The Effect Of Financial Literacy, Experienced Regret, And Risk Tolerance On Cryptocurrency Investment Decision-Making In Millenials

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Abstract. This study aims to find out and analyze the influence of financial literacy, experienced regret, and risk tolerance on cryptocurrency investment decisions among millennials. The collection data used in this study used primary and secondary data. The population in this study were millennials who had or were active in investing in cryptocurrency. Samples were used by as many as 100 respondents using purposive sampling techniques. Data analysis techniques use multiple linear analyses. This study shows that financial literacy has no effect and is not significant to cryptocurrency investment decisions. Meanwhile, experienced regret and risk tolerance has a significant effect on cryptocurrency investment decisions.

Keywords: Financial Literacy, Experienced Regret, Risk Tolerance, Investment Decisions, Cryptocurrency

1. Introduction

The current digital era is marked by the increasing use of the Internet as a medium of communication, transaction, And collaboration [3]. [12]explain the growth of the digital economy which finally made the presence of *cryptocurrency* to answer the need for online transactions that are fast, easy and transparent and acceptable by the second split party Which agreed to do a transaction. Presence Currency Digital *cryptocurrency* can be interpreted as a *digital disruption* in the financial system especially in financial systems Which already available.

Cryptocurrency which uses technology cryptography peer-to-peer as well as decentralized or without a central authority, then all the mechanisms run through the system blockchains. The decentralization that digital currencies have makes cryptocurrencies possible and does not experience severe inflation as is the case with the traditional currencies used until now [14]. Cryptocurrency is an intangible digital currency and is not bound by any agency. Assets or cryptocurrency coins in circulation at the moment reach 10,447 kinds in the world with different price values in each Currency.

There is a rapid development of online transactions without the involvement of third parties institution financial And For overcome the need matter so created cryptocurrencies. Based on Bank Indonesia regulation number 17 of 2015 and not as a digital asset either can be said to be valid because it is not physically tangible, the amount is known for certain, and the property rights and

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submitted to the buyer [11]. Growth mark transaction asset crypto experienced an average growth of 16.2% per month throughout 2021. Average value transaction asset crypto reaches Rp 2,35 trillion per day on year Then. The enhancement amount of this transaction cannot be separated from the increasing number of crypto investors in the count among of investors crypto at the end of 2021 has reached 11.2 million investors.

Investor decision-making behaviour is influenced by subjective attitudes towards risk and the results of the investment itself [2]. Financial literacy is needed by everyone investor because one has Literacy Financial The low one will very prone to experienced investment fraud that was given the lure of large returns in the long run time near. Because that no can be estimated, in invest Which on the side other There is profit Which got Also there is a risk [10].

2. Literature Review And Hypothesis Development

Theory Behavior Finance

According to [13] Behavioral Finance is an integral part of the method of taking a decision and as a result, influences performance investors. Investors will educate themselves about the different kinds of biases they might have shown and so they take steps to avoid it so their effectiveness. Some common mistakes investors make are sizing trades early whereas booking profit, enduring too long in face loss, and investing large funds to support market sentiment and positive analysis by all and varies.

The level of financial literacy depends on the individual's knowledge of how to allocate financial resources, identify sources of expenditure, manage asset risk, and prepare for future financial security when unemployed or retired [5].

Decision Investment

According to [1] investment decisions are several considerations or policy alternatives taken by investors to gain profits in future. The investment decision is a policy experienced by someone about how they should allocate their funds in various forms of investment in a framework to obtain profit taller in the period Which will come [6].

Risk Tolerance

Risk tolerance is the level of ability possessed by investors to accept investment risk [7]. High and low levels of tolerance have an important role in the type of investment to be selected. Stock is a type of investment instrument which has characteristics with high risk but the level of profit will be accepted Also tall.

Experienced Regret

[6] defines experienced regret as regret that arises because of the mistakes of investors in the past that affect the decision investment in period front. Johnson (2008) [4] experienced regret is experienced bad Which happen on somebody Which causes somebody to experience regret or disappointment in making an investment decision or even accepting it risky results of past investment decisions.

Framework Thinking

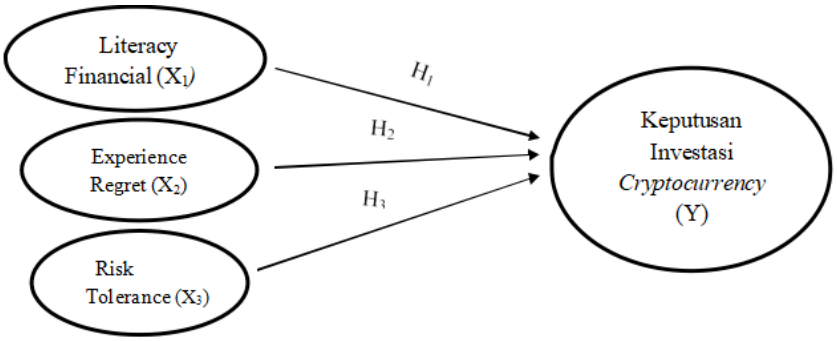

Figure 1. Research Thinking Framework

Hypothesis based on framework thinking on as following :
H1 : Literacy Financial Influential Positive To Decision Investment Cryptocurrencies on people Millennial
H2 : Experienced Regret Influential Negative To Decision Investment Cryptocurrencies on people Millennial
H3 : Risk Tolerance Influential Positive To Decision Investment Cryptocurrencies on People Millennial
H4 : Literacy Financial, Experienced Regret, And Risk Tolerance Influential in a manner Simultaneous To Decision Investment *Cryptocurrencies* on Millennials

3. Research Methods

Study this done to obtain proof empirical about the influence of literacy financial, experience regret, and risk tolerance for cryptocurrency investment decisions aimed at millennials. Types of research this is quantitative. The population in the study is investors in clan millennials Which brethren in the year 1980-2000. The sample in this study was taken using a non-probability sampling method purposive sampling technique. Criteria used in sample selection on research This, is respondents Once or currently do invest cryptocurrencies in Binance, Tokocrypto, and Indodax. Instrument test using validity test and reliability test. Test assumption classic Which used is test normality, test multicollinearity, And test heteroscedasticity. Data analysis techniques using a range of scales and linear regression double. Hypothesis testing used is test F and t-test.

4.1 Result

a. Characteristics Respondents

1. Based on the Type of Gender

Table 1 . Characteristics Respondents Based on Type Gender

Category	Frequency	Percentage
Men	77	77%
Woman	23	23%

Total	100	100%

Source : Data Primary Which processed

Based on research results from 100 respondents, respondents with male gender as much 77 (77%) And respondent Woman as much 23 (44.2%) respondent. From the data the so can conclude the majority of respondents in the study This with type gender men.

2. Based on Age

Table 2. Characteristics Respondents Based on Age

Category	Frequency	Percentage
22 - 26 years	64	64%
27 - 31 years	32	32%
32 -36 years old	4	4%
Total	100	100%

Source : Data Primary Which processed

Based on research results on 100 respondents based on age, respondents aged 22 - 26 years as much 64 respondents (64%), aged 27 - 31 years as much 32 respondents (32%), and then aged 32-36 years as many as 4 respondents (4%). From the data from this, it can be concluded that the majority of respondents in this study were aged 22-26 years.

3. which application used

Table 3. Characteristics of Respondents Based on Application Which used

Category	Frequency	Percentage
Binance	30	30%
Tokocrypto	42	42%
Indodax	28	28%
Total	100	100%

Source : Data Primary Which processed

Based on Table 3. the characteristics of 100 respondents based on the application used, 30 (30%) of respondents who use the Binance application use the application 42 (42%) Tokocrypto and 28 (28%) use the Indodax application. From data the so can be concluded majority of respondents use the application Tokocrypto.

4. Based on Work

Table 4. Characteristics Respondents Based on Work

Category	Frequency	Percentage
Employee Country Civil	6	6%
Not yet Work	27	27%
Employee Private	37	37%
Businessman	30	30%
Total	100	100%

Source : Data Primary Which processed

Based on research results from 100 respondents based on the job they have shows that the majority of respondents who invest in *cryptocurrency* are millennials and are private employees by a percentage of 37% (77 respondents).

5. Origin Area

Table 5. Characteristics Respondents Based on Origin Area

Category	Frequency	Percentage
Bali	19	18%
Java	55	53%
Borneo	7	7%
Sumatra	8	8%
Nusa Southeast	8	8%
Sulawesi	2	2%
Papuan	1	1%
Total	100	100%

Source : Data Primary Which processed

Based on Table 4.5, the characteristics of 100 respondents based on their area of origin shows that the majority of respondents who invest in *cryptocurrency* are millennials located on the island of Java which includes Batu City, Sidoarjo, Tuban, Surabaya, Madura, Mojokerto, Poor, Banyuwangi, Jombang, Blora, Pasuruan, Semarang, Banten, Majalengka, Gresik, Lamongan, Jakarta, Cimahi, Subang, Bandung, Bojonegoro, Blitar and Depok with percentages55 (53%) respondent.

6. Income

Table 6. Characteristics Respondents Based on Income

Category	Frequency	Percentage
Not enough from IDR 10,000,000	50	50%
Rp 10,000,000 – Rp 30,000,000	39	39%
Rp 30,000,000 – Rp 50,000,000	9	9%
More from Rp 50,000,000	2	2%
Total	100	100%

Source : Data Primary Which processed

Based on Table 4.6 the characteristics of 100 respondents based on income, respondents Whose own income was not enough from Rp 10,000,000 as much 50 (50%), Rp 10,000,000 – 30,000,000 for 39 respondents (39%), Rp 30,000,000 – 50,000,000 for 9 respondent (9%), Then respondent Which income more from Rp 50,000,000 as much as 2 (2%). From these data, it can be concluded that the majority of respondents in this research have an income of less than Rp 10,000,000.

7. Long invest

Table 7. Characteristics Respondents Based on Old invest

Category	Frequency	Percentage
Not enough from 1 year	40	40%
13 years old	47	47%
4 – 5 years	12	12%
More than 6 year	1	1%
Total	100	100%

Based on Table 7. the characteristics of 100 respondents based on the length of time investing in crypto, respondent Which invests not enough from 1 year as much 40 respondents (40%), 1 – 3 years as much 47 respondents (47%), 4-5 year as much 12 (12%), as well as Then Which invest more than 6 years by 1 respondent (1%). From these data, it can be concluded that the majority of respondents in this study spent a long time investing 1 –3 years.

4.2 Results Analysis Data

1. Test validity

   This validity test uses the Pearson bivariate technique *(Pearson Product Moment).*with

count correlation on each question with the total score. Following results of validity testing:

Table 8. Test validity

Variable	Items	Sig	Limit	Information
Literacy Financial (X1)	X1.1	0.00	0.05	Valid
	X1.2	0.00	0.05	Valid
	X1.3	0.00	0.05	Valid
	X1.4	0.00	0.05	Valid
	X1.5	0.00	0,05	Valid
	X1.6	0,00	0,05	Valid
	X1.7	0,00	0,05	Valid
Experienced Regret (X2)	X2.1	0,00	0,05	Valid
	X2.2	0,00	0,05	Valid
	X2.3	0,00	0,05	Valid
	X2.4	0,00	0,05	Valid
Risk Tolerance (X3)	X3.1	0.00	0.05	Valid
	X3.2	0.00	0.05	Valid
	X3.3	0.00	0.05	Valid
Decision Investment (Y)	Y1	0.00	0.05	Valid
	Y2	0.00	0.05	Valid
	Y3	0.00	0.05	Valid
	Y4	0.00	0.05	Valid
	Y5	0.00	0.05	Valid

Based on the test results, the correlation coefficient of all question items can be concluded as valid and can be used as an instrument for further research. Test Reliability. Testing reliability is used to measure is instruments questionnaire distributed to respondents whether meet the requirements *of reliability* or not. A questionnaire can said *reliable* If mark *Cronbach alpha* $(\alpha) \geq 0.7$. Following These results testing reliability :

Table 9. Results Test Reliability

Variable	Cronbach's Alpha	Information
Literacy Financial (X1)	0.670	Reliable
Experienced Regret (X2)	0.725	Reliable
Risk Tolerance (X3)	0.690	Reliable
Decision Investment (Y)	0.881	Reliable

Matter can be concluded that Literacy Financial (X1), experienced regret (X2), risk tolerance (X3), and investment decisions (Y) can be said to be reliable. It is seen that the value *Cronbach alpha* in the financial literacy variant (X1) has a value of 0.670 and a tolerance variant risk (X3) has a value of 0.690.

2. Testing hypothesis

a. Test Determination (R^2)

Table 10. Results Coefficient Determination

Model Summary [b]

Model	R	R Square	Adjusted R Square	std. Error of the Estimates
1	, 611 [a]	,373	,354	3,395

Based on this test, it can be seen in Table 10 that the adjusted R Square value is 0.354 where this value is weak. Acquisition of adjusted *R-Square value* of 0.354 which means that the magnitude percentage decision investment can b e influenced by Literacy Financial, Experienced regret, and Risk Tolerance as big 37.3%. Whereas the rest as big 62.7% explained byfactors other than this research.

b. Test F

Table 11. Results Test F

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	659,615	3	219,872	19,076	,000[b]
	Residual	1106,495	96	11,526		
	Total	1766,110	99			

a. Dependent Variable: Keputusan Investasi

b. Predictors: (Constant), Toleransi Risiko, Experienced Regret, Literasi Keuangan

The results of the F test, which are in Table 11, obtained an F count of 19.076 > 2.70 F table and a significance value of 0.000 so that it can be concluded financial literacy, experienced regret, and risk tolerance have a simultaneous influence on decisions investment cryptocurrencies.

c. Test t

Table 12. Results Test t

Coefficients [a]

Model	Unstandardized Coefficients		standardized Coefficients	t	Sig.
	B	std. Error	Betas		
(Constant)	9,760	2,548		3,831	,000
Literacy Financial	,158	,104	,142	1,522	,131
Experienced Regret	-,316	, 113	-.250	-2,789	,006
Risk Tolerance	,780	, 163	,449	4,775	,000

dependent Variables: Decision Investment

The results of testing the first hypothesis on the financial literacy variable obtained a t-value count of 1,522 and a significance value of 0.131 > 0.05. It shows that Ha rejected And Ho accepted Which means in a manner partial Literacy Financial (X_1) did not influence the decision to invest *cryptocurrencies* in clan millennials. Mark coefficient which is positive as big 0.158 interprets that Literacy Financial has No influential positive on the Investation decision. Testing the second hypothesis on the *experienced regret variable* (X_2) obtained a t-count value of -2.789 and a significance value of 0.006 > 0.05.

This shows that Ha accepted and Ho rejected, which means partially *experienced regret* affects *cryptocurrency* investment decisions among millennials negative coefficient value of - 0.30interpretset that Literacy Financiis al influent negative to decision investment. In testing the third hypothesis on the risk tolerance variable (X_3) the t-count value is obtainedof at528 and a significance value of 0.000 > 0.05. This shows that Ha is accepted and Ho is rejected, which means risk tolerance affects the decision of *cryptocurrency* investment in millennials. A positive coefficient value of 0.719 means that financial literacy is influential and positive for the decision investment.

Results from testing hypothesis simultaneous on variable Literacy Financial, *experienced regret*, and risk tolerance obtained a calculated F value of 19.076 and a significance value of 0.000 > 0.05. Got an F count of 19.076 > 2.70 Ftable. It shows that Ha is accepted and Ho is rejected which means that financial literacy, experienced regret, and Risk tolerance have a simultaneous effect on cryptocurrency investment decisions clan millennials.

3.Discussion

Testing the financial literacy variable which is a partial test on multiple regression analysis shows that the financial literacy variable shows a positive directionwhich from this test it can be concluded that in the first hypothesis which means the financial literacy variable has no positive and insignificant effect on decisions cryptocurrency investment in millennials. The

causes of financial literacy do not affect cryptocurrency investment decisions because investors in millennials still don't have an understanding of financial literacy so this causes Literacy Financial is not an indicator of making cryptocurrency investment decisions, other than that also means that financial literacy does not make investors invest more capital on market cryptocurrency.

Testing Partial on analysis regression double seen that variable experiencedregret in the second hypothesis shows that it can be proven where the experienced regret variable is a significantly negative effect on cryptocurrency investment decisions among people millennials, which means if experienced regret has decreased, then the investment decision will experience enhancement, matter This because If coefficient negative so matter That will opposite. In investing investors always expect higher profits than risk. Testing the hypothesis on the three risk tolerance variables shows that it can accept here the variable Risk Tolerance is influential in a manner significant to decision cryptocurrency investment in millennials. Investors who have a higher risk tolerance higher tend to put more capital in the cryptocurrency market. Investors who have the lowest level of risk tolerance put more funds into a bank account. Investors with a high-risk tolerance are usually more willing for more invest the funds in assets which is risky to the fund return tall also. The results of this study are supported by previous research conducted by [8] , [11], [2] and [9].

5. Conclusion

From the results of this study, it can be concluded that financial literacy has no effect and is not significant to cryptocurrency investment decisions for millennials. Experienced Regret has a significant effect on cryptocurrency investment decisions for millennials which means bad experience experienced by investors millennials in the past in investing in cryptocurrencies makes their attitude more cautious. Risk Tolerance is tested in a manner Partial Whiis ch influential and significant to decision investment
cryptocurrencies on millennials.

Advice for practitioners in making investment decisions for an important investor understand financial literacy because having an understanding of financial literacy can help in managing finances well so that investing could be safer. It is better to expand the variables to be examined in the decision cryptocurrency investment decisions and suggestions researchers can further examine such variables local use of control, financial experience, and many more. It is hoped that addingvariables other than financial literacy, experienced regret, and risk tolerance to complete the study of its deep influence on decisions on cryptocurrency investment on clan millennials.

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