Drivers of Cryptocurrency Adoption Among Malaysian Generation Z: An Application of the UTAUT Model

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Abstract. The uptrend of popularity in affirming cryptocurrency as an alternative to fiat currencies has been astounding, especially affecting Generation Z. The potential of cryptocurrencies became more conspicuous and the market for it widespread. Younger minds, in recent years, have been taken back by the potential for fast financial gains. Hence, the objective of this study is to investigate and identify the factors that affect behavioral intention of cryptocurrencies adoption among Generation Z. The Unified Theory of Acceptance and Use of Technology (UTAUT) is the theoretical model for this study. Data from 155 respondents who fall within the Generation Z age range is gathered using the purposive sampling non-probability sampling methods. The findings showed that performance expectancy, facilitating conditions, effort expectancy, act as significant predictors of behavioral intention of cryptocurrency adoption among Generation Z. Whereas perceived risk and social influence does not have significant relationship with the behavioral intention to adopt cryptocurrency. This study provides a comprehensive overview of the factors that contribute to Generation Z's behavioral intention to invest in cryptocurrency and actionable advice for educational institutions, financial institutions and legislators managing youth, finance, and the digital age.

Keywords: Cryptocurrency, Behavioral Intention, Generation Z

1. Introduction

Cryptocurrencies are digital assets that are made to be used as alternatives for trading, in a similar fashion to traditional money. They currently have no intrinsic worth, instead, the value is determined by a series of transactions, just like most fiat currencies. The fundamental basis of these cryptocurrencies is blockchain technology, a decentralized mechanism for recording transactions. Blockchain technology, a distributed digital ledger, underpins cryptocurrencies, ensuring that transactions are chronological, transparent, efficient, verifiable, and permanent. (Reid & Harrigan, 2013). Besides, ccryptocurrencies are made by nature to be decentralized and as a result provide a degree of anonymity in the exchange independent state of control. These factors are what intrigue the libertarian ideals of cyberculture (Tredinnick, 2019).

In a time when digital investments are transforming financial landscapes, grasping the dynamics of cryptocurrency adoption is not just an academic pursuit but a pressing necessity. Cryptocurrencies, known for their ability to significantly alter wealth generation, have encountered regulatory ambiguities, especially in Malaysia (Abdullah et al., 2024). Cryptocurrencies in Malaysia is legal, but the Malaysia government did not recognize the currencies as a payment instrument or legal tender. In Malaysia, government have a clear position on cryptocurrencies, they applied a cryptocurrency law which will work on 15 January 2019, called Capital Markets and Services Order 2019. The regulations were established to enhance transparency in cryptocurrency exchanges and to prevent money laundering. According to Nawang and Azmi (2021), Bank Negara Malaysia (BNM), the Central Bank of Malaysia, has been monitoring the issuance, proliferation, and utilization of cryptocurrencies. The Law Library of Congress (2018) reports that Malaysia's government have adopted a lenient approach towards cryptocurrencies, neither outlawing them completely nor recognizing them as legal tender. Even though it may take some time for cryptocurrencies to become widely accepted, Security Commissions' decision is a crucial step toward Malaysia's development. For new financial technology to be widely accepted and used, regulators must first set regulations, which is a crucial step in raising consumer trust and raising awareness. According to Shahzad et al. (2018), they also noted how developing nations have a great deal of opportunity to adopt cutting-edge technology that gives their population more financial power and autonomy. The steps that Malaysian authorities have made to protect their citizens may incentivize Malaysian customers and businesses to use cryptocurrencies in their everyday dealings. According to the Malaysia's Cryptocurrency Landscape 2024 research, there was a rise in both familiarity and awareness of bitcoin between the years 2019 and 2024, the percentage of individuals who are familiar with cryptocurrency has significantly increased, going from 10% in 2019 to 57% in 2024 (Cheong, 2025). This trend suggests that cryptocurrency has moved beyond its status as a specialized investment and is now becoming part of the mainstream Malaysian economy, with a growing number of individuals including Generation Z actively involved in market analysis and participation.

Generation Z, the cohort of individuals born from the mid-1990s to the late 2000s, is the latest demographic group to captivate the attention of researchers and marketers alike. This generation is characterized by its technological proficiency and distinctive consumer behavior, which sets it apart from earlier cohorts and offers a unique insight into emerging trends in digital finance and cryptocurrency adoption. As digital natives, Generation Z has grown up in an environment saturated with technology, leading to a high level of comfort and familiarity with online financial platforms, which are essential for the understanding of their behavioral intentions towards cryptocurrency adoption in Malaysia (Gentina, 2020). Given the Malaysian government's cautious stance on cryptocurrencies, which highlights associated risks, there arises a significant inquiry into the factors influencing Generation Z's adoption of these digital assets. Despite the elevated awareness and interest in cryptocurrencies among Malaysian Gen Z, empirical research on the behavioral, psychological, and socio-economic determinants that facilitate the shift from curiosity to real ownership remains few. Hence, the study on Generation Z's adoption of cryptocurrencies in Malaysia is significant as it has the

potential to impact individuals, businesses, and the economy overall. Understanding the behavioral intention of Generation Z towards cryptocurrency adoption in Malaysia is essential for both policymakers and financial institutions, as it can inform strategies for promoting financial inclusivity and offer valuable insights into future trends in Malaysia's digital currency landscape.

2. Literature Review

Technological advances have dramatically affected all aspects of our daily lives, including but not limited to the way of exchanging money. At this point of time, the globe is seeing a shift in payment methods from fiat money to cryptocurrency, which is an electronic-based system. (Alomari, A. S. A., & Abdullah, N. L., 2023). In the context of cryptocurrencies, behavioral intention measures consumers' readiness to accept financial transactions through a digital platform (Almuraqab, 2020). According to Igbaria et al. (1994), behavioral intention and technology awareness are seen to be the most important variables influencing technology adoption. Because of their increasing popularity, cryptocurrencies are a topic that is very broadly distinguished (Uematsu and Tanaka, 2019).

The Unified Theory of Acceptance and Use of Technology (UTAUT) framework, first presented by Venkatesh et al. in 2003, integrates components from several different models and theories to form a unified framework. The UTAUT model integrates constructs from the Technology Acceptance Model (TAM), the Theory of Planned Behaviour (TPB), the Motivational Model, a hybrid model merging the TAM) and TPB, the theory of Reasoned Action (TRA), the Social Cognitive Theory, the Model of PC Utilisation and the Innovation Diffusion Theory (Khan et al.,2024). In summary, the UTAUT Model is suitable as the theoretical framework for further investigation into the factors that could affect the adoption of cryptocurrency among present and potential users. The study goes beyond and applies state-of-the-art conceptual understanding, especially in determining the possible effects of external factors associated with the UTAUT Model, especially within the local context (Wong et al., 2022). Hence, this model is fit for studying cryptocurrency adoption because they provide established frameworks to analyse individuals' behavioral intentions and usage of new technologies. These theories offer structured models that encompass key factors such as perceived risk, performance expectancy, effort expectancy, social influence, and facilitating conditions, which are critical in understanding how Generation Z perceives and adopts cryptocurrencies.

2.1. Independent Variables

2.1.1. Perceived Risk

Perceived risks are interpreted as a clienteles' awareness of the risk for loss when utilizing an e-service to achieve the intended result (Featherman and Pavlou, 2003). Perceived risks in the perspective of cryptocurrencies can be defined as the anticipated losses that may occur while making electronic payments utilizing cryptocurrency. (Mendoza-Tello et al., 2018). It has been shown that perceived risk affects behavioral intention (Kesharwani and Bisht, 2012). Research by Yang et al. (2012), Chen (2008) and Liébana-Cabanillas et al. (2014) highlighted the importance of taking perceived trust and perceived risk into account as a major concern that the potential for monetary loss affects the adoption of payment systems. Risk perception has been discovered to have a major effect on security and privacy concerns (Tang et al., 2003; Christou, 2006; Tan et al., 2009). Perceived risk includes danger of unlawful association, security risk, risk of third-party service default, risk of privacy loss, risk of user error and risk of counterparty fraud, are among the top three factors impacting the adoption of cryptocurrencies (Nuryyev et al., 2018). Many contemporary study designs have been investigated to use Fintech, with varying degrees of success and perceived risk as an element affecting its behavior.

2.1.2. Performance Expectancy

The most widely utilized factor in predicting technology utilization is called performance expectancy,

which is characterized as the extent to which the user trusts that utilizing the system would enable them to perform better at work (Venkatesh et al., 2003). The probability that someone will plan to utilize cryptocurrencies if they believe it will improve their quality of life is known as their performance expectation. Performance expectancy will add to a consumer's inclination to utilize cryptocurrencies when they believe they can help them achieve their objective. The perception of how much using cryptocurrencies will help people do their jobs better is known as performance expectancy (Miraz et al., 2022). Prior studies on cryptocurrencies have indicated that performance anticipation is a favorable factor influencing people's use of cryptocurrencies. (Hutchison, 2017). Blockchain technology, the foundation of cryptocurrency, has solved the drawbacks of existing payment methods like credit cards and PayPal while simultaneously offering users additional advantages (Baur et al., 2015). It is anticipated that users' financial transactions will be simpler when cryptocurrencies are used. For example, it might be possible to increase transaction efficiency (Kim, 2021).

2.1.3. Effort Expectancy

Effort expectancy, according to Venkatesh et al. (2003), is "the degree of ease associated with the use of the system" and evaluates the relationship between a new system's complexity and the amount of work needed to use it. The term effort expectancy in this context describes how easy people think it is to use cryptocurrencies (Ter et al, 2021). According to Al Shehhi et al. (2014), virtual currencies like cryptocurrencies are new and unstable technologies that demand significant expertise for financial transactions. They emphasize that a thorough understanding of cryptocurrency usage is essential to safeguard users against fraudulent activities perpetrated by malicious individuals. According to several research (Alalwan et al., 2017; Mensah & Mwakapesa, 2022; Tamphakdiphanit & Laokulrach, 2020), effort expectancy plays a significant part in influencing a person's behavioral intention to utilize cryptocurrency. It has been demonstrated in cryptocurrency studies that effort expectancy favorably affects behavioral intentions of cryptocurrencies adoption in Indonesia and Spain (Arias-Oliva et al., 2019; Kumpajaya and Dhewanto, 2015).

2.1.4. Social Influence

According to Venkatesh et al. (2003), people's capacity to trust and utilize a (new) system is facilitated by social influence. If a lot of people, particularly those who are close to them, advocate using cryptocurrency, consumers might be persuaded to do so. According to earlier studies, a person's behavioral intention to accept and adopt technology is greatly affected by the views of their family, friends, and other people who use technology (Nseke, 2018). Moreover, literature has validated the impact of word-of-mouth on people's perspectives and attitudes shifting (Zhang et al., 2018), (Ter et al., 2021), (Alomari, 2023). Numerous research has demonstrated that social influence has a favorable effect on behavior intention to accept innovation (Patil et al., 2020; Merhi et al., 2019; Alalwan et al., 2017). Researchers Nseke (2018) discovered that social influence positively and stimulating effect on consumers' intentions to adopt cryptocurrencies. In situations when consumers have lack of knowledge about new technology, it has been considered that social influence is extremely crucial in determining their intention to utilize it (Adapa et al., 2018). In addition, it has been found that customer satisfaction in Malaysia's digital economy is heavily influenced by social influence ties. A comparable relationship exists between the use of cryptocurrencies and social influence and customer satisfaction. Similarly, social influence dominates in terms of its impact on consumer happiness (Chen et al., 2022). Since cryptocurrency is still a relatively new technology, consumers around Generation Z know very little about it. Thus, it is anticipated that the favorable effect of friends or family regarding the advantages of cryptocurrencies could favorably influence students' behavioral intention of cryptocurrency adoption.

2.1.5.   Facilitating Conditions

Facilitating conditions can be viewed as either environmental barriers or facilitators. Technologies or institutions that support the development of new systems might serve as enablers (Venkatesh et al., 2003) When the right resources and support are accessible, individuals are more doubtless to embrace technology (Alalwan et al., 2017). According to a study looking at adoption problems for blockchain, while facilitating conditions had no discernible effect on adoption intention in poor nations like India, they did have a considerable effect in affluent nations like the United States (Queiroz and Wamba, 2019). This was justified by the fact that, in contrast to India, a developing nation, the United States, an established country, possessed the framework required to accommodate newly developed technologies.

2.2.   Dependent Variable – Behavioral Intention

In this research, behavioral intention is believed to encapsulate the driving forces behind a conduct; they are signs of the degree to which people are prepared to put out the necessary effort and determination to carry out the behavior. (Ajzen, 1991). In this research, Behavioral Intention is described as customers' readiness or desire to utilize cryptocurrencies as a transaction medium. (Ter et al., 2021). Mendoza-Tello et al. (2018) found that their study focused specifically on cryptocurrencies and bitcoin and proved that the primary factor influencing an individual's decision to utilize cryptocurrencies for digital payments is the perceived usefulness. In order to examine the factors influencing bitcoin acceptability and usage intention, Yeong et al. (2019) combined the dimensions of cryptocurrency with the concepts found in the Unified Theory of acceptability and Use of Technology 2 (UTAUT2). Using a technology acceptance theoretical framework, Arias-Oliva et al., (2019) investigated the crucial elements that affect the favorable growth of cryptocurrencies from the viewpoint of users. According to the results Spanish persons with college degrees had a generally low intention to utilize cryptocurrencies.

2.3.   Research Hypotheses

In order to appropriately handle the adoption challenge with cryptocurrencies, this study will employ the unified theory of acceptance and use of technology (UTAUT) that is a well-known consumer behavior model that will clarify the performance expectancy, effort expectancy, facilitating conditions, social influence, and the inclusion of a new variable, perceived risk. The framework is utilized in conjunction with an individual's age and gender to examine the behavioral intentions of Generation Z Malaysians toward the adoption of cryptocurrencies. With reference to Figure 1, five hypotheses were developed for this study by considering on the relationship between the independent variables with the intentions of cryptocurrency adoption.

H1: There is a significant relationship between perceived risks and behavioral intentions of cryptocurrency adoption among Generation Z.

H2: There is a significant relationship between performance expectancy and the behavioral intention of cryptocurrencies adoption among Generation Z.

H3: There is a significant relationship between effort expectancy and the behavioral intention of cryptocurrencies adoption among Generation Z.

H4: There is a significant relationship between social influence and the behavioral intention of cryptocurrencies adoption among Generation Z.

H5: There is a significant relationship between facilitating conditions and the behavioral intention of cryptocurrencies adoption among Generation Z.
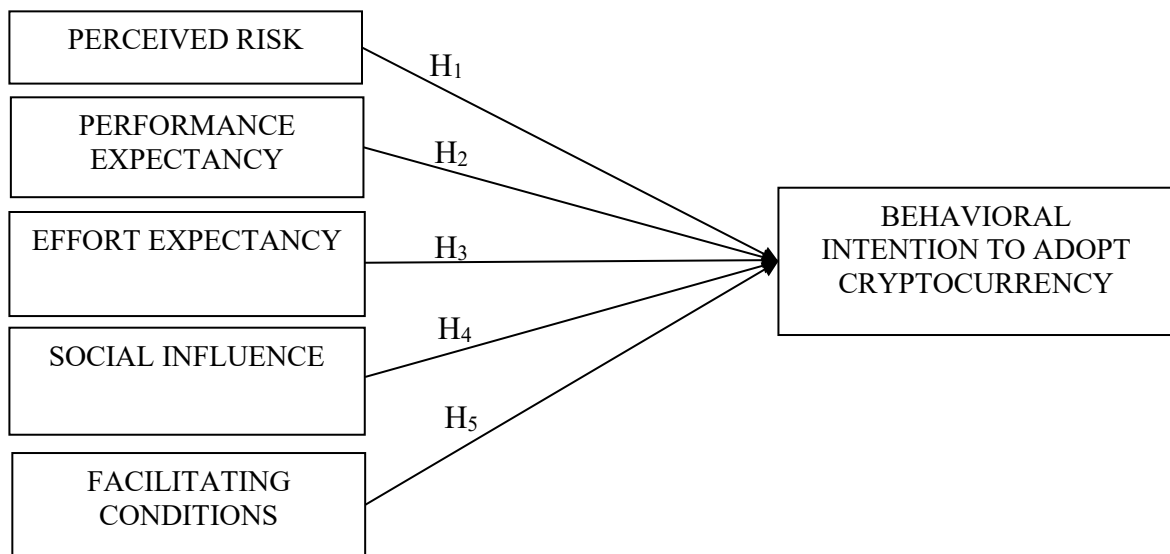
Fig 1: Conceptual Framework

3. Research Methodology

Generation Z indicates those who were born between 1997-2012 and the early 21st century. The generation is influenced by the changing of financial conditions, and familiar with using the digital technology, internet, and social media platforms from a very young age (McKinsey & Company, 2023). The study focuses on Generation Z individuals aged 18 to 27, encompassing students, part-time workers, and a diverse demographic. It aims to create a representative sample reflecting the broader community to explore how social factors like perceived risk and social influence cryptocurrency adoption intentions among Generation Z in Malaysia. Using G* Power with 5 predictors, a probability error of 0.05, a medium effect size of 0.15 and a statistical power of 95%. (Kang, 2021), a minimum 138 samples were required for the data collection. This study uses purposive sampling, a non-probability method where units are selected based on specific desired qualities. This approach aids researchers in precisely identifying and selecting respondents, essential for achieving the study's objectives. Purposive sampling is widely employed in qualitative and mixed-methods research, offering convenient access to relevant information and resources (Nikolopoulou, K, 2022). The questionnaires were emailed and distributed via the WhatsApp application to the targeted respondents, and data was collected through the online platform Google Forms from March 2024 to June 2024. Subsequently, the IBM Statistical Package of the Social Sciences (SPSS) was utilized to examine the numerical data and evaluate the hypothesis. The data collection will be analyzed using several techniques including descriptive, frequency, Multiple Linear Regression analysis, and Pearson Correlation analysis. The research instruments utilized in this study were adapted from various previous research papers that were based on the model. (Faqih, 2016; Venkatesh et al., 2012; Davis, 1989).

Table 1: Descriptive Analysis

	N	Mean	Std. Deviation
Using cryptocurrencies is risky. (PR1)	155	3.81	0.889
The use of cryptocurrencies is full of uncertainty. (PR2)	155	3.8	0.9
Cryptocurrencies are riskier compared with other investment/currencies. (PR3)	155	3.74	0.999
Using cryptocurrencies will provide me with more chances to accomplish significant goals. (PE1)	155	3.59	0.958
Using cryptocurrencies will enable me to reach my objectives more rapidly. (PE2)	155	3.54	1.021
Using cryptocurrency will enable me to live a higher quality of life. (PE3)	155	3.45	1.033
I can pick up the use of cryptocurrency quickly. (EE 1)	155	3.38	1.089
For me, using cryptocurrencies will be easy to understand and straightforward. (EE 2)	155	3.37	1.14
Using cryptocurrencies is simple for me. (EE 3)	155	3.28	1.154
I will have no trouble becoming an excellent cryptocurrency user. (EE 4)	155	3.26	1.161
People that influence me will believe that I should utilize cryptocurrencies. (SI1)	155	3.32	1.151
People that influence me could assist me in the use of cryptocurrencies. (SI2)	155	3.54	1.064
The people who are important to me will think that I should use cryptocurrencies. (SI3)	155	3.25	1.181
I have the necessary information to use cryptocurrencies. (FC1)	155	3.26	1.2
I am equipped with the knowledge required to use cryptocurrency. (FC2)	155	3.09	1.175
The other technology I use, and cryptocurrencies are compatible. (FC3)	155	3.24	1.163
If I encounter problems with cryptocurrency, I can get help. (FC4)	155	3.26	1.134
I plan to make use of cryptocurrency. (BIC 1)	155	3.19	1.1
I predict I'll utilize cryptocurrency eventually. (BIC 2)	155	3.37	1.038
In the future, I want to employ cryptocurrency. (BIC 3)	155	3.36	1.11
I'm going to attempt using cryptocurrency. (BIC 4)	155	3.39	1.078

Based on Table 1, the mean values for perceived risk factor range from 3.74 to 3.81 with the overall mean score of 3.7849. PR1 has the highest mean value compared to other items, which is 3.81, while PR3 has the lowest mean value, which is 3.74. PR1 shows that most respondents agree that using cryptocurrency is risky, mostly due to the absence of adequate regulation and the potential for falling victim to scams. However, PR3 shows that least of the respondents think that cryptocurrencies are riskier compared with other investments or currencies. The overall mean performance expectancy is 3.53. PE1 has the greatest mean value of 3.59, while PE3 has the lowest value of 3.45. This shows that most respondents agree that the use of cryptocurrencies will provide them with more chances to accomplish significant goals. In addition, effort expectancy, which relates to the degree of ease involved in the usage of the system, has an overall mean of 3.32. EE1 has the highest mean value which is 3.38 and EE4 has the lowest mean value which is 3.26. EE1 indicates that most of the respondents agree that they can pick up the use of cryptocurrency quickly. As for social influence factor, the mean values range from 3.25 to 3.54, with an overall mean score of 3.37. SI2 has the highest mean value of 3.54, however

SI3 has the fewest value, which is 3.25. SI2 demonstrates that most of the respondents agree that people that influence them could assist them in the use of cryptocurrencies. The last independent variable is on facilitating conditions with the overall mean score of 3.21. FC1 and FC4 have the highest mean value, which is 3.26, while FC2 have the lowest mean value, which is 3.09. FC1 and FC4 show that most respondents agree that they have the necessary information to use cryptocurrencies. As for the behavioral intention cryptocurrency adoption which means the desire or passion that an individual to use, to adopt the cryptocurrency. The overall mean score is 3.33. BI4 had the highest mean value, which is 3.39, and BI1 had the lowest mean value, which is 3.19. This represents that in BI4, most of the respondents agree that they will going to attempt using cryptocurrency, maybe with the reason of low transaction cost or ease of use, or the individual use it as an investment. In In contrast, BI1 indicates that respondents are hesitant to adopt cryptocurrency due to its intangible nature and the absence of regulatory frameworks in Malaysia. Additionally, concerns about future instability and uncertainty further deter respondents from planning to use cryptocurrency.

Table 2: Reliability Test

	Research Variable	Cronbach's Alpha	No of items
Dependent Variable (DV)	Behavioral Intention of Cryptocurrency Adoption in Malaysia	0.88	4
Independent Variable (IV)	Perceived Risk	0.852	3
	Performance Expectancy	0.827	3
	Effort Expectancy	0.896	4
	Social Influence	0.847	3
	Facilitation Conditions	0.896	4

By evaluating the study variable's internal consistency, the reliability test serves as an analytical technique that ensures the reliability of all the elements involved. The research employed a reliability test as an analytical method to assess the extent to which the items in the questionnaire were linked to each other. If the variable's Cronbach's Alpha value is more than 0.70, it is considered acceptable. Table 2 above shows the Cronbach Alpha values for all variables. The range of Cronbach's value is from 0.827 to 0.896. This can be concluded that the reliability value for all variables exceeds 0.8, which reflects that the variable is highly acceptable and reliable.

4. Findings

This study provides a comprehensive dataset comprising 155 responses from a total of 165, which were meticulously examined and analyzed to verify that the respondents are part of the Generation Z age group. The demographic descriptive analysis conducted as part of this study provides detailed insights into the characteristics and profiles of the respondents involved. This analysis serves to illuminate the diverse backgrounds and attributes of the study participants, offering a thorough understanding of the sample composition and its relevance to the research objectives.

Table 3: Demographic Respondents Profile

Criteria	Category	Number	Percentage
Gender	Male	82	52.9%
	Female	73	47.1%
Race	Chinese	133	85.8%
	Indian	8	5.2%
	Malay	13	8.4%
	Others	1	0.6%
Age Group	18 - 19	10	6.5%
	21 – 21	48	31%
	22 – 24	90	58.1%
	25 - 27	7	4.5%

Based on Table 3, majority of the respondents are females (82) and males (73), with the percentage of females (52.9%) and percentages of males (47.1%). Chinese respondents have the largest frequency at 85.8%, with a total of 133 respondents. The Malay respondents follow with a frequency of 8.4%, which represents 13 respondents. 8 Indian respondents make up 5.2%, which is the third greatest percentage and only 1 respondent, representing 0.6%, who is Iban respondent. The age groups of respondents are categorized into 4 different groups, which are 18 – 19 years old, 20 – 21 years old, 22 – 24 years old, and the last group 15 years old and above. Majority of respondents, 90 (58.1%), were between the ages of 22 and 24, followed by the 48 respondents (31%) from 20 – 21 years old. Ten respondents (6.5%) were within the 18–19 age range. The smallest proportion consisted of 7 respondents (4.5%) who were 25 years old and above.

Table 4: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.834a	0.696	0.686	0.51995

a Predictors: (Constant), PCR, PRE, EFE, SIF, FCD

Based on Table 4 above, R value = 0.834, R square = 0.696, and Adjusted R Square = 0.686. The Adjusted R Square value of 0.686 indicates that 68.6% of the variations in the behavioral intention of cryptocurrency adoption can be explained by the independent variables. In this case, the variables are perceived risk, performance expectancy, effort expectancy, social influence and facilitating conditions. The remaining 31.4% of changes can be attributed to other variables.

Table 5: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	92.312	5	18.462	68.29	.000b
Residual	40.283	149	0.27		
Total	132.594	154			

Table 5: ANOVA table above demonstrates the significant value at <0.001. It is significantly different with 0.

Table 6: Coefficients

	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	0.268	0.266		1.007	0.316
PR (Perceived Risk)	0.006	0.052	0.005	0.117	0.907
PE (Performance Expectancy)	0.191	0.07	0.179	2.749	0.007
EE (Effort Expectancy)	0.378	0.075	0.404	5.06	<0.01
SI (Social Influence)	0.118	0.064	0.126	1.831	0.069
FC (Facilitating Conditions)	0.221	0.064	0.243	3.475	<0.01

Table 6 above demonstrates that PE, EE, and FC strongly influence the behavioral intention of cryptocurrency adoption. This is indicated by the fact that the significant values are below 0.05. And PR and SI are found not to be significantly related because the value of significant is more than 0.05. For the beta coefficient of 0.179, we can clearly see that performance expectancy has a significant relationship with the behavioral intention of Generation Z to adopt the cryptocurrency. This indicated that a higher performance expectancy will lead to a higher intention to adopt cryptocurrency. Put simply, this means that as Generation Z individuals get more convinced that using cryptocurrency will enhance their performance, the likelihood of them adopting it increases. Effort expectancy with the beta coefficient of 0.404, indicates that there is a positive relationship between effort expectancy and the behavioral intention of Generation Z to adopt the cryptocurrency. This refers that the easier Generation Z individuals find it to use cryptocurrencies, the higher probability they will adopt them. In other words, this indicates that simplifying the use of cryptocurrency and enhancing their user-friendliness can significantly increase their adoption among Generation Z. While facilitating conditions also show to has a positive relationship with the behavioral intention of Generation Z to adopt cryptocurrency, with the beta coefficient of 0.243. This indicates that the better the facilitating conditions, the higher the intention to adopt cryptocurrencies. Put simply, providing adequate resources and support for using cryptocurrency can enhance their adoption among Generation Z.

Table 7: Hypotheses Result

Hypotheses		**Sig.**	**Result**
H$_1$	There is a significant relationship between perceived risks and behavioral intentions of cryptocurrency adoption among Generation Z.	0.907	Not supported
H$_2$	There is a significant relationship between performance expectancy and the behavioral intention of cryptocurrencies adoption among Generation Z.	0.007	Supported
H$_3$	There is a significant relationship between effort expectancy and the behavioral intention of cryptocurrencies adoption among Generation Z.	0	Supported
H$_4$	There is a significant relationship between social influence and the behavioral intention of cryptocurrencies adoption among Generation Z.	0.069	Not supported
H$_5$	There is a significant relationship between facilitating conditions and the behavioral intention of cryptocurrencies adoption among Generation Z.	0.001	Supported

Based on Table 7 shows that there is no significant relationship between perceived risk (PR) and behavioral intention of cryptocurrency adoption among Generation Z due to the reason that the

significant value is more than 0.05, which is 0.907. This result is aligned with the previous study, that the reflects that the variable are unfounded, indicating that the factor of trust would not pose a problem in the use of cryptocurrencies. (Ter et al., 2021). Besides, the research in South Africa also shows that the perceived risk having no significant relationship with the perception of Bitcoin adoption (Walton and Johnston, 2018), and the same result gained by (Arias-Oliva et al., 2019), which the researchers get the result from customer-behavior perspective in Spain. This study primarily focus on respondents from Generation Z. This specific group frequently experiences an inconsistent or unreliable income stream, which may cause them to underestimate the perceived risks linked having cryptocurrency as their asset. This generation exhibits a heightened dependence on technological progress and regulatory frameworks aimed at safeguarding users, thereby mitigating the effects of perceived risks.

The findings highlighted a significant relationship between performance expectancy and the behavioral intention of cryptocurrency adoption among Generation Z in Malaysia, with a coefficient value of 0.179. There is a positive relationship since the value of coefficient is positive. Besides, the result is significant because the significant value is less than 0.05, which is 0.007. Together with the positive direction of coefficient value, it reflects that the performance expectancy of cryptocurrency adoption among Generation Z in Malaysia is positively correlated with their behavioral intention (Gunawan & Novendra, 2017; Hutchison, 2017). In another findings, if the users predicted that using the cryptocurrency will bring them benefits, help them to achieve better efficiency, the users' behavioral intention will be higher (Alomari et al., 2023). Thus, the higher performance expectancy will lead to the higher behavioral intention of cryptocurrency adoption among Generation Z.

Effort expectancy was found to be significantly related to behavioral intention of cryptocurrency adoption among Generation Z in Malaysia because the p-value is less than 0.05, which is 0, indicating statistical significance. This finding is consistent with earlier surveys that demonstrate a positive correlation between the effort expectancy and behavioral intention, for example the survey in Spain by (Arias-Oliva et al., 2019), the survey in Mainland China (Shahzad et al., 2018), as well as the research in Indonesia (Kumpajaya and Dhewanto, 2015). The significance of effort expectancy is emphasized in influencing the behavioral intention to adopt cryptocurrencies. Besides, standardized coefficients' beta value of 0.404 is the highest among the variables. This indicates a strong correlation between effort expectancy and behavioral intention. The difficulty and straightforwardness of the use of cryptocurrencies will directly influence the intention of cryptocurrency adoption. (Ter et al., 2021). Hence, there exists a significant relationship between the effort expectancy and the intention to engage in cryptocurrency usage (Alomari et al., 2023).

Social influence was found to be not significantly related to behavioral intention of cryptocurrency adoption among Generation Z in Malaysia. The significance value is more than 0.05, which is 0.069. The result suggests that social influence does not influence Generation Z's cryptocurrency adoption. The hesitation of Malaysian consumers towards cryptocurrencies may be attributed to their lack of familiarity and understanding, despite the adoption of cryptocurrencies by a more influential part of society. (Ter et al., 2021). This finding is consistent with the earlier study conducted by Venkatesh et al., 2003), which concluded that social influence does not have a substantial impact on intention when criteria such as age, gender, experience, and voluntariness are not taken into consideration.

Finally, facilitating conditions was found to be significant related to behavioral intention of cryptocurrency adoption among Generation Z in Malaysia, with the coefficient value of 0.243. The relationship between facilitating conditions and behavioral intention is positively correlated, as indicated by the positive coefficient value. When individuals have access to plenty of resources and well-supported facilities, they are more inclined to adopt new technologies, including cryptocurrencies (Alalwan et al., 2017). The utilization of cryptocurrencies will be supported by consumers who are delighted with the current infrastructure and services (Ter et al., 2021). Therefore, facilitating conditions and behavioral intention to use cryptocurrency are significantly correlated (Alomari, et al., 2023).

5. Discussion

This study examines the connection between Generation Z's behavioral intention to invest in cryptocurrency and various independent variables: perceived risk, performance expectancy, effort expectancy, social influence, and facilitating conditions. The results indicate that only performance expectancy, effort expectancy, and facilitating conditions exhibit a positive and significant association with Generation Z's intention to invest in cryptocurrency, while perceived risk and social influence do not show significant relationships. These findings enhance our understanding of this emerging trend and could inform strategies and policies aimed at fostering Generation Z's involvement in the cryptocurrency market by highlighting influential variables.

Perceived risk is heavily dependent on individual self-assurance. Increased confidence will result in reduced perceived risk, whereas decreased confidence will result in increased perceived risk. While the level of risk remains constant, the willingness to embrace difficulties varies among individuals (Schaupp et al, 2018). It is also possible that the target respondents of this survey are primarily focused on Generation-Z. This demographic typically lacks a steady or stable income, which means that they may not consider the perceived risk of using cryptocurrencies as one of the factors that influences the intention to adopt them. In addition, this significant finding shows that perceived risk is not related and influencing the behavioral intention of Generation Z to adopt the cryptocurrency in Malaysia. This result aligned with the previous studies by (Ter et al., 2021), the use of cryptocurrencies would not be hindered by concerns related to trust. Besides, the research in South Africa also shows that the perceived risk having no significant relationship with the perception of Bitcoin adoption (Walton and Johnston, 2018), and the same result gained by (Arias-Oliva et al., 2019), which the researchers get the result from customer-behavior perspective in Spain. One reason perceived risk may not be significant is that the study primarily targets Generation-Z respondents. This group often lacks a stable income, which may lead them to overlook the perceived dangers of using cryptocurrencies. Furthermore, their strong reliance on technological advancements and regulatory protections reduces the impact of perceived risks.

The relationship between performance expectancy and the intention to adopt cryptocurrency is significant. Performance expectancy plays a pivotal role in shaping individuals' intentions to adopt cryptocurrencies. This research is about the intention to adopt cryptocurrency in Spain (Arias-Oliva et al. (2019). If the users predicted that using the cryptocurrency will bring them benefits, help them to achieve better efficiency, the users' behavioral intention will be higher (Alomari, 2023).

Effort expectancy also has been observed to have a significant relationship with the behavioral intention to adopt cryptocurrency. This finding is consistent with earlier surveys that demonstrate a positive correlation between the effort expectancy and behavioral intention, for example the survey in Spain by (Arias-Oliva et al., 2019), the survey in Mainland China (Shahzad et al., 2018), as well as the research in Indonesia (Kumpajaya and Dhewanto, 2015). The significance of effort expectancy is emphasized in influencing the behavioral intention to adopt cryptocurrencies.

On the contrary, social influence has been found to have no significant relationships between each other. This result aligned with the previous study from Ter et al., (2021), the hesitation of Malaysian consumers towards cryptocurrencies may be attributed to their lack of familiarity and understanding, despite the adoption of cryptocurrencies by a more influential part of society. The earlier study also concluded that social influence does not have a substantial impact on intention when criteria such as age, gender, experience, and voluntariness are not taken into consideration (Venkatesh et al, 2003). The researchers in Spain, Arias-Oliva et al. (2019), obtained the same conclusion by examining customer behavior. The absence of a substantial correlation between variables may be attributed to the tendency of this generation to frequently engage in independent decision-making. This generation frequently depends on their own research, a variety of internet information sources, and expert counsel rather than social influence when engaging in complex and high-risk investments such as cryptocurrency. In addition, their proficiency in digital technologies and advanced financial knowledge may cause them to

value their own comprehension and personal experiences over social signals from peers or family members. As a result, the influence of social factors on their intents to adopt may be reduced.

Facilitating conditions has a significant relationship with the behavioral intention to adopt cryptocurrency. This significant finding displays that the Generation Z in Malaysia place importance on utilities, resources and technical infrastructure necessary to promote the adoption of cryptocurrencies. The higher satisfaction level with the current facilities and resources will promote and boost the utilization of cryptocurrencies (Ter el at., 2021). Several studies, like the research conducted by Arias-Oliva et al. (2019) in Spain and Gunawan et al. (2017) in Indonesia, have highlighted facilitating conditions as the most influential element in predicting the behavioral intention to embrace digital currency.

6. Conclusion

In summary, this study has offered important insights into the primary factors influencing cryptocurrency adoption among Generation Z in Malaysia, particularly examining the roles of perceived risk, performance expectancy, effort expectancy, social influence, and facilitating conditions. The findings suggest that the intention to use cryptocurrency is significantly shaped by the perception that it enhances performance, is easy to use, is socially accepted, and is supported by adequate resources and infrastructure (Arias-Oliva et al., 2019). Moreover, the research has broader implications for understanding the dynamics of new-age consumer-based financial technology adoption (Kumari et al., 2023). By identifying and quantifying the relative significance of these factors, stakeholders can formulate focused strategies to encourage the responsible and extensive adoption of cryptocurrency. For instance, emphasizing the concrete advantages of cryptocurrency, like quicker transaction speeds or reduced fees, can greatly enhance performance expectations (Schaupp & Festa, 2018). Furthermore, enhancing the user interface and offering educational resources can reduce the barrier to entry and elevate effort expectancy. Additionally, utilizing social influence via endorsements from credible individuals and cultivating supportive communities can enhance adoption rates (Li et al., 2023). Finally, ensuring access to reliable internet infrastructure and secure wallets can provide the necessary facilitating conditions for widespread cryptocurrency use (Foo-Wah et al., 2019).

Cryptocurrency offers a range of possibilities and challenges for Generation Z. It presents fresh opportunities for financial autonomy, investment, and engagement in the digital economy, resonating with Generation Z's familiarity with technology and preference for decentralized systems. On the other hand, it also reveals their susceptibility to financial instability, regulatory ambiguity, and possible fraudulent activities, underscoring the necessity for enhanced financial understanding and accountable online conduct. Hence, the participation of Generation Z could significantly boost the market for virtual currency in Malaysia. The trading volume and market liquidity will increase accordingly with the active participation of the young generation. Finally, cryptocurrencies have the potential to emerge as a new medium for transactions, providing enhanced efficiency, improved processing times, and reduced transaction costs when compared to conventional banking systems in Malaysia.

By understanding the ways in which Gen Z interacts with cryptocurrency, the government can formulate more effective regulations, enhance financial inclusion, and foster the growth of the digital economy. This understanding informs the development of policies that harmonize innovation with consumer safeguards, simultaneously boosting national digital literacy and economic competitiveness. Besides, Financial institutions, educators, investors, and NGOs can leverage the findings to customize services, develop pertinent programs, and promote ethical practices in cryptocurrency usage. This enables them to maintain a competitive edge, drive innovation, and enhance the inclusivity and knowledge within the digital financial ecosystem.

There are some limitations when conducting this research. The questionnaire of this research is being conducted online to collect data, while the scope of survey questions might not fully capture the complexity factors affecting cryptocurrency adoption, perhaps leading to the omission of significant

variables. In addition, the questionnaire may not align with the beliefs and perceptions of the respondents, thereby leading to biased answers. The majority of the respondents are Chinese, which means it does not accurately reflect the overall population of Malaysia. Furthermore, the findings of cryptocurrency of visual currency may become outdated, as the cryptocurrency market is growing at a rapid pace. Technological advancements, regulatory changes, or shifts in market conditions have the potential to influence the views and actions of Generation Z in the long run. Finally, the legal status of cryptocurrencies in Malaysia is still unclear and subject to change, and the legislation are constantly being implemented. This adjustment will have a substantial impact on the behaviors associated with adoption. This survey may not account for future considerations, and accurately predicting the future intentions of the respondents is challenging.

One practical implication for promoting cryptocurrency adoption among Generation Z could involve integrating financial literacy education into university curriculum. By incorporating basic financial literacy and cryptocurrency concepts into educational programs, universities can equip young individuals with essential knowledge and skills early on. This initiative could help expose cryptocurrencies, enhance understanding of their potential benefits and risks, and empower Generation Z to make informed decisions about their financial futures. This approach not only fosters financial literacy but also prepares the younger generation to navigate the evolving digital economy confidently. Financial institutions, educators, investors, and NGOs can leverage the findings to customize services, develop pertinent programs, and promote ethical use of cryptocurrency. This enables them to maintain a competitive edge, drive innovation, and play a role in creating a more inclusive and knowledgeable digital financial ecosystem.

Future research on cryptocurrency adoption among Generation Z in Malaysia should include longitudinal studies to track adoption trends over time, cross-cultural comparisons to understand regional influences, and examinations of the impact of local educational initiatives and awareness campaigns. Exploring the effects of technological advancements, regulatory frameworks, and ethical considerations specific to Malaysia is crucial. Additionally, studying gender dynamics and diversity factors among Malaysian youth can provide insights into adoption motivations and disparities. Such research will inform tailored strategies to encourage Generation Z's engagement with cryptocurrencies in Malaysia's evolving digital economy.

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