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The Influence of Gender and Transaction Flexibility on Cryptocurrency Investment Interest in Indonesia

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Abstract: Cryptocurrency has become an increasingly accessible digital investment instrument, yet participation remains uneven across demographic groups and may depend on the flexibility offered by digital transactions. This study examines the influence of gender and transaction flexibility on cryptocurrency investment interest in Indonesia. A quantitative explanatory design was applied to survey data from 109 respondents aged 17 years and older, selected through purposive sampling. Cryptocurrency investment interest was coded as a binary outcome and analysed using binary logistic regression. The results indicate that gender significantly predicts cryptocurrency investment interest ($B = 3.481$; $p = 0.010$; odds ratio = 32.498). Transaction flexibility is also jointly significant (Wald = 22.445; $df = 3$; $p < 0.001$), although one category produces an unstable estimate and therefore requires cautious interpretation. The study contributes by jointly examining a demographic factor and a technology-related transaction attribute in explaining cryptocurrency investment interest. The findings suggest that accessible and flexible transaction mechanisms may support participation, while investor education should address persistent gender differences and the risks inherent in crypto assets.

Keywords: Cryptocurrency, Gender, Transaction Flexibility, Investment Interest, Logistic Regression.

INTRODUCTION

Digitalisation has changed how individuals access financial products. Investment transactions that previously relied heavily on conventional intermediaries can now be initiated through mobile applications and digital asset platforms. Cryptocurrency is one of the most visible manifestations of this development because ownership, trading, and portfolio monitoring can be carried out online. Recent research treats cryptocurrency participation not

only as a financial decision but also as a technology-adoption decision involving perceived usefulness, ease of use, trust, risk, financial literacy, and social influence (Albayati et al., 2020; Nadeem et al., 2021; Namahoot & Rattanawiboonsom, 2022; Kumari et al., 2023).

Cryptocurrency nevertheless remains a highly volatile and risky asset. Investor interest may be motivated by return expectations and portfolio opportunities, but it can also be shaped by behavioural bias, perceived risk, social pressure, and limited financial knowledge (Smutny et al., 2021; Dwiastanti et al., 2023; Bland et al., 2024; Dewi & Diwya, 2024). Consequently, studies of cryptocurrency investment should distinguish between technological accessibility and the financial risks associated with the asset.

Gender is relevant because participation in high-risk financial assets is frequently unequal. Recent evidence shows that men are more likely than women to consider cryptocurrency investment, and that differences in financial overconfidence and personality may partly explain this gap (Nyhus et al., 2024). Other recent studies also report that demographic factors, including gender, affect cryptocurrency preferences and investment decisions (Sarsam, Cwynar et al., 2025; Cwynar et al., 2025). These findings indicate that gender should not be treated merely as descriptive information, but as a potential predictor of investment interest.

Transaction flexibility is also important. In this study, flexibility refers to the perceived ability to conduct transactions easily, adjust transaction timing and location, and access cryptocurrency services without conventional spatial restrictions. This concept is closely related to perceived ease of use, effort expectancy, and perceived behavioural control. Studies on cryptocurrency platforms show that ease of use and technology-related control can strengthen attitudes, adoption motivation, or behavioural intention, although the magnitude of the effect varies across contexts (Mahomed, 2021; Namahoot & Rattanawiboonsom, 2022; Restuputri et al., 2023; Abednego et al., 2025).

Previous research has commonly examined cryptocurrency adoption through the Technology Acceptance Model, UTAUT, perceived risk, trust, or financial literacy. Fewer studies combine a demographic factor and a transaction-related attribute in a simple predictive model of actual investment interest among Indonesian respondents. This study addresses that gap by testing whether gender and transaction flexibility influence cryptocurrency investment interest. The research questions are: (1) Does gender influence cryptocurrency investment interest? (2) Does transaction flexibility influence cryptocurrency investment interest? The study contributes to behavioural finance and digital financial adoption by showing how demographic and transaction-access factors operate within the same logistic model.

METHODS

This study employed a quantitative explanatory design to examine whether gender and transaction flexibility were associated with cryptocurrency investment interest. The research object was individual interest in cryptocurrency as a digital investment instrument. The unit of analysis was the individual respondent, while the observational setting covered Indonesian residents who could access the online questionnaire.

The target population comprised Indonesian residents aged 17 years and older who were considered capable of recognising or accessing cryptocurrency investment. Respondents were recruited using purposive sampling because the study required participants who met the minimum-age criterion and were familiar with cryptocurrency investment. The final dataset consisted of 109 usable responses. Data collection was conducted online in Indonesia; however, the exact month and year of collection were not reported in the source manuscript and must be completed by the authors before submission.

The research instrument was a structured online questionnaire. Cryptocurrency investment interest was operationalised as a dichotomous dependent variable, coded 0 for no

interest and 1 for interest. Gender was coded 0 for women and 1 for men. Transaction flexibility was measured through questions concerning ease of conducting transactions, the ability to transact across locations, and the ability to adjust transactions. The available SPSS output shows that flexibility entered the model as a categorical predictor with three estimated categories relative to one omitted reference category. The final manuscript must identify the category labels, scoring procedure, and reference category from the original questionnaire and dataset so that the coefficients can be interpreted substantively.

The data-collection procedure consisted of preparing the questionnaire, screening respondents according to the inclusion criteria, distributing the questionnaire through online channels, checking response completeness, coding the variables, and analysing the final dataset. The analytical tool was binary logistic regression using SPSS because the dependent variable had two categories. The estimated model was $\text{logit}[P(Y=1)] = \beta_0 + \beta_1\text{Gender} + \beta_2\text{Flexibility}$. Hypotheses were evaluated at a 5% significance level using the regression coefficient, Wald statistic, degrees of freedom, p-value, $\text{Exp}(B)$, and the 95% confidence interval.

An $\text{Exp}(B)$ value above one indicates higher estimated odds of cryptocurrency investment interest relative to the reference group, whereas a value below one indicates lower estimated odds. Statistical significance alone was not treated as sufficient evidence of a strong effect. Very wide confidence intervals, extremely large standard errors, and non-estimable bounds were interpreted as indications of sparse observations, quasi-complete separation, or unstable category estimates. Accordingly, unstable coefficients were reported transparently and were not given a substantive causal interpretation.

Table 1. Operational Definitions and Variable Coding

Variable	Role and Coding
Cryptocurrency investment interest	Dependent variable: 0 = No; 1 = Yes
Gender	Independent variable: 0 = Woman; 1 = Man
Transaction flexibility	Independent categorical variable; categories compared with a reference category

Source: Research instrument and SPSS coding.

RESULTS AND DISCUSSION

The logistic regression output shows that gender and transaction flexibility are statistically associated with cryptocurrency investment interest. Gender has a positive coefficient of 3.481 and is significant at the 5% level ($p = 0.010$). The odds ratio of 32.498 indicates that, under the coding used in this study and while controlling for flexibility, male respondents had substantially higher estimated odds of expressing cryptocurrency investment interest than female respondents. The confidence interval is wide (2.300-459.108), indicating considerable uncertainty and suggesting that the magnitude should be interpreted cautiously.

Table 2. Binary Logistic Regression Results

Variables in the Equation									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	Jenis Kelamin(1)	3.481	1.351	6.639	1	.010	32.498	2.300	459.108
	Fleksibilitas			22.445	3	<.001			
	Fleksibilitas(1)	15.573	40192.969	.000	1	1.000	5796945.824	.000	.
	Fleksibilitas(2)	-6.938	1.618	18.385	1	<.001	.001	.000	.023
	Fleksibilitas(3)	-4.469	1.197	13.944	1	<.001	.011	.001	.120
	Constant	2.149	.530	16.452	1	<.001	8.575		

Source: Reconstructed from the SPSS logistic regression output in the original manuscript.

Transaction flexibility is significant as a group (Wald = 22.445; df = 3; $p < 0.001$). However, the first flexibility category has an extremely large standard error and a non-significant p-value, indicating unstable estimation, likely due to a sparse cell or quasi-complete separation. Therefore, the first category should not be interpreted as evidence of an extremely large positive effect. Categories 2 and 3 have odds ratios below one relative to the omitted reference category, indicating lower estimated odds of investment interest. A precise substantive interpretation requires the questionnaire coding and the identity of the reference category, which were not stated in the original manuscript.

Gender was significantly associated with cryptocurrency investment interest. The positive coefficient indicates that male respondents had higher estimated odds of expressing investment interest than female respondents after transaction flexibility was controlled. This finding is consistent with Nyhus et al. (2024), who reported a sizeable gender gap in cryptocurrency investment intentions and showed that overconfidence and personality partly explain that difference. It also accords with Sarsam et al. (2025), who identified gender-related differences in cryptocurrency preferences, and with Cwynar et al. (2025), who highlighted the relevance of demographic characteristics in cryptocurrency decisions. Theoretically, the result can be explained through behavioural-finance perspectives: perceived competence, confidence, risk tolerance, and speculative preference may differ systematically across demographic groups. Nevertheless, the 95% confidence interval in the present study is very wide, so the direction of the relationship is more defensible than the exact magnitude of the odds ratio.

Transaction flexibility was jointly significant in the logistic model. This result is compatible with technology-adoption research that treats ease, accessibility, and perceived behavioural control as important antecedents of digital-financial participation. Namahoot and Rattanawiboonsom (2022) found that perceived ease of use contributes to attitudes and intentions to adopt cryptocurrency platforms. Restuputri et al. (2023) showed that performance-related and facilitating factors help explain acceptance of digital-asset applications in Indonesia, while Kumari et al. (2023) emphasised technology awareness and financial literacy. Mahomed (2021) and Nadeem et al. (2021) similarly demonstrated that perceived usefulness, ease, trust, and facilitating conditions shape behavioural intention toward cryptocurrency. In theoretical terms, transaction flexibility may reduce the time, location, and procedural costs of investment, thereby lowering operational barriers to participation.

The category-level results for transaction flexibility, however, are not uniformly stable. Flexibility was significant as a set of categories, but the first category produced an extremely large standard error, a non-significant p-value, an extreme odds ratio, and an unbounded confidence interval. This pattern is consistent with sparse data or quasi-complete separation, where a category contains too few observations or almost perfectly predicts the outcome. Consequently, the extreme coefficient cannot be interpreted as evidence that flexibility produces an exceptionally strong increase in investment interest. Categories 2 and 3 showed lower estimated odds relative to the omitted reference category, but their substantive meaning cannot be determined until the category labels and reference group are disclosed. The correct conclusion is therefore that transaction flexibility was jointly associated with investment interest, while individual category estimates require cautious interpretation and verification using the original data.

From a behavioural-finance standpoint, easier transactions can increase participation by reducing friction, but they may also shorten deliberation time and facilitate impulsive decisions. Bland et al. (2024) found that cryptocurrency attitudes and continued investment intentions are influenced by performance expectancy, enjoyment, perceived risk, privacy, competence, and experience. Dwiastanti et al. (2023) likewise showed that Indonesian cryptocurrency owners may display both rational and behavioural-bias-driven decision patterns. Smutny et al. (2021) identified motivations and risk-taking as important elements in

cryptocurrency investment. Thus, transaction convenience should be understood as an access mechanism rather than evidence that the asset itself has become safer or economically more suitable.

The economic implication is that broader access to cryptocurrency can expand participation in the digital-asset economy, but unequal participation may reproduce demographic gaps in exposure to both potential returns and substantial losses. Financial education programmes should therefore combine digital-access skills with explanations of volatility, diversification, fraud risk, and the legal status of crypto assets. For regulators and consumer-protection institutions, simplified access should be accompanied by standardised risk disclosures and suitability-oriented information, especially for new investors who may confuse ease of transaction with low investment risk.

For cryptocurrency platforms and financial-service providers, the findings imply that inclusive interface design should not rely on aggressive prompts or gamified features that encourage excessive trading. Platform flexibility can be directed toward transparent fee information, cooling-off reminders, portfolio-risk displays, transaction limits, and accessible educational material. Gender-sensitive financial education may also help address differences in confidence and participation without stereotyping users. These measures connect financial inclusion with responsible digital-investment practices.

The study contributes to the literature by linking a demographic predictor and a technology-related transaction attribute within one binary logistic model. Previous adoption studies have frequently concentrated on perceived usefulness, ease of use, trust, risk, financial literacy, or behavioural intention. The present model adds evidence that the social distribution of cryptocurrency interest and the practical flexibility of transactions should be analysed together. Methodologically, the study also demonstrates why category-level logistic estimates must be evaluated through their standard errors and confidence intervals rather than interpreted solely from large odds ratios.

The novelty of this study lies in its simultaneous examination of gender and transaction flexibility as predictors of cryptocurrency investment interest among Indonesian respondents, while explicitly distinguishing overall statistical significance from the stability of category-specific estimates. The central new insight is that the gender relationship remains statistically visible, whereas transaction flexibility is significant only at the joint-variable level and contains an unstable category estimate. This finding refines prior technology-adoption explanations: easier or more flexible transactions may be associated with interest, but their effect is not homogeneous across categories and cannot be treated automatically as strong. The study therefore integrates behavioural-finance and digital-access perspectives while introducing a more cautious, estimation-aware interpretation of cryptocurrency adoption evidence.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Gender was significantly associated with cryptocurrency investment interest. Transaction flexibility was jointly significant, but its category-specific estimates were unstable and should therefore be interpreted cautiously. Male respondents had higher estimated odds of investment interest than female respondents, although the wide confidence interval means that the precise magnitude is uncertain. The findings indicate that cryptocurrency investment interest is related to both demographic characteristics and transaction-access conditions, but they do not establish that flexible transactions make cryptocurrency safer or guarantee participation. The practical implication is that easier digital access should be accompanied by inclusive financial education, transparent risk disclosure, and responsible platform design.

Limitations

This study has several limitations. The sample was obtained through purposive online sampling and consisted of 109 respondents, so it does not represent the entire Indonesian population. The questionnaire coding for transaction flexibility was not fully documented, and one category produced an unstable logistic estimate. The original dataset also did not provide sufficient information to report model-fit statistics, classification accuracy, multicollinearity diagnostics, or instrument reliability. The results therefore support association within the sample rather than broad population-level generalisation.

Recommendations

Future studies should use a clearly validated multidimensional scale for transaction flexibility or perceived ease of use, document all category labels and reference groups, and employ a larger probability-based or stratified sample. Models should incorporate financial literacy, perceived risk, expected return, trust, and social influence to distinguish technology accessibility from financial decision quality. Researchers should also report the omnibus model test, Hosmer-Lemeshow test, pseudo R-square, classification table, and confidence intervals. Digital asset providers and regulators should combine accessible platform design with inclusive financial education and prominent risk disclosure.

Author Contributions

The first author was responsible for research conceptualisation, data collection, data analysis, and manuscript drafting. The second author contributed to theoretical development, interpretation of findings, and critical manuscript revision. Both authors reviewed and approved the final manuscript.

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