End-user Satisfaction Using Online Overseas Money Transfer Applications

A case study of Inbound remittance transaction of Indonesian migrant workers

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ABSTRACT

This research paper aims to study the end-user satisfaction of overseas money transfer applications. The sample group of this research is 399 Indonesian migrant workers who are currently domiciled outside Indonesia in 2020. The instrument used in this research was the questionnaires which were validated, finding reliability, including ethical review by the experts. The statistical data and techniques used in this study are percentages, means, standard deviation, Pearson's correlation analysis, Cronbach's Alpha, one-sample Kolmogorov-Smirnov test, probability plot (P-Plot) graphic method, multicollinearity test, heteroscedasticity test, multiple linear regression analysis and coefficient of determination analysis. Hypothesis testing results on independent variables found that ease of use, tracking and notification feature, customer support, and safety reliability is statistically significant at 0.05 levels towards the end-user satisfaction of overseas online money transfer applications.

Keywords: customer satisfaction, Online Overseas Money Transfer (OOMT) application, Indonesian migrant workers.

1. Introduction

People move from a country and continent for work, education, or other reasons so they prefer to live in a place other than their current country. Migrant workers are one example of people moving from their home country to another country for reasons of work. The number of migrant workers from Indonesia is quite large. Based on data from the UN - World Migration Report 2020, the number of worldwide migrant workers in 2019 was 272 million people and Indonesia was in 11th position out of the top 20 countries of migrant workers origin with the largest number in the world in 2019. It impacts remittance transactions that enter Indonesia, where migrant workers always send money to their families in Indonesia and other purposes such as purchases or payments to Indonesia from the countries of the immigrants domiciled. When transferring money abroad, choosing a service provider to make the transfer will affect both the sender's payment amount and the amount the recipient receives. The sender's first choice may be through a bank, but banks often have high fees, exchange rates that do not take advantage of daily fluctuations and still apply outdated bureaucracy. This research will highlight aspects that drive end-user satisfaction of online overseas money transfer platforms, such as ease of use, transaction fees, transfer time accuracy, safety reliability, exchange rate, tracking and notification feature, and customer support. Previous research studies related to migrant

workers and remittances mostly discuss the relationship between the effects of remittance transactions carried out by migrant workers on the welfare of migrant families with the largest number of case studies in developing countries and the effects of remittances and how they impact the economy of the migrant workers' home countries. However, these studies are limited to research on money transfer through bank services. There has been no research that specifically discusses the influence of online money transfer applications other than banks on consumer satisfaction with case studies of migrant workers from Indonesia.

2. Objectives of the study

In this research with a case study of migrant workers from Indonesia as the end-user of online money transfer platforms, the author aims to answer research questions related to end-user satisfaction with the following details:

1. To understand the aspects that lead towards end-users of online overseas money transfer application satisfaction
2. To establish the dominant aspects that positively affect end-users of online overseas money transfer application satisfaction
3. To validate the dominant aspects that positively affect end-users of online overseas money transfer application satisfaction
4. To provide insights and suggestions that can be used as consideration and input for overseas money transfer companies to improve or strengthen aspects that affect end-user satisfaction with the online overseas money transfer application

3. Materials and methods

Research design

This research is explanatory research, which has the main characteristics of describing and explaining the influence of the hypothesized variables. The author combines quantitative and qualitative design to obtain broad and in-depth results. The survey method was selected because it easily facilitates data collection from large groups of respondents, is inclusive in the number of variables that can be studied, requires minimum investment to develop and administer, and is relatively easy for making generalizations (Zikmund et al.2009). This research will be conducted as a correlational study that tries to determine the statistical relationship between user satisfaction with the online overseas money transfer platform, which depends on several independent variables such as ease of use, transaction fees, transfer time accuracy, safety reliability, exchange rate, tracking and notification feature, and customer support.

Population and sampling

The population in this research consisted of 113,173 Indonesian migrant workers who are currently domiciled outside Indonesia in 2020. The sample in this research consisted of Indonesian migrant workers who are

currently domiciled outside Indonesia from January to December 2020. The sampling design in this study is probability sampling and the method used is a simple random sample. The formula used in this sampling is based on the Slovin's formula quoted by Umar (2011) with the number of populations to be researched has been determined by 113,173 people based on the data on the Placement and Protection of Indonesia Migrant Workers in 2020, then from these data the author get 399 sample size with 5% error rate.

Data Collection

A questionnaire survey will be used to fetch research data. Venkatesh, Morris, Gordon, and Davis (2003) defined all construction measures that were adapted from previous literature to ensure the validity of survey content. Five points were selected, from 1 'strongly disagree' to 5 'strongly agree'. Total of 98 questionnaires will be distributed randomly to Indonesian migrant workers through email, message features on social media, and chat applications. The questions incorporated in the survey tool cover all variables considered essential factors for determination.

Data Analysis

Activities in data analysis are grouping data based on variables and types, tabulating based on variables, presenting data based on the variables studied, performing calculations to answer the problem formulation, and performing calculations to test hypotheses that have been proposed. For the interpretation and analysis of primary data, the tool used is SPSS to obtain a more thorough and in-depth understanding of primary data in general. Seven different independent variables were used to run the various analyses, namely: transfer fee, exchange rate, ease of use, tracking and notification feature, customer support, transfer time accuracy, and safety reliability. Meanwhile, customer satisfaction is used as the dependent variable. The data analysis methods used in conducting this research are Data Instrument Test (validity test and reliability test), Classical Assumption Test (normality test, multicollinearity test, autocorrelation test, and heteroscedasticity test), Descriptive Analysis (quantitative analysis, coefficient of determination analysis and hypothesis testing).

4. Results

Descriptive Data

The data in this study came from primary data in the form of a questionnaire which was distributed to 550 Indonesian migrant workers who currently domicile outside Indonesia during January to December 2020. As many as 399 questionnaires were successfully obtained from the target sample in accordance with the target sample data in this study. Based on the data obtained from the questionnaire, most of the respondents are in the age range of 18-35 years where 38.6% of respondents are aged 26-35 years and as many as 35.3% of respondents are aged 18-25 years. Only 2.3% of respondents over the age of 55 use the application to transfer money overseas. In terms of domicile locations of respondents who are categorized by continent, the majority of money transfer transactions to Indonesia are carried out by Indonesian migrant workers who are domiciled in the Asian continent, amounting to 71.7%. As many as 17.5% of the total respondents are domiciled in Europe and only 2% of transactions using online remittance

applications come from Indonesian migrant workers residing on the African continent. In this study, it was found that as many as 65.7% of respondents who used online remittance applications to Indonesia were female and the remaining 34.3% were male Indonesian migrant workers. The application used by respondents to send money to Indonesia is dominated by Western Union, which is used by 46.9% of the total respondents. The money transfer application to Indonesia used by respondents with a percentage under Western Union's dominance is TransferWise, which is 17.3%, Skrill and Xe as much as 14.3% of the total respondents. 1.3% or 5 of the total 399 respondents chose to use other applications such as Instarem. In terms of the length of time using the application for remittances abroad, as many as 81.5% of the total respondents have used the application for more than 1 year. Only 2.8% of respondents have just used the application to make money transfer transactions abroad. The majority of respondents in this study used an application with a transaction frequency of more than 10 times to send money to Indonesia during the last 6 months or the January to June 2021 period as much as 78.7%. In addition, 17.8% of respondents made transactions with a frequency of 7-10 times in that period.

Descriptive Statistic

Table 1 Descriptive statistic variable result

Variable	Min	Max	Mean	Std. Deviation
The validity test of Transaction Fees	1	5	4.7193	0.51173
The validity test of Exchange Rate	2	5	4.5338	0.51420
The validity test of Ease of Use	2	5	4.6110	0.43438
The validity test of Tracking and Notification Feature	2	5	4.3935	0.51647
The validity test of Customer Support	2	5	4.2519	0.60173
The validity test of Transfer Time Accuracy	2	5	4.7769	0.48851
The validity test of Safety Reliability	2	5	4.4770	0.52709
Customer satisfaction	3	5	4.4261	0.51012

Based on table 1 above, it can be calculated that the overall mean for all independent variables is above 4.39, meaning that most of the respondents stated that the variables in this study were sufficient for the respondents. The standard deviation which is lower than the mean value indicates that this study has a high level of data variation.

Instrument Test Data

Testing of data instruments is needed to find out that the variables studied have a function as a means of proof including validity and reliability tests.

Validity Test

To test the validity of a research data can use Pearson's correlation analysis where if the total from the analysis shows the value <0.01 or <0.05 then the data is said to be valid. The results of the validity of the dependent variables are as follows:

Table 2 The validity of variable

No	Variable	Pearson Correlation	Significant	Status
1	The validity test of Transaction Fees	0.752 - 0.768	0.000 - 0.000	Valid
2	The validity test of Exchange Rate	0.689 - 0.850	0.000 - 0.000	Valid
3	The validity test of Ease of Use	0.605 - 0.733	0.000 - 0.000	Valid
4	The validity test of Tracking and Notification Feature	0.632 - 0.784	0.000 - 0.000	Valid
5	The validity test of Customer Support	0.554 - 0.815	0.000 - 0.000	Valid
6	The validity test of Transfer Time Accuracy	0.909 - 0.917	0.000 - 0.000	Valid
7	The validity test of Safety Reliability	0.439 - 0.580	0.000 - 0.000	Valid

From the table 2 above, it can be seen that all variables are all valid, this can be seen from the significant value of transaction fees, exchange rate, ease of use, tracking and notification feature, customer support, transfer time accuracy, and reliability has a value below 0.01.

Reliability Test

The level of reliability of a variable or research construct can be seen from Cronbach Alpha (α) statistical test results. Variables or constructs can be concluded reliable if the Cronbach Alpha value > 0.6. The closer the alpha value is to 1 then the reliability value of the data is getting more reliable. The results of reliability testing can be seen in the table below:

Table 3 The reliability of variable

No	**Variable**	**Cronbach Alpha**	**Status**
1	The validity test of Transaction Fees	0.633	Reliable
2	The validity test of Exchange Rate	0.611	Reliable
3	The validity test of Ease of Use	0.662	Reliable
4	The validity test of Tracking and Notification Feature	0.606	Reliable
5	The validity test of Customer Support	0.605	Reliable
6	The validity test of Transfer Time Accuracy	0.799	Reliable
7	The validity test of Safety Reliability	0.623	Reliable

From the table above, it can be seen that all variables are all reliable, this can be seen from the Cronbach alpha value of transaction fees, exchange rate, ease of use, tracking and notification feature, customer support, transfer time accuracy, and reliability has a value above 0.6.

Classical Assumption Test

In this study, the classical assumption tests used include: Normality Test, Multicollinearity Test, Autocorrelation Test, and Heteroscedasticity Test.

Normality Test

Normality test is a test carried out with the aim of assessing the distribution of data in a group of data or variables, whether the distribution of the data is normally distributed or not. This normality test is carried out using One Sample Kolmogorov-Smirnov Test in which the test data is normally distributed if the resulting Asymp Sig (2-tailed) value is greater than the alpha value, which is 0.05 (5%). The normality test also can be detected by looking at the spread on (points) on the diagonal axis on the Probability Plot graph.

One Sample Kolmogorov-Smirnov Test

The results of testing the normality of the data using One Sample Kolmogorov-Smirnov Test can be seen below:

Table 4 The results of testing the normality of the data using One Sample Kolmogorov-Smirnov

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		399
Normal Parameters [a, b]	Mean	0.0000000
	Std. Deviation	0.40425185
Most Extreme Differences	Absolute	0.112
	Positive	0.071
	Negative	-0.112
Test Statistic		0.112
Asymp. Sig. (2-tailed)		,000c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

From the table above it can be seen that the Asymp Sig value is more than 0.05, so the data used in this study is normally distributed.

P-Plot Graphic Method

From the graph below it can be seen that data spreads around the diagonal line and follows the direction of the diagonal line, so the regression model in this research meets normality

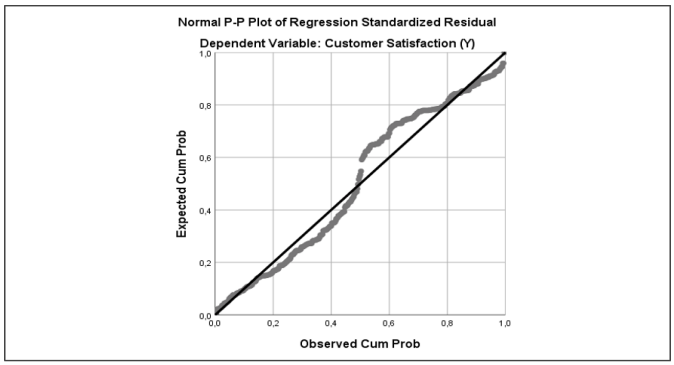

Figure 1 The P-Plot Graphic

Multicollinearity Test

Aims to test whether the regression model found a correlation between the independent variables (Independent). A good regression model should not have a correlation between the independent variables. If the VIF value is more than 10 and the tolerance value is less than 0.10, then multicollinearity occurs, on the contrary, there is no multicollinearity between variables if the VIF value is less than 10 and the tolerance value is more than 0.10. The results of the multicollinearity test can be seen in table below:

Tabel 5 The results of the multicollinearity test

Coefficients[a]						
Correlations					Collinearity Statistics	
Model		Zero-order	Partial	Part	Tolerance	VIF
1	Transaction fees (X1)	.220	.034	.027	.679	1.473
	Exchange rate (X2)	.199	.086	.069	.766	1.306
	Ease of use (X3)	.142	-.212	-.172	.631	1.585
	Tracking and notification feature (X4)	.349	.137	.109	.701	1.427
	Customer support (X5)	.534	.439	.388	.729	1.372
	Transfer time accuracy (X6)	.347	.076	.061	.652	1.522
	Safety-reliability (X7)	.366	.189	.153	.718	1.392

[a]. Dependent Variable: Customer satisfaction (Y)

Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual of one observation to another observation. If the variance from the residual of one observation to another observation remains, it is called homoscedasticity and if it is different, it is called heteroscedasticity. A good regression model is the one with homoscedasticity or there is no heteroscedasticity.

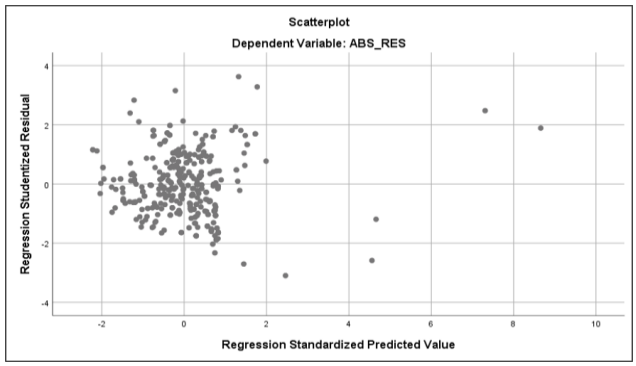

Figure 2 The scatter plot

Based on the graph, the dots distribute undirected and irregularly or don't form a certain pattern, meaning that there is no heteroscedasticity problem in this research.

Multiple Linear Regression Analysis

The results of multiple linear regression analysis from this study can be seen in the table below:

Tabel 6 The results of multiple linear regression analysis

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.924	.385		2.399	.017
	Transaction fees (X1)	.014	.021	.032	.663	.508
	Exchange rate (X2)	.034*	.020	.078	1.709	.088
	Ease of use (X3)	-.076**	.018	-.216	-4.289	.000
	Tracking and notification feature (X4)	.047**	.017	.131	2.727	.007
	Tracking and notification feature (X4)	.137**	.014	.454	9.673	.000
	Customer support (X5)	.043	.028	.075	1.515	.131
	Transfer time accuracy (X6) Safety-reliability (X7)	.077**	.020	.180	3.813	.000

[a]. Dependent Variable: Customer satisfaction (Y)

* Statistically significant at 10% level

** Statistically significant at 5% level

$Y = a + bx1 + bx2 + bx3 + bx4 + bx5 + bx6 + bx7 + e$

$Y = 0.924 + 0.014x1 + 0.034x2 – 0.076x3 + 0.047x4 + 0.137x5 + 0.043x6 + 0.077x7$

The equation can be explained if the constant is positive 0.924, meaning that if the variables X1, X2, X3, X4, X5, X6 and X7 are zero (0) or the value is constant (constant), then the Y variable has a value of 0.924.

Variable X1, X2, X4, X5, X6, X7 are positively related to the End-user satisfaction and statistically significant at 5% level. However, the variable X3 has no relationship with the End-user satisfaction.

Coefficient of Determination Analysis

The analysis of the coefficient of determination is intended to determine the magnitude of the influence between the independent variables on the dependent variable either partially or simultaneously.

Tabel 7 The analysis of the coefficient of determination

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.610[a]	.327	.361	.40785

[a]. Predictors: (Constant), safety-reliability (X7), Exchange rate (X2), Customer support (X5), Transaction fees (X1), Tracking and notification feature (X4), Transfer time accuracy (X6), ease of use (X3)

[b]. Dependent Variable: Customer satisfaction (Y)

From the table 7 above, it can be seen that the R Square value is 0.372 or 37.2%. This figure shows the influence of the variables X1, X2, X3, X4, X5, X6 and X7 on Variable Y combined, while the remaining 62.8% is influenced by other variable factors outside this study or the error value.

Hypothesis Testing

Partial Hypothesis Testing (t Test)

The t-test or partial test is intended to test the influence of each independent variable individually on the dependent variable. The significance level used is = 0.05, which means that the possibility of drawing conclusions has a 95% probability or 5% error tolerance. In this study, SPSS 25 software was used. The criteria for accepting or rejecting the hypothesis were by comparing the t-count value with the t-table with the following criteria:

- If the value of t count > t table, then H0 is rejected and H1 is accepted.
- If the value of t count > t table, then H0 is accepted and H1 is rejected.

The criteria are said to be significant if the value of t count > t table or probability significance < 0.05.

Based on the t-test, the effect of the X1, X2, and X6 variable on the Y variable are higher than 0.050, where H0 is accepted and H1 is rejected, which means that there is no effect of the X1, X2, and X6 variable on the Y variable while the other variable (X3, X4, X5 and X7) is lower than) 0.050 meaning that there is an effect of these variable on the Y variable (Ho is rejected and H1 is accepted).

Simultaneous Test (f Test)

The f or simultaneous test is intended to test the effect of all independent variables simultaneously on the dependent variable. In this study the result of the hypothesis made, as follows:

Tabel 9 The result of The f or simultaneous test (ANOVA)

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	f	Sig.
1	Regression	38.528	7	5.504	33.088	.000[b]
	Residual	65.041	391	.166		
	Total	103.569	398			

[a]. Dependent Variable: Customer Satisfaction (Y)

[b]. Predictors: (Constant), Safety-reliability (X7), Exchange rate (X2), Customer support (X5), Transaction fees (X1), Tracking and notification feature (X4), Transfer time accuracy (X6), Ease of use (X3)

Based on the table 9 above, it is known that the significance value is 0.000 <0.05. Thus, H0 is rejected, H1 is accepted, which means that the variables X1, X2, X3, X4, X5, X6 and X7 if tested together or simultaneously have an effect on the Y variable.

5. Limitations and Future Research

As a result of the descriptive nature of this study and the limited literature review in the field of sending money transfers abroad using the application, there are limitations to this research, such as limitations on the diversity of data sets where the sample is located in various countries around the world so there are difficulties. to control the data set. This results in limited access to a wider variety of data, thereby limiting the variation in results and the value of the scope of findings. Future research has the opportunity to make some extensions of the current research. For example, further research needs to be improved and validated using and involving a more diverse random sample. In addition, future research is expected to verify the impact of end-user satisfaction on application performance and its influence on the loyalty as well as the effect on end-user decisions in choosing applications that are deemed appropriate by end-users.

6. Conclusion

The study defines that from the data obtained and the analysis that has been carried out, what can be concluded that there is a positive relationship or significant influence between ease of use, tracking and notification features, customer support and safety reliability feature on end-user satisfaction from online overseas money transfer applications used by Indonesian migrant workers during 2020. However, some feature such as: transaction fees, the exchange rate and transfer time accuracy have no significant influence on end-user satisfaction when they use the application to transfer the fund. Based on the result of this study, insights and suggestions that can be used as consideration and input for overseas money transfer companies to improve or strengthen aspects that affect end-user satisfaction with the online overseas money transfer application is to focus and keep enhancing the application ease of use where the notifications features always provide the updated status for each transaction made by end-users and

serve the end-user with great customer support experience also to keep maintaining the reliability of application security.

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