

An Empirical Research on Factors Affecting the Acceptance of Bitcoin in the Northern Region of Malaysia

Barathy Doraisamy^{1*}, Santhi Appannan², Parteeban Varatarajoo³, Jaya Kumar Shanmugam⁴, Nurul Jannah Abdul Aziz⁵

Faculty of Business and Management, AIMST University

Corresponding Author: Jaya Kumar Shanmugam jayakumar@aimst.edu.my

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ABSTRACT

The purpose of this study is to identify the relationship between factors affecting the acceptance of Bitcoin in the Northern Region of Malaysia. Past studies with reference to the factors affecting the acceptance of Bitcoin were being done on a larger scale outside of Malaysia and none of the studies has narrowed it down to make the research more specific. Therefore, this study proposed to study the factors affecting the acceptance of Bitcoin in the Northern Region of Malaysia based on performance expectancy, risk, social influence, and facilitating conditions. Furthermore, the relationship between the factors affecting the acceptance of Bitcoin and the acceptance of Bitcoin in the Northern Region of Malaysia has been discovered in this research. The population selected for this exploration is the respondents in Perlis, Kedah, Pulau Pinang, and Perak. The primary data for this research has been collected from the respondents through an online survey questionnaire. The data collected is then analyzed using various data analysis methods such as descriptive analysis, Pearson Correlation Coefficient Analysis, and Multiple Linear Regression Analysis. Hypotheses testing have been done after the analysis has been analyzed. This study presents supplementary information to potential researchers who wish to study in-depth in this area. Moreover, the results of this study contribute to the users as they get to know what factors to consider when they want to use Bitcoin and it helps Bitcoin Trader Company in their decision-making processes to attract more users. Nevertheless, the factors affecting the acceptance of Bitcoin most efficiently are identified in this research. Therefore, the acceptance of Bitcoin in the Northern Region of Malaysia can be affected by performance expectancy, risk, social influence, and facilitating conditions factors.

INTRODUCTION

The widespread development of information technologies has led to the usage of cryptocurrency such as Bitcoin as a means of transaction. Bitcoin is decentralized advanced non-physical cash and its exchange is checked and prepared by a shared system which is Blockchain. Bitcoin was introduced in the year of 2009 and is invented by Satoshi Nakamoto, a pseudonymous programmer (Kumpajaya & Dhewanto, 2015). Bitcoin is defined as a cryptocurrency developed on open-source software and the disclosure of Bitcoin enables any developer to analyze the convention. There are different viewpoints on the factors that affect the acceptance of Bitcoin. The performance expectancy of Bitcoin is one of the factors that affect the acceptance of Bitcoin as the user's perception of using the Bitcoin can be transferred at a lower cost and quicker. Anyone in the world can do an instantaneous transfer of currencies across different countries to different charitable and emergency support (Buang, 2018).

The risk of using Bitcoin in Malaysia is also higher particularly in Malaysia as Bitcoin is not acknowledged as official tender, and Bank Negara Malaysia (BNM) does not control the processes of Bitcoin. McWhinney stated that the consumers that used Bitcoin, were trusting their money to a complex system with an environment where they had no legal remedy. Since Bitcoin is in a digital structure, hence, there is nothing tangible that we are able to touch and hold. It's very risky as the value of Bitcoin fluctuates in an extremely unpredictable and unstable manner. The holders or users of Bitcoin will be having the risk of losing their money if they fail to implement adequate anti-virus and backup measures as the Bitcoins are stored in the user's computer system and if they lose their computer, they will lose their digital wealth. The users may encounter the risk of being hacked by hackers and they may lose their digital money. According to a study by the Cambridge Centre for Alternative Finance and the Judge Business School, millions of people are keenly using cryptocurrencies such as Bitcoin (Buang, 2018). The social factor also plays a great role as the users will usually be attracted and interested in following the current up-to-date development. As their colleagues and friends started to use Bitcoin, the probability of one's using the digital currency may be affected positively by their peers. Moreover, the development of technologies, the internet, and the ease of use of online transactions increase the value of using Bitcoin as a means of the transaction as these external elements act as the facilitating condition that will affect the user's acceptance of Bitcoin.

According to a study, seventy percent of the world's residents don't have contact or access to the fundamental financial provisions (World Bank). There is an enormous quantity of the population that doesn't have the exposure and understanding to be part of the worldwide market due to the lack of contact with the financial system/institution. According to Kuek (2017), he stated that although the involvement rate of Bitcoin practice is comparatively low at present and a study carried out by Visser (2017) found that the rate of cryptocurrency acceptance is on a constructive rise. Moreover, according to Statista (2017), the common age of Bitcoin users is persons aged ranging from

25 to 44 that amount to 61.39% of overall global Bitcoin users. The statistics by Statista signify that a person's age has a constructive connection with a person's affordability of Bitcoin due to the growth of the person's prosperity over time until the peak age of the early '50s (Bohr & Bashir, 2014). The percentage for users by the age of 18 years old and below is 3.76%, 19 to 24 years old is 16.53%, 25 to 34 years old is 39.40%, 35 to 44 years old is 21.99%, 45 to 54 years old is 11.21%, 55 to 64 years old is 4.86%, and for users age of 65 years, old and above is 2.25% Statista (2017).

THEORETICAL REVIEW

Digital currency such as Bitcoin leverages the Blockchain System, which helps the users to have another alternative digital payment system with unique transaction features that conventional financial services could not provide. Hence, it is believed that the users will be getting prominent benefits from their acceptance of digital currency such as Bitcoin. In addition, the Malaysian Industry-Government Group for High Technology (MIGHT) mentioned that Malaysia would be accepting Blockchain by the year 2025. Hence Malaysia's banks have engaged, in constructive steps to promote the growth of Blockchain technology. Bitcoin is using the Blockchain system to operate, thus, the upcoming financial transactions can be done in seconds or minutes which drastically lessens the costs and boost efficiency.

Kumpajaya and Dhewanto (2015), said that factors affecting the acceptance of cryptocurrency such as Bitcoin depend on the person's belief regarding the perceived ease of using cryptocurrency. In addition, the research made by Ibrahim (2018), agreed that there are numerous factors that possibly will control user acceptance of Bitcoin but his study focuses on the essential characteristics of Bitcoin acceptance such as transaction processing, security and control, perceived trust, perceived self-efficacy, and behavioral intention. These factors are considered to be the most influencing factors of the user acceptance of Bitcoin. His finding indicates that all of his research hypotheses were supported in term of measuring the user's intent to accept Bitcoins the statistical examination demonstrate that all hypotheses were significantly supported. From all the hypotheses, the uppermost effect on the user's intent appears to be from the perceived trust factor and the lowest affected factor is transaction processing. Hence, this study has had a say and increased the understanding of the current knowledge of the user's acceptance theory in the context of digital currency. On the other hand, Ibrahim (2018) stated that the previous studies of economics and finance point out that users will rate services by using the service more often or by recommending it to others. As the acceptance of Bitcoin in the country is a major concern for users and management, thus it can be seen that Bitcoin has received an enormous concern from the government along with users and private sectors. Since some individuals do not have any idea of what Bitcoin is, the acceptance issue remains a large matter that needs to be addressed to show the trend for all. Hence, this study concludes that if we want to increase the acceptance of Bitcoin, the digital currency must maintain the perceived trust of the services and give additional consideration

to the security and control of the transaction and the user's privacy. All of these works of literature on the acceptance of Bitcoin have shown that there are different models being used by the previous researchers in their research to understand and identify the relationship between the factors and the acceptance of Bitcoin through different contexts and perspectives. Furthermore, the empirical studies that have been done have verified that an online survey questionnaire is a practical data collection tool for cryptocurrency acceptance and implementation studies (Abramova and Böhme 2016, Gunawan and Novendra 2017, Shahzad et al. 2018).

Performance Expectancy

Venkatesh et al. (2003) stated that performance expectancy is the extent to which a person thinks that using the system will aid him or her to achieve gains in their job performance. Furthermore, according to the study by Hayati et.al (2018), the study has proven that performance expectancy is one of the three significant tactical weapons that will influence the acceptance using the Bitcoin through Blockchain technology among bankers. From the research, the bank workers thought that this system is useful in executing their everyday performance and eventually will enhance their work performance. The errors and downsides of the existing digital payment way, such as credit cards and PayPal have led to a new approach to digital payment which is through blockchain-based cryptocurrency (Baur et al. 2015). Hence, Bitcoin transfer needs minimum time compared to the old conventional cash and credit card payments. As examined, cryptographic money, such as Bitcoin influences Blockchain innovation to show up as a selection of advanced payment frameworks with special exchange features to address the disadvantages of conventional monetary administrations. Accordingly, it is normal that users can increase noticeable advantages from the acceptance of digital currency. Based on the research done by Kumpajaya and Dhewanto (2015) and Shahzad et al. (2018), they believed that the verification of the perceived confidence in Bitcoin performance plays a major role in the acceptance of Bitcoin in daily life. The performance expectancy of Bitcoin itself is the vital factor that affects the acceptance of Bitcoin. The use of Bitcoin can be convenient as it can be used in any place that equipped with an internet connection through mobile devices and might affect the person's belief of using Bitcoin as its more advantageous and useful in their life (Hendrickson & Hogan,2016).

Risk Factor

Like some other payment frameworks, Bitcoin opens its holders to specific kinds of risk. An in-depth review of the convention's dangers can be found in the research made by Böhme et al. (2015). In their research, the writers differentiate between legal and regulatory risk, operational risk, counterparty risk, market risk, privacy risk as well as transaction risk. Therefore, it is unavoidable that perceived risk will impact the expectation to accept another innovation such as Bitcoin that use Blockchain as the platform of the transaction (Thakur and Srivastava, 2014; Williams, 2018). The security risk is the situation wherein clients are fright that the utilization of a specific innovation isn't

actually verified and privacy risk is identified with the secret of data in which clients' private data might be spilled to unintended sources. The financial risk or monetary risk is associated with the related expense with the operation of another system (Thakur and Srivastava, 2014). Thus, with regard to the blockchain system, those measurements might affect people's goals to accept Bitcoin (Thakur and Srivastava, 2014; Williams, 2018). Furthermore, Moore and Christin (2013) argued that there are several third-party financial elements in the Bitcoin environment such as money exchanges, remote wallets, or transaction anonymizers. One of the previous studies by Möser et al. (2014) also has the same view as Moore and Christin as they stated that some intermediaries' elements in the Bitcoin ecosystem are required to make Bitcoin usable as a global digital currency. It's barely doable for interested people to acquire their initial Bitcoins without the exchanges that can bring together the buyers and sellers. Due to the existence of exchanges as the intermediaries, the user is inevitably exposed to the counterparty risk as there are potential security vulnerabilities for the systems. According to Böhme et al. (2015), there is one case where the high-volume exchange Mt. Gox ceased its operation in 2014, encountering the loss of 754,000 of its clients' Bitcoins equal to roughly \$450 million at the time of closure. Furthermore, Bitcoins may be gone due to users' own inadvertence, such as typos in the transaction, forgotten passwords, or security flaws of devices used, thus showing that the acceptance of Bitcoin is closely affected by the risk factor.

The motivation for this is that people generally fear possible losses due to the impersonal and distant nature of online payment structures (Pavlou 2003). As Bitcoin is a unique technology, users are open to the elements of risk, such as monetary losses that might occur due to the volatility of the exchange rates, the deficiency of legal regulation, or the lack of ability to reverse transactions. Therefore, individuals are expected to show a lack of enthusiasm for the acceptance and use of Bitcoin mainly due to their subjective fears. As the Malaysian Ringgit is being controlled by the government, the digital currency is not being controlled nor receives any support from Bank Negara Malaysia which makes the cryptocurrency such as Bitcoin in the market to be extremely volatile as compared to the conservative fiat currency. Hence, as stated by Baur et al. (2015), the price fluctuation that occurs in Bitcoin can be risky and it instills fears within the individual and it may affect their level of acceptance of Bitcoin. Hence, it can be seen that the risk-takers would take this chance to accept and adopt Bitcoin.

Social Influence

Considering cash is being used daily as a means of transaction between individuals, it is foreseen that social influence is one of the significant drivers of cryptographic acceptance. According to Walton and Johnston (2018), one of the factors that may lead to the success of digital currency is ascribed to the huge impacts of the network as the utilization of online and social life is expanding persistently. According to Venkatesh et al. (2003), social influence indicates the degree to which an individual sees that significant others believe the person

should utilize the new system. According to Ajzen, social influence is the external force from the people who are important to the decision-maker such as family, friends, and associates. Thus, social influence turns out to be the social power from the external setting that drives people in the direction of the new technology acceptance (Martins, Oliveira, & Popovič, 2014). Moreover, the finding from Cheah et al. (2018) research found that there is no relationship between social influence and the acceptance of Bitcoin which shows that closed people have no impact on the individual's acceptance use of Bitcoin in part of their life. On the other hand, there are several past studies from Kaushik et al. (2015), and Viswanathan et al. (2017) that show the positive relationship between the social influence factor and the acceptance of the technology. As the effect of social influence on the acceptance to use Bitcoin is lesser than the initial belief, thus, this may be because of the generalization of Internet treatment as a source of information about Bitcoin which in some way decrease the normative strain of the social environment (Martin & Herrero, 2012).

Facilitating Condition

Facilitating condition is one of the factors that can affect the acceptance of Bitcoin as it refers to the element in the external setting which help consumers to overcome the barriers to using Bitcoin and as in the environment of digital currencies, it is associated with the element on the support from the devices, financial support, others support and also Internet connection (Margath & McCormick, 2013). Venkatesh et al. (2012), characterized the facilitating conditions as the degree of availability of technology in the environment that has the accessibility to utilize another innovation such as Bitcoin. In addition, a positive connection between the facilitating conditions and a selection of convenient cash administrations was found in research that has been completed by Micheni, Lule, and Mukeha (2013). Furthermore, based on research done by Manaf and Ariyanti (2017), Muhayiddin, Ahmed, Ismail, and Rusuli (2017) stated that facilitating conditions displays an altogether positive connection with the buyer's goal to utilize e-cash such as Bitcoin in their transaction in Malaysia. Moreover, it can be seen that in a study completed by Novendran and Gunawan (2017), they found that the connection between facilitating conditions and the client's goal to utilize Bitcoin was demonstrated to be sure and huge. It has been discovered by Francisco and Swanson (2018) in their studies that the facilitating conditions definitely influence the acceptance to utilize Bitcoin through blockchain innovation. In addition, it can be seen in their research that accessibility and the ease to use Bitcoin as one of the factors that can boost the consumer's goal to accept and use Bitcoin and it can be supported by looking at the current development in a number of businesses and vendors accepting Bitcoin which will make it easier for consumers and users to utilize Bitcoin and thus this will improve customers' certainty to accept Bitcoin.

THEORETICAL FRAMEWORK

Unified Theory of Acceptance and Use of Technology 2 framework

This theory implies that an individual's perspective of the technology would represent their intention to accept the technology. The elements of this theory will be affected depending on external environmental situations. In addition, communities' acknowledgment and public recognition of Bitcoin would affect the whole value of the Bitcoin structure and the trade rate of Bitcoin (Li & Wang, 2017). The Unified Theory of Acceptance and Use of Technology (UTAUT) theory was introduced by Venkatesh, Morris, Davis, and Davis (2003) as an enhanced clarification of the inconsistency in information structure on the action and performance of the technology over eight prominent models but it is considered as an outline of technology acceptance model that focus to study the technology acceptance and use in an organizational environment, thus, most of the researchers set on regulatory concerns of Bitcoin as the focal point of the studies because it has several impacts on electronic transactions (Plassaras, 2013; Kiviat, 2015; Zahudi & Taquiddin, 2016). Meanwhile, according to Venkatesh, Thong, & Xu, (2012), the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) is a comprehensive edition of the model that is being modified to fit the consumer context. As Zahudi and Taquiddin (2016), stated that most of the research being developed on Bitcoin that was made in Malaysia is just to create awareness of the cryptocurrency and the differences between cryptocurrency and fiat money which is our Ringgit Malaysia from an Islamic finance perspective. On the contrary, Pakrou and Amir (2016) found that culture was demonstrated to have a major impact along with other variables on the intention to accept and use Bitcoin in Iran. Previous studies have been made in the United States and Indonesia using the UTAUT 2 theory and there's scarce research on Bitcoin using the UTAUT 2 theory in the research made in Malaysia, thus, it's the best option to incorporate this theory to come out with more research that can be compared with other countries as well.

There are eight elements in the UTAUT 2 theory which include performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit, as well as trust and risk associated with the acceptance and use of Bitcoin. This study focuses on performance expectancy which means the extent to which using Bitcoin will help users to increase their performance and will give benefits to the users (Venkatesh et al., 2012). The second element that will be focused on in this research is a risk which means the existence of several risks associated with the usage of Bitcoin that will influence the acceptance of Bitcoin. Next is the social influence which means that users' perception of their close relatives such as family, friends, and their idols believe that the users should accept a particular technology such as Bitcoin (Venkatesh et al., 2012). Furthermore, facilitating conditions element will be used in this research which means that the user's awareness of the availability of resources and assistance to accept and perform the transaction using Bitcoin (Venkatesh et al., 2012). Hence, UTAUT2 has been largely researched in the field of individual-level technology acceptance and

implementation among information system communities outside of Malaysia. Baptista and Oliveira (2017) utilized UTAUT2 in identifying the influence of game mechanics in the direction of acceptance of mobile banking services and Slade, Williams, Dwidedi, and Piercy (2014) conducted research that established factors affecting acceptance of mobile payments with that of UTAUT2 extensive with trust and risk constructs.

Law of Demand and Supply

According to Ciaian et al. (2016), the appeals of Bitcoin to its investors are the significant factor of its price that may change according to the economic theory of the law of demand and supply. The market is at an equilibrium price when the demand is equal to the supply which leads to the most efficient distribution of cryptocurrency as the amount of the cryptocurrency demanded could be fulfilled by the amount supplied in the market. Shifts in either demand or supply of Bitcoin in the market when it reaches equilibrium will affect the price value of Bitcoin based on the nature of the changes. This will eventually increase the volatility which makes Bitcoin risky as it's in the free fall and it is uncertain about where the base is. It will make it riskier as Bitcoin is not being recognized as a legal tender in Malaysia. Based on Ciaian, Rajcaniova, & Kancs (2016), the study that exposed the supply of Bitcoin, calculated by Bitcoins in the distribution has an influence on its market price, and this relationship has a tendency to increase over time. Balcilar, Bouri, Gupta & Roubaud, (2017) found that the demand for Bitcoin which is calculated by average completed transactions per day has an additional impact on Bitcoin's price compared to the impact from the supply of Bitcoin. For example, if more users accept and use Bitcoin, the worth of the Bitcoin becomes more valuable to each of the users (Li & Wang, 2017). Thus, as the usefulness of Bitcoin in the transaction and its attractiveness to investors increases, it leads to an increment in the demand and price of Bitcoin, hence, more people are keenly attracted to accept and use Bitcoin as a medium of transaction (Kristoufek, 2015).

Research framework

Figure 1 represents the framework developed based on the literature review in regard to the relationship between the three factors influencing customers' satisfaction with fintech products and services.

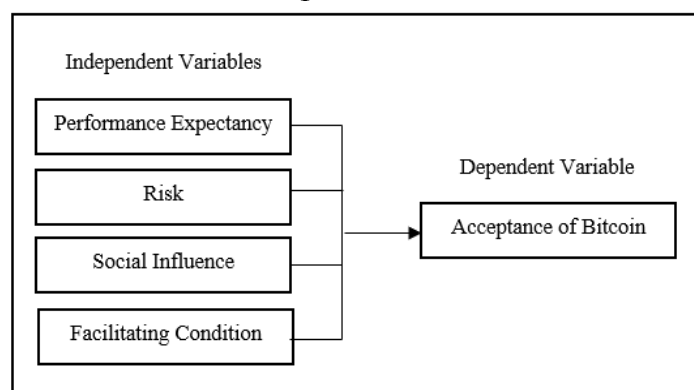


Figure 1: Research Framework

METHODOLOGY

In this study, the target respondents are the population in the Northern Region of Malaysia which is Perlis, Kedah, Pulau Pinang, and Perak. The performance expectancy, risk, social influence, and facilitating conditions are chosen for this study because these factors can greatly affect the dependent variable. The acceptance of Bitcoin in the Northern Region of Malaysia is chosen because of the high level of demographic factors that influence the acceptance of Bitcoin. The total population in the Northern Region of Malaysia is 6,670,000 people (Department of Statistics Malaysia, 2019). From the stated population, 384 respondents were chosen as samples for this study (Krejcie and Morgan, 1970). Probability sampling was chosen as the sampling method and probability sampling refers to the element in the population being selected being known. In probability sampling, a stratified sampling technique was chosen where the individual in each state has an equal and independent chance of being chosen. Thus, according to the stratified sampling method, the population from each state will be divided by the total population from all States in the Northern Region of Malaysia and it will be multiplied by the sample size of 384 respondents. Hence, 14 respondents from Perlis, 124 respondents from Kedah, 101 respondents from Pulau Pinang, and 144 respondents from Perak were randomly chosen for this study.

In this study, the survey questionnaires are based on the previous instrument developed by various researchers, hence it's reliable and valid as previous researchers have done the reliability and Cronbach alpha test for the questionnaires. The questionnaire was divided into three sections. Section A of the questionnaires contains questions regarding demographic profiles. Section B of the questionnaires represents the questions on independent variables such as performance expectancy, risk, social influence, and facilitating conditions factor. While on the other hand, section C of the questionnaire represents the questions on dependent variables which are the acceptance of Bitcoin. All the items in sections B and C are measured by interval scale. The 5 points Likert scale ranging from strongly disagree (1) to strongly agree (5) are used as a basic measurement. Data was collected through the primary data by creating the online survey questionnaires form and distributing the forms randomly to the respondents in the Northern Region of Malaysia through an online survey as it saves time and cost for both researchers and respondents. The objectives of this study have been briefly explained to the respondents before the questionnaires were distributed. Besides, the information provided in the questionnaires is used only for the purpose of this study and shall be kept private and confidential.

RESULTS AND DISCUSSION

The demographic profile of respondents is shown in Table 1.

Table 1: Demographic Information

Demographic Items	Categories	Frequency	Percentage (%)
Gender	Male	194	50.5
	Female	190	49.5
Age	Below 20	41	10.7
	20-29	212	55.2
	30-39	77	20.1
	40-49	33	8.6
	50 and above	21	5.5
Occupation	Student	145	37.8
	Private Sector	111	28.9
	Public Sector	92	24.0
	Unemployed	36	9.4
Income Group	Below RM1000	172	44.8
	RM1001-RM2000	77	20.1
	RM2001-RM3000	55	14.3
	RM3001-RM4000	41	10.7
	More than RM4000	39	10.2

Based on the survey result that has been distributed and collected, there were a total of valid 384 respondents and none is missing. The gender of the respondent of the questionnaires is being taken in this study. According to the result, it can be seen that the contribution of the male respondent is slightly higher compared to females in this study. Table 1 shows that 50.5% were male respondents and female respondent follows 49.5%. The slight difference between male and female respondents is only 1% (4 respondents). The highest range of the age of respondents for this study is 20 to 29 years old and the numbers of respondents collected are 212 out of 384 respondents. Thus, this represents 55.2% of the total respondents. It can be seen that young adults (20-29 years old) contribute the highest part to the research on the factors affecting the acceptance of Bitcoin in the Northern Region of Malaysia, and it's followed by 30-39 years old respondents who contributed 20.1% of the data which are 77 out of 384 respondents. In addition, the age range of 20 years old and below is in the third rank, contributing 10.7% (41 out of 384 individuals) of data for this study. The ranges of 40-49 years old and 50 years old and above participation rates in this study are 8.6% and 5.5% respectively. These might as well affect the acceptance of Bitcoin because age is one of the demographic factors that may affect the level of acceptance.

Based on Table 1, the highest percentage is 37.8% which represents 145 out of 384 respondents are students. It's followed by the respondents who are working in the private sector by the percentage of 28.9%. In addition, there are 92 respondents that work in the public sector which represents 24.0% out of 100% of the total respondents. Hence, the balance is 36 out of 384 respondents are unemployed respondents which contribute to 9.4% of the data for this study. Since most of the respondent is between the age of 20-29 years old, their level of income is slightly lower than others. Most of the respondent's monthly income is below RM1000 and the percentage is 44.8% which represents 172 out of 384 respondents in this study. There are 20.1% of respondents with an income within the range of RM1000-RM2000 participated in this study. Furthermore, the remaining 14.3%, 10.7%, and 10.2% of respondents belong to the groups RM2001-RM3000, RM3001-RM4000, and more than RM4000 respectively.

Table 2: Pearson Correlation

		AB
Acceptance of Bitcoin (AB)	Pearson Correlation	1
	Sig (2-tailed)	
	N	200
Performance Expectancy (PE)	Pearson Correlation	0.687**
	Sig (2-tailed)	0.000
	N	384
Risk (RS)	Pearson Correlation	-0.309**
	Sig (2-tailed)	0.000
	N	384
Social Influence (SI)	Pearson Correlation	0.614**
	Sig (2-tailed)	0.000
	N	384
Facilitating Condition (FC)	Pearson Correlation	0.594**
	Sig (2-tailed)	0.000
	N	384

As shown in Table 2 for the correlation results, for performance expectancy, the result is 0.000 which shows the p-value is less than 0.01 and it's significant. It confirms that there is a moderate relationship exists between performance expectancy and the acceptance of Bitcoin. Besides, a positive correlation of 0.687 indicates that when performance expectancy increases, the acceptance of Bitcoin also increases by a moderate amount. This result supports the previous research by Hayati et.al (2018), which has proven that performance expectancy is one of the three significant tactical weapons that will influence the acceptance of using Bitcoin in a positive manner. This means for this study there is a positive relationship between performance expectancy and the acceptance of Bitcoin in the Northern Region of Malaysia. Hence,

hypothesis 1 which stated that there is a significant relationship between performance expectancy and acceptance of Bitcoin is accepted. In addition, for the risk factor, the result is also 0.000 which shows that the p-value is less than 0.01 and this research proved that there is a small but defined relationship that exists between risk and the acceptance of Bitcoin in the Northern Region of Malaysia.

Based on the analyzed information in Table 2, it can be seen that the correlation of negative 0.309 indicates that when the risk increases, the acceptance of Bitcoin decreases. This study shows that there is a small but defined inverse relationship between risk and the acceptance of Bitcoin in the Northern Region of Malaysia. This outcome is supported by previous research by Thakur and Srivastava (2014), and Williams (2018), which stated that it is unavoidable that perceived risk will impact the expectation to accept another innovation such as Bitcoin. Thus, hypothesis 2 is accepted as there is a significant relationship between risk and acceptance of Bitcoin. Moreover, the social influence factor generated the result of 0.000 which shows that the p-value is less than 0.01 and this research found that there is a moderate relationship exists between social influence and the acceptance of Bitcoin in the Northern Region of Malaysia. Based on the outcome generated for this study, it can be seen that the correlation of 0.614 indicates that when the social influence increases, the respondent's level of acceptance of Bitcoin increases. This study shows that there is a moderate positive relationship between social influence and the acceptance of Bitcoin in the Northern Region of Malaysia. This statement is supported by previous research that has found that social influence greatly affects an individual's acceptance of Bitcoin since an individual has the tendency to collect information and tune in to the advice or news given by others on the related products or services before accepting it (Megadewandanu et al. 2016). Hence, hypothesis 3 is accepted as there is a significant relationship between social influence and acceptance of Bitcoin.

The facilitating condition result from this study is 0.000 which shows that the p-value is less than 0.01 and this research found that there is a moderate relationship exists between facilitating condition and the acceptance of Bitcoin in the Northern Region of Malaysia. Based on the outcome generated for this study, it can be seen that the correlation of 0.594 indicates that when the facilitating condition increases, the acceptance of Bitcoin also increases. This study shows that there is a moderate positive relationship between facilitating conditions and the acceptance of Bitcoin in the Northern Region of Malaysia and it is supported by previous research done by Manaf and Ariyanti (2017), Muhayiddin, Ahmed, Ismail, and Rusuli (2017) they stated that facilitating conditions displays an altogether positive connection with the buyer's goal to

utilize e-cash such as Bitcoin in their transaction in Malaysia. Thus, hypothesis 4 is accepted as there is a significant relationship between facilitating conditions and acceptance of Bitcoin.

Table 3: Coefficients Results

Mode 1		Unstandardized Coefficients		
		B	Std. Error	Sig.
1	(Constant)	0.908	0.198	0.000
	Performance Expectancy (PE)	0.375	0.045	0.000
	Risk (RS)	-0.101	0.036	0.005
	Social Influence (SI)	0.233	0.047	0.000
	Facilitating Condition (FC)	0.233	0.047	0.000

a. Dependent Variable: Acceptance of Bitcoin (AB)

Based on Table 3 above shows the relationship between the independent variables which include performance expectancy, risk, social influence, facilitating condition, and the dependent variable of the acceptance of Bitcoin in the Northern Region of Malaysia. The first independent variable in this study is performance expectancy which has t- a value of 8.407 is found to be significant because the larger the amount of t- value, the better the support in opposition to the null hypothesis which means that there is a greater proof to reject the null hypothesis and if t-value is closer to 0, it means that there are not many differences and it is not significant enough to affect the whole result. Moving on to the p-value for performance expectancy which is 0.000 means that it's significant because the lower p-value which is less than 0.05 signifies that the null hypothesis can be rejected because the p-value for the independent variable is being used to test the significance of the null hypothesis. A lower p-value for the independent variable indicates that it has a meaningful and significant impact on the dependent variable when the independent variable is in place. In addition, the second independent variable is the risk factor has a t-value is -2.842 and a p-value for risk is 0.005. Thus, it can be seen that the t-value is negative and closer to zero means that it's not significant enough but since the p-value is 0.005 which is lower than 0.05, it shows that it plays a significant role in this study and the null hypothesis can be rejected. Moreover, the third independent variable is social influence which has a t-value of 4.749 and a p-value of 0.000 which means that it is significant in this study. Any changes in the factors can affect the dependent variable of the acceptance of

Bitcoin in the Northern Region of Malaysia. The next factor is the facilitating condition and its t-value is 4.748 followed by a p-value of 0.000. Thus, this result shows that the facilitating condition is significant in this study and if there are any changes being made, it will affect the measured outcome which is the acceptance of Bitcoin in the Northern Region of Malaysia. Therefore, it can be seen clearly from the table that shows all the variables are the main factors that can affect the acceptance of Bitcoin. Based on the equation of:

$$Y = 0.908 + 0.375X_1 - 0.101X_2 + 0.233X_3 + 0.223X_4$$

X_1 : Performance

expectancy X_2 : Risk

X_3 : Social influence

X_4 : Facilitating condition

According to the equation above, it can be seen that if the independent variable value goes up/down by 1 unit, the dependent variable will increase/decrease according to the estimated parameter value. For example, when the performance expectancy factor increases by 1 unit, the effect on the acceptance of Bitcoin in Northern increases by 0.375 holding all other variables constant. Next, if the risk factors increase by 1 unit, the acceptance of Bitcoin in Northern decreases by 0.101 holding all other variables constant and the same goes for the other independent variable in place. Moreover, if the social influence factors increase by 1 unit, the positive effect on the acceptance of Bitcoin in Northern increases by 0.233, and if the facilitating condition factors increase by 1 unit, the acceptance of Bitcoin in Northern increases by 0.223. Therefore, from this equation, it can be concluded that the performance expectancy factors which are the independent variable have the greatest effect and impact on the dependent variable which is the acceptance of Bitcoin in the Northern Region of Malaysia.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1	0.753a	0.567	0.563	0.60371

a. Predictor: (Constant), Performance Expectancy (PE), Risk (RS), Social Influence (SI), Facilitating Condition (FC)

According to Table 4 above, R Square 0.567 indicates that 56.7% of the variance of the dependent variable (Acceptance of Bitcoin) is able to be explained by using the independent variables of performance expectancy, risk, social influence, and facilitating condition. Since the R square in this research shows the result of 0.567 which is equivalent to 56.7%, the independent variables of this study are very significant and any changes in the value or performance of the independent variables will make a significant and large impact on the outcome which is the dependent variable.

Table 5 shows the hypothesis summary of the study with the decision. The hypothesis test result is based on the multiple linear regression model. From the multiple linear regression model, the independent variables which are performance expectancy, risk, social influence, and facilitating condition influenced the dependent variable which is acceptance of Bitcoin.

Table 5: Hypothesis Summary

No	Hypothesis	Accepted / Rejected
1	There is a significant relationship between performance expectancy and acceptance of Bitcoin in the Northern Region of Malaysia.	Accepted
2	There is a significant relationship between risk and acceptance of Bitcoin in the Northern Region of Malaysia.	Rejected
3	There is a significant relationship between social influence and acceptance of Bitcoin in the Northern Region of Malaysia	Accepted
4	There is a significant relationship between facilitating conditions and acceptance of Bitcoin in the Northern Region of Malaysia.	Accepted

CONCLUSIONS

All 384 respondents of this research are from the Northern Region of Malaysia. Along with these 384 respondents, majorities of 50.5% (190 respondents) were male respondents and 49.5% are followed by female respondents. Most of the respondents are within the age range of 20 to 29 years old and represent 55.2% of the total respondents in this study. Followed by 30-39 years old respondents which contributed 20.1%, 20 years old and below in the third rank which contributed 10.7%, and 40 years old and above participation rate in this study is 14.1%. A huge sum of the respondents is students which represent 37.8% and followed by the respondents who are working in the private sector by the percentage of 28.9%, 24.0% of respondents that work in the public sector and 9.4% are unemployed. Moreover, it can be

seen that the majority of respondents' monthly income level is below RM1000 and the percentage is 44.8%.

The result indicates all the independent variables in this study are significantly correlated with the dependent variable of the acceptance of Bitcoin in the Northern Region of Malaysia. The finding of this study confirms that there is a significant association with positive and moderate relationship exists between performance expectancy and the acceptance of Bitcoin. This result was supported by the previous research made by Hayati et.al (2018), that proven performance expectancy is one of the three major tactical factors that will affect the acceptance of Bitcoin in a positive manner. Based on the analyzed information has a negative correlation with the dependent variable of this study which signifies that when the users believed that there is a high risk associated with the use of Bitcoin, their acceptance of Bitcoin will be affected and decrease. This study shows that there is a small but defined inverse relationship between risk and the acceptance of Bitcoin in the Northern Region of Malaysia and it is supported by preceding research by Williams (2018), which stated that it is inevitable that perceived risk will impact the probability to accept another innovation such as Bitcoin.

According to the finding of this study, it has been found that the social influence factor in this research has a moderate relationship with the acceptance of Bitcoin in the Northern Region of Malaysia. The result of this study shows that there is a positive relationship between the independent and dependent variables which indicates that when the social influence on the individual increases, the individual's level of acceptance of Bitcoin will also increase. This statement is supported by several past studies by D.K. Soni et al. (2015) and Bill Hu et al. (2020) that show the positive relationship between the social influence factor and the acceptance of technology such as Bitcoin and social influence significantly affects an individual's acceptance of Bitcoin. This research's finding has found that there is a moderate relationship exists between facilitating conditions and the acceptance of Bitcoin in the Northern Region of Malaysia and there is a positive relationship between them which indicates that when the user's availability to use Bitcoin is easily accessible, facilitating condition increases and therefore, the acceptance of Bitcoin also increases. Moreover, this finding is supported by previous research by Novendran and Gunawan (2017), they found that the connection between facilitating conditions and the client's goal to utilize Bitcoin was demonstrated to be sure and huge. It has been discovered in their studies that the facilitating conditions definitely influence the acceptance to utilize Bitcoin through blockchain innovation.

In addition, it can be seen in their research that accessibility and the ease to use Bitcoin as one of the factors that can boost the consumer's goal to accept and use Bitcoin and it can be supported by looking at the current development in a number of businesses and vendors accepting Bitcoin which will make it easier for consumers and users to utilize Bitcoin and thus this will improve customers' certainty to accept Bitcoin and Manaf and Ariyanti (2017) stated that facilitating conditions displays an altogether positive connection with the buyer's goal to utilize e-cash such as Bitcoin in their transaction in Malaysia.

In a nutshell, to sum it up, all the research objectives of this study, which are to identify the relationship between performance expectancy, risk, social influence, and facilitating conditions with the acceptance of Bitcoin in the Northern Region of Malaysia were achieved. As an effect of the theoretical framework that was being used in this study which includes the UTAUT 2 framework and theory on the law of demand and supply, the outcome of the study has proven that there is a significant impact on the acceptance of technology such as Bitcoin by using the elements in the theoretical framework as the independent variables (performance expectancy, risk, social influence, and facilitating condition) to measure the changes or impact on the dependent variable (acceptance of Bitcoin in the Northern Region of Malaysia).

FURTHER STUDY

This study was conducted in the states in the Northern Region of Malaysia which are Perlis, Kedah, Pulau Pinang, and Perak. The result of this study might be different for other countries and regions even though the same research model is being used because the respondents in other regions or countries may vary and have different social and cultural backgrounds. Moreover, some of the respondents did not aware of Bitcoin and some were unwilling to participate in completing the survey because they didn't trust the concept of cryptocurrency. Therefore, the overall data collection was time-consuming as an effect of the inactive participation from the respondents. Furthermore, this research only focuses only four factors affecting the acceptance of Bitcoin and there might be other factors that can be used in research in order to present a more efficient analysis. Therefore, more thorough research could be done with more promising factors that can affect the acceptance of Bitcoin.

Future researchers need to take into consideration the diversity of other societies and cultural backgrounds in order to enhance and improve this study. Researchers can do so by expanding and carrying out the study using a similar set of the model to other countries within or outside of Malaysia that will

enable the researchers to make a comparison between the perspectives of Malaysian residents with the residents of other countries. In addition, the research can be improved by gathering the data and information on the same topic from the secondary data of the statistics, books, journals, reports, and websites of the other country's perspectives on bitcoin. Consequently, the outcome of the study will be more reliable and precise when other societies and cultural backgrounds are taken into consideration while doing the research according to research by Donet, Pérez-Solà, and Herrera-Joancomartí (2014) disclosed that diverse national cultures could affect the demographic traits and thoughts towards the acceptance of Bitcoin. Besides that, the recommendation for future studies is more independent variables that can be associated with the acceptance of Bitcoin can be added. The independent variable of hedonic motivation could be included in future research so that the researchers will know whether the users tend to use Bitcoin if the transaction processes are satisfying and enjoyable for them. Therefore, the upcoming research can identify which factors are more relevant to be used universally that will provide more equivalent and precise data.

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