The Used of UTAUT Model in Initial Coin Offerings: A Conceptual Paper

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Abstract

The previous studies on the uses of UTAUT model in the initial coin offerings have demonstrated that there is need for more empirical investigations and exploration of cryptocurrency because studies concentrating on individual intentions to embrace bitcoin are nearly non-existent in Malaysia. This study examines how the initial coin offering (cryptocurrency) can be used in UTAUT Mode. The study presents eight major attributes of UTAUT model that can be applied in cryptocurrency. These include performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, trust, and personal innovativeness.

Keywords: UTAUT Model, Initial Coin Offerings, Cryptocurrency, Fintech, Blockchain Technology

Introduction

Electronic commerce, digital payments, and the internet of things are just a few of the technological advancements in the last ten years. The way individuals interact and exchange money has changed as a result of these changes. As a result of the ongoing trend of change over the last two decades, a new type of currency, cryptocurrency, has evolved because of the transition from paper to virtual currency (Kasprzyk, 2019). According to Mazambani and Mutambara (2019), cryptocurrency is a type of digital money that uses advanced encryption techniques to carry out a variety of economic transactions. Security, transparency, as well as anonymity are all goals of the blockchain technology that supports bitcoin activities. Furthermore, consumers can avoid using traditional retail payment methods by using cryptocurrencies such as bitcoins because of two key factors: anonymity and the lack of reliance on central entities such as banking institutions (Kasprzyk, 2019). A reduction in transaction time and dramatically cheaper transaction fees are two of the few benefits that cryptocurrencies can bring to potential customers.

Furthermore, the recent rise in the value of bitcoin has resulted in a massive increase in the size of the cryptocurrency market. In the cryptocurrency market, there are around 2,000 traders within the cryptocurrency market (Hanson, 2011). According to Hileman and

Rauchs (2017), the number of bitcoin users worldwide ranges between 2.8 and 5.8 million. North America and Europe account for the majority of cryptocurrency users (61 percent), whereas Asia-Pacific accounts for only 20% of cryptocurrency users (Hileman & Rauchs, 2017).

There is compelling evidence that the widespread use of digital currencies has the potential to transform economies, particularly in poor nations. According to Mutegi (2018), the rise of cryptocurrencies will continue to have a positive impact on the e-commerce industry. Given the worldwide growth in popularity of the Internet of Things, the long-term viability of bitcoin appears to be assured (Miraz, 2020). The entire potential of cryptocurrencies, on the other hand, will only be realized once it has gained widespread acceptance. Many academic studies have claimed that the broad use of cryptocurrencies can democratize as well as alter economies, especially in developing nations. Although online retailers such as AliExpress, Microsoft, and others have begun to accept cryptocurrency as a form of payment, consumer acceptance remains limited (Gupta & Arora, 2019). As a result, it's critical to have a thorough understanding of the elements that can drive bitcoin adoption. The large number of companies investing in cryptocurrency could be a reflection of optimistic demand forecasts. All of those commercial investments, though, could be unwilling and negative if they do not comprehend the necessity to adopt the technology. Despite the Malaysian government's efforts to legalize cryptocurrencies, consumer acceptance of this ground-breaking technology is still restricted, and more research is needed.

Problem of Statement

Despite the scarcity of research on bitcoin adoption and acceptance, attempts have been made to leverage current technology adoption and acceptance theories and models to explore consumers' intentions to use cryptocurrency. Usability, usefulness, and subjective standards are all crucial aspects for the future of bitcoin, according to exploratory interviews with cryptocurrency users (Baur et al., 2015). However, the studies on the application of the UTAUT model in the initial coin offering, especially, in the context of the Malaysian markets has received little attention.

Research Gap

Due to the paucity of information on bitcoin acceptability, a number of specialists have advised more research (Al-Amri et al., 2019). According to the previous studies on crypto currencies, there is need for more empirical investigations and exploration of cryptocurrency, studies concentrating on individual intentions to embrace bitcoin are nearly non-existent in Malaysia. Furthermore, the majority of available literature overlooks end-user adoption factors, i.e., individual user level, despite the fact that understanding consumer behaviour and the capacity to predict the drivers that may fuel the adoption process is important to crypto currencies' success. Consequently, it appears that bitcoin adoption is still a work in progress, with experts relying on user intent as a proxy for actual behaviour. The purpose of this research is to see how an initial coin offering (cryptocurrency) may be employed in the UTAUT Model. The research begins with basic material on blockchain, crypto currencies, and bitcoins, then narrows down to the UTAUT model's use in this technology.

Research Objective
1. To determine the general uses of Cryptocurrency
2. To determine the application of UTAUT Model in Cryptocurrency
3. To determine how the Initial Coin Offering can be used in UTAUT Model

Research Question
1.   What are the general uses of Cryptocurrency?
2.   What is the application of UTAUT Model in Cryptocurrency?
3.   How can Initial Coin Offering be used in UTAUT Model?

Literature Review
Blockchain, Cryptocurrency and Bitcoin
The terms blockchain, cryptocurrency, and Bitcoin seem to be commonly misunderstood. Blockchain is defined as a distributed database of records or a public ledger of all transactions or digital events that are done and shared among participants. Blockchain technology has applications in a variety of areas, including finance, real estate, legal, transportation, and supply chain management. Within the financial realm, cryptocurrency is an example of blockchain technology (Taskinsoy, 2020). Despite Bitcoin's expanding popularity and exploding value, the cryptocurrency's suitability for corporate transactions and investment remains unclear. Due to the lack of a standard global regulatory framework for this burgeoning FinTech innovation, many people have taken advantage of its decentralized structure for criminal reasons such as concealment, illicit changing weapons, and pharmaceuticals, and financing terrorism.

Cryptocurrency Usage
PricewaterhouseCoopers (PWC Financial)'s Services Institute conducted a study of clients in cryptocurrency industry by 2015. In PWC's 2015 consumer survey, only 6% of customers were very or extremely aware of cryptocurrencies, with barely 3% having used cryptocurrency in the preceding year (Gwodziewicz et al., 2020). The majority of customers are speculator investors because of the high amount of volatility; 81 percent of those asked claimed they used cryptocurrencies for online shopping, while 17 percent said they used it for online gaming and to remain anonymous when purchasing online. If volatility falls and transactions become the most significant use case, cryptocurrency's full potential is reached. Indeed, 86% of those who had used cryptocurrencies in the previous year predicted that their use will increase in the future. Hope (2018) went on to say that price stability will lead to widespread adoption. The top three concerns in PWC's poll were fraud, price stability, and vendor approval, in that order.

Greene et al (2014) are credited with conducting the United States' first countrywide scholarly study on consumer acceptance. They based their findings on the Federal Reserve Bank of Boston's annual Surveys on Consumer Payment Choice (SCPC), which included questions about Bitcoin and other cryptocurrencies. According to SCPC research, only 47% of customers have heard of a cryptocurrency, with the remaining 90% having only a rudimentary understanding of the concept. Males with higher education or income were more likely to remember and use cryptocurrency. Because of the expectation of increased value, less educated younger males were more inclined to possess Bitcoin. The majority of early adopters have used a cryptocurrency to make a payment and mentioned this as the primary reason. In 2015, payments accounted for two-thirds of all adoptions, compared to one-third in 2014.

Corbet et al (2019) investigated the motivations underlying people's cryptocurrency usage by evaluating data from an exchange and publicly available blockchain data. For January 2011 and October 2013, the information is scarce. This is frequently when the media's interest in the currency is piqued. By looking at the relationship between volume transferred and volume on the Bitcoin system, the researchers discovered that new users treat Bitcoin as an

investment. This showed that new Bitcoin users were able to keep their money. Badev and Chen (2014) used a different approach. They investigated velocity, which is defined as the rate at which Bitcoin addresses change. They were classified as an investment for addresses that had been dormant for at least a year. They discovered that 'investment accounts' accounted for 75% of all addresses, with the numbers trending downward. They also determined that around half of the transactions were for less than $100. Corbet et al (2019) looked into how price changes were affected by events and found that users were positively biased, with no effect for the bad news.

Technology Adoption

A positive sense of novelty is more essential than possessing it for an idea, behaviour, or item that is perceived as unique by private or other adoption units. Furthermore, innovation does not always imply progress. These are important issues since cryptocurrency can be utilized for a variety of purposes beyond a logical assessment of utility. Straub (2009) goes on to differentiate between adoption and diffusion, describing the former as a micro-perspective examining a person's choices about an innovation's acceptance and integration, and the latter as a macro-perspective examining the extent to which an innovation is accepted and integrated. Diffusion, on the other hand, might be a macro-perspective that looks at the spread and evolution of innovation across time, with a population as the unit of study. He did point out, however, that these ideas are essentially intertwined and unclear.

Al-Alawi and Al-Ali (2015) conducted a comparative analysis of the various adoption models as well as an origin tale. The Theory of Reasoned Action (TRA) could be considered the first technology acceptance paradigm. The intention to engage in the conduct is the most effective predictor of a personality's behaviour. Hill et al (1977) recommended that intent be "viewed as the immediate antecedents of conduct, which intervening events can modify intent up until the time of usage." Actual usage (as established by direct measurement), reported usage (as obtained by surveys or interviews), and assessed usage is all terms that can be used to describe usage (as determined by an ordinal scale) in the previous studies.

As a result, TRA was the first to use behavioural intention as a predictor of actual behaviour, a concept that was eventually adopted by most adoption models (Pillai, 2013). Everett Rogers' Innovation Diffusion Theory (IDT), which wasn't quite an adoption model, was the first widely used adoption/diffusion model in 1962. According to a preliminary search of educational databases, TRA and TPB do not appear to be commonly used in contemporary academic work. Other extensions and adoption models have appeared since then. Among these are TAM2, TAM3, and hence the Unified Theory of Acceptance and Use of Technology (UTAUT). TAM and UTAUT were born out of a desire to better understand how knowledge systems (IS) are adopted (Iqbal & Sidhu, 2021). IDT gives a more thorough model of diffusion that takes a macro perspective.

Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT was established in 2003 (Venkatesh et al., 2003). The purpose of constructing UTAUT was to create a coherent image, given the widespread and unstructured use and adaptations of preceding models. Since its publication, the document has been cited over 17000 times. In constructing UTAUT, Venkatesh et al (2003) looked at eight popular models, including TRA, TAM, TPB, IDT, and social cognitive theory. UTAUT explained 77 percent of the variation in behavioural intention and 52 percent of actual usage in longitudinal field trials (Venkatesh et

al., 2003). UTAUT, like TAM and IDT, was designed for organizational situations with a primarily utilitarian objective. In 2012, UAUT2 was established to handle the patron context. To add consumer-specific qualities, UTAUT2 included hedonic incentive (or enjoyment), pricing, or price value (PV), which augment the time/effort resource components of the bottom model and eventually habit as an alternate mediating mechanism to behavioural intention. Furthermore, UTAUT avoided the term voluntariness because it was assumed that customers acted voluntarily (Slade et al., 2013).

Application of UTAUT Model in Initial Coin Offerings
The UTAUT model was built by extracting three variables that lead the behavioural intention to use the technique, one variable that influences the action. Some of the elements were conceptually similar to those used to construct the TAM. In their study on Internet banking adoption, Foon and Fah (2011) discovered four important components in the UTAUT model that support the adoption of new technologies. Performance expectations, effort expectations, social influence, and enabling environment are the main factors to consider.

Performance Expectancy (PE)
The degree to which someone or a customer believes that by employing an innovation framework, they would be able to achieve exceptional project execution is known as performance expectancy (Venkatesh et al., 2003). Consumers' perceived usefulness is an experimental variable that predicts online customers' willingness to participate in social websites, similar to performance expectancy. Performance expectations influence clients' goals for using long-range interpersonal communication.

It is assumed that users will be content with new products or services once they understand the benefits and relative benefits. The level to which a user can get benefits and values such as customisation, convenience, and ease of use as a result of the adoption of a certain technology is typically termed as performance expectancy. Within the existing literature of information technology (IT)/information systems, performance expectancy has been a critical indicator for driving users' behaviour intention and use behaviour. When customers use new technology, they build a cost-benefit reasoning value. As a result, it is claimed that additional features and benefits seen by internet banking users boost the value of such technology, particularly in the realm of internet banking.

Rogers et al (1969) argued that an innovation that was to be accepted had to provide users with some form of proportionate advantage or benefit. As previously indicated, these benefits correspond to projected results. Foon and Fah (2011) observed that customers associated utility with bank-related self-service technologies, which strengthened these claims. As a result, in the context of the study, greater performance expectancy will not only increase the user's desire to use bitcoin but will also increase the value associated with cryptocurrency adoption.

Blockchain technology is gaining popularity and can transform a wide range of businesses. Bitcoin, a cryptocurrency based on the Blockchain network, has helped to popularize the technology even further. Blockchain might be a decentralized and encrypted database for storing transaction data. Participants can move funds quickly using blockchain by connecting ledgers called blocks, rather than waiting for a centralised middleman such as a bank. When this method is used, transactions become much more visible for both sides. As a result, transactions are disseminated, bolstering the network's other blockchain users' dispersed confidence.

Effort Expectancy

Effort expectancy (EE), unlike Behavioural Intention and facilitating conditions, which are important in determining technology adoption, is crucial in creating Behavioural Intention to use innovation. Client readiness to use data framework competently is determined by information innovation acceptance measurements. The problem expectation idea is made up of two components: complexity and ease of use (Venkatesh et al., 2003, p.450). The inconvenient quality of adopting a structure as seen by clients will be characterized as complexity.

Effort expectancy (EE) is related to perceived simple use in the TAM. It relates to the difficulties of merging cutting-edge technology into new products and services. User happiness and use may suffer as a result of complex products or services. Previous UTAUT model research on digital banking adoption has revealed that ease of use is crucial when consumers accept online banking services, and online services should make life easier by providing a user-friendly interface. When considering bitcoin as a replacement financial technology, according to the TAM, it's critical to give methodologies and understandings that are accessible and user-friendly to assess the perceived ease of use.

According to Davis (1989), notwithstanding the benefits and advantages that a person gains from using a particular technology, users nevertheless participate in a mental trade-off process between the efforts required to efficiently use the technology and the benefits that the technology provides. As a result, it's been empirically proved that people who believe technology is simple to use have higher performance expectations, which influences their willingness to adopt. This notion was bolstered when it was shown that perceived ease of use was a strong predictor of students' intention to use an internet library and not just Malaysian students. Malaysians' propensity to accept e-government, on the other hand, has been proved to be an essential predictor of their long-term goals. Users' effort expectancy has a favorable, significant, and direct effect on their performance expectancy, according to (Fedorko et al., 2021). As a result, it is expected that Malaysian consumers will accept a cryptocurrency if it's useful and requires less effort to complete a task in the context of this study.

Social Influence (SI)

According to Venkatesh et al (2003), social influence refers to a person's belief that others must trust him or her for the new framework to succeed. Both social influence and subjective factors are used to determine how much a person listens to the ideas of those who are important to them. Inventive information frameworks are perceived differently depending on societal impact, the user's state of mind, and his awareness of new technology and information systems (Davis, 1989). Clients are apprehensive about being informed about the innovation and the information structure (Davis, 1993).

In today's setting, social influence (SI) is even more significant because other people's opinions have a big influence on people, especially referees who are well-known and influential to users. The importance of society in motivating people to learn and use technology is emphasized by (Venkatesh et al., 2003). What others think of them and what they should or should not do, according to TRA, is a personal concern. (2004) investigated the mobile market, namely wireless Internet services delivered via mobile technology, and discovered that an information system's social influence influences how consumers embrace new technologies. According to the study's guidelines, the use of cryptocurrencies is intended to be related to social impact. When it comes to new and early-stage products and services,

social influence can be quite important, particularly when there is a scarcity of knowledge on new technology. Because bitcoin is a solitary activity, the positive influence (advantages and rewards) of friends or relatives may inspire someone to use the technology. According to lmarashdeh et al. (2021), this notion was corroborated by a study that looked into the role of Bitcoin among Africans and empirically supported the importance of social impact in increasing their tendency to use Bitcoin.

Facilitating Conditions (FCs)

An enabling condition is an assumption that the presence of technical infrastructure and an organization facilitates the usage of technology (Venkatesh et al., 2003). Furthermore, a favourable scenario is defined as the external environment that aids users in overcoming barriers to new information technology use. The development of UTAUT 2 includes elements such as driving control seen and aims to show a link between the intended use of potential association users and efforts to overcome barriers to the use of new technologies, with a note that the facilitating conditions should provide an exceptional user interface, such as allowing consumers to conduct transactions on the Internet. The notion that the technological infrastructure required to deploy modern technology is already in place to enable users is referred to as an enabling circumstance (Rinne, 2004).

The key motivator of consumers' intention to use technology is facilitating conditions, according to numerous studies in the literature. Thus, the conditions of facilitation reflect the availability of the necessary resources (interconnectivity and flexibility of use on any computing device, such as smartphones, tablets, and others) as well as the vital information required for the completion of a bitcoin transaction in the context of our research.

Hedonic Motivation (HM)

According to Wahyuni and Rachmawati (2018), hedonic motivation refers to the sentiments of joy, pleasure, or enjoyment caused by the usage of a certain technology. These feelings, which mirror the hedonistic features of modern life, offer value to the consumer sector that is always looking for new things. Furthermore, research has indicated that consumers' motivation to utilize technology is a significant aspect in people accepting it (Wahyuni and Rachmawati, 2018). People are also more likely to utilize bitcoin successfully since it can be perceived as a source of enjoyment, amusement, and recreation. As a result, this technology becomes more valuable (e.g., price value, performance expectation).

According to Ganatra (2013), if a user's hedonistic incentive to use online banking is high, they will perceive greater benefits, raising their performance expectations and increasing the value of the associated price. Measures of autonomy experience directed at joy, as well as happiness in life, are employed as appealing evaluations of people, and hedonic motivation is assessed to have a relative influence on behavioural intention (Venkatesh et al., 2003). The level of delight and enjoyment that users have when accepting and using technology such as cryptocurrency is referred to as hedonic motivation. Hedonic motivation has also been found to have an impact on the acceptance and utilization of innovation in particular. It has also been proven that hedonic motivation is a necessary component of the buyer's setting's affirmation and display of progress.

Price Value (PV)

The value of the price is the cognitive balance between the financial cost and the benefit of adopting a technology (Majumder et al., 2020). Unlike an enterprise, the user is responsible

for the expense of any new technology adoption. As a result, the user will examine the cost-benefit analysis before deciding to embrace technology. Users are more likely to accept a technology if its price is higher than its financial cost. Previous research has successfully established the relevance of pricing value on user adoption intention. The balance between cost/price evaluations is usually done with the quality of the product or service acquired or with the benefits seen by users to investigate the perceived value of any product or service in the existing marketing literature. The worth of the award is positive or more remarkable if the benefits of using a development are projected to outweigh the expense associated with cash. 2020).

Trust (TR)

According to Bae (2019), trust is a subjective state in which a user believes that the service provider (trustee) is trustworthy and that doing business with him is secure. The latter testifies to a relationship of trust between financial service providers and users based on previous experience; this does not apply to Bitcoin or new financial technology. Behavioural intent to use technology in previous research, particularly in the mobile banking literature, where two types of trust were in the foreground: trust in the technology or medium and institutional trust.

To be successful, a cryptocurrency system must be devoid of trust (Baranov, 2018). Although the bitcoin system is secure, there have been several instances of fraud and hacking. The ability to verify the identities of persons engaged in a transaction is the foundation of trust in the currency. The dominant market player will have a high level of accountability and trust in cryptocurrencies, which can be achieved through technological advancements. Consumer purchasing decisions are influenced by trust, and transactions are difficult to complete without them.

Personal Innovativeness (PI)

According to Rogers et al.'s (1969) diffusion of innovation theory, individual differences and personality variables impact people's adoption of new, unique, and innovative ideas, as well as products or enterprises. The degree to which an individual believes he is favourably oriented toward the usage of innovative and new technology has been defined as personal innovation. Personal innovation, according to Shapira (1976), is a characteristic individual's innately innovative nature, which Panno (2016) characterizes as a risk-taking feature. People with a higher risk tolerance are also more inclined to experiment with new technology since they have a more positive attitude toward it. In general, those with more imaginative personalities are more inclined to wish to adopt new technologies. Several empirical research has discovered a significant link between personal innovation and behavioural intention.

The value of habit should not be disregarded while seeking to develop acceptance for innovation, according to (Toni and Ani, 2014). People's perceptions of information are influenced by their age and sexual orientation, which might affect a person's reliance on the habit of influencing action. To better comprehend a man's routines, culture will be utilized to characterize his habits, such as his level of training and skill with an innovation. The willingness to use the online price system is influenced by sexual orientation, age, education level, PC experience, and frequency of jogging.

Discussion and Future Research

In the field of information technology acceptance research, competing models have various sets of acceptance determinants. It is critical to comprehend these models in their whole, as well as their acceptability in many fields of research. Venkatesh et al (2003) examined eight distinct models as well as expanding, verifying, and constructing a unified model by combining aspects from the eight separate models. The theory of reasoned action, the technology acceptance model, the motivational model, the theory of planned behaviour, a model combining the technology acceptance model and the theory of planned behaviour, the model of PC utilization, the innovation diffusion theory, and the social cognitive theory were all examined by the authors. When data from four firms was analysed over a six-month period with three points of assessment, a unified model dubbed the United Theory of Acceptance and Use of Technology (UTAUT) was developed. UTAUT emerged as a useful tool for managers in identifying and analysing the causes of acceptance in order to proactively plan training and marketing interventions aimed at populations of users that are comparably less disposed to embrace new technologies, according to the research.

The current study has examined how initial coin offering can be used in UTAUT Model. The study suggest that future research be focused on gaining a better knowledge of the dynamic impacts by evaluating the fundamental components employed in UTAUT, in order to better understand the organizational consequences of new technology adoption in the application of initial coin offering. In addition, the future studies may focus on the security and risks associated initial coin offering in the context of UTAUT model.

Conclusion

The study aimed to determine the general uses of Cryptocurrency, the application of UTAUT Model in Cryptocurrency, as well as an assessment of how the Initial Coin Offering can be used in UTAUT Model. Instead of waiting for a centralized mediator like a bank, participants may move money fast utilizing blockchain by linking ledgers called blocks. In the context of this study, Malaysian consumers will embrace a cryptocurrency if it is practical and needs less work to perform a task. The advantages and benefits of friends or family members may encourage someone to utilize bitcoin because it is a lonely activity. The circumstances of facilitation represent the availability of the crucial data essential for the completion of a bitcoin transaction in the context of our research as well as the interconnectivity and flexibility of usage on any computer device, such as smartphones, tablets, and others. The acceptability and application of innovation in particular have been proven to be impacted by hedonic drive. If a technology's price is higher than its financial cost, users are more inclined to accept it. Technology developments can result in the dominant market participant having a high level of responsibility and confidence in cryptocurrencies.

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Conflict of Interest

The authors show no conflict of interest.

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