

BITCOIN: BEHAVIOURAL INTENTION TO USE THE
NEW TRANSACTION PARADIGM IN MALAYSIA

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We hereby declare that:

- (1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the research project.
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LIST OF ABBREVIATIONS

ACCA	Association of Chartered Certified Accountants
ANOVA	Analysis of Variance
ATM	Automated Teller Machine
B2B	Business-to-business
BI	Behavioural Intention To Use Bitcoin
EE	Effort Expectancy
ERP	Enterprise Resource Planning
FC	Facilitating Conditions
HM	Hedonic Motivation
HT	Habit
ICT	Information and Communications Technology
MLR	Multiple Linear Regression
PE	Performance Expectancy
PhD	Doctor of Philosophy
PMR	Penilaian Menengah Rendah
Pre-U	Pre-University
PT3	Pentaksiran Tingkatan 3
PV	Price Value
SI	Social Influence
SPM	Sijil Pelajaran Malaysia
SSHT	Self-Service Hotel Technology
STPM	Sijil Tinggi Persekolahan Malaysia
TAM	Technology Acceptance Model
TR	Trust
UTAUT	Unified Theory of Acceptance and Use of Technology
UTAUT2	Unified Theory of Acceptance and Use of Technology 2

PREFACE

Today, cryptocurrencies are continually and prominently addressed as a universally viral phenomenon. Against the background of recent economic crisis, public trust in the current financial system has fallen apart while rapidly growing Internet development has opened up a new technology named cryptocurrencies. Among other cryptocurrencies, Bitcoin which was proposed by Satoshi Nakamoto in 2008 attracts most attention from academician, media, venture capitalists, banking organisations and governmental institutions. Bitcoin is a decentralised financial protocol formed under the peer-to-peer network and acts as a new payment transaction paradigm where the money is digitalised.

Up to this point in time, the Bitcoin usage as a digital currency is rather restricted. The Central Bank of Malaysia has yet to recognise Bitcoin as a legal tender. Despite these uncertainties, there are bunches of Bitcoin enthusiasts in Malaysia who believe in the bright prospect of Bitcoin and uses Bitcoin as an alternative transaction medium. This poses a central research question: What are these users' intentions from shifting their habit of using domestic currency into a digital currency? Hence, this research will investigate the influencing factors leading to behavioural intention to use Bitcoin in Malaysia context.

ABSTRACT

With humans relying more on technology day by day, even currencies are evolving into digital currencies. Bitcoin as one of the first and leading virtual currencies is arousing consumers' curiosity as well as gaining popularity. With accelerating popularity and value of Bitcoin worldwide, it is vital to obtain an understanding about Bitcoin users' behaviour. However, the Malaysian government is showing a hands-off attitude towards the virtual currency leaving Bitcoin users to bear the risks of using Bitcoin. Instead of becoming a barricade to use, there are users who are willing to bear these risks. Thus, this study intends to investigate the factors affecting Bitcoin users' behavioural intention to use Bitcoin with Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) adding trust as independent variable. The research objective of this research is to examine the relationship between key determinants of UTAUT2, trust and behavioural intention to use Bitcoin. The conceptual framework of this study is developed by integrating trust as a construct into the UTAUT2 in order to better understand Bitcoin usage in Malaysia. Trust, as a motivator for individual's behavioural intention, is a factor that cannot be neglected. Cross-sectional approach is used in this study. 250 sets of self-administered survey questionnaires are distributed via snowball sampling technique targeting on Malaysian Bitcoin users aged ranging from 25 to 44 years old. The data analysis is executed with SAS Enterprise Guide 7.11. The outcome of this research shows that performance expectancy, price value, hedonic motivation and trust have a positive as well as significant relationship towards behavioural intention to use Bitcoin. This research will contribute appreciably to Bitcoin companies and merchants in Malaysia, providing them useful insights on the interaction between key determinants in UTAUT2, trust and behavioural intention to use Bitcoin.

CHAPTER 1: INTRODUCTION

1.0 Introduction

In chapter one, the background of study, problem statement, objectives of study, research questions, importance of study and chapter layout will be illustrated.

1.1 Research Background

In 2009, the world's first virtual currency Bitcoin was invented by Satoshi Nakamoto, a pseudonymous programmer and later the financial industry is disrupted by this new paradigm (Kumpajaya & Dhewanto, 2015). Bitcoin is defined as a cryptocurrency developed on open-source software and sophisticated protocol that engages in peer-to-peer networks as a private irreversible instrument (Simsler, 2015). The protocol enables cross-border payments regardless of the item size at minimal costs (Balcilar, Bouri, Gupta, & Roubaud, 2017). All Bitcoin transactions are cautiously recorded in a shared ledger data technology known as blockchain (Bouri, Molnar, Azzi, Roubaud, & Hagfors, 2017). Every single record of Bitcoin is registered as a block and is added to the blockchain. Its registration is communicated to all network hubs (Kapil, 2014). Bitcoin has been extensively embraced by consumers since its invention (Barber, Boyen, Shi, & Uzun, 2012) by showing the total market capitalisation of Bitcoin at USD 39 billion as of May 2017 (Blockchain Info, 2017).

The hype of this cryptocurrency subsequently initiates research on this phenomenon especially emphasising on the factors affecting the behavioural intention of individual to use Bitcoin (Kumpajaya & Dhewanto, 2015). Behavioural intention refers to an individual's subjective likelihood to participate in certain behaviour and lead to a specific outcome (Madden, Ellen, & Ajzen, 1992). Likewise, it is also a function of attitude towards a particular behaviour and subjective norm, where attitude is denoted as an individual's feelings in regards to

performing the target behaviour (Hsiao & Tang, 2014). In Malaysia, despite the participation rate of Bitcoin usage is relatively low at present (Kuek, 2017), a survey conducted by Visser (2017) found that the rate of cryptocurrency adoption is on a favourable rise.

According to Statista (2017), majority of the Bitcoin users are individuals aged ranging from 25 to 44 constituting 61.39% of total global Bitcoin users as shown in Table 1.1. This statistics indicates that individual's age has positive correlation with individual's affordability of Bitcoin due to increment of individual's wealth over time until the peak age of early 50's (Bohr & Bashir, 2014).

Table 1.1: Bitcoin Users' Age Range and Its Percentage

Bitcoin Users' Age Range	Percentage
18 and below	3.76%
19 to 24	16.53%
25 to 34	39.40%
35 to 44	21.99%
45 to 54	11.21%
55 to 64	4.86%
65 and above	2.25%
Total	100%

Source: Statista (2017)

1.2 Problem Statement

Bitcoin as a digital currency undoubtedly has the ability to assist in the worldwide financial and trading system (Kumpajaya & Dhewanto, 2015). However, the legal status of Bitcoin remains a doubt in Malaysia as the Central Bank of Malaysia had issued a statement on Bitcoin announcing that Bitcoin is not recognised as legal tender in Malaysia. The Central Bank will not regulate the operations of Bitcoin and the public is urged to be wary of the risks associated with the usage of Bitcoin (Bank Negara Malaysia, 2014). Hence, the owner or user of Bitcoin is required to

bear all risks and consequences regarding the use or ownership of Bitcoin (Bank Negara Malaysia, 2014; Chin, 2014). Although Bitcoin is obviously a high risk virtual currency, there remains a proportion of Bitcoin users in Malaysia (Kuek, 2017). Therefore, this research will study on the behavioural intention to use Bitcoin among these users in Malaysia.

Most of the researchers focus on regulatory concerns of Bitcoin as it has a number of effects on electronic transactions (Plassaras, 2013; Kiviat, 2015; Zahudi & Taquiddin, 2016). In Malaysia, research on Bitcoin is made to create awareness on virtual currency and contrast virtual currency with the national currency in Islamic finance perspective (Zahudi & Taquiddin, 2016). On the other hand, Pakrou and Amir (2016) studied on the factors affecting the consumers' tendency to use Bitcoin and culture is proven to have the largest impact among other variables on their intention to use in Iran. Other studies made investigations on the factors that affect the intention to use Bitcoin using the Technology Acceptance Model (TAM) framework in the United States (Folkinshteyn & Lennon, 2016) and Indonesia (Kumpajaya & Dhewanto, 2015). Researchers in Indonesia have explored the Bitcoin acceptance and level of user trust on their intention to use Bitcoin using Unified Theory of Acceptance and Use of Technology (UTAUT) (Novendra & Gunawan, 2017).

The UTAUT framework was proposed by Venkatesh, Morris, Davis, and Davis (2003) as an improved explanation of the variance in information system usage behaviour over eight prominent models. It is regarded as a delineating technology acceptance model that studies the technology acceptance and use in organisational context while Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) is an extended version of it tailored to consumer context (Venkatesh, Thong, & Xu, 2012).

Furthermore, researchers believe trust plays an essential role in the evolution of monetary system (Simmel & Frisby, 2004; Simser, 2015). Bitcoin has shown the intertwining of different dimension of trusts. As a technology that need not require trust from a central authority, Bitcoin relies on users' trust that others will accept

the currency for future payment (Bjerg, 2016). Hence, the study of trust's influence towards behavioural intention to use Bitcoin is essential.

Technology adoption studies are generally done in Western context; hence, direct application of the framework in non-Western contexts might create suboptimal outcome (Thomas, Singh, & Gaffar, 2013). Besides, prior studies on Bitcoin in Malaysia are scarce (Kumpajaya & Dhewanto, 2015). Therefore, there is a need to further research on the Bitcoin users' behavioural intention to use Bitcoin in Malaysia incorporating UTAUT2 constructs and trust as independent variables.

1.3 Research Objectives and Research Questions

Table 1.2: General Objective and Question

General Research Objective	General Research Question
To investigate the relationship between key determinants in UTAUT2, trust and behavioural intention to use Bitcoin.	What is the relationship between key determinants in UTAUT2, trust and behavioural intention to use Bitcoin?

Source: Developed for the research

Table 1.3: Specific Objectives and Questions

Specific Research Objectives	Specific Research Questions
To examine the relationship of performance expectancy on behavioural intention to use Bitcoin.	What is the relationship between performance expectancy and behavioural intention to use Bitcoin?
To examine the relationship of effort expectancy on behavioural intention to use Bitcoin.	What is the relationship between effort expectancy and behavioural intention to use Bitcoin?
To examine the relationship of social influence on behavioural intention to use Bitcoin.	What is the relationship between social influence and behavioural intention to use Bitcoin?
To examine the relationship of facilitating conditions on behavioural	What is the relationship between facilitating conditions and behavioural

intention to use Bitcoin.	intention to use Bitcoin?
To examine the relationship of hedonic motivation on behavioural intention to use Bitcoin.	What is the relationship between hedonic motivation and behavioural intention to use Bitcoin?
To examine the relationship of price value on behavioural intention to use Bitcoin.	What is the relationship between price value and behavioural intention to use Bitcoin?
To examine the relationship of habit on behavioural intention to use Bitcoin.	What is the relationship between habit and behavioural intention to use Bitcoin?
To examine the relationship of trust on behavioural intention to use Bitcoin.	What is the relationship between trust and behavioural intention to use Bitcoin?

Source: Developed for the research

Table 1.2 describes the general research objective and question in examining the relationship between key determinants in UTAUT2, trust and behavioural intention to use Bitcoin. Table 1.3 illustrates the specific research objectives and questions in examining the relationship between eight independent variables and dependent variable which is behavioural intention to use Bitcoin.

1.4 Significance of the Study

1.4.1 Theoretical Contribution

Many studies on Bitcoin had been done in overseas including Indonesia, United States and German using TAM instead of integrating UTAUT2 (Folkinshteyn & Lennon, 2016; Abramova & Böhme, 2016). In Malaysia, UTAUT2 is frequently used in examining technology acceptance but rarely in Bitcoin context (Kumpajaya & Dhewanto, 2015). UTAUT2 builds on UTAUT and surpasses UTAUT as it is tailored to the consumer

technology use context. Therefore, to investigate the behavioural intention to use Bitcoin among Bitcoin users in Malaysia, this research makes contribution by extending UTAUT2 with trust to extend the generalisation of UTAUT to consumer environment. Trust element is essential as it measures how much consumers confident to the new technology before accepting it.

1.4.2 Practical Contribution

Firstly, the findings of this study are crucial to Bitcoin companies in Malaysia such as Luno, Coinbox and Xbit Asia. It helps them to analyse about what factors affect the Bitcoin users' intention to use Bitcoin. By having a better understanding of Bitcoin users' behavioural intention, Bitcoin companies can attract more customers using a variety of strategies to establish a connection with potential Bitcoin users.

Secondly, this study is beneficial to merchants who are yet to accept Bitcoin in Malaysia. They can attempt to adjust their payment strategies to accept Bitcoin as a new transaction medium after reviewing the research findings. As a result, it will help to attract more customers when a new alternative payment method is offered. Furthermore, it will help to enhance the merchants' e-commerce services as well.

The consumers' demand for cashless payments grows rapidly alongside with the widespread of internet access and breakthrough of mobile devices. Merchants that are currently accepting Bitcoin as an alternative currency can reap the benefits from the evolution. The low transaction fee of Bitcoin becomes a competitive advantage for the merchants. Our findings include which part of Malaysia has more Bitcoin users residing in. Those merchants can use this information in decision making on business expansion for location wise.

1.5 Outline of Study

Chapter one reveals the overall review of this study comprising the background of research, problem statement, objectives of study and research questions, and importance of study. Chapter two illustrates the literature review covering theoretical foundation, review of prior empirical studies, proposed conceptual framework and hypotheses development. Chapter three explains the research methodology encompassing research design, sampling procedures, method of data collection, variables and measurement, and data analysis techniques. Chapter four discusses the data analysis constituting descriptive analysis, scale measurement and inferential analysis. Chapter five concludes the discussion and implications including summary and analysis of outcomes, discussion on major findings, implications of study, limitations of study and recommendation from this research.

1.6 Conclusion

In sum, the principal idea of this study regarding examining the association between eight independent variables and dependent variable which is behavioural intention to use Bitcoin was presented in this chapter. The research problems, objectives and questions have been determined and summarised.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

In chapter two, the concept of UTAUT2 model and trust construct will be comprehensively outlined. Prior literature on the eight variables are reviewed and analysed. Furthermore, the basis for research will be adopted based on proposed theoretical framework.

2.1 Theoretical Foundation

The theoretical framework employed in this research is UTAUT2. UTAUT2 is originated from UTAUT which was devised by Venkatesh, Morris, Davis, and Davis in 2003 (Albugami & Bellaaj, 2014). It incorporated the essential elements of eight fragmented theories and researches shown in Table 2.1 on individual acceptance of information technology (Venkatesh et al., 2003). This model has been empirically examined to be superior compared to other prevailing competing models (Park, Yang, & Lehto, 2007; Venkatesh & Zhang, 2010).

Table 2.1 Models and Theories of Individual Acceptance

Model or theory	Author and year	Core variable
Theory of Reasoned Action (TRA)	Fishbein and Ajzen (1975)	- Attitude toward behaviour - Subjective norm
Technology Acceptance Model (TAM)	Davis (1989); Davis, Bagozzi, and Warshaw (1989)	- Perceived usefulness - Perceived ease of use - Subjective norm
Motivational Model	Davis, Bagozzi, and Warshaw (1992)	- Extrinsic motivation - Intrinsic motivation
Theory of Planned Behaviour (TPB)	Azjen (1991); Harrison, Mykytyn,	- Attitude toward behaviour - Subjective norm

	and Riemenschneider (1997)	- Perceived behavioural control
Combined TAM and TPB	Taylor and Todd (1995)	- Attitude toward behaviour - Subjective norm - Perceived behavioural control - Perceived usefulness
Model of PC Utilisation	Thompson, Higgins, and Howell (1994)	- Job-fit - Complexity - Long-term consequences - Affect towards use - Social factors - Facilitating conditions
Innovation Diffusion Theory	Moore and Benbasat (1991)	- Relative advantage - Ease of use - Image - Visibility - Compatibility - Results demonstrability - Voluntariness of use
Social Cognitive Theory	Bandura (1986)	- Outcome expectations - performance - Outcome expectations - personal - Self-efficacy - Affect - Anxiety

Source: Developed from this research

The introduction of UTAUT2 extends the generalisability of UTAUT to a consumer context through integration of hedonic motivation, price value, and habit construct (Morosan & DeFranco, 2016). Compared to UTAUT, UTAUT2

enhances the variance in behavioural intention by 18 percent (Venkatesh et al., 2012). The definitions of UTAUT2 key constructs are presented in Table 2.2.

Table 2.2: Definitions of UTAUT2 Key Constructs

Key construct	Definition, author and year
Performance expectancy	The extent to which utilising a technology in executing certain activities will provide benefits to consumers (Venkatesh et al., 2012).
Effort expectancy	The level of ease or effort related to consumers' utilisation of the technology (Venkatesh et al., 2012).
Social influence	Consumers' perception of important others (e.g. family and friends) believe that the consumers should utilise a particular technology (Venkatesh et al., 2012).
Facilitating conditions	Consumers' perception of the resources and assistance available to execute a particular conduct (Venkatesh et al., 2003; Brown & Venkatesh, 2005).
Hedonic motivation	The delight or contentment derived from utilising a technology (Venkatesh et al., 2012).
Price value	Consumers' cognitive trade-off between the perceived advantages of the technology application and the monetary cost of utilising it (Dodds & Grewal, 1991).
Habit	The degree of individuals having tendency to perform a behaviour automatically in light of learning (Limayern, Hirt, & Cheung, 2007)

Source: Ali, Nair, and Hussain (2016)

UTAUT2 has been predominantly researched in the field of individual level technology acceptance and adoption among information system communities (Venkatesh, Davis, & Morris, 2007). Baptista and Oliveira (2017) engaged UTAUT2 in determining the influence of game mechanics towards adoption of mobile banking services. Slade, Williams, Dwivedi, and Piercy (2014) established factors affecting adoption of mobile payments with that of UTAUT2 extended

with trust and risk constructs. Besides, Raman and Don (2013) investigated the educators' adoption of web-based learning management software using UTAUT2.

This study adopts all seven constructs in UTAUT2 extended with trust, and drops the moderators including gender, age and experience as well as use behaviour as dependent variable. Most empirical studies show that gender difference is insignificant (Morris, Venkatesh, & Ackerman, 2005; Albugami & Bellaaj, 2014). Besides, the target respondents for this research are Bitcoin users ranging from 25 to 44 years old. Experience is immaterial as the opportunity to use Bitcoin in Malaysia is not prevalent yet and furthermore the emphasis of study is on behavioural intention to use Bitcoin (Jayaseelan & Zainul, 2017). Behavioural intention reflects the perception to adopt a new technology as opposed to actual adoption. Since the adoption is at initial stage; therefore, use behaviour is removed (Tan, Sim, Ooi, & Phusavat, 2012).

According to Alzahrani and Goodwin (2012), UTAUT2 is deficient in the element of trust. Trust is a significant construct in examining behavioural intention (Shin, 2009). Trust refers to a subjective belief that a party will satisfy their commitments (Gefen, Benbasat, & Pavlou, 2008) and readiness to be in susceptibility towards another party's future conduct (Mayer, Davis, & Schoorman, 1995). Trust is embraced in various researches including new mobile data services (Hoffman & Novak, 1996), mobile payment (Huang & Liu, 2012) and mobile banking (Luarn & Lin, 2005).

2.2 Review of Prior Empirical Studies

2.2.1 Behavioural Intention

Fishbein and Ajzen (1975) defined behavioural intention as the result of a person's attitude towards certain behaviour and subjective norms. Sequentially, behavioural intention leads to de facto behaviour whom the

individual performs the action. Also, behavioural intention captures the motivational elements of behaviour and consists of a commitment towards behaviour (Mafe, Blas, & Fernando, 2010). Corresponding to a great deal of models and ideologies drawing from psychological theories, it is arguable that individual intention is an antecedent of individual behaviour (Venkatesh et al., 2003; Venkatesh & Zhang, 2010). UTAUT2 demonstrated behavioural intention to have critical impact on technology usage (Venkatesh & Zhang, 2010). In this research, behavioural intention describes the impulse or eagerness to use Bitcoin as a virtual currency.

2.2.2 Relationship between Performance Expectancy and Behavioural Intention

Venkatesh et al. (2012) defined performance expectancy as the level to which a person trusts that utilising a system will bring benefits to the users in the performance of a particular task. In simple words, individuals are more motivated to use and accept new technology if they perceived that this technology is more beneficial and useful in their daily life (Alalwan, Dwivedi, & Rana, 2017).

Past study done by Raman and Don (2013) showed that performance expectancy is positively correlated with behavioural intention to accept Learning Management Software. Yang (2013) found that performance expectancy has a strong positive linkage with individual's behavioural intention to use mobile learning. Chauhan and Jaiswal (2016) highlighted that those with higher performance expectancy will lead to higher behavioural intention to use Enterprise Resource Planning (ERP) software. Next, Moghavvemi, Salleh, and Standing (2016) discovered that performance expectancy and entrepreneur's behavioural intention to accept information technology signals a significant and positive relationship. A study on adoption of e-textbook showed that higher

performance expectancy would lead to higher individual's behavioural intention to adopt e-textbook (Hsiao & Tang, 2014).

In this research, performance expectancy refers to the level to which using Bitcoin will yield advantages to users in the performance of certain activities. Bitcoin transfer requires minimal time compared to conventional cash payment and credit card payment. When individual feels that Bitcoin will encourage them in attaining valued outcome such as improved job performance, then performance expectancy would increase the consumer's behavioural intention to use Bitcoin. Therefore, H₁ is formulated.

2.2.3 Relationship between Effort Expectancy and Behavioural Intention

Venkatesh et al. (2012) justified that effort expectancy refers to the extent of ease associate with consumers' use of technology. The individual's intention to accept a new system is not only focus on how much the system is advantageous to them but also by how much effort that individual needed to put in order to use the new system and the level of difficulty of that system (Alalwan et al., 2017).

Prior study done by Gao, Li, and Luo (2015) identified that effort expectancy has significantly and positively correlated with consumers' behavioural intention in adoption of wearable technology in healthcare. Hew, Lee, Ooi, and Wei (2015) highlighted a significantly positive association between effort expectancy and individual's behavioural intention to use mobile applications. Moghavvemi et al. (2014) concluded that there was a significance and positive correlation between effort expectancy and entrepreneur's behavioural intention to accept information technology. Moreover, a study on determinants of ERP software usage intention showed a positive relation between effort expectancy and behavioural intention to use the software (Chauhan & Jaiswal, 2016).

Alalwan et al. (2017) found that effort expectancy shows a positive association with Jordanian customers' behavioural intention to adopt mobile banking.

In this research, effort expectancy relates to the extent of ease for individual to use Bitcoin. When an individual feels that Bitcoin is easy to be used in online transaction, his or her behavioural intention to use Bitcoin will increase. An individual tends to understand and use Bitcoin at minimal effort. Hence, H₂ is formed.

2.2.4 Relationship between Social Influence and Behavioural Intention

Social influence refers to the level by which an individual sees the essential of others in believing that one should utilise the new framework or structure (Venkatesh et al., 2012). Subjective norms that mirror the external force from the people who are significant to the decision maker such as family, friends and associates derive social influence (Ajzen, 1985). Accordingly, social influence becomes the social force from external environment that drives people towards the new technology adoption (Martins, Oliveira, & Popovič, 2014).

Prior study concluded that the intention to use internet banking among the users was positively affected by the social influence from others (AbuShanab, Pearson, & Setterstrom, 2010). Social influence was found to give positive impact to the intention to use Google Classroom significantly (Jakkaew & Hemrungrote, 2017). Besides, social influence of the elite status members is positively related to the adoption of Business-to-business (B2B) loyalty program (Viswanathan, Sese, & Krafft, 2017). Social influence is positively significant to the older adults' intention to use Information and Communications Technology (ICT) (Macedo, 2017). Similarly, the intention of tourists to use Self-Service Hotel Technology

(SSHT) was positively influenced by social influence (Kaushik, Agrawal, & Rahman, 2015).

In this research, social influence refers to how a person with knowledge or is in use of Bitcoin can affect people around them to have intention in using Bitcoin. Users may be influenced when people around them such as friends, family and colleagues are using Bitcoin. Due to this subjective norm, the users will try to engage with them and derive an intention to use Bitcoin. Hence, H₃ is formulated.

2.2.5 Relationship between Facilitating Conditions and Behavioural Intention

Venkatesh et al. (2003) defined facilitating conditions as the extent of environmental and technical availability to use a new technology. Meanwhile, Brown and Venkatesh (2005) proposed facilitating conditions in consumers' view as the availability of resources and support to perform certain behaviour.

A positive relationship between facilitating conditions and adoption of mobile money services was seen in a study made by Micheni, Lule, and Mukeha (2013). Similarly, facilitating conditions exhibits a significantly positive correlation with the consumer's intention to use e-money (Manaf & Ariyanti, 2017). In Malaysia, facilitating conditions reveals a positive association with behavioural intention to use e-dinar (Muhayiddin, Ahmed, Ismail, & Rusuli, 2017). In Indonesia, the relationship between facilitating conditions and user's intention to use Bitcoin was proven to be positive and significant (Novendra & Gunawan, 2017). Meanwhile, Francisco and Swanson (2018) found facilitating conditions positively affects behavioural intention to use blockchain technology for supply chain traceability.

In this research, facilitating conditions reflect the environmental factors such as availability and convenience to use Bitcoin technology restrict or incentivise consumers' intention to use Bitcoin. A growth in number of service providers and merchants accepting Bitcoin as well as convenience to use Bitcoin will improve consumers' confidence to use Bitcoin. Hence, a favourable set of facilitating conditions tend to form higher intention and H₄ is then proposed.

2.2.6 Relationship between Hedonic Motivation and Behavioural Intention

According to Brown and Venkatesh (2005), hedonic motivation is defined as the associated pleasure or fun experienced when utilising a technology. Childers, Carr, Peck, and Carson (2001) discovered that enjoyment of the technology was a reliable and strong indicator of individual acceptance. Hedonic motivation assumes critical role in determining the behavioural intention to use new technology in information system researches (Thong, 1999; Van der Heijden, 2004).

A study on students' acceptance and usage of lecture capture system found that hedonic motivation shows a positive and significant association with intention to use the system (Nair, Ali, & Lim, 2015). In addition, Nguyen, Nguyen, Pham, and Misra (2014) suggested that hedonic motivation positively influences the adoption of e-learning. Hedonic motivation positively and significantly correlates with behavioural intention to use cloud computing (Nikolopoulos & Likothanassis, 2017). Research done by Herrero, Martín, and Salmones (2017) depicts that hedonic motivation is positively associated with behavioural intention to adopt social networks sites (SNS) for sharing user-generated content. Hedonic motivation is also positively correlated with continuous intention to use smart-watches (Dehghani, Kim, & Dangelico, 2018).

In this research, hedonic motivation relates to the degree to which using Bitcoin stimulates the user's feeling of pleasure, contentment and satisfaction. It delivers the experiential and emotional incentives to engage in Bitcoin usage. If an individual feels content to use Bitcoin, hedonic motivation would increase the individual's intention to use Bitcoin. Hence, H₅ is formed.

2.2.7 Relationship between Price Value and Behavioural Intention

Price value is the trade-off between perceptions of advantages received and costs incurred (Zeithaml, 1988). A contrast of technology use between consumer and organisation is such use will direct the buyers to bear the fiscal cost while employees do not. So, consumer would compare the value comprised in adopting new technology with monetary cost that needs to be sacrificed in such adoption (Venkatesh et al., 2012; Alalwan et al., 2017).

A study on predictors of users' intention to adopt health and fitness apps shows a significant and positive relationship between price value and person's intention to continue using a health and fitness app (Yuan, Ma, Kanthawala, & Peng, 2015). Besides, price value shows a positive influence on the intention to adopt mobile banking (Alalwan et al., 2017) and the continuance intention of social network game players (Xu, 2014). Besides, price value has positive association on intention of undergraduate students to accept m-learning (Yang, 2013). Price value also have positive and significant impact on behavioural intention to accept medical laboratory portals (Ravangard, Kazemi, Abbasali, Sharifian, & Monem, 2017).

In this research, when individual perceives the benefit generated from the use of Bitcoin is greater than the financial cost, he or she will have positive price value. Such price value will positively affect the behavioural

intention of consumers to accept Bitcoin. If an individual has positive price value towards usage of Bitcoin, price value would increase the individual's intention to use Bitcoin. Hence, H₆ is formed.

2.2.8 Relationship between Habit and Behavioural Intention

Habit is expected to be shaped by repeated practices. Consequently, it will form a mental bridge between the objectives and the circumstances that trigger one's behavioural reaction (Orbell & Verplanken, 2010). Repeated actions performed are the keys for the development of habit (Ye & Potter, 2011). Accordingly, habit is found to impact the intention to use technology directly and indirectly (Venkatesh et al., 2012).

Habit played a significant and positive role to determine the intention of users in using the internet banking continually in the future (Albugami & Bellaaj, 2014). Habit showed a significant and positive effect on the behavioural intention to use Google Classroom (Jakkaew & Hemrungrrote, 2017). Students who are costumed to technology positively influence the behavioural intention to accept e-learning system (Masa'deh, Tarhini, Mohammed, & Maqableh, 2016). Habit was positively related to the older adults' intention to use ICT (Macedo, 2017). Actual usage of mobile data and services application was positively influenced by habit (Kim, 2012).

In this research, habit refers to continuance usage of Bitcoin by the users in the transactions. When the users purchase and sell using Bitcoin in the transaction repeatedly, a habit is shaped. When habit is formed, users will have more intention to complete the transaction using Bitcoin instead of other currencies. Hence, H₇ is formed.

2.2.9 Relationship between Trust and Behavioural Intention

Trust is defined as one's willingness to obey and believe in other party's action by which they expect the action is beneficial to them (Mayer, Davis, & Schoorman, 1995). Accordingly, trust becomes the reason for users to consider when making decision to use new technology (Gefen et al., 2008). Trust is conceived as the situation by which a person is dependent on another party under risky and uncomfortable situation (Boon & Holmes, 1991).

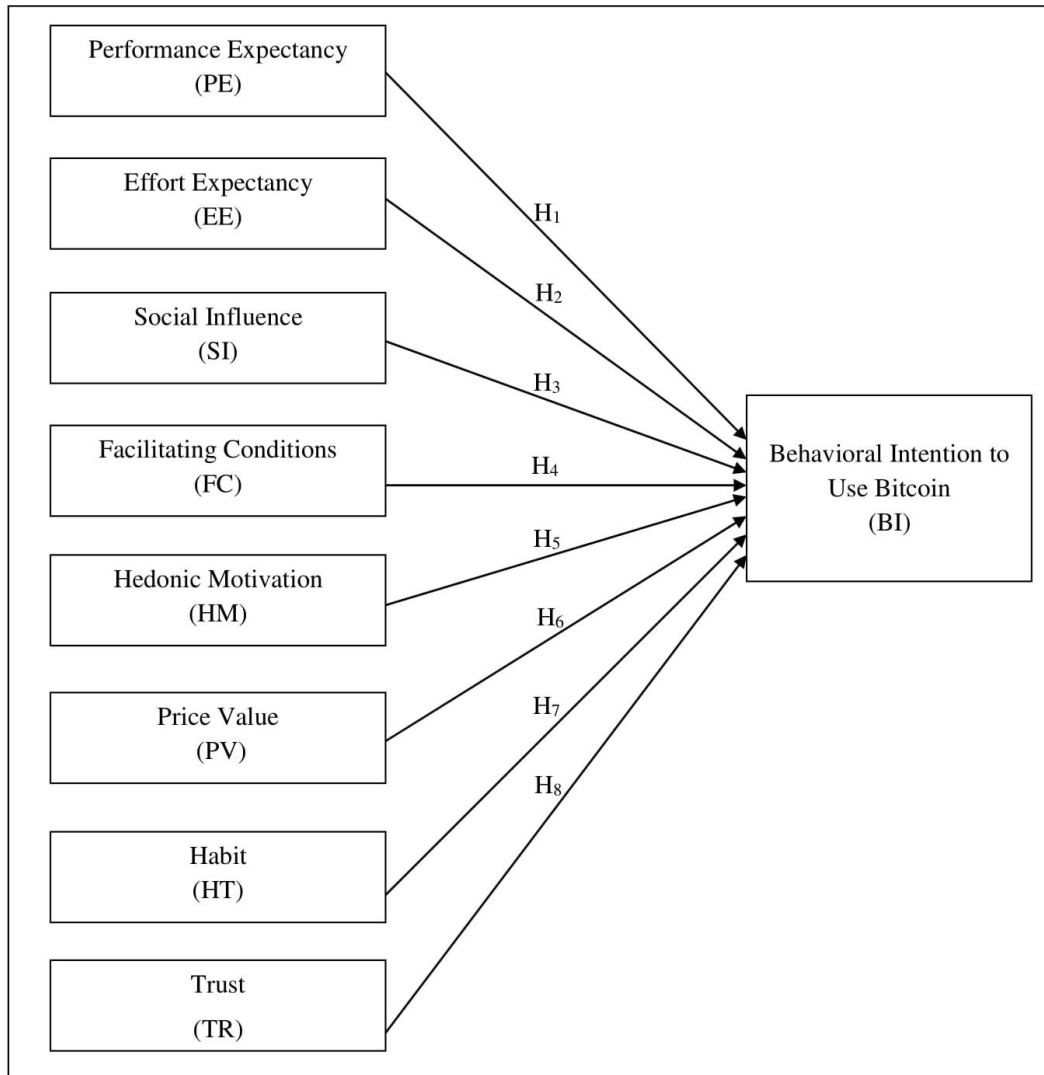
In terms of internet banking usage, consumers' trust to the services has a direct positive relationship towards the intention (Chaouali, Yahia, & Souiden, 2016). Positive relationship exists between trust and the students' behavioural intention to use e-learning system (Masa'deh et al., 2016). The intention to use a flight ticket booking app was significantly and positively affected by the level of trust (Suki & Suki, 2017). Trust was found to influence the intention to use SSHTs positively (Kaushik et al., 2015). Patients' intention to use the telemedicine services was dependent on their trust positively (Velsen, Tabak, & Hermens, 2017).

In this research, trust refers to the extent to which users believe in the capability, benevolence and integrity of Bitcoin when engaging in online transactions. Users may concern on whether their personal details and transactions are secured and be confidential to third party. When users have higher trust level towards Bitcoin, they may have more intention to use it. Hence, H_8 is formulated.

2.3 Proposed Conceptual Framework

Figure 2.1 shows the proposed conceptual framework for the investigation of behavioural intention to use Bitcoin.

Figure 2.1 Proposed Conceptual Framework



Adapted from: Gefen et al. (2003); Venkatesh et al. (2012)

2.4 Hypotheses Development

The hypotheses of this research were developed based on the literature review and shown in Table 2.3:

Table 2.3: Hypotheses of the Study

H ₁	There is a positive relationship between performance expectancy and behavioural intention to use Bitcoin.
H ₂	There is a positive relationship between effort expectancy and behavioural intention to use Bitcoin.
H ₃	There is a positive relationship between social influence and behavioural intention to use Bitcoin.
H ₄	There is a positive relationship between facilitating conditions and behavioural intention to use Bitcoin.
H ₅	There is a positive relationship between hedonic motivation and behavioural intention to use Bitcoin.
H ₆	There is a positive relationship between price value and behavioural intention to use Bitcoin.
H ₇	There is a positive relationship between habit and behavioural intention to use Bitcoin.
H ₈	There is a positive relationship between trust and behavioural intention to use Bitcoin.

Source: Develop for this research

2.5 Conclusion

UTAUT2 framework with the integration of trust element was extensively examined and eight hypotheses were formed to investigate the connection between the eight independent variables and behavioural intention to use Bitcoin. The adopted research methodology will be explored in the next chapter.

CHAPTER 3: METHODOLOGY

3.0 Introduction

In chapter three, the significant discussion includes the adoption of appropriate research procedures and method of data collection. Additionally, the scale of measurement and data analysis techniques will be duly explained.

3.1 Research Design

The purpose of this study is to investigate the behavioural intention to use Bitcoin in Malaysia with the aid of UTAUT2 while incorporating trust as an independent variable. Cross-sectional approach is used in this research as Rindfleisch, Malter, Ganesan, and Moorman (2008) suggested that cross-sectional approach can gather data at a single fixed period in time. It is cheaper, no need of follow up and fewer resources are required to collect and interpret the data (Mann, 2003).

The unit analysis of this study is Malaysian Bitcoin users within the age range of 25 to 44 years old. Moreover, self-administered questionnaire was used to study the behavioural intention to use Bitcoin as a new transaction paradigm in Malaysia. Survey questionnaire is used to collect data as it allows generalisation of the entire population and facilitates qualitative analysis. It is suitable for studies on social attitudes and economic decisions which can be seen from the research purpose (Park, 2006). The survey questionnaire consists of three parts which are Part A (Demographic profile of target respondent), Part B (Items to measure independent variable) and Part C (Items to measure dependent variable).

3.2 Population, Sample and Sampling Procedures

3.2.1 Target Respondents

This research targets on Malaysian Bitcoin users. However, it would be impractical to reach every Bitcoin user in Malaysia. Statista (2017) revealed that 39.40% of Bitcoin users are between 25 to 34 years old, followed by 21.99% of them from 35 to 44 years old. Hence, we seek Malaysian Bitcoin users in the range of 25 to 44 years old as our target respondents to represent the population.

3.2.2 Sample Size

Sampling requires lesser time and cost, and allows a representation of the population without studying the entire population (Cochran, 1953; Davis, Gallardo, & Lachlan, 2013).

Pedhazur (1973) suggested a minimum of 15:1 ratio of respondents to independent variable (IV). In this study, a total of eight independent variables will be tested; hence, at least 120 responses should be collected for a fair representation. Hinkin (1998) recommended a sample size of a ratio 1:4 to 1:10 of items-to-response to be factor analysed. The questionnaire consists of 35 items; collecting 140 to 350 responses would be reasonable.

The sample size of this research is 250 respondents which fulfils both sample size requirements of 120 to 350 respondents.

3.2.3 Sampling Technique

Due to an undefined population, non-probability sampling is taken into consideration. Non-probability sampling requires lesser time and cost to be implemented than probability sampling (Battaglia, 2008). In this study, snowball sampling is used. This technique begins with a small amount of respondents nominating others who are eligible for the study. It is useful to locate members of the hidden population where the total size of the population is unknown. However, it requires respondents to know those who are eligible for the study (Given, 2008). During Bitcoin transactions, no personal information is exchanged (Bryans, 2014). Thus, it would be difficult to identify or locate Malaysian Bitcoin users, so snowball sampling technique suits the study.

3.3 Data Collection Method

3.3.1 Pre-testing

Pre-testing is the administration of data collection instrument to determine the strengths and weaknesses of survey questionnaire concerning question format, wording and order (Collins, 2003). The survey questionnaire will be pre-tested by eight academicians who are experts in the field of information technology and finance.

3.3.2 Pilot Test

According to Dikko (2016), pilot test demonstrated the construct to be both reasonable and dependable while giving the opportunity to embed refinements to the survey questionnaire. Kieser and Wassmer (1996) recommended the ideal sample size for pilot trial was between 20 and 40.

Hence, in this research, 30 sets of survey questionnaires were distributed to Malaysian Bitcoin users through referral. This group of target respondents are chosen as they are the initial few Malaysian Bitcoin users whom we have identified.

3.3.3 Survey Questionnaire

For this research, the data collection was administered by using self-administered survey questionnaire and targeting 250 Malaysian Bitcoin users within age range of 25 to 44 years old. The duration of data collection is four weeks, from 14 January 2018 to 2 February 2018 while the distribution of survey questionnaire is based on self-delivery and self-collection technique. Survey questionnaire is chosen as it is convenient to be administered and relatively cost effective (Mathers, Fox, & Hunn, 2007; Roopa & Rani, 2012).

3.4 Variables and Measurement

Independent variables in this study are made up of performance expectancy, effort expectancy, social influence, facilitating conditions, habit, hedonic motivation, price value, and trust whereas the dependent variable is behavioural intention.

Table 3.1: Definition and Sources for Independent Variables and Dependent

<u>Variable</u>		
Variables	Definition	Sources
Performance Expectancy	The extent to which the consumers will be benefited through the utilisation of technology in performing certain activities.	Venkatesh et al. (2012)
Effort Expectancy	The level in which the consumers feel that it is easy to use a technology	Venkatesh et al. (2012)
Social	The level by which an individual sees the	Venkatesh et al.

Influence	essential of others in believing that he or she should utilise the new framework or system	(2012)
Facilitating Conditions	The availability of resources and support as perceived by the consumers in order to perform the behaviour.	Venkatesh et al. (2012)
Hedonic Motivation	The happiness and joy experienced by the consumers in utilising a technology.	Venkatesh et al. (2012)
Price Value	The consumers' psychological trade-off between the costs to use the technology and the apparent advantages brought to them.	Venkatesh et al. (2012)
Habit	The degree by which some behaviours or actions will be undergone by consumers automatically due to learning.	Limayem et al. (2007)
Trust	The willingness of an individual to rely on in relative to the belief in benevolence, integrity and ability.	Gefen, Karahanna, and Straub (2003)
Behavioural Intention	The result of individual's attitude towards certain subjective norms and behaviour.	Fishbein and Ajzen (1975)

Source: Developed for this research.

There is a total of 35 items for the constructs whereby performance expectancy, effort expectancy, facilitating conditions, habit and behavioural intention contain four items respectively. At the same time, social influence, hedonic motivation and price value contain three items each while the trust contains six items. All items of the independent variables and dependent variable originated from UTAUT2 are taken from Venkatesh et al. (2012) whereas trust is taken from Gefen et al. (2003). The selected items are refined from prior research to establish the validity and reliability of the constructs (Alalwan et al., 2017).

In terms of measurement, interval scale of measurement is employed. Each item is measured using five-point Likert scale whereby 1 equates “strongly disagree” and 5 represents “strongly agree”. In contrast, seven-point Likert scale is not used as it

takes longer time for the respondents to think and choose their best options (Pearse, 2011).

3.5 Data Analysis Technique

3.5.1 Descriptive Analysis

Descriptive analysis is the changes of raw data into useful and understandable information enabling complex information to be communicated effectively (Hair, Money, Page, & Samouel, 2007). Frequency and percentage analysis has been used to analyse demographic profile of target respondents and result is presented in table form (Saunders, Lewis, & Thornhill, 2016). The quantitative data of target respondent will be analysed by calculating mean and standard deviation. Mean is used to measure the central value or average of data whereas standard deviation measures the degree to which the data is dispersed from the mean (Blaikie, 2003).

3.5.2 Scale Measurement

Reliability test is used to measure the consistency of data or measurement (Saunders et al., 2016). The reason to run such test is to ensure the items have a strong relationship and prevent any heterogeneous constructs exists (Tavakol & Dennick, 2011). Cronbach's Alpha is used to determine the degree of consistency and reliability of the data (Yang, Liu, Li, & Yu, 2014). The measure is reliable when Cronbach's Alpha value is 0.65 or higher (Hair, Black, Babin, Anderson, & Tatham, 2006).

Normality test is carried out to examine whether the data collected is normally distributed (Saunders et al., 2016). The purpose to run such test

is to confirm if any sample or cluster of information statistically conforms to a standard normal distribution (Kim, 2013). The positive skewness and kurtosis signifies a positively skewed distribution, and vice versa (Saunders et al., 2016). Kline (2005) suggests the skewness value should range from -3 to +3 while kurtosis value should range from -10 to +10.

3.5.3 Inferential Analysis

Pearson Correlation analysis refers to a measurement of strength between independent variables and dependent variable (Saunders et al., 2016). This test is used to determine connection among eight independent variables and one dependent variable in this research. The correlation coefficient (r) can be measured on a scale with no unit and can take value from -1 to +1 (Saunders et al., 2016). There is a positive correlation if the sign of correlation is positive, and vice versa (Saunders et al., 2016). To run Pearson Correlation analysis, two conditions have to be fulfilled, namely normality and linearity test of the constructs (Hair et al., 2010).

Multiple Linear Regression analysis is performed to determine the relationship between multiple independent variables and dependent variable (Tan & Bogomolova, 2016). There are eight independent variables and one dependent variable in this study. The coefficient of determination, R^2 , is used to measure relationship between independent variables and dependent variable and the value must be between 0 to +1 (Saunders et al., 2016). The higher the R^2 , the higher the percentage of the variation of dependent variable can be explained by independent variables. When p-value is less than 0.05, Multiple Linear Regression is significant (Hair et al., 2010). To run Multiple Linear Regression analysis, there are conditions to be fulfilled, namely normality, linearity and multicollinearity test of the constructs. Correlation coefficient among independent variables should not be more than 0.90 to ensure that no multicollinearity problem

exists in the research (Hair et al., 2010). Table 3.2 below shows the equation of Multiple Linear Regression for this research:

Table 3.2: Equation of Multiple Linear Regression

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \epsilon$	
Y	Behavioural intention to use Bitcoin
α	Intercept
X_1	Performance expectancy
X_2	Effort expectancy
X_3	Social influence
X_4	Facilitating conditions
X_5	Hedonic motivation
X_6	Price value
X_7	Trust
X_8	Habit
β	Slope coefficient
ϵ	Error term

Source: Developed for the research.

3.6 Conclusion

In short, chapter three elaborates the sampling procedures, data collection method, measurement of variable, data processing and data analysis techniques. The results from data analysis will be interpreted in the next chapter.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

In this chapter, pilot test and final survey results were analysed. Besides, the outcomes of the descriptive analysis, scale measurement and inferential analysis for the final survey were demonstrated and justified accordingly.

4.1 Pre-testing and Pilot Test Analysis

Prior to data collection for pilot test, the survey questionnaire was pre-tested by eight academicians who are experts in the field of information technology and finance. Amendments on survey questionnaire have been made according to the academicians' advices and recommendations. The survey questionnaires were distributed to the target respondents through referral for pilot test. According to Kieser et al. (1996), 20 to 40 respondents are the ideal sample size for pilot trial. Hence, total 30 sets of questionnaires were distributed to Bitcoin users. However, only 19 sets of questionnaires were fit for use, while the remaining 11 sets were incomplete.

4.1.1 Reliability Test

Table 4.1 Reliability Test for Pilot Test

Variables	Constructs	Cronbach's Alpha	Number of Items
IV1	PE	0.7745	4
IV2	EE	0.8420	4
IV3	SI	0.7792	3
IV4	FC	0.6604	4
IV5	HM	0.8163	3
IV6	PV	0.6722	3
IV7	HT	0.9152	4
IV8	TR	0.7428	6
DV	BI	0.8408	4

Source: Developed for the research

The results of reliability test are shown in Table 4.1. Cronbach's Alpha is suggested to be at least 0.65 (Hair et al., 2006). All the variables were reliable as their alpha values exceed threshold of 0.65. With this, habit showed the highest value of 0.9152 while facilitating conditions showed the lowest value of 0.6604.

4.2 Descriptive Analysis

The target respondents of this study are Malaysian Bitcoin users in the range of 25 to 44 years old as Statista (2017) revealed that 39.40% of Bitcoin users are between 25 to 34 years old, followed by 21.99% of them from 35 to 44 years old. Distribution of the survey questionnaire was based on self-delivery and self-collection approach. 250 sets of survey questionnaires were distributed from 14 January 2018 to 2 February 2018. During the data collection period, 218 sets of survey questionnaires were collected back from the respondents. However, only 175 sets of survey questionnaires were usable while the other 43 sets were not usable due to their incomplete responses. Hence, they were not included in the

analysis of data. The following section describes the demographic profile of the respondents and pie charts in Appendix D illustrate the results.

4.2.1 Demographic Profile of the Respondents

Table 4.2 Bitcoin Users and Experience with Bitcoin

Are you a Bitcoin user?	Frequency	Percentage (%)
No	0	0
Yes	175	100
Experience with Bitcoin		
0 to <1 year	89	50.86
1 to <2 years	40	22.86
2 to <3 years	26	14.86
Other	20	11.43

Source: Developed for the research

A total of 175 respondents took part in this survey, 100% of them are Bitcoin users. Out of 175 respondents, 50.86% of them has experience with Bitcoin from 0 to less than 1 year, 22.86% has experience with Bitcoin from 1 to less than 2 years, 14.86% has experience with Bitcoin from 2 to less than 3 years and 11.43% has experience with Bitcoin for 3 years or above.

Table 4.3: Gender of Respondents

Gender	Frequency	Percentage (%)
Female	14	8.00
Male	161	92.00

Source: Developed for the research

Table 4.3 showed that 92.00% of male and 8.00% of female respondents took part in completing the survey questionnaire. Male respondents are more than female respondents with a difference of 84.00%.

Table 4.4: Age of Respondents

Age	Frequency	Percentage (%)
25-29 years old	59	33.71
30-34 years old	49	28.00
35-39 years old	41	23.43
40-44 years old	26	14.86

Source: Developed for the research

Table 4.4 showed the age groups of the target respondents. The highest proportion of target respondents is the respondents within 25 to 29 years old which constituted 33.71% whereas the age group of 40 to 44 years old constituted the lowest proportion at 14.86%. Besides, 28.00% of respondents are within 30 to 34 years old and 23.43% of respondents are within 35 to 39 years old.

Table 4.5: Occupation of Respondents

Occupation	Frequency	Percentage (%)
Others	6	3.43
Private sector employee	73	41.71
Public sector employee	22	12.57
Retired	2	1.14
Self-employed	63	36.00
Student	9	5.14

Source: Developed for the research

For occupation, majority of the respondents are private sector employees which constitute 41.71% or self-employed which constitute 36.00%. Moreover, 12.57% of respondents work in public sector. 5.14% of respondents are students, 3.43% of respondents are unemployed or fresh graduate and only 1.14% of them are retired.

Table 4.6: Race of Respondents

Race	Frequency	Percentage (%)
Chinese	78	44.57
Indian	11	6.29
Malay	76	43.43
Others	10	5.71

Source: Developed for the research

Table 4.6 showed the race of the respondents. Majority of the respondents are Chinese and Malay which constitute 44.57% and 43.43% respectively. The remaining of the respondents are Indian and other races such as Iban and Bidayuh which constitute 6.29% and 5.71% respectively.

Table 4.7 Current City of Respondents

Current city	Frequency	Percentage (%)
Central region (Selangor, Kuala Lumpur, Putrajaya)	102	58.29
East coast region (Kelantan, Terengganu, Pahang)	15	8.57
East Malaysia (Sabah, Sarawak, Labuan)	14	8.00
Northern region (Perlis, Kedah, Penang, Perak)	18	10.29
Southern region (Johor, Melaka, Negeri Sembilan)	26	14.86

Source: Developed for the research

Table 4.7 showed that the respondents are mostly residing at the central region which constitutes 58.29%. Furthermore, 14.86% of respondents are residing in southern region, 10.29% of respondents are residing in northern region, 8.57% of respondents are residing in east coast region and 8.00% of respondents are residing in East Malaysia.

Table 4.8: Highest Education Achieved

Highest education achieved	Frequency	Percentage (%)
Degree	88	50.29
Diploma	35	20.00
Master	27	15.43
Others	2	1.14
PhD	2	1.14
SPM	18	10.29
STPM/Pre-U	3	1.71

Source: Developed for the research

The educational level of the respondents was shown in Table 4.8. For the highest education achieved, 50.29% of the respondents possess degree whereas only 1.14% of the respondents possess PhD and 1.14% of the respondents possess other education such as PT3, PMR or professional qualification such as ACCA. The remaining of the respondents who possess Diploma, Master, SPM and STPM/Pre-U were 20.00%, 15.43%, 10.29% and 1.71% respectively.

Table 4.9: Monthly Income Level of Respondents

Monthly income level	Frequency	Percentage (%)
RM 1,000 and below	17	9.71
RM 1,001 to RM 3,000	31	17.71
RM 3,001 to RM 5,000	29	16.57
RM 5,001 to RM 7,000	24	13.71
RM 7,001 to RM 9,000	14	8.00
RM9,001 and above	60	34.29

Source: Developed for the research

Table 4.9 showed the monthly income level of the respondents. Among all the respondents, 34.29% which is the highest percentage of them earns between RM9,001 and above, followed by 17.71% of the respondents earns between RM1,001 to RM3,000, 16.57% earns between RM3,001 to

RM5,000, 13.71% earns between RM5,001 to RM7,000 and 9.71% earns between RM1,000 and below. Furthermore, only 8.00% which is the lowest percentage of respondents earns between RM7,001 to RM9,000.

4.2.2 Central Tendencies Measurement of Constructs

Table 4.10: Mean and Standard Deviation

Variables	Items	Mean	Standard Deviation
Performance Expectancy	PE 1	3.28	1.25
	PE 2	3.42	1.21
	PE 3	3.57	1.25
	PE 4	3.35	1.27
Effort Expectancy	EE 1	3.69	1.12
	EE 2	3.77	1.09
	EE 3	3.94	1.06
	EE 4	3.86	1.23
Social Influence	SI 1	2.95	1.20
	SI 2	3.04	1.18
	SI 3	3.17	1.09
Facilitating Conditions	FC 1	3.74	1.17
	FC 2	3.97	1.03
	FC 3	3.77	1.10
	FC 4	3.79	1.15
Hedonic Motivation	HM 1	3.78	1.16
	HM 2	3.81	1.15
	HM 3	3.69	1.16
Price Value	PV 1	2.98	1.39
	PV 2	3.74	1.23
	PV 3	3.71	1.27
Habit	HT 1	3.22	1.33

	HT 2	3.00	1.36
	HT 3	2.98	1.32
	HT 4	3.27	1.33
Trust	TR 1	4.07	1.03
	TR 2	4.07	1.02
	TR 3	4.08	1.05
	TR 4	4.09	1.00
	TR 5	3.99	1.03
	TR 6	4.07	1.00
Behavioural Intention	BI 1	4.38	0.84
	BI 2	3.84	1.08
	BI 3	4.28	0.93
	BI 4	4.29	0.94

Source: Develop for the research

Table 4.10 represents the overall mean and standard deviation of all 35 items derived from eight independent variables and a dependent variable. Majority of the items have a mean higher than 3. The highest and the lowest mean were recorded by BI 1 and SI 1 at 4.38 and 2.95 respectively. In our study, the choice of answer in the survey questionnaire ranges from “1” (Strongly Disagree) to “5” (Strongly Agree). The data collected are mostly ranged between “3” (Neutral) and “4” (Agree). This shows that most of our respondents agreed to our survey questions.

Besides, 32 out of 35 items have a standard deviation more than 1. Only 3 items have a standard deviation ranging between 0.8 and 1. The highest and lowest standard deviation was PV 1 and BI 1 which are 1.39 and 0.84. The figures depicts that most of the data in our study are more spread out.

4.3 Scale Measurement

4.3.1 Reliability Test

Table 4.11: Reliability Test

Variables	Construct	Cronbach's Alpha	Number of items
IV 1	PE	0.9217	4
IV 2	EE	0.8861	4
IV 3	SI	0.9424	3
IV 4	FC	0.8580	4
IV 5	HM	0.9656	3
IV 6	PV	0.7961	3
IV 7	HT	0.9378	4
IV 8	TR	0.9331	6
DV	BI	0.8824	4

Source: Develop for the research

Table 4.11 shows the outcome of reliability test among eight independent variables and a dependent variable. Price value reports the lowest Cronbach's Alpha value which is 0.7961 and the highest Cronbach's Alpha value which is 0.9656 is from hedonic motivation. Hair et al. (2006) said that the acceptable threshold for the value of Cronbach's Alpha should be at least 0.65. Kline (2005) suggested that high value of Cronbach's Alpha which 0.90 is considered excellent, 0.8 is very good and 0.7 is acceptable. This analysis result indicates that all variables fulfil and satisfy the acceptable threshold, thus the scale is reliable and valid.

4.3.2 Normality Test

Table 4.12: Normality Test

Variables	Items	Skewness	Kurtosis
Performance Expectancy	PE 1	-0.4225	-0.8321
	PE 2	-0.5579	-0.4828
	PE 3	-0.6764	-0.5447
	PE 4	-0.4100	-0.7937
Effort Expectancy	EE 1	-0.8889	0.0276
	EE 2	-1.0320	0.7113
	EE 3	-1.1130	0.8159
	EE 4	-1.2390	1.1780
Social Influence	SI 1	-0.1078	-0.8742
	SI 2	-0.2484	-0.8492
	SI 3	-0.3141	-0.5588
Facilitating Conditions	FC 1	-1.0610	0.6514
	FC 2	-1.3060	1.8400
	FC 3	-0.8375	0.0450
	FC 4	-1.0710	0.5040
Hedonic Motivation	HM 1	-1.2630	1.0710
	HM 2	-1.2310	1.0130
	HM 3	-1.0650	0.5733
Price Value	PV 1	-0.1692	-1.1480
	PV 2	-1.3060	1.3650
	PV 3	-1.1980	0.8059
Habit	HT 1	-0.3285	-1.0410
	HT 2	-0.1585	-1.2020
	HT 3	-0.0573	-1.1860
	HT 4	-0.5105	-0.7771
Trust	TR 1	-1.3530	1.4450
	TR 2	-1.2480	1.0170
	TR 3	-1.1250	0.4477

	TR 4	-1.0620	0.5088
	TR 5	-1.1710	0.7959
	TR 6	-1.2410	1.4880
Behavioural Intention	BI 1	-2.7550	9.8300
	BI 2	-1.0040	0.4112
	BI 3	-2.5070	7.7970
	BI 4	-2.4970	7.1090

Source: Develop for the research

Table 4.12 depicts the result of normality test of all 35 items derived from eight independent variables and a dependent variable. The skewness values of all items in the survey questionnaire range from -2.755 to -0.0573 whereas the kurtosis values range from -1.202 to 9.830. According to Kline (2005), the data are normally distributed as the skewness values are within ± 3 and the kurtosis values are within ± 10 . Thus, the data is normally distributed because the test of normality is met.

4.4 Inferential Analysis

4.4.1 Pearson Correlation Analysis

Table 4.13 Pearson Correlation Test

Variables	BI
PE	$r = 0.6140$
	$p\text{-value} = < .0001$
EE	$r = 0.5949$
	$p\text{-value} = < .0001$
SI	$r = 0.4644$
	$p\text{-value} = < .0001$
FC	$r = 0.5662$
	$p\text{-value} = < .0001$
HM	$r = 0.5990$
	$p\text{-value} = < .0001$
PV	$r = 0.5358$
	$p\text{-value} = < .0001$
HT	$r = 0.5419$
	$p\text{-value} = < .0001$
TR	$r = 0.7031$
	$p\text{-value} = < .0001$

Source: Developed for the research

Pearson Correlation analysis shows the correlation between the eight independent variables and dependent variable. There are positive correlations between all the eight independent variables and one dependent variable with correlation values ranging from 0.4644 to 0.7031. Besides, the results show the independent variables are significantly correlated with behavioural intention to use Bitcoin as the p-values are less than 0.0001.

Table 4.14 Multicollinearity Test

Variables	PE	EE	SI	FC	HM	PV	HT	TR
PE	1.0000							
EE	0.6625	1.0000						
	<.0001							
SI	0.6281	0.4506	1.0000					
	<.0001	<.0001						
FC	0.6703	0.7772	0.5095	1.0000				
	<.0001	<.0001	<.0001					
HM	0.5597	0.6820	0.5144	0.6325	1.0000			
	<.0001	<.0001	<.0001	<.0001				
PV	0.5040	0.5806	0.3903	0.5815	0.5288	1.0000		
	<.0001	<.0001	<.0001	<.0001	<.0001			
HT	0.7741	0.6304	0.5242	0.6039	0.5908	0.5846	1.0000	
	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001		
TR	0.4962	0.7016	0.3935	0.7073	0.5810	0.5421	0.5086	1.0000
	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	

Source: Developed for the research

Multicollinearity test detects whether there is a high degree of correlation among several independent variables. Correlation values above 0.9 indicate the presence of multicollinearity issue (Hair, Black, & Babin, 2010). Consequently, there is no multicollinearity issue as none of the correlation values are above 0.9.

4.4.2 Multiple Linear Regression Analysis

Table 4.15: Model Summary of Multiple Linear Regression Analysis

Root MSE	Dependent Mean	Coefficient Variance	R-square	Adjusted R-square
0.5224	4.3829	11.9186	0.6256	0.6075

Source: Developed for the research

In the Multiple Linear Regression model summary, the R-square value is 0.6256 indicating that the eight independent variables in this research explained 62.56% of the variances in dependent variable. In contrast, the remaining 37.44% of the variance will be explained by other variables not included in this research.

Table 4.16: ANOVA

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F value	Pr > F
Model	8	75.6760	9.4595	34.67	<.0001
Error	166	45.2976	0.2729		
Corrected Total	174	120.9736			

Source: Developed for the research

From Table 4.16, F value is 34.67 and p-value is less than 0.0001. This proves that at least one out of the total eight independent variables can be used in modelling the dependent variable which is behavioural intention to use Bitcoin.

Table 4.17: Multiple Regression Analysis

Variables	Parameter Estimate	Pr > t	Standardised Estimate	Tolerance	Variance Inflation	Hypothesis Testing
Intercept	1.3876	<.0001	0	.	0	
PE	0.2702	<.0001	0.3883	0.2836	3.5267	Supported
EE	-0.0498	0.5134	-0.0585	0.2825	3.5404	Not supported
SI	0.0179	0.7025	0.0244	0.5558	1.7991	Not supported
FC	-0.1694	0.0338	-0.1872	0.2951	3.3889	Not supported
HM	0.1527	0.0053	0.2016	0.4432	2.2565	Supported
PV	0.1003	0.0462	0.1295	0.5428	1.8422	Supported
HT	-0.0552	0.2950	-0.0864	0.3339	2.9948	Not Supported
TR	0.4990	<.0001	0.5310	0.4211	2.3749	Supported

Source: Developed for the research

The multiple regression analysis result on the relationship among the eight independent variables and dependent variable are depicted in Table 4.17. According to Chatfield and Collins (2013), when the tolerance value of all independent variables is more than 0.10 and variance inflation is lower than 10, there is no multicollinearity problem among variables. As our data analysis result satisfied both conditions, we can conclude that no multicollinearity problem exists.

For the hypothesis testing, H_0 is rejected if p-value is less than 0.05 (Hair et al., 2010). The p-value for the relationship between four independent variables including performance expectancy (<.0001), hedonic motivation (0.0053), price value (0.0462) and trust (<.0001) with behavioural intention is less than 0.05. Thus, H_0 (There is no positive relationship between independent variables such as performance expectancy, hedonic motivation, price value and trust with behavioural intention) is rejected and H_1 is supported. In sum, performance expectancy, hedonic motivation,

price value and trust have a significant and positive correlation with behavioural intention based on the findings.

In contrast, the p-value for the relationship between effort expectancy (0.5134), social influence (0.7025), facilitating conditions (0.0338) and habit (0.2950) with behavioural intention is more than 0.05. Thus, H_0 (There is no positive relationship between independent variables such as effort expectancy, social influence, facilitating conditions and habit and dependent variable which is behavioural intention) is supported and H_1 is rejected. In sum, effort expectancy, social influence, facilitating conditions and trust have no significant and positive relationship with behavioural intention based on the findings.

The multiple regression equation is formed as:

$$BI = 1.3876 + 0.2702PE - 0.0498EE + 0.0179SI - 0.1694FC + 0.1527HM + 0.1003PV - 0.0552HT + 0.4990TR$$

Where BI = Behavioural intention to use Bitcoin

PE = Performance expectancy

EE = Effort expectancy

SI = Social influence

FC = Facilitating conditions

HM = Hedonic motivation

PV = Price value

HT = Habit

TR = Trust

From the equation, we can conclude that performance expectancy, social influence, hedonic motivation, price value and trust positively correlate with behavioural intention. Every increase in one unit of trust, performance expectancy, hedonic motivation, price value and social influence is followed by increase in 0.4990, 0.2702, 0.1527, 0.1003 and 0.0179 unit of behavioural intention. By contrast, effort expectancy, facilitating conditions and habit are negatively correlated with behavioural intention. Every increase in one unit of effort expectancy, habit and

facilitating condition is followed by decrease in 0.0498, 0.0552 and 0.1694 unit of behavioural intention.

As a result, performance expectancy, hedonic motivation, price value and trust are significantly and positively associated with behavioural intention while facilitating conditions is significantly and negatively associated with behavioural intention. In contrast, effort expectancy, social influence and habit have no relationship with behavioural intention.

Furthermore, the standardised estimate depicts the impact level of the independent variables on dependent variable in multiple regression analysis. Trust impacted behavioural intention the most as it has the highest standardized estimate among all independent variables standing at 0.5310, followed by performance expectancy (0.3883), hedonic motivation (0.2016), price value (0.1295) and lastly social influence (0.0244).

4.5 Conclusion

This chapter discussed about descriptive analysis, measurement of scale and inferential analysis. The respondents' demographic details and data analysis result have been comprehensively interpreted.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

In this last chapter, we first encapsulate the statistical analysis. Furthermore, the outcomes of study and prior studies are integrated with appropriate rationalisations. Followed by, illustrating the research's implications on a practical and theoretical basis; without omitting, limitations along with recommendations.

5.1 Summary of Statistical Analysis

5.1.1 Summary of Descriptive Analysis

All 175 respondents of this research are Bitcoin users and more than half of them (50.86%) have less than a year's experience of using Bitcoin. Among these 175 respondents, a small portion of them (8%) are females while the remaining (92%) of them are males. They are within the age range of 25 to 44 years old with most of them in between 25 to 29 years old (33.71%) followed by those who are in between 30 to 34 years old (28%). A vast amount of them appears to be private sector employees (41.71%) and self-employed (36%). Race classification reveals most of the respondents were Chinese (44.57%) and Malay (43.43%). Moreover, majority of them reside in the central region (58.29%) and obtain a degree (50.29%). In comparison of the respondents' monthly income level, the data presents most of their income are more than RM9,001 (34.29%) and a portion of them in between RM1,001 to RM3,000 (17.71%).

5.1.2 Summary of Scale of Measurement

The data collected is valid and reliable since it passed both normality and reliability test. The result indicates all variables fulfill the acceptable threshold for Cronbach's Alpha which should be at least 0.65 as mentioned by Hair et al. (2006). The data are normally distributed since the skewness values are within ± 3 and the kurtosis values are within ± 10 (Kline, 2005). Furthermore, there is no multicollinearity issue as none of the correlation values are above 0.9 (Hair et al., 2010).

5.1.3 Summary of Inferential Analysis

5.1.3.1 Pearson's Correlation Analysis

All the eight independent variables are positively and significantly correlated with the dependent variable.

5.1.3.2 Multiple Linear Regression Analysis

The R-square is 0.6256 indicating all eight independent variables explain 62.56% of the variation in dependent variable. In short, four independent variables (performance expectancy, hedonic motivation, price value and trust) have a positive and significant relationship with the dependent variable. Another three independent variables (effort expectancy, social influence and habit) do not have any relationship with dependent variable while facilitating conditions negatively and significantly affects the dependent variable.

5.2 Discussion of Major Findings

5.2.1 Performance Expectancy

The finding indicates that performance expectancy has a positive and significant association with behavioural intention to use Bitcoin. This indicates that users trust that their performance will improve when using Bitcoin, thus this enhances their intention to use Bitcoin.

This result supports the findings of Raman and Don (2013), Yang (2013), Chauhan and Jaiswal (2016), Moghavvemi and Salleh (2014), and Hsiao and Tang (2014) in which they recognised the significance of performance expectancy.

Alalwan et al. (2017) emphasises that as the usefulness of Bitcoin acting as alternative payment method increases, the users' intention to use Bitcoin in conducting transaction also improves. This might be due to individual's belief of using Bitcoin are more advantageous and useful in their life as Bitcoin can be used for transaction conveniently in any places equipped with Internet access through mobile device (Hendrickson & Hogan, 2016). Besides, the short transaction processing time is another significant feature of Bitcoin transfer compared to conventional payment methods such as cash payment and credit card payment.

5.2.2 Effort Expectancy

The finding shows that there is no relationship between effort expectancy and behavioural intention to use Bitcoin. This highlights that the degree of ease on using Bitcoin would not affect individual's behaviour intention to use Bitcoin.

This outcome is inconsistent with the past studies of Gao et al. (2015), Moghavvemi and Salleh (2014), Hew et al. (2015), Alalwan et al. (2017) and Chauhan and Jaiswal (2016) whereby they emphasis on the importance of effort expectancy.

Al-Gahtani, Hubona, and Wang (2007) argued that ease of use becomes less significant in predicting user's intention to use Bitcoin as majority of the users have several years of experience with advance technology and such experience can become their foundation to accept new technology. Individuals highlighted that they are adequately confident in their Internet abilities which would enable them to use Bitcoin for purchasing and sales dealings. Effort expectancy is not the individual's primary concern to use Bitcoin for transaction as other utility factor such as performance expectancy takes precedence on the emergence of the intention to use Bitcoin in online transaction (Martin & Herrero, 2012).

5.2.3 Social Influence

The finding highlights that no relationship is found between social influence and behavioural intention to use Bitcoin. This indicates that surrounding people have no impact on individual's behaviour intention to use Bitcoin.

This result contradicts with the past studies of Jakkaew and Hemrungrote (2017), AbuShanab et al. (2010), Viswanathan et al. (2017), Macedo (2017) and Kaushik et al. (2015).

The impact of social influence on behavioural intention to use Bitcoin is lower than initial expectation. This might be due to the generalisation of Internet usage as a source of information about Bitcoin which indirectly lessen the normative pressure of the social environment (Martin & Herrero, 2012). Hence, they will have less reliance on peers or social influence to

use Bitcoin. Moreover, consistent with the Innovation Diffusion Theory (Rogers, 1995), the tendency of users to innovate directs the sources of information for a decision to accept a new technology. Particularly, the more innovative the individuals are, the less affected they are by the perspective and opinions of others.

5.2.4 Facilitating Conditions

The finding shows that facilitating conditions has negative and significant association with behavioural intention to use Bitcoin. This reflects that current technology, resources and facilities restrict user's intention to use Bitcoin.

This result is inconsistent with the past studies done by Francisco (2018), Micheni et al. (2013), Manaf and Ariyanti (2017), Muhayiddin et al., (2017) and Novendra and Gunawan (2017) who recognised the significance of facilitating conditions.

The absence of effect of facilitating conditions on the intention to use Bitcoin may be because this variable takes the role as a limiting factor. Individual feels that the needed facilitating conditions such as required resources and adequate facilities are not perceived. Technical infrastructure and environment such as availability of Bitcoin Automated Teller Machine (ATM) and merchant acceptability of Bitcoin is less supportive in Malaysia (Zulhuda & Sayuti, 2017). Therefore, it is difficult for less-experienced users to use Bitcoin for transaction while experienced users tend to be more able to independently acquire resources or supports (Chen, 2011).

5.2.5 Hedonic Motivation

The finding highlights that hedonic motivation is positively and significantly correlated with behavioural intention to use Bitcoin. This signifies that users believe that using Bitcoin will entertain them; hence, this stimulates their intention to use Bitcoin.

This result aligns with prior studies of Nair et al. (2015), Nguyen et al. (2014), Nikolopoulos and Likothanassis (2017), Herrero et al. (2017) and Deghani et al. (2018) in which they recognised the significance of hedonic motivation.

The users perceive that using Bitcoin will be entertaining, satisfying and enjoyable throughout the transaction process. This may be due to favourable user experience resulted from using a new technology as an alternative transaction medium. Existing users are driven by technological curiosity to use Bitcoin and admiration towards the sophisticated blockchain technology used in backing Bitcoin. The hedonic experience is typically characterised by the presence of positive effect and absence of negative effect (Biswas-Diener, Kashdan, & King, 2009). As using Bitcoin brings enjoyment and happiness to the users; therefore, they will be entertained and intend to use it.

5.2.6 Price Value

The finding indicates that there is a significant and positive relationship between price value and behavioural intention to use Bitcoin. This reveals that users believe that using Bitcoin will give them more benefits as compared to the financial costs in acquiring Bitcoin.

This result conformed to past studies of Yuan et al. (2015), Alalwan et al. (2017), Xu (2014), Yang (2013) and Ravangard et al. (2017) who recognised the importance of price value.

Ali, Barrdear, Clews, and Southgate (2014) highlighted that the promise of lower transaction fees has become a significant characteristics of virtual currencies. Dwyer (2015) claimed that low transaction fee stimulates the people to use digital currency. Not only that, as third parties unable to trace the transactions denominated in Bitcoin, the users will not be taxed on any purchases using Bitcoin. As the users value more on the perceived advantages they may receive in comparison to financial costs; therefore, they will have the intention to use Bitcoin as a new transaction medium.

5.2.7 Habit

The finding shows that the relationship between habit and behavioural intention to use Bitcoin is of no significance. This signifies that the intention to use Bitcoin is not significantly influenced by Bitcoin users' habits to transact with Bitcoin continually.

This finding contradicts with previous studies of Albugami and Bellaaj (2014), Jakkaew and Hemrungrrote (2017), Masa'deh et al. (2016), Macedo (2017) and Kim (2012) who highlighted the significance of habit.

Performance of habit does not require conscious intention. The habit of using Bitcoin might be repeated because of the speed and ease the response can be performed. Habitual behaviours unfold in response to environmental events, oftentimes without the formulation of conscious intent engage in a precise sequence of action. Moreover, some conditions such as the availability of the merchants that accept Bitcoin may affect one's intention to use Bitcoin. Even though some users may have the habit to use Bitcoin, but if the merchants not accepting it as a transaction

medium, those users may not have the intention to use Bitcoin at the end. Hence, habit does not positively affect the intention to use Bitcoin.

5.2.8 Trust

The finding highlights that trust is positively and significantly related to behavioural intention to use Bitcoin. This indicates that users who believe in the benevolence and integrity of Bitcoin in securing their personal information will intent to use Bitcoin.

This result is corresponding with previous studies of Chaouali et al. (2016), Masa'deh et al. (2016), Suki and Suki (2017), Kaushik et al. (2015) and Velsen et al. (2017) who recognised the significance of trust.

When users pay with Bitcoin, their personal information will not be tied with the transactions. In other words, their personal details are shielded from the prying eyes and hence prevent identity theft or fraud (DeVries, 2016). Not only that, users felt secured in using Bitcoin as it can be backed up and encrypted (Conti, Kumar, Lal, & Ruj, 2017). Even if users' computers or smartphones get stolen, they can still recover their wallets if the wallets are encrypted. With this, security aspect becomes the main concern of the users as any security vulnerability may lead to financial loss. Hence, users who trust Bitcoin because of the security issue will positively influence their intention to use Bitcoin.

5.3 Implications of the Study

5.3.1 Practical Implication

This research studied the variables which influence behavioural intention to use Bitcoin in Malaysia using an adapted version of UTAUT2 model incorporating trust construct. The results of the study depict that performance expectancy, hedonic motivation, price value and trust are significantly and positively associated with behavioural intention to use Bitcoin. Therefore, the findings have several implications that can act as a reference point for practitioners such as Bitcoin companies, merchants who have accepted or yet to accept Bitcoin. The key determinants of behavioural intention to use Bitcoin identified in this study may also be applicable on the usage of other cryptocurrencies such as Litecoin, Ethereum and etc.

For performance expectancy, from a practical perspective, the practitioners should emphasise on technical matters such as simplified and seamless transaction procedure to encourage Bitcoin usage by potential Bitcoin users. The practitioners may consider providing real time technical analysis and informational news on Bitcoin via mobile applications and online portal to keep track Bitcoin price movement. Bitcoin companies who engage their business as a trading center for Bitcoin could also enhance their security system in the transaction process. These consistent efforts will eventually lead to increase in Bitcoin user's performance, thus their behavioural intention is strengthened.

For hedonic motivation, the practitioners should not only emphasize the utilitarian feature of Bitcoin, but also give preference to the intrinsic motivation of the platform. The practitioners should incorporate those attributes that would make users enjoy high quality of interactions as this would assist them to enjoy the full benefit of usage. This includes the

adoption of customer services live chat, social platform interaction and virtual assistants. Bitcoin companies could integrate fun-factors such as animation, video and music in the mobile applications and online portal to enhance Bitcoin trading experience.

For price value, the promise of lower transaction charges offered by Bitcoin companies has been an alluring incentive for merchants in accepting them as a form of payment (Ali et al., 2014). Therefore, Bitcoin companies should consider maintaining this attractive value proposition as it allows retailers and customers to transact using an affordable mean. As for merchants who consider offering a new transaction medium for their customers, they may consider selecting a satisfactory payment service provider by comparing the basic fees for exchange operations offered by distinct Bitcoin companies or platform.

For trust, in an online marketplace, consumer's behavioural intention to use Bitcoin is substantially determined by their trust in secure and trustworthy payment service providers such as Bitcoin companies compared to the merchants who accept Bitcoin (Hawlitschek, Teubner, & Weinhardt, 2016). Consumer's trust in Bitcoin companies can be enhanced through structural assurances such as escrow service and etc. These assurances act as guarantees or safety nets to protect the consumers and merchants' interest. Besides, Bitcoin users should review the reliability and dependability of payment service providers before making any payments to receiving party.

5.3.2 Theoretical Implication

Theoretically, this study comprises an in-depth research of the behavioural intention to use Bitcoin in Malaysia context based on the seven dimension of UTAUT2 model and trust construct. According to Jarvenpaa and Teigland (2017), trust is a pervasive concern in the study of

cryptocurrency. However, prior literature considers less of this factor in the study of Bitcoin. In past studies, limited researches have explored Bitcoin in Malaysia context (Kumpajaya & Dhewanto, 2015). Therefore, this study fills the gap by developing conceptual framework in light of UTAUT2 and trust element. The key determinants of behavioural intention to use Bitcoin have been identified in this study.

Moreover, this study has made an important theoretical contribution by validating the improved conceptual framework in the research of behavioural intention to use Bitcoin. Results have shown that R-square value is 0.6256, indicating that 62.56% of the variation in behavioural intention to use Bitcoin can be explained by all eight independent variables. Next, four out of total eight independent variables are justified to be positively significant to dependent variable. This includes performance expectancy, hedonic motivation, price value and trust based on findings. On the other hand, effort expectancy, social influence and habit have no relationship with dependent variable while facilitating conditions have significant and negative relationship with dependent variable. This result makes further contribution to future researcher in theoretical understanding of behavioural intention to use Bitcoin.

5.4 Limitations of the study

This study had encountered some limitations which need to be taken into account. Firstly, our research is classified as cross-sectional study. Data was gathered at a single fixed period of time to study the relationship between independent variables and dependent variable. However, the independent variables that influence behavioural intention to use Bitcoin may change over time and same goes to the behavioural intention to use Bitcoin. Therefore, the result only can indicate current situation and may not be representative in the future.

Besides, the data collection method used in our research is survey questionnaire. Closed questions are mainly used in this structured questionnaire which produces data that can be examined quantitatively for trends and patterns. The evaluator wholly predetermined the agenda and scale of measurement. Furthermore, it provides little flexibility for the target respondents to provide adequate qualification in their response. Hence, this is considered as one of the limitations as solely one research instrument is chosen for our study.

Moreover, our study is merely conducted in different states within Malaysia. This might cause a difference in the result acquired if the same research model was used in other countries with different social behaviours and cultural backgrounds. The consistency of the research result in foreign countries context has to be verified in future studies. Therefore, it will be difficult to apply the result of this study into other society and cultures settings.

5.5 Recommendations for Future Study

Some recommendations are suggested for future research. Firstly, longitudinal approach is suggested to use in future research which investigates a phenomenon at a different point of time. Longitudinal approach is more appropriate as the data collection period is longer which are better in studying the sequence of variables occasionally (Abbad & Carlotto, 2016). Thus, longitudinal approach is stronger and more effective compared to cross-sectional approach as researchers can observe the changes in long run and determine the pattern of variables to have a more reliable and accurate results.

Besides, researchers can consider incorporating survey questionnaire with direct communication such as face-to-face contact, interview or site visitation in future research to enhance the data richness. Researchers can have face-to-face communication with respondents in order to have a better understanding and acquire responsive opinions from Bitcoin users. In a personal interview, the

interviewer is provided with the chance to probe and ask follow-up questions as well as seek opinions and impressions from the respondents.

Moreover, studies can be improved if future researchers take into considerations of other societies and cultural backgrounds. Researchers are suggested to carry out the similar researches in different countries as different societies and cultural backgrounds will affect the research result differently. A study conducted by Donet, Pérez-Solà, and Herrera-Joancomartí (2014) reveals that different national cultures would influence demographic characteristics and attitudes towards Bitcoin. Hence, the result will be more reliable and accurate if other societies and cultural backgrounds are taken into consideration.

5.6 Conclusion

In conclusion, this study helps to have an in-depth understanding of the behavioural intention to use Bitcoin in Malaysia. This study had found performance expectancy, hedonic motivation, price value and trust significantly and positively relate to behavioural intention to use Bitcoin whereas facilitating conditions significantly and negatively correlated to behavioural intention to use Bitcoin. Besides, effort expectancy, social influence and habit have no relationship with behavioural intention to use Bitcoin. This study have several implications which are practical for practitioners such as Bitcoin companies and merchants who have accepted or yet to accept Bitcoin. In future, researches should take into consideration of other significant variables such as society and culture differences in further examining the behavioural intention to use Bitcoin.

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Appendix A: Summary of Past Empirical Studies on UTAUT2 Constructs and Trust

Study	Country	Data	Major findings
Relationship between Performance Expectancy and Behavioural Intention			
Raman & Don, 2013	Malaysia	Google online survey questionnaire of 320 undergraduates' students from school of education and modern languages, University Utara Malaysia	There is a positive relationship between performance expectancy and behavioural intention to accept learning management software.
Yang, 2013	China	Web-based survey of 182 undergraduate students of a national university in Eastern China	There is a significant and positive relationship between performance expectancy and behavioural intention of individual to use mobile learning.
Venkatesh, Thong, & Xu, 2012	Hong Kong	Online survey questionnaire of 2,220 Hong Kong citizens	Performance expectancy is a significant factor for employee behavioural intention to use information technology.
Chauhan & Jaiswal, 2016	India	Survey questionnaire of 324 business schools students who have been associated with the SAP UAP for two or more years	There is a positive relationship between performance expectancy and behavioural intention to use Enterprise Resource Planning

			software.
Hsiao & Tang, 2013	Taiwan	Survey questionnaire of 753 business school undergraduate students from a large university with more than 10,000 students	Performance expectancy has positive relationship with individual's behavioural intention to adopt e-textbook.
Relationship between Effort Expectancy and Behavioural Intention			
Hew, Lee, Ooi, & Wei, 2015	Malaysia	Self-administrated survey questionnaire of 288 students in a large private university in Malaysia	There is a significant and positive relationship between effort expectancy and behavioural intention.
Gao, Li, & Luo, 2015	China	Survey questionnaire of 462 respondents from three large social network groups related to healthcare wearable devices	Effort expectancy has significant and positive relationship with behavioural intention of consumer to adopt wearable technology in healthcare.
Moghavvemi, Salleh, & Standing, 2016	Malaysia	Survey questionnaire of 1,200 entrepreneurs who attends different workshops, seminars, and conferences	There is a significant and positive relationship between effort expectancy and entrepreneur's behavioural intention to accept information technology.
Chauhan & Jaiswal, 2015	India	Survey questionnaire of 324 business schools students who have been associated with the SAP	There is a positive impact between effort expectancy and behavioural intention to use

		UAP for two or more years	Enterprise Resource Planning software.
Alalwan, Dwivedi, & Rana, 2017	Jordanian	Questionnaire of 343 Jordanian banking customers	There is a positive relationship between effort expectancy and Jordanian customers' behavioural intention to adopt mobile banking
Relationship between Social Influence and Behavioural Intention			
AbuShanab, Pearson, & Setterstrom, 2010	Jordan	Survey questionnaire of 940 Internet banking customers	Bank customers in Jordan with high social influence had greater intentions to use Internet banking.
Jakkaew & Hemrungle, 2017	Thailand	Online survey of 3,315 students	Social influence is found to give significant positive impact to the intention to use Google Classroom.
Macedo, 2017	Portugal	Survey questionnaire of 278 older adults	Social influence is positively significant to the older adults' intention to use ICT.
Viswanathan, Sese, & Kraft, 2017	Germany	Survey of 5003 farmers from 1378 zip codes who adopted the HLP	Social influence of the elite status members is positively related to the adoption of B2B loyalty program.

Kaushik, Agrawal, & Rahman, 2015	India	Online survey questionnaires and emails of 338 domestic tourists in India	Intention of tourists to use self-service hotel technology (SSHTs) is positively influenced by social influence.
Relationship between Facilitating Conditions and Behavioural Intention			
Micheni, Lule, &, 2013	Kenya	Survey questionnaire of 300 subscribers using mobile money service from the major mobile money service providers companies in Kenya	Facilitating conditions significantly and positively affect the adoption of mobile money providers.
Manaf & Ariyanti, 2017	Indonesia	Survey questionnaire of 895 e-money users	There is a positive and significant relationship between facilitating conditions and behavioural intention to use e-money.
Muhayiddin, Ahmed, Ismail, & Misra, 2014	Malaysia	Survey questionnaire of 1,000 respondents who aware of the importance of gold dinar	Facilitating conditions shows a positive relationship with behavioural intention to use e-dinar in Malaysia.
Novendra & Gunawan, 2017	Indonesia	Survey of 345 Indonesian Bitcoin users	Facilitating conditions is positively influenced by user's intention to use Bitcoin.
Francisco & Swanson,	United States	Survey of 372 respondents who understand the blockchain technology	Facilitating conditions is positively associated with behavioural intention to use blockchain

2018			technology for supply chain traceability.
Relationship between Hedonic Motivation and Behavioural Intention			
Nair, Ali, & Lim, 2015	Malaysia	Survey questionnaire of 416 students of a wide range of academic programmes, including law, business, hospitality and tourism, engineering and architecture, etc.	Student's hedonic motivation influences their intentions to use ReWIND positively and significantly .
Nguyen, Nguyen, Pham, & Misra, 2014	Vietnam	Survey of 320 cloud-based E-learning participants	Hedonic motivation is positively related to intention to use E-learning.
Dehghani, Kim, & Dangelico, 2018	Italy	Paper-based survey of 385 actual smartwatch users from different locations and social media channels	Hedonic motivation is positively correlated with the continuous intention to use smartwatches.
Nikolopoulos & Likothanassis, 2017	Greece	Survey of 132 cloud users, cloud developers, IT professionals, managers and other staff responsible for IT decisions from companies and government organisations worldwide	Hedonic motivation positively and significantly correlates with behavioural intention to use cloud computing.

Herrero & Martin, 2017	Spain	Personal survey of 537 tourists aged above 18 years of age who were visiting a tourist destination in Spain	Hedonic motivation shows a positive influence on behavioural intention to adopt social networks sites (SNS) for sharing user-generated content.
Relationship between Price Value and Behavioural Intention			
Yuan, Ma, Kanthawala, & Peng, 2015	United States	Survey of 317 college-aged smartphone users at a Midwestern university in the United States.	There is a significant and positive relationship between price value and person's intention to continue using a health and fitness app.
Alalwan, Dwivedi, & Rana, 2017	Jordan	Self administered questionnaire of 343 Jordanian banking customers	Price value significantly and positively impacts the intention to use internet banking.
Xu, 2014	China	Self administered questionnaire of 3,919 registered players of SNG	Price value shows a positive relationship with continuance intention of social network game players.
Yang, 2013	China	Survey of 220 undergraduate students of a national university in Eastern China	Price value depicts a positive influence on intention of undergraduate students to accept m-learning.

Ravangard, Kazemi, Abbasali, Sharifian, Monem, 2017	Iran	Survey of 170 patients who at least one time used the electronic lab services in public and private laboratories in Shiraz city in August 2015.	There is a positive and significant correlation between price value and behavioural intention to accept medical laboratory portals.
Relationship between Habit and Behavioural Intention			
Albugami & Bellaaj, 2014	Saudi Arabia	Survey questionnaires of 420 researchers' colleagues, students and university staffs who are current users of Internet banking services	Habit has positive effects on the intention of continued use of Internet banking.
Jakkaew & Hemrungrote, 2017	Thailand	Online survey of 2,789 students	Habit was found to have a significant and positive influence on student's intention to use the Google Classroom.
Masa'deh, Tarhini, Mohammed, & Maqableh, 2016	Lebanon	Personally administrated questionnaire of 500 current e-learning systems users of two universities in Beirut	A direct positive influence on the behavioural intention is shown by the students who are costumed to technology.
Macedo, 2017	Portugal	Survey questionnaire of 278 older adults	Habit is positively related to the older adults' intention to use ICT.

Kim, 2012	South Korea	Survey questionnaire of 317 graduate students	Actual usage of the mobile data and services application was positively influenced by habit.
Relationship between Trust and Behavioural Intention			
Chaouali, Yahia, & Souiden, 2016	Turnisia	Self administered questionnaire of 245 computer users who are aged between 17 and 26	Consumers' trust to the services has direct positive relationship towards the intention to use internet banking.
Masa'deh, Tarhini, Mohammed, & Maqableh, 2016	Lebanon	Personally administered questionnaire of 500 current users of e-learning systems of two universities in Beirut	Positive relationship exists between trust and students' behavioural intention to use e-learning system.
Suki & Suki, 2017	Malaysia	Survey questionnaire of 350 members of the public in the Federal Territory of Labuan, Malaysia	Trust is found to have significant impact towards the intention to use flight ticket booking app.
Kaushik, Agrawal, & Rahman, 2015	India	Online survey questionnaires and emails of 338 domestic tourists in India	Trust was found to have positive influence the intention to use SSHTs.
Velsen, Tabak, &	Netherland	Online survey of 795 patients	Patients' intention to use the telemedicine services was positively dependent on their

Hermens, 2017			trust.
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Appendix B: Variables and Measurement

Variables	No. of items	Description of items	Measurement	Sources
Performance expectancy	4	I find Bitcoin useful in my daily life.	Five-point Likert scale 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree	Venkatesh et al. (2012)
		Using Bitcoin increases my chances of achieving tasks that are important to me.		
		Using Bitcoin helps me accomplish things more quickly in the online transaction.		
		Using Bitcoin increases my productivity.		
Effort expectancy	4	I would find Bitcoin easy to use.	Five-point Likert scale 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree	Venkatesh et al. (2012)
		It is easy for me to become skilful at using Bitcoin.		
		Learning how to use Bitcoin is easy for me.		
		My interaction with Bitcoin is clear and understandable.		
Social influence	3	People who are important to me think that I should use Bitcoin.	Five-point Likert scale	Venkatesh et al. (2012)

		People who influence my behavior think that I should use Bitcoin.	1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree	
		People whose opinions that I value prefer that I use Bitcoin.		
Facilitating conditions	4	I have the resources necessary to use Bitcoin.	Five-point Likert scale 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree	Venkatesh et al. (2012)
		I have the knowledge necessary to use Bitcoin.		
		Bitcoin is compatible to other technologies I use.		
		I can get help from others when I have difficulties using Bitcoin.		
Hedonic motivation	3	Using Bitcoin is fun.	Five-point Likert scale 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree,	Venkatesh et al. (2012)
		Using Bitcoin is enjoyable.		
		Using Bitcoin is entertaining.		

			5 = strongly agree	
Price value	3	Bitcoin is reasonably priced.	Five-point Likert scale 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree	Venkatesh et al. (2012)
		Bitcoin is a good value for the money.		
		At the current price, Bitcoin provides a good value.		
Habit	4	The use of Bitcoin has become a habit for me.	Five-point Likert scale 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree	Venkatesh et al. (2012)
		I am addicted to using Bitcoin.		
		I must use Bitcoin.		
		Using Bitcoin has become natural to me.		
Trust	6	I believe that Bitcoin is trustworthy.	Five-point Likert scale 1 = strongly disagree,	Gefen et al. (2003)
		Bitcoin has integrity.		
		Bitcoin is reliable.		
		I trust in the ability of Bitcoin to protect my		

		privacy and personal information.	2 = disagree,	
		Even if not monitored, I would trust Bitcoin to do the job right.	3 = neutral,	
		Bitcoin has the ability to fulfill its task.	4 = agree,	
			5 = strongly agree	
Behavioural intention	4	I intend to use Bitcoin in the future.	Five-point Likert scale	Venkatesh et al. (2003), Venkatesh et al. (2012)
		I will always try to use Bitcoin in my daily life.		
		I plan to use Bitcoin in future.		
		I predict I would use Bitcoin in the future.		
		I will always try to use Bitcoin in my daily life.		
		I plan to use Bitcoin in future.		
		I predict I would use Bitcoin in the future.		
			1 = strongly disagree,	
			2 = disagree,	
			3 = neutral,	
			4 = agree,	
			5 = strongly agree	

Source: Gefen et al. (2003); Venkatesh et al. (2003); Venkatesh et al. (2012)

Appendix C: Survey Questionnaire



UNIVERSITI TUNKU ABDUL RAHMAN

Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

11th August 2017

To Whom It May Concern,

Dear Sir/Madam,

Permission to Conduct Survey

This is to confirm that the following students are currently pursuing their *Bachelor of Commerce (Hons) Accounting* program at the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR) Perak Campus.

I would be most grateful if you could assist them by allowing them to conduct their research at your institution. All information collected will be kept confidential and used only for academic purposes.

The students are as follows:

<u>Name of Student</u>	<u>Student ID</u>
Lee Yang Sheng	14ABB04314
Cheah Qian Yi	14ABB03165
Liew Chun Hoe	14ABB02991
Loong Xiao Ying	14ABB02289
Then Litt Jing	14ABB03160

If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely,

Ms Theresa Wong Lai Har
Head of Department,
Faculty of Business and Finance
Email: wonglh@utar.edu.my

Dr Lee Voon Hsien
Supervisor,
Faculty of Business and Finance
Email: leevh@utar.edu.my

Address: Jalan Sg. Long, Bandar Sg. Long, Cheras, 43000 Kajang, Selangor D.E. Postal Address: P O Box 11384, 50744 Kuala Lumpur, Malaysia
Tel: (603) 9086 0288 Fax: (603) 9019 8868 Homepage: <http://www.utar.edu.my>



UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE
BACHELOR OF COMMERCE (HONS) ACCOUNTING
FINAL YEAR PROJECT

Bitcoin: Behavioural intention to use the new transaction paradigm in Malaysia

Survey Questionnaire

Dear respondents,

Warmest greeting from Universiti Tunku Abdul Rahman (UTAR)

We are final year undergraduate students of Bachelor of Commerce (Hons) Accounting, from Universiti Tunku Abdul Rahman (UTAR). The purpose of this survey is to examine the behavioural intention to use Bitcoin as a virtual currency in Malaysia.

Please answer all questions to the best of your knowledge. There is no right or wrong response to any of these statements. All responses are collected for academic research purpose only and will be kept strictly confidential.

Thank you for your participation.

Instructions:

1. There are **THREE (3)** sections in this questionnaire. Please answer **ALL** questions in **ALL** sections.
2. Completion of this questionnaire will take you approximately 5 to 10 minutes.
3. The contents of this questionnaire will be kept **strictly confidential**.

Voluntary Nature of the Study

Participation in this research is entirely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. There is no foreseeable risk of harm or discomfort in answering this questionnaire. This is an anonymous questionnaire; as such, it is not able to trace response back to any individual participant. All information collected is treated as strictly confidential and will be used for the academic purpose of this study only.

I have been informed about the purpose of the study and I give my consent to participate in this survey.

Yes () No ()

Note: If yes, you may proceed to next page or if no, you may return the questionnaire to researchers and thanks for your time and cooperation.

Section A: Demographic Profile

In this section, we would like you to fill in some of your personal details. Please tick (✓) your answer and your answers will be kept strictly confidential.

Q1. Are you a Bitcoin user?

- Yes (Please proceed to Q2.)
 No (Thank you for your participation. The questionnaire ends here.)

Q2. Experience with Bitcoin

- 0 to < 1 year
 1 to < 2 years
 2 to < 3 years
 Other (Please specify): _____ years

Q3. Gender:

- Male Female

Q4. Age:

- 24 and below 25-29 30-34
 35-39 40-44 45 and above

Q5. Occupation:

- Self employed Public sector employee
 Student Private sector employee
 Retired
 Other (Please specify): _____

Q6. Race:

- Malay Indian Chinese
 Other (Please specify): _____

Q7. Current city:

- Northern region (Perlis, Kedah, Penang, Perak)
 East coast region (Kelantan, Terengganu, Pahang)
 Central region (Selangor, Kuala Lumpur, Putrajaya)
 Southern region (Johor, Melaka, Negeri Sembilan)
 East Malaysia (Sabah, Sarawak, Labuan)
 Other area (Please specify): _____

Q8. Highest education achieved:

- SPM STPM/Pre-U Diploma
 Degree Master PhD
 Professional qualification
 Other qualification (Please specify): _____

Q9. Monthly income level:

- RM1, 000 and below RM1, 001 to RM 3,000
 RM3, 001 to RM 5,000 RM5, 001 to RM7,000
 RM7, 001 to RM 9,000 RM9, 001 and above
-

Section B: UTAUT2 and Trust

This section is seeking your opinion regarding the factors that influence the behavioural intention to use Bitcoin as virtual currency in Malaysia. Respondents are asked to indicate the extent to which they agreed or disagreed with each statement using 5-point Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree] response framework. Please circle one number per line to indicate the extent to which you agree or disagree with the following statements.

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
PE	Performance expectancy					
PE1	I find Bitcoin useful in my daily life.	1	2	3	4	5
PE2	Using Bitcoin increases my chances of achieving tasks that are important to me.	1	2	3	4	5
PE3	Using Bitcoin helps me accomplish things more quickly in the online transaction.	1	2	3	4	5
PE4	Using Bitcoin increases my productivity.	1	2	3	4	5
EE	Effort expectancy					
EE1	I would find Bitcoin easy to use.	1	2	3	4	5
EE2	It is easy for me to become skilful at using Bitcoin.	1	2	3	4	5
EE3	Learning how to use Bitcoin is easy for me.	1	2	3	4	5
EE4	My interaction with Bitcoin is clear and understandable.	1	2	3	4	5
SI	Social influence					
SI1	People who are important to me think that I should use Bitcoin.	1	2	3	4	5
SI2	People who influence my behaviour think that I should use Bitcoin.	1	2	3	4	5
SI3	People whose opinions that I value prefer that I use Bitcoin.	1	2	3	4	5
FC	Facilitating condition					
FC1	I have the resources necessary to use Bitcoin.	1	2	3	4	5
FC2	I have the knowledge necessary to use Bitcoin.	1	2	3	4	5
FC3	Bitcoin is compatible to other technologies I use.	1	2	3	4	5
FC4	I can get help from others when I have difficulties using Bitcoin.	1	2	3	4	5
HM	Hedonic motivation					
HM1	Using Bitcoin is fun.	1	2	3	4	5
HM2	Using Bitcoin is enjoyable.	1	2	3	4	5
HM3	Using Bitcoin is entertaining.	1	2	3	4	5
PV	Price value					
PV1	Bitcoin is reasonably priced.	1	2	3	4	5
PV2	Bitcoin is a good value for the money.	1	2	3	4	5
PV3	At the current price, Bitcoin provides a good value.	1	2	3	4	5
HT	Habit					
HT1	The use of Bitcoin has become a habit for me.	1	2	3	4	5
HT2	I am addicted to using Bitcoin.	1	2	3	4	5
HT3	I must use Bitcoin.	1	2	3	4	5

HT4	Using Bitcoin has become natural to me.	1	2	3	4	5
TR	Trust					
TR1	I believe that Bitcoin is trustworthy.	1	2	3	4	5
TR2	Bitcoin has integrity.	1	2	3	4	5
TR3	Bitcoin is reliable.	1	2	3	4	5
TR4	I trust in the ability of Bitcoin to protect my privacy and personal information.	1	2	3	4	5
TR5	Even if not monitored, I would trust Bitcoin to do the job right.	1	2	3	4	5
TR6	Bitcoin has the ability to fulfil its task.	1	2	3	4	5

Section C: Behavioural Intention

This section is seeking your opinion regarding the behavioural intention to use Bitcoin as a virtual currency in Malaysia. Respondents are asked to indicate the extent to which they agreed or disagreed with each statement using 5-point Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree] response framework. Please circle one number per line to indicate the extent to which you agree or disagree with the following statements.

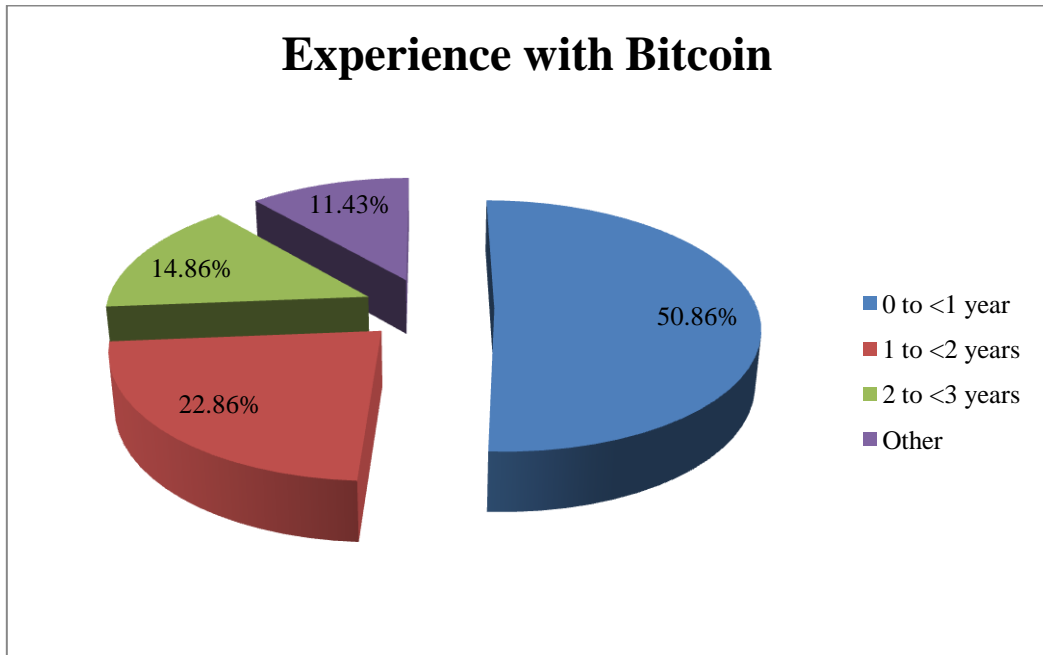
No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
BI	Behavioural intention					
BI1	I intend to use Bitcoin in the future.	1	2	3	4	5
BI2	I will always try to use Bitcoin in my daily life.	1	2	3	4	5
BI3	I plan to use Bitcoin in future.	1	2	3	4	5
BI4	I predict I would use Bitcoin in the future.	1	2	3	4	5

Questionnaire ends.

Thank you for your participation

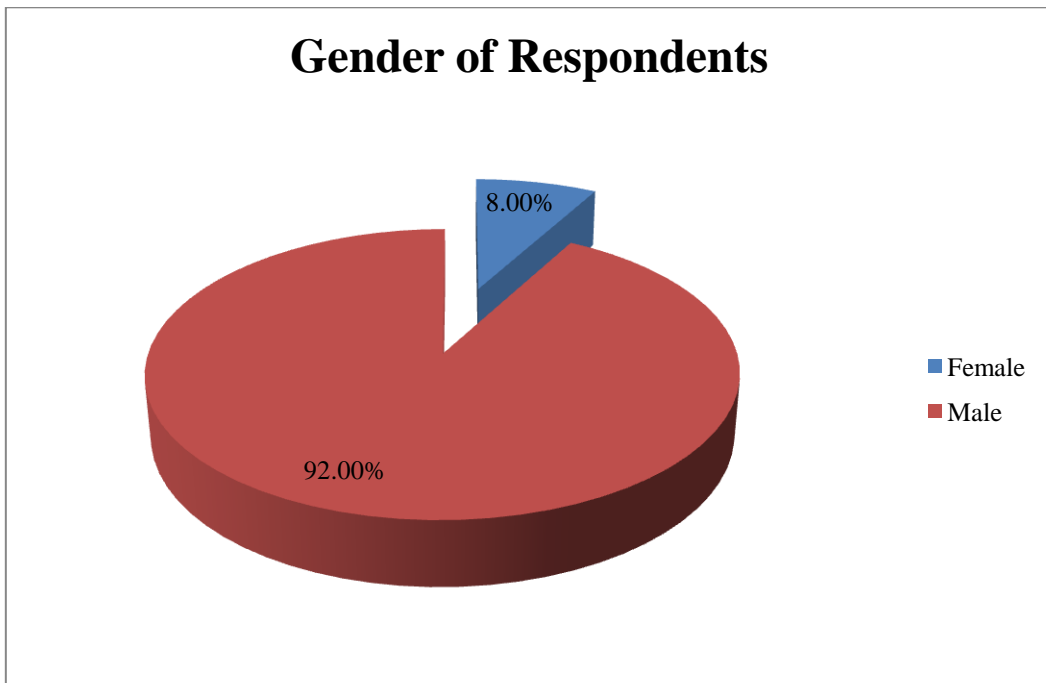
Appendix D: Demographic Profile of the Respondents

Appendix 1.1: Experience with Bitcoin



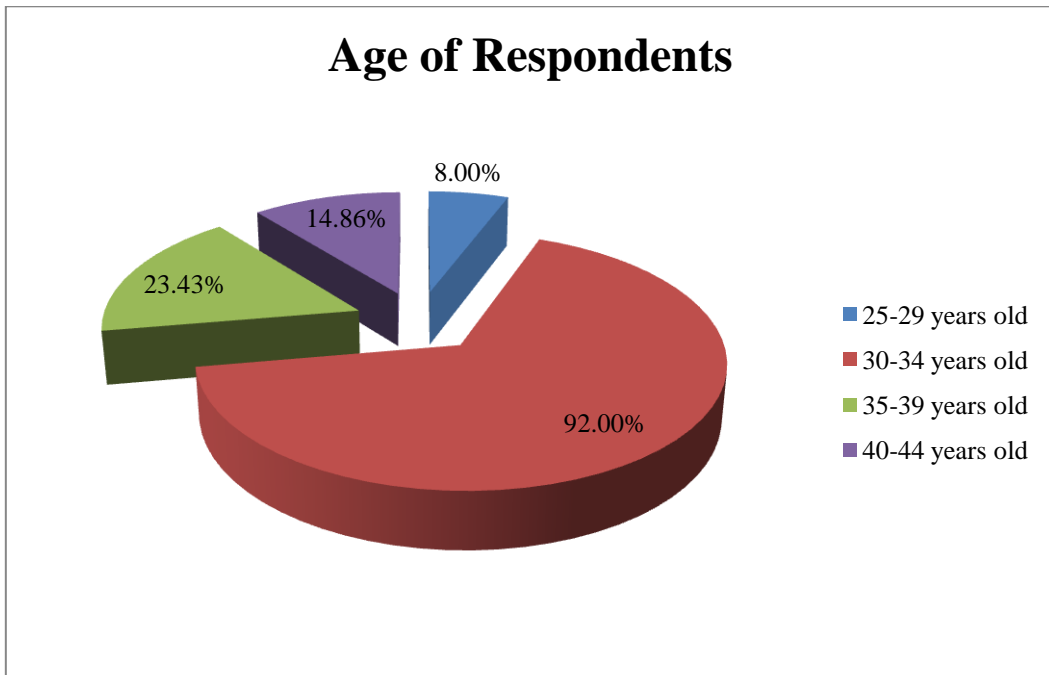
Source: Developed for the research

Appendix 1.2: Gender of Respondents



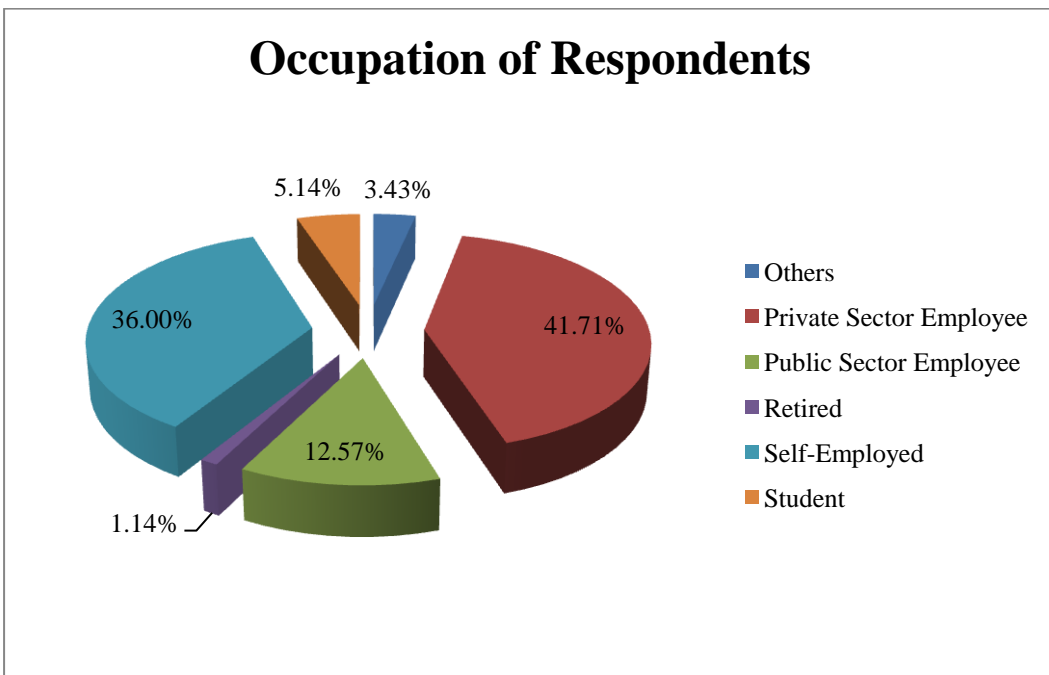
Source: Developed for the research

Appendix 1.3: Age of Respondents



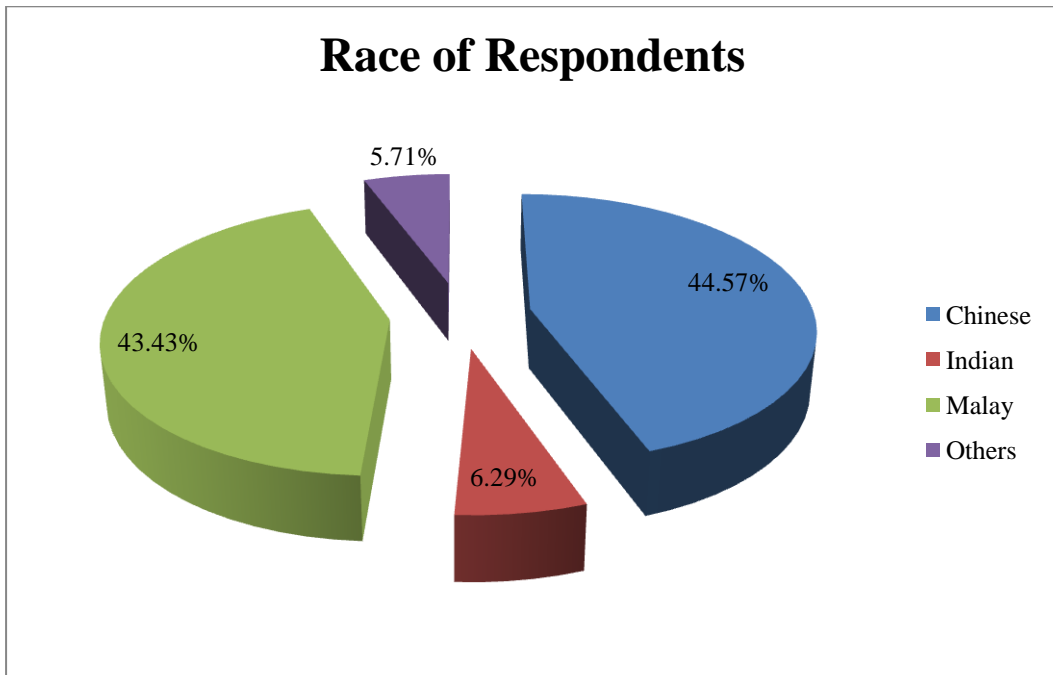
Source: Developed for the research

Appendix 1.4: Occupation of Respondents



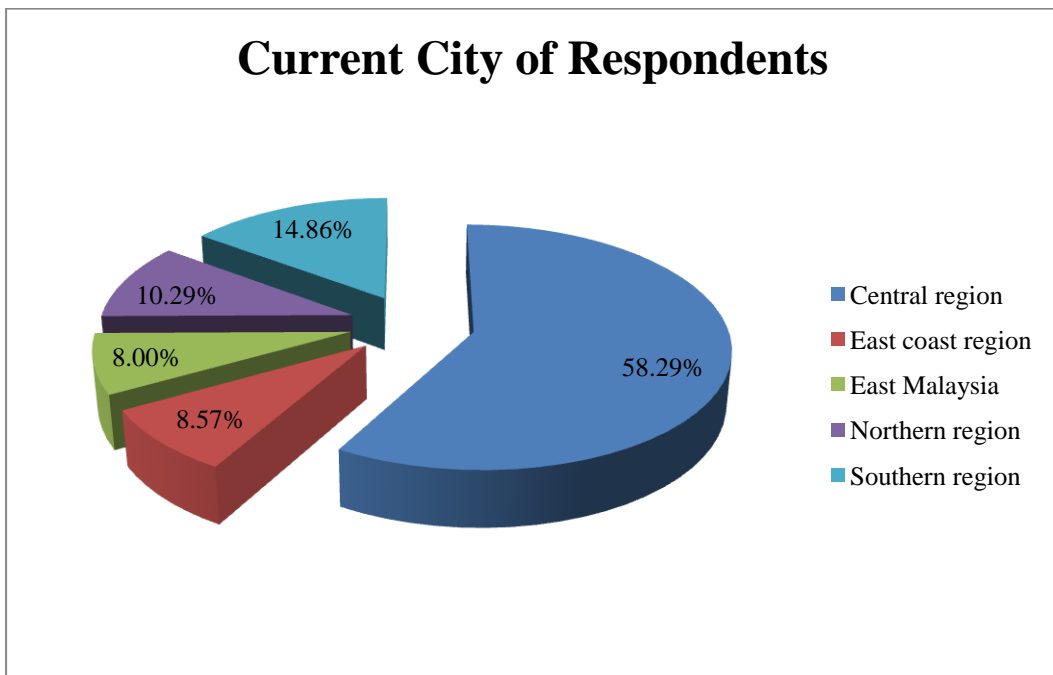
Source: Developed for the research

Appendix 1.5: Race of Respondents



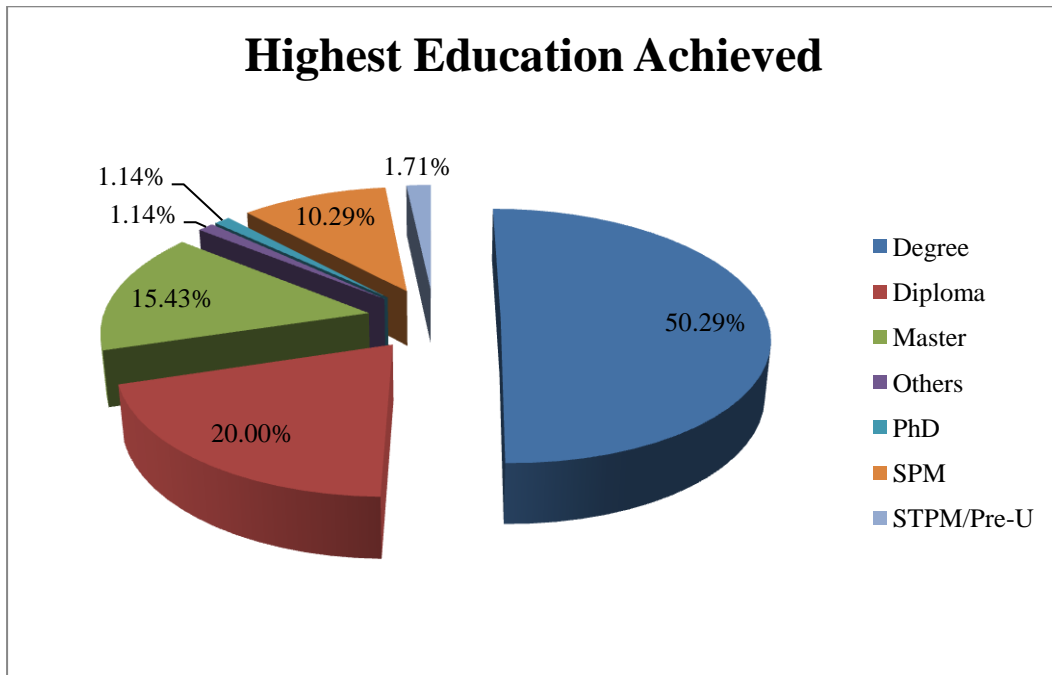
Source: Developed for the research

Appendix 1.6: Current City of Respondents



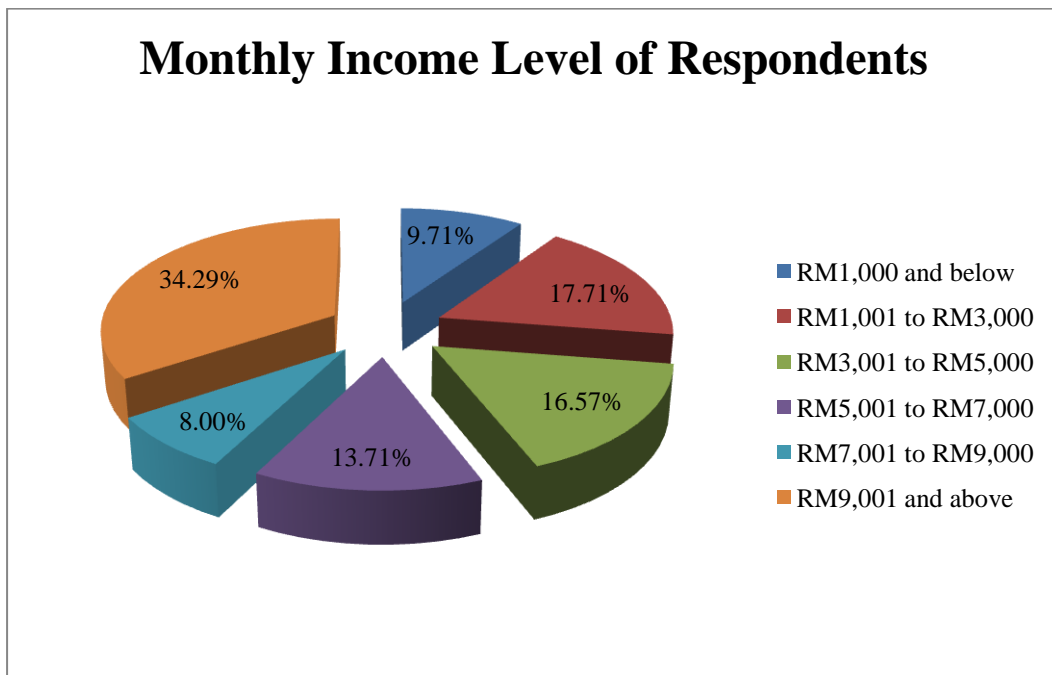
Source: Developed for the research

Appendix 1.7: Highest Education Achieved



Source: Developed for the research

Appendix 1.8: Monthly Income Level of Respondents



Source: Developed for the research