



Establishment of a Digital Court to Resolve International Disputes Peacefully in Cryptocurrency

Leila Abdollahzadeh Ramhormozi^{1*}, Mohammad Mehdipour², Massoud Alizadeh³

¹ Lecturer and Ph.D. in Economics, International Orientation, Islamic Azad University, Isfahan Branch (Khorasgan), Master of International Law, Payame Noor University, Semnan Branch, Talented Member of the Researchers and Elites Club of Islamic Azad University, North Tehran Branch, Iran

² Assistant Professor of Law and Faculty Member of Islamic Azad University, Ilam Branch, Iran

³ Assistant Professor of Law and Faculty Member of Payame Noor University, Semnan Branch

Abstract

Cryptocurrency is a type of electronic money designed to eliminate intermediaries and anonymity for greater security. This currency is defined as a currency or Internet-based exchange intermediary that has similar characteristics to physical money. However, it transfers capital transactions instantly and without boundaries between individuals. The popularity of digital currency has led the legislatures of the research centers of central banks and jurisprudential centers of many countries to study its dimensions and use it in the economy, of course, Iran is no exception. According to experts, crypto currencies can perform the functions of traditional money and electronic money in the economy in the real world. As far as it seems, this money does not contradict Islamic principles and Sharia law. Therefore, as an accepted digital currency, it faces challenges and problems that must be turned into a reliable tool in exchanges with careful monitoring and appropriate regulations. Thus, crypto currencies have become a haven for people and businesses to hide their illegal activities such as gambling, selling counterfeit goods. Therefore, in this study, the legal issues of crypto currencies are examined by analyzing current and international laws, the advantages and disadvantages of crypto currencies, the conceptual framework of crypto currency policy and then the creation of a digital court to resolve disputes in this area as one of the possible solutions for the future of crypto currencies is suggested.

Keywords

Currency Code; Digital Court; Legal Issues; Peaceful Settlement of International Disputes

1. Introduction

All digital currencies (except Ripple) have one very important feature in common, and that is the concept of decentralization (Berg et al., 2019). In the sense that there is no centralized institution like

* Corresponding author: Lecturer and Ph.D. in Economics, International Orientation, Islamic Azad University, Isfahan Branch (Khorasgan), Master of International Law, Payame Noor University, Semnan Branch, Talented Member of the Researchers and Elites Club of Islamic Azad University, North Tehran Branch, Iran
E-mail-Address: press@researchhub.org

the government that oversees digital currencies and that a limited number of people or individuals take over the management of digital currency because they consider themselves superior. Digital currencies or crypto currencies are centrally controlled, as opposed to centralized banking systems. Undoubtedly, regulation of these technological tools, such as crypto currencies, puts legislators to a severe test. A test that reveals serious limitations and even inability to regulate, which can involve a wide range of risks. Undoubtedly, the legislative approach in this field is not out of two general cases. First; Prohibition of any use and second; Drawing an appropriate and dynamic legal framework (Evans, 2019). Therefore, in addition to examining the economic and political aspects, crypto currencies should be examined from a legal point of view. Governments should enact laws and regulations to take advantage of the crypto currency benefits of currencies, to avoid potential risks and legal risks, and to prioritize reviewing legal aspects and providing solutions to resolve internal and external disputes. However, investors in this area should be aware that the possibility of including "foreign exchange laws" in the future on the crypto currencies by legal approvals, in which case the legal status of crypto currency exchanges will face extensive changes. Hence, the risk of investing in this field, despite its attractiveness, is still very high (Björkdahl & Kronblad, 2021). Therefore, in this research, the history of international settlement and disputes, the introduction of crypto currencies and its legal problems, as well as the proposed solution for the formation of digital courts are examined.

2. History of the peaceful settlement of international disputes

In ancient times, governments tried to resolve their differences, but the most important method they used to resolve their differences was to resort to war, and for a long time it was allowed in international law, and some scholars of war They knew a natural phenomenon on the international stage. Due to the heavy damage caused by the war, the use of force was rejected over time, and countries tried to resolve their differences peacefully. Many efforts have been made to resort to peaceful means to resolve international disputes, but serious initial and comprehensive efforts at the global level should be found at and after the Hague Conferences (Berg et al., 2019).

3. Conferences 1899 and 1907 Hague Peace

A conference was convened on July 29, 1899, at the suggestion of Tsar Nicholas II of Russia to end the growing development of arms and lasting peace for the public. Welcoming the convention, the countries agreed to seek the mediation of third countries as far as possible before resorting to war, and to establish an international commission of inquiry to investigate the facts. Of course, any attempt at coercive arbitration failed. The 1907 Hague Peace Conference was more to address some of the shortcomings of the 1899 Hague Convention. The Third Hague Convention did not succeed with the preparations for World War I, and all the Hague Peace Conferences were the initial agreement of the League of Nations to establish rights and peaceful means of resolving disputes (Guffin, 2020).

4. Covenant of the League of Nations

Compared to the Hague Conventions, the "Covenant of Nations" was a step further. According to Articles 12 to 15 of the International Covenant on Civil and Political Rights, the prevention of aggression and the peaceful settlement of international disputes have a special place. In order to maintain peace and prevent the use of force, member states were obliged to resolve their disputes

through arbitration and judicial proceedings, or through diplomacy and politics. In 1930, the Permanent Court of International Justice was established. Of course, the Charter of the League of Nations did not prohibit the use of force. Prior to the Charter of the United Nations, other agreements were reached on the peaceful settlement of international disputes, such as the "Geneva Protocol" 1924 and the "Kellogg–Briand Treaty" 1928, which stated in Article 2: Members shall settle all disputes and disputes." "They resolve any nature and origin only through peaceful means" (Björkdahl & Kronblad, 2021).

5. United Nations Chart

One of the documents that has been prepared in the written history of mankind and has been accepted by the vast majority of the world is the "Charter of the United Nations", one of the most important goals of which is to maintain international peace and security and international cooperation. The charter refers to: In accordance with Article 2, paragraph 3, of the Charter, all Members shall settle their international disputes by peaceful means in a manner which does not endanger international peace, security or justice. Article 2, paragraph 4, prohibits the use of force and, in view of the importance of the issue of the peaceful settlement of international disputes, has been assigned to Chapter Six. Article 33 of the Charter states: "The parties to any dispute which may continue to jeopardize the maintenance of international peace and security shall, first and foremost, negotiate mediation, arbitration and judicial review, and refer to institutions or regional arrangements, and Or other peaceful means of their choice. " The UN Charter emphasizes the maintenance of peace and the settlement of disputes through peaceful means, in accordance with the provisions of the Charter, which prohibits the use of force. The UN General Assembly has so far issued resolutions emphasizing this important issue (Evans, 2019).

6. The nature of international disputes and their types

Any disagreement between countries cannot be considered an international dispute. For this reason, one must become familiar with the exact meaning of "international disputes" so as not to be suspicious of domestic disputes. According to paragraph 3 of Article 2, if there is an international dispute, the states are obliged to resolve the dispute peacefully. But disputes over the internal jurisdiction of governments have no obligation to resolve them peacefully. The Permanent Court of International Justice in the "Maro Matisse" case defines an international dispute as follows: "An international dispute is a disagreement on the subject of a right or a fact or a conflict of legal views or interests between two persons" (Guffin, 2020). In this definition, there are four elements that become clear when they are defined:

Pillar 1: Disagreement on the issue of rights, such as the right of sovereignty over the three islands, which is disputed between Iran and the UAE, and each of the two governments considers it its own.

Pillar 2: disagreement on a fact: that is, there is a difference in the occurrence of something like a difference in the start of the war, as each of the two countries introduced Iran and Iraq in the start of the war.

Pillar 3: Conflict in legal views, such as the conflict between Israel and the United Nations over the legal personality of the United Nations. Kenneth Bernadotte was assassinated by the Israelis as a mediator between the Arab states and Israel in the occupied territories, and the United Nations claimed

compensation. Israel said the UN, which has claimed compensation, has no legal personality and therefore cannot claim compensation. Only that person's country can claim compensation. In contrast to this legal theory is the United Nations Advisory Theory of the Court of Justice, which recognizes the existence of legal personality for the United Nations to carry out its objectives and tasks. Pillar 4: Conflict in the interests of two persons: The subjects of international law were first countries and later organizations and now individuals are also considered as subjects of international law. In the fourth pillar, most governments are involved. Of course, organizations also have a special place in international disputes, but individuals are not yet considered as parties in international disputes. International disputes are divided into two categories by nature: legal disputes and political disputes. Legal disputes are disputes over existing rights or issues related to their interpretation and application. Political differences are conflicts of interest and conflicts between issues of international law regarding the change and reform of existing rights. In some definitions, political disputes are generally referred to as disputes that cannot be resolved through law. Of course, it is not the case that a dispute has only a legal aspect or only a political aspect. In general, disputes have two aspects (Legg, 2021).

7. Methods of resolving political disputes

Legal methods cannot be used to resolve political disputes. Rather, we must use political methods. The main methods for resolving these disputes are: negotiation, Jamileh efforts, mediation, research and compromise. Negotiations include bilateral negotiations, multilateral negotiations, comprehensive negotiations or "parliamentary diplomacy". Types of mediation include mediation before the conflict, mediation after the conflict (Björkdahl & Kronblad, 2021).

7.1. Introduction of ciphers

In recent years, many encrypted digital currencies such as Bit coin, Monroe, Ripple and Atrium have gained immense popularity and many users around the world are looking to extract and convert their currencies into digital currencies and invest in these currencies; Because these days, many people have been able to earn a lot of money by buying and extracting these digital currencies. Digital currencies have largely removed geographical boundaries and restrictions, and traders from countries such as Iran, which have limited access to payment and financial systems, have been able to profit from the market for these currencies (Berg et al., 2019).

7.2. Introducing digital currency

Bitcoin, Ethereum, Litecoin, Zcash and Ripple are some of the biggest names in the world of digital currency or Cryptocurrency. But what is the answer to the question of digital currency? It can be said that digital currency is a kind of electronic money. In fact, the storage and transfer of this type of currency is not done physically but electronically. Digital currency is managed by users around the world instead of in banks. No one can manipulate the balance of the account or accounts because all participants must agree on a digital currency network for each transaction. The advantage of digital currency is that there is no centralization. This means, for example, that there is no bank that can be called the center of exchanges and transactions, and therefore hacking digital currencies is a very difficult task. In addition, in order to send physical money from one country to another, national and international banking laws must be observed so that the bank can allow money to be sent from one

country to another, and we have not even seen a bank prevent sending money from one country to another. , Especially a sanctioned country; But for sending and transferring digital currency, it does not matter how far it is (Evans, 2019). Digital currencies are "decentralized", which means that there is no data center and no individual or entity has complete control over them.

8. Types of digital currencies

There are many digital currencies around the world right now, but there are some that are more popular than other currencies.

8.1. Digital money

Digital money is money that can be exchanged electronically and online. When it comes to digital currencies or crypto currencies, most people think of digital money. Digital money is more secure and faster than paper money (printed by the central bank without government backing) and the banking system. With the creation of Bit coin as the first digital currency (crypto currency) by Satoshi Nakamoto in early 2009, it is possible to make money with Moved a few clicks to others. In addition, governments and the banking system monitor transactions and may impose restrictions on remittances or reduce the speed of money transfers. In addition, digital currencies do not have the problems of paper money. It is also possible to receive services from sites that offer their services in digital currencies, regardless of whether the countries are sanctioned. Digital currencies based on blockchain technology are a combination of the three components of the Internet, cryptography, and decentralized protocol (Guffin, 2020). The most important digital currencies that fall into the category of digital money are: BTC, LTC, VTC, NANO and DOGE Digital money itself is divided into the following two categories:

A. StableCoin: Fixed currencies are backed up and, as digital currencies that do not fluctuate in price, are opposed to the common paper currencies we use. One of the most popular of these digital currencies is USDT. But given the recent developments in USDT digital currency, other fixed currencies such as the DAI are expected to have a good future.

B. Privacy: Secure digital currencies hide the identities of the people who use these currencies. Of course, not all secure digital currencies hide 100% of an individual's identity. One of the things that is safe about digital currencies, and perhaps less so, is the ability to send money without paying taxes. The government of each country receives a lot of taxes, even for the transfer of money. But when you use secure digital currencies, you can transfer your money transactions anywhere in the world without paying taxes and other fees without opening a bank account or giving an account to this person or individuals for this transfer. Good examples of secure digital currencies are: XMR, ZEC, ZEN, XVG, NAV, PIVX and PHR.

8.2. Digital financial currencies

Digital financial currencies comprise a large portion of digital currencies or cryptocurrencies and fall into the following six groups.

8.3. Digital payment currencies

OMG, XRP, XLM, and REQ.

8.4. Digital Currencies Exchange

Centralized exchanges are online platforms used to buy and sell cryptocurrencies. These exchanges are the most common tools used to buy and sell cryptocurrencies. Since 2017, after prices have risen sharply, many people have entered the cryptocurrency market to invest. The increasing spread of cryptocurrencies among individuals has led to high capital inflows into this market. This influx of large sums of money has attracted the attention of hackers. As a result of the increasing number of hackers and the hacking of centralized exchanges where transactions worth millions of dollars are made, a new type of decentralized exchange has been created that is expected to be resistant to hacking. While many centralized cryptocurrency exchanges keep users' private keys on their central server, this greatly increases the likelihood of being hacked (Prom Tep et al., 2019). If a hacker gets access to a user's private key, he or she can easily access all of his or her wallet balance and transfer it to one of his or her secure accounts. Decentralized exchanges, on the other hand, do not store any currency or private keys on a central server. Therefore, it will be very difficult for hackers to trace and obtain passwords. Centralized exchanges have always been criticized for their security fragility and slow processing speed. In some cases, withdrawing money from an online exchange has even taken several days. Popular decentralized exchanges also have their own drawbacks. These exchanges often do not have enough cash to support fast exchanges, and exchange costs will increase if the list of reserves remains within the chain (Legg, 2021).

8.5. Digital investment currencies

Currencies that facilitate the investment process with the help of blockchain technology:

- **POLY:** The POLY team intends to develop a standard protocol for issuing and exchanging securities on the blockchain platform. In fact, Polyamus is the link between securities and blockchain.
- **ICN:** is a new exchange or trading facility that allows users to buy and sell digital currencies in Euros. ICN is a new and unique technical service that allows anyone from beginners and blockchain professionals to invest in and manage digital assets.
- **C20:** CryptoTuent C20 is an atrium blockchain token created in 2018. The C20 cryptocurrency box contains the first 20 digital currencies, and with the C20 cryptocurrency token, it is like investing in the first 20 digital currencies.

8.6. Digital currencies of loans and loans

These digital currencies provide unsecured lending with the help of blockchain technology. For example, LEND and RCN provide peer-to-peer loans at a very low cost and without intermediaries.

8.7. Digital currencies attracting capital

These digital currencies make it possible to raise capital or money with the help of blockchain technology. For example, KICK is a decentralized platform for creating fundraising campaigns.

8.8. Digital currencies of insurance

These digital currencies make it possible to insure in a decentralized way with the help of smart contracts. Here, in the event of an accident, there is no need to respond to the experts of insurance

companies and the various reasons and comments that lead to non-payment. GBYTE, for example, offers smart insurance contracts on a blockchain platform (Prom Tep et al., 2019).

9. Legal status of cryptocurrencies in Iran and other countries

With the further expansion of cryptocurrencies, especially Bitcoin, in Iran, the Central Bank adopted a policy based on the prohibition of use. According to the instructions of the Central Bank of Iran dated 10/09/2017, based on the ability to use virtual currencies in money laundering and terrorist financing, any use of them in the monetary and financial centers of the country was prohibited. This passive approach and the attempt to erase the problem instead of providing a proper answer and solution, as expected, not only did not work, but also had negative consequences, including the undergrounding of activities in this area. ; Among them, we can mention the excessive and unregulated consumption of electricity and some scams committed in this field. However, the Central Bank of Iran in a significant turn, with the publication of the draft document "Requirements and Criteria in the field of cryptocurrencies" dated 08/11/1397, intends to adopt an appropriate approach in this area. Despite the serious objections to the draft of this document, it can be considered a step forward in the regularity of the field of cryptocurrencies (Vyhovska et al., 2018). The next step in policy-making regarding cryptocurrencies is the "approval letter regarding the use of cryptocurrencies", which was approved by the Cabinet on 05/13/2009. However, the question that still remains regarding the legal status of Ramzarz exchanges is whether its sale and purchase is prohibited and has a performance guarantee or not? Although the instructions of the Central Bank and the approval of the Cabinet of Ministers explicitly prohibit the use of cryptocurrencies in monetary and financial centers and their use in domestic exchanges, this does not mean that it is a crime to buy, sell and maintain cryptocurrencies. Citing the principle of legality of crimes and punishments, if a law is not passed in the field of criminalization and punishment in this area, any action in this field is considered permissible (Sela, 2019).

According to a note that has been added to the Law on Combating Commodity and Currency Smuggling since May 20, 2012, all cryptocurrencies are examples of the Law on Currency Smuggling and the rules and regulations related to currency are applied to them. Report of the Parliamentary Monetary Affairs Commission of the European Parliament on the Opportunities and Threats of Virtual Currencies The European Parliament's Monetary Affairs Commission published a report on virtual currencies in 2016, based on twenty reports and technical evaluations published by various national and international institutions. It is as follows (Björkdahl & Kronblad, 2021): "Although a universal and applicable definition of virtual currency has not yet been developed, virtual currencies are sometimes referred to as digital cash. The EU Banking Authority defines virtual currencies as a form of digital representation of value, not by a bank. It is not centrally issued and is not necessarily linked to an unsupported currency. Virtual currency is accepted by individuals and legal entities as a means of payment and can be transferred, stored or exchanged electronically. Virtual currencies are generally based on technology "Distributed general offices rely on the technical infrastructure of more than 600 virtual currency schemes and facilitate Peer to peer exchange. The most popular virtual currency is Bitcoin, Bitcoin has not yet reached the system-sized dimensions"².

² Systemic Dimensions : Or in terms of the impact on the financial system or the value that comes from the general acceptance of a system.

According to a 2016 report by the Monetary and Banking Committee of the European Parliament, the risks and opportunities of virtual currencies and distributed payment offices are (Berg et al., 2019):

- 1) Virtual currencies and distributed general offices have the potential to improve the welfare of citizens and economic development. Improving the financial sector can be done in the following ways:
 - A) Reduction of transactional and operating costs of payments is possible, especially in the transfer of overseas financial resources, and it is even possible that the transfer fee is reduced to less than 2 to 4% in traditional online cross-border payments or 7% in cash transfers. Decrease by one percent. So optimistically, the global cost of remittances is projected to fall to € 20 million.
 - B) More generally, it is possible to reduce the cost of access to financial resources without a traditional bank account, and as a result, possibly including the financial achievement of the G20 and G8 goals³, five to five (with the aim of reducing the cost of migrant workers' remittances). Will help.
 - C) System resilience increases and, depending on the architecture, even the speed of payment systems and the trading of services and goods increases due to the architecture of the distributed general office. Also, even if parts of the network do not work well or are hacked, the system will remain reliable.
 - D) Systems are created that provide ease of use with low operating and transaction costs and a high level of privacy. In these systems, users are not completely anonymous, so in the event of a breach, transactions can be tracked, and therefore transparency can generally be increased for market participants.
 - E) Such systems are used to create secure online retail payment solutions while protecting privacy and replacing some online business models that challenge privacy.
 - F) It is possible that different types of innovative and traditional payment mechanisms, from credit cards to mobile solutions, can be integrated into one user-friendly and secure application, and this can expand various aspects of e-commerce in Europe and deepen the single market.
- 2) Virtual currencies and distributed general ledger plans also have risks that need to be addressed appropriately to improve their reliability, especially in the following areas:
 - A) The absence of a resilient and reliable governance structure, or indeed the definition of such structures, especially in some distributed general office applications such as Bitcoin, which creates uncertainty and problems for the protection of consumers and users. Especially when there are challenges that have not been seen before by early software designers.
 - B) High volatility of virtual currencies and the ability to create speculative bubbles and the absence of traditional regulatory oversight, Safeguards and Protection are issues that particularly challenge consumers.
 - C) Sometimes the capacity of regulators in the field of new technology is limited, this can define appropriate safeguards in a timely manner to ensure the proper and reliable operation of distributed general office applications, when or even before they grow to an systemically relevant in the system. Make it difficult to reach.
 - D) Legal uncertainty about new applications of distributed general offices.

³ G20 and G8 '5x5 objective: G8 and G20 target to reduce migrant workers' transfer costs from 10% of total to 5% in 5 years.

E) High energy consumption of launching certain specific virtual currencies, according to the report of the senior scientific advisor of the British government in the field of distributed general offices. In the case of Bitcoin alone, power consumption exceeds one gigawatt. This can be a reason to promote and invest in more efficient transaction validation mechanisms.

F) Lack of sufficient and transparent technical documentation of how some virtual currencies and other distributed general office plans work.

G) Potential sources of financial instability that may be related to derivative products that feature virtual currencies.

H) The possibility of limiting the impact of monetary policy in the long run if virtual currency schemes are widely used as a substitute for Fiat currency.

I) Applicability to transactions in black markets, money laundering, terrorist financing, tax evasion and fraud, and other criminal acts based on the pseudonymity and combinability of the money offered by some of these services and the distributed nature of virtual currencies. Of course, it should not be overlooked that the ability to track cash is still much lower than virtual currencies.

3) Addressing these risks will require improved regulatory capacity, including technical expertise and the development of a legal framework in line with innovation. In order to achieve the applications of distributed general offices to the extent of impact on the system to respond appropriately and in a timely manner.

4) It should be noted that if the regulation is done in the very early stages, it cannot be applied to the fluid state and may give the wrong message to the public about the advantage or safety of virtual currencies. Various EU institutions in their field of activity have adopted resolutions and measures in the field of virtual currencies, some of which are as follows:

10. Virtual currency in EU regulations on money laundering and terrorist

Financing In the European Union⁴, the financial intelligence units of each country are responsible for combating money laundering, and money laundering regulations are formulated jointly by the Council of the European Union and the European Parliament. In December 2017, the Council of the European Union announced that the European Parliament and the Council of the European Union had reached an agreement on the revision of the Fourth Anti-Money⁵ Laundering Directive. These regulations seek to reduce anonymity and increase traceability by assessing requirements and better identifying customers. These regulations put the supply⁶ of wallets and virtual currency⁷ exchanges within the scope of obligated entities. Those in charge of the money supply and virtual currency exchanges will be required to adopt policies and procedures to prevent the financing and detection of terrorism and money laundering. These amendments include only the conversion from virtual money to synthetic money. As a result, virtual currency to virtual currency exchanges will be excluded from the scope of the revised anti-money laundering regulations of the fourth version. The final text of the Fifth Anti-Money Laundering Regulations, which must be approved and signed by the Council of Europe and the European Parliament, will enter into force eighteen months after its publication in the

⁴ Financial intelligence Units

⁵ 4AMLD: 4th Anti-Money Laundry Directive

⁶ CWPs: Custodian Wallet Providers

⁷ VCEPs: Virtual Currency Exchange Platforms

Official Journal of the European Union. Therefore, the new anti-money laundering regulations are expected to be implemented in late 2019 (Evans, 2019).

11. Exemption from VAT on the exchange of virtual currencies (ruling issued by the Court of Justice of Europe)

The European Court of Justice is a subset of the Court of Justice of the European Union, which has the task of interpreting EU law. As mentioned in the previous section, the European Central Bank was one of the first institutions in the group to classify virtual currencies such as bitcoin as payment instruments. In 2015, the European Court of Justice, arguing that payment instruments are not subject to VAT, imposed a VAT exemption on virtual currencies convertible into official currency. Of course, income tax and other taxes also apply to such currencies. It is applicable that each European country has its own rules in this regard (Guffin, 2020).

12. Virtual currencies in the policies and laws of the United States Federal Government

To date, the US government has not exercised its legal authority to regulate blockchain technology and cryptocurrencies. This means that different states in the country can enforce their own rules, and some states have already enforced this. Arizona, for example, regulated blockchain and smart contracts in March 2017 in Act No. 2417. The state of Vermont has passed regulations that allow data stored in the blockchain to be presented in court without the need for third-party validation. Delaware has also taken confirmatory steps to adopt blockchain technology. Virtual currencies have been examined by the executive branch in the interpretation of US federal public law as follows.

a. Virtual currencies in US money laundering and counterterrorism regulations

Money laundering control law and patriotism law are two examples of anti-money laundering and terrorist financing laws. But in the United States, the Banking Secrecy Act is the main anti-money laundering law, and the Financial Crimes Network (FINCEN) enforces it. In 2013, FINCEN issued an interpretative guide to the Banking Securities Act on virtual currencies. According to this decree, virtual currency was defined as follows. "An intermediary that acts like money in some environments but does not have all the features of real money" and "has a value equivalent to real currency or acts as an alternative to real currency". FINCEN considers bitcoin to be a standard example for the purposes of the Bank Secrecy Act.

The FINCEN Guide states that a user who acquires convertible virtual currency and uses it to purchase virtual or real services or goods is not a monetary service provider. But centralized virtual currency administrators or exchangers and decentralized virtual currency exchangers are money transferrers, so they are covered by the Banking Secrecy Act. This means that these businesses must register with FINCEN and abide by the strict rules. Finson's subsequent guidelines in 2014 stipulate that those who process and validate transactions by installing software that meets the requirements of the system and earn a fee or reward for doing so, such as those who so-called extract bitcoins, are not subject to these rules.

FINCEN 's actions were limited to the United States, but in 2017 the organization for the first time condemned a virtual currency exchange center outside the United States and its manager was arrested in Greece. Since 2011, companies that facilitate transactions that are wholly or partly owned by parties

in the United States have been subject to US monetary service regulations. The organization's success in obtaining transaction information that is not relevant to US citizens or enforcing the law requires new regulation and the support of other countries.

b. Uniform regulation of virtual currency businesses (draft by the Uniform Rights Commission)

The latest development at the federal level is the drafting of virtual currency regulation in October 2017 by the Uniform Rights Commission. The commission is a non-profit body of lawyers, jurists, legislators and law professors. Virtual currency business activities are defined in this draft as follows (Björkdahl & Kronblad, 2021) :

- 1) Exchange of virtual currencies with cash, bank deposits or other virtual currencies,
- 2) Transfer virtual currency from one customer to another.
- 3) Specific types of Custodial or Fiduciary in which assets are controlled or managed by a custodian, which may include property or assets known as virtual currency. Of course, the approvals of this commission are not binding. Countries' policies in the field of national virtual currencies National virtual currency can be divided into two categories depending on the approach of countries. In the first category, national virtual currencies of countries declare that they manage one of their natural resources or markets (for example, oil, gold or tourism market) through national virtual currency units. This means that people who intend to buy oil from that country or intend to travel to the target country can achieve their goal by buying these virtual currencies, that is, certain oil companies or hotels offer services in exchange for the national virtual currency. The second type of approach to national virtual currency is that each unit of national virtual currency is supported one by one by a national currency and that virtual currency can be purchased with the national currency (deducting commission). National virtual currencies are issued by both the private sector and governments. For example, each USDT 3 is supported by one dollar, and every time a person buys dollars from Tetra, another company called Cryptobank publishes the virtual currency of different countries with one-on-one support. In these cases, the virtual currency publishing company undertakes to have the equivalent of that country's currency. The success of cryptocurrencies in gaining users' trust in investment has encouraged governments to take advantage of what makes virtual currencies attractive to their users. National virtual currency can be analyzed in any country in the economic context and technical capacity of that country. Many national virtual currencies are in the feasibility stage, and governments are pursuing the supply of national virtual currencies by following the path of technological advancement and studying experiences.

13. Conceptual framework of cryptocurrency policy

Important points in the field of cryptocurrencies can be classified into four main axes. These four axes are: theoretical and knowledge problems, security of individual capital, the bedrock of social crimes and offenses and threats to macroeconomics. In the following model, the cryptocurrency challenges of currencies are plotted in these four axes, and the institutions mentioned in the model are responsible for solving each of the challenges. In fact, the model below is a roadmap that should be seen in all its dimensions for policy making and referred to the relevant institution. Also, the outflow of currency from the country and the high waste of energy to extract bitcoin can be considered as other threatening factors of Iran's economy (Evans, 2019).

13.1. The advantages of cryptocurrencies

The most important advantage of using these encrypted digital currencies is the elimination of intermediaries, the elimination of additional costs, decentralization, the elimination of errors based on data. One of the advantages of China Blockchain technology is the security of data and information that is actually important to many people. For example, it has recently been revealed that Facebook sells its users' information (data) to others, while many people do not want to share their details and data with others. Good capacities of the currency code can be used, because it cannot be tracked, it can be used to generate currency for the country or import. The most important features of virtual money, which are freedom of payment and international access, low operating costs, illegality, peer-to-peer, network-based, commodity, assets, high transfer speed and cross-border, low transfer costs Having advanced mathematical conventions, e-wallet, decentralized, unsupported, advanced encryption; Lack of uncontrolled money creation in the economy and control of inflation and use of currency code in the conditions of sanctions, inability of governments to confiscate and block, initial supply of coins, possibility of splitting and upgrading protocols, smart contracts, impossibility of counterfeiting currency codes, possibility of increasing investment It is foreign (Metzger, 2019).

13.2. Encryption locations and transparency of cryptocurrencies

Many cryptocurrencies are transparent about their obligations. Most of them provide explanations, information and other relevant materials in a prototype that is a long document about the generalities of the project and its technology. This information usually includes a roadmap, team members, and often their code.

13.3. Disadvantages of cryptocurrencies

There is a need for management and supervision of the central bank, which can estimate it to some extent through, for example, electricity consumption and the amount of processing. Industry with very high risk and cryptocurrencies, including bitcoin, face sharp price fluctuations. The password of the world currency is not valid and the ability to trade with it is very limited. Inheritance problem: In the existing banking system, if the account holder dies. It will be possible for the heirs to have access to the deceased's account after going through the legal process. While in the cryptocurrency system, access to a person's account is possible only by having a wallet address and password. If this information is only available to the deceased, there will be no mechanism for the heir to inherit. - One of the important challenges of any emerging phenomenon in the Iranian economy is the religious views about it and the duty of Muslims towards it that the secrets of currencies are also among these phenomena. Due to the complexity of this issue, jurisprudential scholars of different religions have presented contradictory opinions. But in general, by reviewing the opinions of researchers in this field, it can be concluded that the cryptocurrency should be examined with two approaches of individual and governmental jurisprudence, at two levels of extraction and trading, as well as three scenarios of goods, money and securities (Maréchal, 2018).

13.4. The code of currencies from the point of view of individual and governmental jurisprudence

In examining the Shari'a ruling on the code of currencies in government jurisprudence, the following five rules should be considered: The rule of no harm and no harm in Islam, denying the interests of Muslims, justice and fighting against the oppression of the principle of fidelity. Among these, only important issues and objections to the code of currencies They can be the second and third case. The rule of no harm and no harm in Islam enters into the jurisprudence of the individual from the individual jurisprudence in the first way and states that in any transaction the parties or parties should not be harmed by the transaction which can be generalized at the governmental and economic level. Given that the price of bitcoin and cryptocurrencies are better controlled by supply and demand than any other commodity in the world, at the individual level, the loss cannot be noticed by someone who is aware of the price, otherwise the condition of arrogance in the transaction is established. will be. Also, the general harm of the presence of cryptocurrencies to society is not provable, and as we will explain at the end of the article, cryptocurrencies have features that are acceptable to Islam, but the current world currencies do not have these characteristics. Another factor cited for the invalidity of the Bitcoin transaction or its prohibition is its alleged connection to the enemies of Muslims or the like, which can be used as a rule to deny the mustache to provide a sharia ruling for or against the currency code (Metzger, 2019).

The rule of negation of the mustache is to block the possibility of others dominating the Muslim community through the code of currencies. One of the strongest answers to these doubts is the Shari'a rule "Al-Binah Ali Al-Mada'i". In addition, the decentralized and distributed nature of most blockchain networks can be observed. In addition, ownership in the blockchain is private, and a foreign government cannot dominate another country because the currency code or its extraction is in the hands of the people of that country. Also, the nature of the blockchain ecosystem, similar to the network itself, shows a kind of distribution in which different parties in the network sometimes have conflicting interests. For example, cryptocurrency holders, miners, cryptocurrency exchanges, wallet cryptocurrencies, blockchain developers are all parties involved in an ecosystem, none of which can function without the presence of the other minimum, for example, simply mastering the Bitcoin code repository. Capture the Bitcoin blockchain network. As for the interests of Muslims, there is no reason or claim for or against the cryptocurrency against the interests of Muslims.

13.5. Create a digital court using China blockchain technology to resolve disputes

Researchers at the University of Tokyo and the [University of British Columbia \(2020\)](#) have created a digital court using blockchain technology that can have the same functions as traditional courts in resolving disputes as well as deciding whether to enforce contracts. The digital court was designed by Professor Hitoshi Matsushima, a professor at the [University of Tokyo School of Economics, and Shunya Noda \(2020\)](#), a professor at the Vancouver School of Economics at the University of British Columbia, based on the idea of smart contracts.

These contracts are actually code that runs on a Chinese blockchain platform and is based solely on computer code. This digital court can be used to resolve disputes over auctions and commercial and sales contracts, without the need for the usual court proceedings. "Digital courts can impose penalties on parties who waive their legal obligations, such as business," Matsushima said in his investigation. The court can also act as a court in other types of agreements. In an article published by the Center for

Advanced Financial Research (2020): Using smart contracts, this court is equipped with an independent mechanism that has no dependence on judicial institutions or bilateral relations. Matsushima states: "Whenever there is a doubt about a violation of the law for the parties involved, they send their lawsuit to the court." The court then collects all the opinions of the parties involved algorithmically before concluding which party has violated the agreement. If the digital court finds that one of the parties has violated the agreement, the other party will be sentenced to pay the amount specified in the original agreement (Maréchal, 2018).

Because smart contracts operating on blockchain platforms are publicly visible, much of this process takes place off-chain to minimize the privacy costs of both parties while minimizing the cost of interacting with the blockchain platform. . In another part of the details of this plan, it is stated: If the parties have drawn up a smart contract for a specific purpose, the public can scrutinize the details of the final agreement reached by the parties. Of course, for a digital court to function reasonably well, participants must tell the truth. In fact, participants can put incorrect information in a smart contract. To solve this problem, also known as the "Oracle Problem", the digital court encourages them to include real and correct information in the contracts. Encouragement by the court is done in two ways: First, the court fines the members of the jury for making contradictory statements. In the second part, the court enables the representatives to have a vote between the two in addition to the verdict for conviction or acquittal. In other words, the court encourages more reasoned representatives to make "more honest statements" than other representatives". As long as there are more honest users than liars, which fortunately is the case in the real world, only those who violate the agreements or provide false information will be prosecuted," Matsushima said. In this way, honest users will only pay for the use of the system and will not be penalized. The study also found that any party to the agreement, including those who violated the law, could use China Blockchain technology to enforce autonomous mechanisms. Even if lawmakers oversee the China bloc, they will not realize that a digital court has been used to pursue a legitimate or illegitimate goal. Project stakeholders recommend that lawmakers carefully consider solutions to prevent the misuse of smart contracts. Matsushima said that the Chinese bloc is sometimes like a double-edged sword, and instead of being afraid of this new economic system and ignoring it, one should accept it and examine its various aspects. We have found a way to implement agreements that do not require traditional law enforcement or long-term bilateral relations. A digital court can be set up on current Chinese blockchain platforms such as Atrium. A feature that can still be implemented.

14. Conclusion

Buying Bitcoin and other cryptocurrencies has long been recognized as a new investment among market participants. Types of cryptocurrencies have found their place among the audience and every day new uses are considered for it. One of the suggestions of the Ministry of Energy was that the servers of the cryptocurrencies should be restricted during the summer and peak consumption, and monitoring through smart controllers is possible. Some sources in this study consider virtual currencies as an example of lazy capitalism with all the advantages and disadvantages of this approach. The unbridled competition of virtual currencies goes beyond technical competition. These new currencies have provided the basis for testing economic theories and monetary models that could be the subject of future scientific studies. The total value of virtual currencies has risen from € 5.5 billion in 2016 to € 256 billion in mid-2018. The volume of transactions in the top ten virtual currencies is more than 10

billion euros. This means that if the volume of daily transactions of a country's oil sales is 2 million barrels and the rate is 60 euros per barrel, this amount of transactions is less than 2% of the daily trading volume of virtual currencies. National virtual currencies are not necessarily cryptocurrencies, but cryptocurrencies have also been used to design national currencies. However, the use of open and transparent protocols can be effective in gaining people's trust and participation in such projects. According to the European Parliament's Monetary and Banking Committee, distributed virtual currencies and head office technology can reduce transactional and operational costs of payments, especially in the transfer of cross-border funds, and increase the resilience and speed of financial payment systems and public transparency. On the other hand, problems such as high fluctuations in virtual currency rates, speculative attractions, and the lack of appropriate governance structures for managing many primary virtual currencies, reducing the strength of national monetary policy in the long run are part of the risks of these currencies. In the European Union, VAT exemption is applied for the transfer of funds through virtual currencies, and trading in virtual currencies with the euro is not prohibited. In some cases, virtual currencies are a risky commodity. In this case, the regulatory and administrative authority for these currencies can be the supervisory body of the stock exchange and the commodity exchange of those countries. In the United States, for example, the Commodity Futures Trading Commission and the Securities and Exchange Commission have classified virtual currencies such as bitcoin as commodities and financial instruments, and in this sense a financial instrument and transaction taxes. Assets are applied to it by tax authorities. Another feature of virtual currencies is the ability to transfer funds through these tools. In this regard, the anti-money laundering regulations of each country are applicable to it. Here, virtual currency exchange centers should be regulated and tax collection in this area must be done with an emphasis on meeting the information needs of the relevant authorities. Virtual currencies have different aspects, that is, they have both the functions of money transfer and the functions of a capital good. Some people may use the technical capabilities of virtual currencies for money laundering, speculation or tax evasion. Guardian of Anti-Money Laundering in Iran The Supreme Council for Combating Money Laundering, Combating Speculation through the Supreme Council of Stock Exchanges and Combating Tax Evasion is possible through the Tax Affairs Organization. Appropriate action in the current situation can put the virtual currency market on the rails of the country's policies, but policy measures should not lead to the accreditation of virtual currencies or the government should be considered to support these financial instruments and the risks of these instruments should be explained to the public. The most important priorities for enjoying the benefits of virtual currencies can be seen in Table (1).

- In such circumstances, all relevant institutions, including the Central Bank, the Islamic Consultative Assembly, the Stock Exchange and Securities Organization, the National Cyberspace Council, the Ministry of Information, the Judiciary, the Ministry of Economy, the Tax Affairs Organization, the Monetary and Credit Council, the Supreme Council for Combating Money Laundering, The FATA Anti-Trafficking Headquarters, Customs and FATA Police need to form a joint working group as soon as possible by drafting laws and regulations and approving them in the relevant authorities, to avoid possible risks of buying and selling cryptocurrencies such as money laundering, tax evasion, losses and Prevent losses from price fluctuations, etc. To facilitate this process in this study, a general framework of the existing challenges to the cryptocurrency and its relevant responsible institution was designed as a roadmap for the legislator so that policymakers can master all the

dimensions of the challenge of this type of currency and refer appropriate laws and regulations by reference. Establish each of the challenges to the relevant institution.

- Due to the rapid changes in blockchain technology and cryptocurrencies and the slowness of the country's decision-making system, one of the most important challenges facing policymakers is the delayed announcement of laws that after a while will be forced to change previous laws and regulations based on developments in this area. Correct that if ignored the existing dynamics and limited view can question the credibility of the policymaker.

Table 1. Summary of political lessons in the experience of virtual currencies in different countries

Political issue	America	European Union	Iran
Money laundering	<p>Responsible institution: Financial Crimes Network</p> <p>Method of action: Publication of guidelines and legal action</p> <p>Priority of action: Regulation of virtual currency exchange centers</p> <p>The subject of action: Obtaining the necessary information to fight money laundering</p> <p>Scope of action: The territory of the United States of America or those who conduct major transactions with American natural or legal persons.</p>	<p>Responsible institution: Financial Information Units</p> <p>Action: Review anti-money laundering guidelines</p> <p>Priority of action: Regulation of virtual currency exchange centers and wallet service providers</p> <p>Subject of action: Obtaining the necessary information to fight money laundering</p> <p>Scope of action: European Union</p>	<p>Responsible institution: Supreme Council for Combating Money Laundering</p> <p>Procedure: Prohibition</p> <p>Priority of action: Prevent the use of bitcoins and other virtual currencies by financial centers and exchange offices</p> <p>The subject of action: general denial of doing something</p> <p>Scope of action: Iran</p>
Tax	<p>Responsible institution: Financial Crimes Network</p> <p>Method of action: Publication of guidelines and legal action</p> <p>Priority of action: Regulation of virtual currency exchange centers</p> <p>Subject of action: Obtaining the necessary information to fight money laundering</p> <p>Scope of action: The territory of the United States of America or those who conduct major transactions with American natural or legal persons.</p>	<p>Responsible institution: Court of Justice, European Union, tax authorities of EU countries</p> <p>Method of action: Publication of the questionnaire</p> <p>Priority of action: Determining the value added tax of virtual currencies, national measures for income tax</p> <p>Subject of action: Uniformity of policies in the union in the field of virtual currencies</p> <p>Scope of action: EU and countries separately</p>	<p>Responsible institution: Tax Affairs Organization of the country</p> <p>Procedure: Unknown</p> <p>Priority of action: Unknown</p> <p>Subject of action: Unknown</p> <p>Scope of action: Iran</p>
Speculation	<p>Responsible institution: Stock Exchange and Securities Commission and Commodity Futures Trading Commission</p> <p>Method of action: Publication of guidelines and judicial follow-up and marketing</p> <p>Priority of action: Informing entrepreneurs about the rules of attracting capital through the initial public offering of coins,</p>	<p>Responsible entity: EU Markets and Securities Reference</p> <p>Method of action: publication of guidelines and scientific study</p> <p>Priority of action: Informing entrepreneurs and explaining the benefits and risks of investing in virtual currencies, developing technical tools to identify market manipulation</p> <p>Subject of action: Scientific study and knowledge of</p>	<p>Responsible institution: Supreme Council of Stock Exchange and Securities</p> <p>Procedure: Unknown</p> <p>Priority of action: Unknown</p> <p>Subject of action: Unknown</p> <p>Scope of action: Iran</p>

	explaining the benefits and risks of investing in virtual currencies Subject of action: Obligation to refer and register activities in the field of initial supply of coins, creating a futures market and combating market manipulation Scope of action: Territory of the United States of America	the necessary tools to control manipulation Scope of action: European Union	
--	---	---	--

- Due to the diversity and complexity of each currency code, all currency codes should not be regulated by a single law. For example, one of the initial divisions could be to divide this type of currency into three general categories. First, the general blockchain: which can be extracted and is similar to commodities and assets such as Bitcoin and Atrium. Second, the private blockchain: as the cryptocurrency of national currencies or corresponding to the monetary units of a country that are similar to money and is usually created by a centralized institution; Like CryptoRuble and Tether. Third, the initial public offering (ICO) or token on the basis of other available currencies: which are similar to stocks and securities.⁸

- In order to legislate in the field of cryptocurrencies, different activities can be defined, one of which is the creation of a digital court, as described, and the policy maker in order to properly regulate for each sector must lay down the rules for each. These activities can include creating cryptocurrencies by the private and public sectors, extracting cryptocurrencies, exchanging cryptocurrencies with each other, exchanging cryptocurrencies with official currencies, using cryptocurrencies in micro payments (purchase of goods and services), cryptocurrency exchanges, topics Taxation of cryptocurrencies, maintenance of cryptocurrencies, creation of wallets and other items.

- Despite the oppressive sanctions imposed on the Iranian economy and their intensification in recent years, according to some experts, one of the ways out of this situation will be to use the cryptocurrency to enable the country's financial transfers internationally to Comfort is provided. It is important to note that Article 8 of the Katsa Act, enacted by the US Congress and Senate against Iran, Russia and North Korea; It refers to the monitoring of non-use of currency codes by these countries to circumvent sanctions. This point shows that the correct use of currency cryptocurrencies can be one of the strategies of Iran to remove some of the financial sanctions imposed on the economy. Even the officials of the Central Bank and the National Development Fund can allocate a small share of their portfolio to these currencies by expertly and carefully examining the cryptocurrencies so that the country's economy can benefit in this way due to their increasing value. In addition, the creation of a national currency code and in particular the use of this type of currency to facilitate bilateral or multilateral monetary agreements between Iran and other countries is one of the serious advantages of this currency code for the country's economy. In general, it seems that policy-making and regulation

⁸ The basic rules proposed by Mr. Mizani and Mr. Ashtiani in the first blockchain regulatory conference and the cryptocurrency for these three categories include commodity exchange rules, monetary and banking laws of the country and stock exchange rules that can be used by policy makers. ; Of course, it should be noted that the emerging cryptocurrency phenomenon should not necessarily be viewed and legislated with a traditional approach. For more studies and initial suggestions, refer to some of the papers of the first blockchain and cryptocurrency regulatory conference.

in the country in the face of emerging phenomena, especially in the field of digital economy should be more flexible and accelerate the legislative process by designing an appropriate mechanism.

References

- Berg, C., Davidson, S., & Potts, J. (2019). *Understanding the blockchain economy: An introduction to institutional cryptoeconomics*. Edward Elgar Publishing.
- Björkdahl, J., & Kronblad, C. (2021). Getting on track for digital work: Digital transformation in an administrative court before and during COVID-19. *Journal of Professions and Organization*, 8(3), 374-393.
- Evans, T. M. (2019). Role of International Rules in Blockchain-Based Cross-Border Commercial Disputes. *Wayne L. Rev.*, 65, 1.
- Guffin, P. J. (2020). Digital Court Records Access, Social Justice, and Judicial Balancing: What Judge Coffin Can Teach Us. *Me. L. Rev.*, 72, 87.
- Legg, M. (2021). The COVID-19 pandemic, the courts and online hearings: maintaining open justice, procedural fairness and impartiality. *Federal Law Review*, 0067205X21993139.
- Maréchal, N. (2018). From Russia with crypto: A political history of Telegram. In 8th {USENIX} Workshop on Free and Open Communications on the Internet ({FOCI} 18).
- Metzger, J. (2019). The current landscape of blockchain-based, crowdsourced arbitration. *Macquarie Law Journal*, 19(Nov 2019), 81-101.
- Prom Tep, S., Millerand, F., Parada, A., Bahary, A., Noreau, P., & Santorineos, A. M. (2019). Legal Information in Digital Form: The Challenge of Accessing Computerized Court Records. *Annual Review of Interdisciplinary Justice Research*, 8, 217-244.
- Sela, A. (2019). e-Nudging justice: the role of digital choice architecture in online courts. *J. Disp. Resol.*, 127.
- Vyhovska, N., Polchanov, A., Frolov, S., & Kozmenko, Y. (2018). The effect of it-transformation of the country's financial potential during the post-conflict reconstruction. *Public and Municipal Finance*, 7(3), 15-25.