X2) (2)	-4.437	4.676	1	0.031	0.012
Price (X3) (1)	-2.606	1.526	1	0.217	0.074
Price (X3) (2)	-2.498	2.753	1	0.097	0.082
Constant	-15.413	0.000	1	0.994	0.000

Based on the table at the 5 percent significance level, the risk perception variable in category 2 has a significant effect on consumer preferences in using digital payment OVO. The effect of risk perception is explained by the *odds ratio* in the *Exp (B)* table is 0.012. This explained that consumers have a high-risk perception in using digital payments tend to be 0.012 greater than the low-risk perception. The logit model that is formed:

$$\pi(x_i) = \frac{exp^{(-15.413 - 4.437\, X_{2(2)})}}{1+exp^{(-15.413 - 4.437\, X_{2(2)})}} \quad (10)$$

3.5 Model Suitability Test Results

Table 22. *Hosmer and Lemeshow Test*

Step	$X^2 count$	df	Sig.
1	1.687	4	.793

A Model suitability test is used to determine whether the model used is appropriate or not. The criteria for *not confirmed Ho* which is $X^2 count > X^2 table$ or *p-value* < α. Based on the table showed that *confirmed Ho*, because value of $X^2 count$ (1,687) < $X^2 table$ (9,487) or *p-value* (*Sig.*) > 0.05. Therefore, it can be concluded that the model used is in following the data tested (*goodness of fit*).

Table 23. *Negelkerke R Square*

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	19.763[a]	.197	.640

The value in *Negelkerke R Square* on the model can be explained by a predictor variable of 64 percent, and the rest is explained by other factors.

3.6 Model Class Accuracy Test Results

Table 24. *Classification Table*

Observed	Predicted		
	Consumer Preferences		Percentage Correct
	Not make OVO as preference	Make OVO as preference	

Step 1	Consumer Preferences	Not make OVO as preference	4	2	66.7
		Make OVO as preference	2	125	98.4
	Overall Percentage				97.0

The table above showed 4 people exactly classified that not make OVO as a preference to use digital payment OVO. Then, 125 respondents were precisely classified that make OVO as preference in using digital payment OVO. The resulting model can explain precisely 97 percent.

4 Discussion

Based on the results of descriptive statistical analysis obtained data of 127 respondents from 133 students who have a preference for using digital payment OVO. A total of 70 students came from the student levels of 2016 and 2017, and the rest came from other classes. The average income per month of UIN Walisongo students is 0.5 million until one million in rupiah with the domination frequency of using digital payment OVO is once a week. Independence test by looking at the *chi-square* or $X^2 count$ gives the result that the risk perception and price variables significantly factors for consumer preferences in using digital payment OVO. Then, the results of the partial significance test show that consumers who have a high-risk perception in using digital payments tend to be 0.012 greater than the low-risk perception.

Perceived risk perception can be measured by several indicators, such as financial risk namely the risk of costs received when conducting transactions, a delivery risk which is a problem in product delivery, security risks namely risks related to data security or user information, product risks related to users in conducting online transactions, and time risk related to navigation or time of sending orders [15]. Some time ago, OVO users have lost their balance without transactions made by them. This can be a factor for consumers to consider using digital payment OVO if this problem is not resolved immediately, it may be encouraging investors to be more preventive of their financial security risks. Then on a larger scale, it will affect the assets of PT. Visionet International. The 4.0 industrial revolution that emerged in 2011 requires business people to continue to make various innovations in maintaining business activities. Because industrial revolution 4.0 has various challenges that must be faced such as information technology security issues, productivity, reliability of the stability of production machines, and many others.

This study have similarities with research conducted by Kaligis which examines the effect of risk perception on customer loyalty through switching costs. Based on the results, the risk perception variable harms on customer loyalty and on switching costs [16]. It means that decreasing risk perception can affect increasing customer loyalty as well as switching costs. Then the switching cost variable has a positive effect on customer loyalty, as well as the risk perception on customer loyalty through switching costs that have a significant effect on research.

5 Conclusion

This research obtained that the simultaneous test of risk perception and price variables significantly affect consumer preferences in using digital payment OVO. It means that hypothesis six and seven were accepted. Based on the partial test which found that the variable of risk perception affects consumer preferences in using digital payments OVO. Specifically, the risk perception variable obtained that consumers have a high-risk perception in using digital payment tends to be 0.012 greater than the low-risk perception. Thus, the higher risk perception of consumer preferences will affect reducing the using digital payment OVO. The resulting model using logistic regression was appropriate and accurately predicted by the model by 97 percent.

Based on the results of the study, the author tries to give solutions for OVO companies. The digital payment OVO should continue to innovate and increase trust for consumer loyalty, it is about to reinforce some risk such as financial risk, social risk, time risk, and many more that may be accepted. OVO companies also increase the investors in expanding and competing with other digital payments in the industrial era 4.0, especially in Indonesia. Then, the author's hope for academics is diverse related research in financial technology (fintech) for the industrial era 4.0 or the next area. Hence, it can provide benefits for understanding, innovation, and solutions to problems faced by the community especially academics or millennials in using technology in finance.

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