# Factors Influencing Cryptocurrency Adoption: A Study of University Students, Professionals, and Investors in Sri Lanka

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## Abstract

*This study aims to understand the beliefs and perceptions on the usage of cryptocurrency in the context of Sri Lanka. At the outset of the growing global demand for digital currencies and the limited number of cryptocurrency users in Sri Lanka, the research attempts to identify the factors that influence individuals' intention to use cryptocurrency in the country. The study collected primary data from a sample of 311 participants, including university students, professionals, and investors in Sri Lanka, and employed Structural Equation Modelling (SEM) to accomplish the objectives of the study. The results reveal that perceived benefits, perceived value, structural provisions, and attitudes toward using cryptocurrency significantly influence individuals' behavioral intention to adopt cryptocurrency. However, the hypotheses related to perceived risks, social effects, the moderating effect of self-efficacy, and personal inventiveness are found to be statistically insignificant. Thus, the tested model and its results provide insights for improving cryptocurrency adoption and usage in Sri Lanka, offering guidance for businesses and policymakers in promoting and facilitating the use of digital currencies among the population.*

**Keywords**: Cryptocurrency; Behavioral Intention; University Students; Professionals,

Investors, Digital Currencies

## Introduction

The backbone of any economy lies in currency as it serves as a medium for trustworthy agreements worldwide. In Sri Lanka, as per the Monetary Law Act No. 58 of 1949 Central Bank has the authority to exclusively issue money while facilitating transactions. The digital era's advent has transformed traditional financial operations, as reflected in the "We Are Social" digital 2022 report, internet penetration in Sri Lanka is 52.6%. Further, the digital payment options surge has catalyzed the rapid evolution of the payment industry.

Amidst these changes, cryptocurrency has emerged as a notable technological phenomenon. Initially conceived for peer-to-peer money transmission without intermediaries, cryptocurrencies like Bitcoin dominate the global market. Despite Bitcoin Cash's emergence and innovative altcoins like Ethereum, Bitcoin remains the most valuable. Cryptocurrency, being decentralized, digital, and programmable, aligns with the Fourth Industrial Revolution, presenting itself as a potential solution to centralized global economic flaws. Its advantages include efficient, traceable, and secure transactions, along with features like lower costs, enhanced security, and broader mobile device support.

Blockchain technology underpins cryptocurrencies, ensuring transaction reliability and transparency. A World Economic Forum report predicts that by 2025, blockchain will constitute 10% of the global GDP. However, Sri Lanka's Central Bank maintains that cryptocurrencies aren't legal tender, and no company holds a license to operate in the country. Despite this, the government initiated a committee in 2021 to propose a regulatory framework for digital banking, blockchain, and cryptocurrency mining, emphasizing the importance of staying competitive globally.

The number of Cryptocurrency users is constantly increasing worldwide and companies including Microsoft, PayPal, eBay, Dell, and Expedia are among those quickly embracing Cryptocurrency payments (Anastasia et al., 2018). The market for Cryptocurrencies is developing quickly, and this has a big impact on how people and businesses choose to make payments. In today's high-tech world, the terms "Cryptocurrency" and "Blockchain" have gained popularity and are now widely recognized as the technological revolution of the last few years. Any traditional currencies still in use today can be used to purchase Cryptocurrency. They are more secure than typical electronic transactions since they were designed with privacy and security in mind. They are also entirely decentralized, which benefits residents of countries with unstable currencies by giving them the chance to conduct unrestricted international trade with residents of countries with developed, stable economies. They are preferred for

international money transfers due to factors like their quick processing times, low transaction costs, and the lack of the need for third parties to verify transactions.

Sri Lanka has witnessed a growing interest in cryptocurrencies in recent years. However, Sri Lanka has a very small population of Cryptocurrency users. Although being during its greatest economic crisis since independence, Sri Lankans are becoming more interested in and knowledgeable about cutting-edge technologies like Cryptocurrency and blockchain. Moreover, they require less authentication and processing time, Cryptocurrencies are the best option for domestic and international transactions. Blockchain, which acts as a bank for communities with limited or no access to banking infrastructure, contributes to the battle against inflation and opens the door for increased administrative transparency and, consequently, lower levels of corruption. Given this situation, Sri Lanka can use these technologies to strengthen its economy by adopting the proper strategy as a result, this study examined the factors that influence Sri Lankans' intention to use Cryptocurrencies.

According to Shahzad et al. (2018), people's misunderstanding of Cryptocurrencies prevents the adoption of this most recent technology. According to the above finding, one of the significant barriers to cryptocurrency adaptation is people's misconceptions about this innovative technology. Even though Cryptocurrencies are an essential component of the financial system and a crucial medium of exchange, the significance of digital currencies cannot be underestimated (Almuraqab, 2019). Thus, cryptocurrency plays a pivotal role as a medium of exchange. Accordingly, investigating whether traditional currencies and established payment methods will still be used in combination with Cryptocurrencies as a trading instrument is necessary (Anastasia et al., 2018). The intention of individuals to use Cryptocurrencies has been evaluated in various studies (Abramova & Böhme, 2016; Arias-Oliva et al., 2019; Gazali et al., 2018). As a result, it becomes vital to understand the interaction between traditional currencies, established payment methods, and the growing influence of cryptocurrencies. However, in order to contextualize these claims, limited research is available on the variables that could affect people's behavioral intention to use Cryptocurrencies in the Sri Lankan context.

The current research attempts to examine the factors that influence people's behavioral intentions as well as their awareness of Cryptocurrencies in Sri Lanka. Additionally, Hasan et al., (2022) conceptual model is being empirically tested as part of this research. In the context of Cryptocurrencies, the conceptual model offers a thorough understanding of concepts including facilitating conditions, social effects, perceived risks, and perceived advantages.

This aspect of the research makes a new contribution by giving consumers' intentions and attitudes toward adopting Cryptocurrencies some insight. Thus, the current study attempts to investigate the factors that influence the behavioral intention of university students, professionals, and investors to use Cryptocurrencies in Sri Lanka. As a result, this study aims to achieve three basic objectives; 1) To observe the percentage of university students, professionals, and investors who use Cryptocurrency in Sri Lanka 2) To examine the factors influencing the intention to use Cryptocurrencies among university students, professionals, and investors in Sri Lanka and to identify the most significant factor among the recognized factors and 3) To recognize the moderating and mediating factors which affect the link between the intention to use Cryptocurrencies and its determinants and examine the impact of moderating and mediating factors. This will contribute to the existing knowledge on cryptocurrency adaptation in the Sri Lankan context while providing practical insights.

In delineating the organization of this paper, the remaining sections of the article are followed by a comprehensive review of relevant literature, the research methodology adopted, empirical findings and data analysis, and discussions aimed at interpreting significance within the context of the research area. Moreover, the final section includes conclusions synthesizing key findings and avenues for future research.

## Review of Literature

### Evolution and Spread of Cryptocurrency

Cryptocurrencies, digital assets built on blockchain technology, function as tradeable and transferable assets among network users, primarily serving as a mode of payment without intrinsic value beyond this utility (Giudici et al., 2020). They're acquired using real or virtual currencies and exchanged at specific rates. Initially conceived as alternatives to conventional currency due to their lack of nominal value (Fung & Halaburda, 2014), cryptocurrencies were the pioneering application of blockchain, integrating decentralization, public ledger distribution, and cryptography (Duma & Gligor, 2018). Blockchain, decentralization, and cryptography are pivotal in understanding cryptocurrencies. The blockchain, a secure digital ledger, contains various asset transactions but operates without centralized oversight, offering advantages in data protection and privacy (Pontenagel & Somon, 2020). The emergence of a "blinding algorithm" in the 1980s laid the groundwork for secure and immutable digital transactions, integral to contemporary digital currency (Raymaekers, 2015; Sarwar et al., 2019).

Cryptography research, particularly since the digital era's rise, has played a crucial role in enhancing personal protection and privacy in

electronic payments (Wesley, 2018). Innovations such as blind signature systems, pioneered by cryptographer David Chaum, advanced electronic payment privacy, leading to developments like PayPal by Elon Musk and e-gold between 1999 and 2009 (Andrianto, 2017).

Numerous Cryptocurrency varieties exist around the world, each with a unique function (Narayanan & Clark, 2017). From the start of the revolution of Cryptocurrency with the launch of bitcoin, the first Cryptocurrency, the business, and economic worlds have sought to adapt and incorporate the new financial technology into their operations (Nakamoto, 2008). But it would take years before it was legally accepted as a payment method by well-known retailers, with WordPress being the first to do so in 2012. Simple tasks like Cryptocurrency trading for programming help have been paid for with bitcoin. Interestingly, the first known commercial Bitcoin transaction involved the exchange of 10,000 Bitcoins for a $25 pizza delivered, and since then, the value of Bitcoin has grown significantly (Julie Bort, 2014). By 2022, Cryptocurrency has developed into a speculative instrument for short-term trading, been kept as an investment within the crypto asset class, and used as a medium of exchange and money for transactions. 12 years after its introduction, the value of one Bitcoin increased dramatically, reaching an estimated value of USD 17000 in 2022 (CoinMarketCap, 2022).

Currently, on more than 100 exchanges around the world, more than 50 million active investors trade bitcoin, and other Cryptocurrencies (Makarov & Schoar, 2020). There are currently 8900 so around Cryptocurrencies, including Bitcoin, Ethereum, Tether, Litecoin, Dogecoin, and BNB, available on the market (CoinMarketCap, 2022).

Global adoption of Cryptocurrencies is expanding. According to Triple-A (2022), there are over 320 million crypto users globally, with predicted global crypto ownership rates at an average of 4.2%. The same year, according to CoinMarketCap, the market value of Cryptocurrencies had nearly reached $850 Billion (CoinMarketCap, 2022). The world's retail Cryptocurrency adoption is led by Vietnam and the Philippines. Vietnamese consumers are recognized as the highest Cryptocurrency users for the second year in a row, recording the highest usage of Cryptocurrency-related tools, products, and services when compared to other countries (Falcão & Michel, 2022). 6.1% of Vietnamese people invest in Cryptocurrencies. Additionally, there are 130 million Cryptocurrency owners in Asia overall. And in Asia, India and Pakistan are also at the top of crypto investment (Bolder Group, 2022). These developments show how Cryptocurrency can destroy the current system and establish itself as a major exchange method (Alharbi & Sohaib, 2021). However, the use of Cryptocurrency has only

recently expanded geographically and in terms of scope (Sohaib et al., 2020). As stated by Abbasi GA et al. (2021) it has not yet reached its full potential because the acceptability is yet insufficiently widespread.

## Economic and Financial Impacts of Cryptocurrency

Cryptocurrencies, especially in developing nations, play a pivotal role in financing resource purchases and providing financial services, significantly impacting economies and societies. The evolution of blockchain technology has empowered entrepreneurs with easier access to financing, stimulating economic activity. However, understanding cryptocurrency value and its fluctuating prices has been the subject of extensive academic inquiry (Kayal & Rohilla, 2021).

Studies, including Ciaian et al. (2015), highlight speculation as a significant influencer of Bitcoin prices. While macroeconomic developments have short-term effects on cryptocurrency, their long-term impact remains limited. Factors like changes in cryptocurrency prices can impact macroeconomic policy and indicators such as inflation, with influences from elements like oil prices (Krugman & Obstfeld, 2003; Palombizio, 2012).

Moreover, Dimitrova (2005) suggests a potential negative relationship between cryptocurrency prices and economic factors. Shifts in stock prices, driven by foreign investors selling financial assets, might lead to a decrease in relevant currency values but could enhance Bitcoin prices. Generally, the opportunity costs of investing in Bitcoin might affect stock market returns, potentially linking stock indices positively to Bitcoin prices.

Benefits of Bitcoin include cost reduction, flexibility, evasion of commissions and inflation, trader anonymity, and reduced government involvement (Kayal & Rohilla, 2021). Cryptocurrencies can enhance access to financial services, aiding low-cost remittances and avoiding strong capital controls or transaction reversals. However, challenges persist, such as inadequate liquidity, small user bases, and vulnerability to risks due to decentralization (Iwamura et al., 2014).

Research by Zimmermann & Weber (2014) suggests that most new users do not intend to use cryptocurrency for transactions, primarily leveraging it as a speculative instrument (Kajtazi & Moro, 2019). Cryptocurrency's blockchain, supported by a peer-to-peer network, offers decentralized transactions, diverging from traditional financial systems, driven by users seeking absolute control over their finances (Jani, 2018).

Cryptocurrency, powered by distributed ledger technology, eliminates conventional financial system threats like fraud and corruption, offering multinational companies diversified borrowing options and stronger financial connections (Sharma et al., 2020;

Wang et al., 2022). However, its decentralized nature and lack of fallback or support pose challenges in risk protection.

**Key Determinants of Intention to Use Cryptocurrency**

*Behavioral Intention to Use Cryptocurrency:* Research conducted by Albayati et al.(2020); Mazambani & Mutambara (2020); Schaupp & Festa (2018); Zamzami (2020) notably showed that behavioral intention to use Cryptocurrency primarily forecasted a positive outlook towards that. Accepting Cryptocurrencies is an intention that will eventually translate into behavior (Yeong et al., 2019). According to the Technology Acceptance Model, the actual use of a particular IS system is determined by behavioral intention, which also impacts technology acceptability. Alharbi & Drew (2014); and Schaupp & Festa (2018) researched to examine the crucial factors influencing Chinese citizens' acceptance of Cryptocurrencies. Kok et al. (2018) studied the variables that influenced Ipoh people's behavioral intentions about the adoption of Cryptocurrency. Another study conducted by Duma & Gligor (2018) was done on some Babeş-Bolyai University students. The study was interested in how these students behaved and perceived the fintech sector, particularly blockchain technology and Cryptocurrencies. By combining the Cryptocurrency dimension with the concepts of the unified theory of

acceptance and use of technology, Yeong et al (2019) proposed a model to examine the factors of Cryptocurrency acceptance and usage intention. According to the findings of Arias-Oliva et al. (2019), college-educated persons in Spain had a low overall intention to use Cryptocurrencies. However, most people in Ukraine are aware of and intend to use Cryptocurrencies (Bondarenko et al., 2019). According to Gazali et al. (2018), the intention to invest in Cryptocurrencies is typically influenced by the subjective norms, benefits perceived, and attitudes. According to Nadeem et al. (2021), people in China are substantially more likely to adopt Bitcoin if the technology is simple to use and understand. Therefore, behavioral intention has been chosen as the main dependent variable in this study based on prior research.

*Perceived Benefits:* Reduced transaction costs, increased transaction speed, and information transparency are all perceived benefits. Perceived benefit is one of the factors that predict the adoption of online trade (Lee, 2009). Investors presently base a lot of their investment decisions on predictions of Cryptocurrency exchange rates' future profitability (Wesley.M, 2018: Andrianto, 2017; Rose, 2015). Investors frequently decide to invest in Cryptocurrencies based on their current worth; they also predict their future popularity based on data made available online, in publications, and in ads (Shehhi et al., 2014). Numerous studies have found that

people's intentions to use Cryptocurrencies are significantly impacted by their perceptions of the benefits (Abramova & Böhme, 2016; Alqaryouti et al., 2020; Gazali et al., 2018; Walch, 2015). However, there is limited research that has examined the effects of perceived benefits on perceived value from Cryptocurrencies. Additionally, Walton & Johnston (2018) discovered that in South Africa, people's intentions to use Bitcoin are directly influenced by the advantages they perceive. Thus, it has been suggested that perceived benefits influence an individual's intention to use Cryptocurrencies.

***Perceived Risk:*** Perceived risks associated with Cryptocurrencies encompass various uncertainties users believe are linked to online transactions and payments (Abramova & Böhme, 2016). These risks include price volatility, regulatory uncertainties, technical glitches, potential theft or loss, and exchange rate fluctuations (Gazali et al., 2018). Perceived risk has been significantly associated with customer behavior, particularly influencing technology adoption and purchase intentions (Kanungo & Jain, 2004; Salisbury et al., n.d.; Featherman & Pavlou, 2003).Studies investigating the impact of perceived risks on Cryptocurrency adoption and perceived value have shown varying outcomes (Abramova & Böhme, 2016; Arias-Oliva et al., 2019; Mendoza-Tello et al., 2019). While some research emphasizes the significance of perceived risk in influencing intentions to use financial

technologies like Internet and mobile banking (Khan et al., 2017; Krishna Kishore & Sequeira, 2016; Shaikh et al., 2018), others, particularly in the context of Cryptocurrencies, demonstrate mixed findings (Mendoza-Tello et al., 2018). Perceived risk's impact on adopting Cryptocurrencies for electronic payments varies across studies (Mendoza-Tello et al., 2019), yet it remains a crucial indicator of behavioral intentions to use Cryptocurrencies (Yeong et al., 2019; Kok et al., 2018). Overall, perceived risk plays a notable role in influencing users' intentions to engage with Cryptocurrencies for online transactions.

***Social Effects:*** The influence of significant individuals on Cryptocurrency adoption, known as "social effects," has drawn attention in various research studies, showcasing diverse impacts on users' intentions (Esmaeilzadeh et al., 2019). While some findings emphasize the substantial positive influence of social factors on Cryptocurrency use (Chaouali et al., 2016; Alenazy et al., 2019), others display mixed outcomes, revealing minimal impacts on behavioral intentions (Kok et al., 2018; Sarwar et al., 2019). Studies exploring mobile banking also show varying degrees of influence from social effects on adoption (Kazi et al., 2013; Farah et al., 2018). Overall, the impact of social factors, particularly subjective norms, plays a significant role in shaping users' decisions to adopt and utilize

Cryptocurrencies, emphasizing the importance of considering social effects in understanding adoption trends (Abramova & Böhme, 2016).

***Structural Provision***: The utilization of Cryptocurrencies is not solely influenced by social effects, perceived benefits, and risks but also by structural provision. This encompasses the infrastructure, facilitating conditions, and resources essential for supporting Cryptocurrency adoption (Esmaeilzadeh et al., 2019). Information vital for transactions is accessible through online platforms, forums, and exchange websites, requiring electronic devices like laptops and smartphones (Mendoza-Tello et al., 2018; Mainelli & Smith 2015). Understanding Cryptocurrencies demands basic financial and technological comprehension, where facilitating conditions play a crucial role in their acceptance. Studies highlight the significance of facilitating conditions as the second most influential factor after performance expectancy for a Cryptocurrency's success (Arias-Oliva et al., 2019). Structural provision significantly impacts behavioral intent concerning technology use (Luo J et al., 2011; Venkatesh et al., 2003). In specific regions like Ipoh, facilitating circumstances positively influence behavioral intentions and the adoption of Cryptocurrencies (Kok et al., 2018a). However, research gaps exist regarding how structural provision influences Cryptocurrency uptake in Sri Lanka. Users may resist technology adoption if they perceive high feasibility risks or substantial time and effort commitments (Lee & Lim, 2019). Venkatesh et al. (2012) suggest that facilitation conditions notably affect customer intentions toward adopting new technologies.

***Personality Traits (Innovativeness and Self-efficacy):*** The intention to use Cryptocurrencies is influenced by various moderating variables, as suggested by Esmaeilzadeh et al., (2019) and Hasan et al., (2022). Personality traits, particularly self-efficacy and personal innovativeness, are recognized as significant factors impacting Cryptocurrency adoption (Bajwa et al., 2013; Hasan et al., 2022). While personality traits' direct influence on usage intention has been examined in prior research (Almarashdeh, 2018; Bajwa et al., 2013), limited studies have explored their moderating effects concerning Cryptocurrencies, except for the findings from (Esmaeilzadeh et al., 2019; Hasan et al., 2022), which suggest a moderating effect from individual self-efficacy and innovativeness.

Personal innovativeness denotes an individual's inclination toward embracing innovative technology (Agarwal & Prasad, 1998; Yang et al., 2016). Higher risk tolerance is associated with a greater willingness to experiment with new technologies (Brynjolfsson, 2015). This trait, identified as a strong moderator between intention and perceived value of Cryptocurrencies (Abbasi

et al., 2021), suggests that highly innovative individuals might integrate Cryptocurrency into their lives, even without perceiving significant value. Similarly, (Nazifi et al., 2021) proposed that customer innovativeness moderates the effect of crypto-compensation on satisfaction.

Self-efficacy, representing one's belief in their capability to accomplish tasks, significantly influences technology acceptance (Rogers et al., 2008). High self-efficacy correlates positively with the adoption of new technologies, indicating that individuals with high self-efficacy are more inclined to accept Cryptocurrencies (Lee, 2021).

### Perceived Value from Cryptocurrency:

Perceived value, resulting from the balance between perceived advantages and risks, significantly influences user attitudes and behaviors towards Cryptocurrency adoption (Kim et al., 2007). Assessing the benefits and usefulness of a technology determines users' intention to accept and use it (Pham & Ho, 2015; Xu & Gupta, 2009). Studies conducted in various countries like Singapore and China reveal that perceived value strongly affects intentions to use technologies like mobile Internet, coupon applications, and smartphones (Kim et al., 2007; Liu et al., 2015; Pitchayadejanant, 2011). The perception of value, based on the balance of benefits and perceived risks, significantly shapes users' inclinations towards embracing innovative technologies like Cryptocurrencies.

### Attitude Towards using Cryptocurrency:

The evaluation of behavior or objects forms an individual's attitude, which significantly influences their intentions. When it comes to Cryptocurrencies, the attitude toward risk impacts adoption intentions, with lower perceived risk boosting adoption intentions (Schaupp & Festa, 2018). While numerous studies have explored attitudes' direct impact on intentions for Cryptocurrency use and online shopping (Walton & Johnston, 2018; Schaupp & Festa, 2018; Mosavi, 2012), limited research delves into attitudes' mediating role between perceived value and adoption intentions. Yet, conceptual models propose the mediating effect of attitudes (Esmaeilzadeh et al., 2019; Hasan et al., 2022).

Studies in South Africa, Pakistan, and various contexts demonstrate a strong positive link between attitudes and behavioral intentions for using Cryptocurrencies, online banking, and e-shopping (Walton & Johnston, 2018; Schaupp & Festa, 2018; Mosavi, 2012; Mazhar et al., 2014). The absence of studies on attitudes as a mediating factor between perceived value and behavioral intentions in Sri Lanka highlights the unexplored realm. Overall, the attitude toward Cryptocurrencies plays a mediating role between individuals' perceived value and their behavioral intentions to adopt Cryptocurrencies, impacting their willingness to engage positively in the market.

## Methodology

### Sample and Data Collection

This study examines factors influencing cryptocurrency use among a specific demographic comprising university students, professionals, and investors in Sri Lanka. The target population includes those familiar with blockchain technologies and internet usage. The selection of this specific demographic aligns strategically with the research objectives, which aim to explore the vital factors influencing cryptocurrency adoption in the Sri Lankan context. The selection of university students symbolizes early adopters of new technologies, Professionals contribute insights into the working population, while investors bring financial perspectives, collectively enriching the understanding of factors influencing cryptocurrency use. Further, the sample includes investors and professionals, who are more likely to earn higher incomes, indicating a high-income level. The convenience sampling technique was used as it allows the researcher to reach individuals readily available and willing to participate by ensuring a more feasible data collection process. Moreover, a structured questionnaire was used to gather primary data mainly based on a five-point Likert scale. The questionnaire was sent to 500 sample units and however only 311 responses were received.

### Data Analysis

The response rate for the survey was 62%, with a total of 311 fully completed responses out of 500 invitations sent out. The missing data showed no observable patterns or trends. This study applied the Partial Least Square Structural Equation Modeling (PLS-SEM) to quantify the impact of different constructs on people's intention to use Smart PLS 4 software. This technique is a well-sustained method for estimating complex Cause-effect relationship models, especially in management research (Gudergan et al., 2008).

268 respondents indicated that they had heard of Cryptocurrencies. Even people who have never heard of Cryptocurrency assume they have some understanding after watching the video and measuring their opinions. The Behavioral Intention to Adopt Cryptocurrency variable was measured by using three items (Almajali et al., 2022; Arias-Oliva et al., 2019; Baabdullah et al., 2015). This model was adopted by different scholars in their studies (Esmaeilzadeh et al., 2019; Hasan et al., 2022) to measure the Behavioral Intention to Adopt Cryptocurrency. The Perceived Benefits (Alqaryouti et al., 2020b), Perceived Value from Cryptocurrency (Kim et al., 2007), Social Effects, and Structural Provision (Arias-Oliva et al., 2019) variables were measured by using four items. Moreover, the Perceived Risks (Arias-Oliva et al., 2019), Self-efficacy (Al-Jabri, 2015), and Attitudes toward Cryptocurrency

(Schaupp & Festa, 2018) variables were measured using three dimensions. In addition, Personal Innovativeness was measured by using 6 items, and those items were adopted (Baabdullah et al., 2015). Accordingly, the operationalization of the variables with factor loading values is provided in Table 1.

**Table 1 Operationalization and Summary of Item Loadings**

|  | Outer loadings |
| --- | --- |
| **Attitudes towards Cryptocurrency** |  |
| AT1 | 0.769 |
| AT3 | 0.862 |
| AT4 | 0.839 |
| **Behavioral Intention to Adopt Cryptocurrency** |  |
| BIC2 | 0.683 |
| BIC3 | 0.853 |
| BIC4 | 0.782 |
| **Perceived Benefits** |  |
| PB1 | 0.825 |
| PB2 | 0.787 |
| PB3 | 0.79 |
| PB4 | 0.597 |
| **Personal Innovativeness** |  |
| PI1 | 0.794 |
| PI2 | 0.777 |
| PI3 | 0.876 |
| PI4 | 0.708 |
| PI5 | 0.833 |
| PI6 | 0.814 |
| **Perceived Risks** |  |
| PR1 | 0.845 |
| PR2 | 0.587 |
| PR3 | 0.907 |
| **Perceived Value from Cryptocurrency** |  |
| PVC1 | 0.709 |
| PVC2 | 0.880 |
| PVC3 | 0.843 |
| PVC4 | 0.652 |
| **Social Effects** |  |

| | |
|---|---|
| SE1 | 0.860 |
| SE2 | 0.859 |
| SE3 | 0.893 |
| SE4 | 0.695 |
| **Self-efficacy** | |
| SEff1 | 0.665 |
| SEff2 | 0.789 |
| SEff3 | 0.845 |
| **Structural Provision** | |
| SP1 | 0.655 |
| SP2 | 0.721 |
| SP3 | 0.723 |
| SP4 | 0.768 |

Source: Created by authors based on data analysis
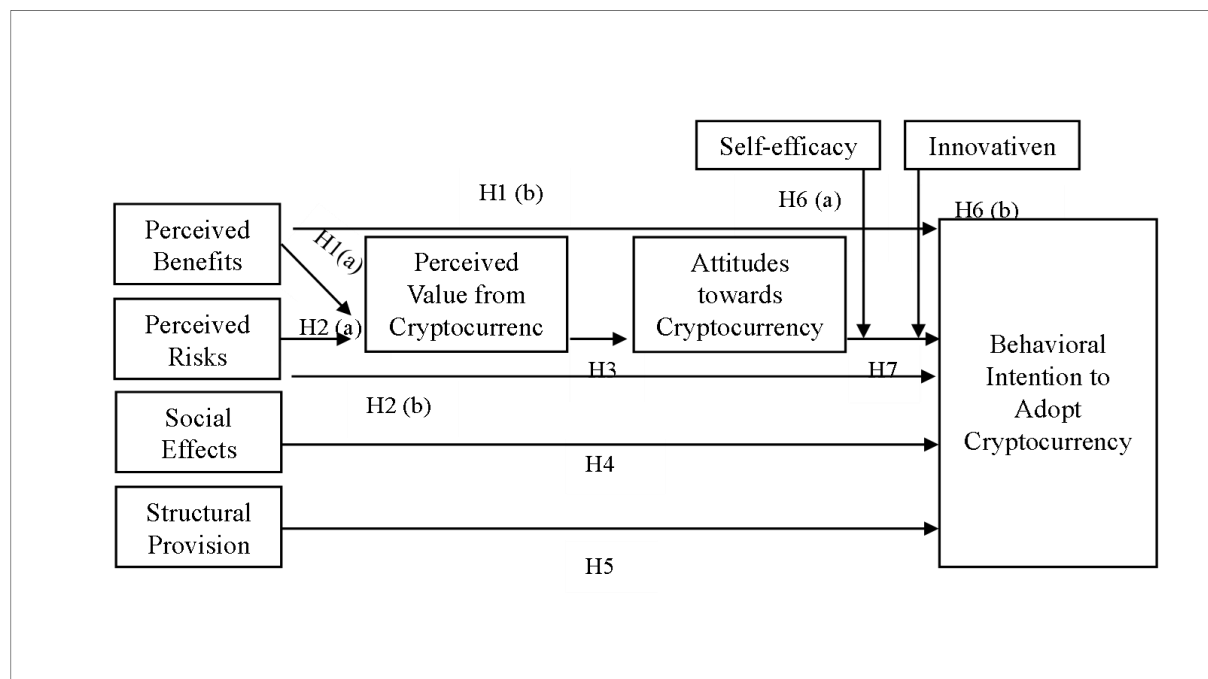
## Conceptual Framework and Hypothesis



**Figure 1: Conceptual Framework**
Source:( Hasan et al., 2022)

The theoretical model presented by Esmaeilzadeh et al. (2019) provides the foundation for the current study. Perceived benefits and risks; perceived value, structural provision, personality traits (innovativeness and self-efficacy), attitude, and intention to use Cryptocurrency were all included in the model.

Based on the above conceptual framework following hypotheses are developed.

**H1 (a):** There is a positive influence of perceived benefits on the perceived value from Cryptocurrency.

**H1 (b):** There is a positive influence of perceived benefits on the behavioral intention to use Cryptocurrency.

**H2 (a):** There is a negative influence of perceived risks on the perceived value from Cryptocurrency.

**H2 (b):** There is a negative influence of perceived risks on the behavioral intention to use Cryptocurrency.

**H3:** There is a positive effect of perceived value from Cryptocurrency on the attitude towards using Cryptocurrency.

**H4:** There is a positive influence of social effects on the behavioral intention to use Cryptocurrency.

**H5:** There is a positive effect of structural provisions on the behavioral intention to use Cryptocurrency.

**H6 (a):** There is a positive moderation of Self-efficacy in the relationships between attitudes towards using Cryptocurrency and behavioral intention to adopt Cryptocurrency.

**H6 (b):** There is a positive moderation of Personal innovativeness in the relationships between attitudes towards using Cryptocurrency and behavioral intention to adopt Cryptocurrency.

**H7:** Attitudes towards using Cryptocurrency mediate the relationship between the perceived value from Cryptocurrency and individuals' behavioral intention to adopt Cryptocurrency.

## Results and Discussion

The study's measurement model demonstrates the relationship between the research constructs and the indicator variables. Establishing construct validity and reliability is a component of measurement model assessment. The observed variables significantly ($< 0.50$) loaded on each of the study's latent constructs' respective latent variables. The measurement model requires the removal of the indicators that record low factor loadings. As a result of the issue with low factor loading, 1 item from the Behavioral intention to use Cryptocurrency variable (BIC1 = 0.279), 1 item from the Perceived Risk variable (PR4 = 0.038), and 1 item from the Attitude Towards Using Cryptocurrency variable (AT2 = 0.476) was removed from the analysis.

The measurement model's second component is the reliability analysis, which also involves Cronbach's Alpha and composite reliability. Using 311 participants, the reliability statistics for this study were

determined. Both reliability values have a cutoff value that is 0.70. Table 6 summarizes the reliability test results. As a result, the two latent constructs are not compositely reliable, and three latent constructs do not fulfill Cronbach's Alpha criteria. The model's other latent constructs possess composite reliability and Cronbach's Alpha criteria. Investigating the latent constructs' convergent validity is the measurement model's main phase. The convergent validity of the indicators is measured by average variance extracted (AVE), and AVE > 0.5 is the acceptable validity. As a result, the model's constructions are all convergently valid (please refer Table 2).

The Heterotrait-Monotrait (HTMT) ratio also was used to investigate the discriminant validity of the latent variable model. The results (Table 3) demonstrate that all HTMT ratios were below the suggested cutoff point of 0.85, demonstrating strong discriminant validity. Because the correlations between the indicators of separate latent variables are smaller than those of the same latent variable, these ratios imply that the latent variables are measuring distinct constructs. Finally, can be recommended that a thorough evaluation of model fit be carried out utilizing other fit indices to corroborate the results.

**Table 2: Convergent Validity**

|  | Cronbach's alpha | Composite reliability (rho_a) | Composite reliability (rho_c) | Average variance extracted (AVE) |
|---|---|---|---|---|
| **AT** | 0.764 | 0.779 | 0.864 | 0.679 |
| **BIC** | 0.664 | 0.675 | 0.818 | 0.602 |
| **PB** | 0.748 | 0.783 | 0.839 | 0.57 |
| **PI** | 0.888 | 0.893 | 0.915 | 0.643 |
| **PR** | 0.753 | 0.816 | 0.83 | 0.627 |
| **PVC** | 0.776 | 0.812 | 0.857 | 0.603 |
| **SE** | 0.851 | 0.898 | 0.898 | 0.689 |
| **SEff** | 0.679 | 0.733 | 0.812 | 0.593 |
| **SP** | 0.688 | 0.699 | 0.809 | 0.515 |

Source: Created by authors based on data analysis

**Structural Model**

A statistical measure termed R-squared (R2) shows how much of the variance in the dependent variable can be explained by the independent variables. The relative R2 values for AT, BIC, and PVC were 0.174, 0.239, and 0.194. Weak to considerable can be used to describe the R2 values. The structural model

of the study shows the liner relationships or the paths between the constructs of the study model. First, the direct effect between the independent variables (PB, PR, SE, SP, PVC), mediating variable (AT) moderating variables (Seff, PI), and the dependent variable (BIC) was evaluated. Based on the analyzed data there was Only the PB, AT and SP have a significant influence on behavioral intention to use Cryptocurrency (please refer Table 4)

**Table 3: Discriminant Validity of the Constructs using HTMT**

|  | AT | BIC | PB | PI | PR | PVC | SE | SEff | SP | PI x AT | SEff x AT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AT | - | | | | | | | | | | |
| BIC | 0.483 | - | | | | | | | | | |
| PB | 0.353 | 0.756 | - | | | | | | | | |
| PI | 0.577 | 0.485 | 0.541 | - | | | | | | | |
| PR | 0.147 | 0.053 | 0.141 | 0.126 | - | | | | | | |
| PVC | 0.529 | 0.578 | 0.536 | 0.447 | 0.245 | - | | | | | |
| SE | 0.226 | 0.226 | 0.134 | 0.138 | 0.197 | 0.176 | - | | | | |
| SEff | 0.563 | 0.473 | 0.532 | 0.605 | 0.089 | 0.506 | 0.084 | - | | | |
| SP | 0.593 | 0.577 | 0.534 | 0.626 | 0.191 | 0.673 | 0.191 | 0.741 | - | | |
| PI x AT | 0.342 | 0.113 | 0.026 | 0.132 | 0.037 | 0.077 | 0.077 | 0.08 | 0.023 | - | |
| SEff x AT | 0.307 | 0.059 | 0.06 | 0.051 | 0.05 | 0.076 | 0.08 | 0.197 | 0.087 | 0.609 | - |

Source: Created by authors based on data analysis

**Table 4: Direct Effects of variables**

|  | Path Coefficient | Standard Deviation | T statistics | P values |
|---|---|---|---|---|
| PB -> BIC | 0.418 | 0.053 | 7.891 | 0 |
| PR -> BIC | 0.071 | 0.049 | 1.444 | 0.149 |
| SE -> BIC | 0.082 | 0.047 | 1.743 | 0.081 |
| SP -> BIC | 0.144 | 0.062 | 2.321 | 0.020 |
| PVC -> BIC | 0.022 | 0.012 | 1.834 | 0.067 |
| AT -> BIC | 0.127 | 0.06 | 2.112 | 0.035 |
| SEff -> BIC | 0.059 | 0.065 | 0.903 | 0.367 |
| PI -> BIC | 0.017 | 0.059 | 0.281 | 0.779 |

Source: Created by authors based on data analysis

The study formulated eleven hypotheses, employing path coefficient analysis to examine linear relationships (H1(a), H1(b), H2(a), H2(b), H3, H4, and H5) before

introducing mediating and moderating variables. The results, presented in Table 4.10, elucidate the impact of independent variables on dependent ones. Perceived benefits significantly enhance the perceived value of Cryptocurrencies (ß= 0.417, t = 8.867, p < 0.05), leading to the acceptance of H1(a). Similarly, perceived advantages exert a substantial influence on the behavioral intention to use Cryptocurrencies (ß= 0.416, t = 7.847, p = 0.000), supporting H1(b. However, the study rejects H2(a) as perceived risk insignificantly affects the perceived value of Cryptocurrencies (ß= 0.119, t = 1.772, p > 0.05), and H2(b) is declined, indicating an inconsequential impact of perceived risk on behavioral intention to use Cryptocurrency (ß = 0.032, t= 0.501, p > 0.05). On the other hand, H3 is accepted as perceived value from Cryptocurrency significantly influences attitude towards using Cryptocurrency (ß= -0.419, t= 6.453, p < 0.05). However, H4 is rejected due to the insignificant impact of social effects on behavioral intention to use Cryptocurrencies (ß=0.088, t = 1.76, p >

0.05). Finally, H5 is accepted, substantiating a positive and significant impact of structural provision on behavioral intention to use Cryptocurrencies (ß=:0.196, t = 3.022, p <0.05). In summary, the study reveals nuanced relationships among these variables, providing valuable insights into the factors influencing individuals' perceptions and intentions regarding cryptocurrency adoption. (Table 5).

**Moderating Analysis**

To investigate the moderating impact of Self Efficacy and Personal Innovativeness, a moderation analysis was carried out. Therefore, the conceptual model's H6 (a) and H6 (b) evaluate whether the relationship between BIC and AT is moderated by the SE and PI (Table 6). According to the result (ß= 0.057, t=0.86, p > 0.05) the Moderating effect of Personal Innovativeness (PI) on BIC and AT is not significant. Hence H6 (a) is not accepted. Also, the moderating effect of Self Efficacy (SEff) on BIC and PVC is not significant, according to the path coefficient results (ß= 0.074, t=1.235, p > 0.05). Thus, H6 (b) is therefore not accepted.

**Table 5:  Hypothesis Testing Using Path Coefficients**

| Hypothesis | Path | Path Coefficients (β) | Standard deviation (STDEV) | T statistics | P values | Decision |
|---|---|---|---|---|---|---|
| **H1a** | PB -> PVC | 0.417 | 0.049 | 8.511 | 0 | Accepted |
| **H1b** | PB -> BIC | 0.416 | 0.053 | 7.891 | 0 | Accepted |
| **H2a** | PR -> PVC | 0.119 | 0.069 | 1.752 | 0.080 | Not Accepted |
| **H2b** | PR -> BIC | 0.032 | 0.049 | 1.444 | 0.149 | Not Accepted |
| **H3** | PVC -> AT | 0.419 | 0.055 | 6.464 | 0 | Accepted |
| **H4** | SE -> BIC | 0.088 | 0.05 | 1.762 | 0.078 | Not Accepted |
| **H5** | SP -> BIC | 0.196 | 0.062 | 2.321 | 0.020 | Accepted |

Source: Created by authors based on data analysis

**Table 6:  Results of the Moderating Analysis**

| | Path coefficient | Standard deviation (STDEV) | T statistics | P values |
|---|---|---|---|---|
| **PI x AT -> BIC** | 0.057 | 0.050 | 0.931 | 0.352 |
| **SEff x AT -> BIC** | 0.074 | 0.055 | 1.086 | 0.277 |

Source: Created by authors based on data analysis

**Mediating Analysis**

To identify the mediating role of AT in the study model's relationship between PVC and BIC, a mediation analysis was conducted. Whether AT mediates the connection between PVC and BIC is evaluated in H7. The results indicate that the PVC's overall impact on BIC was insignificant (ß= 0.022, t= 1.834, p=0.067). The indirect impact was shown to be significant with the mediator's inclusion even after the mediator was added to the model (ß = 0.0.57   t= 1.974  p< 0.05) Table 7.  As a result, the findings of the research have complete mediation. Thus, it may be concluded that the action of PVC on BIC is completely mediated through AT and that the only effect that was detected was indirect. H7 was consequently supported.

**Table 7: Result of the Mediating Analysis**

|  | Path coefficient | Standard deviation (STDEV) | T statistics | P values |
|---|---|---|---|---|
| PVC -> AT -> BIC | 0.057 | 0.027 | 1.974 | 0.048 |

Created by authors based on data analysis

**Multi-Group Analysis**

Table 8 summarizes the outcomes of the multi-group analysis. There were only four significant differences throughout the three categories. There is a significant difference in SE on BIC and SP on BIC when investors and professionals are compared (p < 0.05), and the moderating effect of SEff on BIC and PVC is significant when multigroup difference results are compared (p<0.005). Furthermore, when comparing Professionals and University Students, there is a significant multigroup difference SP on BIC (p<0.05) There is no any significant difference between the Investors and University Students (p>0.05)

## Discussions

The purpose of this study is to look at the intentions of individuals regarding using Cryptocurrencies. In Sri Lanka, 77% of respondents stated they already used Cryptocurrencies, Consequently, the researcher's first objective was achieved. Based on the research of Hasan. et al.,( 2022) the researcher observed several factors that influence the intention to use Cryptocurrencies. The researcher recognized that perceived benefits, perceived risks,

structural provisions, social effects, perceived value from Cryptocurrencies, attitudes toward using Cryptocurrencies, self-efficacy, and personal innovativeness were all related to behavioral intentions to use Cryptocurrencies, as was already discussed in the literature review section.

Thus, the results of this study clearly show that all of these factors including PB, SP, AT, and PVC, only had an impact on the intent of individuals to use Cryptocurrencies in Sri Lanka, including within professionals, investors, and university students.

Abramova & Böhme, (2016); Alqaryouti et al., (2020); Gazali et al., (2018); Hasan et al., (2022); Walch, (2015) have determined from their studies the strong positive impact of PB and BIC.

Since it had a considerable impact on PB and BIC, this study's conclusions are in conflict with those of earlier research they had done Abramova & Böhme, (2016); Arias-Oliva et al., (2019); Kok et al., (2018); Mendoza-Tello et al., (2019) studies that evaluated the negative effects of perceived risks on people's behavioral intentions to adopt Cryptocurrencies. but researchers observed that PR had a statistically insignificant impact on BIC.

**Table 8:  Multi-Group Analysis**

|  | Investors - Professionals | | Investors - University Students | | Professionals - University Students | |
|---|---|---|---|---|---|---|
|  | **Difference** | **p-value** | **Difference** | **p-value** | **Difference** | **p-value** |
| **PB -> PVC** | 0.081 | 0.536 | 0 | 0.987 | -0.081 | 0.521 |
| **PB -> BIC** | 0.033 | 0.229 | 0.051 | 0.114 | 0.018 | 0.298 |
| **PR -> PVC** | -0.398 | 0.284 | -0.401 | 0.271 | -0.003 | 0.941 |
| **PR -> BIC** | -0.037 | 0.839 | -0.03 | 0.803 | 0.007 | 0.335 |
| **PVC -> AT** | -0.045 | 0.723 | -0.002 | 0.933 | 0.043 | 0.877 |
| **SE -> BIC** | 0.099 | 0.5 | 0.18 | 0.245 | 0.082 | 0.583 |
| **SP -> BIC** | -0.441 | 0.003 | -0.141 | 0.335 | 0.3 | 0.032 |
| **PI x AT -> BIC** | 0.221 | 0.145 | 0.101 | 0.538 | -0.12 | 0.431 |
| **SEff x AT -> BIC** | -0.404 | 0.016 | -0.153 | 0.387 | 0.251 | 0.112 |
| **PVC -> AT -> BIC** | **0.064** | **0.265** | **0.12** | **0.101** | **0.057** | **0.229** |

Source: Created by authors based on data analysis

As a result, this study's conclusions are incompatible with those of earlier research they conducted because it had no appreciable effects on PR and BIC. Although Some studies  Walch, (2015);Kim et al., (2018); Kok et al., (2018); Sarwar et al., (2019); Esmaeilzadeh et al., (2019);  Hasan  et al., (2022) found the positive impact of SE on BIC, Researcher investigated there was an insignificant impact of SE on BIC. As a result, the findings are positively inconsistent with earlier research the researchers clearly demonstrated a positive impact of SP on BIC.Also the results were positively consistent with early researchers. According to the results of  Esmaeilzadeh et al., (2019); Abbasi GA et al., (2021); Nazifi et al., (2021); Hasan et al.,( 2022)the researchers have been identified  Personal innovativeness  was  a strong moderator but, in this research, researchers investigated the Moderating effect of Personal Innovativeness (PI) on BIC and AT is not significant.

Finally, the study provided significant empirical information about the indirect impact of AT on BIC and PVC. The findings show that AT completely mediates the interaction between BIC and PVC. To our knowledge, only a few studies of research have examined AT's potentially mediating effects on the link between BIC and PVC, Esmaeilzadeh et al., (2019);   Hasan et al., (2022) propose that AT mediates the connection between BIC and PVC. As a result, the conclusions of   Esmaeilzadeh et al., (2019);  Hasan et al., (2022) are supported by the results.

## Conclusion and Policy Implications

This study aims to address critical questions regarding the prevalence of cryptocurrency usage among university students, professionals, and investors in Sri Lanka. Through an extensive literature review, the research adopted a model developed by Hasan et al., (2022) to investigate factors influencing cryptocurrency usage intentions, identify the most significant factor, and explore moderating and mediating influences. The survey, tailored to the Sri Lankan context, revealed that 86% of respondents were familiar with cryptocurrency, with males comprising 70% of the sample and the majority falling within the 20-25 age range. Notably, 77% of respondents reported current cryptocurrency usage, with professionals (25%), investors (31%), and university students (21%) actively participating. Perceived Benefits, Structural Provision, Perceived Value, and Attitude Towards using Cryptocurrency emerged as significant factors influencing usage intentions, with Perceived Benefits identified as the most impactful. Hypotheses H1(a), H1(b), H3, and H5 were accepted, underscoring the positive influence of perceived benefits and value on behavioral intentions. Conversely, H2(a), H2(b), and H4 were rejected, challenging the anticipated relationships between perceived risk, value, behavioral intentions, and social effects. The study also investigated moderating and mediating factors, revealing that self-efficacy and personal innovativeness had no moderating effects. However, the 7th hypothesis confirmed that attitudes toward using cryptocurrency served as a positive and significant mediator between the intention to use and its determinants. In conclusion, this study provides valuable insights into the factors influencing cryptocurrency adoption among university students, professionals, and investors in Sri Lanka. Thus, this study provides valuable insights into the nuanced landscape of cryptocurrency adoption in Sri Lanka, shedding light on usage patterns, influential factors, and the role of attitudes in shaping behavioral intentions.

This research evaluates an integrated model to analyze constructs using Cryptocurrencies, addressing financial, legal, and risk factors. It fills a gap in the Cryptocurrency framework by examining variables influencing intentions and providing a theoretical foundation for future research. The study also investigates personal innovativeness and self-efficacy, contributing to understanding factors influencing cryptocurrency adoption in developing countries. The findings will help service providers to develop strategies to encourage customers to use Cryptocurrencies, particularly in developing countries. In response to these findings, this study proposed several policy implications for stakeholders in the cryptocurrency ecosystem. Thus, regulatory bodies are advised to adopt adaptive frameworks,

educators should enhance blockchain literacy, and industry players are encouraged to implement investor outreach programs. Furthermore, governments and private entities are recommended to allocate resources for cryptocurrency research and development, and collaborative industry initiatives should promote responsible innovation and the adoption of best practices. This comprehensive approach aims to create an environment that fosters informed decision-making, responsible innovation, and adaptability in response to the evolving dynamics of the cryptocurrency market. These efforts will contribute to the sustainable development of the cryptocurrency ecosystem in Sri Lnaka. Accordingly, the findings of this research highlight the importance of continuous monitoring and exploration of changes in usage patterns and attitudes toward cryptocurrencies over time. Hence the findings could influence Sri Lanka's government, policymakers, and authorities to lift the ban on virtual currencies and issue its own Cryptocurrency.

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