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Risks of Dealing with Virtual Currencies: Bitcoin as A Model

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Abstract
This research deals with the topic of the risks of virtual currencies and the possibility of investing in them, as it is one of the most important outputs of technological development in the last decade with a unique specification that some will accept as a method of payment. The research problem lies in the fact that virtual currencies are the subject of great controversy and disagreement in which there are many suspicions as it is fake and has no physical existence, from one hand, and in which you see the salvation from the control of the US dollar over the world, from the other hand. This is qualitative research the researcher relied on the descriptive, historical, and inductive approaches to answer the questions of this research and achieve its objectives. These approaches are characterized by flexibility in research and selection of appropriate tools in understanding, interpretation, and interpretation. This study reached several results, the most important of which is that there is no single legal framework within which Bitcoin and other cryptocurrencies are placed. The issue of their legality is still controversial among countries in the world, but their concept and mechanism of creation, work and exchange have become evident to everyone. The study reached several recommendations, the most important of which is that Digital currencies are growing day by day, and dealing with them may become a necessity. Therefore, jurists shall set rules that allow dealing with them after adhering to these rules. It also recommended developing a culture in society to raise awareness of the use of cryptocurrencies so that they are not exposed to any risks.
Keywords: Bitcoin, Cryptocurrency, Risk, Islam

Introduction

The expansion of technical development in various fields of life, of which the economic field is one of the most important, led to the development and growth of these fields. On the economic level, buying and selling operations developed and new patterns of electronic commerce surfaced. This modern pattern of commerce adopted new forms of money and new ways of payment. It was initially in the form of approved credit cards, and then virtual electronic currencies appeared (Khazan, 2018).

These currencies came as a recent phenomenon that sparked widespread concern and controversy in the economic community at the level of the world as a whole. Opinions differed about these currencies, some viewed them as representing a new future for money, while others saw them as a global economic bomb (Ahmed et al., 2018).

But what should be noted is that the interest in this type of currency did not appear clearly until after the release of Bitcoin, as the interest of many people increased in this currency, in particular the interest of merchants, owners of capital, economists, and electronic security academics because it is an electronic currency (Barron et al., 2015).

With regard to dealing with virtual currencies, Islam forbids dealing with these currencies and using them in Sharia to transfer values, whether for the purpose of expressing a monetary value or another value that makes it valued as money (Ahmed et al., 2018). Since the goal of Islam is to organize the life of individuals in its various fields, it seeks to organize the economic life, because it is considered one of the most important areas of life and also because Islam came with an integrated economic system that defines the foundations and pillars on which these transactions are based. Islam has permitted beneficial actions that are based on honesty and trust, and that achieve benefit and interest for individuals (Freeman and Ruehsen, 2013). Therefore, study consumer behaviour is significant for this process (Alsharif et al., 2021a; 2021b; 2022; 2023). Also, it is significant to study the emotional of individuals (Ahmed et al., 2021a; 2021b; 2022, 2023a; 2023b).

On the other hand, Islam has forbidden every harmful action that harms a Muslim and his society or causes the spread of corruption in the land, or harm to people. So, it prohibited interest and monopoly, but on the other hand, it legislated the process of investing money in the available resources in an absolute way as it found in it a moral work and a humane behaviour aimed at upgrading the human being and achieving stability and well-being of individuals. Islam made this investment governed by the foundations, standards, and controls specified for this investment (Ahmed et al., 2018).

This is because investment is considered one of the most important determinants of economic growth and one of the most important factors contributing to the achievement of economic development through the distinctive role it plays in determining all economic variables such as income and employment. All economic doctrines asserted the need to employ all available financial resources to the maximum extent in order to achieve benefit and increase resources, but a difference appeared in these investment methods, the desired goals and the reasons for doing, and the possible ways in exploiting the available financial resources, noting that this difference is due to the difference of the rules and laws of the different doctrines (Al-Asadi & Al-Mulla, 2012).

Literature Review

Mediani (2015) study titled "The Risks of Payment in Virtual Currency (Bitcoin)" concluded that electronic banking is one of the outcomes of technological development in the field of communications, especially after the widespread use of the Internet, which eliminated physical and social restrictions on transactions between individuals. For the researcher, one of the most prominent repercussions of using the Internet in economic life is the emergence of electronic commerce, which is conducted through an electronic market in which economic dealers communicate, as all goods and services are presented in a virtual or digital format and are paid for with electronic money. The most recent of which is the Bitcoin currency that is used to complete the transaction without any conditions other than the satisfaction of the two parties and the opening of an account electronically in a time frame

that usually does not exceed two minutes, through which this currency transaction is carried out.

This transaction is not subject to any central bank or monetary authority, and its issuance is made by any individual who has the skills to use complex programs and the ability to hack computers. Through this paper, the researcher attempted to address electronic commerce from the perspective of the risks associated with it, then he talked about payment methods, especially the virtual currency, BitCoin, and the challenges it faces in its strive to become the currency of the world one day in light of the increasing risks when dealing with it.

As for Baron et al (2015), in a study entitled "The Implications of Virtual Currency on National Security," the researchers examined the feasibility of non-governmental organizations increasing their political or economic influence by issuing virtual currencies to be used in normal economic transactions. They mentioned the Bitcoin currency as an example that works through digital algorithms for a resident currency that can be converted, stored, or traded electronically like regular currencies, except that this currency is not issued by a central bank or a government authority and is not evaluated in a paper currency such as the dollar or the euro, but is accepted by people as a means of payment. Thus, according to the researchers, these currencies can be used by terrorist or rebel groups as a means of financial transactions, as well as an illegal means of transferring, collecting, and laundering money. The researchers reached a set of results, the most important of which is that the process of encouraging the use of virtual currencies may find poor acceptance among the public due to the lack of legitimacy as they are intangible. The researchers also expected that people's caution will decrease if they become accustomed to dealing with these currencies, and if these currencies become more common and reliable. They also concluded that in order for these currencies to replace regular currencies, those working to issue them shall protect these electronic currencies from advanced electronic dangers. The researchers recommended the necessity of conducting studies on the investment of non-governmental organizations in virtual currencies instead of issuing these currencies.

Badawi (2010) in a dissertation entitled "Electronic Exchange Rulings in Islamic Figh" attempted to identify the aspects of electronic exchange provisions. It also examines the extent to which electronic transactions are consistent with the rulings of the Islamic Sharia. The dissertation asserted that with the development in the field of electronic commerce and the rapid growth of the digital economy, new electronic exchange mechanisms have emerged, such as the virtual (electronic) currency Bitcoin.

Assaf (2018) in his research submitted to the Eighth International Conference of the Faculty of Sharia at An-Najah National University in Palestine entitled "Challenges that Islamic Banks May Face in the Virtual Currency Market" addressed the meaning of virtual currencies, their origin, the method of mining them, their characteristics, the mechanism of their generation, and the principles of dealing with them. The researcher also mentioned the difference between virtual currencies, legal currencies, and electronic money, as well as the legal rulings that pertain to dealing with virtual currencies, methods of mining and dealing with them. The researcher reviewed the factors that make the virtual currencies' challenges for Islamic banking and the obstacles that make these currencies the basis for Islamic investments.

The dissertation reached a set of results, the most important of which is the distinction between legal currencies and cryptocurrencies. The researcher considered that legal currency is issued by the government of a legal state and has a tangible physical presence and is

accepted and dealt with by all people, while cryptocurrencies are currencies issued by unknown parties and have no physical existence. The researcher also emphasized that digital currencies do not have a specific cash value in a known currency. The researcher concluded that virtual currencies do not apply the conditions and standards of the Islamic Sharia and lack popularity and spread among people. Islamic Sharia prohibits dealing and trading with these virtual currencies and prohibits investing in them in any form of investment (Assaf, 2018).

Methodology

This is qualitative research the researcher relied on the descriptive, historical, and inductive approaches to answer the questions of this research and achieve its objectives. These approaches are characterized by flexibility in research and selection of appropriate tools in understanding, interpretation, and interpretation. They seek to achieve a deeper understanding of the studied phenomena and access to the overall motives, representations, and trends that cannot be detected based solely on the language of numbers. In addition, they are more influential in the conceptual and theoretical system of science.

The researcher relied on collecting the relative data directly related to the main subject of the study or related sub-topics in order to reach a comprehensive understanding and find results and recommendations that contribute to solving the problem of the study.

The researcher relied on textual or documentary studies as the main tool to collect the data in order to reach answers to the researcher's questions by referring to contemporary primary and secondary sources that dealt with the research problem directly or indirectly. Through this tool, the researcher attempted to find a clear position from the Islamic economic perspective to deal with currencies. In order to collect data, the researcher studied a number of texts related to the legal rulings for dealing with digital currencies and the position of the Islamic economy towards them, in addition to texts related to secondary topics and issues, such as studying the concept of investment in the Islamic economy.

Discussion

History and origin of virtual currencies

Virtual currencies are not a new concept as many believe, as the first appearance of virtual currencies in fact dates back to 1993. Chuam was the first encrypted virtual currency that was invented in 1993 by an American mathematician and programmer David Chuam. In 1998, Wei Dai, a graduate from the College of Computer Science, published a description of the anonymous distributed electronic cash system he called bmoney. However, all these currencies did not succeed and did not last long due to the lack of widespread e-commerce concept at the time, and the lack of satisfaction by companies and merchants to deal with virtual currencies.

With the passage of time, the concept of electronic commerce developed and began to spread more among people, especially after 1999, in which the first bank was established to transfer money via the Internet. Financial dealings via the Internet began to enter little by little into commercial transactions, and users began to feel the benefit, comfort, and flexibility through dealing electronically in purchases, so the virtual currencies returned to the surface (Al-Sahaa & Dahshan, 2019).

The first Bitcoin currency appeared in January 2009, but its scope was very narrow, and the number of its users was few. In 2010, the first real transactions took place to use Bitcoin as a virtual currency, as a programmer from Florida bought a pizza for 10,000 Bitcoin units,

and the unit price was then 0.003 dollars. In 2012, the famous website WordPress was the first site to approve the use of bitcoin as a currency to pay for its services. Other major companies followed it like Microsoft Dell, PayPal, Shopify, among others, thus increasing the popularity of bitcoin as a virtual currency and it became adopted by merchants as an official payment method on websites. In 2013, Bitcoin was adopted for the first time as a method of crowdfunding.

In 2014 the first ATM for Bitcoin currency was established, thus dealing with Bitcoin became increasingly popular. During this time, Bitcoin was not the only currency, but many virtual currencies appeared. Nowadays, there are more than 1,700 virtual digital currencies in the world and also took up space on the electronic network such as Ethereum, Litecoin, and many others, but Bitcoin remained the most widespread (Douedri, 2000).

Risks of Dealing Virtual Currencies

In spite of any benefits and facilities that any new technology may offer, it is absolutely illogical to say that it will be risk-free. Therefore, virtual currencies are one of the technological methods that, in exchange for its many advantages, there are many risks facing its users. Including

- **General Investment Risks**

1. The lack and weakness of the culture and experience of users in the subject of virtual currencies and dealing with them lead them to many problems such as stopping or deleting currencies by mistake or infecting the computer with a virus and the user's inability to access his currencies.
2. There are fluctuating and unexpected exchange rate and an absence of exchange rate issued by reliable authorities, as mechanisms and policies of these currencies are not linked to specific decisions of central banks or markets (Shaaban et al., 2020).
3. Exposure to fraud or virtual theft: despite the strength of the encryption technology used in these currencies against fraud and theft, which detects any fraud attempt, whether intentional or unintentional, and is corrected immediately, in the end it is a digital currency kept within an electronic wallet, and this wallet can be hacked by one of the malicious programs. The theft process requires hacking the secret key of the wallet owner, so the thief can transfer all the virtual currencies in the victim's wallet to his wallet. A study conducted by the American Carnegie Melton University showed that 33% of bitcoin transactions that took place between 2009 and 2015 were subject to theft and hacking. Of course, it is not possible to recover any stolen money because the transaction cannot be reversed after it is confirmed, and there is no official authority that can be resorted to in such cases (Shaheen et al., 2021).

Since Bitcoin controls most currency trading platforms, it was a primary target for fraudsters. A lot of fraud and theft of Bitcoin wallets has already occurred, and the losses as a result of these thefts reached hundreds of thousands of dollars around the world. In 2010, several defects appeared in the Bitcoin system, so fraudsters exploited it to create a huge number of counterfeit Bitcoin units. The number reached more than 184 million counterfeit units, after which the thefts continued from the most famous trading platforms such as Bitcoinica, of which 50,000 units were stolen in 2012, followed by the BitFloor platform after 6 months, from which 24,000 units were stolen, causing its closure in 2013. The biggest theft took place in Gox's platform, it lost 750,000 units in 2014, which was equivalent to $450

million at the time. This led to its declaration of bankruptcy due to its inability to recover these losses to its depositors.

The thefts continued until the number of bitcoin platforms that were closed reached 38 out of 80 platforms in the 2015, that is, almost half of the market was lost in a period of 5 years only. This causes virtual currencies not to be subject to any legal security system, which means that none of the users could file any complaint with any legal authority in case of any theft, fraud or security breach (Shaheen et al., 2021).

- **Risks arising from the use of currencies for payment**

Credit and liquidity risks, as the other party cannot be guaranteed to pay its obligations or provides the amount that he is entrusted to pay. Risks arising from the fact that virtual currencies are not yet accepted by everyone, as the user may encounter many merchants who do not agree to deal with this currency and thus may never benefit from them. Legal risks, as virtual currencies cannot be used to implement money settlement operations that take place through the capital market infrastructures, because in the end they are neither money belonging to any commercial bank nor money belonging to the Central Bank (Shaaban et al., 2020)

- **Risks of being used for Illegal Transactions**
  - The most dangerous consequence in the use of virtual currencies is its use in illegal transactions, as Bitcoin and other encrypted virtual currencies formed a safe haven for all shady business owners, terrorists and gangsters. The reason is that it is easy to deal with virtual currencies, which encourages many other ordinary individuals to engage in such suspicious transactions. As mentioned earlier, dealing with these currencies is not subject to supervision or any legal system, and therefore no information can be provided about the source or origin of the funds. This is very appropriate to be used in illegal transactions such as financing terrorism and extremist movements, trading in illegal materials including weapons, carrying out unknown blackmail operations, settling financial matters between criminal organizations, and money laundering crimes, among others.
  - In numbers and facts, we find that the drug trade via the Internet through the Silk Road website alone, which is a site known for drug trade, generated revenues worth an amount of 1.2 billion dollars, and about 200 thousand new items were registered on the site. All of this happened within two years of using the site for Bitcoin as a means of payment. Later, the US Federal Bureau of Investigation charged the site with illegal drug trafficking and issued a decision to close it in 2014. In Russia, the Russian Federal Department for Drug Control issued a statement confirming that drug dealers expanded the scope of their work because of their reliance on Bitcoin for their trade (Moshawaqa, 2021).

The Development and Future of Investing in Virtual Currencies

Nowadays, there are many questions about the extent of development that virtual currencies will reach, and whether it will overcome real currencies or not. Many people want to become investors in virtual currencies, and as mentioned earlier in this research, dealing in virtual currencies is increasing rapidly as a result of its advantages in terms of achieving

profits, ease of dealing, and concealing identity. Some countries have begun to recognize it and allow it to be used as an official means of payment. Also, one of the reasons for investors' interest in bitcoin and other cryptocurrencies is their focus on making bitcoin a safe haven for them, as it is like digital gold in the case of the deterioration of paper currency, especially after the emergence of government deficit when the epidemic spreads in the world.

The adoption of aggressive monetary policy and the lack of suitable alternatives made investors more convinced. But despite its growing popularity, many of the features and theoretical foundations of cryptocurrencies are still not comprehensively understood by investors. Investments in this field are expected to grow with the increase of general knowledge in these coins. As for the future, the following figure shows the projections of the numbers of Internet users who will use virtual currency wallets in 2030 which will be around 200 million (Turpin, 2014).

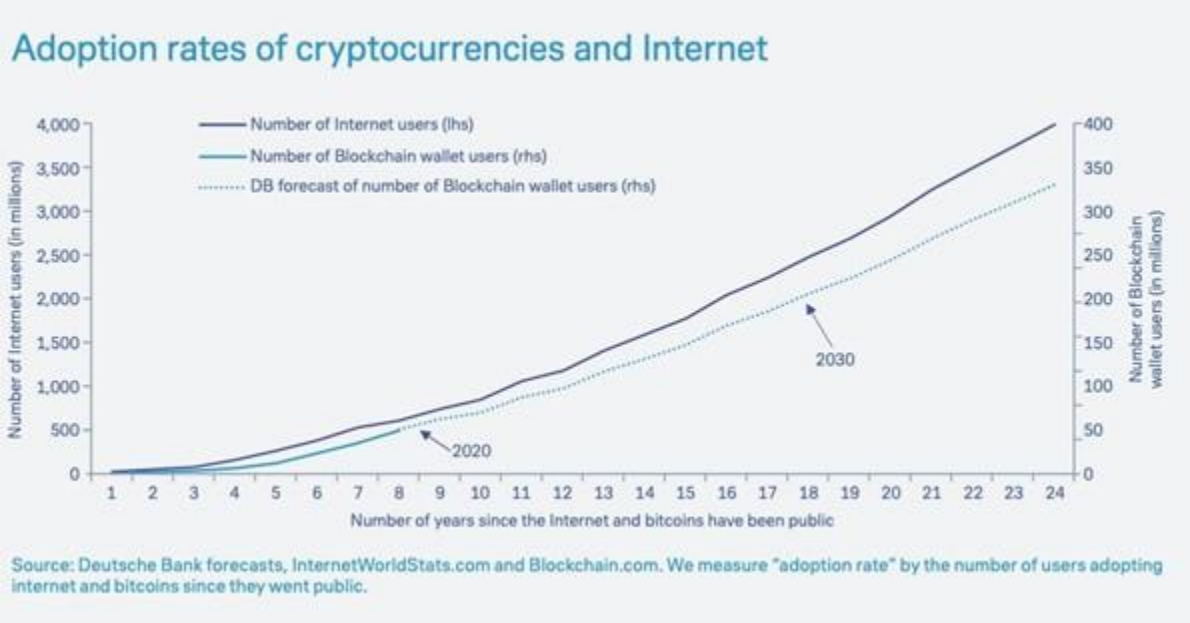

Figure 1. Adoption rates of Cryptocurrencies and internet.

The previous figure clearly shows the great acceleration in the increase of the number of users of wallets for virtual currencies compared to the number of Internet users in the world. According to expectations in 2030, the number of dealers in virtual currencies will be tripled.

Today, this speed and density in the spread of trading in virtual currencies will affect traditional currencies and weaken their role over time. Virtual currencies will turn into the money of the new era, and a new digital economic system will be formed. This will require new legislation and laws to deal with the form of this system, which makes dealing in virtual currencies legitimate and safe, so that there will be stability in the financial system (Saleh, 2021).

In light of these rapid developments of encrypted currencies and the decrease in people's use of traditional money and their conversion to electronic payment, central banks began to worry about their position. In order for banks to catch up with this development, a new idea emerged, which is to create their own encrypted currencies. Indeed, the idea was put forward in a serious way. During the past years, the central banks held meetings to study this idea and the importance of putting it forward for their own virtual work. This group of

central banks consisted of the European Bank, the Bank of Canada, the Bank of Japan, the Bank of England, the Swedish Bank and the Swiss Bank.

Conclusion and Recommendations

This study reached several results, including:

- There is no single legal framework within which Bitcoin and other cryptocurrencies are placed. The issue of their legality is still controversial among countries in the world, but their concept and mechanism of creation, work and exchange have become evident to everyone.
- Despite the many advantages of bitcoin and cryptocurrencies and the many benefits that they may offer at the individual level, there are many risks that surround their users, which may reach the formation of a direct determination of financial stability and security at the level of the individual, society and the state. The most dangerous of them is their use in suspicious and illegal transactions.
- Bitcoin and encrypted currencies today have a large and widespread, especially with the widespread use of the Internet in everything and the ease of dealing through its acceptance by many international companies as an official means of payment, and the number of users is expected to triple by 2030.
- Islamic jurists differ in their opinion about virtual currencies. For example, some of them prohibit dealing with or using Bitcoin and others do not prohibit that but stipulate some conditions.

This study reached several recommendations, including

- It is imperative to adopt a unified jurisprudential opinion regarding Bitcoin and encrypted currencies, after forming an integrated team of jurists, religious scholars, economists and technicians.
- Digital currencies are growing day by day, and dealing with them may become a necessity. Therefore, jurists shall set rules that allow dealing with them after adhering to these rules.
- There is a need to develop culture in society to raise awareness of the use of cryptocurrencies so that they are not exposed to any risks.
- The role of central banks shall necessarily be activated in order to find a way to enable them to track and reduce illegal transactions.

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