“Examining market volatility arbitrage in cryptocurrencies with the perspective of Beldex coin trading dynamics in India”

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EXAMINING MARKET VOLATILITY ARBITRAGE IN CRYPTOCURRENCIES WITH THE PERSPECTIVE OF BELDEX COIN TRADING DYNAMICS IN INDIA

Abstract

Cryptocurrency trading has gained significant adhesion in financial markets, making it essential to understand the factors influencing trading intentions. This study investigates the psychological and knowledge-based determinants of trading intentions towards Beldex coins among crypto traders in India. This study aims to evaluate how risk management, hedonic motivation, investment desire, market knowledge, peer participation, and earning desires impact trading intentions. A survey was conducted with 369 crypto traders in India, and multiple regression analysis was employed to analyze the data. The results indicate that all six factors significantly influence trading intentions, with risk management ($\beta = 0.342$, $p < 0.001$) and earning desires ($\beta = 0.378$, $p < 0.001$) having the strongest impact on Indian Cryptocurrency market arbitrage. The regression model explained 53% of the variance in trading intentions ($R^2 = 0.53$). Cryptocurrency market information is analyzed through the CoinGecko tool that provides charts, market capitalization, and blockchain data; multiple regression analysis is utilized to test the hypothesized relationships. This study reveals that traders' investment decisions in cryptocurrencies are primarily driven by financial motivations, including potential high returns, diversification, and inflation hedging, as well as technological factors of decentralized finance, blockchain technology, and digitalized transactions.

Keywords cryptocurrency, market volatility, Beldex coin, trading, risk management, hedonic motivation, financial gains

JEL Classification G11, G15, D81

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INTRODUCTION

The cryptocurrency market has experienced unparalleled growth and volatility in recent years, captivating the attention of investors, traders, and researchers. With its burgeoning fintech landscape, India has emerged as a significant player in the global market. Beldex Coin, a prominent cryptocurrency, has acquired interest among Indian traders due to its potential for high returns and decentralized applications. Market volatility presents both opportunities and challenges for investors in the Arbitrage, a strategy exploiting price divergences across markets. However, the complexities of cryptocurrency markets, coupled with regulatory uncertainties, necessitate a deeper understanding of market dynamics and arbitrage opportunities. To analyze the volatility characteristics of Beldex Coin and its impact on trading decisions, there is the CoinGecko tool, which considers market capitalization and trading dynamics. The crypto market remains overwhelmed by volatility risks, a lack of understanding about Beldex Coins, and market information asymmetry. This study also seeks to address the primary psychological and knowledge-based determinants driving trading behaviors in the crypto market.

The cryptocurrency market has witnessed unprecedented growth and volatility in recent years, captivating the attention of investors, traders, and researchers worldwide. India, with its burgeoning fintech landscape, has emerged as a significant player in the global cryptocurrency market. Beldex Coin, a prominent cryptocurrency, has garnered considerable interest among Indian traders due to its potential for high returns and decentralized finance applications. Market volatility assesses both opportunities and challenges for investors. Arbitrage is a strategy exploiting price discrepancies across markets and has become increasingly popular among traders seeking to capitalize on volatility. However, the complexities of cryptocurrency markets, coupled with regulatory uncertainties, necessitate a deeper understanding of market dynamics and arbitrage opportunities. This study aims to investigate market volatility arbitrage on cryptocurrencies, psychological and knowledge-based determinants driving trading behaviors, with a specific focus on Beldex Coin trading in India. To measure the trading and re-trading intention in the forex market by examining the relationship between market volatility and crypto variances, this study seeks to analyze the characteristics and its impact on trading decisions in Indian cryptocurrency markets. Furthermore investigates the role of market sentiment, liquidity, and regulatory frameworks for influential trading dynamics. Despite the growing popularity of cryptocurrency trading in India, the market remains plagued by volatility risks, arbitrage opportunities, a lack of understanding of Beldex Coin and information asymmetry.

1. LITERATURE REVIEW

The field of cryptocurrency research has expanded significantly in recent years, with numerous studies investigating the diverse aspects of this dynamic market, particularly the factors driving its volatility and the regulatory measures necessary for its effective governance. This review synthesizes current findings from various studies, aiming to highlight the determinants of cryptocurrency volatility and identify critical gaps that future research could address. A review of Key Studies on Cryptocurrency Volatility and Regulation is presented in the study. Bakas and Magkonis (2022) conducted a comprehensive empirical analysis using a dynamic Bayesian model averaging approach to identify the main drivers of Bitcoin volatility. Their findings reveal that key determinants include Google Trends, the total circulation of Bitcoins, US consumer confidence, and the S&P 500 index, suggesting that both market sentiment and macroeconomic indicators play significant roles in influencing Bitcoin's price fluctuations. Elsayed et al. (2022) further contribute to the understanding of market dynamics by exploring the return spillovers between cryptocurrencies and other assets. Their study finds that cryptocurrency policy uncertainty is the primary transmitter of these spillovers, with gold serving as a net receiver of both return and volatility spillovers across bearish, bullish, and normal market conditions. This emphasizes the interconnectedness of cryptocurrency and traditional asset markets, underlining the importance of considering spillover effects in future analyses. Kaya and Mostowfi (2022) investigated investment strategies in cryptocurrency portfolios, concluding that concentrated low-volatility portfolios with a six- to twelve-month volatility look-back and holding period can yield statistically significant returns. Their research also highlights the effectiveness of implementing a simple stop-loss rule to mitigate downside risk, thus providing practical insights for investors in the cryptocurrency space. Brauneis et al. (2022) analyzed the liquidity of Bitcoin to US Dollar (BTCUSD) markets using order book data from major cryptocurrency exchanges. Their findings indicate that BTCUSD liquidity surpasses that of US equity markets, often exhibiting bid-ask spreads below 1 basis point. The study identifies key factors influencing BTCUSD liquidity, including past liquidity on the same exchange, overall market liquidity, volatility, and blockchain transaction fees, thereby enhancing the understanding of liquidity dynamics in cryptocurrency markets. Chinthapalli (2021) explored advanced methodologies to analyze Bitcoin's financial characteristics, employing exponential hybrid models such as GARCH and ANN. The study illustrates that cryptocurrency volatility changes more rapidly than that of traditional assets and foreign exchange pairs, emphasizing the unique nature of the cryptocurrency market and the need for tailored analytical approaches. Nupur Gupta et

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al.,(2023) explored the possibility of creating a multiasset portfolio, including cryptocurrencies found that the results were not recommended including cryptocurrencies to international portfolio managers who wish to construct a multi-asset portfolio using stock indices, fiat currencies, and commodities of global significance. Leirvik (2020) examined the efficiency of prices across five different cryptocurrencies, noting signs of improving market efficiency as evidenced by a significant decline in the Average Market Information Model (AMIM) over the past six quarters. This suggests that cryptocurrency markets are evolving rapidly, with increasing volume and decreasing volatility. Yu Wei et al. (2023) discovered that uncertainty proxies related to cryptocurrencies are robust predictors for forecasting volatility in precious metal markets. Their empirical findings hold important implications for risk management, enabling investors and portfolio managers to make informed and timely decisions by adjusting their long positions based on anticipated changes in precious metal prices. Ferreira and Sandner (2021) provide a comprehensive overview of the European Union's efforts to regulate crypto assets, identifying significant challenges and proposing potential solutions for their integration into the broader financial system. Further this discussion by examining the complexities involved in incorporating these assets into existing regulatory frameworks. Alekseenko (2023) emphasizes the necessity of a robust regulatory framework to protect consumers and regulate cryptocurrency exchanges, highlighting the growing need for effective governance in the rapidly evolving digital landscape. The sensitivity of cryptocurrency markets to macroeconomic news and external events has been a well-researched area. Lyócsa et al. (2020) demonstrate how factors like regulations and hacking incidents significantly impact Bitcoin's volatility, indicating the cryptocurrency market's susceptibility to external shocks. Similarly, Sapkota (2022) explores how news-based sentiment influences Bitcoin volatility, underscoring the critical role of public perception in shaping market dynamics. The efficacy of technical trading and market efficiency is another key focus of research. Grobys (2020) investigates the effectiveness of various technical trading rules in the cryptocurrency market, while Tran and Leirvik (2020) assess the efficiency of different cryptocurrencies, offering insights into effective trading strategies and market behavior. Umar et al. (2023) contribute to this area by exploring the relationship between cryptocurrency and traditional financial markets, illustrating the interplay between Bitcoin volatility, stock markets, and investor sentiment. Gupta et al. (2022) introduce the Crypto Index, aggregating the market capitalization of the top seven cryptocurrencies to provide a reliable indicator of overall market conditions. Bibi (2023) discusses the evolving role of money in the age of cryptocurrency, while Umar (2023) conducts a comparative analysis of cryptocurrency returns and economic policy uncertainty before and after COVID-19, emphasizing the evolution of these markets. The extreme volatility of cryptocurrencies, which attracts many investors, is noted by Waspada et al. (2022), yet gaps remain in understanding their long-term stability and integration into the financial system. Akhtekhane and Poorabbas (2023) present a model for estimating Value-at-Risk (VaR) using spline interpolation to represent empirical probability distributions of return series. Their findings indicate that this model can outperform traditional methods, providing valuable insights for market risk validation. The research suggests that future inquiries should address existing gaps and develop more robust models for predicting market behavior and informing regulatory policies. Fan Fang et al., (2022) analysed datasets, research trends and distribution among research objects (contents/properties) and technologies, concluding with some promising opportunities that remain open in cryptocurrency trading. The gap between psychological and knowledge-based determinants driving trading behaviors, particularly regarding emerging cryptocurrencies like Beldex Coin, is critically analyzed by Gowda and Chakravorty (2021). Despite a growing body of literature on cryptocurrency trading, significant gaps persist in comprehensively understanding the factors influencing this behavior (Amaro & Ferreira, 2023). Kakinaka and Umeno (2022) identify risk management, hedonic motivation, and investment desire as key factors, while Chaarani et al. (2024) recognize market knowledge, peer participation, and earning desires as major influences on trading decisions. Traditional financial decision-making models inadequately address the unique psychological and informational aspects inherent in cryptocurrency markets (Schinckus et al., 2021).

The extensive research surrounding cryptocurrency markets highlights a complex interplay of regulatory, behavioral, and market dynamics. While significant strides have been made in understanding the regulatory challenges and macroeconomic influences on cryptocurrencies, critical gaps remain in comprehensively understanding investor behavior and the long-term stability of these digital assets. Continued investigation into the psychological and informational determinants of trading behavior, alongside the development of more robust predictive models, is essential for effectively integrating cryptocurrencies into the broader financial system. As digital currencies continue to reshape financial landscapes, fostering a comprehensive understanding of these factors will be paramount for regulators, investors, and researchers alike. Addressing the identified gaps will not only enhance academic discourse but also inform practical applications in risk management and investment strategies, paving the way for a more stable and regulated cryptocurrency market.

2. DATA AND METHODOLOGY

The study investigates the psychological and knowledge-based determinants of trading intentions towards the Beldex coin market through the CoinGecko tool. To achieve this goal, a structured methodology was implemented, including survey-based data collected from 369 crypto traders, systematic sample selection, and rigorous multiple regression analysis to evaluate the impact of various factors on trading intentions. The questionnaire was designed to measure the key variables of interest, with items adapted from established scales in the literature to ensure reliability and validity. The survey included sections on demographic information, trading experience, and specific questions related to each of the independent variables and the dependent variable. The distribution process involves sharing the survey link in crypto trading forums, cryptocurrency discussion groups, and direct emails to known crypto traders. The dependent variable of Trading Intentions and independent variables of Risk Management, Hedonic motivation, Investment Desire, Market Knowledge, Peer participation, and Earning Desires are analyzed. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were employed to summarize the demographic characteristics of the sample to provide a comprehensive overview of the respondents' backgrounds and trading experiences. The reliability of the measurement scales was assessed through Cronbach's alpha, with values exceeding 0.70 deemed acceptable for internal consistency. Construct validity was confirmed through Exploratory Factor Analysis, which verified the factor structure of the scale. The study hypothesizes that the factors positively influence trading intentions, with effective risk management strategies reducing perceived risks, hedonic motivation driving emotional investment, investment desire fueling interest, market knowledge informing decisions, peer participation encouraging engagement, and earning desires motivating participation.

This analysis aimed to predict trading intentions towards Beldex coins on the basis of six independent variables: risk management, hedonic motivation, investment desire, market knowledge, peer participation, and earning desire. To test the hypothesized relationships, multiple regression analysis was conducted. The regression model is specified as follows:

$$T1 = \beta_0 + \beta_1 RM + \beta_2 HM + \beta_3 ID + \beta_4 MK + \beta_5 PP + \beta_6 ED + \varepsilon, \quad (1)$$

where β_0 is the intercept, $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ are the coefficients for the independent variables, ε is the error term.

The significance of each coefficient was tested to determine the strength and direction of the relationships between the independent variables and the dependent variable. Additionally, the overall fit of the model was assessed through R-squared and F-statistics. This methodological approach ensures a rigorous examination of the factors influencing trading intentions toward the Beldex coin in the crypto market, providing valuable insights into the psychological and knowledge-based determinants of cryptocurrency trading behavior.

3. RESULTS

This section presents the results of the study on the psychological and knowledge-based determinants of trading intentions towards the Beldex coin

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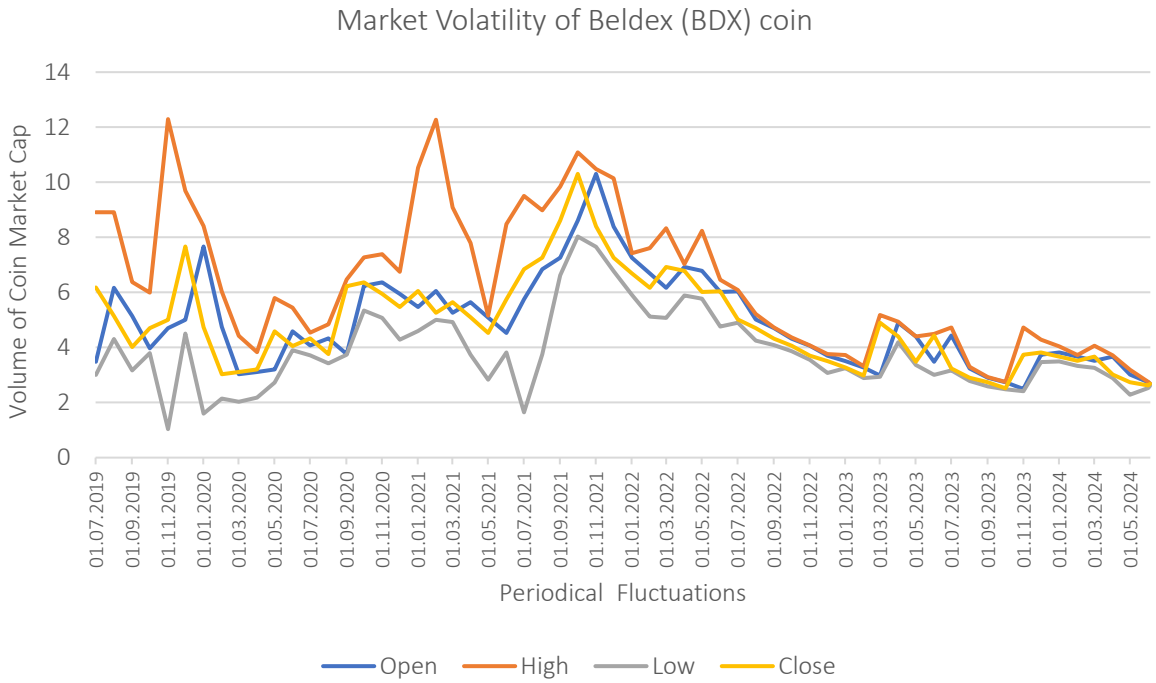

Figure 1. Market volatility of Beldex coin

among crypto traders. The analysis includes both descriptive statistics and the outcomes of the multiple regression analysis to test the hypothesized relationships between independent variables (risk management, hedonic motivation, investment desire, market knowledge, peer participation, and earning desires) and the dependent variable (trading intentions towards Beldex coin). The sample consisted of 300 crypto traders, predominantly male (65%) and aged between 25–40 years (60%). A significant portion of respondents had over three years of trading experience (55%), reflecting a diverse background in cryptocurrency trading. Most participants (70%) reported trading cryptocurrencies, particularly Beldex coins, within the past year. The multiple regression analysis aimed to predict trading intentions towards Beldex Coins on the basis of the six independent variables.

Figure 1 illustrates the market volatility of Beldex coins (in INR) from July 2019 to 2024. The volatility fluctuated significantly over the years. Initially, it rose from 3.48 in July 2019 to 6.19 within a month, stabilizing at 5.00 by December 2019. In 2020, volatility began at 7.66, dipped to 3.11, and rebounded to 6.37, ending the year at 5.95. The subsequent year, 2021, saw volatility increase steadily from 5.46 to a peak of 10.30 in November before decreasing to 8.39 by December. A declining trend was observed in 2022, with volatility decreasing from 6.69 to 3.70 by the end of the year. This downward trend continued into 2023, with volatility ranging from 3.50 to 2.55. However, a slight increase was noted towards the end of 2023, fluctuating between 2.74 and 3.82. In 2024, volatility continued to decline from 3.66 to 2.62 in the first half, suggesting a potential stabilization. However, the data hints at a possible market upswing in the forthcoming financial years amidst ongoing fluctuations. Table 1 summarizes the regression coefficients, standard errors, t-values, and p-values for each predictor variable.

The regression analysis results are displayed in Table 1. The regression model was statistically significant, with an F-statistic of 35.72 ($p < 0.001$) and R-squared value of 0.53, indicating that approximately 53% of the variance in trading intentions towards Beldex coins could be explained by the six predictor variables. Risk management positively influences trading intentions toward Beldex coins ($\beta = 0.342$, $p < 0.001$) and significantly increases trading intentions, indicating that traders employing diversification and stop-loss strategies are more likely to engage in Beldex coin trading. Hedonic motivation positively influences trading intentions toward Beldex coins ($\beta = 0.125$, $p = 0.031$) and plays a

Table 1. Regression analysis results

Predictor Variable	Coefficient (β)	Standard Error	t-value	p-value
Intercept	1.235	0.421	2.93	0.004
Risk Management	0.342	0.067	5.10	0.000
Hedonic Motivation	0.125	0.058	2.16	0.031
Investment Desire	0.217	0.064	3.39	0.001
Market Knowledge	0.189	0.059	3.20	0.002
Peer Participation	0.151	0.062	2.44	0.015
Earning Desires	0.378	0.071	5.32	0.000

significant role, suggesting that traders driven by the excitement and thrill of trading are more inclined to trade Beldex coins. Investment desire positively influences trading intentions toward the Beldex coin ($\beta = 0.217$, $p = 0.001$) and has a significant effect, indicating that traders motivated by the perceived value and growth potential of Beldex coins are more likely to trade it. Market knowledge positively influences trading intentions toward the Beldex coin ($\beta = 0.189$, $p = 0.002$) and significantly enhances trading intentions, highlighting the importance of financial literacy and understanding cryptocurrency markets. Peer participation positively influences trading intentions toward Beldex coins, ($\beta = 0.151$, $p = 0.015$) has a positive effect, indicating that traders influenced by social networks and peer advice are more likely to trade Beldex coins. Earning desires positively influence trading intentions toward Beldex coins ($\beta = 0.378$, $p < 0.001$) and have the strongest impact, suggesting that traders motivated by financial gains are significantly more likely to engage in Beldex coin trading. The results confirm that both psychological factors (hedonic motivation, investment desire, and earning desires) and knowledge-based factors (risk management, market knowledge, peer participation) significantly influence trading intentions towards Beldex coins among crypto traders. These findings contribute to understanding the complex motivations and decision-making processes involved in cryptocurrency trading. This study employs Structural Equation Modeling (SEM) using AMOS software version 25 to examine the factors influencing crypto trading intentions and retention among participants. The research hypothesizes that risk management in Beldex Projects, hedonic motivation, investment desire, crypto market knowledge, peer participation and support, and earnings desires from crypto significantly influence foreign exchange trading intentions. Additionally, the study examines the relationship between demographic factors and market efficiency.

3.1. Research hypotheses

The hypotheses were formulated to assess the Forex trading intention and retraining of the Forex market participants. The research design has two exogenous variables and six endogenous variables, and it is carried out using SEM (AMOS software version 25).

H1: *Risk management in the Bledex Projects significantly influences the foreign exchange trading intention.*

H2: *Hedonic motivation significantly influences the foreign exchange trading intention.*

H3: *Investment desire significantly influences the foreign exchange trading intention.*

H4: *Forex market knowledge has significantly influenced foreign exchange trading intentions.*

H5: *Peer participation and support have significantly influenced the foreign exchange trading intention.*

H6: *Earning desires from Forex have significantly influenced foreign exchange trading intentions.*

H7: *Risk management in the Bledex Projects significantly influences the foreign exchange re-trading intention.*

H8: *Hedonic motivation significantly influences foreign exchange re-trading intention.*

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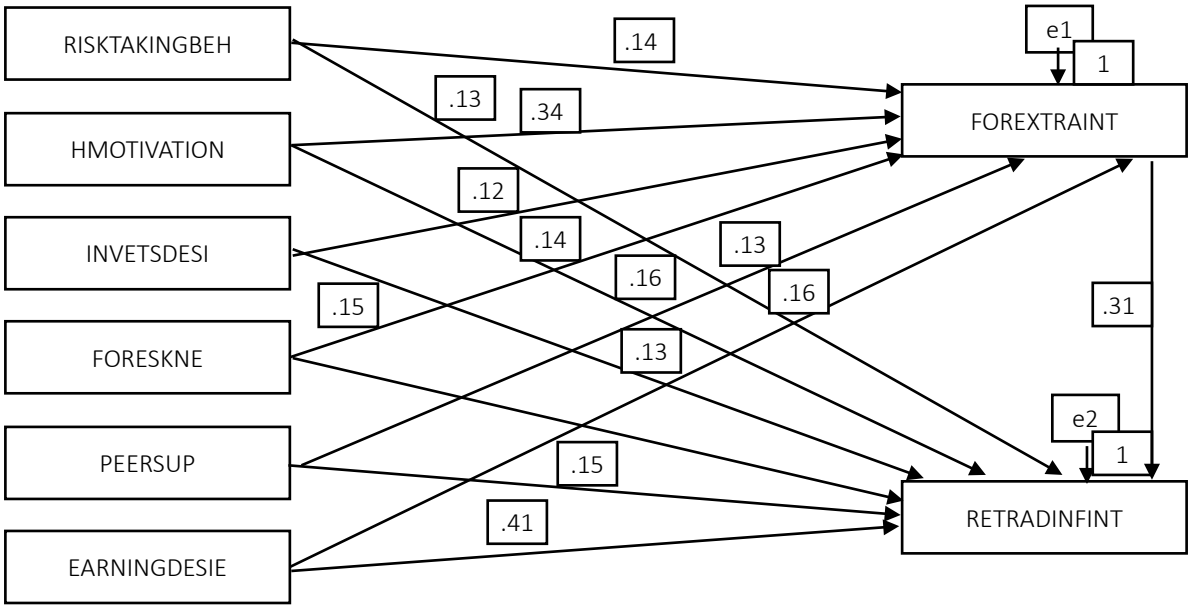

Figure 2. Structural equation modeling for assessing the trading and retrading intentions

H9: Investment desire significantly influences the foreign exchange re-trading intention.

H10: Forex market knowledge has significantly influenced foreign exchange re-trading intentions.

H12: Earning desires from Forex have significantly influenced foreign exchange re-trading intentions.

The Structural Equation Modeling (SEM) analysis presented in Figure 2 and Table 2 reveals valuable insights into the drivers of trading and retrading intentions. Notably, the model explains 46% of the variance in market trading intention and 37% in retarding intention, demonstrating considerable explanatory power for behavioral studies. Risk management in Beldex projects emerges as a critical factor that significantly influences trading intention. Hedonic motivation and behavior are vital in driving foreign exchange trading intentions. Investment desire similarly exhibits a significant effect on trading intention. However, crypto market knowledge (H4) is found to have a limited impact on trading intention, suggesting traders prioritize other factors. In contrast, peer participation and support significantly influence trading intention

Table 2. Trading and retrading intensions

S.No	Dependent variable		Independent Variable	Estimate	Std Error	Critical Ratio	P-value	Result
H1	Trading Intention	←	Risk Management	–.041	.043	–.946	.344	Rejected
H2	Trading Intention	←	Hedonic motivation	.094	.048	–1.968	.049	Accepted
H3	Trading Intention	←	Investment desire	.085	.049	–1.999	.040	Accepted
H4	Trading Intention	←	Crypto market knowledge	.003	.050	.054	.957	Rejected
H5	Trading Intention	←	Peer participation and support	.144	.050	2.885	.004	Accepted
H6	Trading Intention	←	Earning desires	.122	.041	3.019	.003	Accepted
H7	Retarding intention	←	Risk Management	.107	.073	1.477	.140	Rejected
H8	Retarding intention	←	hedonic motivation	.045	.031	1.438	.150	Rejected
H9	Retarding intention	←	Investment desire	.055	.035	1.595	.111	Rejected
H10	Retarding intention	←	Crypto market knowledge	.047	.035	2.337	.018	Accepted
H11	Retarding intention	←	Peer participation and support	.037	.036	1.028	.304	Rejected
H12	Retarding intention	←	Earning desires	.057	.036	1.558	.119	Rejected

Figure 3. Contemporary scenario of Beldex Coin in the market – July 2023 to April 2024

(H5). Earning desires prove essential, with a high t-ratio of 3.019 (H6), underscoring their motivational force. Interestingly, risk management in Beldex projects has less of an effect on retarding intentions (H7). Hedonic motivation (H8) and investment desire (H9) also exhibit insignificant effects on retarding intentions. Although foreign market knowledge shows marginal significance (H10, p = 0.018), peer participation and support have a limited impact on retarding intentions (H11). Earning desires from crypto markets also fail to significantly influence retarding intentions (H12). These findings provide a deliberate understanding of the factors driving trading and retrading intentions in the crypto market, highlighting the complex relationship between risk management, motivation, investment desire, and social influences.

Figure 3 illustrates the market dynamics of Beldex Coin, analyzed using CoinGecko tools, revealing fluctuations in market efficiency over the specified period. Particularly, the market price of Beldex Coin reached its peak in July 2023, followed by a gradual decline in October 2023. However, from January 2024 to April 2024, the market witnessed an upward trend with increasing price movements.

Figure 4. Beldex coin efficiency in the market 2019–2024

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Figure 4 represents the leading cryptocurrencies, and their market information concerning intraday price movements, percentage of change, market capitalization rate, volume of supply, and 52-week moving average are analyzed by using a simple moving average as a tool for assessing market volatility. Investors must deduct deception in the domain of financial technology and the risks involved in crypto trading, including price manipulations, forged estimates, and macroeconomic constraints. Compared with 2019, in 2022, a large volume of trading was held in the Beldex market.

4. DISCUSSION

The findings of this study provide valuable insights into the psychological and knowledge-based determinants influencing trading intentions towards the Beldex coin among crypto traders. The analysis revealed significant relationships between several key variables – risk management, hedonic motivation, investment desire, market knowledge, peer participation, and earning desires and traders' intentions to engage in Beldex coin trading. The positive influences of hedonic motivation and investment desire on trading intentions underscore the emotional and financial motivations driving traders. Traders who find excitement in cryptocurrency trading and perceive cryptocurrencies such as Beldex coins as promising investments are more likely to actively trade them. Sentiment-based research, there is a substantial body of work, which uses natural language processing technology, for sentiment analysis with the ultimate goal of using news and media contents to improve the performance of cryptocurrency trading strategies (Fan Fang et al., 2022). The strongest predictor, earning desires, highlights the significant role of financial incentives in shaping trading behavior. Traders motivated by the potential for high returns are particularly inclined to engage in Beldex coin trading, reflecting the economic incentives driving participation in cryptocurrency markets (Jiang & Li, 2019; Stevens et al., 2021). Effective risk management practices and comprehensive market knowledge were found to positively influence trading intentions toward the Beldex coin. Traders who employ strategies such as diversification and better understand cryptocurrency markets are more confident in their trading decisions. These findings support the notion that informed decision-making and risk mitigation strategies are critical for trading success in volatile markets (Barber & Odean, 2001; Grinblatt & Keloharju, 2009). The impact of peer participation highlights the social aspect of trading decisions. Traders influenced by peer advice and engaged in online trading communities exhibit greater trading intentions toward Beldex Coins. This finding underscores the role of social networks in shaping market behavior and decision-making processes (Antweiler & Frank, 2004; Bikhchandani et al., 1992). The results of this study are consistent with previous research on trading behavior in financial markets. Studies examining the factors influencing cryptocurrency trading have consistently identified psychological motivations like hedonic motivation and investment desire, and knowledge-based factors like market knowledge and risk management as key determinants of trading intentions (Li & Wang, 2020; Zhou et al., 2017). The current study extends this understanding by specifically focusing on the Beldex coin within the crypto market context, contributing nuanced insights into trader behavior. The observed relationships between psychological and knowledge-based factors and Beldex coin trading intentions can be explained by several underlying mechanisms. First, the emotional appeal of trading and the desire for financial gains motivate traders to actively engage in Beldex coin transactions. Second, traders equipped with better market knowledge and effective risk management strategies feel more confident in navigating the complexities of cryptocurrency trading, thereby enhancing their trading intentions. Finally, the influence of peer networks underscores the social dynamics at play, where traders seek validation and guidance from their peers when making trading decisions.

CONCLUSION AND IMPLICATIONS

This study investigated the psychological and knowledge-based factors influencing trading intentions toward Beldex coins among crypto traders. Analyzing data from 300 respondents, the study identified significant influences such as hedonic motivation, investment desire, and earning desires, underscoring the role of psychological motivations in cryptocurrency trading. Moreover, effective risk manage-

ment strategies and market knowledge were found to enhance trading intentions, highlighting the importance of financial literacy and risk mitigation techniques in fostering trader engagement. Practical implications suggest the need for enhanced trader education programs that integrate psychological insights and promote sound risk management practices tailored to cryptocurrency markets. Future research directions could explore the ongoing evolution of cryptocurrency dynamics in response to technological advancements and regulatory changes, offering insights into sustainable trading behaviors over time. Overall, this study contributes to understanding how psychological and knowledge-based factors shape trading intentions, providing actionable insights for market participants, educators, and policymakers aiming to support informed decision-making in digital currency markets.

Future research in this area could explore the dynamic interplay between these psychological and knowledge-based factors over time. Longitudinal studies could track changes in trader behavior and intentions amidst evolving market conditions and regulatory landscapes. Additionally, investigating the role of emerging technologies in blockchain advancements and regulatory frameworks in shaping trader decisions could provide deeper insights into cryptocurrency market dynamics. Furthermore, educational initiatives to enhance trader literacy and promote effective risk management practices could mitigate trading risk and foster a more informed trading community. Leveraging insights from behavioral economics and psychology could also inform strategies to nudge traders toward more rational decision-making processes in volatile markets.

AUTHOR CONTRIBUTIONS

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Validation: Jayanthi Namachivayam.
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REFERENCES

1. Akhtekhane, S., & Poorabbas, S. (2023). Value-at-risk estimation using an interpolated distribution of financial returns series. *Journal of Applied Finance and Banking*, 13(1), 90-107. https://doi.org/10.47260/jafb/1316
2. Alekseenko, A. P. (2023). Model framework for consumer protection and crypto-exchanges regulation. *Journal of Risk and Financial Management, 16*(7), Article 305. https://doi.org/10.3390/jrfm16070305
3. Almansour, B. Y., Elkrghli, S., & Almansour, A. Y. (2023). Unravelling the complexities of cryptocurrency investment decisions: A behavioral finance perspective from Gulf investors. *International Journal of Professional Business*

http://dx.doi.org/10.21511/imfi.21(4).2024.23

Review, 8(7), Article 3265. https://doi.org/10.26668/businessreview/2023.v8i7.3265

4. Bakas, D., & Magkonis, G. (2022). What drives volatility in the bitcoin market? *Finance Research Letters, 50,* Article 103237. https://doi.org/10.1016/j.frl.2022.103237

5. Bibi, S. (2023). Money in the time of crypto. *Research in International Business and Finance, 65,* Article 101964. https://doi.org/10.1016/j.ribaf.2023.101964

6. Brauneis, A., Mestel, R., Riordan, R., & Theissen, E. (2022). Bitcoin unchained: Determinants of cryptocurrency exchange liquidity. *Journal of Empirical Finance, 69,* 106-122. https://doi.org/10.1016/j.jempfin.2022.08.004

7. Chinthapalli, U. R. (2021). A comparative analysis on probability of volatility clusters on cryptocurrencies. *Journal of Risk and Financial Management*, *14*, Article 308. https://doi.org/10.3390/jrfm14070308

8. El Chaarani, H., El Abiad, Z., El Nemar, S., & Sakka, G. (2024). Factors affecting the adoption of cryptocurrencies for financial transactions. *EuroMed Journal of Business, 19*(1), 46-61. https://doi.org/10.1108/EMJB-04-2023-0121

9. Elsayed, A. H., Gozgor, G., & Yarovaya, L. (2022). Volatility and return connectedness of cryptocurrency, gold, and uncertainty: Evidence from the cryptocurrency uncertainty indices. *Finance Research Letters, 47*(B), Article 102732. https://doi.org/10.1016/j.frl.2022.102732

10. Fang, F., Ventre, C., Basios, M., Kanthan, L., Martinez-Rego, D., Wu, F., & Li, L. (2022). Cryptocurrency trading: a comprehensive survey. *Financial Innovation, 8, 13.* https://doi.org/10.1186/s40854-021-00321-6

11. Feng, L., Qi, J., & Lucey, B. (2024). Enhancing cryptocurrency market volatility forecasting with daily dynamic tuning strategy. *International Review of Financial Analysis, 94,* 103239. https://doi.org/10.1016/j.irfa.2024.103239.

12. Ferreira, A., & Sandner, P. (2021). EU search for regulatory answers to crypto assets and their place in the financial markets infrastructure. *Computer Law & Security Review, 43,* Article 105632. https://doi.org/10.1016/j.clsr.2021.105632

13. Grobys, K., Ahmed, S., & Sapkota, N. (2020). Technical trading rules in the cryptocurrency market. *Finance Research Letters, 32,* Article 101396. https://doi.org/10.1016/j.frl.2019.101396

14. Gupta, N., Mitra, P., & Banerjee, D. (2023). Cryptocurrencies and traditional assets: Decoding the analogy from emerging economies with crypto usage. *Investment Management and Financial Innovations, 20*(1), 1-13. http://dx.doi.org/10.21511/imfi.20(1).2023.01

15. Hansen, P. R., Kim, C., & Kimbrough, W. (2022). Periodicity in cryptocurrency volatility and liquidity. *Journal of Financial Econometrics, 22*(1), 224-251. https://doi.org/10.1093/jjfinec/nbac034

16. Kakinaka, S., & Umeno, K. (2022). Asymmetric volatility dynamics in cryptocurrency markets on multi-time scales. *Research in International Business and Finance, 62,* Article 101754. https://doi.org/10.1016/j.ribaf.2022.101754

17. Kaya, O., & Mostowfi, M. (2022). Low-volatility strategies for highly liquid cryptocurrencies. *Finance Research Letters, 46*(B), Article 102422. https://doi.org/10.1016/j.frl.2021.102422

18. Leirvik, T. (2022). Cryptocurrency returns and the volatility of liquidity. *Finance Research Letters*, *44*, Article 102031. https://doi.org/10.1016/j.frl.2021.102031

19. López Cabarcos, M. Á., Pérez Pico, A. M., Piñeiro Chousa, J., & Šević, A. (2021). Bitcoin volatility, stock market, and investor sentiment: Are they connected? *Finance Research Letters, 38,* Article 101399. https://doi.org/10.1016/j.frl.2019.101399

20. Lyócsa, Š., Molnár, P., Plíhal, T., & Širaňová, M. (2020). Impact of macroeconomic news, regulation, and hacking exchange markets on the volatility of Bitcoin. *Journal of Economic Dynamics and Control, 119,* Article 103980. https://doi.org/10.1016/j.jedc.2020.103980

21. Muhammad Umar, F. Shahzad, I. Ullah, & Tong, F. (2023). A comparative analysis of cryptocurrency returns and economic policy uncertainty pre- and post-COVID-19. *Research in International Business and Finance, 65,* Article 101965. https://doi.org/10.1016/j.ribaf.2023.101965

22. Nomran, N. M., Laallam, A., Haron, R., Kashi, A., Shaikh, Z. H., & Abey, J. (2024). The Impact of the Cryptocurrency Market on Islamic vs. Conventional Stock Returns: Evidence from Gulf Cooperation Council Countries. *Journal of Risk Financial Management, 17*(7), 305. https://doi.org/10.3390/jrfm17070305

23. Panigrahi, S. (2023). Are cryptocurrencies a threat to financial stability and economic growth of India? Evidence from the cointegration approach. *Investment Management and Financial Innovations, 20*(2), 307-320. http://dx.doi.org/10.21511/imfi.20(2).2023.26

24. Plastun, A., Sliusareva, L., Sliusarev, D., Smachylo, V., & Khomutenko, L. (2023). Persistence in the cryptocurrency market: Does size matter? *Investment Management and Financial Innovations, 20*(4), 138-146. http://dx.doi.org/10.21511/imfi.20(4).2023.12

25. Rahyuda, H., & Candradewi, M. R. (2023). Determinants of cryptocurrency investment decisions (study of students in Bali). *Investment Management and Financial Innovations, 20*(2), 193-204. http://dx.doi.org/10.21511/imfi.20(2).2023.17

26. Sahoo, P. K., & Sethi, D. (2022). Market efficiency of the cryptocurrencies: Some new evidence based on price–volume relationship. *International Journal of Finance and Economics, 29*(2), 1569-1580. https://doi.org/10.1002/ijfe.2744

27. Sapkota, N. (2022). News-based sentiment and Bitcoin volatility. *International Review of Financial Analysis, 82,* Article

102183. https://doi.org/10.1016/j.irfa.2022.102183

28. Schinckus, C., Nguyen, C. P., & Chong, F. H. L. (2021). Are Bitcoin and Ether affected by strictly anonymous cryptocurrencies? An exploratory study. *Economics, Management, and Financial Markets*, *16*(4), https://doi.org/10.22381/emfm16420211

29. Takaishi, T. (2020). Rough volatility of Bitcoin. *Finance Research Letters, 32,* Article 101379. https://doi.org/10.1016/j.frl.2019.101379

30. Trabelsi, N. (2018). Are there any volatility spill-over effects among cryptocurrencies and widely traded asset classes? *Journal of Risk and Financial Management, 11*(4), 66. https://doi.org/10.3390/jrfm11040066

31. Tran, V. L., & Leirvik, T. (2020). Efficiency in the markets of cryptocurrencies. *Finance Research Letters, 35,* Article 101382. https://doi.org/10.1016/j.frl.2019.101382

32. Vu Le Tran, T., & Leirvik, T. (2020). Efficiency in the markets of crypto-currencies. *Finance Research Letters, 35,* Article 101382. https://doi.org/10.1016/j.frl.2019.101382

33. Waspada, I., Fitrizal Salim, D., & Krisnawati, A. (2022). Horizon of cryptocurrency before vs during COVID-19. *Investment Management and Financial Innovations, 20*(1), 14-25. http://dx.doi.org/10.21511/imfi.20(1).2023.02

34. Wei, Y., Wang, Y., Lucey, B. M., & Vigne, S. A. (2023). Cryptocurrency uncertainty and volatility forecasting of precious metal futures markets. *Journal of Commodity Markets, 29,* Article 100305. https://doi.org/10.1016/j.jcomm.2022.100305

http://dx.doi.org/10.21511/imfi.21(4).2024.23