https://dergipark.org.tr/bemarej

Review Article

Risks, regulations, and future directions of Turkey's cryptocurrency ecosystem

Osman Nuri Şahin[1]

Burak Arslan[2]

ABSTRACT

Blockchain technology, originating from the Bitcoin system, is a prominent notion in both practical applications and scholarly discourse. Numerous subtopics may be seen, including the definition of blockchain, its historical significance in the evolution of currency, its durability, and its magnitude of influence within the literature. In other words, sufficient study on blockchain exists in the literature. Likewise, several studies exist about auditing, particularly concerning accounting and taxation within the setting of the Turkish economy. An examination of official declarations and legislation in Turkey reveals that the state's view on the bitcoin industry lacks definiteness. The perspectives are transitioning from negative to positive. Nevertheless, contradicting remarks have also been seen. Upon assessing the existing circumstances, the strategic plans of nations with comparable developmental stages and active cryptocurrency markets are identified. The most appropriate stance for Turkey is neither entirely liberal nor entirely restrictive. The market requires active management and oversight. This control includes accounting and taxation. Turkey should transition from a passive observation approach to one that incorporates a definitive hybrid therapy. This hybrid encryption encompasses the fundamental components of the cryptocurrency system and the corresponding regulation of pertinent regulations.

Keywords: Money, Cryptocurrency, Blockchain, Tax, Accounting, Economy

1. Introduction

The concept of money has gone through several stages in human history. These are; MONEY 1.0, that is, the period from the emergence of money to 1871, MONEY 2.0, that is, the period between Western Union's use of the EFT system over the telegraph network in 1971, and MONEY 3.0, that is, the new period that began with the abandonment of the dollar being indexed to gold in 1971 (Birch, 2017). In this new period, money was freed from the necessity of being a physical asset. The transformation of money into cryptocurrency took place during the period when this physical asset disappeared. In 1983, David Chaum put forward the view that there should be a digital currency based on cryptography and open to management by a central authority (Chaum, 2012). It was also supported by Nobel Prize-winning economist Milton Friedman in 1999, emphasizing that the lack of a secure e-money was a major deficiency (Ray, 2024). The concept of cryptocurrency, introduced by Wei Dei in 1998, was the birth of cryptocurrencies with the article written by Satoshi Nakamoto in 2008 (Karyağdı & Yolci, 2023). The period in which these cryptocurrencies were born, in other words, the period we live in, is called MONEY 4.0. The aim of the article is to determine the relationship between cryptocurrencies and the Turkish economy and to indicate the attitudes that should be taken according to the interaction between them. Turkey's roadmap so far will be explained by touching on what countries with similar development to Turkey in the world have done, what kind of moves they have made regarding supervision, and some comments will be made about what they can do in the future. The rapid development of cryptocurrencies and their becoming an uncontrolled investment tool, their loss of control by

[1] Corresponding author, Assoc. Prof., Alanya Alaaddin Keykubat Uni. Eco. Adm. & Soc. Sci. Faculty Dept. Od Buss. Adm., Antalya, Türkiye, osmannurisahin@yahoo.com, ORCID: 0000-0002-6586-7073

[2] Master Student, Alanya Alaaddin Keykubat Uni. Eco. Adm. & Soc. Sci. Faculty Dept. Od Buss. Adm., Antalya, Türkiye, burakarslann2@hotmail.com, ORCID: 0009-0007-5219-4037

Academic Editor: Assoc. Prof. Dr. Engin ÇAKIR

Received: 18.11.2024
Acceptance: 06.01.2025
Published: 10.03.2025

Citation: Şahin, O. N., & Arslan, B. (2025). Risks, regulations, and future directions of Turkey's cryptocurrency ecosystem. *Business, Economics and Management Research Journal*, *8*(1), 1-10. https://doi.org/10.58308/bemarej.1587265

authorities, and the principle of anonymity are perceived as a problem by public administrators (Hatipoğlu, 2021). The most controversial issue about cryptocurrencies is that they are not a centralized system and are uncontrolled. The first of these is related to the essence of the existence of cryptocurrencies, and if it changes, interest in cryptocurrencies may also be affected by this situation. For example, there are findings in the literature that the central banks of countries aim to produce their own virtual currencies, but the essence of the system is decentralization and constructive uncontrollability in the system. So much so that the name of the person who founded Bitcoin is present and the wealth of this person is increasing, but does such a person really exist, is it a team, who they are is still anonymous. The absence of a central authority is very important in this sense. In centralized registration systems, the control of money is in the central bank and even if the user wants, if the central bank withdraws money from the market, they may not be able to do what they want, and in a distributed structure, each user is also the maker of the system. For example, the factors that affect supply and demand also affect the price of Bitcoin. Provided that this situation persists, serious developments can be made on how the system works, whether the rules are followed, and how it can be integrated into the country's economies in a win-win way. The market size of cryptocurrencies was 700 billion dollars as of 2018. (Alnıaçık, 2018) According to a 2021 report, Turkey is 1st in Europe and 4th in the world in terms of cryptocurrency use (Bucholz, 2021). Despite high volatility and legal gaps, high profitability attracts investors' attention to cryptocurrencies in Turkey (Caşkurlu & Arslan, 2021). This suggests that cryptocurrencies may have a serious impact on the Turkish economy.

The cryptocurrency system is based on participation and democracy. Each individual has equal power in the system, and the system expands as participation increases. The supply and demand for cryptocurrencies are directly determined by users. The absence of any kind of authority management and the users being the central actors are the elements that bring the cryptocurrency system into being. The cryptocurrency system aims to be an alternative to the traditional monetary system as a revolutionary development in the history of money. When examining the impact of the cryptocurrency market on the economy of the Republic of Turkey, it is necessary to define the independent and dependent variables here. In the research, the independent variable is the cryptocurrency market, and the dependent variable is the economy of the Republic of Turkey. The cryptocurrency market came to the fore in 2008 when a person named Satoshi Nakamoto wrote an article about Bitcoin (Karyağdı & Yolci, 2023). Since cryptocurrencies use a peer-to-peer network protocol system, they do not need a third party institution, and this reduces transaction costs and enables transactions to be faster and more secure (Nakamoto, 2008). Bitcoin, according to many, is a new way that will change the way people think about money (Baig, 2022). When talking about the cryptocurrency market, it is necessary to introduce the concept of cryptology. Cryptocurrencies perform their transactions with a type of encryption system. Cryptocurrencies are the name of the science that studies this encryption, and thanks to this science, the reliability of money within the system can be controlled. The current use of cryptocurrencies is in two ways: to make a profit through trading, similar to the stock market, and to invest for long-term returns. The most important difference between Bitcoin and traditional monetary systems is that transactions are not carried out by a single center, i.e. decentralization. While digital money is money that is controlled, has a fixed supply, and is legally regulated, virtual money is uncontrolled, has a supply that depends on the will of the issuer, and is not legally regulated (Çakmak, 2019). The money defined by those who define cryptocurrencies as money is the virtual money here. Auditing is an evaluation process carried out by experts and individuals to determine whether the information about economic units or periods complies with predetermined criteria (Gürbüz, 1995). The most popular cryptocurrencies are Bitcoin and Ethereum. The demand of these currencies from people is belief in globalization, and what they offer to people is a financial system in which no factor other than demand and supply is effective (Koç, 2019). There are two parties in the financial system: those who supply funds and those who demand funds, and these two parties use instruments when making transactions. The financial system operates through these instruments. Moreover, instruments are classified according to their maturities and the markets in which they will be located are determined according to their maturities. Blockchain, on the other hand, does not require any assets other than supply and demand, with a system similar to the perfect competition system in line with the dream market example of classical economics (Koç, 2019).

2. Literature Review

Even if there is a return on profit in Turkey, it may not be included in the legal system, and even the amount of money once included in the system may not be taken out of the cryptocurrency account at all if desired. Thus, there may not be any contribution in terms of financial depth (Caskurlu & Arslan, 2021).

Here, it is mentioned that there may be a significant amount of money that cannot be kept in the legal system because it is not audited. This is an unhealthy situation for the Turkish economy. "This system, which can be easily used in illegal activities due to being a decentralized system, can be taken under control with legal regulations and used advantageously for the country" (Topaloglu, 2021). There are various studies in the literature that emphasize the illegality of the cryptocurrency phenomenon. The common point of the studies is that instead of leaving room for illegal elements, if the money in the crypto system is included in the country's economy under state control, the country's economy will benefit from this system and it will be more beneficial for the country's economy. The arguments of those who argue that it will contribute to the country's economy in general are that the economic volume will expand and a new income item will be added to the country's economy with tax revenues. In addition, the message that the country is open to new generation developments is given to the international public, and thus the country becomes more attractive for foreign investment.

Although the cryptocurrency system is of interest to investors, states see cryptocurrencies as a major threat. Because while the level of money in the economy is freely determined by state authorities in traditional monetary systems, states also have the opportunity to implement important policies on the economy by using money. However, there are great differences in the approaches of countries to cryptocurrencies. In some countries, both cryptocurrencies and Blockchain technology have been accepted and even individual use has been encouraged. In some countries, cryptocurrencies are completely banned and not accepted as money due to reasons such as their use in illegal activities, the inability to tax the profits obtained, or the inability to follow a policy regarding their supply (Topaloğlu, 2021).

The situation of distinguishing between Blockchain technology and cryptocurrency can be seen in states, not in individuals. The main reason for this is that the state wants to have the power to issue, that is, control money. In another study, Yermack (2013) examined the relationship between the dollar-based Bitcoin exchange rate and the euro, pound, yen and franc exchange rates. Again, this study examined the relationship between the dollar-based Bitcoin exchange rate and the gold price. As a result of this study, a low level of correlation was observed between the Bitcoin exchange rate and other currencies. Similarly, a low level of correlation was observed between the Bitcoin exchange rate and the gold price. Another study was conducted by Topaloğlu (2018). When the results of this study were examined, it was determined that the Chinese yuan positively affected Bitcoin. No causal relationship was determined between the dollar-based Bitcoin exchange rate and other foreign exchange rates. There are researchers who see a relationship between the emergence of the cryptocurrency system and the global financial crisis in 2007. Wang et al. (2018) stated that the economic uncertainty environment after the crisis was effective in the emergence of Bitcoin. Fang et al. (2019) stated that the economic uncertainty environment was the main factor that caused Bitcoin. Dyhrberg (2016) stated that the crisis facilitated the spread of the Bitcoin system. High uncertainty environments in the economy and banking systems make Bitcoin a haven for investors. Global uncertainty has reinforced Bitcoin's popularity (Akdağ, 2019). Another study was conducted by Kanat (2018). In the study, Turkey was added to the G7 countries and the relationship between the stock market of these 8 countries and the Bitcoin price was examined. In this study, no significant long-term relationship was found between the stock market of 8 countries and the Bitcoin price. In another study, the relationship between cryptocurrencies and the stock market indices of some countries was analyzed (Aksoy, 2023). According to the results of this study, a positive correlation relationship was found between the stock market indices of both developed and developing countries and almost all cryptocurrencies. Gökalp (2022) conducted an empirical study measuring the interaction between the cryptocurrency market and the stock market in Turkey. According to the DCC-Garch model used in this study, it was seen that the cryptocurrency market closely affects the stock market unilaterally. Regarding the financial disintermediation feature, blockchain and cryptocurrencies are considered as financial innovations for financial markets, as they show that transactions can be made without any financial institution (Yıldırım, 2019).

In a study that includes the definition and explanation of cryptocurrencies, the investor presence of the cryptocurrency system in Turkey and the urgency of public developments about the system were emphasized (Ateş, 2016). However, the BRSA does not define Bitcoin as a currency at all (Çarkacıoğlu, 2016). The most authorized institution for the supervision of cryptocurrencies in Turkey is the TCMB, and the TCMB has announced that cryptocurrencies cannot be used directly or indirectly in payments (Dayanan, 2021). However, it is seen that Turkey has announced blockchain stars and wants to include individuals who are interested in and experienced with this technology (Yıldız & Afşar, 2021). Cryptocurrency awareness in Turkey has been measured as 91.5% (Henry et al., 2019). Cryptocurrency awareness in Canada has been measured as 89%. In Malaysia, it has been measured as 94.5%

(Ruhana et al., 2019). Canada and the USA are among the countries that have a positive view of the system and a liberal attitude. Among these countries, Canada has defined cryptocurrencies as a commodity (Topaloğlu, 2021). Japan has defined them as money and has already started taxing them (Deniş & Demircioğlu, 2023). Israel has recognized them as assets and is taxing them according to this definition. Argentina, one of the countries active in the cryptocurrency market, has included cryptocurrencies in income tax (Güler, 2021). Another study has shown that when there is macroeconomic instability or political uncertainty in a country, individuals who want to escape from local currencies turn to cryptocurrencies (Akdağ, 2019). The Financial Stability Committee has stated that virtual currencies are not under the guarantee of any official authority and has warned that they can be used in illegal activities (Sarıkaya, 2020). An interesting finding is the relationship between the pandemic and cryptocurrency markets (Karadeniz, 2021). Here, the relationship between the pandemic and cryptocurrency markets was measured, but a significant relationship was found only between Bitcoin and the pandemic. The efficiency of cryptocurrency markets where Turkish lira is traded has been measured according to the Efficient Market Hypothesis and it has been observed that these money markets consisting of domestic investors are inefficient (Özgül, 2021). There is also a study in the literature that measured the relationship between the dollar and Bitcoin between 2014-2017 and as a result, found a correlation between the two (Çıkrıkçı & Özyeşil, 2019). According to one view, cryptocurrencies have come to the fore with the rapid development of technology in the last 20 years and the rapid rise of cryptocurrencies, which have no authority behind them, has worried states and economic authorities. This rapid rise of cryptocurrencies has jeopardized the leading role of central banks in economic management (Yağıyanık, 2023).

3. Cryptocurrency Ecosystem in Turkey

The decentralized characteristics of cryptocurrencies have presented considerable legal obstacles concerning their audits, taxes, and accounting. The classification of cryptocurrencies—as money, commodities, securities, or intangible assets—dictates the relevant taxation system, which differs appropriately. The taxation of mining operations and cryptocurrency exchanges remains ambiguous and open to various interpretations. In Türkiye, cryptocurrencies are presently free from taxation, allowing the market to function as a tax haven for investors as long as this exemption remains in effect. This issue illustrates a wider trend: regulatory frameworks are frequently established reactively, with theoretical norms arising after the operationalization of cryptocurrencies. The use of cryptocurrencies seems to be better aligned with stable economies with strong credit systems, since these circumstances facilitate more efficient market operations. Developed nations, characterized by relative stability, typically embrace more permissive rules on cryptocurrency auditing and regulation. In contrast, in developing nations, the rapid and erratic movement of capital heightens the potential for financial losses for users, leading institutions to implement more prudent and restrictive measures. In Nigeria and India, governments have instituted more stringent regulations on cryptocurrency trading to reduce the dangers of fraud and economic instability. Furthermore, the absence of thorough regulatory supervision may facilitate illegal activities including money laundering, human trafficking, smuggling, and cyber theft inside the bitcoin domain. In response to these problems, even nations with liberal regulatory frameworks have enacted steps to oversee and regulate this swiftly expanding financial sector. Turkey has witnessed swift expansion in bitcoin usage, especially in the private sector. The country currently hosts several physical cryptocurrency offices and online exchanges, indicating its active engagement in this worldwide trend. The lack of a strong regulatory framework highlights the necessity for thorough regulations to guarantee the system's security and stability.

First of all, it should be noted that in Turkey, official authorities have used the terms Bitcoin and virtual money synonymously. Official views on the cryptocurrency system in Turkey have changed over time. While there was a completely negative perspective at first, various warnings were made later, and most recently, the 11th Development Plan covering the period between 2019-2023 has also allocated space to this technology with concrete explanations. In other words, Turkey could not remain indifferent to technology. While cryptocurrencies have a serious place in the practical flow of life in Turkey, their official non-existence has only started to change as of 2021. The public has been informed by public institutions, albeit for warning purposes. This situation should not mislead the public because a significant amount of money is still flowing out of the country's economy due to the cryptocurrency market. The active use of cryptocurrencies instead of the Turkish lira, which is Turkey's official currency, has reached a limit that will affect Turkey's state economy. In other words, there is a money traffic outside the country, in addition to the buying and selling of households within the country. If we start from the Bitcoin example, how Bitcoin will be defined by Türkiye is also important. Should Bitcoin be considered a form of payment or can it be considered money? Bitcoin is defined as a cryptocurrency by many authorities, but Bitcoin has high volatility, its price is not the same on stock exchanges, and it is not possible to price the products we encounter in daily life in terms of Bitcoin. These situations also bring about discussions about it being just a form of payment and not money. When we look at the attitudes of countries, we see that countries such as Argentina, Israel, Italy, Romania, Russia, Sweden, Spain, and the United Kingdom regulate their tax laws. We see that countries such as the Cayman Islands, Gibraltar, Hong Kong, Isle of Man, Liechtenstein, and Luxembourg regulate money laundering and the prevention of terrorist financing. Australia, Canada, Japan, Sweden, and Denmark are among the countries that regulate in both areas. In a report it is stated the countries that regulate in both areas are the most developed countries and the most optimistic countries that see a future in the cryptocurrency system (Library of Congress, 2018). In other words, the relationship between trust in the system and the regulation of the system is positive. The regulation and supervision of a phenomenon by an authority may be interpreted at first glance as a prejudice that it looks at that phenomenon negatively, however, regulation and supervision may be carried out because it is interested in that phenomenon and hopes for a healthier future, as we see in the example we mentioned. Again, in the example of Japan, after the loss of 650 thousand Bitcoins, the Japanese government decided to create a legal basis for blockchain assets in order to protect its investors and citizens and regulated the cryptocurrency system (Paribu, 2019). Japan's favorable position on cryptocurrencies, together with the substantial amount of transactions in the country, underscores a possible correlation between legal frameworks and the efficient operation of cryptocurrency systems. Studies suggest that persons with analogous socio-economic and socio-cultural backgrounds often display similar sentiments towards cryptocurrency. Individuals in higher income categories or with advanced technology knowledge are more inclined to accept and trust cryptocurrency systems. Nonetheless, an examination of national methods reveals a lack of standardization. Each nation has created unique policies and regulatory approaches informed by its economic objectives, technology capabilities, and assessed hazards related to cryptocurrencies.

In the future, nations with comparable developmental stages and interests in cryptocurrencies may implement analogous auditing, accounting, taxing processes, and tax cooperation frameworks. Studies demonstrate that bitcoin systems obviate the necessity for conventional financial institutions. In these systems, a single organization may dictate supply, demand, and blockchain pricing, allowing the market to operate autonomously. This invention represents a notable shift in the financial sector, as financial intermediaries have traditionally been essential in conventional monetary systems to mitigate information asymmetry and maintain market stability. The lack of intermediaries in cryptocurrency systems underscores the transformational potential of blockchain technology.

In Türkiye, although the cryptocurrency framework is not yet completely established, the user base is consistently expanding. This growth highlights the pressing necessity for accounting, taxes, and legal frameworks to govern the system efficiently. Despite possessing a high degree of awareness regarding cryptocurrencies, Türkiye has issued contradicting comments and has not yet implemented definitive regulatory measures, as shown in the literature. Historical tendencies indicate that in times of economic instability, consumers frequently pursue alternatives, resulting in increased demand for cryptocurrency as a contemporary financial innovation. The lack of laws engenders dangers, including the possible loss of investments by people or the migration of funds beyond the formal economy, so jeopardizing national financial stability. Developing nations such as Türkiye are more vulnerable to these threats. In a global comparison of Bitcoin ATM locations, the USA leads with 5,908 sites, while Canada follows with 777 sites (Sarıkaya, 2020). The data demonstrates the level of bitcoin infrastructure in prominent economies, which may act as a reference for Türkiye as it evaluates its regulatory and institutional strategy regarding the cryptocurrency ecosystem. Currently, there are just 10 sites in Turkey where Bitcoin transactions may be executed. Despite Turkey's position as the fourth most popular country for Bitcoin utilization globally, the comparatively low number of sites underscores a disparity. This may indicate Turkey's prudent stance towards cryptocurrencies, which are operational in practice yet devoid of official legal acknowledgment. The government's position might be viewed as a cautious policy: cryptocurrencies are not banned, but users are cautioned to engage at their own risk owing to the lack of security measures (Aksu, 2021). At the institutional level, Turkey seems to be employing a wait-and-see approach, maybe to deepen its comprehension of virtual currencies prior to establishing an official policy. Discussions suggest that the Council of Higher Education (YÖK) may implement master's degree programs centered on blockchain technology to cultivate competence in this domain (Kara, 2020).

Bitcoin originated as a reaction to the 2008 Global Economic Crisis, illustrating its association with times of economic instability. This connection was further emphasized during the COVID-19 epidemic, when the Bitcoin market underwent significant volatility. Such crises underscore the vulnerability of decentralized institutions to global economic fluctuations. While still conjectural, the Central Bank of the Republic of Turkey (CBRT) may have the capacity to create its own cryptocurrency. Considering that central banks typically function as the banks for other banks and possess the exclusive power to issue money, the rise of decentralized digital assets poses a substantial challenge to their authority. This conflict elucidates why central banks may regard cryptocurrency as a danger and are investigating methods to mitigate or adapt to this disruptive technology.

Nonetheless, given cryptocurrencies are inherently founded on open-source software, people and entities possess the capability to develop their own cryptocurrencies utilizing the accessible code (Ceylan, 2019). The open nature facilitates innovation and diversity in the bitcoin industry, resulting in a surge of new digital assets. Consequently, the market has grown exceedingly fragmented, with hundreds of cryptocurrencies now in circulation. This promotes competition and technical progress, but also presents considerable obstacles, including regulatory control, security concerns, and market volatility. These considerations elucidate why many cryptocurrencies struggle to achieve widespread acceptance or sustain value over time, as trust and usefulness are key to their success. In the absence of a regulatory framework to govern and supervise new innovations, the likelihood of fraud, scams, and speculative bubbles escalates, hence complicating the trajectory toward widespread adoption. This central bank-based initiative may seem contradictory to the basis of the cryptocurrency system. In addition, considering that the international cryptocurrency markets are very active while the domestic cryptocurrency markets are inactive, there is a possibility that this attempt will fail. Central Bank Digital Currency, called CBDC, is a new phenomenon (Yağıyanık, 2023). Of course, it is possible for the central banks of countries to be in constant communication against cryptocurrencies and to receive support from each other when necessary. The launch of a cryptocurrency by the CBRT prompts a crucial inquiry: in what ways will this cryptocurrency diverge from the digital iterations of conventional currencies? Can a cryptocurrency issued by the CBRT, which purports to embody certain characteristics of virtual currency—such as decentralization—attain global recognition and popularity? These factors underscore the intricacy of the matter. Blockchain technology, the foundation of cryptocurrencies, is defined by its distributed design, open-source code, and decentralization (Tarla, 2022). These characteristics fundamentally vary from the centralized management of currencies issued by central banks or regulatory agencies, highlighting a crucial distinction in their basic nature. Although nations such as the USA have advanced in acknowledging and regulating cryptocurrencies—demonstrated by the formal acceptance of Bitcoin and the identification of a substantial correlation between Bitcoin and the dollar from 2014 to 2017—Turkey has not yet undertaken definitive actions in this regard. This regulatory void contributes to the uncertainty around the possible linkages between the Turkish lira and Bitcoin. Moreover, an empirical examination of Turkey's economic landscape and the financial system's adaptability to cryptocurrency trends may illuminate the feasibility and possible ramifications of a cryptocurrency issued by the CBRT. Analyzing historical data on currency correlations and adoption trends, together with foreign case studies, might yield important insights into the potential emergence of a substantial link between the Turkish lira and Bitcoin.

4. Discussion and Conclusion

Although it is not related to the control of cryptocurrencies, it is a positive development that countries with similar cultures are taking a similar stance on the subject. It is obvious that blockchain is on the side of globalization in the struggle between globalization and nationalism. Therefore, blockchain may be vulnerable to nationalist developments because it requires international trust and belief. The system has a place in economic history as a revolutionary development because it complies with classical economic logic, but individuals have security needs before they invest for the future. In other words, blockchain technology is sensitive to political developments. Therefore, users of the system should not oppose the reasonable control requests of states altogether and should seek compromise. Turkey, on the other hand, should find a position between having all central control and no control by producing its own money through the central bank. People should not escape the system, that is, there should be certain conveniences, but these conveniences should not be conveniences that allow illegal transactions to be easily carried out. In the final analysis, the suggestion is to exhibit a hybrid approach to control. Otherwise, it will not be possible to benefit from a system with high demand and, more importantly, money will be transferred from within the system to outside the system. Turkey does not have to be El Salvador, which markets itself as the land of Bitcoin (Taçyıldız & Yorulmaz, 2022). However, it does not have to be a country that is completely against and prohibitive of cryptocurrency systems, especially Bitcoin. Turkey's development should be as follows: Turkey should recognize the cryptocurrency market and explain it to the public, make appropriate changes in the law to tax this market, create a new mechanism that will work with intermediary institutions for tax monitoring, and make regulations on taxes such as income tax and corporate tax that may conflict with the cryptocurrency tax. Finally, it should be noted that the fact that Turkey has not officially recognized Bitcoin makes it difficult to measure quantitatively how it affects its economy, and conducting a quantitative study after the developments in official channels will seriously support the research.

Since the cryptocurrency system is a system that reduces state control, especially money supply, in the economy, states may want users to stay away from the system by themselves, leaving them alone with the possible risks they will face. This situation is similar to the failure to prevent criminal traffic in a neighborhood that refuses to be connected to the state. States should not leave all authority to individuals for any purpose. Cryptocurrencies should be integrated with a central authority power, although the amount varies from country to country. While developed countries bring a more liberal central control, this central control may be stricter in developing countries such as Turkey. Effective control should not be against the system, but for the system to function more healthily. The lack of legal ground and control has made cryptocurrencies attractive in terms of making money with untracked applications and has made the system open to speculation. Undoubtedly, the recording structure of the blockchain does not make it possible to control it from a single source, and this is one of the factors that increases users' desire to take part in the system. In general, in an innovative development, as the owner of the development grows, he sits at the table with countries where users are densely present and obtains legal recognition through mutual agreement. Those who create cryptocurrency markets should mediate this agreement with countries by gaining visibility. The claim that markets can function healthily without financial intermediation is a claim that has not yet been tried in the history of money, therefore, the control of the necessary mechanisms is essential. The claim of those who advocate no control is that all transactions are transparent and that this cryptocurrency revolution supports democracy in this way. Because the power of the system increases with the increase in participation, but is there freedom without control or will we evolve into an anarchic system? This is an important question mark. Considering all these situations, it is seen that changing the public attitude towards Bitcoin, which is not defined as a currency, but expanding the asset with control would be the most logical option since the excessive risk in the system is known. The attitude towards cryptocurrencies should be changed, cryptocurrencies should really be defined as money and should be traded as a foreign currency. Since cryptocurrencies are assets with high liquidity, they should be included in the current assets section in accounting. Accounting for cryptocurrencies will prevent unrecorded elements made with cryptocurrencies and ensure that all transactions are recorded. In taxing cryptocurrencies, cooperation between countries would be useful because since the system is decentralized and anonymous, it will not be easy to identify cryptocurrency owners. There is a common goal of issuing cryptocurrencies among the countries of the Turkish World (Deniş & Demircioğlu, 2023).

References

Akdağ, M. (2019). *Kripto paralizasyon ve Türkiye ekonomisi için bir uygulama*. (Doktora Tezi). Atatürk Üniversitesi Sosyal Bilimler Enstitüsü.

Aksoy, B. (2023). Kurumsal yönetim endeksindeki şirketlerin kar dağıtım politikalarını etkileyen faktörler: Borsa İstanbul'da bir uygulama. *İstanbul Nişantaşı Üniversitesi Sosyal Bilimler Dergisi*, *11*, 193-212.

Aksu, H. (2021). *Küresel boyutuyla kripto paralar ve bunların Türkiye'de vergilendirilebilirliği üzerine bir değerlendirme*. (Yüksek Lisans Tezi). Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü

Alnıaçık, B. (2018). Kripto paraların Dünya ve Türkiye'deki güncel durumu Üzerine bir inceleme. *Research Studies Anatolia Journal*, *2*(4), 21-30.

Ateş, B. A. (2016). Kripto para birimleri, Bitcoin ve muhasebesi. *Çankırı Karatekin Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 7(1), 349-366.

Baig, M. (2022). The Impact of Cyrptocurrency over the Turkish Capital Market: A case study of Bitcoin (BTC). *Global Research Review in Business and Economics*, *8*(1), 54-62.

Birch, D. (2017). *Before Babylon, Beyond Bitcoin: From money that we Understand to money that understands us*. London Publishing Partnership.

Bouri, E., Gupta, R., Lau, C. K. M., Roubaud, D., & Wang, S. (2018). Bitcoin and global financial stress: A Copula-Based approach to dependence and causality in the quantiles. *The Quarterly Review of Economics and Finance*, *69*, 297-307.

Bucholz, K. (2021, Şubat 18). These are the countries where cryptocurrency use is most common. World Economic Forum.

Caşkurlu, E., & Arslan, C. B. (2021). Blokzincir teknolojisi, kripto Paralar ve finansal derinleşme: Türkiye üzerine bir analiz. *Iğdır Üniversitesi Sosyal Bilimler Dergisi*, *28*, 97-124.

Ceylan, M. E. (2019). *Bitcoin ekonomisi: Kripto para Bitcoin'in finans sektörü içindeki yeri*. (Yüksek Lisans Tezi). Batman Üniversitesi İktisat Anabilim Dalı.

Chaum, D. (2012). *Advances in Cryptology: Proceedings of Crypto 83*. Springer.

Çakmak, M. (2019). *Kripto paraların gelişim süreci, blok zincir teknolojisi ve kripto paraların Türkiye'de vergilendirilmesi*. (Yüksek Lisans Tezi). Marmara Üniversitesi Sosyal Bilimler Enstitüsü.

Çarkacıoğlu, A. (2016). *Kripto-Para Bitcoin*. Sermaye Piyasası Kurulu Araştırma Dairesi.

Çıkrıkçı, M., & Özyeşil, M. (2019). Bitcoin: Is it an alternative for the stock exchanges? A comparative panel data analysis for the far East Asian countries and Turkey Under the cross-sectional dependence. *Uluslararası İktisadi ve İdari İncelemeler Dergisi,* (22), 225-234.

Dayanan, D. (2021). Kripto para birimleri ve Türkiye'deki yasal uygulamaları. *Rahva Teknik ve Sosyal Araştırmalar Dergisi*, *1*, 37-44.

Deniş H. E., & Demircioğlu, F. (2023). Türk Dünyası orrtak kripto para vizyonu: TDCoin. *MANAS Sosyal Araştırmalar Dergisi*, *12*(2), 786-796.

Dyhrberg, A. H. (2016). Hedging capabilities of Bitcoin. Is it the virtual gold? *Finance Research Letters*, *16*, 139-144.

Fang, L., Bouri, E., Gupta, R., & Roubaud, D. (2019). Does global economic uncertainty matter for the volatility and hedging effectiveness of Bitcoin? *International Review of Financial Analysis*, *61*, 29-36.

Gökalp, B. T. (2022). Kripto para piyasasının Borsa İstanbul endeksleri üzerindeki etkileri. *Ekonomi, Politika & Finans Araştırmaları Dergisi, 7*(2), 481-499.

Güler, M. (2021). *Kripto paraların gelişimi, geleceği ve ekonomiye etkileri*. (Yüksek Lisans Tezi). Bahçeşehir Üniversitesi Sosyal Bilimler Enstitüsü.

Güngör Karyağdı, N., & Yolci, M. (2023). Kripto Para Kavramı Ve Denetimi. *Turkish Business Journal*, *4*(7), 1-13. https://doi.org/10.51727/tbj.1221264.

Gürbüz, H. (1995). *Muhasebe denetimi*. Bilim Teknik Yayınevi.

Hatipoğlu, O. G. (2021). Kamu politikası analizi açısından Türkiye'de kripto para politikaları. *Maliye Finans Yazıları*, 171-202.

Henry, C. S., Huynh, K. P., Nicholls, G., & Nicholson, M. W. (2019). *2018 Bitcoin omnibus survey: Awareness and usage*. Bank of Canada Staff Discussion Paper. 10.

Karadeniz, Ö. (2021). *Analysis of the relationship between cryptocurrencies and Borsa İstanbul: Before and after Covid-19*. (Master's Thesis). Istanbul Bilgi University Institute of Social Science.

Koç, E. (2019). *Paranın tarihi, evrimi ve kripto paralar: Dünya ve Türkiye Yansımaları*. (Yüksek Lisans Tezi). Beykent Üniversitesi Sosyal Bilimler Enstitüsü.

Library of Congress (2018). *Regulation of Cryptocurrency Around the World*, https://www.loc.gov/item/2018298387/

Nakamoto, S. (2008, Ağustos 21). *Bitcoin: A Peer-to-Peer Electronic Cash System*, Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3440802

Öget, E., & Kanat, E. (2018). Bitcoin ile Türkiye ve G7 ülke borsaları arasındaki uzun ve kısa dönemli ilişkilerin incelenmesi. *Finans Ekonomi ve Sosyal Araştırmalar Dergisi (FESA), 3*(3), 601-614.

Özgül, İ. (2021). *Kripto para piyasalarında Türk lirası işlemlere dair piyasa etkinliğinin ölçülmesi*. (Yüksek Lisans Tezi). TOBB Ekonomi ve Teknoloji Üniversitesi Sosyal Bilimler Enstitüsü.

Paribu (2019). *Dijital Varlık Analizi: Çapraz-Ülke Analizi*, Retrieved from https://www.paribu.com/blog/wp-content/uploads/2020/09/Paribu_Dijital-Varlik-Regu%CC%88lasyonu.pdf

Ray, K. (2024, February 20). *Milton Friedman's Vision and Bitcoin: A Free Market Economist's Take*. Forbes. https://www.forbes.com/sites/digital-assets/2024/02/18/milton-friedmans-vision-and-bitcoin-a-free-market-economists-take/

Ruhana, K. M., Omar, M., Bakar, N. A. A., & Muraina, I. D. (2019). Awareness, trust, and adoption of blockchain technology and cryptocurrency among blockchain communities in Malaysia. *International Journal on Advanced Science, Engineering ve Information Technology*, *9*(4), 1217-1222.

Sarıkaya, S. (2020). *Kripto para birimlerinin gelişimi ile Türkiye'de vergilendirilmesi ve muhasebesi*. (Yüksek Lisans Tezi). Ankara Hacı Bayram Veli Üniversitesi Lisansüstü Eğitim Enstitüsü.

Şahin, O. N. (2018). TMS & TFRS ışığında muhasebe, vergi ve denetim açısından bitcoin ve diğer kriptopara birimleri. *Muhasebe Bilim Dünyası Dergisi*, *20*(4), 898-923. http://dx.doi.org/10.31460/mbdd.401314.

Taçyıldız, M. O., & Yorulmaz, R. (2022). Bitcon as a public policy tool for financial development: A case from El Salvador. *İşletme Ekonomi Ve Yönetim Araştırmaları Dergisi*, *5*(2), 411-423.

Tarla, A. (2022). *Kripto paranın Türkiye'de vergilendirme durumu*. (Yüksek Lisans Tezi). Fırat Üniversitesi Sosyal Bilimler Enstitüsü.

Topaloğlu, B. (2021). Kripto paraların devlet otoriteleriyle entegrasyonu. *Düşünce ve Toplum Sosyal Bilimler Dergisi*, *4*, 244-258.

Topaloğlu, E. E. (2018). Kripto para Bitcoin ve döviz kurları ilişkisi: Yapısal kırılmalı eşbütünleşme ve nedensellik analizi. *CBÜ Sosyal Bilimler Dergisi, 17*(2), 367-382.

Yağıyanık, Y. E. (2023). *Kripto paraların Merkez Bankacılığı üzerindeki etkileri: Merkez Bankası Dijital Paraları*. (Yüksek Lisans Tezi). İstanbul Üniversitesi Sosyal Bilimler Enstitüsü.

Yermack, D. (2013). *Is Bitcoin a real currency? An economic appraisal*. Nber Working Paper Series.

Yıldırım, M. (2019). Blok zincir teknolojisi, kripto paralar ve ülkelerin kripto paralara yaklaşımları. *Bartın Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *10*(20), 265-277.

Yıldız, T., & Afşar, B. (2021). Kripto para dünyasının öncüsü Bitcoin'in Türkiye açısından değerlendirilmesi. *Karatay Sosyal Araştırmalar Dergisi*, (6), 73-106.

ETHICAL AND SCIENTIFIC PRINCIPLES STATEMENT OF RESPONSIBILITY

The authors declare that ethical rules and scientific citation principles were complied with throughout the preparation process of this study.

STATEMENT OF RESEARCHERS' CONTRIBUTION RATE TO THE ARTICLE

1st author contribution rate: 50%

2nd author contribution rate: 50%