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Examining the Influence of Regulatory Dynamics on Customer Behavioral Intentions towards Cryptocurrency Adoption in Sri Lanka

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Abstract

The emergence of Bitcoin in 2009 marked a pivotal moment, generating widespread interest in cryptocurrencies as a decentralized alternative to traditional financial systems. Despite its innovative potential, questions surrounding the legitimacy and integrity of cryptocurrencies have cast doubts on their viability as financial instruments. The inherent volatility of Bitcoin, largely fueled by speculative investments, has further contributed to public skepticism. This study concentrates on Sri Lanka, a South Asian Island nation, where the legal treatment of cryptocurrencies remains uncertain. It aims to provide valuable insights for key stakeholders, including central banks, merchants, and cryptocurrency exchanges, by examining consumers' inclination to use cryptocurrencies for transactions. This research, catering to potential cryptocurrency users, adopts the Unified Theory of Acceptance and Use of Technology (UTAUT) framework. A quantitative approach was employed in this study, involving the collection of 385 responses through the distribution of questionnaires. This was achieved through the application of simple linear regression and Pearson Correlation analyses. Snowball sampling was employed in the participant selection process, resulting in an interconnected group of users. The study findings reveal that performance expectations, effort expectations, social influence, and enabling factors exhibit a positive influence on the behavioral intention to use cryptocurrencies in Sri Lanka. Specifically, it was observed that effort expectations and facilitating conditions are the primary factors directly impacting behavioral intention in the Sri Lankan context. These results highlight the significance of perceived effort and the presence of favorable conditions as key drivers shaping individuals' intentions to adopt cryptocurrencies in Sri Lanka.

Keywords: Behavioral intention; Bitcoin; Cryptocurrency; Decentralized; Speculative

Introduction

1.1 Background of the study

The introduction of cryptocurrencies, which was pioneered by the launch of Bitcoin in 2009, has irreversibly changed the face of the financial industry and has captured the interest of people all over the world. [1]These digital currencies, collectively referred to as cryptocurrencies, represent a paradigm shift away from traditional centralized financial systems and toward decentralized and borderless alternatives. On the other hand, this profound shift did not come about without its share of mystery, ambiguity, and close examination. As virtual currencies proceed with their development, new doubts arise regarding their validity, stability, and the role they will ultimately play in the larger financial ecosystem.[2]

[1] Campbell-Verduyn, M., Bitcoin and Beyond: Cryptocurrencies, Blockchains, and Global Governance (Routledge 2017) https://doi.org/10.4324/9781315211909 accessed 5 November 2024.

[2] Werbach, K., The Blockchain and the New Architecture of Trust (MIT Press 2018) http://doi.org/10.7551/mitpress/11449.001.0001 accessed 5 November 2024.

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Bitcoin, the first cryptocurrency, is at the center of this transition since it has become representative of the larger movement as a whole. The fact that it is decentralized, in stark contrast to more conventional banking systems that are controlled by centralized corporations, has inspired both curiosity and worry among financial industry professionals.[3] The significant changes in the value of Bitcoin have, at least in part, been linked to the speculative motivations of investors. This has raised worries about the viability of Bitcoin as a trustworthy means of exchange and a store of wealth. This level of unpredictability has placed a pall of uncertainty over the Bitcoin industry.[4]

Amidst this backdrop of volatility and curiosity, the globe is experiencing varied degrees of acceptance and adoption of cryptocurrencies. These degrees may be thought of as a spectrum. The fact that significant worldwide organizations like Wikimedia and Microsoft have begun to accept cryptocurrencies as a form of payment demonstrates the increasing importance that cryptocurrencies have in the economy of today. However, not all countries have shown the same level of excitement in embracing this new financial revolution.[5]

An intriguing and relevant case study may be found in Sri Lanka, a country that is now navigating towards cryptocurrency. As the Central Bank of Sri Lanka does not recognize Bitcoin as a form of legal money and warns its citizens about the risks that are connected with investing in cryptocurrencies, as a result, the legal status of cryptocurrencies within its borders remains unclear.[6] As a direct result of this, Sri Lankans continue to have reservations regarding the utilization of cryptocurrencies despite the trends seen globally. This research mainly focuses on addressing this gap by identifying which factors influence the behavioral intention to use cryptocurrencies in Sri Lanka. The purpose of this study is to gain insight into the complexities of cryptocurrency adoption in Sri Lanka, with a particular focus on the role of trust and legal status in affecting the behavioral intention of users by applying the concept of UTAUT.

The Unified Theory of Acceptance and Use of Technology (UTAUT) is an extensive framework that elucidates technology adoption by concentrating on four principal factors. performance expectancy with conviction that the technology will enhance performance, effort expectancy with simplicity of use, social influence, the perception of others' endorsement to utilize the technology and facilitating conditions with accessibility of resources and support.[7] These factors affect behavioral intention and the actual utilization of technology, with gender, age, experience, and voluntariness of use acting as moderating variables. UTAUT is extensively utilized to comprehend the mechanisms behind individuals' technology adoption across diverse contexts, assisting researchers and organizations in improving user acceptance and facilitating adoption.

As a developing nation, Sri Lankan people have gained more control over their money using cryptocurrency, while access to capital has become easier. In this study, researchers hope to give a better understanding of cryptocurrency, how it behaves in the current economy, and how it can be of help for the economic crisis Sri Lanka is in right now. To do that researchers

[3] Makarov, I., Schoar, A., 'Cryptocurrencies and Decentralized Finance (DEFI)' Brookings Papers on Economic Activity Conference (2022) https://www.nber.org/system/files/working_papers/w30006/w30006.pdf accessed 5 November 2024.

[4] Alqaryouti, O., Siyam, N., Alkashri, Z., Shaalan, K., 'Users' Knowledge and Motivation on Using Cryptocurrency' in European, Mediterranean, and Middle Eastern Conference on Information Systems (2019) https://link.springer.com/chapter/10.1007/978-3-030-44322-1_9 accessed 5 November 2024.

[5] CBSL, 'Risks of Using and Investing in Cryptocurrency' (2023) https://www.cbsl.gov.lk/en/news/risks-of-using-and-investing-in-cryptocurrency-20230329 accessed 5 November 2024.

[6] Wijeratne, D., "Towards a comprehensive understanding of the factors influencing the adoption of cryptocurrency: Evidence from Sri Lanka." (2020) Journal of Retailing and Consumer Services, 53(1), p. 101768; Jayewardene, D., "Awareness and perception of cryptocurrencies in Sri Lanka." (2020)

have developed the following research questions.

1. What is the impact of the UTAUT model factors on the behavioral intention of customers to use cryptocurrencies in Sri Lanka?

2. What is the relationship between the UTAUT and the behavioral intention of customers to use cryptocurrencies in Sri Lanka?

The objective of the present study is to investigate the impact of the UTAUT model factors on the behavioural intention of customers to use cryptocurrencies in Sri Lanka. And to examine the relationship between the UTAUT and the behavioral intention of customers to use cryptocurrencies in Sri Lanka.

Methodology

This research makes use of the framework provided by UTAUT to investigate the factors that influence the behavioral intentions of customers in Sri Lanka about cryptocurrencies.[8] This model takes into account the significance of performance expectations, expectations regarding the amount of effort required, social impact, and enabling factors in the process of tion.

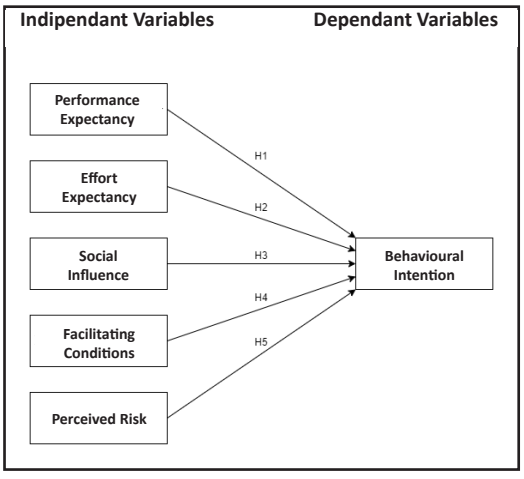

Figure 1. Conceptual Framework

Source: Authors' illustration based on Ji-Xi et al.[9]

The measurement scale and the indicators have been constructed based on Ji-Xi et al.[10] Indicators were structured with the questions of the questionnaire for each variable and the measurement was the 5-point Likert scale.

All null hypothesis was developed as there is no relationship or impact between the UTAUT on the behavioral intention of customers to use cryptocurrencies in Sri Lanka and all alternative hypotheses were developed there is an impact of the UTAUT factors on the behavioral intention of customers to use cryptocurrencies in Sri Lanka.

The hypothesis can be developed based on the conceptual framework.

H1- performance expectancy positively impacts behavioral intention to use cryptocurrencies.

H2- Effort Expectancy positively impacts behavioral intention to use cryptocurrencies.

H3- Social Influence positively impacts behavioral intention to use cryptocurrencies.

H4- Facilitating Conditions have a positive impact on behavioral intention to use cryptocurrencies.

H5- Perceived Risk positively impacts behavioral intention to use cryptocurrencies.

Since cryptocurrency users frequently value privacy and anonymity, non-probability sampling techniques were thought to be more appropriate for the study. Snowball sampling was used as the sampling method in this instance. When the sample is made up of people with particular traits that could be challenging to locate or reach using conventional sampling techniques, snowball sampling is a popular strategy.[11] The

[7] Qeisi, A., Ibrahim, K., Analyzing the Use of UTAUT Model in Explaining an Online Behaviour: Internet Banking Adoption (PhD thesis, Brunel University 2009) http://bura.brunel.ac.uk/handle/2438/3620 accessed 5 November 2024.

[8] Ter Ji-Xi, J., Salamzadeh, Y., & Teoh, A. P. "Behavioral intention to use cryptocurrency in Malaysia: an empirical study." (2021). The Bottom Line, 34(2), 170-197.

[9] Ibid

[10] Distler, V., 'A Systematic Literature Review of Empirical Methods and Risk Representation in Usable Privacy and Security Research' (2021) 28(6) ACM Transactions on Computer-Human Interaction art 43 http://doi.org/10.1145/3469845 accessed 5 November 2024.

lack of a centralized, all-inclusive list among Sri Lankan Bitcoin users is another reason to support the usage of this method. Since the Cryptocurrency usage population is unknown Ji-Xi et al[12] suggested that non probabilistic sampling technique (Snowball sampling) is a suitable sampling technique. Data was collected through a structured questionnaire distribution. The researchers conducted a pilot study and finally, collected 390 responses to conduct the study.

The researchers have used Pearson Correlation analysis to determine the relationship between the UTAUT and the behavioral intention of customers to use cryptocurrencies in Sri Lanka and researchers have used simple linear regression to investigate the impact of the UTAUT factors on the behavioral intention of customers to use cryptocurrencies in Sri Lanka. SPSS (Statistical Package for the Social Sciences) was the main instrument used for data analysis.

With the Pearson Correlation analysis researcher would be able to examine the relationship regulatory dynamics on behavioral intention to use cryptocurrencies by Sri Lankan customers with the multiple linear regression researcher would be able to examine the impact on regulatory factors on the behavioral intention to use crypto currencies by Sri Lankan customers.

Results and Discussion

The researchers have gathered information for this study from 390 informed Sri Lankan Bitcoin users. The individuals' demographic traits were dispersed as follows: 43% of respondents were between the ages of 18 and 30; 56% were men; 64% held a bachelor's degree or above; and 45% lived in cities.

Interesting insights were gleaned from the Likert scale replies for the factors under investigation. The mean ratings for Performance Expectancy were 4.23, Effort Expectancy was 4.14, Social Influence was 4.09, Facilitating Conditions was 4.19, and Perceived Risk was 3.81. This suggests that opinions on Bitcoin use, and its enabling elements were largely favorable among participants. The sample's sociodemographic variety is reflected in the descriptive statistics, which also represent the wider community of Bitcoin users in Sri Lanka.

3.1. Normality of the data set

Table 1. Skewness and Kurtosis Table

	Performance Expectancy	Effort Expectancy	Social Influence	Facilitating Conditions	Perceived Risk
skewness	0.623	0.393	0.561	0.561	0.396
Kurtosis	0.392	0.293	0.3	0.134	0.116

Source: Author-generated

Since all the tested variables are within the range of -1 to +1 researcher can ensure that the data set has been normally distributed.

1.2. Reliability analysis

Table 2*.* Summary of the reliability analysis

Variable	Cronbach's Alpha	Reliability	Conclusion
Performance Expectancy	0.863	0.863 > 0.7	Reliable
Effort Expectancy	0.876	0.876 > 0.7	Reliable
Social Influence	0.852	0.852 > 0.7	Reliable
Facilitating Conditions	0.91	0.910 > 0.7	Reliable
Perceived Risk	0.827	0.827 > 0.7	Reliable

[11] Ter Ji-Xi, J., Salamzadeh, Y., & Teoh, A. P. "Behavioral intention to use cryptocurrency in Malaysia: an empirical study." (2021). The Bottom Line, 34(2), 170-197.

Table 2 ensures that all the variables of the study are reliable. Further, all the variables produce consistency, stable results, and guaranteed reliability due to the acceptable reliability score.

1.3. Correlation analysis

Researchers can identify the direction and the strength of the relationship between the UTATA factors and the behavioral intention to use cryptocurrencies by using correlation analysis.

Table 3. Analysis of correlation

	Behavioral intention	P value
Performance expectancy	0.758	0.001
Effort Expectancy	0.782	0.032
Social Influence	0.742	0.002
Facilitating Conditions	0.835	0.042
Perceived Risk	0.705	0.023

According to Table 3, it is clear that all the variables are statistically significant because all the variables' p-values are less than 0.05. Performance expectancy and facilitating conditions are highly significant (P< 0.01) and effort expectancy, social influence, and perceived risk have marginal significance. (P< 0.05).

A strong and statistically significant positive relationship is found in "Performance Expectancy, effort expectancy, social influence, facilitating conditions, and perceived risk and the behavioral intention to use cryptocurrencies in Sri Lanka as indicated by a Pearson correlation coefficient of roughly greater than + 0.7.

1.1. Regression analysis

To investigate the impact of the unified theory of acceptance and use of technology (UTAUT) model factors on the behavioral intention of customers to use cryptocurrencies in Sri Lanka researcher has used the simple linear regression analysis.

Table 4. Summary of regression analysis

	Unstandardized Coefficients	Standardized Coefficients	Sig.
	B	Beta	
(Constant)	0.071		0.093
Performance Expectancy	0.061	0.062	0.017
Effort Expectancy	0.196	0.182	0.001
Social Influence	0.076	0.075	0.204
Facilitating Conditions	0.547	0.524	0.000
Perceived Risk	0.076	0.077	0.011

According to Table 4, Performance expectancy, effort expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, and Perceived Risk are statistically significant. ($p < 0.05$). Therefore, Performance Expectancy, Effort expectancy, Social Influence, Facilitating Conditions, and Perceived Risk have 6.2%, 18.2%, 7.5%, 52.4%, and 7.7% impact on behavioral intention to use cryptocurrency respectively.

Table 5. Summary of regression analysis table

R- square	Adjusted R- square	Model significance
0.73	0.71	0.000

R- square is greater than 0.5 which shows a high model fit and it explains that all the independent variables together explain the dependent variable by 73%. Adjusted R- -square shows the overall explanatory power. The gap between R- the square and

adjusted R-square is less which means unnecessary variables are not there.

Conclusion

According to the substantial positive relationship between performance expectation and behavioral intention, people in Sri Lanka are more inclined to adopt cryptocurrencies when they believe they would provide high-performance advantages. This might involve anticipating monetary rewards or successful deals. The significance of developing platforms and services that emphasize these performance advantages is shown by this research.

Comparably, the positive impact of Effort Expectancy suggests that more people are likely to plan to utilize cryptocurrencies if they believe they are simple and comfortable to use. Simpler procedures and user-friendly interfaces can have a big influence on Sri Lanka's adoption of cryptocurrencies.

The significant impact of social influence implies that people's intentions to use cryptocurrencies are greatly influenced by the beliefs and actions of others. This is a strong characteristic of human behavior, and utilizing social influence via campaigns of awareness and education might encourage the adoption of cryptocurrencies.

This study demonstrates that Facilitating Conditions have a major impact on Behavioral Intention. This shows that in a developing country like Sri Lanka, having simple access to essential resources, like digital wallets and cryptocurrency exchanges, is essential to promoting cryptocurrency adoption.

Perceived Risk remained statistically significant while having a lesser influence than other factors. This implies that lowering perceived risks—like market volatility and security concerns—can have a favorable impact on behavioral intentions.

In addition to that, all these factors under the UTAUT model have a strong positive relationship with behavioral intention to use cryptocurrencies in the Sri Lankan context. Research findings pave the way for more research. Subsequent research endeavors may explore the particular facets of Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, and Perceived Risk that have the greatest influence on the adoption of cryptocurrencies. Furthermore, it would be beneficial to investigate how policy choices and regulatory adjustments affect the uptake of cryptocurrencies, especially in the context of developing countries like Sri Lanka.

All figures in this article were created by the author unless otherwise stated.

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