Research article

The Impact of Risk Awareness, Perception, and Past Investment Experience on Cryptocurrency Investments in Sri Lanka

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Abstract

This study examines the impact of risk awareness, risk perception, and past investment experience on cryptocurrency investments among Sri Lankan investors. Primary data were collected using a snowball sampling method from 124 Sri Lankan cryptocurrency investors, and the analysis was conducted using binary logistic regression. The findings reveal that risk awareness and risk perception significantly influence cryptocurrency investment decisions, while past investment experience does not play a significant role. Based on these results, the study suggests the implementation of policy measures aimed at enhancing investors' risk awareness and perception levels to foster a more informed and secure investment environment. Furthermore, policymakers should focus on developing regulatory frameworks that enhance investor security and create a stable and supportive ecosystem for cryptocurrency investments. Government intervention in the cryptocurrency sector can also play a crucial role in ensuring market stability and investor protection. Overall, this study contributes to a deeper understanding of the factors influencing cryptocurrency investment behavior in Sri Lanka and provides actionable insights for policymakers, financial regulators, and market participants to strengthen the country's cryptocurrency market.

Keywords: Risk awareness, Risk perception, Cryptocurrency investments, Binary logistic regression model and Sri Lanka

JEL codes: G11, G32, C01

Introduction

The rapid global growth of cryptocurrencies has sparked widespread discussions on their viability as investment assets. The increasing adoption of digital currencies has reshaped the financial landscape, presenting both opportunities and challenges. According to Manahov (2023), unlike traditional financial instruments, cryptocurrency values are not tied to tangible assets or national economies but are instead determined by computer algorithms and market speculation. The decentralized nature of cryptocurrencies, coupled with low transaction costs and the absence of government regulations, has been a key driver of their expansion (Corbet, 2018). However, these same characteristics also introduce significant risks, making it imperative to understand investor behavior, particularly their risk awareness and perception.

The Central Bank of Sri Lanka (CBSL, 2018 & 2023) has repeatedly warned the public about the risks associated with cryptocurrency investments. These risks include high volatility, security vulnerabilities, regulatory uncertainty, fraud, and a lack of consumer protection. Moreover, CBSL has explicitly stated that cryptocurrencies should not be considered legal tender in Sri Lanka (CBSL, 2023). Despite these warnings, interest in cryptocurrencies as an alternative investment avenue continues to grow among Sri Lankan investors.

As a developing economy, Sri Lanka has seen increasing participation in cryptocurrency investments, despite the risks and regulatory ambiguities (CBSL, 2023). Given the volatile nature of cryptocurrency markets and the absence of clear regulations, investing in digital assets can be particularly risky and unpredictable. Understanding how investors perceive and respond to these risks is crucial for ensuring responsible investment behavior and market stability.

Investment decision-making is influenced by various factors, including investor awareness, market transparency, liquidity, and regulatory oversight (Acqua-Sam & Salami, 2013). Risk is a fundamental element in investment choices, as it represents the potential deviation of actual returns from expected returns (Bhattacharjee et al., 2019). Risk awareness refers to an investor's understanding of potential threats associated with an investment (OECD, 2011), while risk perception involves an investor's subjective judgment regarding the probability and impact of those risks (Fischhoff, 1995). Studies have shown that institutional investors, such as venture capital firms and hedge funds, are generally more risk-aware and risk-conscious than retail investors (KPMG, 2018).

Since the introduction of Bitcoin in 2009, cryptocurrencies have evolved into a mainstream investment class. By 2011, digital currencies gained widespread recognition, attracting investors seeking high returns and portfolio diversification. However, in Sri Lanka, cryptocurrency investments remain relatively new and underregulated, raising concerns about investor education and risk management. Many investors may underestimate or misunderstand the risks involved, leading to poor investment decisions, financial losses, and potential legal consequences.

This study aims to explore cryptocurrency investment behavior among Sri Lankan investors, with a particular focus on risk awareness, risk perception, and past investment experience. Specifically, it seeks to determine whether Sri Lankan investors are aware of the potential risks associated with cryptocurrency investments, how they perceive and evaluate these risks, and the extent to which past investment experience influences their cryptocurrency

investment decisions.

Despite the growing interest in cryptocurrencies, research on the Sri Lankan cryptocurrency market remains limited (CBSL, 2018 & 2023). While some studies have examined cryptocurrency adoption and investor behavior in Sri Lanka (Fernando & Bogamuwa, 2022; Chathurika, 2023; Pasindu, 2023), there is still a gap in understanding the role of risk awareness and perception in investment decision-making. This study aims to bridge that gap by providing empirical insights into the risk perceptions and investment behaviors of Sri Lankan cryptocurrency investors.

The significance of this study is threefold. First, it contributes to the existing literature on cryptocurrency investments by offering insights from an emerging market perspective. Second, its findings will be valuable for financial educators and policymakers, helping them design targeted educational programs for cryptocurrency investors. Finally, the study will provide policy recommendations that can enhance investor protection, foster ethical investment practices, and promote a sustainable cryptocurrency sector in Sri Lanka. By fostering greater risk awareness and informed decision-making, this study aims to support the development of a more secure and well-regulated cryptocurrency investment environment in Sri Lanka.

Following this introduction, the remainder of the paper is structured as follows: Section 2 reviews relevant theoretical and empirical literature; Section 3 outlines the research methodology; Section 4 presents the empirical results and discussion; and Section 5 concludes with policy implications and study limitations.

Literature Review

Cryptocurrency

Cryptocurrency is a form of digital currency that utilizes blockchain technology and encryption to secure data related to exchanges and transactions conducted over the internet. It is considered a subcategory of digital currencies (Milutinović, 2018). Bitcoin, the first cryptocurrency, was introduced in 2008 with the primary goal of addressing the double-spending issue by eliminating third-party involvement in transactions (Nakamoto, 2008). As of 2023, Coin Market Cap reports that 9,786 cryptocurrencies are officially listed, with daily updates on their market data. Binance (2023) lists 364 cryptocurrencies with 1,391 trading pairs available for trading.

Blockchain technology plays a crucial role in cryptocurrencies by ensuring security, privacy, and decentralization. Mahdi and Miraz (2018) emphasize that blockchain relies on cryptographic methods to maintain the confidentiality and integrity of stored data, making it resistant to alteration. The decentralized nature of blockchain further enhances its security, attracting a growing number of users.

Chandrasekara (2020) identifies six key factors contributing to the appeal of cryptocurrencies: secure transactions, faster payments, absence of currency barriers, attraction of new customers, low transaction fees, and first-mover advantage. Ivashchenko (2016) supports these claims, highlighting additional benefits such as open-source code for mining, immunity to inflation, peer-to-peer networking, borderless transactions, and lower operational costs, making cryptocurrency investments increasingly attractive to investors.

Risks of Cryptocurrency Investment

Investment risk refers to the probability of losses occurring instead of expected gains due to fluctuations in asset prices (Srivastav, 2023). Olsen (1997) categorizes key risk attributes as the potential for below-target returns, significant losses, investor control perception, and knowledge of the investment. The growing interest in cryptocurrencies has established them as viable investment instruments (Saksonova & Kuzmina-Merlino, 2019). However, Inci and Lagasse (2019) highlight that cryptocurrency remains one of the world's largest unregulated markets, posing risks such as theft, government regulations, fraud, hacking, and illiquidity. Danial (2019) further elaborates on specific risks associated with cryptocurrencies, including security vulnerabilities, price volatility, liquidity issues, disappearance of assets, and regulatory uncertainties.

Regulatory challenges present a paradox - while inadequate regulation increases security risks, excessive regulation could stifle the market (Inci & Lagasse, 2019). According to Foley et al. (2019), approximately 25% of Bitcoin users may be involved in illicit activities, with an estimated $76 billion in annual illegal transactions. Such concerns add to the risks faced by cryptocurrency investors.

Liu et al. (2019) categorize cryptocurrency risks into four broad factors: size, momentum, trading volume, and volatility. In the context of India, Nabeel and Mohan (2022) identify key risks such as high speculation, illegal trafficking, money laundering, lack of central authority, asset theft, and malware attacks.

Despite the risks, cryptocurrencies offer potential high returns. To mitigate risks, Saksonova and Kuzmina-Merlino (2019) recommend strategies such as portfolio diversification, ensuring liquidity by maintaining convertible cryptocurrency assets, and incorporating uncorrelated cryptocurrencies to minimize risk exposure.

Risk Awareness

Risk refers to the possibility that an ongoing process or future event may negatively impact an asset or its value. It is the likelihood that an investment's actual return will differ from expectations, potentially leading to partial or complete capital loss (Olsen, 1997). Risk awareness is defined as recognizing potential dangers and proactively taking steps to mitigate or eliminate them (Smart & Catlin, 2016).

Various theories address risk awareness. Freud's model (Smith, 1999) categorizes awareness into three levels: consciousness (immediate thought processes), preconsciousness (stored information easily retrieved), and unconsciousness (deep-seated thoughts and emotions). Nilsson (2008) notes that conscious investors are more likely to invest in socially responsible portfolios. Albert et al. (2009) highlight the significance of preconscious awareness in building trust.

However, existing literature does not provide a clear understanding of the level of risk awareness among cryptocurrency investors. This gap warrants further exploration to assess how risk awareness influences cryptocurrency investment decisions.

Investment Experience

Investment experience refers to an individual's prior involvement in purchasing financial products and assets (Nicolini, 2013). Malmendier (2020) suggests that investment experience significantly influences financial decision-making, particularly the adoption of new financial instruments. Xi (2020) found that past investment experience plays a crucial role in determining cryptocurrency investment behavior.

Kolb and Kolb (2005) propose that investment experience is shaped by previous encounters, inherited traits, and external environments. Rakow and Newell (2010) argue that experience enhances investors' risk awareness and decision-making abilities. Roszkowski and Davey (2010) further emphasize that experienced investors are more adept at identifying risks.

Zhao and Zhang (2021) state that experienced investors gain confidence from prior encounters, allowing them to navigate investments more effectively. Duval and Wicklund (1972) suggest that past experiences serve as reference points for future investment decisions. Grinblatt and Keloharju (2000) demonstrate that inexperienced investors tend to earn lower returns compared to seasoned investors. Portfolio diversification is also linked to investment performance (Lim et al., 2013).

Previous studies indicate that experienced investors are more inclined to explore complex financial instruments, including cryptocurrencies (Yao & Xu, 2015). Leviauskaitė and Kartaova (2012) assert that market behavior is heavily influenced by prior experience. Furthermore, Lammer et al. (2019) note that cryptocurrency investors typically hold twice as many assets as traditional investors.

Relationship Between Risk Awareness, Investment Experience, and Cryptocurrency Investment

Prior research suggests that financial literacy, investment experience, and market perceptions significantly influence investors' risk assessment of cryptocurrencies. While some investors view cryptocurrencies as high-risk, high-reward assets, others perceive them as excessively risky (Parashar & Rasiwala, 2018). Chen and Farkas (2019) report that financially literate and experienced investors tend to have a more favorable outlook on cryptocurrencies and are more likely to invest. Market volatility and media coverage also shape investor sentiment. During periods of instability, investors may perceive cryptocurrencies as riskier and hesitate to invest. Additionally, government regulations influence market perceptions, either deterring or encouraging investment (Ryan, 2015).

Although risk awareness, risk perception, and investment experience are critical factors, they do not independently determine cryptocurrency investment decisions. The interplay between these factors remains unexplored, particularly in developing economies such as Sri Lanka. Individual investment decisions are shaped by both internal (attitudes, upbringing, personality) and external (market conditions, regulations, economic factors) influences.

Given this complexity, it is necessary to develop an integrated framework that examines the combined effects of risk awareness, risk perception, and investment experience on cryptocurrency investment behavior. This study seeks to evaluate how these factors collectively influence investment decisions in Sri Lanka, a developing *market with evolving financial landscapes.*

Methodology

This section outlines the conceptual framework, hypothesis development, research model, sampling technique, and data collection methods used in the study.

Dependent Variable

The dependent variable in this study is "Present Investment in Cryptocurrency." These variable measures whether respondents are currently engaged in cryptocurrency investment. A binary response format is used, where respondents indicate either "Yes" (currently investing) or "No" (not investing).

The study sample consists of 124 Sri Lankan cryptocurrency investors, selected to analyze the factors influencing their investment decisions.

Independent Variables and Hypothesis Development

Risk Awareness

Risk awareness refers to an investor's understanding and recognition of potential risks associated with cryptocurrency investments. Based on prior empirical studies, the following hypothesis is formulated:

H01: There is no significant association between Sri Lankan investors' risk awareness about cryptocurrency investment and their investment in cryptocurrencies.

H01A: There is a significant association between Sri Lankan investors' risk awareness about cryptocurrency investment and their investment in cryptocurrencies.

Risk Perception

Risk perception is a crucial factor influencing investment decisions, as established in the literature review. It refers to an investor's subjective evaluation of the risks involved in cryptocurrency investment. Thus, the second hypothesis is framed as follows:

H02: There is no significant association between Sri Lankan cryptocurrency investors' risk perception and their investment in cryptocurrencies.

H02A: There is a significant association between Sri Lankan cryptocurrency investors' risk perception and their investment in cryptocurrencies.

Past Investment Experience

Investment experience plays a significant role in shaping an investor's confidence and decision-making process. Prior exposure to cryptocurrency investments may influence an investor's willingness to continue or expand their involvement. Hence, the third hypothesis is formulated as follows:

H03: There is no significant association between investors' experience in cryptocurrency investment and their investment in cryptocurrencies.

H03A: There is a significant association between investors' experience in cryptocurrency investment and their investment in cryptocurrencies.

This study seeks to examine the relationship between these independent variables (risk awareness, risk perception, and past investment experience) and the dependent variable (present investment in cryptocurrency) in the Sri Lankan context.
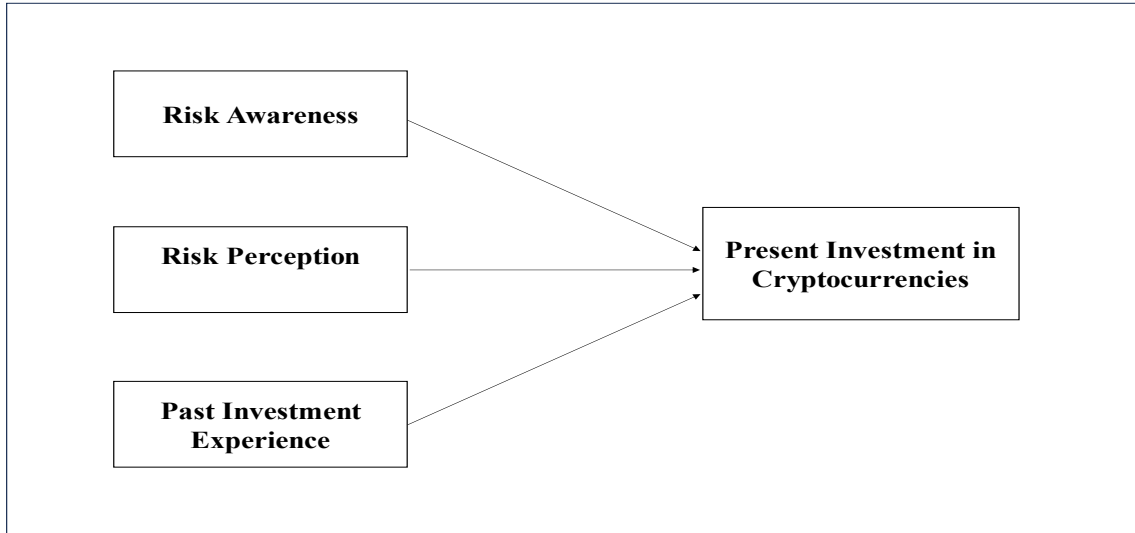
Conceptual Framework

Figure 1: Conceptual Framework

Empirical Model

  A Binary Logistic Regression (BLR) model is employed to examine the impact of risk awareness, risk perception, and past investment experience on cryptocurrency investment decisions. Singh and Bhattacharjee (2010a, 2010b) and Bhuyan et al. (2021) have previously utilized this method to analyze investment behaviors.

  Binary Logistic Regression is suitable for analyzing binary outcomes, which is relevant for understanding the likelihood of present investment in cryptocurrency based on the independent variables. The model is defined as follows:

$$logit(\pi_i) = \log\left(\frac{\pi_i}{1 - \pi_i}\right) = \beta_0 + \beta_1 X_i = \beta_0 + \beta_1 X_{i1} + \cdots + \beta_k X_{ik}$$

Where:

- π_i = Probability of an investor currently investing in cryptocurrency
- $\frac{\pi_i}{1-\pi_i}$ = Odds of investment in cryptocurrency
- β_0 = Intercept
- X_{ik} = Independent variables
- β_k = Coefficients representing the effect of each independent variable

For this study, the model is specified as:

$$PIC = \beta_0 + \beta_1 RA + \beta_2 RP + \beta_3 PIE$$

Where:

- PIC = Present investment in cryptocurrency (1 = Yes, 0 = No)
- RA = Risk awareness score
- RP = Risk perception score
- PIE = Past investment experience

Data Collection and Sampling

The study gathered primary data from 124 Sri Lankan cryptocurrency investors who hold Binance trading accounts. Binance is one of the world's largest cryptocurrency exchanges, providing various investment and trading services, including spot trading, futures and derivatives, staking, lending, Binance Visa card services, and security features. Given Binance's global prominence, investors using this platform were chosen as the study sample. A snowball sampling method was employed to identify respondents. This non-probability sampling technique involves an initial group of investors referring other participants, creating a chain of referrals (Dudovskiy, 2022). This approach is particularly useful for reaching niche populations, such as cryptocurrency investors.

Questionnaire Design

A well-structured questionnaire was developed to collect relevant data. It consisted of three sections:

Investor Verification: Ensures respondents are cryptocurrency investors.

Risk Awareness Assessment: Adapted from Bordoloi et al. (2020) and Bhuyan et al. (2021).

Risk Perception and Past Investment Experience: Based on Singh & Bhattacharjee (2019) and Bhuyan et al. (2021).

Investment experience was assessed using the classification by Grinblatt & Keloharju (2000), which defines experienced investors as those with more than two years of market participation. Participants were asked whether their cryptocurrency investment experience exceeded two years to categorize their experience level.

Data Analysis

IBM SPSS software was used for statistical analysis, including the Binary Logistic Regression model. This approach helps determine the significance of risk awareness, risk perception, and past investment experience in influencing cryptocurrency investment decisions.

This section presents the analysis of the data collected from the questionnaire, transforming raw responses into meaningful insights. Several statistical techniques were employed, including correlation analysis, reliability and validity tests, and binary logistic regression analysis.

The questionnaire evaluates the risk awareness and perception of individual cryptocurrency investors. The risk awareness score was determined based on 10 questions, each carrying a maximum score of 2. The total awareness score for each respondent was calculated by summing the individual question scores, with a maximum possible score of 20 and a minimum of 0, resulting in a total range of 20. To classify investors' risk awareness into five levels, the total score range (0–20) was divided into five equal intervals. This classification follows the upper-limit exclusive scale approach, as utilized in previous studies by Singh & Kar (2011), Bordoloi et al. (2020), and Bhuyan et al. (2021). Table 1 provides the interpretation of the awareness score.

Table 1: Interpretation of Risk Awareness Score

Score Range	Interpretation
0 – 4	Very Low Awareness
4 – 8	Low Awareness
8 – 12	Moderate Awareness
12 – 16	High Awareness
16 – 20	Very High Awareness

This classification helps assess the extent to which Sri Lankan investors are aware of the risks associated with cryptocurrency investments.

Risk Awareness Analysis

To evaluate the risk awareness level of individual cryptocurrency investors in Sri Lanka, a structured questionnaire was used. The risk awareness score was determined based on 10 questions, each carrying a maximum score of 2. The total score was calculated by summing the individual question scores, leading to a maximum possible score of 20 and a minimum of 0. The interpretation of the risk awareness score is categorized into five levels, as shown in Table 1.

Overall Risk Awareness Findings

Table 2 presents the overall distribution of risk awareness levels among Sri Lankan cryptocurrency investors. The mean risk awareness score is 13.61, which falls within the high level of awareness category. This suggests that a majority of individual cryptocurrency investors in Sri Lanka exhibit a high level of risk awareness regarding cryptocurrency investments.

Table 2. Overall Awareness Level

Level of risk awareness	Frequency	Percent
Very low level of awareness	3	2.4
Low level of awareness	23	18.5
Moderate level of awareness	24	19.3
High level of awareness	33	26.6
Very high level of awareness	41	33.1
Total	124	100
Mean	13.61	
Std. Deviation	4.61	

This data suggests that a significant proportion of Sri Lankan cryptocurrency investors (approximately 60%) exhibit a high to very high level of risk awareness. The following section (Table 3) further examines the relationship between individual cryptocurrency investors' risk awareness levels and their investment experience in cryptocurrencies.

Table 3. Past experience in investment in cryptocurrency and Its Risk Awareness Level

			Risk Awareness Level Towards Cryptocurrency Investments					Total
			Very low level of risk awareness	Low level of risk awareness	Moderate level of risk awareness	High level of risk awareness	Very high level of risk awareness	
Having Two Year Investment Experience	No	Count	3	22	15	8	6	54
		% of Total	2.41	17.74	12.10	6.45	4.84	43.5
	Yes	Count	0	1	9	25	35	70
		% of Total	0	0.81	7.25	20.16	28.22	56.5
Total		Count	3	23	24	33	41	124
		% of Total	2.41	18.55	19.35	26.61	33.06	100

Source: Compiled by using data gathered from the questionnaire

Risk Awareness and Investment Experience

Table 3 presents the risk awareness levels of investors based on their past investment experience in cryptocurrency. Out of the 124 surveyed investors, 70 have more than two years of experience, while 54 have less than two years of experience in the cryptocurrency market.

The data reveals a strong correlation between investment experience and risk awareness levels. Among the 70 experienced investors, 35 (50%) exhibit a very high level of risk awareness, while 25 (35.7%) demonstrate a high level of awareness. In contrast, among the 54 less experienced investors, 22 (40.7%) exhibit a low level of risk awareness, and 15 (27.8%) show a moderate level of awareness.

These findings suggest that investors with more than two years of experience tend to have higher risk awareness levels, whereas those with less experience are more likely to exhibit low to moderate awareness levels.

Risk Awareness and Present Investment in Cryptocurrency

Table 4 examines the relationship between risk awareness levels and whether investors are currently investing in cryptocurrencies.

Table 4. Investment in cryptocurrency and its Risk Awareness Level

			Risk Awareness Level Towards Cryptocurrency Investments					Total
			Very low level of risk awareness	Low level of risk awareness	Moderate level of risk awareness	High level of risk awareness	Very high level of risk awareness	
Present investment in cryptocurrency.	No	Count	2	12	11	1	12	38
		% of Total	1.61	9.68	8.8	0.80	9.68	30.6
	Yes	Count	1	11	13	32	29	86
		% of Total	0.8	8.87	10.48	25.81	23.38	69.4
Total		Count	3	23	24	33	41	124
		% of Total	2.41	18.55	19.35	26.61	33.06	100

Source: Compiled by using data gathered from the questionnaire.

Risk Awareness and Present Investment in Cryptocurrency

Table 4 presents the risk awareness levels of investors based on their current investment status in cryptocurrencies. Out of the 124 surveyed investors, 86 are actively investing in cryptocurrency, while 36 are not currently engaged in cryptocurrency investments.

The data highlights a clear association between risk awareness levels and present investment activity. Among the 86 active investors, 41 (47.7%) exhibit a very high level of risk awareness, while 33 (38.4%) demonstrate a high level of awareness. In contrast, among the 36 non-investors, 12 (33.3%) exhibit a very high level of risk awareness, whereas another 12 (33.3%) display a low level of awareness.

These results suggest that investors who actively engage in cryptocurrency investments tend to have higher levels of risk awareness. In contrast, those who are not currently investing show more variation in awareness levels, including a substantial proportion with low awareness.

Reliability Test of Risk Awareness

To assess the internal consistency of the risk awareness scale, a reliability test was conducted using Cronbach's alpha. The results are presented in Table 5.

Table 5: Reliability Statistics of Risk Awareness

Cronbach's Alpha	Number of Items
0.71	10

The Cronbach's alpha coefficient for the 10-item risk awareness scale is 0.71, which exceeds the widely accepted threshold of 0.70 (Nunnally, 1978). This indicates a moderate level of internal consistency, confirming that the items used to measure risk awareness are reliable and consistent within the study. Since the alpha value falls within the acceptable range, it suggests that the scale used to measure risk awareness among Sri Lankan cryptocurrency investors is sufficiently reliable for further statistical analysis.

Correlation Test

The Pearson correlation analysis presented in Table 6 confirms the validity of all the questions used to measure risk awareness. Each item's correlation coefficient exceeds the critical values, indicating a strong relationship between individual responses and the overall risk awareness score. Furthermore, all correlations are statistically significant, reinforcing the reliability of these measures in assessing cryptocurrency investors' awareness of investment risks.

These findings validate the questionnaire as an effective tool for measuring risk awareness in cryptocurrency investments, ensuring the robustness of the study's results.

Table 6. Risk Awareness Correlations

Correlations		Q01	Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09	Q10	Total Score
Q01	Pearson Correlation	1	-0.01 (0.96)	0.08 (0.37)	0.26** (0.01)	0.26* (0.00)	0.15 (0.11)	0.29** (0.00)	0.24** (0.01)	0.22** (0.01)	0.44** (0.00)	0.58** (0.00)
Q02	Pearson Correlation	-0.01 (0.96)	1	0.13 (0.15)	-0.01 (0.91)	-0.05 (0.61)	0.22* (0.01)	0.15 (0.10)	0.10 (0.28)	0.16 (0.08)	-0.01 (0.96)	0.26** (0.00)
Q03	Pearson Correlation	0.08 (0.37)	0.13 (0.15)	1	0.22* (0.01)	0.10 (0.28)	0.04 (0.66)	0.19* (0.04)	0.11 (0.21)	0.18 (0.05)	0.12 (0.20)	0.44** (0.00)
Q04	Pearson Correlation	0.26** (0.00)	-0.01 (0.91)	0.22* (0.01)	1	0.18 (0.05)	-0.00 (0.98)	0.47** (0.00)	0.23* (0.01)	0.29** (0.00)	0.36** (0.00)	0.61** (0.00)
Q05	Pearson Correlation	0.26** (0.00)	-0.05 (0.61)	0.10 (0.28)	0.18 (0.05)	1	-0.07 (0.45)	0.26** (0.00)	0.06 (0.49)	0.12 (0.19)	0.33** (0.00)	0.46** (0.00)
Q06	Pearson Correlation	0.15 (0.11)	0.22* (0.01)	0.04 (0.66)	-0.00 (0.98)	-0.07 (0.45)	1	0.15 (0.09)	0.30** (0.00)	0.23** (0.01)	0.05 (0.59)	0.34** (0.00)

		Q01	Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09	Q10	Total Score
Q07	Pearson Correlation	0.30** (0.00)	0.15 (0.10)	0.19* (0.04)	0.47** (0.00)	0.26** (0.00)	0.15 (0.09)	1	0.22* (0.01)	0.28** (0.00)	0.51** (0.00)	0.70** (0.00)
Q08	Pearson Correlation	0.24** (0.01)	0.10 (0.28)	0.11 (0.21)	0.23* (0.01)	0.06 (0.50)	0.30** (0.00)	0.22* (0.01)	1	0.26** (0.00)	1.20* (0.03)	0.50** (0.00)
Q09	Pearson Correlation	0.22* (0.01)	0.16 (0.08)	0.18 (0.05)	0.29** (0.00)	0.12 (0.19)	0.23* (0.01)	0.28** (0.00)	0.26** (0.00)	1	0.35** (0.00)	0.58** (0.00)
Q10	Pearson Correlation	0.44** (0.00)	-0.00 (0.96)	0.12 (0.20)	0.36** (0.00)	0.33* (0.00)	0.05 (0.59)	0.51** (0.00)	0.20* (0.03)	0.35** (0.00)	1	0.67** (0.00)
Total Score	Pearson Correlation	0.59** (0.00)	0.26** (0.00)	0.44** (0.00)	0.61** (0.00)	0.46* (0.00)	0.34* (0.00)	0.70** (0.00)	0.50** (0.00)	0.58** (0.00)	0.67** (0.00)	1

Validity Test

The validity test results, as shown in Table 7, confirm the suitability of the dataset for factor analysis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy scored 0.75, which is well above the recommended threshold of 0.5. This indicates that the sample data is highly appropriate for factor analysis.

Additionally, Bartlett's Test of Sphericity is statistically significant ($p = 0.00$), confirming that the correlation matrix is not an identity matrix and that factor analysis is appropriate. Furthermore, the average variance (AV) score is 0.53, exceeding the recommended 0.5 threshold. The extraction sums of squared loadings' cumulative column in Table 7 represents the average variance, further supporting the validity of the factor structure.

These results demonstrate that the construct used to measure risk awareness is statistically valid and appropriate for further analysis.

Table 7. KMO, Bartlett's Test, and Total Variance statistics of risk awareness.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.75
Bartlett's Test of Sphericity	**Approx. Chi-Square**	192.63
	df	45
	Sig.	0.00
Total Variance Explained		
Component	**Initial Eigenvalues**	**Extraction Sums of Squared Loadings**

	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.88	28.76	28.76	2.88	28.76	28.76
2	1.43	14.28	43.04	1.43	14.28	43.04
3	1.05	10.46	53.50	1.04	10.46	53.50

Risk Perception

The second part of the questionnaire is designed to measure investors' risk perception toward cryptocurrency investments. Table 8 presents the interpretation of the risk perception score, which is based on a 20-item scale. Each respondent's answers are scored using a five-point Likert scale, where "Strongly Agree" receives 5 points, "Agree" is assigned 4 points, "Neutral" is given 3 points, "Disagree" is awarded 2 points, and "Strongly Disagree" earns 1 point. Since the maximum score for each item is 5, the highest possible total score is 100 (20 × 5). Conversely, the lowest possible score for each item is 1, resulting in a minimum total score of 20 (20 × 1). The difference between the maximum and minimum possible scores is 80 (100 - 20). To categorize risk perception into five levels, this range of 80 is divided by 5, yielding an interval of 16 points per level. By adding 16 to the lowest possible score of 20, the very low risk perception category is defined as scores ranging from 20 to 36. Successive categories are determined by adding 16 to each subsequent range. This classification method follows a similar approach used in previous studies by Singh and Kar (2011), Bordoloi et al. (2020), and Bhuyan et al. (2021).

Table 8. Interpretation of Risk Perception Level

Score value	Interpretation of score value
20-36	Very low level of risk perception
36-52	low level of risk perception
52-68	Moderate level of risk perception
68-84	High level of risk perception
84-100	Very high level of risk perception

Overall Risk Perception Analysis

The overall risk perception of respondents is determined by summing their individual scores from the Likert scale responses. The total score is then interpreted based on the classification provided in Table 8. The final categorization of respondents based on their risk perception levels is presented in Table 9, which provides a breakdown of how investors perceive the risks associated with cryptocurrency investments.

Table 9. Overall Risk Perception Level

Level of risk perception	Frequency	Percentage
Very Low	0	0.00
Low	9	7.26
Moderate	87	70.16
High	27	21.77
Very High	1	0.81
Total	124	100
Mean		61.98
Std. Deviation		7.19

Overall Risk Perception Analysis

Table 9 presents the mean risk perception score, which is calculated as 61.98. This value falls within the interval of 53-68, corresponding to a moderate level of risk perception based on the classification in Table 8.

The findings indicate that most Sri Lankan cryptocurrency investors perceive a moderate level of risk associated with cryptocurrency investments. This suggests that while they acknowledge potential risks, these do not necessarily deter them from participating in the market.

Table 10. Past experience in investment in cryptocurrency and Its Risk Perception.

				Risk Perception Towards Cryptocurrency Investments					Total
				Very low level of risk perception	Low level of risk perception	Moderate level of risk perception	High level of risk perception	Very high level of risk perception	
Having Two Year Investment Experience	No		Count	0	4	41	9	0	54
			% of Total	0	3.23	33.06	7.25	0	43.5
	Yes		Count	0	5	46	18	1	70
			% of Total	0	4.03	36.1	14.51	0.81	56.5
Total			Count	0	9	87	27	1	124
			% of Total	0	7.26	70.16	21.77	0.81	100

Source: Compiled by using data gathered from the questionnaire.

Risk Perception and Investment Experience

Table 10 illustrates the relationship between cryptocurrency investors' risk perception levels and their past investment experience. Among the 124 respondents, 70 have more than

two years of experience, while 54 have less than two years of experience in cryptocurrency investments. The findings indicate that among experienced investors with more than two years of experience, 46 (65.7%) exhibit a moderate level of risk perception, while 18 (25.7%) demonstrate a high level of risk perception. Among less experienced investors with less than two years of experience, 41 (75.9%) display a moderate level of risk perception, whereas 9 (16.7%) exhibit a high level of risk perception.

Overall, across all respondents, 87 investors (70.2%) demonstrate a moderate level of risk perception, while 27 (21.8%) display a high level of risk perception. These results suggest that investment experience plays a role in shaping investors' risk perception. Those with longer experience tend to have slightly higher risk perception, likely due to their exposure to market fluctuations, regulatory challenges, and volatility. The relationship between current cryptocurrency investment activity and risk perception levels is further analysed in Table 11, examining whether actively investing individuals perceive risk differently from those who are not currently investing.

Table 11. Investment in cryptocurrency and its Risk Perception

			Risk Perception Towards Cryptocurrency Investments					Total
			Very low level of risk perception	Low level of risk perception	Moderate level of risk perception	High level of risk perception	Very high level of risk perception	
Present investment in cryptocurrency	No	Count	0	2	32	4	0	38
		% of Total	0	1.61	25.81	3.23	0	30.6
	Yes	Count	0	7	55	23	1	86
		% of Total	0	5.65	44.35	18.54	0.81	69.4
Total		Count	0	9	87	27	1	124
		% of Total	0	7.26	70.16	21.77	0.81	100

Source: Compiled by using data gathered from the questionnaire.

Risk Perception and Current Cryptocurrency Investment

Table 11 examines the relationship between risk perception levels and current investment activity in cryptocurrencies. Among the 124 respondents, 86 are actively investing in cryptocurrencies, while 36 are not currently investing. The findings reveal that among active investors, 55 (63.9%) exhibit a moderate level of risk perception, while 23 (26.7%) demonstrate

a high level of risk perception. Among inactive investors, 32 (88.9%) display a moderate level of risk perception, whereas only 4 (11.1%) exhibit a high level of risk perception. Overall, across all respondents, 87 investors (70.2%) demonstrate a moderate level of risk perception, while 27 (21.8%) display a high level of risk perception.

Reliability Test for Risk Perception

To assess the reliability of the Risk Perception scale, a Cronbach's alpha test was conducted, as presented in Table 12. The results indicate a Cronbach's alpha score of 0.88. Since a Cronbach's alpha value above 0.70 is generally considered acceptable for research purposes, the obtained score demonstrates strong internal consistency among the Likert-scale items used to measure risk perception.

Table 12. Reliability statistics of risk perception

Cronbach's alpha score	No. of items
0.88	20

Correlation Test for Risk Perception

To evaluate the validity of the Risk Perception scale, a Pearson correlation test was conducted. The results confirm that the Likert-scale items used to measure risk perception are valid based on Pearson correlation analysis. All Pearson correlation values exceed the critical thresholds, indicating strong relationships between individual survey items and the overall risk perception score. Furthermore, all items are highly significant ($p < 0.05$), confirming their statistical relevance in assessing risk perception. These results suggest that the survey items are appropriately structured and effectively measure risk perception among cryptocurrency investors. The strong correlations indicate that each question contributes meaningfully to the overall assessment. The detailed test results are presented in Table 13.

Table 13. Risk Perception Correlations

	Total		
	Pearson Correlation	**Sig. (2-tailed)**	**N**
X_1	0.534**	(0.00)	124
X_2	0.557**	(0.00)	124
X_3	0.564**	(0.00)	124
X_4	0.671**	(0.00)	124
X_5	0.521**	(0.00)	124
X_6	0.613**	(0.00)	124
X_7	0.652**	(0.00)	124
X_8	0.626**	(0.00)	124
X_9	0.547**	(0.00)	124
X_{10}	0.497**	(0.00)	124

X_{11}	0.645**	(0.00)	124
X_{12}	0.410**	(0.00)	124
X_{13}	0.364**	(0.00)	124
X_{14}	0.556**	(0.00)	124
X_{15}	0.526**	(0.00)	124
X_{16}	0.561**	(0.00)	124
X_{17}	0.560**	(0.00)	124
X_{18}	0.440**	(0.00)	124
X_{19}	0.582**	(0.00)	124
X_{20}	0.485**	(0.00)	124
Total	1		124

Validity Test for Risk Perception

To assess the validity of the Risk Perception scale, the Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity were conducted. The results indicate a KMO Sampling Adequacy Score of 0.76, which exceeds the recommended threshold of 0.50, confirming that the data is highly suitable for factor analysis. Bartlett's Test of Sphericity is statistically significant ($p = 0.00$), demonstrating that the correlation matrix is not an identity matrix, making factor analysis appropriate. Additionally, the Average Variance (AV) Score of 0.66 surpasses the 0.50 threshold, suggesting that the extracted factors explain a significant proportion of variance in the dataset. These results validate the effectiveness and appropriateness of the Likert-scale used to measure risk perception. The high KMO value and significant Bartlett's test support the factorability of the data, meaning the survey questions meaningfully contribute to the risk perception construct. The detailed validity results are presented in Table 14.

Table 14. KMO, Bartlett's Test, and Total Variance statistics of risk perception

KMO and Bartlett's Test						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			0.76			
Bartlett's Test of Sphericity	Approx. Chi-Square		1262.92			
	df		190			
	Sig.		0.00			
Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.09	30.45	30.45	6.09	30.45	30.45
2	3.02	15.11	45.56	3.02	15.11	45.56

3	1.99	9.94	55.50	1.99	9.94	55.50
4	1.19	5.94	61.44	1.19	5.94	61.44
5	1.12	5.54	66.97	1.11	5.54	66.97

Binary Logistic Regression Analysis

To measure the impact of risk awareness, risk perception, and past investment experience on current cryptocurrency investments, a Binary Logistic Regression analysis was conducted. The dependent variable in this analysis is the current investment in cryptocurrency, while the independent variables include risk awareness score, risk perception score, and past investment experience in cryptocurrency. A total of seven regression models were run, incorporating different combinations of independent variables. The first three models examined each independent variable individually to assess their separate effects on cryptocurrency investments. The fourth to sixth models analyzed pairs of independent variables together, evaluating the combined influence of risk awareness and risk perception, risk awareness and past experience, and risk perception and past experience. Finally, the seventh model included all three independent variables simultaneously, providing a comprehensive understanding of their collective impact on cryptocurrency investment decisions. This analytical approach offers a thorough examination of the key factors influencing cryptocurrency investment behavior.

Model 1

Dependent Variable – Present investment in cryptocurrency
Independent variable – Risk awareness score
Summary of the Model 1is reported in Table 15.

Table 15. Model 1- Risk Awareness

Model Summary						
Step	**-2 Log likelihood**		**Cox and Snell R Square**		**Nagelkerke R Square**	
1	144.26		0.07		0.09	
Variables in the Equation						
		B	**S.E.**	**Wald**	**df**	**Sig.**	**Exp(B)**
Step 1ª	**Awareness score**	0.13	0.04	8.12	1	0.01	1.13
	Constant	-0.83	0.59	1.95	1	0.16	0.44

Table 15 presents the results of the Binary Logistic Regression analysis, which examines the relationship between risk awareness, risk perception, and past investment experience with current cryptocurrency investments. The results indicate that risk awareness is statistically significant with a p-value of 0.01. This suggests that individuals with a higher level of risk awareness are more likely to invest in cryptocurrency. The coefficient for risk awareness

is positive, meaning that as risk awareness increases, the probability of investing in cryptocurrency also increases. The constant term in the model is statistically insignificant, with a p-value of 0.16. This indicates that when risk awareness is zero, the estimated probability of investing in cryptocurrency is 16 percent. The insignificance of the constant term suggests that additional factors may be influencing cryptocurrency investment decisions. In the regression output, the B coefficient measures the strength and direction of the relationship between each predictor and cryptocurrency investment. The standard error (S.E.) indicates the variability of the coefficient estimate, while the Wald test assesses the statistical significance of each independent variable. The degrees of freedom (df) show the number of independent values in the analysis, and the Exp(B) value represents the change in investment probability for a unit increase in the predictor variable. These findings highlight the importance of risk awareness in cryptocurrency investment decisions. However, the insignificance of the constant term suggests that other factors should be explored in future studies. Additional variables such as market volatility, technological literacy, and regulatory concerns may contribute to a more comprehensive understanding of investment behavior in the cryptocurrency market.

Model 2

Dependent Variable – Present investment in cryptocurrency
Independent variable – Risk Perception score

Summary of the Model 2 is reported in Table 16.

Table16. Model 2- Risk Perception

Model Summary							
Step	-2 Log likelihood	Cox and Snell R Square			Nagelkerke R Square		
1	148.23	0.04			0.05		
Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	Perception Score	0.06	0.03	4.27	1	0.04	1.06
	Constant	-2.88	1.79	2.60	1	0.11	0.06

The results indicate that risk perception is a statistically significant factor influencing current cryptocurrency investment, with a p-value of 0.03. This suggests that individuals with a heightened awareness of risk are more inclined to invest in cryptocurrency. The positive relationship implies that as investors' risk perception increases, their likelihood of participating in cryptocurrency investments also rises. However, the constant term in the model is not statistically significant (p=0.11), meaning that when risk perception is absent, the estimated probability of investing in cryptocurrency stands at 11 percent. The insignificance of the constant suggests that additional factors may contribute to investment decisions beyond risk perception alone.

Overall, the findings reinforce the role of risk perception in shaping investment behavior. Nevertheless, further research is necessary to explore other influential factors, such

as financial literacy, market conditions, and regulatory frameworks, which may also play a crucial role in determining cryptocurrency investment trends.

Model 3

Dependent Variable – Present investment in cryptocurrency
Independent variable – Past investment experience

Summary of the Model 3 is reported in Table 17.

Table 17. Model 3 - Past Investment Experience

Model Summary						
Step	-2 Log likelihood	Cox and Snell R Square		Nagelkerke R Square		
1	141.76	0.09		0.12		
Variables in the Equation						
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	2-year experience	1.33	0.41	10.47	1	0.00	3.78
	Constant	0.15	0.27	0.30	1	0.59	1.16

The findings reveal that past investment experience is a statistically significant factor influencing present cryptocurrency investment, with a p-value of 0.00. This suggests that individuals with prior experience in cryptocurrency trading are more likely to continue investing. The strong statistical significance highlights the importance of experience in shaping investment decisions, as familiarity with the market may enhance confidence and risk management strategies. However, the constant term in the model is not statistically significant (p=0.59), indicating that when past investment experience is absent, the estimated probability of investing in cryptocurrency is 59 percent. This insignificance suggests that additional factors beyond past experience may contribute to investment decisions.

Overall, the results emphasize the role of investment experience in determining cryptocurrency participation. Nevertheless, further research is necessary to explore other influential factors, such as financial literacy, market trends, and psychological influences, which may also shape investors' decisions in the cryptocurrency market.

Model 4

Dependent Variable – Present investment in cryptocurrency
Independent variable – Risk awareness score and risk perception score.

Summary of the Model 4 is reported in Table 18.

Table 18. Model 4 - Risk awareness score and Risk perception score

Model Summary			
Step	-2 Log likelihood	Cox and Snell R Square	Nagelkerke R Square
1	139.55	0.10	0.14

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	Awareness score	0.13	0.04	8.21	1	0.00	1.14
	Perception Score	0.06	0.03	4.34	1	0.04	1.07
	Constant	-4.74	1.98	5.71	1	0.02	0.01

The results indicate that both risk awareness and risk perception play statistically significant roles in influencing present cryptocurrency investment. Risk awareness exhibits a strong significance with a p-value of 0.00, while risk perception is also statistically significant with a p-value of 0.04. These findings suggest that individuals who possess a heightened understanding of risks and a clear perception of potential uncertainties are more inclined to engage in cryptocurrency investments. Additionally, the constant term in the model is statistically significant (p=0.02), implying that even in the absence of these specific predictors, other underlying factors may still contribute to investment decisions. The combined significance of risk awareness and risk perception underscores the importance of an investor's ability to evaluate financial risks effectively.

These findings highlight the necessity of further research into other influencing factors, such as financial knowledge, market exposure, and behavioral tendencies, which may also contribute to investment choices in the cryptocurrency market.

Model 5

Dependent Variable – Present investment in cryptocurrency
Independent variable – Risk awareness score and Past investment experience.

Summary of the Model 5 is reported in Table 19.

Table 19. Model 5 - Risk awareness score and Past investment experience.

Model Summary							
Step	-2 Log likelihood		Cox and Snell R Square			Nagelkerke R Square	
1	140.79		0.09			0.13	
Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	Awareness score	0.06	0.06	0.96	1	0.33	1.06
	2 years exp.	0.99	0.53	3.47	1	0.06	2.70
	Constant	-0.41	0.63	0.43	1	0.51	0.66

The results indicate that both risk awareness and having two years of past investment experience were statistically insignificant predictors of present cryptocurrency investment. Additionally, the constant term in the model was also found to be statistically insignificant. These findings suggest that the model does not provide a good fit for explaining cryptocurrency investment behavior based solely on these variables.

The lack of statistical significance implies that neither risk awareness nor past investment experience independently influence the likelihood of investing in cryptocurrency. This result highlights the need for further investigation into other potential factors, such as market trends, financial literacy, risk tolerance, or external economic conditions, that may play

a more substantial role in shaping investment decisions. A more comprehensive model incorporating additional variables may be necessary to better understand the determinants of cryptocurrency investment behavior.

Model 6

Dependent Variable – Present investment in cryptocurrency
Independent variable – Risk perception score and Past investment experience.

Summary of the Model 6 is reported in Table 20.

Table 20. Model 6 - Risk perception score and Past investment experience.

Model Summary						
Step	-2 Log likelihood	Cox and Snell R Square		Nagelkerke R Square		
1	138.17	0.11		0.16		
Variables in the Equation						
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1ª	Perception Score	0.06	0.03	3.37	1	0.07	1.06
	2 years exp.	1.29	.417	9.57	1	0.00	3.63
	Constant	-3.29	1.89	3.03	1	0.08	0.04

The results indicate that having two years of past investment experience was statistically significant, whereas risk perception was found to be statistically insignificant. Additionally, the constant term in the model was also statistically insignificant. These findings suggest that past investment experience plays a crucial role in determining present investment in cryptocurrency, while risk perception does not independently influence the decision to invest.

The statistical insignificance of risk perception implies that, in this model, an individual's subjective assessment of risk does not strongly impact their likelihood of investing in cryptocurrency. Instead, practical experience appears to be a more influential factor. This highlights the importance of familiarity and exposure to the cryptocurrency market in shaping investment behavior. Further research may be required to explore whether other psychological or financial factors mediate the relationship between risk perception and investment decisions.

Model 7

Dependent Variable – Present investment in cryptocurrency
Independent variable – Risk awareness score, Risk perception score and Past investment experience.

Summary of the Model 7 is reported in Table 21.

Table 21. Model 7 - Risk awareness score, Risk perception score and Past investment experience.

Model Summary			
Step	-2 Log likelihood	Cox and Snell R Square	Nagelkerke R Square
1	137.03	0.12	0.17

Variables in the Equation		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	**Awareness score**	0.06	0.06	1.12	1	0.29	1.06
	Perception Score	0.06	0.03	3.52	1	0.06	1.06
	2 years exp.	0.90	0.56	2.55	1	0.11	2.44
	Constant	-4.01	2.03	3.91	1	0.05	0.02

The statistical results indicate that risk awareness, risk perception, and having two years of past investment experience were not significant predictors of present investment in cryptocurrency when considered together. This suggests that none of these variables, in combination, have a substantial independent influence on an individual's decision to invest in cryptocurrency.

The lack of statistical significance implies that other factors, beyond risk awareness, risk perception, and past experience, may play a more crucial role in shaping investment decisions. Psychological influences, market conditions, regulatory frameworks, or financial literacy could be contributing factors that were not accounted for in this model. Further research may be necessary to explore alternative predictors and refine the model for a more comprehensive understanding of cryptocurrency investment behavior.

The summary of the 7 models made using binary logistics regression can be shown in Table 22 as follows.

Table 22. Model summaries

Independent Variables	-2 Log likelihood	Cox and Snell R Square	Nagelkerke R Square
Risk awareness score	144.27	0.07	0.09
Risk perception score	148.23	0.04	0.05
Past investment experience	141.76	0.09	0.12
Risk awareness score and Risk perception score	139.55	0.10	0.14
Risk awareness score and Past investment experience	140.79	0.09	0.13
Risk perception score and Past investment experience	138.17	0.11	0.16
Risk awareness score, Risk perception score, and Past investment experience	137.03	0.12	0.17

The log-likelihood approach is employed to assess the overall fit of the model. The log-likelihood value is multiplied by two to facilitate comparison with values that could be expected from pure chance. Higher log-likelihood values indicate that a model may not be a good fit. Additionally, Cox and Snell R Square and Nagelkerke R Square, often referred to as Pseudo-R², are used to determine the proportion of explained variation in the model.

The results of the binary logistic regression, as presented in Table 18 (Model 4), reveal

that using risk awareness score and risk perception score as independent variables accounts for more variation in the dependent variable than including past investment experience alongside them. This suggests that past investment experience contributes less explanatory power in comparison to risk awareness and risk perception.

The findings indicate that risk awareness regarding cryptocurrency investment (p = 0.00) and risk perception regarding cryptocurrency investment (p = 0.04) are statistically significant in influencing an investor's decision to invest in cryptocurrency. This implies that an investor's awareness of risks associated with cryptocurrency and their perception of those risks play a meaningful role in their investment behavior. These results highlight the importance of financial literacy and psychological factors in shaping investment decisions in the cryptocurrency market.

Conclusions

The study aimed to assess the level of risk awareness, risk perception, and past investment experience among Sri Lankan cryptocurrency investors and to evaluate how these factors influence their investment decisions. The findings indicate that Sri Lankan cryptocurrency investors exhibit a high level of risk awareness and a moderate level of risk perception regarding cryptocurrency investments. The study was conducted with a sample of 124 cryptocurrency investors, all of whom possess Binance trading accounts. Among them, 70 individuals have more than two years of investment experience in the cryptocurrency market.

To analyze the impact of risk awareness, risk perception, and past investment experience on cryptocurrency investment, a binary logistic regression was performed. The results reveal that risk awareness and risk perception significantly influence present investment in cryptocurrencies, with both factors demonstrating a positive relationship with ongoing investment activities. However, past investment experience was not found to have a significant effect on current cryptocurrency investment. Several factors may explain this finding. Given that cryptocurrency is a relatively new and highly volatile asset class, prior investment experience may not play a crucial role in decision-making. Furthermore, the continuously evolving nature of the cryptocurrency market, with the frequent introduction of new projects, may attract newcomers who lack prior investment experience. These investors may be more likely to base their decisions on emotions rather than past experience, reinforcing the importance of risk awareness and perception in shaping investment behavior.

The study provides valuable insights into the decision-making processes of cryptocurrency investors. While risk awareness is high, risk perception remains at a moderate level, suggesting that investors acknowledge the risks involved but may not fully perceive them as deterrents. The findings confirm that risk awareness and perception are key determinants influencing present investment in cryptocurrency. As the cryptocurrency landscape continues to evolve, these factors will play an increasingly significant role in investor behavior.

The results also emphasize the need for further research into cryptocurrency investment dynamics and the various factors affecting investors' choices. Enhancing risk awareness and fostering a more realistic perception of risks associated with cryptocurrency investments could benefit both investors and policymakers. Implementing policies to improve financial literacy and educate investors on risk management strategies could contribute to a more informed and resilient investment environment in Sri Lanka.

Recommendation and Policy Implications

The findings of this study highlight a positive relationship between risk awareness, risk perception, and current investment in cryptocurrency. In light of these findings, it is essential to implement educational initiatives aimed at enhancing risk awareness and risk perception among cryptocurrency investors in Sri Lanka. Such programs should provide comprehensive information on the potential benefits and risks associated with cryptocurrency investments, equipping investors with the knowledge necessary to make informed decisions.

Furthermore, future efforts should focus on studying the legal frameworks of other countries regarding cryptocurrencies and adapting relevant laws and regulations to Sri Lanka. Currently, the Sri Lankan legal system lacks specific laws directly addressing cryptocurrencies. Implementing regulatory measures to legalize and oversee cryptocurrency transactions would help mitigate fraud and theft, ensuring a safer investment environment.

At present, Sri Lankan cryptocurrency investors lack legal protection and an official entity to address their concerns or complaints. To safeguard investor interests, it is crucial to establish an investor protection framework. Introducing a licensing system for cryptocurrency-related businesses and enforcing Know-Your-Customer (KYC) protocols would enhance market regulation and reduce issues such as money laundering. Regulatory oversight would not only foster a more secure investment landscape but also encourage responsible participation in the cryptocurrency market.

Finally, this study underscores the need for further research into the evolving cryptocurrency landscape. Future studies should explore Sri Lanka's cryptocurrency market dynamics, investor behavior, and the impact of external factors on crypto investments. Understanding these elements will contribute to the development of more effective regulatory policies and investment strategies, ultimately fostering a more sustainable and secure cryptocurrency ecosystem in Sri Lanka.

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References

Albert, W., Gribbons, W., & Almadas, J. (2009). Pre-conscious assessment of trust: A case study of financial and health care web sites. *Human Factors and Ergonomics Society Annual Meeting Proceedings*.

Bhattacharjee, J., Singh, R., & Kajol, K. (2019). *Risk Perception in Respect of Equity Shares: A Literature Review and Future Research Agenda.* Indian Institute of Information Technology Allahabad, Prayagraj, Uttar Pradesh, India: Assam University, Silchar, Assam, India.

Bhuyan, R., Bhattacharjee, J., Singh, R., & Bhattacharjee, N. (2021). Do Awareness, Risk Perception, and Past Experience influence Equity Investments? A Case Study on India. *Global Journal of Accounting and Finance*, 46-69.

BINANCE. (2023, July 5). *binance*. Retrieved from binance.com: https://www.binance.com/en/blog/vip/what-do-crypto-liquidity-providers-do-3303284536918508301

Bordoloi, Singh., Bhattacharjee, and Bezborah. (2020). Assessing the Awareness of Islamic Law on Equity Investment in State of Assam,india. *nal of Islamic Finance, 9*(1*)*, 1-12.

Central Bank of Sri Lanka (2018, April 16). *Public Awareness on Virtual Currencies in Sri Lanka*. Retrieved from www.cbsl.gov.lk/: https://www.cbsl.gov.lk/en/news/public-awareness-on-virtual-currencies-in-sri-lanka

Central Bank of Sri Lanka (2023, March 29). *Risks of using and investing in Cryptocurrency*. Retrieved from https://www.cbsl.gov.lk/: https://www.cbsl.gov.lk/en/news/risks-of-using-and-investing-in-cryptocurrency-20230329#:~:text=The%20public%20is%20reminded%20that,payments%20related%20to%20cryptocurrency%20transactions.

Chandrasekara, C. M. (2020). *Social Readiness of Cryptocurrency in Sri Lanka.* Retrieved from Researchgate: https://www.researchgate.net/publication/361234706.

Chathurika, D.M.D. (2021), Factors Affecting Intention to use Cryptocurrencies with Special Reference to the University Students in Sri Lanka, Paper presented at the International Conference on Business Management, Sabaragamuwa University of Sri Lanka, September.

Chen, L.-C., & Farkas, D. (2019). *ndividual Risk P Individual Risk Perception and Choice using Cr ception and Choice using Cryptocurrency for ency for Transaction.* AIS Electronic .

CoinMarketCap. (2023, Januray 25). *CoinMarketCap Pvt Ltd*. Retrieved from Coinmarketcap: https://coinmarketcap.com/all/views/all/

Cointelegraph. (2023). *cointelegraph*. Retrieved from cointelegraph: https://cointelegraph.com/learn/a-beginners-guide-to-the-different-types-of-blockchain-networks

Corbet, S. L. (2018). Cryptocurrencies as a financial asset: A systematic analysis. Working paper.

Danial, K. (2019). *Cryptocurrency Investing For Dummies.* Hoboken: John wiley and sons, Inc. .

Dudovskiy, J. (2022, January). *Business Research Methodology.* Retrieved from Business Research Methodology: https://research-methodology.net/sampling-in-primary-data-collection/snowball-sampling/

Duval, T. S., & Wicklund, R. A. (1972). A theory of objective self-awareness. *New York: Academic.*

Fernando, W.M.N., & Bogamuwa, M.M.S.K.B. (2022), Sri Lankan Perceptions on the Future of Cryptocurrency and Blockchain Technology: With Special Reference to The Population of The Colombo District, *The Journal of ARSYM*, *3*(I), 28 - 45.

Fischhof, B. (1995), Risk Perception and Communication Unplugged: Twenty Years of Process, *Risk Analysis, 15* (2), 137-145.

Foley, S., Karlsen, J. R., & Putniņš, T. (2019). Sex, drugs, and Bitcoin: how much illegal activity is financed through cryptocurrencies? *Review of Financial Studies, 32* (5), 1798-1853.

Grinblatt, M., & Keloharju, M. (2000). The Investment Behavior and Performance of Various Investor Types: A Study of Finland's Unique Data Set. *Journal of Financial Economics, 55*(1), 43-67.

Hirschi, T. (1969). Causes of delinquency. Berkeley: University of California Press.

Inci, A. C., & Lagasse, R. (2019). Cryptocurrencies: applications and investment opportunities. *Journal of Capital Markets Studies*.

Ivashchenko. (2016). Using Cryptocurrency in the Activities of Ukrainian Small and Medium Enterprises in order to Improve their Investment Attractiveness. *Фінанси та банківська справа*, 267-273.

Kolb, A., & Kolb, D. (2005). Learning Styles and Learning Spaces: Enhancing Experiential Learning in Higher Education. *Academy of Management Learning and Education, 4,*, 193-212.

KPMG. (2018). *Cryptocurrency: A guide to initial coin offerings (ICOs).* Retrieved from KPMG international limited: https://www.kpmg.com/us/en/issuesandinsights/articlespublications/cryptocurrency-ico-guide.html

Lammer, D., Hanspal, T., & Hackethal, A. (2019). Who are the bitcoin investors? Evidence from indirect cryptocurrency investments. *SAFE Working Paper No. 277*.

Lim, K., Soutar, G., & Lee, J. (2013). Factors affecting investment intentions: a consumer behaviour perspective. *Journal of Financial Services Marketing, 18* (4), 301-315.

Liu, Y., Tsyvinski, A., & Wu, X. (2019). *Common Risk Factors In Cryptocurrency.* 1050 Massachusetts Avenue, Cambridge: National Bureau of Economic Research.

Mahdi, H. & Miraz, M. A. (2018). Applications of Blockchain Technology beyond Cryptocurrency. *Annals of Emerging Technologies in Computing (AETiC),2*(1), 1-6.

Malmendier, P. D. (2020). Investor experiences and financial market dynamics. *Journal of Financial Economics*, 597-622.

Manahov, V. (2023, January 18). *The rapid growth of cryptocurrencies: How profitable is trading in digital money?* Retrieved from https://onlinelibrary.wiley.com/d: https://onlinelibrary.wiley.com/doi/10.1002/ijfe.2778?af=R

Milutinović, M. (2018). Cryptocurrency. *Ekonomika - Journal for Economic Theory and Practice and Social Issues*, *64*(1),105-122.

Nabeel, M., & Mohan, S. (2022). Issues and Risks of Cryptocurrencies – A Case of Bitcoin. *International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)*, 234-237.

Nakamoto, S. (2008). *Bitcoin: A Peer-to-Peer Electronic Cash System.* http://www.bitcoin.org/.

Nicolini, C. B. (2013). Financial literacy: a comparative study across four countries. *International Journal of Consumer Studies,37*(6), 689-705.

Nilsson, J. (2008). Investment with a conscience: Examining the impact of Pro-Social attitudes and perceived financial performance on socially responsible investment behavior. *Journal of Business Ethics, 83*(2).

OECD. (2011). *Risk Awareness, Capital Markets and Catastrophic Risks, Policy Issues in Insurance, 14.* OECD Publishing , http://dx.doi.org/10.1787/9789264046603-en.

Olsen, R. A. (1997). Investment Risk: The Experts' Perspective. *Financial Analysts Journal, 53*(2) 62-66.

Parashar, N. & Rasiwala, F. (2018). A study on investor's awareness and perception regarding investment in Crypto currency with special reference to Bitcoin, *International Journal of Scientific and Research Publications*, *8*(12), 311-319

Pasindu, M. D. (2023). Exploring Investor Engagement with Cryptocurrency Investments in Sri Lanka, *EPRA International Journal of Economics, Business and Management Studies (EBMS), 10*(10), 71– 80.

Smith, R. L. (1999). A testable mind-brain theory. *Journal of Mind Behavior. 20 (1)*.

Rakow, T., & Newell, B. (2010). Degrees of uncertainty: an overview and framework for future research on experience-based choice. *Journal of Behavioral Decision Making. 23* (1), 1-14.

Roszkowski, M., & Davey, G. (2010). Risk Perception and Risk Tolerance Changes Attributable to the 2008 Economic Crisis: A Subtle but Critical Difference. *Journal of Financial Service Professionals. 64*, 42-53.

Ryan, F. (2015). *An Analysis of the Cryptocurrency Industry.* Wharton Research Scholars.

Saksonova, S., & Kuzmina-Merlino, I. (2019). *Cryptocurrency as an Investment Instrument in a Modern Financial Market.* Aspazijas Blvd,. 5, Riga: University of Latvia.

Singh, & Kar. (2011). Do the Highly Educated Subscribers Aware of it? New Pension Scheme in India. *SIBACA Management Review, 1* (1) 8-16.

Singh, R., & Bhattacharjee, D. (2010a). Equity Investment Decisions: Are Demographic Variables Really Significant? *Paradigm-An IMT Journal, 14* (1), 7-11.

Singh, R., & Bhattacharjee, D. (2010b). Impact of Demographic Variables on Indirect Equity Investment: An Empirical Study. *Indira Management Review, 4*(1), 4-11.

Singh, R., & Bhattacharjee, J. (2019). Measuring Equity Share related Risk Perception of Investors in Economically Backward Region. *Risks, 7.*

Smart, A. W., & Catlin, X. (2016, february 12). *WHAT IS RISK AWARENESS?* Retrieved from american heritage insurance group web site: https://americanheritageins.com/what-is-risk-awareness/

Sokolov, E. N. (1963). Perception and the Conditioned Reflex. Oxford: Pergamon Press.

Srivastav, A. K. (2023). *Investment Risk.* Retrieved from wallstreetmojo.com: https://www.wallstreetmojo.com/investment-risk/

Wilhelm, J. (2022). *What happens if in binary logistic regression, the intercept(b0) is statistically not significant?* Retrieved from www.researchgate.net: https://www.researchgate.net/post/What_happens_if_in_binary_logistic_regression_the_interceptb0_is_statistically_not_significant/62e2bec16ebcb721de0b4ba8/citation/downlo.

Xi, O. T. (2020). Investigating the investment behaviors in cryptocurrency. *Journal of Alternative Investments, 23* (2) 141-160.

Yao, R., & Xu, Y. (2015). Chinese urban househchinese urban households' security market participation: does investment knowledge and having a long-term plan help? *Journal of Family and Economic Issues, 36*(3), 328-339.

Zhao, H., & Zhang, L. (2021). Financial literacy or investment experience: which is more influential in cryptocurrency investment? International Journal of Bank Marketing, 1208-1226.