



The Effect of Perceived Risk and Electronic Word of Mouth on Purchase Decision Crypto Assets

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ABSTRACT: This research aims to determine the effect of perceived risk and electronic word of mouth on purchase decision crypto assets. This research uses quantitative methods. The subject of this research consisted of 349 crypto asset users. The data of this research were collected using purchase decision scale, perceived risk scale, and electronic word of mouth scale. Based on multiple regression analysis, it was found: 1) simultaneously, there is an effect of perceived risk and electronic word of mouth on purchase decision ($R^2 = 0.453$; $p < 0.000$; and correlation value $R = 0.673$); 2) there is an effect of perceived risk on purchase decision (r -partial = -0.216 ; $p = 0.000$); 3) there is an effect of electronic word of mouth on purchase decision (r -partial = 0.629 ; $p = 0.000$). In general, crypto asset users have perceived risk, electronic word of mouth, and purchase decision in medium category.

KEYWORDS: Purchase Decision, Perceived Risk, Electronic Word of Mouth

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I. INTRODUCTION

In the “insight and trends of future investment in Indonesia” survey, 71% of respondents use investment. The most popular investment are crypto assets. Crypto assets are the name given to a system that uses cryptography that allows for the secure transfer and exchange of digital tokens [1]. Crypto assets are referred to as the latest and financial instruments and as an alternative to investing with the benefits of diversification [2]. Indonesia has regulated crypto assets under the supervision of the Commodity Futures Trading Regulatory Agency (Bappebti). There are 229 types of crypto assets in Indonesia that can be traded on the physical crypto assets market.

The advantages that make crypto assets in great demand are because there are no third parties for transactions, high confidentiality and security, also the cost of sending money is small because there are no banks or intermediary institutions in transferring funds. However, besides the advantages, there are also disadvantages of crypto assets, including impractical for daily use because there are not yet widely accepted and there is no legal guarantee in the event of bankruptcy [3]. Advantages and disadvantages when using crypto assets are things that can determine someone in making a decision to purchase crypto assets.

Purchase decision is a series of steps that an individual goes through before making an actual purchase [4]. Based on survey data as of December 2021, Indonesia is ranked 4th as the most users of crypto assets. Around 7,4 million people owned and purchased crypto assets, which has increased by 85% from 2020. Then in August 2022, around 12,2 million people had purchased crypto assets in Indonesia. Currently Indonesia is ranked 9th as a country with the most users of crypto assets. Unexpected situational factors can influence people’s purchasing decision due to other urgent needs so that they decide to modify, delay or even avoid purchasing decisions due to one or more perceptions of risk [5].

Perceived risk is defined as an individual’s subjective feeling of various losses in purchases [6]. Individuals who feel high risk when using crypto assets will have an impact on inhibiting buying behaviour. [7]. Crypto assets have a higher level of risk than stable currencies because the value of crypto assets fluctuates more than stable currencies [8]. This is what makes a person able to make a decision to buy or not a product.

In addition to the perceived risk which is a barrier to purchase, there is also a reinforcer that can make individual want to make a purchase decision, called promotions. Promotion by word of mouth through public media is usually called electronic word of mouth. Electronic word of mouth is an individual’s buying experience

in using or interacting with a product or service that is shared through postings on a website [9]. The information from electronic word of mouth is proven to be able to increase sales because it can help consumers reduce uncertainty and help choose the best offers because of the large amount of information exposure consumers receive regarding these products [10].

II. PURPOSE AND METHOD

This study aims to determine the effect of perceived risk and electronic word of mouth on purchase decision crypto assets. This research uses quantitative methods. The participants in this study were 349 crypto asset users. Purchase decision is measured using purchase decision scale by Kotler and Keller [5], perceived risk is measured using scale by Schiffman and Wisenblit [11], and electronic word of mouth is using scale by Goyette, Ricard, Bergeron and Marticotte [12].

The scale of this research instrument uses a Likert scale with favorable and unfavorable items consisting of five answer choices, “Strongly Disagree”, “Disagree”, “Neutral”, “Agree” and “Strongly Agree” with a score of 1 to 5. The scale was modified and using validity test and reliability test. The validity used is content validity with expert judgement and construct validity with factor analysis using SPSS. Item discrimination test was carried out using Pearson Product Moment correlation, item that achieve a correlation above 0.30 can be have high discriminatory power [13]. And then reliability test used is Cronbach alpha, Reliability is proven by the reliability coefficient whose numbers are in the range of 0 to 1. The reliability coefficient that is closer to 1 indicates higher reliability. Conversely, the coefficient that is closer to 0 means the lower the reliability it has [13].

III. RESULTS AND DISCUSSION

Reliability and Validity Test

The reliability test used is the Cronbach's Alpha technique and the validity of the factor construct analysis is by looking at the factor loading value. After testing, the results show that the purchase decision variable has a Cronbach alpha value of 0.868 with a loading factor moving from 0.572 to 0.888. The perceived risk variable has a Cronbach alpha value of 0.880 with a loading factor moving from 0.554-0.899. Then, the electronic word of mouth variable has a Cronbach alpha value of 0.827 with a loading factor moving from 0.700-0.879.

Table 1: Reliability and Validity Test

	Cronbach's alpha	Pearson Product Moment correlation	Loading factor	Description
Purchase Decision	0.868	0.313-0.641	0.572-0.888	Reliable and valid
Perceived Risk	0.880	0.314-0.726	0.554-0.899	Reliable and valid
Electronic Word of Mouth	0.827	0.320-0.609	0.700-0.879	Reliable and valid

Hypothesis Test

Table 2: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25186.965	2	12593.483	143.211	.000 ^b
	Residual	30426.118	346	87.937		
	Total	55613.083	348			
a. Dependent Variable: Purchase Decision						
b. Predictors: (Constant), Perceived Risk, Electronic Word of Mouth						

Based on the results of multiple regression analysis, the ANOVA test showed that the influence between perceived risk and electronic word of mouth on purchase decision was significant. This can be seen from the significance value obtained of 0.000 ($p < 0.05$). Thus, perceived risk and electronic word of mouth simultaneous and significantly influence purchase decision.

Table 3: Determination R

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.673 ^a	.453	.450	9.37746
a. Predictors: (Constant), Perceived Risk, Electronic Word of Mouth				

Based on the results of the determination of R, the value of R between perceived risk and electronic word of mouth to purchase decision is 0.673 and the coefficient of determination (R square) obtained is 0.453, meaning that the influence of perceived risk and electronic word of mouth together on purchase decision is 45.3%.

Table 4: Partial Correlation

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	41.078	4.808		8.544	.000			
	Perceived Risk	-.162	.039	-.168	-4.121	.000	-.309	-.216	-.164
	Electronic Word of Mouth	.838	.056	.614	15.036	.000	.653	.629	.598

Based on the results of multiple regression analysis, the partial test obtained the partial correlation value of perceived risk and purchase decision is -0.216 with a significance < 0.000 ($p < 0.05$), meaning that perceived risk influences purchase decision negatively and significantly. The partial correlation value between electronic word of mouth and purchase decision is 0.629 with a significance value < 0.000 ($p < 0.05$), meaning that electronic word of mouth influence purchase decision positively and significantly. Perceived risk and electronic word of mouth can impact purchase decisions differently. This is because when the perceived risk is high, it will reduce purchasing decisions, whereas when electronic word of mouth is high, it will increase purchasing decisions [5, 14 Lerrthairakul].

Table 5: Purchase Decision Categorization

Value Range	Categorization	Amount	Percentage (%)
$X < 56$	Low	32	9.2
$56 \leq X \leq 88$	Moderate	269	77
$88 < X$	High	48	13.8
Total		349	100

In the purchase decision variable, it can be seen that crypto asset users have moderate purchase decision of 77% or as many as 269 people.

Table 6: Perceived Risk Categorization

Value Range	Categorization	Amount	Percentage (%)
$X < 58.33$	Low	42	12
$58.33 \leq X \leq 91.67$	Moderate	264	75.6
$91.67 < X$	High	43	12.4
Total		349	100

In the perceived risk variable, it can be seen that crypto asset users have moderate perceived risk of 75.6% or as many as 264 people.

Table 7: Electronic Word of Mouth Categorization

Value Range	Categorization	Amount	Percentage (%)
$X < 44$	Less Effective	37	10.6
$44 \leq X \leq 68$	Effective Enough	254	72.8
$68 < X$	Effective	58	16.6
Total		349	100

In the electronic word of mouth variable, it can be seen that crypto asset users have moderate electronic word of mouth of 72.8% or as many as 254 people.

IV. CONCLUSION

Perceived risk and electronic word of mouth simultaneous and significantly influence purchase decision. The higher perceived risk, the crypto asset users will judge crypto assets not as the best investment and the higher electronic word of mouth, the crypto asset users will judge crypto assets as the best investment. In general, crypto asset user have purchase decision, perceived risk, and electronic word of mouth in the moderate category.

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