

Research Paper

## Determinants of Comprehension Cryptocurrency-Based Decentralized Finance in Master of Management Students at Bhayangkara Jakarta Raya University

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**ABSTRACT** This research was conducted with the aim of knowing the effect of decentralized exchange, crypto wallet, and yield farming on the comprehension of students of Master of Management at Bhayangkara Jakarta Raya University about cryptocurrency-based decentralized finance. Using quantitative methods to 36 students of Masteral degree of Management at Bhayangkara Jakarta Raya University through questionnaires using SPSS as data processing software. The results showed that Decentralized Exchange had no effect on Comprehension of cryptocurrency-based Decentralized Finance (DeFi), Crypto Wallets had no effect on Comprehension of cryptocurrency-based Decentralized Finance (DeFi), while Yield Farming had an effect on Comprehension of cryptocurrency-based Decentralized Finance (DeFi).

**KEYWORDS:** Decentralized Exchange (DEX), Crypto Wallet, Yield Farming, comprehension of Decentralized Finance.

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### I. PRELIMINARY

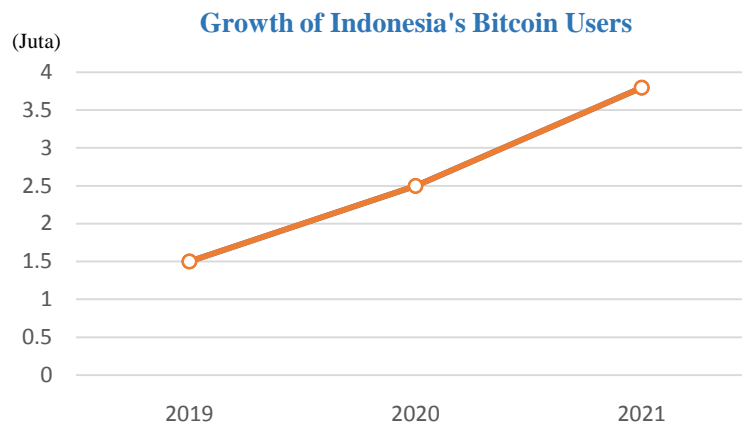
Bitcoin is cryptocurrency was the first to be created, but there were many attempts to create a digital currency occurred years before Bitcoin was officially introduced. Bitcoins can be directly transferred from person to man or woman via the internet, without the need to go through a bank. According to the coinmarketcap.com site, the price of Bitcoin again reached its highest price during the Covid-19 pandemic in February 2021, which was US\$ 55,696.



Figure 1.1 Bitcoin price movement

Based on data from Coinmarketcap.com (CMC) in 2021 there are 4,019 cryptocurrency registered with CMC, and of course there are many more projects cryptocurrency not registered on the site.

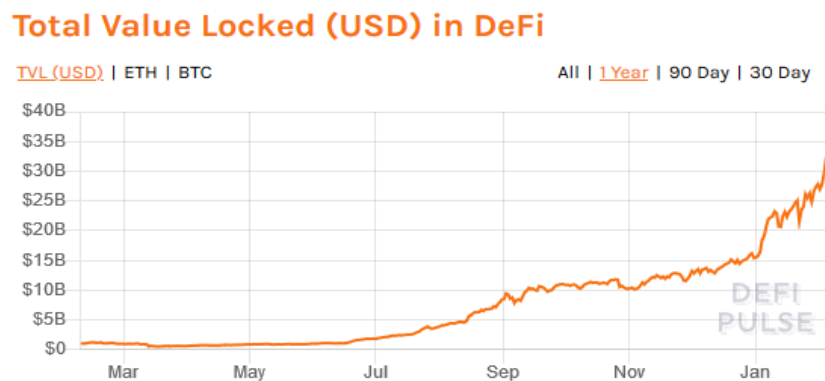
Indonesia accounts for 1% of the total Bitcoin transactions that occur worldwide. In addition, based on data published by the INDODAX website (the largest cryptocurrency exchange in Indonesia) users Cryptocurrency in Indonesia in 2021 to reach 3.8 million people, an increase of 65% from the previous year. INDODAX first operated in 2014 and in 2019 managed to get 1.5 million users which continued to increase by 60% in 2020 to 2.5 million users.



**Figure 1.2 Growth of Indonesia's Bitcoin users**

Another relevant use of this technology is at the development of decentralized platforms that offers similar financial features to banks or other similar financial institutions. The sector is growing and is called Decentralized Finance (DeFi, as of now), and is growing in popularity as more projects emerge to cater to the needs of a wide variety of cryptocurrency users and enthusiasts.

According to the defipulse.com site, the total value lock (total locked funds) in the decentralized exchange platform in the world in 2021 is 34.16 billion US\$.



**Figure 1.2 Total cryptocurrency funds locked in DeFi**

Due to popularity in Cryptocurrency nowadays especially Decentralized Finance (DeFi) based Cryptocurrency increasingly popular among Indonesian with an increase in users in Indonesia an average of 60% per year. People generally see DeFi as an alternative to the conventional banking and investment world that has been known for a long time.

But along with this, many users make the wrong investment in Decentralized Finance, lots of users (investors) suffered losses due to both trading and fraud(scam)carried out by irresponsible parties. According to the United States Federal Trade Commission (FTC) in 2020 - 2021, there will be an increase in fraud casescryptocurrency by 1,000% with user losses of more than 80 million US\$ with an average fraud of 1,900 US\$.

In Indonesia itself, there are actually a lot of users (investors) who are victims of fraud (scam) cryptocurrency in various forms, but only a small number of them report to the police, making it difficult to collect data on the number of victims due to fraud cryptocurrency that.

Due to the high level of losses, both due to trading and fraudulent actions (scam) it is very important to know the level of public comprehension about investment through decentralized finance (DeFi) based cryptocurrency. As a sample are master degree students who are considered to represent the community who come from high intellectual groups. Such as students who study Master of Management at Bhayangkara Jakarta Raya which is located in Bekasi City.

The purpose of this study is to find out more about the effect of DeFi in this case the effect of decentralized exchange (DEX), crypto wallet and yield farming on the comprehension of master students, especially master management students at Bhayangkara Jakarta Raya University, therefore the author takes the title of research "**DETERMINANTS OF COMPREHENSION DECENTRALIZED FINANCE BASED ON CRYPTOCURRENCY IN MASTER STUDENTS OF MANAGEMENT UNIVERSITY BHAYANGKARA JAKARTA RAYA**".

### **Problem in questions**

The purpose of this paper is to determine the level of comprehension of Decentralized Finance in Master of Management students at Bhayangkara University, Greater Jakarta in the city of Bekasi. Focus on comprehensionDeFi, namely:

1. Is there any influence of Decentralized Exchange (DEX) on the comprehension of Decentralized Finance Cryptocurrency.
2. Is there any influence Crypto Wallet has on comprehension Decentralized Finance Cryptocurrency.
3. Is there any effect of Yield Farming on the comprehension of Decentralized Finance Cryptocurrency.
4. Is there any influence of Decentralized Exchange, Crypto Wallet and Yield Farming on student's comprehension of Cryptocurrency-based Decentralized Finance.

### **Research purposes**

The following are the research objectives, based on the characterization of the problems mentioned above:

1. Knowing the effect of Decentralized Exchange (DEX) on student's comprehension of Cryptocurrency-based Decentralized Finance.
2. Knowing the effect of Crypto Wallets on student's comprehension of Cryptocurrency-based Decentralized Finance.
3. Knowing the effect of Yield Farming on student's comprehension of Cryptocurrency-based Decentralized Finance.
4. Knowing the effect of Decentralized Exchange, Crypto Wallet and Yield Farming on student's comprehension of Cryptocurrency-based Decentralized Finance.

## **II. LITERATURE REVIEW**

### **Comprehension**

Comprehension based on the revised results of Bloom's taxonomy, expressed by Anderson & Krathwohl (2001) divides into seven categories of cognitive comprehension processes including: interpreting (interpreting), exemplifying (exemplifying), classifying (classifying), summarizing (summarizing), drawing inference (inferring), compare (comparing), and explain (explaining).

### **Decentralized Finance (DeFi)**

Decentralized Finance (DeFi), according to Dirk A. Zetsche, Douglas W. Arner & Ross P. Buckley (2020) is a new term that is increasingly being discussed in relation to the future of finance and its regulation. In DeFi there are several elements consisting of: (1) decentralization, (2) blockchain, (3) smart-contracts, (4) disintermediation, and (5) open banking.

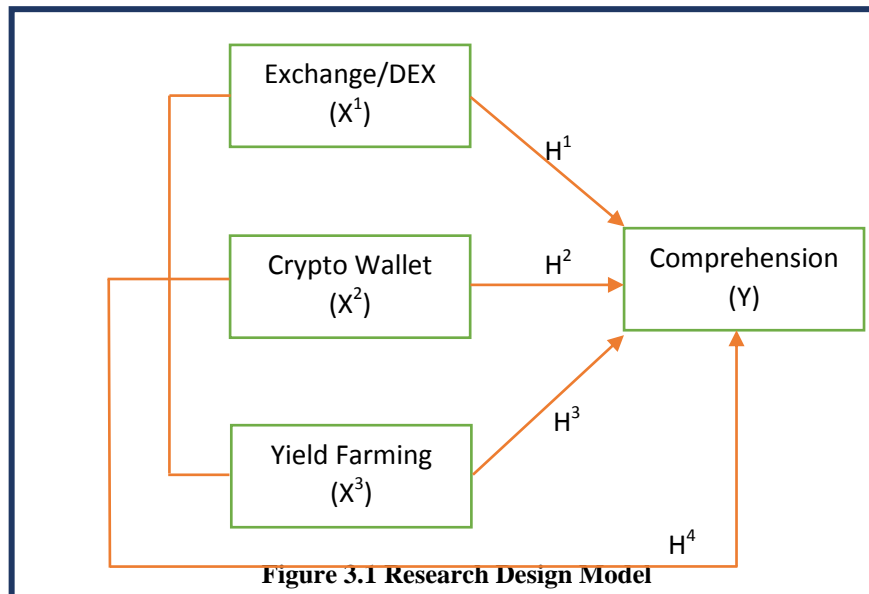
## **III. RESEARCH METHODOLOGY**

### **Research Methods and Design**

This research uses quantitative analysis method with simple and multiple linear regression. This research is descriptive, namely as a problemsolving process that is investigated by describing the current state of the subject and object of research based on the facts that appear or what they are. This research uses quantitative analysis method with simple and multiple linear regression. Quantitative research, according to Sugiyono(2015), can be defined as a research approach based on the positivist philosophy that is used to analyze specific populations and samples, data collecting utilizing research instruments, quantitative or statistical data processing, and hypothesis testing.

### Research design

The research design used is shown in Figure 3.1 as follows:



### Research Population

The participants in this study were postgraduate students enrolled in Bhayangkara Jakarta Raya University Bekasi City's Master of Management program in 2021, which lasted four semesters.

### Research Sample

Sampling using Saturated Sample (When all individuals of a population are used as samples, this is referred to as a sampling technique) which is included in non-probability sampling, is a sampling strategy that gives each member of the population or element an unequal chance of being chosen as a sample. A total of 36 students of Master of Management University Bhayangkara Jakarta Raya in the city of Bekasi.

### Data collection technique

Primary and secondary data gathering strategies were used in this study, and they are as follows:

#### Primary data

Questionnaires having a list of entries or a list of statements linked to the variables researched are used as data gathering procedures and instruments. The questionnaire used is a closed questionnaire, that is, the answers have been provided and the respondents only have to choose. In connection with the collection of primary data obtained through questionnaires, the questionnaire items were designed based on an ordinal Likert scale.

#### Secondary Data

Secondary data is obtained by collecting materials or data related to decentralized finance, decentralized finance study documents, seminar/workshop materials, and so on that support this research. In addition, by reading and studying text books, magazines, journals, and other information from various sources.

### Data Analysis Method

The method of analysis in this study is a procedure to achieve the final result in the process of processing the data obtained, this research is quantitative where the preparation uses random sampling and to find out the assumptions derived from the hypothesis expressed, using SPSS (Statistical Product and Service Solution) version 21.

### **Validity test**

Validity comes from validity which means the accuracy of a measuring instrument in determining its measuring function. The higher the value indicated, the more accurate the measuring instrument is.

The validity test should be carried out on each question item in the validity test. The result of  $r$  count compare with  $r$  table where  $df = n-2$  with sig 5%. If  $r$  table  $<$   $r$  count then it is valid. The value of  $r$  table is taken using the formula  $df = n - 2$ . That is  $df = 36 - 2 = 34$ , so that the  $r$  table is 0.2785. The questionnaire can be said to be valid if the results of the validity test of the questionnaire have an  $r$  value greater than the value of  $r$  table. For complete results of the validity test, it is in the  $r$  table.

### **Reliability Test**

Reliability test is used to determine the extent to which the results of the data can be trusted. This test is used to determine whether the respondents' answers are consistent or stable. This study was also tested using Cronbach's Alpha with a value range of 0-1.

A constructor variable is said to be reliable if it gives a Cronbach Alpha value  $>$  0.6 but if the results obtained from the Cronbach Alpha value  $<$  0.6 then a construct is inconsistent.

### **Classic assumption test**

Research data, especially in research that uses a quantitative approach, requires a statistical test of the classical assumption test where the test will test the suitability of a data used to be tested by regression or path analysis. Classical assumption test must be done to test whether or not the regression analysis model used in the study is feasible. This test includes:

#### **1. Normality test**

For each value of an independent variable, the normality test is used to assess if the dependent variable's distribution is regularly distributed. This assumption is stated in the linear regression model by a normally distributed or close to normal error value, allowing statistical equivalent testing. To evaluate if the data is normal, the SPSS application uses the Kolmogorov-Smirnov normality test.

#### **2. Heteroscedasticity Test**

Heteroscedasticity is a statistical test for residual variance variations from one observation period to the next. The presence or absence of heteroscedasticity in a model can be predicted using a scatterplot picture pattern. The graph plot between the predicted value of the dependent variable, ZPRED, and the residual SRESID can be used to determine if heteroscedasticity is present or not.

#### **3. Autocorrelation Test**

The autocorrelation test describes the correlation between members or a series of observations arranged by time. The Durbin Watson test, which is predicated on the DW being between  $-2$  and  $+2$ , can be used to assess whether or not autocorrelation exists. Meanwhile, when the numerical value is in DW  $-2$ , a positive autocorrelation exists, and when the numerical value is in DW  $>+2$ , a negative autocorrelation exists.

#### **4. Multicollinearity Test**

To see if the regression model revealed independent variable correlations, the multicollinearity test is utilized. In a good regression model, there should be no correlation between the independent variables. The Tolerance Value Variance Inflation Factor exemplifies the method for detecting whether or not multicollinearity exists (VIF). When the VIF is larger than 10 or the tolerance value is less than 0.1, multicollinearity occurs.

#### **5. Coefficient of Determination Test ( $R_2$ )**

The coefficient of determination (KD) is the percentage of the influence of the independent variable ( $X^1, X^2, X^3$ ) on the independent variable (Y).

#### **6. T Test (Partial)**

When using SPSS, the Independent Sample T Examine can be used to test hypotheses. The Independent Sample T Test was used to determine the significance of the mean difference between the two groups. In this study, the t-count value in the t-table is used, which is:

1. If  $t$  count  $>$   $t$  table, the hypothesis is supported because the independent variable (X) has an effect on the dependent variable (Y).

2. The hypothesis is rejected if t count equals t table because the independent variable (X) has no effect on the dependent variable (Y).

**7. F Test (Simultaneous)**

Because the F test is used to evaluate a hypothesis, it is necessary to create testing criteria. The test conditions are established by comparing the resulting t or F value to the t or F table utilizing the essential pricing table t tab and F table with a predefined significance level of 0.05 (=0.05). The f test is used to determine if the independent variable has a simultaneous effect on the dependent variable or if the independent variables can jointly explain the dependent variable.

**IV. DISCUSSION**

**Validity test**

Variable	Number	r-count	r-table	Information
Comprehension (Y)	1	0.790	0.2785	Valid
	2	0.892		Valid
	3	0.864		Valid
	4	0.918		Valid
	5	0.905		Valid

Variable	Number	r-count	r-table	Information
<i>Decentralized Exchange (DEX) (X<sup>1</sup>)</i>	1	0.805	0.2785	Valid
	2	0.809		Valid
	3	0.813		Valid
	4	0.793		Valid
	5	0.788		Valid
	6	0.689		Valid

Variable	Number	r-count	r-table	Information
Crypto Wallet (X <sup>2</sup> )	1	0.801	0.2785	Valid
	2	0.742		Valid
	3	0.592		Valid
	4	0.732		Valid
	5	0.711		Valid
	6	0.712		Valid
	7	0.850		Valid
	8	0.746		Valid
	9	0.772		Valid

	10	0.794		Valid
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Variable	Number	r-count	r-table	Information
Yield Farming (X <sup>3</sup> )	1	0.736	0.2785	Valid
	2	0.784		Valid
	3	0.861		Valid
	4	0.844		Valid
	5	0.845		Valid
	6	0.784		Valid
	7	0.788		Valid
	8	0.845		Valid

Based on the table above, it can be seen that the r-count value in testing the validity of each variable is declared valid for all the questions given to respondents so that they can continue the test to the next stage.

**Reliability Test**

Reliability is a tool to measure a questionnaire which is an indicator of a variable, a variable is said to be reliable if a person's answer to a question is consistent or unstable from time to time.

A constructor variable is said to be reliable if it gives a Cronbach Alpha value > 0.60. The results of the calculation of the reliability test using SPSS 21 software can be listed as follows:

Variable	Cronbach's Alpha	N of Items	Information
Comprehension (Y)	0.921	5	Reliable
Decentralized Exchange (DEX) (X <sup>1</sup> )	0.869	6	Reliable
Crypto Wallet (X <sup>2</sup> )	0.906	10	Reliable
Yield Farming (X <sup>3</sup> )	0.922	8	Reliable

From the results of the reliability test X<sup>1</sup>, X<sup>2</sup>, X<sup>3</sup>, and Y, the value of the Y variable results in a value > 0.06 alpha Cronbach and it can be concluded that all instruments in the X<sup>1</sup>, X<sup>2</sup>, X<sup>3</sup>, and Y variables in this study produce high reliability. The distributed questionnaires have a good level of reliability, or in other words the data from the distributed questionnaires can be trusted.

**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 with a standard significant value of > 0.05. The following are the results of normality data carried out by researchers as follows:

**Normality (Kolmogorov-Smirnov Test)**

No	Variable	Significant Standard	Score
1	Comprehension (Y)	0.05	0.343
2	Decentralized Exchange (DEX) (X <sup>1</sup> )		0.156
3	Crypto Wallet (X <sup>2</sup> )		0.326
4	Yield Farming (X <sup>3</sup> )		0.314

**1. Comprehension Variable (Y)**

The normality test on the Comprehension variable (Y) gives the probability result of Asymp.Sig. = 0.343. Because the significance value is greater than the research test level ( $\text{Sig} > \alpha$   $0.343 > 0.05$ ) it can be concluded that the data on the comprehension variable tested is normally distributed so that it meets the requirements for statistical inference analysis. $\alpha$

**2. Variable Decentralized Exchange (DEX) ( $X^1$ )**

The normality test on the Decentralized Exchange (DEX) ( $X^1$ ) variable gives the probability result of Asymp.Sig. = 0.156. Because the significance value is greater than the research test level ( $\text{Sig} > \alpha$  which  $0.156 > 0.05$ ), it can be concluded that the data for the Decentralized Exchange (DEX) ( $X^1$ ) variable tested is normally distributed so that it meets the requirements for statistical inference analysis. $\alpha$

**3. Crypto Wallet Variable ( $X^2$ )**

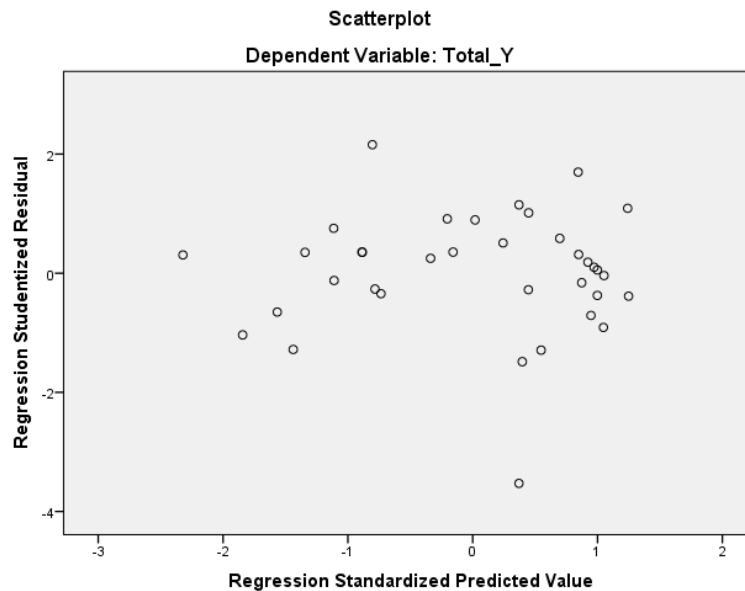
The normality test on the Crypto Wallet variable ( $X^2$ ) gives the probability result of Asymp.Sig. = 0.062. Because the significance value is greater than the research test level ( $\text{Sig} > \alpha$   $0.326 > 0.05$ ), it can be concluded that the Crypto Wallet variable data ( $X^2$ ) which is tested is normally distributed so that it meets the requirements for statistical inference analysis. $\alpha$

**4. Variable Yield Farming ( $X^3$ )**

The normality test on the Yield Farming variable ( $X^3$ ) gives the probability result of Asymp.Sig. = 0.314. Because the significance value is greater than the research test level ( $\text{Sig} > \alpha$  which  $0.314 > 0.05$ ), it can be concluded that the Yield Farming variable data ( $X^3$ ) which is tested is normally distributed so that it meets the requirements for statistical inference analysis. $\alpha$

**Heteroscedasticity Test**

Heteroscedasticity test is a test that assesses whether there is an inequality of variance from the residuals for all observations in the linear regression model. This test is one of the classical assumption tests that must be performed on linear regression.



**Figure 4.1 Heteroscedasticity Test Results**

The points spread randomly both above and below the number 0, the points do not simply collect above or below, and the spread of data points is not patterned, as shown in the scatterplot graph. It can be inferred that the regression model has no heteroscedasticity, therefore it can be used to predict comprehension of decentralized exchange based on the variables that influence it, such as adoption of decentralized exchange, crypto wallets, and yield farming.

**Autocorrelation Test**



The autocorrelation test is used to see if there is a link between confounding variables and the prior variable in a given period. The Durbin Watson test was employed for the autocorrelation test in this investigation:

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.870 <sup>a</sup>	.757	.734	2.415	1,646
a. Predictors: (Constant), <i>Yield Farming</i> ( $X^3$ ), <i>Crypto Wallet</i> ( $X^2$ ), <i>Decentralized Exchange</i> (DEX) ( $X^1$ )					
b. Dependent Variables: <i>Comprehension</i> (Y)					

The Durbin Watson value is 1,646, the comparison utilizes a significance value of 5%, the number of samples is 36 (n), and the number of independent variables is 3 (k=3), according to the table above. Durbin Watson's DL will be 1.2953 in the table. Because the value of DW 1.646 is greater and smaller than the value of DU 1.6539, or because  $1.2953 \leq 1,646 \leq 1,6539$ , it can be concluded that there is no auto correlation, but this does not generate a solid conclusion.

**Multicollinearity Test**

This test aims to test whether the regression model found a correlation between the independent variables, a good regression model should not contain multicollinearity. Tested by looking at the value of VIF and Tolerance. The general value used to indicate the presence of multicollinearity is the tolerance value of not less than 0.10, which means that there is no multicollinearity or correlation between variables, or equal to the value. If the VIF value is < 10, then there is no multicollinearity. There is multicollinearity if the VIF value is more than 10. The following table shows the results of the multicollinearity test:

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-3.945	2,522		-1.564	.128		
	<i>Decentralized Exchange</i> (DEX) ( $X^1$ )	.310	.181	.293	1,708	.097	.258	3.879
	<i>Crypto Wallet</i> ( $X^2$ )	-.102	.125	-.146	-.815	.421	.238	4.202
	<i>Yield Farming</i> ( $X^3$ )	.612	.111	.752	5.512	.000	.408	2,452
a. Dependent Variables: <i>Comprehension</i> (Y)								

Based on the table results, it can be seen that the multicollinearity test value of each variable has a VIF value above 0.10 which consists of *Decentralized Exchange*  $X^1$  worth 3.879, *Crypto Wallet*  $X^2$  valued at 4.202, and *Yield Farming*  $X^3$  valued at 2,452, which means that multicollinearity analysis does not have correlation problems between independent variables.

**Multiple Linear Test**

Multiple regression analysis was conducted to determine the effect of the variable ( $X^1$ ) *Decentralized Exchange*, and the variable *Crypto Wallet* ( $X^2$ ), and *Yield Farming* ( $X^3$ ) on the variable (Y) *Comprehension*. To get the value of a multiple linear regression, it can be seen from the results of the data that has been analyzed with the help of the SPSS ver.21 program as below:

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.945	2,522		-1.564	.128
	<i>Decentralized Exchange</i> (DEX) ( $X^1$ )	.310	.181	.293	1,708	.097
	<i>Crypto Wallet</i> ( $X^2$ )	-.102	.125	-.146	-.815	.421
	<i>Yield Farming</i> ( $X^3$ )	.612	.111	.752	5.512	.000

a. Dependent Variables: Comprehension (Y)

Based on the results in the table above, the following regression equation is obtained:  $Y = -3.945 + 0.310 X^1 - 0.102 X^2 + 0.612 X^3$ . The regression equation above shows the relationship between the independent variable and the dependent variable partially, from the equation it can be concluded that the constant value is -3.945, meaning that if there is a change in the Decentralized Exchange variable, and the Crypto Wallet, and Yield Farming variables (values of  $X^1$ ,  $X^2$ , and  $X^3$  is 0) then the knowledge of students and alumni of master of management in terms of comprehension crypto is -3,945.

A value of  $b_1x_1 = 0.310$  indicates that the Decentralized Exchange variable ( $X^1$ ) has a positive effect on Comprehension (Y) which means that every 1 unit increase in the Decentralized Exchange ( $X^1$ ) variable will affect Comprehension (Y) by 0.310 with the assumption that other variables are not examined in the study.

A value of  $b_2x_2 = -0.102$  indicates that the Crypto Wallet variable ( $X^2$ ) has a negative influence on Comprehension (Y) which means that every increase of 1 unit of Crypto Wallet variable ( $X^2$ ) will negatively affect Comprehension of the stock exchange (Y) of -0.102 with assumption that other variables are not examined in this study.

A value of  $b_3x_3 = 0.612$  indicates that the Yield Farming variable ( $X^3$ ) has a positive effect on Comprehension (Y) which means that every 1 unit increase in Yield Farming ( $X^3$ ) variable will affect Comprehension (Y) of 0.612 with the assumption that other variables are not examined in the study.

### Coefficient of Determination Test $R^2$

The coefficient of determination is used to find out how big the percentage of the contribution of the independent variable's influence together on the dependent variable. The following are the results of the coefficient of determination, as follows:

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.870 <sup>a</sup>	.757	.734	2.415
a. Predictors: (Constant), <i>Yield Farming</i> ( $X^3$ ), <i>Decentralized Exchange</i> (DEX) ( $X^1$ ), <i>Crypto Wallet</i> ( $X^2$ )				
b. Dependent Variable: Comprehension (Y)				

Based on the table above, it is known that the coefficient of determination or R square is 0.757. This R square value is the result of squaring the value of the correlation coefficient or "R" which is  $0.870 \times 0.870 = 0.757$ . the magnitude of the coefficient of determination (R square) is 0.734 or equal to 73.4%. This figure means that the Decentralized Exchange variable ( $X^1$ ), and the Crypto Wallet variable ( $X^2$ ), and Yield Farming ( $X^3$ ) simultaneously (together) affect the Comprehension Y variable by 73.4% while the rest ( $100\% - 73.4\% = 26.6\%$ ) influenced by other variables outside the regression equation or other variables not examined.

### T Test (Partial)

The t-test is to partially see the effect of the Decentralized Exchange ( $X^1$ ) variable, and the Crypto Wallet ( $X^2$ ), and Yield Farming ( $X^3$ ) variables on Comprehension (Y). The decision making is based on:

1. t count < t table then the independent variable has no effect on the dependent variable or  $H_0$  is accepted:  $H_a$  is rejected.
2. t count > t table then the independent variable affects the dependent variable or  $H_0$  is rejected:  $H_a$  is accepted

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.945	2.522		-1.564	.128
	<i>Decentralized Exchange</i> (DEX) ( $X^1$ )	.310	.181	.293	1.708	.097
	<i>Crypto Wallet</i> ( $X^2$ )	-.102	.125	-.146	-.815	.421
	<i>Yield Farming</i> ( $X^3$ )	.612	.111	.752	5.512	.000
a. Dependent Variable: Comprehension (Y)						

#### a. T test results *Decentralized Exchange Towards Comprehension of Decentralized Finance (DeFi)*

The Decentralized Exchange  $X^1$  variable has a t count of 1.708 and a significant value of 0.097, according to the results of calculations using the SPSS 21 program, as indicated in the table above. The size of

the significance value is used to make decisions about whether the hypothesis should be accepted or rejected. The hypothesis is accepted if the significance is less than or equal to 0.05 ( $\leq 0.05$ ). The study's findings have a significance value of 0.097  $> 0.05$ ; indicating that the hypothesis ( $H^1$ ) "Decentralized Exchange  $X^1$  is favorable on Decentralized Finance Comprehension" is rejected.

**b. T test results Crypto Wallet Towards Comprehension of Decentralized Finance (DeFi)**

The variable Crypto Wallet  $X^2$  has a t count of -0.815 and a significant value of 0.421, according to the results of calculations using the SPSS 21 program displayed in the table above. The significance value determines whether the hypothesis' decision-making provisions are accepted or rejected. The hypothesis is accepted if the significance is less than or equal to 0.05 ( $\leq 0.05$ ). The data have a significance value of 0.421  $> 0.05$ ; indicating that the hypothesis ( $H^2$ ) "Crypto Wallet  $X^2$  is favorable on Decentralized Finance Comprehension" is rejected.

**c. T test results Yield Farming Towards Comprehension of Decentralized Finance (DeFi)**

The variable Yield Farming  $X^3$  has a t count of 5.512 and a significant value of 0.000, according to the results of calculations using the SPSS 21 program, as indicated in the table above. The significance value determines whether the hypothesis' decision-making provisions are accepted or rejected. The hypothesis is accepted if the significance is less than or equal to 0.05 ( $\leq 0.05$ ). The results have a significance value of 0.000  $< 0.05$ ; indicating that the hypothesis ( $H^3$ ) "Yield Farming  $X^3$  is positive on Decentralized Finance Comprehension" is accepted.

**F Test (Simultaneous)**

F test for prove that Decentralized Exchange ( $X^1$ ), and the variables of Crypto Wallet ( $X^2$ ), and Yield Farming ( $X^3$ ), have a direct positive effect on comprehension Y simultaneously (together).

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	580,994	3	193.665	33,204	.000b
	Residual	186,644	32	5.833		
	Total	767,639	35			

a. Dependent Variable: Comprehension (Y)

b. Predictors: (Constant), Yield Farming ( $X^3$ ), Decentralized Exchange (DEX) ( $X^1$ ), Crypto Wallet ( $X^2$ )

Based on the table above, the calculated F value is 33.204 and the F table value is 2.48, this shows that  $F_{arithmetic} > F_{table}$  ( $33.204 > 2.48$ ), it can be concluded that the independent variable is Decentralized Exchange ( $X^1$ ), and the Wallet variable Crypto ( $X^2$ ), and Yield Farming ( $X^3$ ) (simultaneously) affect the dependent variable, namely Comprehension (Y). In table 4. also obtained a Sig value of 0.000 (Sig.  $\alpha < 0.05$ ) then  $H_a$  is accepted or the independent variable is Decentralized Exchange ( $X^1$ ), and the Crypto Wallet variable ( $X^2$ ), and Yield Farming ( $X^3$ ) have a significant effect on Comprehension (Y).

**Discussion**

**Variable Exchange / Decentralized Exchange Towards Comprehension of Decentralized Finance (DeFi)**

The results of the questionnaire conducted on master management students at Bhayangkara University, Jakarta Raya showed that the results of the T-test with a significance value = 0.097, where the value is  $> 0.05$  so that this variable had no effect on student's comprehension of DeFi. This is because most of the students have never used Decentralized Exchange (DEX) so they lack knowledge of the functions and workings of the Decentralized Exchange (DEX). In addition, there are students who complain of difficulties in using it.

**Crypto Wallet Variables Towards Comprehension of Decentralized Finance (DeFi)**

The results of the questionnaire conducted on master management students at Bhayangkara University, Jakarta Raya showed that the results of the T-test with a significance value = 0.421, where the value is  $> 0.05$  so that this variable had no effect on student's comprehension of DeFi. This is because most students have never used Crypto Wallets so they lack knowledge of Crypto Wallets, this causes students to feel unsure of the Crypto Wallet application to store their cryptocurrency assets. In addition, students also find it difficult to use the Crypto Wallet.

**Variable Yield Farming Towards Comprehension of Decentralized Finance (DeFi)**

The results of the questionnaire conducted on master management students at Bhayangkara University, Jakarta Raya showed that the results of the T-test with a significance value = 0.000, where the value is  $< 0.05$ . This is because students have sufficient information about the function and workings of Yield Farming in investing in Decentralized Finance (DeFi) Cryptocurrencies. Students generally understand that Yield Farming is an investment method that exists in the cryptocurrency world, generally they get information through news, social media, and conversations in the community.

### **Variables of Decentralized Exchange, Crypto Wallet and Yield Farming on comprehension of Decentralized Finance (DeFi)**

The results of questionnaire conducted on master of management students at Bhayangkara Jakarta Raya University showed that this variable had an effect on student comprehension because students had sufficient knowledge of Decentralized Finance (DeFi) Cryptocurrency.

The increasing popularity of cryptocurrencies today has caused students to be exposed to information about Decentralized Finance obtained from news reports or social media. So that students in general have heard about it, although not in depth.

## **IV. CONCLUSIONS & SUGGESTIONS**

### **Conclusion**

The following are the findings of the research on "Determinants of Comprehension Cryptocurrency-Based Decentralized Finance in Masters of Management Students at Bhayangkara Jakarta Raya University" based on the results of data analysis and discussion:

1. There is no influence from Decentralized Exchange on comprehension of decentralized finance (DeFi).
2. There is no effect of the Crypto Wallet on the comprehension of decentralized finance (DeFi).
3. There is an influence from Yield Farming on the comprehension of decentralized finance (DeFi).
4. There is an influence from Decentralized Exchange (DEX), Crypto Wallet and Yield Farming on the comprehension of decentralized finance (DeFi).

### **Suggestion**

According to the results of research on "Determinants of Comprehension Cryptocurrency-Based Decentralized Finance in Masters of Management Students at Bhayangkara Jakarta Raya University", the following are some suggestions:

1. Master of management students, especially those who take a concentration in finance, must receive special courses on cryptocurrency-based Decentralized Finance (DeFi).
2. Organizing a seminar discussing cryptocurrency-based Decentralized Finance (DeFi) for management master students.
3. To understand Decentralized Finance (DeFi) based on cryptocurrency in depth, it is necessary to hold a workshop as a continuation of the seminar that has been held for management master students.
4. Adding discussion on the topic of Decentralized Finance (DeFi) based on cryptocurrency at the level of students and lecturers.
5. Held a special student club regarding cryptocurrency-based Decentralized Finance (DeFi) as a forum for discussion and community support on campus.
6. For writers who are in the cryptocurrency Decentralized Finance (DeFi) field, they should create more content that discusses cryptocurrency-based Decentralized Finance (DeFi) through Youtube and other social media.

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