

**FACTORS INFLUENCE THE CUSTOMER TO USE E-MONEY  
(CASE STUDY AT BITUNG CITY, OVO APPLICATION)**

*FAKTOR-FAKTOR YANG MEMPENGARUHI KONSUMEN MENGGUNAKAN E-MONEY  
(STUDI KASUS: DI KOTA BITUNG, APLIKASI OVO)*

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**Abstract:** This research is to determine the factors affecting customers in Bitung city use e-money. Electronic money began to be intensified with purpose of improving cashless society toward cost and time efficiency. This study uses quantitative method using questionnaire to obtain data and use purposive sampling as sampling technique with 100 customers of OVO application. This study uses factor analysis as an analysis tool. The result indicates that there are 6 new factors formed that affecting the career development, namely: customer satisfaction, promotion, customer relationship, customer loyalty, and customer value and customer equity as respondents. Based on the result of the study, the recommendation to the company PT Visionet International (OVO) is to really consider about these factors to create efficiency and effectiveness in the marketing process in order to achieve the goals.

**Keywords:** OVO application, customer decision, factor analysis

**Abstrak:** Penelitian ini untuk mengetahui faktor-faktor yang mempengaruhi pelanggan di kota Bitung menggunakan e-money. Uang elektronik mulai digencarkan dengan tujuan untuk meningkatkan cashless society menuju efisiensi biaya dan waktu. Penelitian ini menggunakan metode kuantitatif dengan menggunakan kuesioner untuk memperoleh data dan menggunakan purposive sampling sebagai teknik pengambilan sampel dengan 100 pelanggan aplikasi OVO. Penelitian ini menggunakan analisis faktor sebagai alat analisis. Hasil penelitian menunjukkan bahwa terdapat 6 faktor baru yang terbentuk yang mempengaruhi pengembangan karir, yaitu: kepuasan pelanggan, promosi, hubungan pelanggan, loyalitas pelanggan, nilai pelanggan dan ekuitas pelanggan sebagai responden. Berdasarkan hasil penelitian, rekomendasi kepada perusahaan PT Visionet International (OVO) adalah untuk benar-benar mempertimbangkan faktor-faktor tersebut untuk menciptakan efisiensi dan efektivitas dalam proses pemasaran untuk mencapai tujuan.

**Kata Kunci:** aplikasi OVO, keputusan pelanggan, analisis faktor

## INTRODUCTION

### Research Background

The era of the digital economy is currently globalizing and currently Indonesia is entering that era. Digital economy is an economy based on electronic goods and services produced by electronic business and traded through electronic commerce. In a sense between sellers and buyers do not have to meet in person to conducting transactions, but utilizing internet technology. Use Electronic media along with the internet are expected to continue to grow. The driving factor is the matter of ease and speed. Economic activity by utilizing technology makes movement faster and more efficient. Because of that today's modern economy, the exchange of goods and services is getting faster, so it is necessary to have a reliable payment system that makes payments faster, safer and more efficient. One application that supports non-cash payment transactions is OVO. This application was inaugurated in March 2017. OVO is an application that can be used to make purchases. OVO can be used in payment for services, food and beverages, and entertainment. OVO ([www.OVO.id](http://www.OVO.id)) is an application that will provide convenience in transactions (OVO Cash) and also greater opportunities to collect points in many places (OVO Points). It has been part of consumer decision to choose and decided that suitable with them

### Research Objective

From research problems above, research objectives of this paper is figure out that is influence consumers' decisions to use e-money.

## THEORETICAL FRAMEWORK

### Marketing

In this theory marketing is the grand theory or the foundation in this research. This theory contains the thought from the expert to support this research. According to Kotler (2009), marketing is all about the entity goods, services, experiences, events, people, places, properties, organizations, information and ideas. According to Kotler (2009), there are two types of definition of marketing, which is a social and managerial. Social definition game show marketing role in society, which can aim as, marketing is social process in which individuals and groups obtain that what they need and want through creating, offering, and freely exchanging products and services of value with others.

### Consumer Behavior

Consumer behavior is the attitude that consumer shows in order to adapt with the need and wants of the product According to Belch and Belch (2012), consumer behavior can be defined as the process and activities people engage in when searching for, selecting, purchasing, using, evaluating, and disposing of products and services so as to satisfy their needs and desires.

### Consumer Buying Behavior

According to Kotler and Keller (2012), consumer buying behavior is studied as a part of the marketing and its main objective it to learn the way how the individuals, groups or organizations choose, buy use and dispose the goods and the factors such as their previous experience, taste, price and branding on which the consumers base their purchasing decisions.

### Consumer Preference

This is used primarily to mean an option that has the greatest anticipated value among a number of options. This is an economic definition and does not tap into 'wishes' or 'dreams' but for all practical purposes is an appropriate definition. Preference and acceptance in certain circumstances can mean the same thing but it is useful to keep the distinction in mind with preference tending to indicate choices among neutral or more valued options with acceptance indicating a willingness to tolerate the status quo or some less desirable option (Kotler and Amstrong (2012).

### **Consumer Buying Decision**

Consumer has buying decision process before they decide which product that they want to buy and this process will leads consumer from identifying their needs, providing options, evaluating the options then choosing a specific one (Kotler, 2012).

### **Previous Research**

Novi Dwi Lestari, Linda Lambey, Johan Tumiwa (2018) analyzed the actual usage and the preferences of electronic money users by State-owned banks in Manado. This study used descriptive qualitative research to describe the customer's perception and their preferences by using E-money in State owned banks in Manado from 22 informants by used semi in- depth interviews. The result of the research showed that E-money users from State-owned banks in Manado have received and used electronic money as a means of payment. However, the volume of transactions in using E-money is insufficient due to the lack of supported payment facilities. The e-money users have the same preference in using e-money because it is easy to use and many promotions are given. The E-money issuer prefer to develop the infrastructure to support E-money payment.

Nurits Nadia Khafiya (2019) analyzed the effect of students' perceptions of electronic money on interest in using the OVO application. The effect of student perceptions of electronic money on interest in using the OVO application is 15.8%. So it can be concluded that there is an influence between student perceptions of electronic money on interest in using the OVO application. Interest in using OVO applications is significantly influenced by perceived benefits, perceived convenience and technological innovation.

## **RESEARCH METHOD**

### **Research Approach**

This research is a descriptive research using quantitative approach. Descriptive research is a research that is conducted to determine the value of an independent variable, either one variable or more (independent) without making comparisons or connecting between one variable and another (Sugiyono, 2013). All the data that are used in this research are quantitative in nature, which is in the form of numerical data, therefore this research is categorized as a quantitative research. In general, quantitative research specifies numerical assignment to the phenomena under study (Vanderstoep and Johnston, 2009).

### **Population, Sample and Sampling Technique**

Population is the full set of cases from which a sample is taken (Saunders, Lewis and Thornhill, 2009). While according to Sekaran and Bougie (2013), Population refers to the entire group of people, events. In statistics, a sample refers to a set of observations drawn from a population. The sampling frame is a representation of all the elements in the population from which the sample drawn (Sekaran and Bougie, 2013). The sample of this research will be the OVO users in Bitung City. To determine the sample size, researcher uses Slovin formula:

### **Data Analysis Method**

#### **Validity and Reliability Test**

The validity test is the test conducted to prove the accuracy of an instrument in this study a questionnaire, techniques that are used in the research, whether it is in accordance with the concept already used or not (Sekaran and Bougie, 2013). The reliability test is the test that is destined to find out how consistent and stable a measuring instrument or tool. The reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument.

### **Confirmatory Factor Analysis**

Confirmatory factor analysis is a tool that is used to confirm or reject the measurement theory. According to Child (1990), confirmatory factor analysis (CFA) is a statistical technique used to verify the factor structure of a set of observed variables. CFA allows the researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists. Confirmatory factor analysis researchers can specify the number of factors required in the data and which measured variable is related to which latent variable. CFA is often the analytic tool of choice for developing and refining measurement instruments, assessing construct validity, identifying method effects, and evaluating factor invariance across time and groups (Brown, 2006).

## RESULTS AND DISCUSSION

**Result**

The data was collected from 100 respondents that have OVO application. The data was analyzed with IBM SPSS (Statistical Package for Society Science) version 22.0 program and by using Factor Analysis Method. There are several characteristics of respondents in this research discussion. Characteristics of the respondents that are discussed in this research include gender, age, educational background, occupation, monthly income, average monthly expenditure on OVO Application. These 100 respondents have OVO application.

**Factor Analysis**

There are 4 steps for conducting factors analysis, (1) data collection method and generate the correlation matrix, (2) extraction or initial factor solution, (3) rotation and interpretation, and (4) construction of scales or factor scores to use in further analysis. For this factor analysis, there are 20 variables in this research with 20 indicators.

**Table 1. KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.802
Bartlett's Test of Sphericity	Approx. Chi-Square	751.352
	Df	190
	Sig.	0.000

Source: Data processed

The KMO test shows the value of 0.802 and consistent with 1 point above, which is if the KMO result is greater than 0.5, than the sample is said to be fit or adequate for analysis step.

**Table 2. Measures of Sampling Adequacy**

X	Variable	MSA Value
1.	Life Style	.846 <sup>a</sup>
2.	Payment System	.869 <sup>a</sup>
3.	Rating	.849 <sup>a</sup>
4.	Effort Expectancy	.837 <sup>a</sup>
5.	Review	.828 <sup>a</sup>
6.	Perceived usefulness	.847 <sup>a</sup>
7.	Performance Expectancy	.848 <sup>a</sup>
8.	Experience	.806 <sup>a</sup>
9.	Brand Ambassador	.749 <sup>a</sup>
10.	Perceived ease of use	.818 <sup>a</sup>
11.	Compatibility	.722 <sup>a</sup>
12.	Convenience	.846 <sup>a</sup>
13.	Brand Image	.812 <sup>a</sup>
14.	Enjoyment	.740 <sup>a</sup>
15.	Culture	.799 <sup>a</sup>
16.	Reachability	.849 <sup>a</sup>
17.	Behavior Intention	.807 <sup>a</sup>
18.	Social Influence	.714 <sup>a</sup>
19.	Trust	.681 <sup>a</sup>
20.	Perceived Security	.697 <sup>a</sup>

Source: Data processed

Based on the Table 2 the output of all the data has been processed through IBM SPSS Statistics 25 are all the variables' Anti-image Correlation values are over 0.5 ; therefore, all 20 variables are correlated to process for further test and analysis.

**Table 3. Communalities Estimation**

	Communalities	
	Initial	Extraction
Life Style (X1)	1.000	0.701
Payment System (X2)	1.000	0.610
Rating (X3)	1.000	0.682
Effort Expectancy (X4)	1.000	0.635
Review (X5)	1.000	0.549
Perceived usefulness (X6)	1.000	0.610
Performance Expectancy (X7)	1.000	0.765
Experience (X8)	1.000	0.707
Brand Ambassador (X9)	1.000	0.758
Perceived ease of use (X10)	1.000	0.366
Compatibility (X11)	1.000	0.815
Convenience (X12)	1.000	0.650
Brand Image (X13)	1.000	0.752
Enjoyment (X14)	1.000	0.518
Culture (X15)	1.000	0.638
Reachability (X16)	1.000	0.692
Behavior Intention (X17)	1.000	0.570
Social Influence (X18)	1.000	0.706
Trust (X19)	1.000	0.789
Perceived Security (X20)	1.000	0.676

Extraction Method: Principal Component Analysis.

Source: Data processed

Table 3 shows the communalities results of each variable (20 variables). The variance of the original variable is able to be explained by the factors extracted. All the variance above can be used for future tests and analysis. The highest variance at variable is (X11) with 0.815, it means that about 81% variance of variable X11 can be explained by factors to be formed. And the lowest variance shown is (X14) with 0.518, means that about 51% variance can be explained by factors formed.

**Table 4. Rotated Component Matrix**

	Rotated Component Matrix <sup>a</sup>					
	Component					
	1	2	3	4	5	6
Life Style (X1)	0.196	0.224	0.096	-0.056	<b>0.772</b>	0.067
Payment System (X2)	<b>0.689</b>	0.246	0.120	0.199	0.056	0.134
Rating (X3)	<b>0.722</b>	-0.006	0.367	0.015	0.098	0.126
Effort Expectancy (X4)	<b>0.566</b>	0.042	0.148	0.064	0.534	0.041
Review (X5)	<b>0.474</b>	0.112	0.067	0.249	0.410	0.280
Perceived usefulness (X6)	<b>0.699</b>	0.233	-0.056	0.201	0.151	0.039
Performance Expectancy (X7)	0.290	<b>0.686</b>	-0.059	0.255	0.329	-0.183
Experience (X8)	0.088	0.283	0.127	0.044	<b>0.733</b>	0.253
Brand Ambassador (X9)	0.245	0.376	0.099	-0.063	0.035	<b>0.736</b>
Perceived ease of use (X10)	0.141	<b>0.520</b>	0.069	0.024	0.219	0.148
Compatibility (X11)	0.147	-0.047	0.055	0.245	0.220	<b>0.825</b>
Convenience (X12)	-0.066	<b>0.546</b>	0.153	0.082	0.256	0.502
Brand Image (X13)	0.225	<b>0.720</b>	0.337	0.001	0.065	0.254
Enjoyment (X14)	0.152	0.392	0.388	<b>0.428</b>	0.046	-0.078
Culture (X15)	0.195	0.224	<b>0.736</b>	0.025	-0.036	0.082
Reachability (X16)	-0.007	0.363	<b>0.677</b>	0.160	0.248	0.126

Behavior Intention (X17)	0.134	0.149	0.224	<b>0.689</b>	0.049	-0.053
Social Influence (X18)	0.122	-0.143	<b>0.760</b>	0.253	0.166	0.045
Trust (X19)	0.030	-0.219	0.200	<b>0.753</b>	0.211	0.299
Perceived Security (X20)	0.243	0.163	-0.034	<b>0.741</b>	-0.164	0.116

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 13 iterations.

Source: Data processed

Based on Table 4, all the variables have loading values higher than 0.5 which means 18 variables will be used for the next analysis. Variables X2, X3, X4 and X6 all are under factor 1. Variables X7, X10, X12 and X13 are all independent variables of factor 2. Variables X15, X16 and X18 fall under factor 3. Variables X17, X19 and 20 all independent variables of factor 4. Variables X1 and 8 all independent variables of factor 5. Variables X9 and X11 all independent variables of factor 6.

**Table 5. Regression Models and Variables**

	New Variable	Independent Variables
First Factor	Customer Satisfaction	Payment System (X2)
		Rating (X3)
		Effort Expectancy (X4)
		Perceived usefulness (X6)
Second Factor	Behavior and Experience	Performance Expectancy (X7)
		Perceived ease of use (X10)
		Convenience (X12)
		Brand Image (X13)
Third Factor	Personal Ability	Culture (X15)
		Reachability (X16)
		Social Influence (X18)
Fourth	Customer Loyalty	Behavioral Intention (X17)
		Trust (X19)
		Perceived Security (X20)
Fifth Factor	Customer Equity	Lifestyle (X1)
		Experience (X8)
Sixth Factor	Customer relationship	Brand Ambassador (X9)
		Compatibility (X11)

Source: Data processed

## Discussion

The sampling technique used in this research is convenience sampling. While conducting the required tests and analyses, have 2 variable that eliminated after the communalities analysis. Based on the result of the output from the 18 variables, those 18 variables can be grouped into 6 factors. According to the Principal Component Analysis, there are 6 components with an eigenvalue above 1. Therefore, the factoring process will be based off of 6 factors.

## CONCLUSION AND RECOMMENDATION

### Conclusion

Based on the rotated component matrix in the table above, there are 18 variables left in the analysis after 2 variable (X5) and (X14) was eliminated because of the value was less than 0.5. From 18 variables, there are 6 new factors formed.

### Recommendation

Based on the conclusion above so this is the recommendation are:

1. For the next Researcher  
The researcher expected to use additional methods other than questionnaire to get more objective results like interview
1. For Government  
The government have to make evaluation about used e-money because there is too much company create e-money product. Government through Bank Indonesia (BI) and Otoritas Jasa Keuangan (OJK) have to give the roles towards the company and make the evaluation above implementation e-money in Bitung City

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